



SESA[®]

CATÁLOGO | TARIFA 2021-22

CATALOGUE | PRICE LIST CATALOGUE | TARIF

CONFIANZA

RESPONSABILIDAD

EXPERIENCIA

CALIDAD



SERVICIO

COMPROMISO

FIDELIDAD

CERCANÍA

COLABORACIÓN



Estimados colaboradores.

Lanzamos nuestro nuevo CATÁLOGO TARIFA SESA 2021-22 con una nueva imagen.

SESA evoluciona a la vez que nuestro sector y nuestros clientes hacia una imagen de marca, de producto y de servicio cada vez más innovador para implementar la demanda de nuestros clientes.

El desarrollo del nuevo LOGO, que marca una nueva etapa, escenifica perfectamente esa importante evolución. Modernos, actuales, desarrollando nuevas gamas y nuestra relación con los clientes, con el objetivo de seguir creciendo.

Este cambio de la imagen de marca va acompañada de una nueva de imagen de producto en los formatos de venta habituales y nuevos formatos con una línea uniforme en la presentación de las herramientas haciendo muy reconocible nuestra marca.

Un catálogo nuevo más completo, dinámico y actual, por su diseño y por su contenido, con el que multiplicamos nuestras INNOVADORAS SOLUCIONES de CALIDAD a las necesidades de los usuarios en trabajos de CORTE en construcción, madera, metal, en operaciones de FRESADO, de ROSCADO y en la presentación de nuestras gamas en PUNTO DE VENTA.

En esta tarifa 21-22 el equipo SESA pone todo su conocimiento y experiencia al servicio de todos nuestros clientes para afianzar esta estrecha relación.

Calidad, Innovación y Servicio a su disposición. Siempre al máximo rendimiento.

“CONFIANZA EN LA EXPERIENCIA”

Caros colaboradores.

Lançámos o nosso novo CATÁLOGO TARIFA SESA 2021-22 com uma nova imagem.

A SESA evolui, ao mesmo tempo que o nosso setor e os nossos clientes para uma imagem de marca, de produto e de serviço cada vez mais inovador para implementarmos a procura dos nossos clientes.

O desenvolvimento do novo LOGÓTIPO, que marca uma nova etapa, encena perfeitamente essa importante evolução. Modernos, atuais, desenvolvendo novas gamas e a nossa relação com os clientes, tendo por objetivo continuarmos a crescer.

Esta alteração da imagem de marca é acompanhada de uma nova imagem de produto nos formatos de venda habituais e novos formatos com uma linha uniforme na apresentação das ferramentas tornando a nossa marca altamente reconhecível.

Um catálogo novo mais completo, dinâmico e atual, pela sua conceção e pelo seu conteúdo, com o que multiplicamos as nossas SOLUÇÕES INOVADORAS de QUALIDADE para as necessidades dos utilizadores em trabalhos de CORTE em construção, madeira, metal, em operações de FRESAGEM, de ENROSCAMENTO e na apresentação das nossas gamas no PONTO DE VENDAS.

Nesta tarifa 21-22 a equipa SESA coloca todo o seu conhecimento e experiência ao serviço de todos os nossos clientes para afiançar esta estreita relação.

Qualidade, Inovação e Serviço à sua disposição. Sempre com o máximo rendimento.

“CONFIANÇA NA EXPERIÊNCIA”



Dear Associates,

We are launching our new SESA 2021-2022 PRICE CATALOGUE with a new image.

SESA is evolving in line with both our sector and clients towards an increasingly innovative brand, product and service image aimed at meeting the demand of our clients.

The creation of the new LOGO, which marks a new phase, is a perfect illustration of this major development. Modern and up-to-date, developing new ranges and our relations with clients, all geared to continuous growth.

This change in our brand image goes hand in hand with a new product image with the usual sales formats, in addition to new formats with a standard line for the presentation of our tools, thereby ensuring our brand is instantly recognisable.

A new catalogue, more complete, dynamic and up-to-date due to its design and content, thereby expanding our INNOVATIVE TOP-QUALITY SOLUTIONS to the needs of users in CUTTING work in construction, wood and metal, in MILLING and THREADING operations, and in the presentation of our ranges at POINTS OF SALE.

The 2021-2022 price table catalogue sees the SESA team place all its knowledge and experience at the service of all our clients as a means of strengthen our close-knit relations.

Quality, Innovation and Service at your disposal. With the guarantee of maximum performance.

"TRUST IN EXPERIENCE"

Chers collaborateurs.

Nous avons lancé notre CATALOGUE TARIFS SESA 2021-22 avec une nouvelle image.

SESA évolue en même temps que notre secteur et nos clients vers une image de marque, de produit et de service toujours plus innovante pour mettre en œuvre les demandes de nos clients.

Le développement du nouveau LOGO, qui marque une nouvelle étape, symbolise parfaitement cette évolution importante. Modernes, actuels, nous développons de nouvelles gammes mais également notre relation avec les clients, afin de poursuivre notre croissance.

Cette modification de l'image de la marque est accompagnée d'une nouvelle image de produit pour les formats de vente habituels et de nouveaux formats avec une ligne uniforme pour la présentation des outils, rendant ainsi notre marque très reconnaissable.

Un nouveau catalogue plus complet, dynamique et actuel, grâce à son design et son contenu, avec lequel nous multiplions nos SOLUTIONS INNOVANTES de QUALITÉ pour les besoins des utilisateurs lors des travaux de DÉCOUPE en construction, bois, métal, pour des opérations de FRAISAGE, de FILETAGE et pour la présentation de nos gammes en POINT DE VENTE.

Dans ces tarifs 21-22 l'équipe SESA met toutes ses connaissances et son expérience au service de tous ses clients afin de consolider cette relation de proximité.

Qualité, innovation et service à votre disposition. Pour un rendement maximum, toujours.

"CONFIANCE EN L'EXPERIENCE"

www.sesatools.com

<http://www.sesatools.com/brocaporcelanato/ventajas.htm>

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SESA[®]

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16 HORAS
 92% STOCK - 98% TASA DE SERVICIO
 SOPORTE TÉCNICO Y PERSONALIZADO

16 HOURS
 92% STOCK - 98% SERVICE RATE
 TECHNICAL AND PERSONALIZED SUPPORT

16 HEURES
 92% STOCK - 98% TAUX SERVICE
 ATTENTION TECHNIQUE ET PERSONALISÉE

SERVICIO
 SERVICE
 SERVICE



VALOR AÑADIDO
 INNOVACIÓN
 CALIDAD - GAMAS

ADDED VALUE
 INNOVATION
 QUALITY - RANGES

VALEUR AJOUTÉE
 INNOVATION
 QUALITÉ - GAMMES

PRODUCTO
 PRODUCT
 PRODUIT

EQUIPO
 TEAM
 ÉQUIPE

COMPROMISO - VALORES
 PROFESIONALIDAD
 ASESORAMIENTO

COMMITMENT - VALUES
 PROFESSIONALISM
 ASSISTANCE

ACCORD - VALEURS
 PROFESSIONNALISME
 ADVICE

MARCA
 BRAND
 MARQUE

IMAGEN - SEGURIDAD
 GARANTÍA
 EXCELENCIA

IMAGE - SAFETY
 GUARANTIE
 EXCELLENCE

IMAGE - SECURITÉ
 GARANTIE
 EXCELLENCE



CLIENTE
CUSTOMER
CLIENT

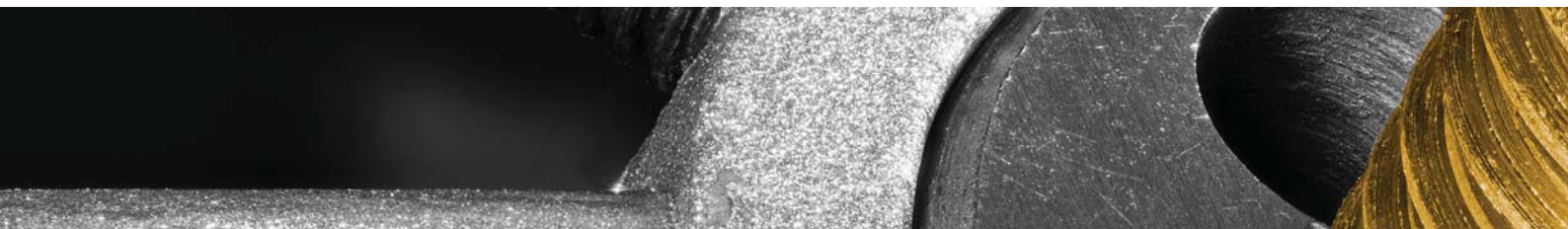
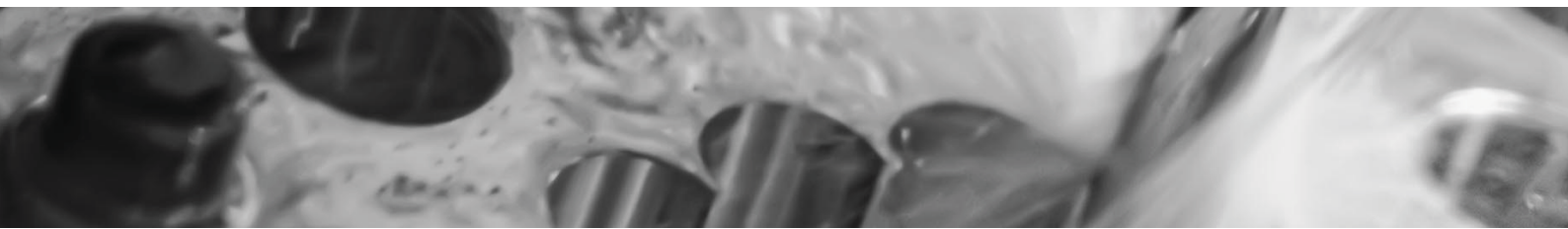
CONFIANZA
CONFIDENCE
CONFIANCE

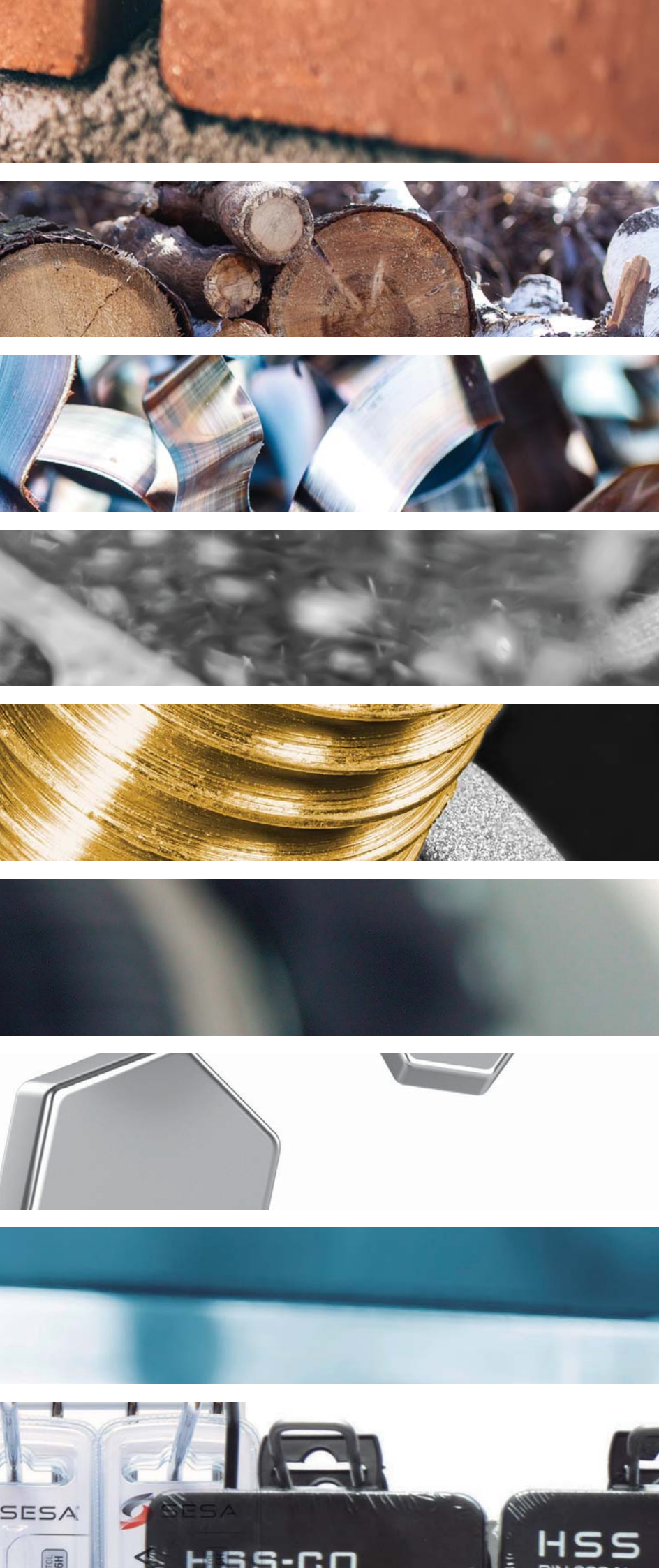
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COMMITMENT
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COLABORACIÓN
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HSS-G
WELDON 19,00

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HSS-CO 5%
WELDON 19,00

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M	CÓNICA CON PUNTA CONE CONIQUE TRONQUEE			MD			197
N	CONO INVERTIDO INVERTED CONE CONIQUE RENVERSEE			MD			197
P	PASTILLA RIM SHAPE DISQUE			MD			197

FRESAS ROTATIVAS DE METAL DURO PARA INOX / HARD METAL ROTARY BURRS FOR STAINLESS STEEL / FRAISES ROTATIVES MÉTAL DUR POUR INOX 198

A	CILÍNDRICA CYLINDER CYLINDRIQUE			MD			198
C	CILÍNDRICA CON RADIO BULL NOSE CYLINDRIQUE A RAYON			MD			198
D	ESFÉRICA BALL SPHERIQUE			MD			198
F	ÁRBOL CON RADIO ROUND TREE OGIVE A RAYON			MD			198

	ESTUCHES Y EXPOSITOR SETS AND DISPLAYS COFFRETS ET DISPLAY					MD			199
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FRESAS FRONTALES DE UN DIENTE / 1Z FINISHING END MILLS / FRAISES 1Z FINITION 201

	FRESA CORTA END MILL FRAISE FINITION			HSS-CO 5%		1Z		201
	FRESA LARGA LONG END MILL FRAISE FINITION LONGUE			HSS-CO 5%		1Z		201
	FRESA PVC LONG END MILL FOR PVC FRAISE FINITION LONGUE POUR PVC			HSS-CO 5%		1Z		201



FRESADO MILLING • FRAISAGE

FRESAS CON MANGO CILINDRICO / STRAIGHT SHANK END MILLS / FRAISES QUEUE CYLINDRIQUE




202

DIN 844W	DIN 1835B		HSS-CO 8%			2Z	AL ACERO	202	
DIN 844W	DIN 1835B		HSS-CO 8%			2Z	AL ACERO	203	
DIN 327N	DIN 1835B		HSS-CO 8%			2Z	ACERO INOX F	204	
DIN 327N	DIN 1835B		HSS-CO 8%			2Z	ACERO INOX F	205	
DIN 327N	DIN 1835B		HSS-CO 8%	TIALN			2Z	ACERO INOX F	206
DIN 327N	DIN 1835B		PM	ALTIN			3Z	ACERO INOX F	207
DIN 1889	DIN 1835B		HSS-CO 8%			2Z	ACERO INOX F TI	208	
DIN 1889	DIN 1835B		PM	ALTIN			2Z	ACERO F	208
DIN 844N	DIN 1835B		HSS-CO 8%			3Z-6Z	ACERO INOX F TI	209	
DIN 844N	DIN 1835B		HSS-CO 8%			3Z-6Z	ACERO INOX F TI	210	
DIN 844N	DIN 1835B		HSS-CO 8%	TIALN			3Z-6Z	ACERO INOX F TI	211
NEW DIN 844N	DIN 1835B		PM	ALTIN			4Z-5Z	ACERO INOX F TI	212
DIN 844NR	DIN 1835B		HSS-CO 8%			4Z-5Z	ACERO INOX F	213	
DIN 844NR	DIN 1835B		HSS-CO 8%			4Z-5Z	ACERO INOX F	213	
DIN 844NR-F	DIN 1835B		HSS-CO 8%			4Z	ACERO INOX F	214	
DIN 844HR	DIN 1835B		PM	ALTIN			5Z	ACERO INOX F TI	214
DIN 844HR-F	DIN 1835B		PM	ALTIN			4Z-6Z	ACERO INOX F TI	215
ESP	DIN 1835B		PM	ALCrN			4Z	ACERO INOX	216
DIN 851N	DIN 1835B		HSS-CO 5%		RANURAS EN "T" "T" SLOTS RANURES À "T"		ACERO TI	216	
DIN 850	DIN 1835B		HSS-CO 5%	6Z-12Z		RANURAS WOODRUFF WOODRUFF SLOTS RANURES WOODRUFF	ACERO TI	217	
DIN 1833C	DIN 1835B		HSS-CO 5%	10Z-12Z		FRESA EN BISEL DOVETAIL MILLING CUTTERS FRAISES ANGULAIRES	ACERO TI	218	











FRESAS CON MANGO CILINDRICO / STRAIGHT SHANK END MILLS / FRAISES QUEUE CYLINDRIQUE 218

DIN 1833D	DIN 1835B		HSS-CO 5%	10Z-12Z	FRESA EN BISEL DOVETAIL MILLING CUTTERS FRAISES ANGULAIRES	ACERO TI	218
DIN 6518	DIN 1835B		HSS-CO 8%	4Z-6Z	FRESA RADIO CORNER ROUNDING CUTTER FRAISE A RAYON	ACERO TI	219

FRESAS CON MANGO CONICO / TAPER SHANK END MILLS / FRAISES QUEUE CONIQUE 220

DIN 326N			HSS-CO 5%	  2Z		ACERO INOX	220
DIN 845N			HSS-CO 5%	  4Z-8Z		ACERO INOX F TI	221
DIN 845N			HSS-CO 5%	  4Z-8Z		ACERO INOX F TI	222

FRESAS DE AGUJERO / MILLING CUTTERS / FRAISES A TROU 223

DIN 1880N	DIN 138		HSS-CO 5%	 6Z-14Z		ACERO INOX F	223
DIN 1880N	DIN 138		HSS-CO 5%	TIALN  6Z-14Z		ACERO INOX F	223
DIN 1880N	DIN 138		HSS-CO 5%	 6Z-10Z		ACERO INOX F	224
DIN 1880N	DIN 138		HSS-CO 5%	TIALN  6Z-10Z		ACERO INOX F	224
DIN 885A	DIN 138		HSS-CO 5%			ACERO INOX F CU	225

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NEW	DIN 352		M	HSS-G	TOL 6H	ACERO 400-800 N/mm ²	242		
NEW	DIN 223		M	HSS-G	TOL 6g	ACERO 400-800 N/mm ²	242		
NEW	DIN 371	DIN 376		M	HSS-CO 5%	FORM C	TOL 6H	ACERO 400-800 N/mm ²	242
NEW	DIN 371	DIN 376		M	HSS-CO 5%	FORM B	TOL 6H	ACERO 400-800 N/mm ²	243
NEW	DIN 371	DIN 376		M	HSS-CO 5%	FORM C/35°	TOL 6H	ACERO 400-800 N/mm ²	243

MACHOS MANO / HAND TAPS / TARAUDS À MAIN 244

DIN 352		M	HSS-G	TOL 6H	ACERO 400-800 N/mm ²	244
DIN 352		M	HSS-G	TOL 6H	ACERO 400-800 N/mm ²	245
ENTRADA CÓNICA NON-SERIAL LFORM ENTRÉE CONIQUE						
DIN 2181		MF	HSS-G	TOL 6H	ACERO 400-800 N/mm ²	246
DIN 351		BSW	HSS-G		ACERO 400-800 N/mm ²	252
≈DIN 2181		BSF	HSS-G		ACERO 400-800 N/mm ²	253
ISO 529		BA	HSS-G		ACERO 400-800 N/mm ²	253
≈DIN 352		UNC	HSS-G	TOL 2B	ACERO 400-800 N/mm ²	254
≈DIN 2181		UNF	HSS-G	TOL 2B	ACERO 400-800 N/mm ²	255
DIN 5157		G(BSP)	HSS-G		ACERO 400-800 N/mm ²	256

MACHOS MANO / HAND TAPS / TARAUDS À MAIN 256

DIN 2181		VG	HSS-G		ACERO 800-1100 N/mm²	256
DIN 40432		PG	HSS-G		ACERO 400-800 N/mm²	257
ISO 529 ENTRADA CÓNICA NON-SERIAL LFORM ENTRÉE CONIQUE		UNEF	HSS-G		TOL 2B ACERO 400-800 N/mm²	258
		TR	HSS-G		TOL 7H ACERO 400-800 N/mm²	258
DIN 352		M	HSS-CO 5%		TOL 6H ACERO 800-1100 N/mm²	259
DIN 352 CON PUNTA PILOTO ROUGHER PILOTTED EBAUCHEUR À PILOTE		M	HSS-CO 5%		TOL 6H ACERO 800-1100 N/mm²	259
DIN 2181		MF	HSS-CO 5%		TOL 6H ACERO 800-1100 N/mm²	260
DIN 5157		G(BSP)	HSS-CO 5%		ACERO 800-1100 N/mm²	261
DIN 352		M	HSS-G	LH	TOL 6H ACERO 400-800 N/mm²	262
DIN 2181		MF	HSS-G	LH	TOL 6H ACERO 400-800 N/mm²	263
≈DIN 352		UNC	HSS-G	LH	TOL 2B ACERO 400-800 N/mm²	264
DIN 2181		UNF	HSS-G	LH	TOL 2B ACERO 400-800 N/mm²	264







ROSCADO *THREADING • FILÉTAGÉ*
MACHOS MANO / HAND TAPS / TARAUDS À MAIN
265

≈DIN 351		BSW	HSS-G	LH				ACERO 400-800 N/mm²	265
DIN 5157		G(BSP)	HSS-G	LH				ACERO 400-800 N/mm²	265

MACHOS MÁQUINA CORTOS / SHORT MACHINE TAPS / TARAUDS MACHINE COURTS
266






DIN 352		M	HSS-CO 5%	FORM B	FORM C/35°	FORM B-AZ	TOL 6H	ACERO 400-800 N/mm²	266
ISO 529		M	HSS-G	FORM B	FORM B-AZ		TOL 6H	ACERO 400-800 N/mm²	267
ISO 529		M	HSS-G	FORM C/35°			TOL 6H	ACERO 400-800 N/mm²	268
DIN 2181		MF	HSS-G	FORM D			TOL 6H	ACERO 400-800 N/mm²	269
DIN 351		BSW	HSS-G	FORM D				ACERO 400-800 N/mm²	270
DIN 5157		G(BSP)	HSS-G	FORM D				ACERO 400-800 N/mm²	270
≈DIN 352		UNC	HSS-G	FORM D			TOL 2B	ACERO 400-800 N/mm²	271
≈DIN 352		UNF	HSS-G	FORM D			TOL 2B	ACERO 400-800 N/mm²	271
		NPT	HSS-G	FORM C	FORM B	FORM C/35°		ACERO 400-800 N/mm²	272

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	M	HSS-G	TIN	1/4	TOL 6H	ACERO 800-1100 N/mm²
	UNC	HSS-G	1/4		ACERO 400-800 N/mm²	274
	UNF	HSS-G	1/4		ACERO 400-800 N/mm²	274
	M	HSS-CO 5%		TOL 6H	ACERO 400-800 N/mm²	275
	BSW	HSS-CO 5%		TOL 6H	ACERO 400-800 N/mm²	275

INFORMACIÓN TÉCNICA MACHOS MÁQUINA / MACHINE TAPS TECHNICAL INFORMATION / INFORMATION TÉCNIQUE TARAUDS MACHINE 276













MACHOS MÁQUINA / MACHINE TAPS / TARAUDS MACHINE 278

DIN 371 DIN 376		M	HSS-CO 5%	FORM C	TOL 6H	ACERO 400-800 N/mm²	278
DIN 371 DIN 376		M	HSS-CO 5%	FORM B	TOL 6H	ACERO 400-800 N/mm²	279
DIN 371 DIN 376		M	HSS-CO 5%	TIN	FORM B	TOL 6H	ACERO 400-800 N/mm²
DIN 371 DIN 376		M	HSS-CO 5%	VAP	FORM B	TOL 6H	ACERO 400-800 N/mm²
DIN 371 DIN 376		M	HSS-CO 5%	FORM C/15°	TOL 6H	ACERO 400-800 N/mm²	281













ROSCADO THREADING • FILÉTAGE

MACHOS MÁQUINA / MACHINE TAPS / TARAUDS MACHINE

282

DIN 371 DIN 376		M	HSS-CO 5%	FORM C/35°	TOL 6H	ACERO 400-800 N/mm ²	282		
DIN 371 DIN 376		M	HSS-CO 5%	TIN FORM C/35°	TOL 6H	ACERO 400-800 N/mm ²	283		
DIN 371 DIN 376		M	HSS-CO 5%	VAP FORM C/35°	TOL 6H	ACERO 800-1100 N/mm ²	283		
DIN 371 DIN 376		M	HSS-CO 5%	FORM B-AZ	TOL 6H	ACERO 400-800 N/mm ²	284		
≈DIN 371 ≈DIN 376 EXTRALARGOS EXTRALONG EXTRALONG		M	HSS-CO 5%	FORM B	TOL 6H	ACERO 400-800 N/mm ²	285		
DIN 371 EXTRALARGOS EXTRALONG EXTRALONG		M	HSS-CO 5%	FORM C/35°	TOL 6H	ACERO 400-800 N/mm ²	286		
DIN 371 DIN 376 SOBREDIMENSIONADOS OVERSIZE SURCOTÉS		M	HSS-CO 5%	FORM B	TOL 6G	TOL 7G	TOL 6H +0,1 mm	ACERO 400-800 N/mm ²	287
DIN 371 DIN 376 SOBREDIMENSIONADOS OVERSIZE SURCOTÉS		M	HSS-CO 5%	FORM C/35°	TOL 6G	TOL 7G	TOL 6H +0,1 mm	ACERO 400-800 N/mm ²	288
DIN 374		MF	HSS-CO 5%	FORM C	TOL 6H	ACERO 400-800 N/mm ²	289		
DIN 374		MF	HSS-CO 5%	FORM B	TOL 6H	ACERO 400-800 N/mm ²	290		
DIN 374		MF	HSS-CO 5%	FORM C/35°	TOL 6H	ACERO 400-800 N/mm ²	292		
≈DIN 371 ≈DIN 376		BSW	HSS-CO 5%	FORM B		ACERO 400-800 N/mm ²	294		













MACHOS MÁQUINA / MACHINE TAPS / TARAUDS MACHINE 295

≈DIN 371 ≈DIN 376		BSW	HSS-CO 5%	FORM C/35°	ACERO 400-800 N/mm²	295
≈DIN 371 ≈DIN 376		UNC	HSS-CO 5%	FORM B	TOL 2B ACERO 400-800 N/mm²	296
≈DIN 371 ≈DIN 376		UNC	HSS-CO 5%	FORM C/35°	TOL 2B ACERO 400-800 N/mm²	297
≈DIN 371 ≈DIN 376		UNF	HSS-CO 5%	FORM B	TOL 2B ACERO 400-800 N/mm²	298
≈DIN 371 ≈DIN 376		UNF	HSS-CO 5%	FORM C/35°	TOL 2B ACERO 400-800 N/mm²	299
ISO 529		UN	HSS-CO 5%	FORM B	TOL 2B ACERO 400-800 N/mm²	300
ISO 529		UN	HSS-CO 5%	FORM C/35°	TOL 2B ACERO 400-800 N/mm²	301
ISO 529		UNEF	HSS-CO 5%	FORM B	TOL 2B ACERO 400-800 N/mm²	302
ISO 529		UNEF	HSS-CO 5%	FORM C/35°	TOL 2B ACERO 400-800 N/mm²	303
ISO 529		UNS	HSS-CO 5%	FORM B	TOL 2B ACERO 400-800 N/mm²	304
ISO 529		UN	HSS-CO 5%	FORM B	TOL 2B ACERO 400-800 N/mm²	305
DIN 5156		G(BSP)	HSS-CO 5%	FORM C	ACERO 400-800 N/mm²	306

ROSCADO THREADING • FILÉTAGE

















MACHOS MÁQUINA / MACHINE TAPS / TARAUDS MACHINE

306

DIN 5156		G(BSP)	HSS-CO 5%	FORM B		ACERO 400-800 N/mm ²	306
DIN 5156		G(BSP)	HSS-CO 5%	FORM C/35°		ACERO 400-800 N/mm ²	307
DIN 5156		RC (BSPT)	HSS-CO 5%	FORM C		ACERO 400-800 N/mm ²	307
		NPT	HSS-CO 5%	FORM C		ACERO 400-800 N/mm ²	308
DIN 374		VG	HSS-CO 5%	FORM C		ACERO 400-800 N/mm ²	308
DIN 374		BSC	HSS-CO 5%	FORM C		ACERO 400-800 N/mm ²	308
DIN 371 DIN 376		M	HSS-CO 5%	FORM C	LH	TOL 6H ACERO 400-800 N/mm ²	309
DIN 371 DIN 376		M	HSS-CO 5%	FORM B	LH	TOL 6H ACERO 400-800 N/mm ²	310
DIN 371 DIN 376		M	HSS-CO 5%	FORM C/35°	LH	TOL 6H ACERO 400-800 N/mm ²	311
DIN 374		MF	HSS-CO 5%	FORM B	LH	TOL 6H ACERO 400-800 N/mm ²	312
DIN 374		MF	HSS-CO 5%	FORM C/35°	LH	TOL 6H ACERO 400-800 N/mm ²	314
DIN 5156		G(BSP)	HSS-CO 5%	FORM C	LH	TOL 6H ACERO 400-800 N/mm ²	315

MACHOS MÁQUINA DE BANDA / COLOURED RING MACHINE TAPS / TARAUDS MACHINE BANDE COLORÉE

316

DIN 371 DIN 376			M	PM	HL	FORM B	TOL 6H	ACERO 800-1100 N/mm²	INOX	CU	316
DIN 371 DIN 376			M	PM	HL	FORM C/35°	TOL 6H	ACERO 800-1100 N/mm²	INOX	CU	316
DIN 371 DIN 376			M	HSS-E-V3	TIN	FORM B	TOL 6H	ACERO 800-1100 N/mm²	INOX	AL	317
DIN 371 DIN 376			M	HSS-E-V3	TIN	FORM C/35°	TOL 6H	ACERO 800-1100 N/mm²	INOX	AL	317
DIN 371 DIN 376			M	HSS-CO 5%	VAP	FORM B	TOL 6H	INOX			318
DIN 371 DIN 376			M	HSS-CO 5%	VAP	FORM C/40°	TOL 6H	INOX			318
DIN 374			MF	HSS-CO 5%	VAP	FORM B		INOX			319
DIN 374			MF	HSS-CO 5%	VAP	FORM C/39°		INOX			319
DIN 371 DIN 376			UNC	HSS-CO 5%	VAP	FORM B		INOX			320
DIN 371 DIN 376			UNC	HSS-CO 5%	VAP	FORM C/39°		INOX			320
DIN 371 DIN 376			UNF	HSS-CO 5%	VAP	FORM B		INOX			321
DIN 371 DIN 376			UNF	HSS-CO 5%	VAP	FORM C/39°		INOX			321
DIN 5156			G(BSP)	HSS-CO 5%	VAP	FORM B		INOX			322
DIN 5156			G(BSP)	HSS-CO 5%	VAP	FORM C/39°		INOX			322

ROSCADO THREADING • FILÉAGE

MACHOS MÁQUINA DE BANDA / COLOURED RING MACHINE TAPS / TARAUDS MACHINE BANDE COLORÉE 323

DIN 371 DIN 376		M	PM	FUTURA	FORM B	TOL 6H	ACERO 1100-1400 N/mm ²	323
DIN 371 DIN 376		M	PM	FUTURA	FORM C/40°	TOL 6H	ACERO 1100-1400 N/mm ²	323
DIN 371		M	PM	FUTURA	FORM C/15°	TOL 6H	ACERO 1100-1400 N/mm ²	323
DIN 371 DIN 376		M	HSS-CO 5%	ALUSPEED	FORM B	TOL 6H	AL	324
DIN 371 DIN 376		M	HSS-CO 5%	ALUSPEED	FORM C/45°	TOL 6H	AL	324

MACHOS MÁQUINA POR LAMINACIÓN / FORMING TAPS / TARAUDS À REFOULER 325

DIN 2174		M	HSS-CO 5%	TIN	TOL 6HX	TOL ISO2X		325
DIN 2174	LUBRICACIÓN OIL GROOVE AVEC RANURE GRAISSAGE 	M	HSS-CO 5%	TIN	TOL 6HX	TOL ISO2X		326

MACHOS TUERQUEROS / MACHINE NUT TAPS / TARAUDS MACHINE POUR ÉCROUS 327

DIN 357		M	HSS-CO 5%		TOL ISO2	ACERO 400-800 N/mm ²	327
		TR	HSS-G			ACERO 400-800 N/mm ²	328
		TR	HSS-G	LH		ACERO 400-800 N/mm ²	329

COJINETES / DIES / FILIÈRES 330

DIN 223		M	HSS-G		TOL 6g	ACERO 400-800 N/mm ²	330	
Ø 25 / Ø25.4 / Ø 38.1	ESPECIALES ESPECIFIC SPÉCIALES 	M	HSS-G	FORM A	TOL 6e	TOL 6g	ACERO 400-800 N/mm ²	331
DIN 223		MF	HSS-G		TOL 6g	ACERO 400-800 N/mm ²	332	
DIN 223		BSW	HSS-G			ACERO 400-800 N/mm ²	335	
DIN 223		BSF	HSS-G			ACERO 400-800 N/mm ²	336	
BS1127		BA	HSS-G	FORM A		ACERO 400-800 N/mm ²	336	
DIN 223		UNC	HSS-G			ACERO 400-800 N/mm ²	337	
DIN 223		UNF	HSS-G			ACERO 400-800 N/mm ²	338	
DIN 223		UNEF	HSS-G			ACERO 400-800 N/mm ²	339	
DIN 5158		G(BSP)	HSS-G			ACERO 400-800 N/mm ²	340	

COJINETES / DIES / FILIÉRES 340

		R (BSPT)	HSS-G	FORM A	ACERO 400-800 N/mm ²	340
DIN 40434		PG	HSS-G		ACERO 400-800 N/mm ²	340
		NPT	HSS-G		ACERO 400-800 N/mm ²	341
		VG	HSS-G		TOL 6g ACERO 400-800 N/mm ²	341
		BSC	HSS-G		TOL 6g ACERO 400-800 N/mm ²	341
		NPTF	HSS-G	FORM A	ACERO 400-800 N/mm ²	342
DIN 223		M	HSS-CO 5%		TOL 6g ACERO 800-1100 N/mm ²	342
DIN 223		MF	HSS-CO 5%		TOL 6g ACERO 800-1100 N/mm ²	343
DIN 5158		G(BSP)	HSS-CO 5%		ACERO 800-1100 N/mm ²	343
DIN 223		M	HSS-G	LH	TOL 6g ACERO 400-800 N/mm ²	344
DIN 223		MF	HSS-G	LH	TOL 6g ACERO 400-800 N/mm ²	345
DIN 223		BSW	HSS-G	LH	ACERO 400-800 N/mm ²	346
DIN 223		UNC	HSS-G	LH	ACERO 400-800 N/mm ²	346
DIN 223		UNF	HSS-G	LH	ACERO 400-800 N/mm ²	347
DIN 5158		G(BSP)	HSS-G	LH	ACERO 400-800 N/mm ²	347
DIN 382		M	HSS-G		TOL 6g ACERO 400-800 N/mm ²	348
DIN 382		MF	HSS-G		TOL 6g ACERO 400-800 N/mm ²	349
DIN 382		BSW	HSS-G		ACERO 400-800 N/mm ²	350
DIN 382		BSF	HSS-G		ACERO 400-800 N/mm ²	350
DIN 382		G(BSP)	HSS-G		ACERO 400-800 N/mm ²	351

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INTERMEDIO / SECOND LEAD INTERMÈDE		M	HSS-G	FORM D	TOL ISO1 4H	ACERO 400-800 N/mm ²	370
2 PIEZAS / 2 PIECES / 2 PIÈCES		M	HSS-G	FORM D	TOL ISO1 4H	ACERO 400-800 N/mm ²	371
INTERMEDIO / SECOND LEAD INTERMÈDE		UNC	HSS-G	FORM D	TOL 3B	ACERO 400-800 N/mm ²	372
2 PIEZAS / 2 PIECES / 2 PIÈCES		UNC	HSS-G	FORM D	TOL 3B	ACERO 400-800 N/mm ²	372
INTERMEDIO / SECOND LEAD INTERMÈDE		UNF	HSS-G	FORM D	TOL 3B	ACERO 400-800 N/mm ²	373
2 PIEZAS / 2 PIECES / 2 PIÈCES		UNF	HSS-G	FORM D	TOL 3B	ACERO 400-800 N/mm ²	373
INTERMEDIO / SECOND LEAD INTERMÈDE		G(BSP)	HSS-G	FORM D	TOL ISO1 4H	ACERO 400-800 N/mm ²	374
2 PIEZAS / 2 PIECES / 2 PIÈCES		G(BSP)	HSS-G	FORM D	TOL ISO1 4H	ACERO 400-800 N/mm ²	374
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INTERMEDIO SECOND LEAD INTERMÈDE		BA	HSS-G	FORM D	TOL ISO1 4H	ACERO 400-800 N/mm ²	376
INTERMEDIO SECOND LEAD INTERMÈDE		BS	HSS-G	FORM D	TOL ISO1 4H	ACERO 400-800 N/mm ²	376
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CIEGO SPIRAL FLUTE HÉLICOIDALE		M	HSS-CO 5%	FORM C/35°	TOL ISO1 4H	ACERO 800-1100 N/mm ²	378
CON PUNTA PILOTO ROUGHER PILOTED EBAUCHEUR À PILOTE		M	HSS-G		TOL ISO1 4H	ACERO 400-800 N/mm ²	378
LAMINACIÓN FORMING TAPS TARAUDS À REFOULER		M	HSS-CO 5%		TOL ISO1 4H		379

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DIN 8140	ROSCAS PARA BUJÍAS FOR SPARK PLUG POUR BOUGIES	MF	TOL ISO2 6H	381
DIN 8140	AUTOFRENANTES SCREW LOCKING INDESERRABLES	M	TOL ISO2 6H	381
DIN 8140		UNC	TOL 2B	382
DIN 8140		UNF	TOL 2B	383
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ACCESORIOS REPARACIÓN ACCESSORIES WIRE THRED INSERTS ACCESSOIRES FILETS RAPPORTÉS				386
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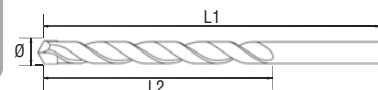


CONSTRUCCIÓN

CONSTRUCTION



BROCA JR PARA PORCELANATO

 JR DRILL-BIT FOR PORCELANIC
 FORET JR POUR CÉRAMIQUE


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.	Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	85	50	1	JR0030	5,67	7,50	125	75	1	JR0075	7,99
3,50	85	50	1	JR0035	6,53	8,00	125	75	1	JR0080	8,99
4,00	85	50	1	JR0040	5,54	8,50	125	75	1	JR0085	9,75
4,50	85	50	1	JR0045	6,76	9,00	150	90	1	JR0090	9,75
5,00	85	50	1	JR0050	5,63	9,50	150	90	1	JR0095	10,59
5,50	100	65	1	JR0055	7,03	10,00	150	90	1	JR0100	9,76
6,00	100	65	1	JR0060	5,63	10,50	150	90	1	JR0105	11,32
6,50	100	65	1	JR0065	7,03	11,00	150	90	1	JR0110	14,00
7,00	125	75	1	JR0070	7,53	12,00	150	90	1	JR0120	19,54

ESTUCHE BROCA JR 5 PIEZAS

 JR DRILL-BIT SET 5 PIECES
 COFFRET FORET JR

Medidas / Sizes

4 - 5 - 6 - 6 - 8 mm

Uds. / Pcs.	Cod.	€/Unid.
1	010205S1	34,05


EXPOSITOR SOBREMESA JR

BASIC DISPLAY JR • ÉXPOSITEUR BASE TABLE JR



Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
4,00	85	8	
5,00	85	6	
6,00	100	16	
8,00	125	8	
10,00	150	8	
SET BROCA JR 5 PIEZAS		5	
SET 5 PIECES			
Cod. JR061		61	544,85

Expositor MINI
 470 x 190 x 140
 mm


NOTA: Composición con 6 ganchos / Stand with 6 hooks / Présenteurs avec 6 crochets

ACCESORIOS PORCELANATO

PORCELANIC ACCESSORIES • ACCESSOIRES CÉRAMIQUE



DISPENSADOR DE AGUA

WATER DISPENSER

DISPENSEUR D'EAU

Cod.	€/Unid.
JRZZZZ*	23,21



**GUÍA CON VENTOSA Y
DISPENSADOR DE AGUA DE
BOMBA**

SUCTION GUIDE AND WATER
DISPENSER

GUIDE AVEC VENTOUSE
ET DISPENSEUR D'EAU

Cod.	€/Unid.
JRZ02*	40,50



GUÍA CON VENTOSA

SUCTION DRILLING GUIDE

GUIDE AVEC VENTOUSE

Cod.	€/Unid.
JRZ01*	21,98



**MARCADOR PUNTERO
AUTOMÁTICO**

AUTOMATIC CENTER PUNCH

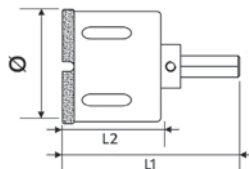
MARQUEUR AUTOMATIQUE

Cod.	€/Unid.
5PU5000	12,26

*Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks

CORONA DIAMANTADA

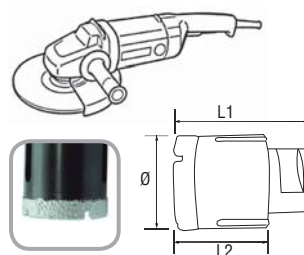
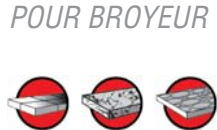
DIAMOND CORE BIT • TRÉPAN DIAMANTÉ



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
5,00	70	40	1	01020605	27,75
6,00	70	40	1	01020606	28,21
8,00	80	40	1	01020608	33,17
10,00	80	40	1	01020610	35,64
12,00	80	40	1	01020612	37,94
14,00	80	40	1	01020614	41,97
15,00	80	40	1	01020615	45,77
20,00	90	50	1	01020620	58,79

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
22	90	50	1	01020622	64,40
25	90	50	1	01020625	73,10
30	90	50	1	01020630	97,47
34	90	50	1	01020634	122,41
35	90	50	1	01020635	125,91
40	90	50	1	01020640	143,71
45	90	50	1	01020645	161,32

CORONA DIAMANTADA PARA AMOLADORA

 DIAMOND CORE BIT FOR GRINDER
 TRÉPAN DIAMANTÉ
 POUR BROYEUR


Ø (mm)	Lubricación interior con cera Lubrication with wax / Lubrification avec cire	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6	✓	60	35	1	1CDM140060	24,06
8	✓	60	35	1	1CDM140080	24,06
10	✓	60	35	1	1CDM140100	24,06
12	✓	60	35	1	1CDM140120	26,57
15	✓	60	35	1	1CDM140150	27,83
18	-	60	40	1	1CDM140180	33,28
20	-	60	40	1	1CDM140200	36,78
25	-	60	40	1	1CDM140250	45,56
32	-	60	40	1	1CDM140320	57,84
35	-	60	40	1	1CDM140350	63,11
40	-	60	40	1	1CDM140400	71,88
44	-	60	40	1	1CDM140440	79,09
50	-	60	40	1	1CDM140500	89,62
60	-	60	40	1	1CDM140600	107,17
68	-	60	40	1	1CDM140680	121,21
75	-	60	40	1	1CDM140750	153,16

- Trabajo en seco
- Empezar la perforación con la corona ligeramente inclinada.
- Enderezarla poco a poco para trabajar de forma vertical
- Velocidad de perforación: 5000-12000 rpm.
- Suaves movimientos circulares permiten aumentar la velocidad de perforación y mejoran la refrigeración.
- Hacer pequeñas pausas para refrigerar la corona.

- Dry running.
- Start drilling with the drill bit slightly tilted.
- Straighten it bit by bit until it is operating vertically.
- Drilling speed: 5000-12000 rpm.
- Smooth circular movements allow the drilling speed to be increased and improves cooling.
- Take small breaks to cool the drill bit.

- Travail à sec.
- Commencer la perforation avec la couronne légèrement inclinée.
- La redresser peu à peu pour travailler de façon verticale.
- Vitesse de perforation : 5000-12000 rpm.
- Mouvements circulaires légers qui permettent d'augmenter la vitesse de perforation et d'améliorer la réfrigération.
- Faire de petites pauses pour reposer la couronne.

UTILIDADES / USES / UTILISATION

35 mm	Instalación de grifería / pipework installation / installation de robinetterie
40 mm	Instalación de los desagües de los electrodomésticos / installation of drainage for domestic appliances / installation des évacuations des appareils électroménagers
50 mm	Instalación desagües / installation of industrial drainage / installation d'évacuations industrielles
60 mm	Instalación cajetines electricidad / installation of electrical terminal boxes / installation de boîtiers électriques

ADAPTADORES ADAPTOR • ADAPTATEUR

Conversión / Conversion / Conversion	L1 (mm)	Uds. Pcs.	Cod.	€/Unid.
De M14 a Mango Hexagonal From M14 to Hexagonal Shank / De M14 a Manche Hexagonale	65	1	1ACM1401	8,14
De M14 a Mango SDS-PLUS From M14 to SDS-PLUS Shank / De M14 a Manche SDS-PLUS	78	1	1ACM1402	10,62

ESTUCHE DE CORONAS DIAMANTADAS PARA AMOLADORA

 SET OF DIAMOND CORE BITS FOR GRINDER
 COFRET DE TRÉPAN DIAMANTÉ POR BROYEUR

NEW

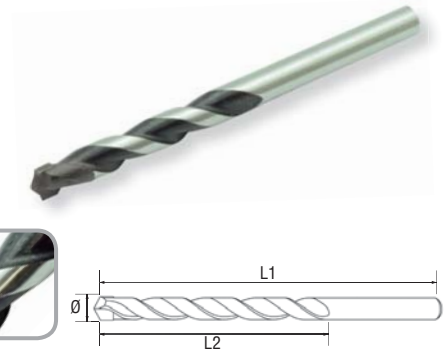
Composición / Contains / Composition	Uds. / Pcs.	Cod.	€/Unid.
Coronas / Core Bits / Trépan Ø 35-40-50-60 mm	1		
Adaptador De M14 a mango hexagonal from M14 to hexagonal shank / de M14 a mache hexagonal	1	1CDM1403	350,53
Adaptador De M14 a mango SDS-PLUS from M14 to SDS-PLUS shank / de M14 a mache SDS-PLUS	1		



TORNADO *TORNADO • TORNADO*



DIN 8039



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3	60	30	1	1T003060	3,99
4	75	40	1	1T004075	4,03
5	85	50	1	1T005085	3,56
5	150	110	1	1T005150	5,93
6	100	60	1	1T006100	4,03
6	150	110	1	1T006150	6,48
6	200	135	1	1T006200	8,71
7	100	60	1	1T007100	4,74
8	120	80	1	1T008120	5,22
8	200	135	1	1T008200	8,30
8	400	350	1	1T008400	14,49
9	120	80	1	1T009120	6,08
10	120	80	1	1T010120	7,12
10	200	135	1	1T010200	11,47
10	400	350	1	1T010400	16,07

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
11	150	90	1	1T011150	10,44
12	150	90	1	1T012150	9,74
12	200	135	1	1T012200	14,95
12	400	350	1	1T012400	18,82
13	150	90	1	1T013150	13,99
14	150	90	1	1T014150	14,32
14	400	350	1	1T014400	23,72
15	150	90	1	1T015150	17,56
16	150	90	1	1T016150	17,64
16	400	350	1	1T016400	26,89
18	160	100	1	1T018160	22,95
18	400	350	1	1T018400*	33,86
20	160	100	1	1T020160	25,31
20	400	350	1	1T020400*	39,55

*Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks

ESTUCHE BROCA TORNADO
TORNADO DRILL BITS SET
COFFRET FORETS TORNADO

Medidas / Sizes
4 - 5 - 6 - 8 - 10 mm

Uds. / Pcs. **Cod.** **€/Unid.**
1 1917T327N 24,88

Medidas / Sizes
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

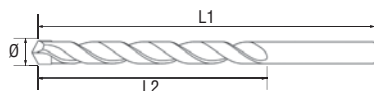
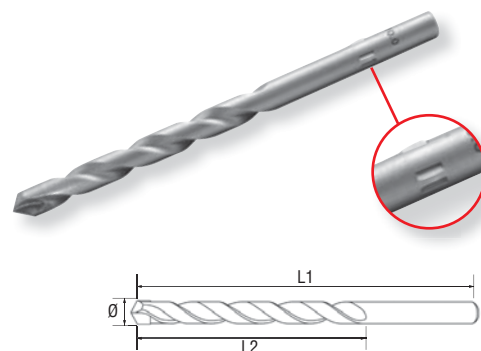
Uds. / Pcs. **Cod.** **€/Unid.**
1 1917T333N 35,13

ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

ADVANCE BOX (9 UDS. / PCS.)

Composición / Contains / Composition	Medidas / Sizes	Cod.	€/Unid.
HSS CO HSS-CO 5% + TORNADO + MADERA	5 - 6 - 8 mm	19CA339	32,41



GRANITO PLUS *GRANITE PLUS • GRANITE PLUS* **NEW**


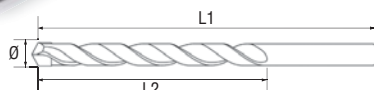
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4,00	85	50	1	1GR04075	4,57
5,00	85	50	1	1GR05085	4,80
6,00	100	65	1	1GR06100	5,60

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,00	125	75	1	1GR08120	8,34
10,00	150	90	1	1GR10120	10,36

ESTUCHE BROCA GRANITO PLUS
GRANITE PLUS DRILL BITS SET
COFFRET FORETS GRANITE PLUS
Medidas / Sizes

4 - 5 - 6 - 8 - 10 mm

Uds. / Pcs.	Cod.	€/Unid.
1	1GR327N	37,47


GRANITO: BLISTER RÍGIDO
GRANITE: RIGID PLATIC BLISTER
GRANITE: BLISTER DE PLASTIQUE RIGIDE


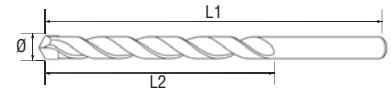
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3	60	30	1	105A03060BL	1,64
4	75	40	1	105A04075BL	1,79
5	85	50	1	105A05085BL	2,08
6	100	60	1	105A06100BL	2,72

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8	120	80	1	105A08120BL	4,18
10	120	80	1	105A10120BL	5,52
12	150	90	1	105A12150BL	7,09

GRANITO GRANITE • GRANITE



DIN 8039



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	60	30	1	105A03060	1,33
4,00	75	40	1	105A04075	1,63
5,00	85	50	1	105A05085	1,89
6,00	100	60	1	105A06100	2,48
6,00	200	135	1	105A06200	4,76
6,00	400	270	1	105A06400	7,31
7,00	100	60	1	105A07100	3,13
8,00	120	80	1	105A08120	3,80
8,00	200	135	1	105A08200	5,13
8,00	400	270	1	105A08400	8,72
9,00	120	80	1	105A09120	4,93
10,00	120	80	1	105A10120	5,02
10,00	200	135	1	105A10200	5,59
10,00	400	270	1	105A10400	12,52

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
11,00	150	90	1	105A11150	6,18
12,00	150	90	1	105A12150	6,44
12,00	200	135	1	105A12200	7,03
12,00	400	270	1	105A12400	14,70
14,00	150	90	1	105A14150	7,31
14,00	400	270	1	105A14400	18,11
16,00	150	90	1	105A16150	8,72
16,00	400	270	1	105A16400	20,37
18,00	160	100	1	105A18160	11,37
18,00	400	270	1	105A18400	23,42
20,00	160	100	1	105A20160	12,61
20,00	400	270	1	105A20400	26,26

ESTUCHE BROCA GRANITO
GRANITO DRILL BITS SET
COFFRET FORETS GRANITO

Contenido / Contents / Composition

4 - 5 - 6 - 8 - 10 mm

Uds. / Pcs.	Cod.	€/Unid.
1	1915A327N	19,23



Contenido / Contents / Composition

3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

Uds. / Pcs.	Cod.	€/Unid.
1	1915A333N	29,84



ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

STANDARD BOX (9 UDS. / PCS.)

Contenido / Contents / Composition

Medidas / Sizes

Cod. €/Unid.

HSS G	HSS-G	+	GRANITO		+	MADERA		5 - 6 - 8 mm	19CM339	23,41
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CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

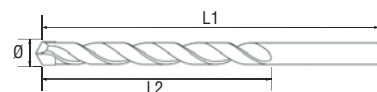
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BASIC BASIC • BASIC


DIN 8039



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.	Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	60	30	1	16F03060	0,75	11,00	150	90	1	16F11150	2,39
4,00	75	40	1	16F04075	0,84	12,00	150	90	1	16F12150	2,73
5,00	85	50	1	16F05085	1,04	12,00	200	135	1	16F12200	3,85
6,00	100	60	1	16F06100	1,29	12,00	300	200	1	16F12300	5,29
6,00	200	135	1	16F06200	2,20	12,00	400	270	1	16F12400	5,66
6,00	300	200	1	16F06300	2,73	13,00	150	90	1	16F13150	3,33
7,00	100	60	1	16F07100	1,54	14,00	150	90	1	16F14150	3,55
8,00	120	80	1	16F08120	1,45	14,00	400	270	1	16F14400	8,24
8,00	200	135	1	16F08200	2,69	15,00	150	90	1	16F15150	3,88
8,00	300	200	1	16F08300	3,52	16,00	150	90	1	16F16150	4,55
8,00	400	270	1	16F08400	3,68	16,00	400	270	1	16F16400	9,67
9,00	120	80	1	16F09120	2,12	18,00	160	100	1	16F18160	6,01
10,00	120	80	1	16F10120	2,20	18,00	400	270	1	16F18400	11,20
10,00	200	135	1	16F10200	3,10	20,00	160	100	1	16F20160	7,75
10,00	300	200	1	16F10300	4,02	20,00	400	270	1	16F20400	12,61
10,00	400	270	1	16F10400	4,38	22,00	400	270	1	16F22400	13,96

ESTUCHE BROCA BASIC
 BASIC DRILL BITS SET
 COFFRET FORETS BASIC

Medidas / Sizes

4 - 5 - 6 - 8 - 10 mm

Uds. / Pcs.	Cod.	€/Unid.
1	1916F327N	10,69


Medidas / Sizes

3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

Uds. / Pcs.	Cod.	€/Unid.
1	1916F333N	21,94


ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
 COMBINED SET METAL-CONSTRUCTION-WOOD
 COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

BASIC BOX (9 UDS. / PCS.)

Composición / Contains / Composition

 HSS WHITE  + BASIC  + MADERA 
Medidas / Sizes

5 - 6 - 8 mm 19CB339 16,94

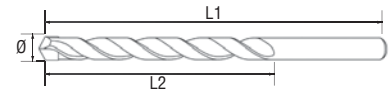
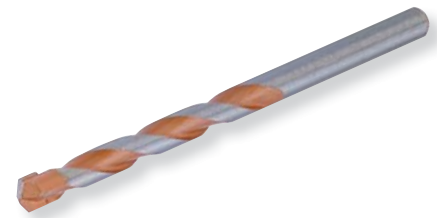


BROCA MULTI-USO

MULTI-PURPOSE DRILL-BIT • FORET MULTIFUNCTION



DIN 8039



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	70	40	1	1MU03070	7,39
4,00	75	40	1	1MU04075	7,05
5,00	85	50	1	1MU05085	7,63
5,00	150	110	1	1MU05150	10,67
5,50	85	50	1	1MU55085	8,21
6,00	100	60	1	1MU06100	8,28
6,00	150	110	1	1MU06150	12,16
6,50	100	60	1	1MU65100	8,87
6,50	150	110	1	1MU65150	12,71
7,00	100	60	1	1MU07100	9,44

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,00	120	80	1	1MU08120	10,34
8,00	200	135	1	1MU08200	15,17
9,00	120	80	1	1MU09120	11,90
10,00	120	80	1	1MU10120	13,62
10,00	200	135	1	1MU10200	19,45
12,00	150	90	1	1MU12150	18,63
12,00	200	135	1	1MU12200	25,45
14,00	150	90	1	1MU14150	25,23
16,00	150	90	1	1MU16150	31,50

ESTUCHE BROCA MULTI-USO

MULTI-PURPOSE DRILL-BIT DRILL BITS SET
COFFRET FORETS MULTIFUNCTION

Medidas / Sizes

4 - 5 - 6 - 8 - 10 mm

Uds. / Pcs.	Cod.	€/Unid.
1	1MU327N	50,52



Medidas / Sizes

3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

Uds. / Pcs.	Cod.	€/Unid.
1	1MU333N	73,42



BROCA PARA VIDRIO GLASS DRIL-BIT • FORET POUR VERRE

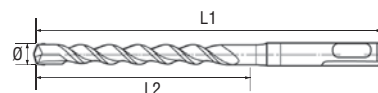
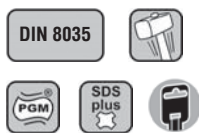
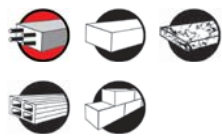


Ø (mm)	L1 (mm)	D2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	58	3,00	1	1VI0300	5,05
4,00	58	3,00	1	1VI0400	5,44
5,00	58	4,00	1	1VI0500	5,97
6,00	58	5,00	1	1VI0600	6,60
7,00	78	5,00	1	1VI0700	7,23

Ø (mm)	L1 (mm)	D2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,00	78	6,00	1	1VI0800	8,54
9,00	98	6,00	1	1VI0900	10,48
10,00	98	7,00	1	1VI1000	10,80
12,00	98	8,00	1	1VI1200	17,62

HURRICANE MULTIARISTAS SDS-PLUS

SDS-PLUS HURRICANE MULTICUTTER • MULTITAILLANT HURRICANE SDS-PLUS



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
5	110	50	1	1HU05110	13,51
5	160	100	1	1HU05160	14,77
6	110	50	1	1HU06110	12,95
6	160	100	1	1HU06160	13,24
6	210	150	1	1HU06210	14,19
6	260	200	1	1HU06260	15,40
6	310	250	1	1HU06310	20,73
7	160	100	1	1HU07160	15,86
8	110	50	1	1HU08110	13,24
8	160	100	1	1HU08160	13,84
8	210	150	1	1HU08210	17,91
8	260	200	1	1HU08260	18,40
8	450	400	1	1HU08450	49,64
10	110	50	1	1HU10110	15,10
10	160	100	1	1HU10160	14,82
10	210	150	1	1HU10210	16,02
10	310	250	1	1HU10310	20,62
10	450	400	1	1HU10450	50,61
12	160	100	1	1HU12160	16,56
12	210	150	1	1HU12210	18,12

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
12	260	200	1	1HU12260	21,83
12	310	250	1	1HU12310	28,57
12	450	400	1	1HU12450	55,90
14	160	100	1	1HU14160	24,60
14	210	150	1	1HU14210	25,53
14	310	250	1	1HU14310	28,58
14	450	400	1	1HU14450	61,66
16	210	150	1	1HU16210	32,75
16	260	200	1	1HU16260	36,35
16	310	250	1	1HU16310	39,06
16	450	400	1	1HU16450	60,90
18	260	200	1	1HU18260	62,87
18	450	400	1	1HU18450	83,25
20	260	200	1	1HU20260	82,10
20	450	400	1	1HU20450	89,14
22	450	400	1	1HU22450	113,97
24	450	400	1	1HU24450	124,49
25	450	400	1	1HU25450	131,17
28	450	400	1	1HU28450	141,42
30	450	400	1	1HU30450	159,15

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.

ESTUCHE BROCA HURRICANE HURRICANE DRILL BITS SET • COFFRET FORETS HURRICANE

Medidas / Sizes
 5 x 110, 6 x 110, 6 x 160, 8 x 110, 8 x 160,
 10 x 160, 12 x 160 mm

Uds. / Pcs. **Cod.** **€/Unid.**
 7 1105P71 102,29



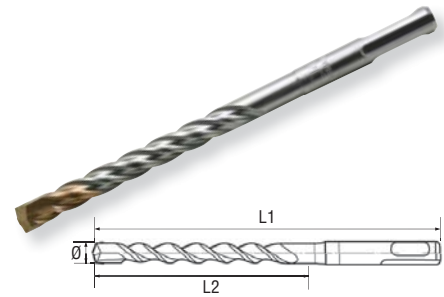
Medidas / Sizes **Uds. / Pcs.**
 6 x 160, 8 x 160, 10 x 160,
 12 x 160 mm 4

Puntero / Point Chisel
Cinzel / Flat Chisel
Cinzel Ancho / Spade Chisel
 x 140 mm 3

Cod. **€/Unid.**
 1106P71 135,88



ST-2 SDS-PLUS SDS-PLUS ST-2 • ST-2 SDS-PLUS



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4,00	110	50	1	1ST04110	5,54
5,00	110	50	1	1ST05110	4,47
5,00	160	100	1	1ST05160	5,54
5,00	210	150	1	1ST05210	8,59
5,50	110	50	1	1ST55110	5,26
5,50	160	100	1	1ST55160	5,92
6,00	110	50	1	1ST06110	4,47
6,00	160	100	1	1ST06160	5,20
6,00	210	150	1	1ST06210	7,72
6,00	260	200	1	1ST06260	11,22
6,00	460	400	1	1ST06460	20,47
6,50	110	50	1	1ST65110	5,38
6,50	160	100	1	1ST65160	6,23
6,50	260	200	1	1ST65260	10,24
7,00	110	50	1	1ST07110	5,73
7,00	160	100	1	1ST07160	6,26
8,00	110	50	1	1ST08110	5,42
8,00	160	100	1	1ST08160	5,54
8,00	210	150	1	1ST08210	6,99
8,00	260	200	1	1ST08260	9,41
8,00	310	250	1	1ST08310	13,54
8,00	460	400	1	1ST08460	21,14
9,00	160	100	1	1ST09160	7,85
9,00	260	200	1	1ST09260	13,20
10,00	110	50	1	1ST10110	6,32
10,00	160	100	1	1ST10160	6,97
10,00	210	150	1	1ST10210	8,73
10,00	260	200	1	1ST10260	10,21
10,00	310	250	1	1ST10310	15,42
10,00	460	400	1	1ST10460	22,93
10,00	600	550	1	1ST10600	33,36
11,00	160	100	1	1ST11160	8,80
11,00	260	200	1	1ST11260	13,42
12,00	160	100	1	1ST12160	8,05
12,00	200	150	1	1ST12210	9,93
12,00	260	200	1	1ST12260	12,04
12,00	300	250	1	1ST12310	17,59
12,00	450	400	1	1ST12450	21,97
12,00	600	550	1	1ST12600	33,21

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
13,00	160	100	1	1ST13160	10,88
13,00	260	200	1	1ST13260	14,27
14,00	160	100	1	1ST14165	10,88
14,00	200	150	1	1ST14200	14,27
14,00	260	200	1	1ST14260	14,95
14,00	300	250	1	1ST14310	16,70
14,00	450	400	1	1ST14450	25,63
14,00	600	550	1	1ST14600	39,94
15,00	160	100	1	1ST15160	14,24
15,00	260	200	1	1ST15260	18,86
16,00	160	100	1	1ST16160	14,67
16,00	200	150	1	1ST16200	16,84
16,00	260	200	1	1ST16260	18,53
16,00	300	250	1	1ST16300	24,07
16,00	450	400	1	1ST16450	31,11
16,00	600	550	1	1ST16600	41,05
16,00	800	750	1	1ST16800	61,17
16,00	1.000	950	1	1ST161000	94,69
18,00	200	150	1	1ST18200	26,66
18,00	300	250	1	1ST18300	35,11
18,00	450	400	1	1ST18450	38,17
18,00	600	550	1	1ST18600	51,55
18,00	1.000	950	1	1ST181000	108,43
19,00	200	150	1	1ST19200	29,08
19,00	450	400	1	1ST19450	46,74
20,00	200	150	1	1ST20200	32,46
20,00	300	250	1	1ST20300	35,85
20,00	450	400	1	1ST20450	41,80
20,00	600	550	1	1ST20600	53,83
20,00	1.000	950	1	1ST201000	114,63
22,00	250	200	1	1ST22250	45,98
22,00	450	400	1	1ST22450	60,87
22,00	600	550	1	1ST22600	79,80
24,00	250	200	1	1ST24250	52,75
24,00	450	400	1	1ST24450	67,62
25,00	250	200	1	1ST25250	54,44
25,00	450	400	1	1ST25450	72,56
26,00	450	400	1	1ST26450	73,04

NOTA: Para otras medidas, consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.

ESTUCHE BROCA ST-2 ST-2 DRILL BITS SET • COFFRET FORETS ST-2

Medidas / Sizes		
5 x 110, 6 x 110, 6 x 160, 8 x 110, 8 x 160, 10 x 160, 12 x 160 mm		
Uds. / Pcs.	Cod.	€/Unid.
7	1105P73	61,49



Medidas / Sizes	Uds. / Pcs.
6 x 160, 8 x 160, 10 x 160, 12 x 160 mm	4
Puntero / Point Chisel Cinzel / Flat Chisel Cinzel Ancho / Spade Chisel x 140 mm	3
Cod.	€/Unid.
1106P73	105,33

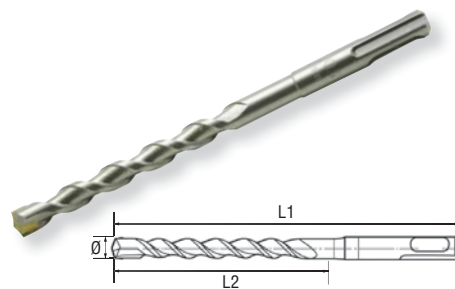


CYCLONE SDS-PLUS SDS-PLUS CYCLONE • CYCLONE SDS-PLUS

Basic



DIN 8035



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4	110	50	1	1CY04110	3,76
5	110	50	1	1CY05110	3,03
5	160	100	1	1CY05160	3,76
6	110	50	1	1CY06110	3,03
6	160	100	1	1CY06160	3,53
6	210	150	1	1CY06210	5,24
7	110	50	1	1CY07110	3,88
7	160	100	1	1CY07160	4,26
8	110	50	1	1CY08110	3,68
8	160	100	1	1CY08160	3,76
8	210	150	1	1CY08210	4,76
8	260	200	1	1CY08260	6,38
10	110	50	1	1CY10110	4,30
10	160	100	1	1CY10160	4,73
10	210	150	1	1CY10210	5,92
10	260	200	1	1CY10260	6,93
10	450	390	1	1CY10450	15,57

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
12	160	100	1	1CY12160	5,47
12	210	150	1	1CY12210	6,75
12	260	200	1	1CY12260	8,18
12	310	250	1	1CY12310	9,84
12	450	390	1	1CY12450	14,93
14	160	100	1	1CY14160	7,39
14	210	150	1	1CY14210	9,70
14	260	200	1	1CY14260	10,14
14	450	390	1	1CY14450	17,41
16	160	100	1	1CY16160	9,96
16	210	150	1	1CY16210	11,44
16	310	250	1	1CY16310	14,06
16	450	390	1	1CY16450	21,13
18	210	150	1	1CY18210	18,11
20	350	290	1	1CY20350	24,34
22	450	390	1	1CY22450	41,34
25	450	390	1	1CY25450	49,29

ESTUCHE BROCA CYCLONE CYCLONE DRILL BITS SET • COFFRET FORETS CYCLONE

Medidas / Sizes

5 x 110, 6 x 110, 6 x 160, 8 x 110, 8 x 160,
10 x 160, 12 x 160 mm

Uds. / Pcs.	Cod.	€/Unid.
7	1105P72	35,06



Medidas / Sizes

6 x 160, 8 x 160, 10 x 160,
12 x 160 mmPuntero / Point Chisel
Cinzel / Flat Chisel
Cinzel Ancho / Spade Chisel
x 140 mm

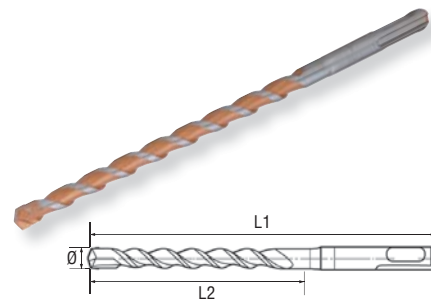
Uds. / Pcs.	Cod.	€/Unid.
4	1106P72	93,01



BROCA MULTI-USO SDS-PLUS

SDS-PLUS MULTI-PURPOSE DRILL BIT
FORET MULTI MATERIAUX SDS-PLUS

DIN 8035



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	160	100	1	1MS06160	19,37
8,00	160	100	1	1MS08160	23,32
8,00	210	150	1	1MS08210	27,50
10,00	160	100	1	1MS10160	27,18

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
10,00	260	200	1	1MS10260	38,80
12,00	160	100	1	1MS12160	29,50
12,00	260	200	1	1MS12260	45,63
14,00	260	200	1	1MS14260	51,51

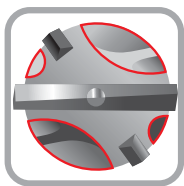
SDS-MAX STORM

SDS-MAX STORM • SDS-MAX STORM

La broca **STORM** con anclaje **SDS-MAX** proporciona nuevas ventajas en este tipo de herramienta. El novedoso sistema de la punta evita la fricción en mayor medida, lo que significa que aumenta la durabilidad y reduce el coste por agujero. Además, la extracción de viruta a través de sus 4 canales por las aberturas diseñadas en la punta, la convierte en la broca más rápida en esta gama.

*The **STORM** drill bit with an **SDS-MAX** shank provides new advantages for this type of tool. The new cutting edge system largely reduces friction, thereby increasing durability and diminishing costs per hole. Furthermore, the extraction of chip swarf through the 4 flutes built into the nosepiece makes it the fastest drill in this range.*

*Le foret **STORM** à ancrage **SDS-MAX** offre de nouveaux avantages pour ce type d'outillage. Le modèle de pointe innovant évite dans une grande mesure la friction, ce qui signifie une augmentation de sa durabilité et une réduction du coût par trou. Par ailleurs, l'extraction des alésures à travers ses 4 canaux, par les ouvertures placées sur la pointe en fait le foret le plus rapide de cette gamme.*



- Diseño para una fricción baja y mayor velocidad de corte.
- Cabeza de 4 puntas de Carburo de máxima calidad para maximizar la velocidad de corte.

- *Designed to produce minimal friction and greater cutting speed.*
- *Best quality Carbure 4 cutter head design maximizing speed and minimizing vibration.*

- *Conçu pour obtenir une faible friction et une plus grande vitesse de coupe.*
- *Tête à 4 pointes en Carbure de la plus haute qualité afin de maximiser la vitesse de coupe et minimiser la vibration.*



- Apertura en la punta diseñada especialmente para evacuación de viruta por los 4 canales de extracción.

- *Opening in the nosepiece specially designed for the removal of chip swarf through 4 extraction flutes.*

- *Ouverture sur la pointe spécialement conçue pour l'évacuation des copeaux à travers ses 4 canaux d'extraction.*



- 4 canales de extracción para una perforación rápida y cómoda.

- *4 extraction flutes for a speedy and smooth drill.*

- *4 canaux d'extraction pour une perforation rapide et facile.*



- Núcleo central optimizado, mejora la transmisión de energía desde el mango hasta la punta.

- *Optimised central core to improve the transmission of energy from the handle to the nosepiece.*

- *Noyau central optimisé, qui améliore la transmission d'énergie de la poignée à la pointe.*



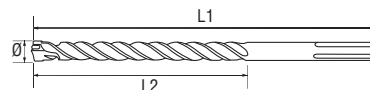
Broca fabricada bajo los estándares de calidad PGM / Manufactured on PGM quality standards / Fabriqué sous les normes de qualité PGM

SDS-MAX STORM

SDS-MAX STORM • SDS-MAX STORM



DIN 8035



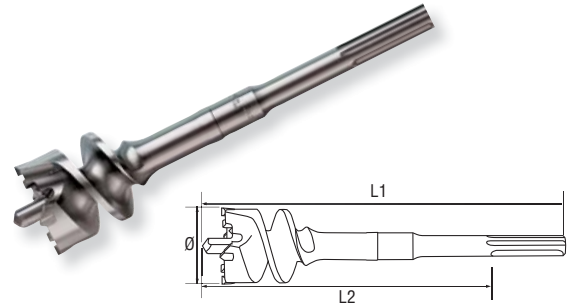
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2 ARISTAS / 2 CUTTING EDGES					
12	340	200	1	11021212340	66,95
12	540	400	1	11021212540	84,88
14	340	200	1	11021214340	72,37
14	540	400	1	11021214540	87,16
15	340	200	1	11021215340	74,38
15	540	400	1	11021215540	88,96
4 ARISTAS / 4 CUTTING EDGES					
16	340	200	1	11021216340	76,58
16	540	400	1	11021216540	93,52
18	340	200	1	11021218340	78,93
18	540	400	1	11021218540	95,98
20	340	200	1	11021220320	88,69
20	540	400	1	11021220520	99,80
20	920	800	1	11021220920	163,87
22	340	200	1	11021222320	96,32
22	540	400	1	11021222520	103,40
22	920	800	1	11021222920	173,97
22	1320	1200	1	110212221320	282,99
24	340	200	1	11021224320	103,52
24	540	400	1	11021224520	115,60

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4 ARISTAS / 4 CUTTING EDGES					
25	340	200	1	11021225320	109,63
25	540	400	1	11021225520	116,59
25	920	800	1	11021225920	191,49
28	380	250	1	11021228370	126,31
28	570	450	1	11021228570	142,46
30	380	250	1	11021230370	128,47
30	570	450	1	11021230570	147,38
32	380	250	1	11021232370	138,52
32	570	450	1	11021232570	156,25
32	920	800	1	11021232920	224,32
32	1320	1200	1	110212321320	511,73
35	380	250	1	11021235370	151,06
35	570	450	1	11021235570	193,21
38	380	250	1	11021238370	187,49
38	570	450	1	11021238570	210,07
40	570	450	1	11021240570	262,65
40	920	800	1	11021240920	333,89
40	1320	1200	1	110212401320	655,06
45	570	450	1	11021245570	359,81
45	920	800	1	11021245920	479,74
50	570	450	1	11021250570	413,68

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.

NOTA: Para longitudes útiles de más de 800 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 400 mm de profundidad. / For useful lengths of over 800 mm USE A PRE-DRILL BIT of the same diameter up to 400 mm in depth. / Pour des longueurs utiles de plus de 800 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 400 mm de profondeur.

BROCA ROMPEDORA SDS-MAX
SDS-MAX CORE CUTTER • FORET TRÉPAN SDS-MAX



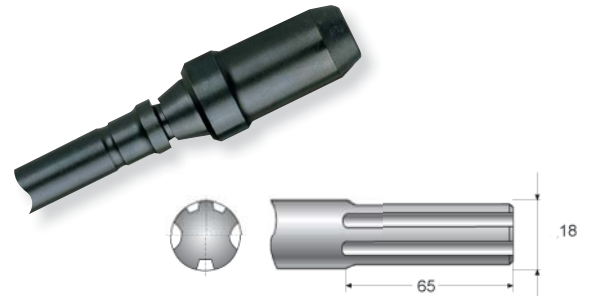
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
55,00	590	480	1	1R055550	474,72
55,00	990	880	1	1R055990	557,17
65,00	590	480	1	1R065550	527,32

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
65,00	990	880	1	1R065990	610,24
80,00	590	480	1	1R080550	636,76
80,00	990	880	1	1R080990	739,59

NOTA: Para otras medidas, consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

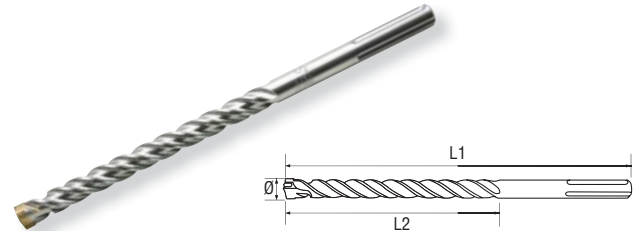
CONVERSOR DE ANCLAJE SDS-MAX A SDS-PLUS
CONVERSION FROM SDS-MAX SHANK TO SDS-PLUS
CONVERTEUR DE SDS-MAX A SDS-PLUS

L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
225	1	1C02250	139,89



Para taladros con sistema SDS-MAX, HILTI Y-Groove y Licencia Bosch. / Drills with SDS-MAX, HILTI Y-Groove and Bosch License system. / Perceuse avec système SDS-MAX, HILTI Y-Groove et Bosch Licence.

BROCA SDS-TOP SDS-TOP • SDS-TOP



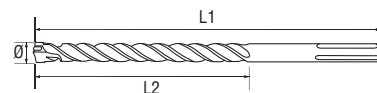
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2 ARISTAS DE CORTE / 2 CUTTING EDGES					
6,00	200	100	1	1TP06200	42,90
6,00	300	200	1	1TP06300	47,37
8,00	200	100	1	1TP08200	48,57
8,00	300	200	1	1TP08300	50,14
10,00	200	100	1	1TP10200	52,39
10,00	300	200	1	1TP10300	53,92
10,00	500	400	1	1TP10500	83,66
12,00	200	100	1	1TP12200	54,05
12,00	300	200	1	1TP12300	59,46
12,00	500	400	1	1TP12500	85,55
12,00	600	500	1	1TP12600	108,80
14,00	300	200	1	1TP14300	65,16
14,00	500	400	1	1TP14500	92,83
15,00	500	400	1	1TP15500	94,57
16,00	300	200	1	1TP16300	75,92
16,00	500	400	1	1TP16500	99,63

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4 ARISTAS DE CORTE / 4 CUTTING EDGES					
18,00	300	200	1	1TP18300	90,17
18,00	500	400	1	1TP18500	117,23
20,00	300	200	1	1TP20300	95,67
20,00	500	400	1	1TP20500	120,83
22,00	300	200	1	1TP22300	135,88
22,00	500	400	1	1TP22500	153,57
24,00	300	200	1	1TP24300	141,74
24,00	500	400	1	1TP24500	177,81
25,00	300	200	1	1TP25300	145,83
25,00	500	400	1	1TP25500	182,60
28,00	300	200	1	1TP28300	163,20
28,00	500	400	1	1TP28500	200,18
30,00	350	250	1	1TP30350	173,59
30,00	550	450	1	1TP30550	215,87
32,00	350	250	1	1TP32350	180,17
32,00	550	450	1	1TP32550	233,37

Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.

NOTA: Para longitudes útiles de más de 800 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 400 mm de profundidad. / For useful lengths of over 800 mm USE A PRE-DRILL BIT of the same diameter up to 400 mm in depth. / Pour des longueurs utiles de plus de 800 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 400 mm de profondeur.

BROCA MANGO ESTRIADO
 SPLINED SHANK • CANNELE


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.	Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
16,00	540	400	1	1ES16540	128,81	35,00	540	400	1	1ES35540	216,44
20,00	340	200	1	1ES20340	122,67	38,00	540	400	1	1ES38540	264,86
32,00	540	400	1	1ES32540	207,65						

Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.

BROCA PARA ENCOFRAR CILÍNDRICA
SHUTTERING STRAIGHT DRILL-BIT
FORET POUR COFFRAGE



Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./ Pcs.	Cod.	€/Unid.
8,00	400	100	8	1	12011108400	15,22
8,00	600	100	8	1	12011108600	15,65
8,00	800	100	8	1	12011108800	17,39
10,00	400	100	8	1	12011110400	16,96
10,00	600	100	8	1	12011110600	17,76
10,00	800	100	8	1	12011110800	19,93
12,00	400	100	10	1	12011112400	20,29
12,00	600	100	10	1	12011112600	21,16
12,00	800	100	10	1	12011112800	23,33
14,00	400	100	10	1	12011114400	23,41
14,00	600	100	10	1	12011114600	24,14
14,00	800	100	10	1	12011114800	26,38
16,00	400	100	10	1	12011116400	25,58
16,00	600	100	10	1	12011116600	26,09
16,00	800	100	10	1	12011116800	28,55

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./Pcs.	Cod.	€/Unid.
18,00	400	100	13	1	12011118400	33,77
18,00	600	100	13	1	12011118600	36,17
18,00	800	100	13	1	12011118800	40,00
20,00	400	100	13	1	12011120400	40,81
20,00	600	100	13	1	12011120600	42,54
20,00	800	100	13	1	12011120800	45,15
22,00	400	100	13	1	12011122400	48,62
22,00	600	100	13	1	12011122600	50,01
22,00	800	100	13	1	12011122800	52,55
24,00	400	100	13	1	12011124400	57,98
24,00	600	100	13	1	12011124600	62,10
24,00	800	100	13	1	12011124800	64,00
26,00	400	100	13	1	12011126400	69,08
28,00	400	100	13	1	12011128400	82,69
30,00	400	100	13	1	12011130400	96,89

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

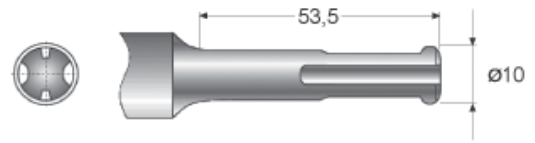
BROCA PARA ENCOFRAR SDS-PLUS
SHUTTERING SDS-PLUS DRILL-BIT
FORET POUR COFFRAGE SDS-PLUS



Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./ Pcs.	Cod.	€/Unid.
10	400	100	10	1	12011210400	35,33
10	600	100	10	1	12011210600	36,05
12	400	100	10	1	12011212400	38,16
12	600	100	10	1	12011212600	39,16
12	800	100	10	1	12011212800	42,27
14	400	100	10	1	12011214400	31,60
14	600	100	10	1	12011214600	32,27
14	800	100	10	1	12011214800	36,58
16	400	100	10	1	12011216400	36,28
16	600	100	10	1	12011216600	36,58
16	800	100	10	1	12011216800	39,26
18	400	100	10	1	12011218400	54,43

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./Pcs.	Cod.	€/Unid.
18	600	100	10	1	12011218600	57,19
18	800	100	10	1	12011218800	61,78
20	400	100	10	1	12011220400	62,92
20	600	100	10	1	12011220600	64,67
20	800	100	10	1	12011220800	68,42
22	400	100	10	1	12011222400	72,86
22	600	100	10	1	12011222600	74,16
22	800	100	10	1	12011222800	76,60
24	400	100	10	1	12011224400	83,41
24	600	100	10	1	12011224600	89,14
24	800	100	10	1	12011224800	90,90

ANCLAJE SDS-PLUS
SDS-PLUS SHANK • QUEUE SDS-PLUS

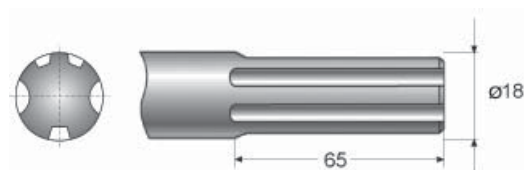








	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL 	250	-	1	01040101	11,89
ROTO-PERCUSIÓN ROTO-PERCUSSION 	250	-	1	01040102	14,68
CINCEL FLAT CHISEL 	250	20	1	01040103	11,89
CINCEL ANCHO SPADE CHISEL 	250	40	1	01040104	20,07

	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
CINCEL AZULEJO TILE CHISEL 	200	40	1	01040105	31,41
ACANALADOR HOLLOW CHISEL 	240	22	1	01040106	24,66
ACANALADOR ALAS CHISEL WITH GLIDES 	250	22	1	01040212	62,95

APLICACIONES / APPLICATIONS / APPLICATIONS

AEG	APH 14, PH 210, PHE 16, PHE 19, PHE 20, PHE 24, PHE 26, PN 3000 SuperX2, PN 3500X, PN 3000R2, PN 3000XN2, PN 3000SuperXN2, PN 3000X2
ATLAS COPCO	ATLAS COPCO: PPH 30X2E, PPH 26RA, PPH 26XE, PPH 24X2E, PPH 24E, PLH 32XE, PLH 30XE, PLH 30E, PH 3X, PHE 24RX/R, PHE 26R, PHE 26RA, PHE 3, PHE 30RX2
BLACK & DEKER	5009, 5013, 5015, 5016, 5053, 5054, 5056, 5057, KD 651HRE, KD 645HRX
BOSCH	11207, 11210, 11211, 11212, 11213, 11215, 11216, 11222, 11224, 11228, 11236, GBH 2-24DSE, GBH 2-24DSR, GBH 2-24DFR, GAH 500DSR, GBH 4DEF, GBH 4DSC, PBH 200RE
DEWALT	514K, 523K, 557K, 566K, 567K
ELU	MBH 24RLM, MBH 26RLM
FELISATTI	T 724PREC
HILTI	TE 6C, TE 15C, TE 24, TE 25, TE 104
HITACHI	DH 22VB, DH 22VD, DH 24PG, VR 16, BRT22
KANGO	200, 285, 327, 422, 426, 430 D
KRESS	PSX 550, PSE 500, PSE 600, PCX 750, HMX 24, 240 APBE Set
MAQUITA	HR 160, HR 1821, HR 2000, HR 2010, HR 2020, HR 2400, HR 2410, HR 2420, HR 2430, HR 2431, HR 2432, HR 2440, HR 2445, HR2450, HR2455, HR2510, HR2511, HR 3000C
METABO	6010, 6018, 6020, 6024, 6026, BH 6009S, BH E 205R, BH E 24SR, BH E 6011S-R+L, BH E 6024S-R+L, BH E 6028S-R+L, KH E 28, KH E 2, KH E 24, KH E 24contact, UH E 28multi, UH E 22multi, BH EA 14S-R+L
MILWAUKEE	5302, 5303, 5312, 5317, 5320, 5324, 5343, 5344, 5347, 5348, 5362, 5366, 5368, 5369
SPARKY	BPR241E
RIOBI	ED 160, ED211
itw SPIT	335

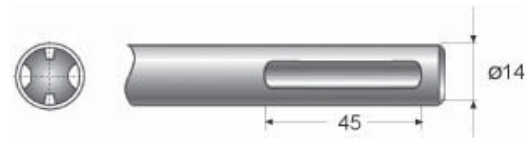
ANCLAJE SDS-MAX
 SDS-MAX SHANK • QUEUE SDS-MAX


	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.		L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL						CINCEL ANCHO SPADE CHISEL					
	280	-	1	01040201	16,57		300	80	1	01040213	43,26
	400	-	1	01040202	18,38		400	50	1	01040208	41,90
	600	-	1	01040203	29,39	CINCEL AZULEJO TILE CHISEL					
CINCEL FLAT CHISEL							300	50	1	01040251	45,99
	280	24	1	01040204	16,57	ACANALADOR HOLLOW CHISEL					
	400	24	1	01040205	18,48		300	26	1	01040210	40,85
	600	24	1	01040206	32,54	ACANALADOR ALAS CHISEL WITH GLIDES					
							380	35	1	01040211	119,31

APLICACIONES / APPLICATIONS / APPLICATIONS

AEG	PM 10, PN 6000S, PN 4000E
ATLAS COPCO	PH 5S, PHE 5S, PB 6S, PBE, 6S, PHE 6S, PHE 7F, PHE 7S, PB "IOS, PB 14S, PHE 40S, PHE 45S, PHE 50S
BLACK & DEKER	5097, 5099
BOSCH	11214 EVS, 11216, 11223, 11227, 11230, 11231, 11235, 11309, 11311, 11312, 11313, 11316, 11245, GBH 5DEC, GBH 7DE, GBH 7DCE, GBH 8DCE, GBH 10DC, GBH 11DE, GSH 5CE, GSH 10C, GSH 11E, GBH 5DCE, GBH 5/40DE, GBH 7/45DE, GBH 5/40DCE, GBH 8/65DCE
DEWALT	DW 540K, DW 541K, DW 543K, DW 545K, DW 570K, D 25900K
ELU	BH 40K, BH 40EK, BH 45EK, SH 50EK
HILTI	TE 52, TE 54, TE 55, TE 72, TE 74, TE 75, TE 76, TE 76-ATC, TE 92, TE 504, TE 505, TE 705, TE 704
HITACHI	DH 40MA, DH 40MB, DH 50MB, DH 65MB, H 45MA, H 60MA, H 60MB
KANGO	710 MV, 760 MV, 810 MV, 845 MV, 850 MV, 900 MV, 1400 MV
KRESS	1150PSKmax
MAQUITA	HR 500C, HM 1100C, HM 1100S, HM 1200C, HM 1202C, HR4000C, HR4001C, HR4011C, HR4500C, HR5001C
METABO	6045, Bh 6045S
MILWAUKEE	5308, 5313, 5315-21, 5315-22, PH 45SQ
SPARKY	BP 400E
RIOBI	ER 382K, DE 382NP
itwSPIT	351, 355, 385, 371, 455
WACKER	EHB 7/230, EH 9BLM, EHB 11BLM

ANCLAJE SDS-TOP
SDS-TOP SHANK • QUEUE SDS-TOP



	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL					
	270*	-	1	01040217	24,87

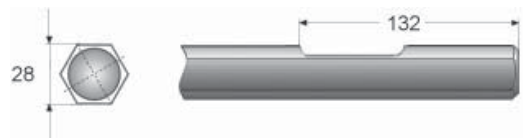
	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
ACANALADOR HOLLOW CHISEL					
	250*	22	1	01040250	52,53

*Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

APLICACIONES / APPLICATIONS / APPLICATIONS

AEG	PN 11
BOSCH	GBH 4Top
HILTI	TE 35
MAQUITA	HR 3550C

ANCLAJE SW-28
SW-28 SHANK • QUEUE SW-28



	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL					
	400	-	1	01040224	56,89
CINCEL FLAT CHISEL					
	400	35	1	01040236	57,98

	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
CINCEL ANCHO SPADE CHISEL					
	400	80	1	01040245	123,03

APLICACIONES / APPLICATIONS / APPLICATIONS

BOSCH	GSH 27, USH 27, HSH 28
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CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

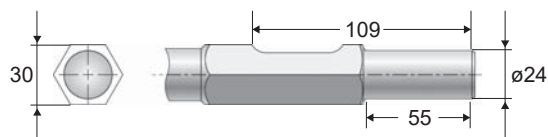
ACCESORIOS
ACCESSORIES • ACCESSOIRES



HEXAGONAL
HEXAGONAL • HEXAGONAL


METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

ANCLAJE SW-30
SW-30 SHANK • QUEUE SW-30



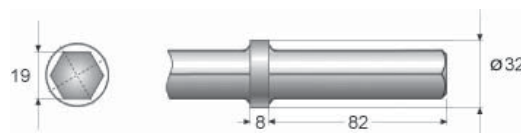
	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL					
	400	-	1	01040216	62,75
CINCEL FLAT CHISEL					
	400	32	1	01040243	63,05



	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
CINCEL ANCHO SPADE CHISEL					
	400	75	1	01040249	77,77


APLICACIONES / APPLICATIONS / APPLICATIONS

HITACHI	H 65SB, H 70SA
MAQUITA	8900N, HM 1300, HM 1303, HM 1304, HM 1400, HM 1500

ANCLAJE SW-19 WACKER
SW-19 WACKER SHANK • QUEUE SW-19 WACKER



	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL					
	480	-	1	01040227	40,24
CINCEL FLAT CHISEL					
	480	35	1	01040238	40,39

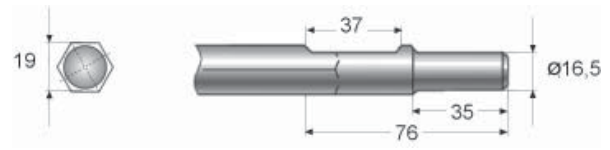
	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
CINCEL ANCHO SPADE CHISEL					
	300	80	1	01040247	56,12


Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks


APLICACIONES / APPLICATIONS / APPLICATIONS

IMPEX	DS 120
METABO	MHE 110S
OUTIFIX	OX1000
ROCOSA	80-100
itwSPIT	CH 120, DS 120
WACKER	WACKER: BH 23, BHB 14, EH 22/380, EH 23/220, EH 24/042, EHB 7/230EB8, EHB 10/220, EH 8/220, EHL 8Y, EHU 8Y/220, EHUB 10Y/220, LHB5, SH 60K

ANCLAJE SW-19 BOSCH 16,5
SW-19 SHANK BOSCH 16,5
QUEUE SW-19 BOSCH 16,5



	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL					
	300	-	1	01040221	20,70
	400	-	1	1040223	26,56

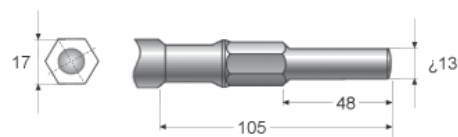
	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
CINCEL FLAT CHISEL					
	300	22	1	01040234	20,67
	400	22	1	01040235	26,56



Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

APLICACIONES / APPLICATIONS / APPLICATIONS

AEG	PH 26, PHD 26, PH 38, PHD 38, PHE 38, PH 240, PH 240D, PH 350, PH 350D, PDH 350D
ATLAS COPCO	PH 5H, PH 11H, PB 10H, PHE 5H
BLACK & DEKER	5041, 5042, 5043, 5044, 5045, 5059, 5093, 5095, 5096, 5098
BOSCH	11202, 11203, 11204, 11205, 11206, 11207, 11209, 11212, 11214, 11219, 11220, 11232, 11233, 11244E, 11306, 11307, 11310, 11314, GBH 7/45D, GBH 7/75DE, UBH 6/35, UBH 6/35D, UBH 10/5, UBH 12/50, USH 6
DEWALT	530K, 531K, 532K, 533K, 551K, 558K
ELU	BH 41K, SBH 41K, BH 41EK, BH 46EK
HITACHI	DH 38YA, DH 38YE, DH 38YF, DH 40FA, DH 40FB, DH 50SB, DS 50SB, DH 45SB
KANGO	430S, 501S, 637S, 750S, 950KS, 950S, 950XS, 975S
MAQUITA	HM 0810B, HM 1140C, HR 3520B, HR 3520EB, HR 3850B, HR 3851, HR 4040C, HR 5000
METABO	11285, 11295, 11305, 11315, BHe 6030S, RH 66, RH 99, RH 99X, 1129, 1130, 6030, 6040, 6046
MILWAUKEE	5309, 5312, 5316, 5317, 5334, 5341, 5343, 5344, 5347, 5348, 5352, 5353, 5363, 5367
PEUGEOT	PM 26, PM 38
RIOBI	ED 350K, ED 382, ED 382P, ER 382, ER 382K
itw SPIT	350
WACKER	EBH 7S

ANCLAJE HITACHI + SW 17

 HITACHI SHANK + SW 17
 QUEUE HITACHI + SW 17


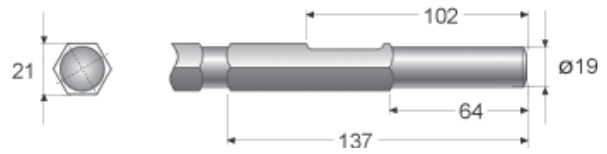
	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.		L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL						CINCEL FLAT CHISEL					
	280	-	1	01040218	20,89		280	22	1	01040231	20,89
	360	-	1	01040219	23,64		360	22	1	01040232	23,64
	450	-	1	01040220	29,30		450	22	1	01040233	29,30

Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

APLICACIONES / APPLICATIONS / APPLICATIONS

HITACHI	HITACHI: DH 28Y, DH 38YB, DH 38YB1, DH 42, H41SA, H 45SA, PH 40F, PHU 45, PR 25B, PR 38E, VR 38, VRY 38YB
MAQUITA	8035 NB, HM 0810, HM 0810T, HM 1200, HR 3500, HR 3510, HR 3520, HR 3850
RIOBI	CH 450PK, CH 460PK, CH 500K, CH 500P, ER 382K

ANCLAJE KANGO
KANGO SHANK • QUEUE KANGO



	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL					
	300	-	1	01040228	22,53
CINCEL FLAT CHISEL					
	300	25	1	01040239	22,53
	460	25	1	01040241	31,85


	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
CINCEL ANCHO SPADE CHISEL					
	380	50	1	01040248	51,37
	380	80	1	01040207	53,06

Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

APLICACIONES / APPLICATIONS / APPLICATIONS

ATLAS COPCO	PB 6C, PB 10, PB 10C, PB 14C, PH 11C
CASALS	ATILA
HITACHI	DH 50SA, DH 50SA1, H 55SA, H 55SC
IMCO	1150, 150R
KANGO	900, 900X, 928, 950, 950K, 950X, 1400
MAQUITA	HM 1200K, HR 3850K, HR 5000K
RIOBI	CH 425, CH 485K

ANCLAJE SW-19 BOSCH USH 10
 SW-19 BOSCH USH 10 SHANK
 QUEUE SW-19 BOSCH USH 10


	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL					
	300	-	1	01040225	19,78

Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

APLICACIONES / APPLICATIONS / APPLICATIONS

BOSCH	11302, 11305, 12312, USH 10
CASALS	TORNADO
DEWALT	5021K, DW 558K
ELU	SH 60K
HITACHI	H 55SC
KANGO	638S, 900B, 900KS, 900S, 900XS, 1400B
MAQUITA	HM 1200B, HM 1211B
MILWAUKEE	5535
itw SPIT	400

CORONA MULTIFUNCIÓN PARA TRABAJOS LIGEROS
UNIVERSAL HOLE SAW
TRÉPAN MULTIFUNCTION



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Z	Cod.	€/Unid.
Sanitarios y calefacción / Sanitary and heating pipes / Sanitaires et chauffage						
25,00	73	60	1	3	1CT025	58,76
30,00	73	60	1	3	1CT030	60,47
35,00	73	60	1	3	1CT035	64,35
Tubería y desagüe / Pipes and wastepipes / Tuyauteries et déversoirs						
40,00	73	60	1	3	1CT040	64,99
Tubería de agua, aislamientos y desagües / Water pipes, insulation and wastepipes / Tuyauteries, isolations et déversoirs						
45,00	73	60	1	3	1CT045	68,24
50,00	73	60	1	3	1CT050	70,36
Focos empotrados / Recessed lights / Foyers encastrés						
55,00	73	60	1	3	1CT055*	81,25
58,00	73	60	1	5	1CT058*	92,29
60,00	73	60	1	5	1CT060	92,35
Caja de empalmes / Junction box / Boites de jonctions						
65,00	73	60	1	5	1CT065	93,13
68,00	73	60	1	5	1CT068	97,94
74,00	73	60	1	5	1CT074	111,80
Cajas de distribución / Switchboxes / Switchbox						
80,00	73	60	1	5	1CT080	115,98
90,00	73	60	1	5	1CT090*	158,75
Conductos de aire / Vent pipes / Conduit d'aire						
105,00	73	60	1	6	1CT105	175,51

*Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

ADAPTADOR MANGO SDS-PLUS PARA CORONA MULTIFUNCIÓN

SDS-PLUS SHANK FOR UNIVERSAL HOLE SAW • QUEUE SDS-PLUS POUR TRÉPAN MULTIFUNCTION



M16

L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
100	1	1AS100	34,10
200	1	1AS200	52,45
350	1	1AS350	70,44



NOTA: No se recomienda el uso del adaptador de 350 mm con coronas mayores de 45 mm de diámetro. / Not recommended adapter of 350 mm for more than 45 mm diameter hole saws. / Adaptateur 350 mm non recommandé avec trépan supérieures à 45 mm.

NOTA: Para realizar un trabajo de diámetro mayor a 45 mm se recomienda el uso del sistema SDS-MAX. / For diameters bigger than 45 mm, SDS-MAX system recommended / Pour des travaux supérieures à 45 mm, système recommandé SDS-MAX.

ADAPTADOR MANGO HEXAGONAL PARA CORONA MULTIFUNCIÓN

HEXAGONAL SHANK FOR UNIVERSAL HOLE SAW • QUEUE HEXAGONALE POUR TRÉPAN MULTIFUNCTION



M16

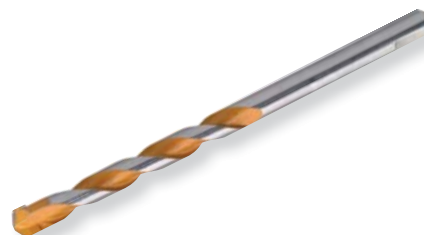
L1 (mm)	∅ (mm)	Uds. / Pcs.	Cod.	€/Unid.
80	11	1	1AH080	30,04
200	11	1	1AH200	37,61
350	11	1	1AH350	50,95



BROCA DE CENTRAR PARA CORONA MULTIFUNCIÓN

CENTRE DRILL BIT FOR UNIVERSAL HOLE SAW
FORET DE CENTRAGE POUR TRÉPAN MULTIFUNCTION

L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8 x 120	1	1AP08120	11,58



CORONA SISTEMA M16 TRABAJOS MEDIOS
HOLLOW CORE M16 ASSEMBLY • TRÉPAN BÉTON M16

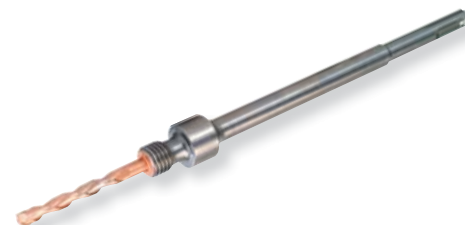


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Z	Cod.	€/Unid.
25,00	80	60	1	5	1M16025	62,32
30,00	80	60	1	6	1M16030	65,60
35,00	80	60	1	6	1M16035	71,36
40,00	90	70	1	6	1M16040	76,73
45,00	90	70	1	6	1M16045	83,54
50,00	90	70	1	6	1M16050	85,21
55,00	72	52	1	6	1M16055	86,38
60,00	72	52	1	6	1M16060	88,06
65,00	72	50	1	6	1M16065	89,31
68,00	72	50	1	6	1M16068	93,43
80,00	82	60	1	6	1M16080	104,68
90,00	82	60	1	8	1M16090	145,44
100,00	82	60	1	8	1M16100	186,55

ADAPTADOR SDS-PLUS CON BROCA CENTRADORA
SDS-PLUS ADAPTER WITH CENTER DRILL
ADAPTATEUR AVEC MÉCHE DE CENTRAGE



L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
178	1	1AC178	53,80
268	1	1AC268	72,88
418	1	1AC418	104,04



NOTA: No se recomienda el uso del adaptador de 418 mm con coronas mayores de 45 mm de diámetro. / Not recommended adapter of 418 mm for more than 45 mm. diameter hole saws. / Adaptateur 418 mm non recommandé avec trépan supérieures à 45 mm.

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

RECOMENDACIONES DE USO PARA PROLONGADORES SDS-PLUS Y HEXAGONALES PARA CORONAS M16

USAGE RECOMMENDATIONS FOR SDS-PLUS EXTENSIONS AND HEX SOCKETS FOR M16 DRILL BITS • RECOMMANDATIONS D'UTILISATION POUR RALLONGES SDS-PLUS ET HEXAGONALES POUR COURONNES M16



PROFUNDIDAD DEPTH PROFONDEUR		ADAPTADOR RECOMENDADO RECOMENDED SHANK ADAPTER ADAPTATEUR RECOMMANDÉ	
< 100 mm	1AC178	SDS-PLUS CON BROCA CENTRADORA L= 178 mm (Pág. 63) SDS PLUS SHANK ADAPTER WITH CENTER DRILL L= 178 mm (Pag. 63) ADAPTATEUR QUEUE SDS-PLUS AVEC MÉCHE DE CENTRAGE L= 178 mm (Pág. 63)	✓
	1AS100	SDS-PLUS L= 100 mm (Pág. 66) SDS-PLUS SHANK ADAPTER L= 100 mm (Pag. 66) QUEUE SDS-PLUS L= 100 mm (Pág. 66)	✓
	1AH080	HEXAGONAL L=80 mm (Pág. 66) HEXAGONAL SHANK ADAPTER L=80 mm (Pag. 66) QUEUE HEXAGONAL L=80 mm (Pág. 66)	✓
100-200 mm	1AC268	SDS-PLUS CON BROCA CENTRADORA L= 268 mm (Pág. 63) SDS PLUS SHANK ADAPTER WITH CENTER DRILL L= 268 mm (Pag. 63) ADAPTATEUR QUEUE SDS-PLUS AVEC MÉCHE DE CENTRAGE L= 268 mm (Pág. 63)	POSIBLE POSSIBLE POSSIBLE
	1AS200	SDS-PLUS L= 200 mm (Pág. 66) SDS-PLUS SHANK ADAPTER L= 200 mm (Pag. 66) QUEUE SDS-PLUS L= 200 mm (Pág. 66)	POSIBLE POSSIBLE POSSIBLE
	1AH200	HEXAGONAL L=200 mm (Pág. 66) HEXAGONAL SHANK ADAPTER L=200 mm (Pag. 66) QUEUE HEXAGONAL L=200 mm (Pág. 66)	POSIBLE POSSIBLE POSSIBLE
> 200 mm	1AC268	SDS-PLUS CON BROCA CENTRADORA L= 268 mm (Pág. 63) SDS PLUS SHANK ADAPTER WITH CENTER DRILL L= 268 mm (Pag. 63) ADAPTATEUR QUEUE SDS-PLUS AVEC MÉCHE DE CENTRAGE L= 178 mm (Pág. 63)	✓
	1AS200	SDS-PLUS L= 200 mm (Pág. 66) SDS-PLUS SHANK ADAPTER L= 200 mm (Pag. 66) QUEUE SDS-PLUS L= 200 mm (Pág. 66)	✓
	1AH200	HEXAGONAL L=200 mm (Pág. 66) HEXAGONAL SHANK ADAPTER L=200 mm (Pag. 66) QUEUE HEXAGONAL L=200 mm (Pág. 66)	✓

RECOMENDACIONES DE USO PARA PROLONGADORES SDS-PLUS Y HEXAGONALES PARA CORONAS M16

USAGE RECOMMENDATIONS FOR SDS-PLUS EXTENSIONS AND HEX SOCKETS FOR M16 DRILL BITS • RECOMMANDATIONS D'UTILISATION POUR RALLONGES SDS-PLUS ET HEXAGONALES POUR COURONNES M16

PROFUNDIDAD DEPTH PROFONDEUR	ADAPTADOR RECOMENDADO RECOMENDED SHANK ADAPTER ADAPTATEUR RECOMMANDÉ	
> 200 mm	1AC418 SDS-PLUS CON BROCA CENTRADORA L= 418 mm (Pág. 63) SDS PLUS SHANK ADAPTER WITH CENTER DRILL L= 418 mm (Pag. 63) ADAPTATEUR QUEUE SDS-PLUS AVEC MÊCHE DE CENTRAGE L= 418 mm (Pág. 63)	
	1AS350 SDS-PLUS L= 350 mm (Pág. 66) SDS-PLUS SHNAK ADAPTER L= 350 mm (Pag. 66) QUEUE SDS-PLUS L= 350 mm (Pág. 66)	
	1AH350 HEXAGONAL L=350 mm (Pág. 66) HEXAGONAL SHANK ADAPTER L=350 mm (Pag. 66) QUEUE HEXAGONAL L=350 mm (Pág. 66)	



Siempre que necesitemos taladrar con alargadores de más de 200 mm de largo, deberemos utilizar un taladrado previo con los adaptadores de menor longitud, a fin de evitar roturas derivadas de las tensiones que se producen en el mismo. De esta forma se aumenta la vida útil tanto del alargador como de la corona. No seguir estas recomendaciones se considerará como utilización inadecuada del producto, perdiendo la cobertura de la garantía.

Whenever you need to drill with extensions more than 200 mm in length, you must pre-drill with adapters of lesser length in order to avoid breakage caused by the stresses that such drilling will cause. This increases the service life of both the extension and the drill bit. Failure to follow these recommendations will be considered improper use of the product, invalidating the warranty coverage.

Lorsque vous devez percer avec des rallonges de plus de 200 mm de long, il faut utiliser une perceuse au préalable avec les adaptateurs de moindre longueur afin d'éviter des cassures dérivées des tensions. Ainsi, il est possible d'augmenter la vie utile aussi bien de la rallonge que de la couronne. Ne pas suivre ces recommandations sera considéré comme une utilisation on adaptée du produit, ce dernier perdra donc la couverture de la garantie.



ADAPTADOR SDS-PLUS PARA CORONA M16

SDS-PLUS SHANK ADAPTER FOR M16 HOLE SAW • QUEUE SDS-PLUS POUR TRÉPAN M16



L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
100	1	1AS100	34,10
200	1	1AS200	52,45
350	1	1AS350	70,44



NOTA: No se recomienda el uso del adaptador de 350 mm con coronas mayores de 45 mm de diámetro. / Not recommended adapter of 350 mm for more than 45 mm diameter hole saws. / Adaptateur 350 mm non recommandé avec trépan supérieures à 45 mm.

NOTA: Para realizar un trabajo de diámetro mayor a 45 mm se recomienda el uso del sistema SDS-MAX. / For diameters bigger than 45 mm, SDS-MAX system recommended / Pour des travaux supérieures à 45 mm, système recommandé SDS-MAX.

ADAPTADOR MANGO HEXAGONAL PARA CORONA M16

HEXAGONAL SHANK ADAPTER FOR M16 HOLE SAW • QUEUE HEXAGONALE POUR TRÉPAN M16



L1 (mm)	∅ (mm)	Uds. / Pcs.	Cod.	€/Unid.
80	11	1	1AH080	30,04
200	11	1	1AH200	37,61
350	11	1	1AH350	50,95



BROCA DE CENTRAR PARA CORONA M16

CENTRE DRILL BIT FOR M16 HOLE SAW • FORET DE CENTRAGE POUR TRÉPAN M16

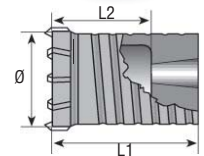
L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8x120	1	1AP09120	7,29



CORONA SISTEMA 1:8 PARA TRABAJOS INTENSIVOS

1:8 SYSTEM INTENSIVE USE HOLE SAW

TRÉPAN SYSTÈME 1:8 POUR DES TRAVAUX INTENSIFS



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Z	Cod.	€/Unid.
35,00	100	75	1	6	1CC035	128,36
40,00	100	75	1	6	1CC040	131,22
45,00	100	75	1	6	1CC045	138,28
50,00	100	75	1	6	1CC050	143,02
60,00	100	75	1	6	1CC060	178,27
66,00	100	75	1	6	1CC066	179,15
80,00	100	75	1	8	1CC080	204,00
90,00	100	75	1	8	1CC090	237,58
100,00	100	75	1	8	1CC100	274,17



Adaptador
Adapter
Adaptateur










Cuña
Wedge
Cale

Broca Centradora
Center Drill
Foret de Centrage

Corona
Hole Saw Core
Trépan

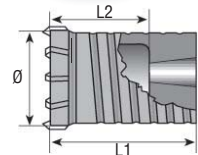
ADAPTADOR SISTEMA 1:8 PARA TRABAJOS INTENSIVOS
 1:8 SYSTEM ADAPTER • ADAPTATEURS SYSTÈME 1:8


Entrada cónica 1:20 / Tapper insert 1:20 / Entrée conique 1:20

		USO NORMAL / NORMAL USING UTILISATION HABITUELLE				
		Anclaje Shank	L1 (mm)	Uds. Pcs.	Cod.	€/Unid.
Adaptador / Adapter / Adaptateur						
		SDS-MAX	250	1	1AB3210	85,74
		ESTRIADO	250	1	1AB4210	89,38
Broca Centradora / Center Drill Foret de Centrage						
		-	12 x 135	1	1AB6135	15,66
Cuña / Wedge / Cale						
		-	-	1	1ABCU01	19,74

Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

CORONA SISTEMA RL PARA INSTALACIÓN DE AIRE ACONDICIONADO
SPECIAL RL SYSTEME FOR AIR CONDITIONING INSTALLATION
SYSTÈME SPÉCIAL RL POUR L'INSTALLATION DE CLIMATISATION



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Z	Cod.	€/Unid.
50,00	105	80	1	8	RL0050	109,31
55,00	105	80	1	8	RL0055	115,74
60,00	105	80	1	12	RL0060	122,17
65,00	105	80	1	12	RL0065	128,58

Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

ADAPTADOR SDS-PLUS
SDS-PLUS ADAPTER • ADAPTATEUR SDS-PLUS



L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
105	1	RL2105	38,58
300	1	RL2300	74,59



Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

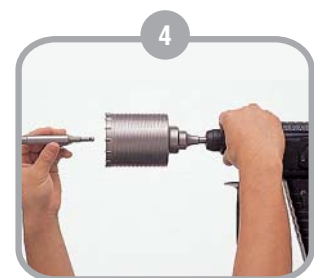
PUNZÓN GUÍA
PUNCH GUIDE • POINÇON GUIDE

Uds. / Pcs.	Cod.	€/Unid.
1	RL3003	38,75



Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

MODO DE EMPLEO USING GUIDE • UTILISATION



- Introducir el adaptador en la corona.
• Insert the adapter on the hole saw.
• Introduire l'adaptateur dans le trépan.
- Con una presión suave, introducir el punzón en el adaptador.
• Fix the punch guide softly on the adapter.
• Fixez le poinçon guide dans l'adaptateur doucement.
- Corona lista para realizar el trabajo.
• Hole saw ready to work.
• Trépan préparé pour réaliser le travail.
- Después de taladrar 5 mm, sacar el punzón y continuar el trabajo.
• After drilling 5 mm, pull off the punch guide and continue working.
• Après percer 5 mm, enlever le poinçon et continuer le travail.

CORONA UNIVERSAL
 UNIVERSAL HOLE SAW CORE • TRÉPAN UNIVERSEL


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
33,00	65	55	1	1CU033	15,16
53,00	65	55	1	1CU053	16,22
67,00	65	55	1	1CU067	18,18
73,00	65	55	1	1CU073	21,63
83,00	65	55	1	1CU083	26,02

ACCESORIOS
 ACCESSORIES • ACCESSOIRES

L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
Plato de Sujeción / Locating Plate / Base Pour Fixer Le Trépan			
33-83	1	1AP10	16,82
Broca Centradora / Center Drill / Foret Centrage			
9,00	1	1AP09	7,70



Revoluciones Máximas Recomendadas: 1.500 R.P.M. / Maximum Recommended Speed: 1.500 R.P.M. / Maximum Vitesse Recommandée: 1.500 R.P.M.

NOTA: Los accesorios se venden por separado / Los accesorios se venden por separado / Los accesorios se venden por separado

SISTEMA S94 *S94 SYSTEM • SYSTÈME S94*

Para taladrados en profundidades de hasta 2 metros / *Drilling dept up to 2 metres. / Pour perçages jusqu'à 2 mètres de profondeur*
Rango de diámetros desde 35 mm a 150 mm / *Range of diameters from 35 mm. to 150 mm. / Niveau de diamètres entre 35 mm et 150 mm*



ADAPTADORES SISTEMA S94
S94 SYSTEM ADAPTERS
ADAPTATEURS SYSTÈME S94

CORONA
HOLE SAW
TRÉPAN

BROCA DE CENTRAR
CENTRE DRILL BIT
FORET DE CENTRAGE



ADAPTADORES SISTEMA S94
S94 SYSTEM ADAPTERS
ADAPTATEURS SYSTÈME S94

PROLONGADORES
EXTENSION
PROLONGATEURS

HÉLICES EXTRACTORA S94
S94 SCREW EXTRACTORS
HÉLICE D'EXTRACTION

BROCA TIPO P
P TYPE DRILL BIT
FORET TYPE P

BROCA DE CENTRAR
CENTRE DRILL BIT
FORET DE CENTRAGE



ADAPTADORES SISTEMA S94
S94 SYSTEM ADAPTERS
ADAPTATEURS SYSTÈME S94

PROLONGADORES
EXTENSION
PROLONGATEURS

HÉLICES EXTRACTORA S94
S94 SCREW EXTRACTORS
HÉLICE D'EXTRACTION

PROLONGADORES
EXTENSION
PROLONGATEURS



HÉLICES EXTRACTORA S94
S94 SCREW EXTRACTORS
HÉLICE D'EXTRACTION

BROCA TIPO S
S TYPE DRILL BIT
FORET TYPE S

BROCA DE CENTRAR
CENTRE DRILL BIT
FORET DE CENTRAGE

CORONA HOLE SAW • TRÉPAN



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
40,00	100	70	1	1CI040	157,55
50,00	100	70	1	1CI050	175,67
65,00	100	70	1	1CI065	211,26
80,00	100	70	1	1CI080	247,36

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
90,00	100	70	1	1CI090	285,19
100,00	100	70	1	1CI100	330,60
110,00	100	70	1	1CI110	350,79
125,00	100	70	1	1CI125	492,83

BROCA TIPO S S TYPE DRILL BIT • FORET TYPE S



Ø (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
35,00	3	1	1S94S035	247,45
42,00	3	1	1S94S042	299,65
45,00	3	1	1S94S045	329,68
52,00	3	1	1S94S052	374,71
55,00	3	1	1S94S055	376,44
60,00	4	1	1S94S060	434,94
65,00	4	1	1S94S065	509,63
70,00	4	1	1S94S070	540,04

Ø (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
80,00	4	1	1S94S080	577,27
90,00	6	1	1S94S090	666,80
100,00	6	1	1S94S100	719,38
110,00	6	1	1S94S110	899,02
125,00	6	1	1S94S125	1.019,25
135,00	6	1	1S94S135	1.371,27
150,00	6	1	1S94S150	1.513,23

BROCA TIPO P P TYPE DRILL BIT • FORET TYPE P



Ø (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
35,00	3	1	1S94P035	270,43
42,00	3	1	1S94P042	327,14
52,00	3	1	1S94P052	412,69
55,00	3	1	1S94P055	416,14
60,00	6	1	1S94P060	480,63
65,00	6	1	1S94P065	555,33

Ø (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
70,00	6	1	1S94P070	592,19
80,00	6	1	1S94P080	629,50
90,00	6	1	1S94P090	674,28
100,00	6	1	1S94P100	719,31
110,00	6	1	1S94P110	899,77
125,00	6	1	1S94P125	1.035,21

Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

BROCAS Y CORONAS SISTEMA S94












HOLE SAWS AND DRILL BITS FOR S94 SYSTEM
TRÉPANS ET FORETS PUOR SYSTÈME S94



ADAPTADORES SISTEMA S94

S94 SYSTEM ADAPTERS

ADAPTATEURS SYSTÈME S94

	Anclaje / Shank	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
	SDS-PLUS	110	1	1AI1110	126,22
	SDS-TOP*	190	1	1AI2190	132,08
	SDS-MAX	190	1	1AI3190	130,37
		400	1	1AI3400	144,04
		575	1	1AI3575	153,51
		975	1	1AI3975	232,37
	ESTRIADO	175	1	1AI4175	112,89
	Hitachi DH 38 YB DH 45 SA, H 41 SA, H 65 SB VRY38, DH 28 Y, Maki-ta 8022B-8035B Ryobi CH 450 P, ER 382 K	170	1	1AI5170	135,59
	Duss P20 - P30 - P60 - P90 P80, PK 100	210	1	1AI6210	135,59
	Kango 950; 950x 900x, 928 1400	200	1	1AI7200	135,59
	Wacker E HUB 10 Y EH8/220, BHB 14	185	1	1AI8185	135,59

*Hasta fin de existencias / Until end of stock / Jusqu'à fin de stocks

PROLONGADORES

EXTENSION • PROLONGATEURS

Uso con / Using with	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
	300	1	1PR300	187,35
	450*	1	1PR400	213,13

*Utilizar con hélice extractora S94 Pag. 74 / Use with S94 screw extractor Pag.74 / Utiliser l'hélice d'extraction S94 Pag. 74

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

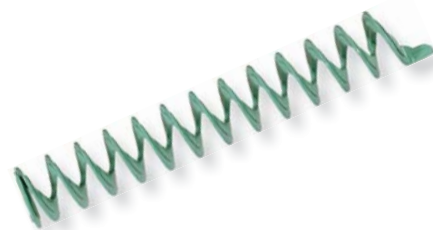
HÉLICES EXTRACTORAS S94

S94 SCREW EXTRACTORS • HÉLICES D'EXTRACTION S94

Ø (mm)	Rango / Range	Uds. / Pcs.	Cod.	€/Unid.
42,00	Tipo S y P	1	1S94H01	105,02
45,00	Tipo S	1	1S94H02	122,62
52,00 - 55,00 - 60,00	Tipo S y P	1	1S94H03	174,63
65,00 - 70,00	Tipo S	1	1S94H04	283,40
80,00	Tipo S	1	1S94H05	524,45

Hasta fin de existencias / Until end of stock / Jusqu'à fin de stocks




Ø (mm)	Rango / Range	Uds. / Pcs.	Cod.	€/Unid.
32,00	32 - 45	1	1S94H06	148,55
47,00	52 - 60	1	1S94H07	193,83
63,00	64 - 70	1	1S94H08	236,20
78,00	80 - 150	1	1S94H09	327,15



BROCA DE CENTRAR

CENTRE DRILL BIT • FORET DE CENTRAGE



Uso con / Using with	L1 (mm)	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
	12,00	155	1	1BC12155	43,28
	16,00	124	1	1BC16124	43,28
	16,00	174	1	1BC16174	46,52

ELEMENTO DE UNIÓN THREADED BOLT • ÉLÉMENT D'UNION

Uds. / Pcs.	Cod.	€/Unid.
1	1EU001	27,27



GRASA PARA ROSCA 120 GR

THREAD GREASE 120 GR • GRAISSE 120 GR

Uds. / Pcs.	Cod.	€/Unid.
1	1GR001	12,00



CONSTRUCCIÓN B5B-S10
CONSTRUCTION B5B-S10 • CONSTRUCTION B5B-S10



Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
115	22,23	1	1130115022	18,06
125	22,23	1	1130125022	21,40



Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
180	22,23	1	1130180022	43,63
230	22,23	1	1130230022	45,94



CONSTRUCCIÓN FÓRMULA 1
CONSTRUCTION FORMULA 1 • CONSTRUCTION FORMULA 1



Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
115	22,23	1	1160115022	80,53
125	22,23	1	1160125022	92,36
150	22,23	1	1160150022	139,74



Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
180	22,23	1	1160180022	163,43
230	22,23	1	1160230022	195,77



TG SUPER THIN PORCELANATO
TG SUPER THIN PORCELANICS • TG SUPER THIN CARRELAGE



Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
115	22,23	1	1500115022	57,39
115	22,23	1	1500115022 FL*	71,74
125	22,23	1	1500125022	80,53
125	22,23	1	1500125022 FL*	98,04



Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
150	22,23	1	1500150022	108,95
180	22,23	1	1500180022	139,74
230	22,23	1	1500230022	201,33



*FL: Alma reforzada (evita holguras en máquinas desgastadas) / *FL: Reinforced core (avoids looseness in worn machines) / *Ame renforcée (évite le jeu sur les machines usées)

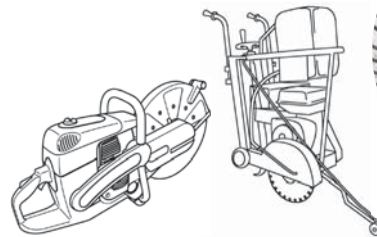
CANTERO TITAN TURBO-I
STONE TITAN TURBO-I • TITAN TURBO-I POUR PIERRE



Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
115	22,23	1	1520115022	90,00
125	22,23	1	1520125022	108,95
150	22,23	1	1520150022	151,58

Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
180	22,23	1	1520180022	184,75
230	22,23	1	1520230022	208,43

TITAN TURBO-II PARA CORTADORA
TITAN TURBO-II FOR LIGHTWEIGHT FLOOR SAWS
TITAN TURBO-II POUR SCIES Á CHARIOT



Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
300	20,00	1	1530300020	352,91
300	22,23	1	1530300022	352,91
300	25,40	1	1530300025	352,91

Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
350	20,00	1	1530350020	468,96
350	22,23	1	1530350022	468,96
350	25,40	1	1530350025	468,96

SET DISCOS DE DIAMANTE 4+4 (B5B-S10 + TG SUPERTHIN)
DIAMOND DISCS SET 4+4 (B5B-S10 + TG SUPERTHIN)
COFFRET DISQUES DIAMANTÉS 4+4 (B5B-S10 + TG SUPERTHIN)

Calidad Quality	Ø (mm)	Eje	Uds. Pcs.	Cod.	€/Unid.
B5B-S10	115	22,23	4	K1101150	297,51
TGSUPERTHIN	115	22,23	4		



PLATOS DIAMANTADOS

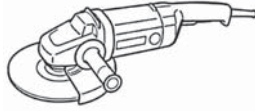
GRINDING WHEELS • MEULES POUR DÉGROSSISSEMENT



PLATO DIAMANTADO HORMIGÓN

GRINDING WHEELS FOR CONCRETE

MEULE POUR DÉGROSSISSEMENT POUR BÉTON



Ø (mm)	Conexión	Uds. / Pcs.	Cod.	€/Unid.
100	M14	1	213010001400	234,48
125	M14	1	213012501400	329,22

PLATO DIAMANTADO PIEDRA NATURAL

GRINDING WHEELS FOR NATURAL STONE

MEULE POUR DÉGROSSISSEMENT POUR PIERRE NATURELLE



Ø (mm)	Conexión	Uds. / Pcs.	Cod.	€/Unid.
100	M14	1	214010001400	281,86
125	M14	1	214012501400	376,59

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

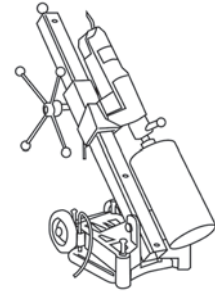
CORONAS PERFORACIÓN DIAMANTE B.K.1

B.K.1 DIAMOND DEEP DRILLING HOLE SAWS

TRÉPAN POUR CARROTAGE B.K.1



INSERCIÓN ROSCA INTERNA 1/2" GAS
INTERNAL THREAD 1/2" GAS
FILET 1/2" GAS



SEGMENTADO / SEGMENTS

Ø (mm)	Long. / Length (mm)	Z	Largo / Long (mm)	Ancho / Width (mm)	Altura / Height (mm)	Uds. / Pcs.	Cod.	€/Unid.
22	300	1	-	2,00	8,00	1	6010022	176,37
25	300	1	-	2,00	8,00	1	6010025	184,22
32	300	4	17,00	3,00	8,00	1	6010032	200,29
35	300	3	25,00	3,50	8,00	1	6010035	203,53
42	300	4	25,00	3,50	10,00	1	6010042	222,86
52	300	5	25,00	3,50	10,00	1	6010052	239,53
62	400	5	25,00	3,50	10,00	1	6010062	274,45

ADAPTADOR ADAPTOR • ADAPTATEUR

NEW



Conversión / Conversion / Conversion

De 1/2" GAS a HILTI
from 1/2" GAS to HILTI / de 1/2" GAS a HILTI

Uds. Pcs. Cod. €/Unid.

1 601605 402,91

CORONAS PERFORADORAS DIAMANTE

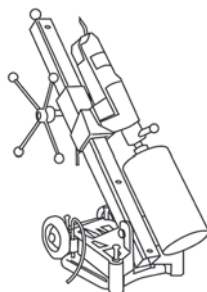
DIAMOND DEEP DRILLING HOLE SAWS
TRÉPAN POUR CARROTAGE B.K.1A



CORONAS PERFORACIÓN DIAMANTE B.K.2

B.K.2 DIAMOND DEEP DRILLING HOLE SAWS
TRÉPAN POUR CARROTAGE B.K.2

INSERCIÓN ROSCA INTERNA 1 1/4" UNC
INTERNAL THREAD 1.1/4"
FILET 1.1/4" UNC



SEGMENTADO / SEGMENTS

Ø (mm)	Long. / Length (mm)	Z	Largo / Long (mm)	Ancho / Width (mm)	Altura / Height (mm)	Uds. / Pcs.	Cod.	€/Unid.
52	400	5	25,00	3,50	10,00	1	6050052	237,30
57	400	5	25,00	3,50	10,00	1	6050057	248,82
62	400	5	25,00	3,50	10,00	1	6050062	271,86
72	400	6	25,00	3,50	10,00	1	6050072	306,42
82	400	7	25,00	3,50	10,00	1	6050082	343,28
92	400	8	25,00	3,50	10,00	1	6050092	389,37
102	400	9	25,00	4,00	10,00	1	6050102	412,34
112	400	9	25,00	4,00	10,00	1	6050112	458,48
122	400	10	25,00	4,00	10,00	1	6050122	529,89
132	400	10	25,00	4,00	10,00	1	6050132	529,89
162	400	12	25,00	4,00	10,00	1	6050162	675,05
230	400	17	25,00	4,00	10,00	1	6050230	1098,43

ADAPTADOR ADAPTOR • ADAPTATEUR **NEW**



Conversión / Conversion / Conversion

Uds. Pcs.

Cod.

€/Unid.

De 1" 1/4 UNC a HILTI
from 1" 1/4 UNC to HILTI / de 1" 1/4 UNC a HILTI

1

601605

402,91

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS





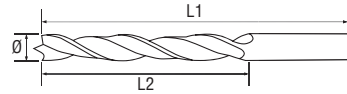
MAADERA

WOOD
BOIS



BROCA 3 PUNTAS: BLISTER RÍGIDO

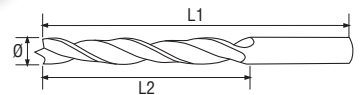
BRAND POINT DRILL BIT: RIGID PLASTIC BLISTER • FORET 3 POINTES: BLISTER RIGIDE A PLASTIQUE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	70	46	1	102003BL	1,05
4,00	80	52	1	102004BL	1,09
5,00	90	60	1	102005BL	1,13
6,00	100	66	1	102006BL	1,18
8,00	120	80	1	102008BL	1,58
10,00	133	90	1	102010BL	1,96
12,00	155	102	1	102012BL	2,64

BROCA 3 PUNTAS USO GENERAL SERIE CORTA

STANDARD BRAD POINT DRILL BIT • FORET 3 POINTES STANDARD



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	70	46	1	102003	0,61
4,00	80	52	1	102004	0,68
5,00	90	60	1	102005	0,76
6,00	100	66	1	102006	1,01
7,00	110	72	1	102007	1,17
8,00	120	80	1	102008	1,43
9,00	130	87	1	102009	1,64
10,00	133	90	1	102010	1,77
11,00	150	100	1	102011	2,12

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,00	155	102	1	102012	2,40
13,00	160	102	1	102013	2,50
14,00	160	102	1	102014	2,73
15,00	165	107	1	102015	3,07
16,00	165	107	1	102016	3,77
18,00	200	130	1	102018	4,87
20,00	200	130	1	102020	6,25
22,00	200	130	1	102022	7,74

ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA

 COMBINED SET METAL-CONSTRUCTION-WOOD
 COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

BASIC BOX (9 UDS. / PCS.)

Contenido / Contents / Composition				Medidas / Sizes	Cod.	€/Unid.		
HSS WHITE	HSS	+	BASIC	+	MADERA	5 - 6 - 8 mm	19CB339	16,94



STANDARD BOX (9 UDS. / PCS.)

Contenido / Contents / Composition				Medidas / Sizes	Cod.	€/Unid.		
HSS G	HSS-G	+	GRANITO	+	MADERA	5 - 6 - 8 mm	19CM339	23,41



ADVANCE BOX (9 UDS. / PCS.)



Contenido / Contents / Composition				Medidas / Sizes	Cod.	€/Unid.		
HSS CO	HSS-CO 5%	+	TORNADO	+	MADERA	5 - 6 - 8 mm	19CA339	32,41

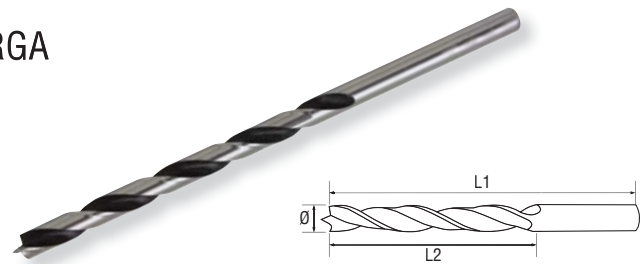


ESTUCHE BROCAS 3 PUNTAS
BRAD POINT DRILL BIT SET
COFFRET FORET 3 POINTES STANDARD

Ref.	Ø (mm)	
333	3 - 10 x 1,0 mm	
Uds. / Pcs.	Cod.	€/Unid.
8	196333	15,36



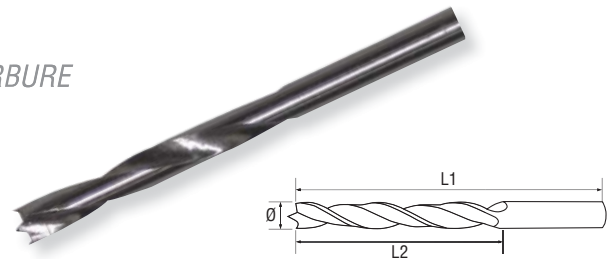
BROCA 3 PUNTAS USO GENERAL SERIE LARGA
STANDARD BRAD POINT DRILL BIT LONG SERIE
ORET 3 POINTES STANDARD SÉRIE LONGUE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	245	160	1	1021L06	2,50
7,00	245	160	1	1021L07	2,82
8,00	245	160	1	1021L08	3,21
9,00	245	160	1	1021L09	3,45
10,00	245	160	1	1021L10	3,92
11,00	245	200	1	1021L11	4,70
12,00	245	200	1	1021L12	4,87

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
13,00	245	200	1	1021L13	5,09
14,00	245	200	1	1021L14	5,71
15,00	245	200	1	1021L15	6,34
16,00	245	200	1	1021L16	7,36
18,00	245	200	1	1021L18	8,17
20,00	245	200	1	1021L20	10,73

BROCA 3 PUNTAS METAL DURO SERIE CORTA
HARD METAL POINT DRILL BIT • FORET 3 POINTES AU CARBURE

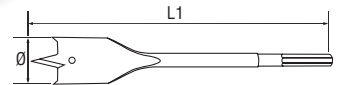


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	76	32	1	10240300	4,51
4,00	76	35	1	10240400	4,95
5,00	87	50	1	10240500	4,99

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	100	57	1	10240600	5,46
8,00	103	60	1	10240800	5,69
10,00	103	60	1	10241000	6,45

TOPES DE PROFUNDIDAD PARA BROCAS
 DEPTH ADJUSTING COLLAR • BUTÉES DE PERÇAGE


Ø (mm)	Gama de medidas / Range (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,50	De 2,0 a 3,5	1	Y10035	3,95
5,00	De 4,0 a 5,0	1	Y10050	4,52
6,50	De 5,5 a 6,5	1	Y10065	5,38
8,00	De 7,0 a 8,0	1	Y10080	5,38
10,00	De 8,5 a 10,0	1	Y10100	5,38
12,00	De 10,5 a 12,0	1	Y10120	5,38

BROCA PALA TIPO B FLAT DRILL BIT TYPE B • MÉCHE PLATE TYPE B


Ø (mm)	L1 (mm)	Uds. Pcs.	Cod.	€/Unid.
6,00	157	1	103006	1,88
8,00	157	1	103008	1,88
10,00	157	1	103010	1,99
12,00	157	1	103012	2,39
14,00	157	1	103014	2,65
15,00	157	1	103015	2,65
16,00	157	1	103016	2,69
17,00	157	1	103017	2,81
18,00	157	1	103018	2,85
19,00	157	1	103019	2,93
20,00	157	1	103020	3,10
22,00	157	1	103022	3,62

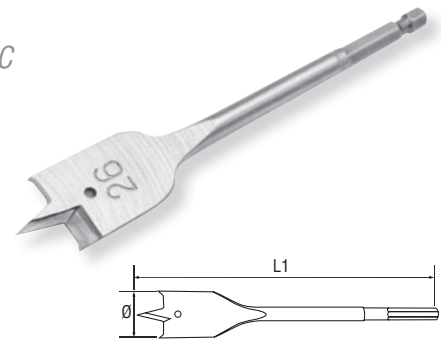
Ø (mm)	L1 (mm)	Uds. Pcs.	Cod.	€/Unid.
24,00	157	1	103024	3,97
25,00	157	1	103025	4,13
26,00	157	1	103026	4,39
28,00	157	1	103028	4,74
30,00	157	1	103030	4,94
32,00	157	1	103032	5,07
33,00	157	1	103033	5,51
34,00	157	1	103034	5,71
35,00	157	1	103035	6,46
36,00	157	1	103036	6,54
38,00	157	1	103038	6,89
40,00	157	1	103040	7,23

ESTUCHE BROCAS PALA TIPO B
 FLAT DRILL BIT SET TYPE B • COFFRET MÉCHE PLATE TYPE B

Ref.	Medidas / Sizes	Tipo / Type	€/Unid.
PB13	6-8-10-12-13-14-16-18-19-20-22-24-25	B	36,44



BROCA PALA TIPO C *FLAT DRILL BIT TYPE C • MÉCHE PLATE TYPE C*



Ø (mm)	L1 (mm)	Uds. Pcs.	Cod.	€/Unid.
6,00	152	1	103C06	2,15
8,00	152	1	103C08	2,15
9,00*	152	1	103C09	2,23
10,00	152	1	103C10	2,39
11,00	152	1	103C11	2,58
12,00	152	1	103C12	2,72
13,00	152	1	103C13	2,77
14,00	152	1	103C14	2,91
15,00	152	1	103C15	3,12
16,00	152	1	103C16	3,17
18,00	152	1	103C18	3,25
19,00	152	1	103C19	3,35
20,00	152	1	103C20	3,47
22,00	152	1	103C22	3,71

Ø (mm)	L1 (mm)	Uds. Pcs.	Cod.	€/Unid.
23,00	152	1	103C23	4,01
24,00	152	1	103C24	4,18
25,00	152	1	103C25	4,61
26,00	152	1	103C26	4,77
28,00	152	1	103C28	5,27
30,00	152	1	103C30	5,57
32,00	152	1	103C32	5,82
33,00	152	1	103C33	6,05
34,00	152	1	103C34	6,27
35,00	152	1	103C35	6,58
36,00	152	1	103C36	6,94
38,00	152	1	103C38	7,31
40,00	152	1	103C40	7,59

*Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks

ESTUCHE BROCAS PALA TIPO C
FLAT DRILL BIT SET TYPE C • COFFRET MÉCHE PLATE TYPE C

Ref.	Medidas / Sizes	Tipo / Type	€/Unid.
PC13	6-8-10-12-13-14-16-18-19-20-22-24-25	C	40,83



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

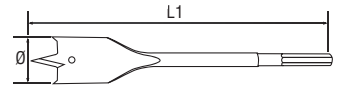
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BROCA PALA EXTENSIBLE
ADJUSTABLE FLAT DRILL BIT • MÊCHE PLATE EXTENSIBLE



Ø (mm)	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
*15 - 45	120	1	1201031545	50,53
*22 - 76	155	1	1201032276	85,28

*Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks

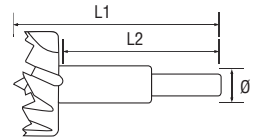
ALARGADOR PARA BROCA PALA
FLAT DRILL BIT EXTENSION • RALLONGE POUR MÊCHE PLATE



Entrada Inlet (mm)	Mango Shank (mm)	L1 (mm)	Uds. Pcs.	Cod.	€/Unid.
Hex. 1/4"	Hex. 1/4"	305	1	UL00334	18,58

BROCA PARA ENCAJE DE BISAGRAS PUNTA Y PRECORTADORES DE MD

FORSTNER TYPE WITH HM TIPS
MÈCHE À FAÇONNER AU CARBURE

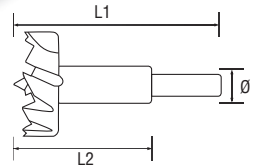


Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
20,00	90	8	1	102120	18,32
25,00	90	8	1	102125	21,04
26,00	90	8	1	102126	23,97

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
30,00	90	8	1	102130	25,38
35,00	90	10	1	102135	29,21
40,00	90	10	1	102140	31,32

BROCA PARA ENCAJE DE BISAGRAS FORSTNER HSS AFILADO ESPECIAL

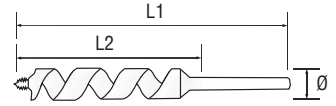
FORSTNER TYPE WITH HSS SPECIAL CUT
MÈCHE À FAÇONNER FORSTNER HSS AFILAGE SPÉCIAL



Ø (mm)	L1 (mm)	L2 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
15,00	90	57	8	1	12011015	41,70
16,00	90	57	8	1	12011016	41,70
18,00	90	57	8	1	12011018	41,70
20,00	90	57	8	1	12011020	41,70
22,00	90	57	8	1	12011022	41,70
25,00	90	57	8	1	12011025	43,44

Ø (mm)	L1 (mm)	L2 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
26,00	90	57	8	1	12011026	45,19
30,00	90	57	10	1	12011030	46,92
35,00	90	57	10	1	12011035	50,40
40,00	90	57	10	1	12011040	57,34
45,00	90	57	10	1	12011045	75,87
50,00	90	57	10	1	12011050	78,24

LEWIS LEWIS • LEWIS



Ø (mm)	L1 (mm)	L2 (mm)	Mango Ø	Uds./Pcs.	Cod.	€/Unid.
4,00	200	100	4	1	12010804200	15,45
5,00	200	100	5	1	12010805200	16,79
6,00	200	100	6	1	12010806200	16,48
7,00	200	100	7	1	12010807200	17,54
8,00	200	100	8	1	12010808200	16,51
8,00	300	220	8	1	12010808300	29,01
8,00	450	360	8	1	12010808450	31,05
10,00	200	100	10	1	12010810200	16,75
10,00	300	220	10	1	12010810300	29,01
10,00	450	360	10	1	12010810450	33,60
10,00	600	480	10	1	12010810600	52,87
12,00	200	100	10	1	12010812200	18,63
12,00	300	220	10	1	12010812300	30,90
12,00	450	360	10	1	12010812450	35,53
12,00	600	480	10	1	12010812600	54,58
14,00	200	100	10	1	12010814200	19,88
14,00	300	220	10	1	12010814300	34,72
14,00	450	360	10	1	12010814450	37,69
14,00	600	480	10	1	12010814600	59,19
16,00	200	100	10	1	12010816200	21,66
16,00	300	220	10	1	12010816300	37,06
16,00	450	360	10	1	12010816450	45,67
16,00	600	480	10	1	12010816600	62,57
18,00	200	100	13	1	12010818200	24,60
18,00	300	220	13	1	12010818300	41,33
18,00	450	360	13	1	12010818450	47,53

Ø (mm)	L1 (mm)	L2 (mm)	Mango Ø	Uds./Pcs.	Cod.	€/Unid.
18,00	600	480	13	1	12010818600	69,31
20,00	200	100	13	1	12010820200	24,99
20,00	300	220	13	1	12010820300	44,63
20,00	450	360	13	1	12010820450	49,65
20,00	600	480	13	1	12010820600	71,93
22,00	200	100	13	1	12010822200	28,35
22,00	300	220	13	1	12010822300	52,67
22,00	450	360	13	1	12010822450	55,58
22,00	600	480	13	1	12010822600	76,99
24,00	200	100	13	1	12010824200	32,29
24,00	300	220	13	1	12010824300	48,00
24,00	450	360	13	1	12010824450	60,58
24,00	600	480	13	1	12010824600	81,18
25,00	450	360	13	1	12010825450	60,80
26,00	200	100	13	1	12010826200	38,51
26,00	300	220	13	1	12010826300	62,02
26,00	450	360	13	1	12010826450	68,39
26,00	600	480	13	1	12010826600	85,53
28,00	200	100	13	1	12010828200	42,47
28,00	300	220	13	1	12010828300	70,46
28,00	450	360	13	1	12010828450	77,03
28,00	600	480	13	1	12010828600	96,76
30,00	200	100	13	1	12010830200	49,83
30,00	300	220	13	1	12010830300	82,76
30,00	450	360	13	1	12010830450	88,66
30,00	600	480	13	1	12010830600	108,71

BROCA PARA ENCOFRAR CILÍNDRICA
SHUTTERING STRAIGHT DRILL-BIT
FORET POUR COFFRAGE



DIN 7490



Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./Pcs.	Cod.	€/Unid.
8,00	400	100	8	1	12011108400	15,22
8,00	600	100	8	1	12011108600	15,65
8,00	800	100	8	1	12011108800	17,39
10,00	400	100	8	1	12011110400	16,96
10,00	600	100	8	1	12011110600	17,76
10,00	800	100	8	1	12011110800	19,93
12,00	400	100	10	1	12011112400	20,29
12,00	600	100	10	1	12011112600	21,16
12,00	800	100	10	1	12011112800	23,33
14,00	400	100	10	1	12011114400	23,41
14,00	600	100	10	1	12011114600	24,14
14,00	800	100	10	1	12011114800	26,38
16,00	400	100	10	1	12011116400	25,58
16,00	600	100	10	1	12011116600	26,09
16,00	800	100	10	1	12011116800	28,55

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./Pcs.	Cod.	€/Unid.
18,00	400	100	13	1	12011118400	33,77
18,00	600	100	13	1	12011118600	36,17
18,00	800	100	13	1	12011118800	40,00
20,00	400	100	13	1	12011120400	40,81
20,00	600	100	13	1	12011120600	42,54
20,00	800	100	13	1	12011120800	45,15
22,00	400	100	13	1	12011122400	48,62
22,00	600	100	13	1	12011122600	50,01
22,00	800	100	13	1	12011122800	52,55
24,00	400	100	13	1	12011124400	57,98
24,00	600	100	13	1	12011124600	62,10
24,00	800	100	13	1	12011124800	64,00
26,00	400	100	13	1	12011126400	69,08
28,00	400	100	13	1	12011128400	82,69
30,00	400	100	13	1	12011130400	96,89

BROCA PARA ENCOFRAR SDS-PLUS
SHUTTERING SDS-PLUS DRILL-BIT
FORET POUR COFFRAGE SDS-PLUS



DIN 7490



Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./Pcs.	Cod.	€/Unid.
10,00	400	100	10	1	12011210400	35,33
10,00	600	100	10	1	12011210600	36,05
12,00	400	100	10	1	12011212400	38,16
12,00	600	100	10	1	12011212600	39,16
12,00	800	100	10	1	12011212800	42,27
14,00	400	100	10	1	12011214400	31,60
14,00	600	100	10	1	12011214600	32,27
14,00	800	100	10	1	12011214800	36,58
16,00	400	100	10	1	12011216400	36,28
16,00	600	100	10	1	12011216600	36,58
16,00	800	100	10	1	12011216800	39,26
18,00	400	100	10	1	12011218400	54,43

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./Pcs.	Cod.	€/Unid.
18,00	600	100	10	1	12011218600	57,19
18,00	800	100	10	1	12011218800	61,78
20,00	400	100	10	1	12011220400	62,92
20,00	600	100	10	1	12011220600	64,67
20,00	800	100	10	1	12011220800	68,42
22,00	400	100	10	1	12011222400	72,86
22,00	600	100	10	1	12011222600	74,16
22,00	800	100	10	1	12011222800	76,60
24,00	400	100	10	1	12011224400	83,41
24,00	600	100	10	1	12011224600	89,14
24,00	800	100	10	1	12011224800	90,90

AVELLANADOR *COUNTERSINK • FRAISE À CHANFREINER*


Broca / Drill Bit Ø (mm)	Avellanador Countersink Bit Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
3,00	12,00	1	1201090312	7,06
4,00	12,00	1	1201090412	7,06
5,00	12,00	1	1201090512	7,06
6,00	12,00	1	1201090612	7,06
3,00	16,00	1	1201090316	9,03

Broca / Drill Bit Ø (mm)	Avellanador Countersink Bit Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
4,00	16,00	1	1201090416	9,03
5,00	16,00	1	1201090516	9,03
6,00	16,00	1	1201090616	9,03
8,00	16,00	1	1201090816	9,03

BROCA PARA ENSAMBLAJE
ASSEMBLING DRILLS • MÈCHE ÉTAGÉE POUR VIS D'ASSEMBLAGE

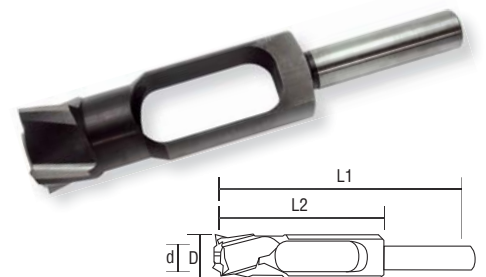

Ø (mm)	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
5 x 50	86	1	103J05	5,03
7 x 50	109	1	103K07	5,86

BARRENA *GIMLET • VRILLE*


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	106	32	1	12010302	8,19
3,00	112	34	1	12010303	9,67
4,00	137	40	1	12010304	12,76

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
5,00	142	46	1	10210305	13,58
6,00	162	49	1	12010306	16,39
8,00	162	63	1	12010308	19,35

Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks

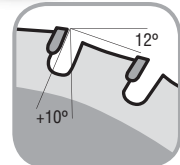
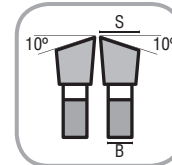
FRESA ESPECIAL TAPONES
PLUG CUTTER • MÈCHE À BOUCHONNER


d (mm)	D (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
10,00	20,00	140	112	1	12010710	32,77
12,00	23,00	140	135	1	12010712	38,69
15,00	27,00	140	160	1	12010715	51,03

Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks

DISCO PARA MADERA BASTA

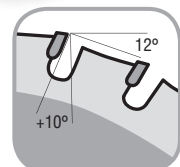
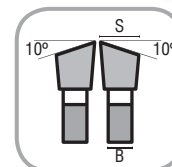
ROUGH WOOD CIRCULAR SAWBLADES
DISQUE POUR BOIS A TEXTURE GROSSIERE



Ø (mm)	S Grosor / Thickness (mm)	B Grosor / Thickness (mm)	Ø Eje / Shaft (mm)	Z	Cod.	€/Unid.
250	3,2	2,2	30	60	2DM25060	55,71
300	3,2	2,2	30	72	2DM30072	63,93

DISCO PARA MADERA FINA

FINE WOOD CIRCULAR SAWBLADES
DISQUE POUR BOIS A TEXTURE FINE

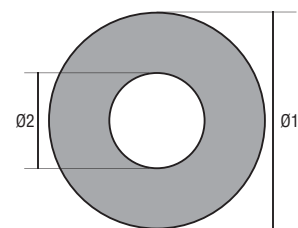


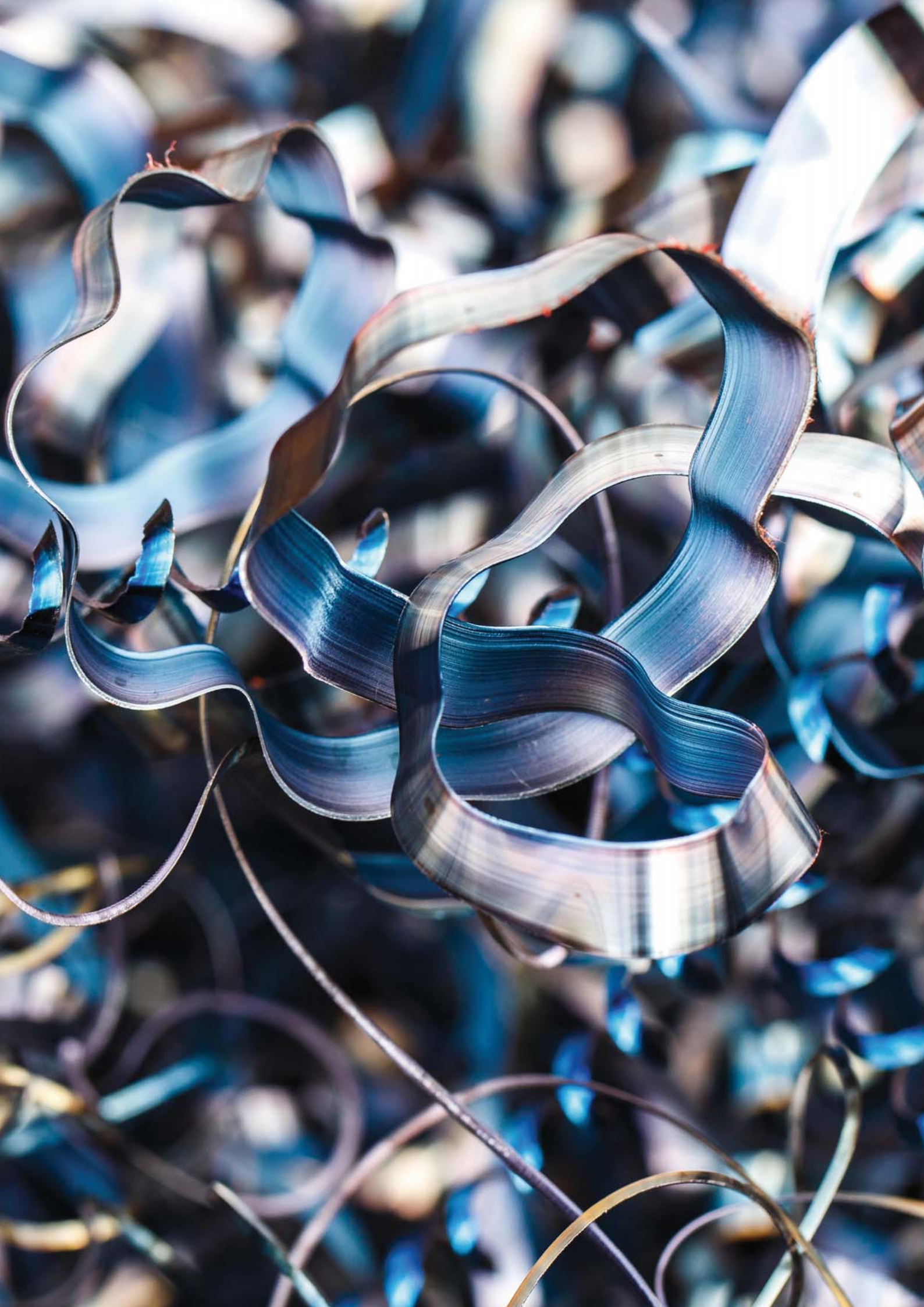
Ø (mm)	S Grosor / Thickness (mm)	B Grosor / Thickness (mm)	Ø Eje / Shaft (mm)	Z	Cod.	€/Unid.
250	3,2	2,2	30	80	2DM25080	60,34
300	3,2	2,2	30	96	2DM30096	75,51

ANILLOS REDUCTORES

REDUCTIONS RINGS • BAGUES DE RÉDUCTION

Ø1 / Ø2 (mm)	Cod.	€/Unid.
30 / 25	2DR3025	4,34
30 / 20	2DR3020	4,34
30 / 18	2DR3018	4,34
30 / 16	2DR3016	4,34





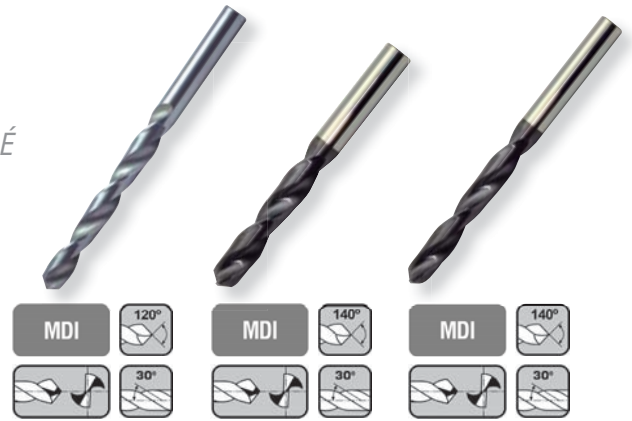


METAL

METAL
MÉTAL



TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS

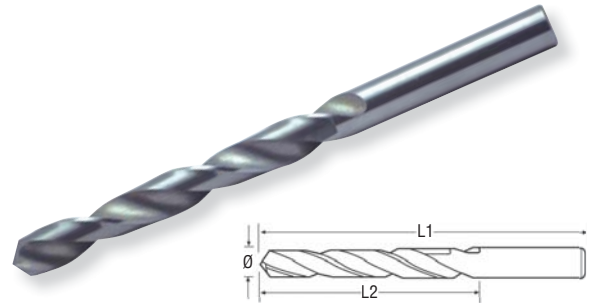
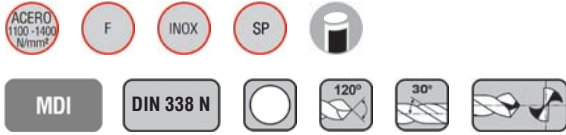
 APPLICATION GUIDE AND CUTTING SPEED
 TABLE D'APPLICATIONS ET VITESSE DE COUPE RECOMMANDÉ


MATERIAL / MATERIAL / MATIERE	Resistencia / Resistance Resistance N/mm ²	DIN 338 MDI Pág. 95	DIN 6537K - 3XØ MD Pág. 96	DIN 6537L - 5XØ MD Pág. 97
ACEROS STEELS • ACIERS	Decoletaje <i>Machining • Décolletage</i>	<500	70-80	80-90
	Carbono <0,4% <i><0,4% Carbon • Carbon <0,4%</i>	<850	55-70	60-80
	Acero para herramientas <i>Steel for tools • Acier pour outils</i>	<1200	50-60	55-70
	Templado - Revenido <i>Tempered - Quenched • Trempé - Revenu</i>	<1400	30-40	34-45
ACEROS INOXIDABLES STAINLESS STEEL ACIER INOXYDABLE	Austeníticos Cr-Ni <i>Cr-Ni Austenitics • Cr-Ni austenitique</i>	<850	22-27	25-30
	Martensíticos Cr-Mo <i>Cr-Mo Martensitics • Cr-Mo martensitique</i>	<1200	22-27	25-30
FUNDICIÓN CAST IRON • FONTE	Fundición gris <i>Grey cast iron • Fonte grise</i>	<700	70-90	80-100
	Fundición dura <i>Hard cast iron • Fonte dur</i>	<1000	-	-
ALUMINIO ALUMINIUM • ALUMINIUM	Puro <i>Pure • Pure</i>	<350	150-180	170-200
	Si < 10%	<600	150-150	170-170
	Si > 10%	<600	120-150	135-170
	Zamak <i>Zamak • Zamak</i>	<600	160-160	180-180
COBRE COPPER • CUIVRE	Bronce <i>Bronze • Bronze</i>	<350		
	Cobre viruta larga <i>Long chip copper • Cuivre coupage long</i>	<700	35-70	50-80
	Cobre viruta corta <i>Short chip copper • Cuivre coupage court</i>	<700	37-70	40-80
	Latón duro <i>Hard Brass • Laiton dur</i>	<700	120-120	135-135
	Latón tenaz <i>Tough Brass • Laiton tenace</i>	<700	70-70	80-80
TITANIO TITANIUM • TITANE	Puro <i>Pure • Pure</i>	<700		
	Aleaciones de Titanio <i>Titanium alloys • Alliages de titane</i>	<1200		
SINTÉTICOS PLASTICS • PLASTIQUES	Termoplásticos <i>Thermoplastics • Thermoplastique</i>	-		
	Duroplásticos <i>Hard-plastics • Duroplastique</i>	-		
HARDOX	Hardox 500	<1650		25-40
	Hardox 550	<1900		15-35
	Hardox 600	<2200		15-25

M/DURO INTEGRAL DIN 338 N

DIN 338 N HM

DIN 338 N HM



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	49	24	1	31XMD0200	9,74
2,50	57	30	1	31XMD0250	12,98
3,00	61	33	1	31XMD0300	16,06
3,50	70	39	1	31XMD0350	18,23
4,00	75	43	1	31XMD0400	21,01
4,50	80	47	1	31XMD0450	26,21
5,00	86	52	1	31XMD0500	30,74
5,50	93	57	1	31XMD0550	37,87
6,00	93	57	1	31XMD0600	40,42
6,50	101	63	1	31XMD0650	50,81

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
7,00	109	69	1	31XMD0700	65,89
7,50	109	69	1	31XMD0750	68,65
8,00	117	75	1	31XMD0800	87,43
8,50	117	75	1	31XMD0850	100,35
9,00	125	81	1	31XMD0900	117,32
9,50	125	81	1	31XMD0950	133,05
10,00	133	87	1	31XMD1000	141,43
11,00	142	94	1	31XMD1100	195,28
12,00	151	101	1	31XMD1200	251,31
13,00	151	101	1	31XMD1300	287,73

*Para otras medidas consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

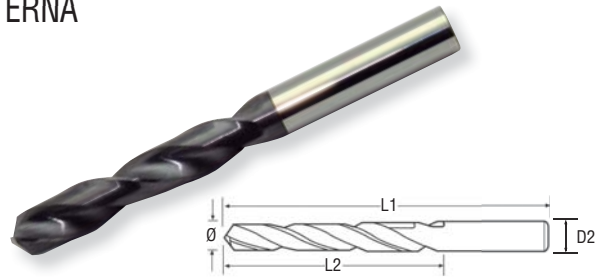
METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M/DURO INTEGRAL DIN 6537 3XD SIN REFRIGERACIÓN INTERNA

DIN 6537 3XD HM WITHOUT COOLANT FEED

DIN 6537 3XD HM SANS TROUS D'HUILE



Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.	€/Unid.
3,00	62	20	6	1	33XMD0300	45,82
3,10	62	20	6	1	33XMD0310	45,82
3,20	62	20	6	1	33XMD0320	45,82
3,30	62	20	6	1	33XMD0330	45,82
3,40	62	20	6	1	33XMD0340	45,82
3,50	62	20	6	1	33XMD0350	45,82
3,60	62	20	6	1	33XMD0360	45,82
3,70	62	20	6	1	33XMD0370	45,82
3,80	66	24	6	1	33XMD0380	49,15
3,90	66	24	6	1	33XMD0390	49,15
4,00	66	24	6	1	33XMD0400	49,15
4,10	66	24	6	1	33XMD0410	49,56
4,20	66	24	6	1	33XMD0420	49,56
4,30	66	24	6	1	33XMD0430	49,56
4,40	66	24	6	1	33XMD0440	49,56
4,50	66	24	6	1	33XMD0450	49,56
4,60	66	24	6	1	33XMD0460	49,56
4,70	66	24	6	1	33XMD0470	49,56
4,80	66	28	6	1	33XMD0480	48,88
4,90	66	28	6	1	33XMD0490	48,88
5,00	66	28	6	1	33XMD0500	48,88
5,10	66	28	6	1	33XMD0510	49,41
5,20	66	28	6	1	33XMD0520	49,41
5,30	66	28	6	1	33XMD0530	49,41
5,40	66	28	6	1	33XMD0540	49,41
5,50	66	28	6	1	33XMD0550	49,41
5,60	66	28	6	1	33XMD0560	49,41
5,70	66	28	6	1	33XMD0570	49,41
5,80	66	28	6	1	33XMD0580	49,41
5,90	66	28	6	1	33XMD0590	49,41
6,00	66	28	6	1	33XMD0600	49,41
6,10	79	34	8	1	33XMD0610	67,82
6,20	79	34	8	1	33XMD0620	67,82
6,30	79	34	8	1	33XMD0630	67,82
6,40	79	34	8	1	33XMD0640	67,82
6,50	79	34	8	1	33XMD0650	67,82
6,60	79	34	8	1	33XMD0660	67,82
6,70	79	34	8	1	33XMD0670	67,82
6,80	79	34	8	1	33XMD0680	67,82
6,90	79	34	8	1	33XMD0690	67,82
7,00	79	34	8	1	33XMD0700	67,82
7,10	79	41	8	1	33XMD0710	69,14
7,20	79	41	8	1	33XMD0720	69,14
7,30	79	41	8	1	33XMD0730	69,14
7,40	79	41	8	1	33XMD0740	69,14
7,50	79	41	8	1	33XMD0750	69,14

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.	€/Unid.
7,60	79	41	8	1	33XMD0760	69,14
7,70	79	41	8	1	33XMD0770	69,14
7,80	79	41	8	1	33XMD0780	69,14
7,90	79	41	8	1	33XMD0790	69,14
8,00	79	41	8	1	33XMD0800	69,14
8,10	89	47	10	1	33XMD0810	97,51
8,20	89	47	10	1	33XMD0820	97,51
8,30	89	47	10	1	33XMD0830	97,51
8,40	89	47	10	1	33XMD0840	97,51
8,50	89	47	10	1	33XMD0850	97,51
8,60	89	47	10	1	33XMD0860	97,51
8,70	89	47	10	1	33XMD0870	97,51
8,80	89	47	10	1	33XMD0880	97,51
8,90	89	47	10	1	33XMD0890	97,51
9,00	89	47	10	1	33XMD0900	97,51
9,10	89	47	10	1	33XMD0910	97,51
9,20	89	47	10	1	33XMD0920	97,51
9,30	89	47	10	1	33XMD0930	97,51
9,40	89	47	10	1	33XMD0940	97,51
9,50	89	47	10	1	33XMD0950	97,51
9,60	89	47	10	1	33XMD0960	97,51
9,70	89	47	10	1	33XMD0970	97,51
9,80	89	47	10	1	33XMD0980	97,51
9,90	89	47	10	1	33XMD0990	97,51
10,00	89	47	10	1	33XMD1000	97,51
10,50	102	55	12	1	33XMD1050	131,97
11,00	102	55	12	1	33XMD1100	131,97
11,50	102	55	12	1	33XMD1150	131,97
12,00	102	55	12	1	33XMD1200	131,97
12,50	107	60	14	1	33XMD1250	179,54
13,00	107	60	14	1	33XMD1300	179,54
13,50	107	60	14	1	33XMD1350	179,54
14,00	107	60	14	1	33XMD1400	179,54
14,50	115	65	16	1	33XMD1450	221,14
15,00	115	65	16	1	33XMD1500	221,14
15,50	115	65	16	1	33XMD1550	221,14
16,00	115	65	16	1	33XMD1600	221,14
16,50	123	73	18	1	33XMD1650	323,50
17,00	123	73	18	1	33XMD1700	323,50
17,50	123	73	18	1	33XMD1750	323,50
18,00	123	73	18	1	33XMD1800	323,33
18,50	131	79	20	1	33XMD1850	401,58
19,00	131	79	20	1	33XMD1900	401,58
19,50	131	79	20	1	33XMD1950	401,58
20,00	131	79	20	1	33XMD2000	401,58

Para otras medidas consultar
Request for other sizes
Pour d'autres dimensions, nous consulter

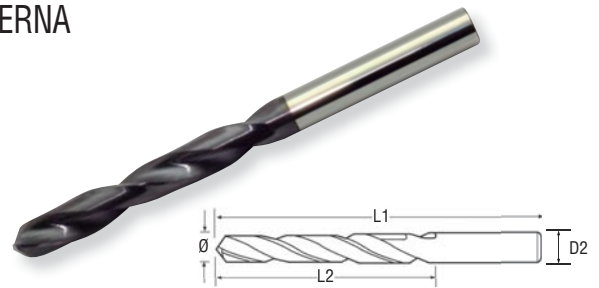
Para brocas con canales de refrigeración, consúltennos
Request for drill bits with coolant feed
Pour forets avec trous d'huile, nous consulter



M/DURO INTEGRAL DIN 6537 5XD SIN REFRIGERACIÓN INTERNA

DIN 6537 5XD HM WITHOUT COOLANT FEED

DIN 6537 5XD HM SANS TROUS D'HUILE



Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.	€/Unid.
3,00	66	28	6	1	35XMD0300	59,83
3,10	66	28	6	1	35XMD0310	59,83
3,20	66	28	6	1	35XMD0320	59,83
3,30	66	28	6	1	35XMD0330	59,83
3,40	66	28	6	1	35XMD0340	59,83
3,50	66	28	6	1	35XMD0350	59,83
3,60	66	28	6	1	35XMD0360	59,83
3,70	66	28	6	1	35XMD0370	59,83
3,80	74	36	6	1	35XMD0380	66,89
3,90	74	36	6	1	35XMD0390	66,89
4,00	74	36	6	1	35XMD0400	66,89
4,10	74	36	6	1	35XMD0410	67,66
4,20	74	36	6	1	35XMD0420	67,66
4,30	74	36	6	1	35XMD0430	67,66
4,40	74	36	6	1	35XMD0440	67,66
4,50	74	36	6	1	35XMD0450	67,66
4,60	74	36	6	1	35XMD0460	67,66
4,70	74	36	6	1	35XMD0470	67,66
4,80	82	44	6	1	35XMD0480	64,56
4,90	82	44	6	1	35XMD0490	64,56
5,00	82	44	6	1	35XMD0500	64,56
5,10	82	44	6	1	35XMD0510	65,48
5,20	82	44	6	1	35XMD0520	65,48
5,30	82	44	6	1	35XMD0530	65,48
5,40	82	44	6	1	35XMD0540	65,48
5,50	82	44	6	1	35XMD0550	65,48
5,60	82	44	6	1	35XMD0560	65,48
5,70	82	44	6	1	35XMD0570	65,48
5,80	82	44	6	1	35XMD0580	65,48
5,90	82	44	6	1	35XMD0590	65,48
6,00	82	44	6	1	35XMD0600	65,48
6,10	91	53	8	1	35XMD0610	84,27
6,20	91	53	8	1	35XMD0620	84,27
6,30	91	53	8	1	35XMD0630	84,27
6,40	91	53	8	1	35XMD0640	84,27
6,50	91	53	8	1	35XMD0650	84,27
6,60	91	53	8	1	35XMD0660	84,27
6,70	91	53	8	1	35XMD0670	84,27
6,80	91	53	8	1	35XMD0680	84,27
6,90	91	53	8	1	35XMD0690	84,27
7,00	91	53	8	1	35XMD0700	84,27
7,10	91	53	8	1	35XMD0710	85,43

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.	€/Unid.
7,20	91	53	8	1	35XMD0720	85,43
7,30	91	53	8	1	35XMD0730	85,43
7,40	91	53	8	1	35XMD0740	85,43
7,50	91	53	8	1	35XMD0750	85,43
7,60	91	53	8	1	35XMD0760	85,43
7,70	91	53	8	1	35XMD0770	85,43
7,80	91	53	8	1	35XMD0780	85,43
7,90	91	53	8	1	35XMD0790	85,43
8,00	91	53	8	1	35XMD0800	85,43
8,10	103	61	10	1	35XMD0810	112,07
8,20	103	61	10	1	35XMD0820	112,07
8,30	103	61	10	1	35XMD0830	112,07
8,40	103	61	10	1	35XMD0840	112,07
8,50	103	61	10	1	35XMD0850	112,07
8,60	103	61	10	1	35XMD0860	112,07
8,70	103	61	10	1	35XMD0870	112,07
8,80	103	61	10	1	35XMD0880	112,07
8,90	103	61	10	1	35XMD0890	112,07
9,00	103	61	10	1	35XMD0900	112,07
9,10	103	61	10	1	35XMD0910	112,07
9,20	103	61	10	1	35XMD0920	112,07
9,30	103	61	10	1	35XMD0930	112,07
9,40	103	61	10	1	35XMD0940	112,07
9,50	103	61	10	1	35XMD0950	112,07
9,60	103	61	10	1	35XMD0960	112,07
9,70	103	61	10	1	35XMD0970	112,07
9,80	103	61	10	1	35XMD0980	112,07
9,90	103	61	10	1	35XMD0990	112,07
10,00	103	61	10	1	35XMD1000	112,07
10,50	118	71	12	1	35XMD1050	151,78
11,00	118	71	12	1	35XMD1100	151,78
11,50	118	71	12	1	35XMD1150	151,78
12,00	118	71	12	1	35XMD1200	151,78
12,50	124	77	14	1	35XMD1250	206,61
13,00	124	77	14	1	35XMD1300	206,61
13,50	124	77	14	1	35XMD1350	206,61
14,00	124	77	14	1	35XMD1400	206,61
14,50	133	83	16	1	35XMD1450	255,73
15,00	133	83	16	1	35XMD1500	255,73
15,50	133	83	16	1	35XMD1550	255,73
16,00	133	83	16	1	35XMD1600	255,73

Para otras medidas consultar
Request for other sizes
Pour d'autres dimensions, nous consulter

Para brocas con canales de refrigeración, consúltennos
Request for drill bits with coolant feed
Pour forets avec trous d'huile, nous consulter



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS

APPLICATION GUIDE AND CUTTING SPEED
TABLE D'APPLICATIONS ET VITESSE DE COUPE RECOMMANDÉ



MATERIAL / MATERIAL / MATIERE	Resistencia / Resistance Resistance N/mm ²	HSS-G Pág. 102	HSS "white" Pág. 109	HSSCo Pág. 110
ACEROS STEELS • ACIERS	Decolelaje <i>Machining • Décolletage</i>	<500	20 - 25	20 - 25
	Carbono <0,4% <i><0,4% Carbon • Carbon <0,4%</i>	<850	15 - 20	15 - 20
	Acero para herramientas <i>Steel for tools • Acier pour outils</i>	<1.200		10 - 12
	Templado - Revenido <i>Tempered - Quenched • Trempé - Revenu</i>	<1.400		4 - 5
ACEROS INOXIDABLES STAINLESS STEEL ACIER INOXYDABLE	Austeníticos Cr-Ni <i>Cr-Ni Austenitics • Cr-Ni austenitique</i>	<850		8 - 12
	Martensíticos Cr-Mo <i>Cr-Mo Martensitics • Cr-Mo martensitique</i>	<1.200		4 - 6
FUNDICIÓN CAST IRON • FONTE	Fundición gris <i>Grey cast iron • Fonte grise</i>	<700	20 - 25	30 - 35
	Fundición dura <i>Hard cast iron • Fonte dur</i>	<1.000	20 - 25	20 - 25
ALUMINIO ALUMINIUM • ALUMINIUM	Puro <i>Pure • Pure</i>	<350	40 - 50	50 - 55
	Si < 10%	<600	40 - 50	50 - 60
	Si > 10%	<600	30 - 40	30 - 40
COBRE COPPER • CUIVRE	Zamak <i>Zamak • Zamak</i>	<600	30 - 35	40 - 45
	Bronce <i>Bronze • Bronze</i>	<350	40 - 60	
	Cobre viruta larga <i>Long chip copper • Cuivre coupage long</i>	<700	40 - 60	22 - 25
	Cobre viruta corta <i>Short chip copper • Cuivre coupage court</i>	<700	25 - 30	22 - 25
	Latón duro <i>Hard Brass • Laiton dur</i>	<700	40 - 60	
TITANIO TITANIUM • TITANE	Latón tenaz <i>Tough Brass • Laiton tenace</i>	<700	25 - 30	
	Puro <i>Pure • Pure</i>	<700		
SINTÉTICOS PLASTICS • PLASTIQUES	Aleaciones de Titanio <i>Titanium alloys • Alliages de titane</i>	<1.200		
	Termoplásticos <i>Thermoplastics • Thermoplastique</i>	-		
HARDOX	Duroplásticos <i>Hard-plastics • Duroplastique</i>	-		
	Hardox 500	<1650		
	Hardox 550	<1900		
	Hardox 600	<2200		

20 - 25

Broca recomendada por SESATOOLS y velocidad de corte (M/Min)
SESA TOOLS recommendation and cutting speed
Foret recommandé par SESA TOOLS et vitesse de coupe

20 - 25

Buen rendimiento y velocidad de corte (M/Min)
Good performance and cutting speed (M/Min)
Bon rendement et vitesse de coup recommandée (M/Min)



HSS-G inox Pág. 114	HSSCo inox Pág. 115	HSS -G TiN Pág. 116	HSSCo TiAlN Pág. 118	HSS-G Alu Pág. 117	K20 Pág. 119	Hardox Pág. 119	Avance/Prog. Avance
		35 - 40	35 - 40		26 - 32	8 - 12	D
		35 - 40	35 - 40		26 - 32	4 - 6	C
			18 - 20		6 - 16	10 - 12	B
			8 - 10		4 - 6	4 - 5	A
8 - 12	8 - 12	15 - 20	15 - 20			8 - 12	A
4 - 6	4 - 6	18 - 20	18 - 20			4 - 6	A
		40 - 50	40 - 50				E
		20 - 25	20 - 25				D
				60 - 80			E
				50 - 60			D
				30 - 40			D
		60 - 65		30 - 40			D
				40 - 60			E
		35 - 40		40 - 60			E
				25 - 30			E
		90 - 100		40 - 60			E
		80 - 85		25 - 30			E
	5 - 10				5 - 10		A
	5 - 6				5 - 6		A
		20 - 25			10 - 25		F
		20 - 25			10 - 25		F
						4-5	A

**El valor indicado en la tabla es el rango de velocidades de corte recomendadas *Valores recomendados en columna "AVANCES" ver pág. 100.

**The indicated value is the cutting speed range *Recommended progression values, see the guide on 100 page.

**Les valeurs indiquées c'est le classement des vitesses de coupe recommandées *Les valeurs d'avances recommandés, aller à la page 100.

TABLA DE AVANCES
 PROGRESSIONS GUIDE • TABLE D'AVANCES

Ø (mm)	BLOQUE (mm x r) / BLOCK (mm x r) / BLOQUE (mm x r)					
	A	B	C	D	E	F
2,00	0,020	0,025	0,032	0,040	0,050	0,063
2,50	0,025	0,032	0,040	0,050	0,063	0,080
3,00	0,030	0,040	0,050	0,060	0,080	0,100
4,00	0,040	0,050	0,063	0,080	0,100	0,125
5,00	0,040	0,050	0,063	0,080	0,100	0,125
6,50	0,050	0,063	0,080	0,100	0,125	0,160
8,00	0,063	0,080	0,100	0,125	0,160	0,200
10,00	0,080	0,100	0,125	0,160	0,200	0,250
13,00	0,090	0,110	0,130	0,180	0,220	0,270
16,00	0,100	0,125	0,160	0,200	0,250	0,315
20,00	0,125	0,160	0,200	0,250	0,315	0,400
25,00	0,160	0,200	0,250	0,315	0,400	0,500
30,00	0,160	0,200	0,250	0,315	0,400	0,500
40,00	0,200	0,250	0,315	0,400	0,500	0,630
50,00	0,250	0,315	0,400	0,500	0,630	0,800
63,00	0,315	0,400	0,500	0,630	0,800	1,000
80,00	0,400	0,500	0,630	0,800	1,000	1,125

Los valores de la tabla son orientativos y para las siguientes condiciones:

- Normas DIN 338 / 345
- Profundidad hasta 3 mm x Ø
- Refrigeración adecuada del material

Values on the guide are orientatives for the next conditions:

- DIN 338 / 345 rules
- Maximum depth 3 mm x Ø
- Adequate cooling for the material

Les valeurs de la table sont orientatives pour les suivant conditions:

- Normes DIN 338 / 345
- Profondeur maximale 3 mm x Ø
- Réfrigération adéquate pour le matériel

CÁLCULO DE LAS R.P.M. R.P.M. CALCULATION • CALCUL DES R.P.M.

$$R.P.M. = \frac{V_c \times 1.000}{\pi \times \varnothing} \longrightarrow R.P.M. = \frac{20 \times 1.000}{3,1416 \times 10} = \frac{20.000}{31,416} = 641,84$$

PRINCIPALES MATERIALES DE FABRICACIÓN DE BROCAS

 DRILL BIT MANUFACTURING MAIN MATERIALS
 PRINCIPALES MATÉRIAUX DE FABRICATION DES FORETS

Denominación Name / Nom	N° MATERIAL	COMPOSICIÓN % COMPOSITION % / COMPOSITION %								ID. INTERNACIONAL / ID. IMINTERNATIONAL / ID. INTERNATIONALE					
		C	Si	Mn	Cr	Mo	V	W	Co	USA (AISI)	Alemania (DIN)	Francia (AFNOR. NF)	Italia (UNI)	G. B. (BS)	España (UNE)
HSS-G	1.3343	0,91	0,30	0,30	4,20	5,00	2,00	6,50	-	M2	S6-5-2	Z85WDCV	HS 6-5-2	BM2	F 5603
HSS-CO 5%	1.3243	0,91	0,30	0,30	4,20	5,00	2,00	6,50	4,75	M35	S6-5-2-5	Z85WDKCV	HS 5-2-5	-	F 5613
HSS-CO 8%	1.3247	1,08	0,40	0,30	4,00	9,50	1,20	1,50	8,00	M42	S2-10-1-8	ZII0DKCVV	HS 2-9-1-8	BM42	F 5617
MD		92, 0WC-6,0Co-2,0TiC y TA(Nb)C								-					

TABLA DE CONVERSIÓN DE DUREZAS Y RESISTENCIA A LA TRACCIÓN
HARDNESS CONVERSION GUIDE • TABLE DE CONVERSION DES DURÉTÉS

VICKERS	BRINELL	ROCKWELL		Resistencia a la tracción	
				<i>Tensile Strength</i>	
				<i>Resistance à la traction</i>	
HV 30	HB 30	HRB	HRC	Rm	
				N/mm ²	KP/mm ²
80	80	36,40	-	270	28
85	85	42,40	-	290	30
90	90	47,40	-	310	32
95	95	52,00	-	320	33
100	100	56,40	-	340	35
105	105	60,00	-	360	37
110	110	63,40	-	380	39
115	115	66,40	-	390	40
120	120	69,40	-	410	42
125	125	72,00	-	420	43
130	130	74,40	-	440	45
135	135	76,40	-	460	47
140	140	78,40	-	470	48
145	145	80,40	-	490	50
150	150	82,20	-	500	51
155	155	83,80	-	520	53
160	160	85,40	-	540	55
165	165	86,80	-	550	56
170	170	88,20	-	570	58
175	175	89,60	-	590	60
180	180	90,80	-	600	62
185	185	91,80	-	620	63
190	190	93,00	-	640	65
195	195	94,00	-	660	67
200	200	95,00	-	670	68
205	205	95,80	-	680	70
210	210	96,60	-	710	72
215	215	97,60	-	720	73
220	220	98,20	-	730	75
225	225	99,00	-	750	77
230	230	-	19,20	760	78
235	235	-	20,20	780	80
240	240	-	21,20	800	82
245	245	-	22,10	820	84
250	250	-	23,00	830	85
255	255	-	23,80	850	87
260	260	-	24,60	870	89
265	265	-	25,40	880	90
270	270	-	26,20	900	92
275	275	-	26,90	920	94
280	280	-	27,60	940	96
285	285	-	28,30	950	97
290	290	-	29,00	970	99
295	295	-	29,60	990	101
300	300	-	30,30	1.010	103
310	310	-	31,50	1.040	106
320	320	-	32,70	1.080	110
330	330	-	33,80	1.110	113

VICKERS	BRINELL	ROCKWELL		Resistencia a la tracción	
				<i>Tensile Strength</i>	
				<i>Resistance à la traction</i>	
HV 30	HB 30	HRB	HRC	Rm	
				N/mm ²	KP/mm ²
340	340	-	34,90	1.140	117
350	350	-	36,00	1.170	120
360	359	-	37,00	1.200	123
370	368	-	38,00	1.230	126
380	376	-	38,90	1.260	129
390	385	-	39,80	1.290	132
400	392	-	40,70	1.320	135
410	400	-	41,50	1.350	138
420	408	-	42,40	1.380	144
440	423	-	44,00	1.430	146
450	430	-	44,80	1.460	149
460	-	-	45,60	-	-
470	-	-	46,30	-	-
480	-	-	47,00	-	-
490	-	-	47,70	-	-
500	-	-	48,30	-	-
510	-	-	49,10	-	-
520	-	-	49,70	-	-
530	-	-	50,40	-	-
540	-	-	51,00	-	-
550	-	-	51,60	-	-
560	-	-	52,20	-	-
570	-	-	52,80	-	-
580	-	-	53,30	-	-
590	-	-	53,90	-	-
600	-	-	54,40	-	-
610	-	-	55,00	-	-
620	-	-	55,50	-	-
630	-	-	56,00	-	-
640	-	-	56,50	-	-
650	-	-	57,00	-	-
660	-	-	57,50	-	-
670	-	-	58,00	-	-
680	-	-	58,50	-	-
690	-	-	59,00	-	-
700	-	-	59,50	-	-
720	-	-	60,40	-	-
740	-	-	61,20	-	-
760	-	-	62,00	-	-
780	-	-	62,80	-	-
800	-	-	63,60	-	-
820	-	-	64,30	-	-
840	-	-	65,00	-	-
860	-	-	65,70	-	-
880	-	-	66,30	-	-
900	-	-	66,90	-	-
920	-	-	67,50	-	-
940	-	-	68,00	-	-

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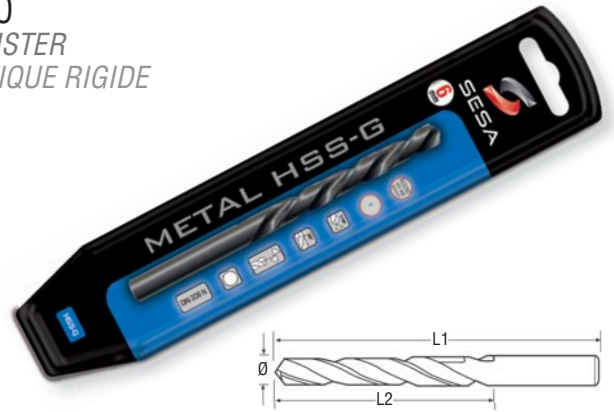
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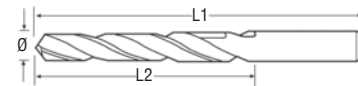
DIN-338 N HSS-G ALTO RENDIMIENTO: BLISTER RÍGIDO
 DIN 338 N HSS-G HIGH PERFORMANCE: RIGID PLASTIC BLISTER
 DIN 338 N HSS-G GRAND RENDEMENT: BLISTER DE PLASTIQUE RIGIDE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.	€/Blister
1,00	34	12	2	1460100BL	1,08	2,17
1,50	40	18	2	1460150BL	1,07	2,15
2,00	49	24	2	1460200BL	1,28	2,56
2,50	57	30	2	1460250BL	1,15	2,30
3,00	61	33	2	1460300BL	1,25	2,49
3,25	65	36	2	1460325BL	1,28	2,56
3,50	70	39	2	1460350BL	1,28	2,55
4,00	75	43	2	1460400BL	1,30	2,60
4,25	75	43	2	1460425BL	1,63	3,26
4,50	80	47	2	1460450BL	1,63	3,27
5,00	86	52	2	1460500BL	1,75	3,50
5,25	86	52	2	1460525BL	2,16	4,32
5,50	93	57	2	1460550BL	2,16	4,33
6,00	93	57	2	1460600BL	2,27	4,54
6,50	101	63	1	1460650BL	3,10	3,10
7,00	109	69	1	1460700BL	3,51	3,51
7,50	109	69	1	1460750BL	3,84	3,84
8,00	117	75	1	1460800BL	4,36	4,36
8,50	117	75	1	1460850BL	4,90	4,90
9,00	125	81	1	1460900BL	5,44	5,44
9,50	125	81	1	1460950BL	6,37	6,37
10,00	133	87	1	1461000BL	6,70	6,70
10,50	133	87	1	1461050BL	7,57	7,57
11,00	142	94	1	1461100BL	8,30	8,30
11,50	142	94	1	1461150BL	9,19	9,19
12,00	151	101	1	1461200BL	9,95	9,95
12,50	151	101	1	1461250BL	11,92	11,92
13,00	151	101	1	1461300BL	11,49	11,49

Unidad de venta €/blister / Sales unit €/blister / Unité de vente € / blister

DIN 338 N HSS-G ALTO RENDIMIENTO
 DIN 338 N HSS-G HIGH PERFORMANCE
 DIN 338 N HSS-G GRAND RENDEMENT



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
0,20	19	2,5	10	1450020	2,47
0,25	19	3	10	1450025	2,47
0,30	19	3	10	1450030	2,47
0,35	19	3	10	1450035	2,48
0,40	20	5	10	1450040	2,47
0,45	22	6	10	1450045	2,48
0,50	22	6	10	1450050	2,05
0,55	24	7	10	1450055	2,48
0,60	24	7	10	1450060	2,47
0,65	26	8	10	1450065	2,48
0,70	28	9	10	1450070	2,47
0,75	28	9	10	1450075	2,47
0,80	30	10	10	1450080	2,47
0,85	30	10	10	1450085	2,48
0,90	32	11	10	1450090	2,47
0,95	32	11	10	1450095	2,48
1,00	34	12	10	1450100	0,87
1,05	34	12	10	1450105	0,99
1,10	36	14	10	1450110	0,99
1,15	36	14	10	1450115	0,99
1,20	38	16	10	1450120	0,99
1,25	38	16	10	1450125	0,87
1,30	38	16	10	1450130	0,99
1,35	40	18	10	1450135	0,99
1,40	40	18	10	1450140	0,99
1,45	40	18	10	1450145	0,99
1,50	40	18	10	1450150	0,87
1,55	43	20	10	1450155	0,99
1,60	43	20	10	1450160	0,99
1,65	43	20	10	1450165	0,99
1,70	43	20	10	1450170	0,99
1,75	46	22	10	1450175	0,87
1,80	46	22	10	1450180	0,99
1,85	46	22	10	1450185	0,99
1,90	46	22	10	1450190	0,99
1,95	49	24	10	1450195	0,99
2,00	49	24	10	1450200	0,79
2,05	49	24	10	1450205	0,93
2,10	49	24	10	1450210	0,93
2,15	53	27	10	1450215	0,93
2,20	53	27	10	1450220	0,93
2,25	53	27	10	1450225	0,81
2,30	53	27	10	1450230	0,93

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
0,20	-	-	-
0,25	-	-	-
0,30	-	-	-
0,35	-	-	-
0,40	-	-	-
0,45	-	-	-
0,50	-	-	-
0,55	-	-	-
0,60	-	-	-
0,65	-	-	-
0,70	-	-	-
0,75	-	-	-
0,80	-	-	-
0,85	-	-	-
0,90	-	-	-
0,95	-	-	-
1,00	2	1460100	1,05
1,05	2	1460105	1,18
1,10	2	1460110	1,18
1,15	2	1460115	1,18
1,20	2	1460120	1,18
1,25	2	1460125	1,05
1,30	2	1460130	1,18
1,35	2	1460135	1,18
1,40	2	1460140	1,18
1,45	2	1460145	1,18
1,50	2	1460150	1,04
1,55	2	1460155	1,18
1,60	2	1460160	1,18
1,65	2	1460165	1,18
1,70	2	1460170	1,18
1,75	2	1460175	1,10
1,80	2	1460180	1,18
1,85	2	1460185	1,18
1,90	2	1460190	1,18
1,95	2	1460195	1,18
2,00	2	1460200	1,18
2,05	2	1460205	1,11
2,10	2	1460210	1,11
2,15	2	1460215	1,11
2,20	2	1460220	1,11
2,25	2	1460225	1,06
2,30	2	1460230	1,11

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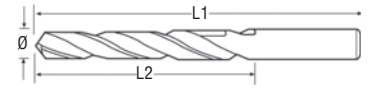
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DIN 338 N HSS-G ALTO RENDIMIENTO

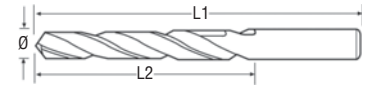
DIN 338 N HSS-G HIGH PERFORMANCE
DIN 338 N HSS-G GRAND RENDEMENT



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,35	53	27	10	1450235	0,93
2,40	57	30	10	1450240	0,93
2,45	57	30	10	1450245	0,93
2,50	57	30	10	1450250	0,85
2,55	57	30	10	1450255	1,01
2,60	57	30	10	1450260	1,01
2,65	57	30	10	1450265	1,01
2,70	61	33	10	1450270	1,01
2,75	61	33	10	1450275	0,90
2,80	61	33	10	1450280	1,01
2,85	61	33	10	1450285	1,01
2,90	61	33	10	1450290	1,01
2,95	61	33	10	1450295	1,01
3,00	61	33	10	1450300	0,76
3,10	65	36	10	1450310	1,05
3,20	65	36	10	1450320	1,05
3,25	65	36	10	1450325	0,96
3,30	65	36	10	1450330	1,05
3,40	70	39	10	1450340	1,14
3,50	70	39	10	1450350	0,98
3,60	70	39	10	1450360	1,20
3,70	70	39	10	1450370	1,20
3,75	70	39	10	1450375	1,07
3,80	75	43	10	1450380	1,20
3,90	75	43	10	1450390	1,20
4,00	75	43	10	1450400	1,00
4,10	75	43	10	1450410	1,36
4,20	75	43	10	1450420	1,36
4,25	75	43	10	1450425	1,25
4,30	80	47	10	1450430	1,36
4,40	80	47	10	1450440	1,36
4,50	80	47	10	1450450	1,25
4,60	80	47	10	1450460	1,59
4,70	80	47	10	1450470	1,59
4,75	80	47	10	1450475	1,58
4,80	86	52	10	1450480	1,59
4,90	86	52	10	1450490	1,59
5,00	86	52	10	1450500	1,32
5,10	86	52	10	1450510	1,90
5,20	86	52	10	1450520	1,90
5,25	86	52	10	1450525	1,71
5,30	86	52	10	1450530	1,90
5,40	93	57	10	1450540	1,90

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,35	2	1460235	1,11
2,40	2	1460240	1,11
2,45	2	1460245	1,05
2,50	2	1460250	1,06
2,55	2	1460255	1,21
2,60	2	1460260	1,21
2,65	2	1460265	1,21
2,70	2	1460270	1,21
2,75	2	1460275	1,07
2,80	2	1460280	1,21
2,85	2	1460285	1,21
2,90	2	1460290	1,21
2,95	2	1460295	1,21
3,00	1	1460300	1,14
3,10	1	1460310	1,25
3,20	1	1460320	1,25
3,25	1	1460325	1,14
3,30	1	1460330	1,25
3,40	1	1460340	1,37
3,50	1	1460350	1,17
3,60	1	1460360	1,44
3,70	1	1460370	1,44
3,75	1	1460375	1,27
3,80	1	1460380	1,44
3,90	1	1460390	1,44
4,00	1	1460400	1,19
4,10	1	1460410	1,61
4,20	1	1460420	1,61
4,25	1	1460425	1,49
4,30	1	1460430	1,61
4,40	1	1460440	1,61
4,50	1	1460450	1,49
4,60	1	1460460	1,91
4,70	1	1460470	1,91
4,75	1	1460475	1,88
4,80	1	1460480	1,91
4,90	1	1460490	1,91
5,00	1	1460500	1,46
5,10	1	1460510	2,11
5,20	1	1460520	2,11
5,25	1	1460525	1,91
5,30	1	1460530	2,11
5,40	1	1460540	2,11

DIN 338 N HSS-G ALTO RENDIMIENTO
DIN 338 N HSS-G HIGH PERFORMANCE
DIN 338 N HSS-G GRAND RENDEMENT



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
5,50	93	57	10	1450550	1,78
5,60	93	57	10	1450560	2,17
5,70	93	57	10	1450570	2,17
5,75	93	57	10	1450575	2,11
5,80	93	57	10	1450580	2,17
5,90	93	57	10	1450590	2,17
6,00	93	57	10	1450600	1,84
6,10	101	63	10	1450610	2,49
6,20	101	63	10	1450620	2,49
6,25	101	63	10	1450625	2,18
6,30	101	63	10	1450630	2,49
6,40	101	63	10	1450640	2,49
6,50	101	63	10	1450650	2,25
6,60	101	63	10	1450660	3,00
6,70	101	63	10	1450670	3,00
6,75	109	69	10	1450675	2,74
6,80	109	69	10	1450680	3,00
6,90	109	69	10	1450690	3,00
7,00	109	69	10	1450700	2,65
7,10	109	69	10	1450710	3,72
7,20	109	69	10	1450720	3,72
7,25	109	69	10	1450725	3,27
7,30	109	69	10	1450730	3,57
7,40	109	69	10	1450740	3,57
7,50	109	69	10	1450750	3,04
7,60	117	75	10	1450760	3,96
7,70	117	75	10	1450770	3,96
7,75	117	75	10	1450775	3,83
7,80	117	75	10	1450780	4,07
7,90	117	75	10	1450790	4,07
8,00	117	75	10	1450800	3,26
8,10	117	75	10	1450810	4,64
8,20	117	75	10	1450820	4,64
8,25	117	75	10	1450825	4,15
8,30	117	75	10	1450830	4,55
8,40	117	75	10	1450840	4,55
8,50	117	75	10	1450850	4,05
8,60	125	81	5	1450860	5,17
8,70	125	81	5	1450870	5,17
8,75	125	81	5	1450875	4,77
8,80	125	81	5	1450880	5,17
8,90	125	81	5	1450890	5,17
9,00	125	81	5	1450900	4,48

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
5,50	1	1460550	1,98
5,60	1	1460560	2,19
5,70	1	1460570	2,41
5,75	1	1460575	2,35
5,80	1	1460580	2,41
5,90	1	1460590	2,41
6,00	1	1460600	2,05
6,10	1	1460610	2,76
6,20	1	1460620	2,76
6,25	1	1460625	2,43
6,30	1	1460630	2,76
6,40	1	1460640	2,76
6,50	1	1460650	2,50
6,60	1	1460660	3,33
6,70	1	1460670	3,33
6,75	1	1460675	3,04
6,80	1	1460680	3,33
6,90	1	1460690	3,33
7,00	1	1460700	2,95
7,10	1	1460710	4,13
7,20	1	1460720	4,13
7,25	1	1460725	3,63
7,30	1	1460730	3,98
7,40	1	1460740	3,98
7,50	1	1460750	3,38
7,60	1	1460760	4,41
7,70	1	1460770	4,41
7,75	1	1460775	4,26
7,80	1	1460780	4,51
7,90	1	1460790	4,51
8,00	1	1460800	3,62
8,10	1	1460810	5,16
8,20	1	1460820	5,16
8,25	1	1460825	4,61
8,30	1	1460830	5,05
8,40	1	1460840	5,05
8,50	1	1460850	4,49
8,60	1	1460860	5,74
8,70	1	1460870	5,74
8,75	1	1460875	5,29
8,80	1	1460880	5,74
8,90	1	1460890	5,74
9,00	1	1460900	4,98

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MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

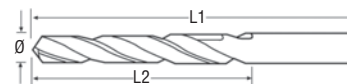
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

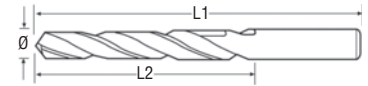
DIN 338 N HSS-G ALTO RENDIMIENTO
DIN 338 N HSS-G HIGH PERFORMANCE
DIN 338 N HSS-G GRAND RENDEMENT

HSS-G
DIN 338 N


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
9,10	125	81	5	1450910	6,26
9,20	125	81	5	1450920	6,26
9,25	125	81	5	1450925	5,72
9,30	125	81	5	1450930	6,26
9,40	125	81	5	1450940	6,26
9,50	125	81	5	1450950	5,25
9,60	133	87	5	1450960	6,67
9,70	133	87	5	1450970	6,67
9,75	133	87	5	1450975	6,19
9,80	133	87	5	1450980	6,67
9,90	133	87	5	1450990	6,67
10,00	133	87	5	1451000	5,30
10,10	133	87	5	1451010	9,43
10,20	133	87	5	1451020	9,43
10,25	133	87	5	1451025	6,70
10,30	133	87	5	1451030	9,54
10,40	133	87	5	1451040	9,54
10,50	133	87	5	1451050	6,62
10,60	133	87	5	1451060	10,12
10,70	142	94	5	1451070	10,12
10,75	142	94	5	1451075	7,44
10,80	142	94	5	1451080	11,30
10,90	142	94	5	1451090	11,30
11,00	142	94	5	1451100	7,24
11,10	142	94	5	1451110	11,30
11,20	142	94	5	1451120	11,30
11,25	142	94	5	1451125	8,25
11,30	142	94	5	1451130	11,40
11,40	142	94	5	1451140	11,40
11,50	142	94	5	1451150	8,03
11,60	142	94	5	1451160	11,40
11,70	142	94	5	1451170	11,40
11,75	142	94	5	1451175	8,60
11,80	142	94	5	1451180	11,57
11,90	151	101	5	1451190	11,57
12,00	151	101	5	1451200	8,44
12,10	151	101	5	1451210	12,45
12,20	151	101	5	1451220	12,45
12,25	151	101	5	1451225	10,21
12,30	151	101	5	1451230	12,45
12,40	151	101	5	1451240	12,45
12,50	151	101	5	1451250	10,42
12,60	151	101	5	1451260	13,27

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
9,10	1	1460910	6,95
9,20	1	1460920	6,95
9,25	1	1460925	6,36
9,30	1	1460930	6,95
9,40	1	1460940	6,95
9,50	1	1460950	5,84
9,60	1	1460960	7,41
9,70	1	1460970	7,41
9,75	1	1460975	6,88
9,80	1	1460980	7,41
9,90	1	1460990	7,41
10,00	1	1461000	5,56
10,10	1	1461010	9,90
10,20	1	1461020	9,90
10,25	1	1461025	7,04
10,30	1	1461030	10,02
10,40	1	1461040	10,02
10,50	1	1461050	6,94
10,60	1	1461060	10,63
10,70	1	1461070	10,63
10,75	1	1461075	7,81
10,80	1	1461080	11,86
10,90	1	1461090	11,86
11,00	1	1461100	7,61
11,10	1	1461110	11,86
11,20	1	1461120	11,86
11,25	1	1461125	8,66
11,30	1	1461130	11,97
11,40	1	1461140	11,97
11,50	1	1461150	8,43
11,60	1	1461160	11,97
11,70	1	1461170	11,97
11,75	1	1461175	9,03
11,80	1	1461180	12,15
11,90	1	1461190	12,15
12,00	1	1461200	8,86
12,10	1	1461210	13,06
12,20	1	1461220	13,07
12,25	1	1461225	10,72
12,30	1	1461230	13,07
12,40	1	1461240	13,07
12,50	1	1461250	10,93
12,60	1	1461260	13,94

DIN 338 N HSS-G ALTO RENDIMIENTO
DIN 338 N HSS-G HIGH PERFORMANCE
DIN 338 N HSS-G GRAND RENDEMENT



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,70	151	101	5	1451270	13,27
12,75	151	101	5	1451275	10,76
12,80	151	101	5	1451280	13,79
12,90	151	101	5	1451290	13,79
13,00	151	101	5	1451300	10,04
13,25	160	108	1	111325	15,50
13,50	160	108	1	111350	15,14
13,75	160	108	1	111375	15,60
14,00	160	108	1	111400	15,09
14,25	169	114	1	111425	18,70
14,50	169	114	1	111450	17,59
14,75	169	114	1	111475	18,70
15,00	169	114	1	111500	19,29
15,25	178	120	1	111525	23,15
15,50	178	120	1	111550	21,92
15,75	178	120	1	111575	24,69
16,00	178	120	1	111600	20,96
16,25	184	125	1	111625	28,26
16,50	184	125	1	111650	26,20
16,75	184	125	1	111675	29,65
17,00	184	125	1	111700	25,65
17,25	191	130	1	111725	32,80
17,50	191	130	1	111750	29,87
17,75	191	130	1	111775	32,80
18,00	191	130	1	111800	30,10
18,25	198	135	1	111825	36,66
18,50	198	135	1	111850	33,21
18,75	198	135	1	111875	39,15
19,00	198	135	1	111900	33,51
19,25	205	140	1	111925	43,79
19,50	205	140	1	111950	40,10
19,75	205	140	1	111975	43,79
20,00	205	140	1	112000	41,48

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,70	1	1461270	13,94
12,75	1	1461275	11,29
12,80	1	1461280	13,92
12,90	1	1461290	14,48
13,00	1	1461300	10,54

CONSTRUCCIÓN
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METAL
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ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

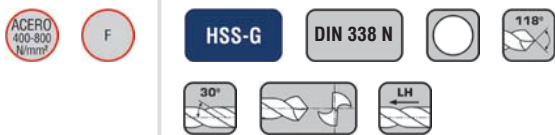
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

DIN 338 N HSS-G, IZQUIERDAS

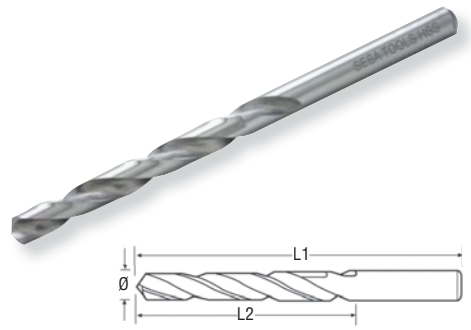
DIN 338 N HSS-G, LEFT HAND • DIN 338 N HSS-G, A GAUCHE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	49	24	10	1450200I	3,77
2,50	57	30	10	1450250I	3,89
3,00	61	33	10	1450300I	3,70
3,25	65	36	10	1450325I	4,58
3,50	70	39	10	1450350I	4,88
4,00	75	43	10	1450400I	4,68
4,50	80	47	10	1450450I	5,99
5,00	86	52	10	1450500I	6,11
5,50	93	57	10	1450550I	7,74
6,00	93	57	10	1450600I	8,58
6,50	101	63	10	1450650I	9,75
7,00	109	69	10	1450700I	11,83
7,50	109	69	10	1450750I	14,04
8,00	117	75	10	1450800I	15,01
8,50	117	75	10	1450850I	17,36
9,00	125	81	10	1450900I	19,95
9,50	125	81	10	1450950I	22,68
10,00	133	87	10	1451000I	24,19

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	2	1460200I	4,45
2,50	2	1460250I	4,60
3,00	1	1460300I	4,38
3,25	1	1460325I	5,41
3,50	1	1460350I	5,76
4,00	1	1460400I	5,52
4,50	1	1460450I	7,06
5,00	1	1460500I	6,72
5,50	1	1460550I	8,51
6,00	1	1460600I	9,44
6,50	1	1460650I	10,72
7,00	1	1460700I	13,02
7,50	1	1460750I	15,43
8,00	1	1460800I	16,52
8,50	1	1460850I	19,08
9,00	1	1460900I	21,95
9,50	1	1460950I	24,05
10,00	1	1461000I	25,63

DIN 338 N HSS WHITE
 DIN 338 N HSS WHITE
 DIN 338 N HSS WHITE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1.00	34	12	10	1550100	0,34
1.25	38	16	10	1550125	0,34
1.50	40	18	10	1550150	0,34
1.75	46	22	10	1550175	0,34
2.00	49	24	10	1550200	0,34
2.25	53	27	10	1550225	0,34
2.50	57	30	10	1550250	0,34
2.75	61	33	10	1550275	0,42
3.00	61	33	10	1550300	0,42
3.25	65	36	10	1550325	0,46
3.50	70	39	10	1550350	0,46
3.75	70	39	10	1550375	0,52
4.00	75	43	10	1550400	0,52
4.25	75	43	10	1550425	0,66
4.50	80	47	10	1550450	0,66
4.75	80	47	10	1550475	0,80
5.00	86	52	10	1550500	0,80
5.25	86	52	10	1550525	1,02
5.50	93	57	10	1550550	1,02
5.75	93	57	10	1550575	1,16
6.00	93	57	10	1550600	1,16
6.25	101	63	10	1550625	1,34

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6.50	101	63	10	1550650	1,34
6.75	109	69	10	1550675	1,56
7.00	109	69	10	1550700	1,56
7.25	109	69	10	1550725	1,77
7.50	109	69	10	1550750	1,76
7.75	117	75	10	1550775	2,27
8.00	117	75	10	1550800	2,27
8.25	117	75	10	1550825	2,45
8.50	117	75	10	1550850	2,45
8.75	125	81	10	1550875	2,91
9.00	125	81	10	1550900	2,91
9.25	125	81	10	1550925	3,17
9.50	125	81	10	1550950	3,17
9.75	133	87	5	1550975	3,73
10.00	133	87	5	1551000	3,73
10.50	133	87	5	1551050	4,07
11.00	142	94	5	1551100	4,73
11.50	142	94	5	1551150	5,17
12.00	151	101	5	1551200	5,94
12.50	151	101	5	1551250	6,48
13.00	151	101	5	1551300	6,96

CONSTRUCCIÓN
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MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

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THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

DIN-338 N HSS-CO: BLISTER RÍGIDO
 DIN 338 N HSS-CO: RIGID PLASTIC BLISTER
 DIN 338 N HSS-CO: BLISTER DE PLASTIQUE RIGIDE

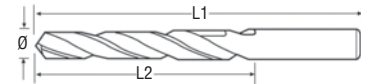
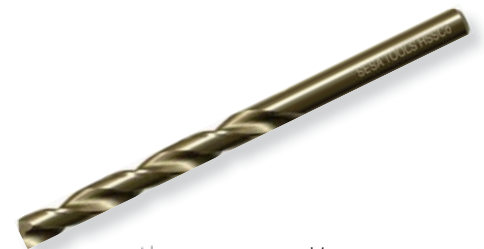


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.	€/Blister
1,00	34	12	2	1430100BL	1,96	3,93
1,50	40	18	2	1430150BL	1,85	3,70
2,00	49	24	2	1430200BL	1,84	3,67
2,50	57	30	2	1430250BL	1,91	3,83
3,00	61	33	2	1430300BL	1,90	3,80
3,25	65	36	2	1430325BL	2,38	4,75
3,50	70	39	2	1430350BL	2,38	4,75
4,00	75	43	2	1430400BL	2,47	4,93
4,25	75	43	2	1430425BL	2,92	5,84
4,50	80	47	2	1430450BL	2,92	5,83
5,00	86	52	2	1430500BL	2,94	5,88
5,25	86	52	2	1430525BL	3,25	6,50
5,50	93	57	2	1430550BL	3,69	7,38
6,00	93	57	2	1430600BL	3,69	7,38
6,50	101	63	1	1430650BL	4,60	4,60
7,00	109	69	1	1430700BL	5,00	5,00
7,50	109	69	1	1430750BL	5,50	5,50
8,00	117	75	1	1430800BL	6,66	6,66
8,50	117	75	1	1430850BL	7,06	7,06
9,00	125	81	1	1430900BL	8,41	8,41
9,50	125	81	1	1430950BL	9,42	9,42
10,00	133	87	1	1431000BL	9,82	9,82
10,50	133	87	1	1431050BL	12,71	12,71
11,00	142	94	1	1431100BL	14,21	14,21
11,50	142	94	1	1431150BL	17,80	17,80
12,00	151	101	1	1431200BL	18,60	18,60
12,50	151	101	1	1431250BL	23,85	23,85
13,00	151	101	1	1431300BL	23,93	23,93

Unidad de venta €/blister / Sales unit €/blister / Unité de vente € / blister

DIN 338 N HSS-CO

DIN 338 N HSS-CO • DIN 338 N HSS-CO



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
0,30	19	3	10	140030	3,67
0,40	20	5	10	140040	3,67
0,50	22	6	10	140050	2,93
0,60	24	7	10	140060	2,93
0,70	28	9	10	140070	2,93
0,75	28	9	10	140075	2,64
0,80	30	10	10	140080	2,93
0,90	32	11	10	140090	2,93
1,00	34	12	10	140100	1,46
1,10	36	14	10	140110	1,68
1,20	38	16	10	140120	1,68
1,25	38	16	10	140125	1,58
1,30	38	16	10	140130	1,68
1,40	40	18	10	140140	1,68
1,50	40	18	10	140150	1,39
1,60	43	20	10	140160	2,36
1,70	43	20	10	140170	2,36
1,75	46	22	10	140175	1,71
1,80	46	22	10	140180	2,36
1,90	46	22	10	140190	2,36
2,00	49	24	10	140200	1,37
2,10	49	24	10	140210	1,95
2,20	53	27	10	140220	1,95
2,25	53	27	10	140225	1,78
2,30	53	27	10	140230	1,95
2,40	57	30	10	140240	1,95
2,50	57	30	10	140250	1,43
2,60	57	30	10	140260	1,93
2,70	61	33	10	140270	1,93
2,75	61	33	10	140275	1,79
2,80	61	33	10	140280	1,93
2,90	61	33	10	140290	1,93
3,00	61	33	10	140300	1,43
3,10	65	36	10	140310	1,76
3,20	65	36	10	140320	1,76
3,25	65	36	10	140325	1,73
3,30	65	36	10	140330	1,94
3,40	70	39	10	140340	1,94
3,50	70	39	10	140350	1,78
3,60	70	39	10	140360	2,29
3,70	70	39	10	140370	2,29
3,75	70	39	10	140375	2,06
3,80	75	43	10	140380	2,29
3,90	75	43	10	140390	2,29
4,00	75	43	10	140400	1,84
4,10	75	43	10	140410	2,33
4,20	75	43	10	140420	2,33
4,25	75	43	10	140425	2,11

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
0,30	-	-	
0,40	-	-	
0,50	-	-	
0,60	-	-	
0,70	-	-	
0,75	-	-	
0,80	-	-	
0,90	-	-	
1,00	2	1430100	1,81
1,10	2	1430110	2,01
1,20	2	1430120	2,01
1,25	2	1430125	1,92
1,30	2	1430130	2,01
1,40	2	1430140	2,01
1,50	2	1430150	1,70
1,60	2	1430160	2,81
1,70	2	1430170	2,81
1,75	2	1430175	2,10
1,80	2	1430180	2,81
1,90	2	1430190	2,81
2,00	2	1430200	1,69
2,10	2	1430210	2,33
2,20	2	1430220	2,33
2,25	2	1430225	2,18
2,30	2	1430230	2,33
2,40	2	1430240	2,33
2,50	2	1430250	1,76
2,60	2	1430260	2,30
2,70	2	1430270	2,30
2,75	2	1430275	2,19
2,80	2	1430280	2,30
2,90	2	1430290	2,30
3,00	1	1430300	1,75
3,10	1	1430310	2,10
3,20	1	1430320	2,10
3,25	1	1430325	2,12
3,30	1	1430330	2,31
3,40	1	1430340	2,31
3,50	1	1430350	2,18
3,60	1	1430360	2,74
3,70	1	1430370	2,74
3,75	1	1430375	2,52
3,80	1	1430380	2,73
3,90	1	1430390	2,73
4,00	1	1430400	2,27
4,10	1	1430410	2,78
4,20	1	1430420	2,77
4,25	1	1430425	2,60

CONSTRUCCIÓN
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ACCESSORIES • ACCESSOIRES

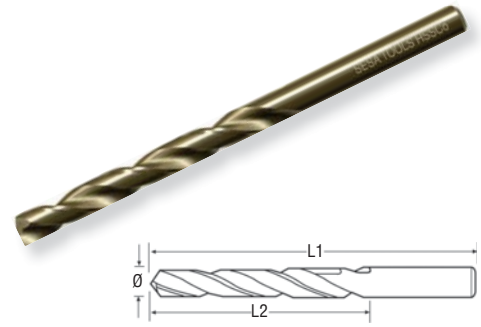
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
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DISPLAYS
DISPLAYS • DISPLAYS

DIN 338 N HSS-CO

DIN 338 N HSS-CO • DIN 338 N HSS-CO



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4,30	80	47	10	140430	2,50
4,40	80	47	10	140440	2,50
4,50	80	47	10	140450	2,18
4,60	80	47	10	140460	2,50
4,70	80	47	10	140470	2,50
4,75	80	47	10	140475	2,33
4,80	86	52	10	140480	2,68
4,90	86	52	10	140490	2,68
5,00	86	52	10	140500	2,20
5,10	86	52	10	140510	2,96
5,20	86	52	10	140520	2,96
5,25	86	52	10	140525	2,66
5,30	86	52	10	140530	3,17
5,40	93	57	10	140540	3,17
5,50	93	57	10	140550	2,94
5,60	93	57	10	140560	3,41
5,70	93	57	10	140570	3,41
5,75	93	57	10	140575	3,23
5,80	93	57	10	140580	3,60
5,90	93	57	10	140590	3,60
6,00	93	57	10	140600	2,96
6,10	101	63	10	140610	4,02
6,20	101	63	10	140620	4,02
6,25	101	63	10	140625	3,67
6,30	101	63	10	140630	4,22
6,40	101	63	10	140640	4,22
6,50	101	63	10	140650	3,69
6,60	101	63	10	140660	4,73
6,70	101	63	10	140670	4,73
6,75	109	69	10	140675	4,30
6,80	109	69	10	140680	4,92
6,90	109	69	10	140690	4,92
7,00	109	69	10	140700	4,02
7,10	109	69	10	140710	5,60
7,20	109	69	10	140720	5,60
7,25	109	69	10	140725	5,30
7,30	109	69	10	140730	5,95
7,40	109	69	10	140740	5,95
7,50	109	69	10	140750	4,42
7,60	117	75	10	140760	6,91
7,70	117	75	10	140770	6,91
7,75	117	75	10	140775	6,44
7,80	117	75	10	140780	7,43
7,90	117	75	10	140790	7,43
8,00	117	75	10	140800	5,35
8,10	117	75	10	140810	7,65
8,20	117	75	10	140820	7,65
8,25	117	75	10	140825	6,42

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
4,30	1	1430430	2,98
4,40	1	1430440	2,98
4,50	1	1430450	2,68
4,60	1	1430460	2,98
4,70	1	1430470	2,99
4,75	1	1430475	2,86
4,80	1	1430480	3,19
4,90	1	1430490	3,19
5,00	1	1430500	2,70
5,10	1	1430510	3,29
5,20	1	1430520	3,29
5,25	1	1430525	3,03
5,30	1	1430530	3,52
5,40	1	1430540	3,52
5,50	1	1430550	3,36
5,60	1	1430560	3,79
5,70	1	1430570	3,79
5,75	1	1430575	3,68
5,80	1	1430580	4,00
5,90	1	1430590	4,00
6,00	1	1430600	3,39
6,10	1	1430610	4,46
6,20	1	1430620	4,46
6,25	1	1430625	4,20
6,30	1	1430630	4,68
6,40	1	1430640	4,68
6,50	1	1430650	4,22
6,60	1	1430660	5,26
6,70	1	1430670	5,26
6,75	1	1430675	4,92
6,80	1	1430680	5,46
6,90	1	1430690	5,46
7,00	1	1430700	4,59
7,10	1	1430710	6,21
7,20	1	1430720	6,21
7,25	1	1430725	6,06
7,30	1	1430730	6,61
7,40	1	1430740	6,61
7,50	1	1430750	5,05
7,60	1	1430760	7,67
7,70	1	1430770	7,67
7,75	1	1430775	7,35
7,80	1	1430780	8,26
7,90	1	1430790	8,26
8,00	1	1430800	6,11
8,10	1	1430810	8,51
8,20	1	1430820	8,51
8,25	1	1430825	7,34

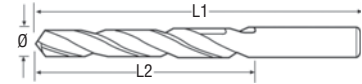
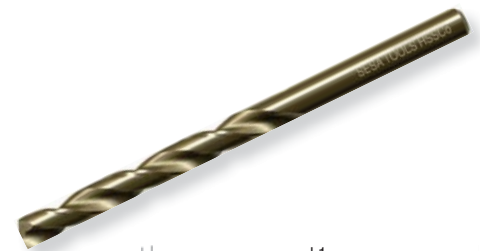
DIN 338 N HSS-CO

DIN 338 N HSS-CO • DIN 338 N HSS-CO



HSS-CO 5%

DIN 338 N



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,30	117	75	10	140830	8,01
8,40	117	75	10	140840	8,01
8,50	117	75	10	140850	5,67
8,60	125	81	5	140860	8,82
8,70	125	81	5	140870	8,82
8,75	125	81	5	140875	7,97
8,80	125	81	5	140880	9,10
8,90	125	81	5	140890	9,10
9,00	125	81	5	140900	6,76
9,10	125	81	5	140910	9,45
9,20	125	81	5	140920	9,45
9,25	125	81	5	140925	8,80
9,30	125	81	5	140930	10,81
9,40	125	81	5	140940	10,81
9,50	125	81	5	140950	7,56
9,60	133	87	5	140960	11,66
9,70	133	87	5	140970	11,66
9,75	133	87	5	140975	10,46
9,80	133	87	5	140980	12,49
9,90	133	87	5	140990	12,49
10,00	133	87	5	141000	8,35
10,25	133	87	5	141025	14,04
10,50	133	87	5	141050	10,80
10,75	142	94	5	141075	15,95
11,00	142	94	5	141100	12,07
11,25	142	94	5	141125	16,41
11,50	142	94	5	141150	15,14
11,75	142	94	5	141175	20,03
12,00	151	101	5	141200	15,80
12,25	151	101	5	141225	22,20
12,50	151	101	5	141250	20,27
12,75	151	101	5	141275	23,01
13,00	151	101	5	141300	20,33
13,25	160	108	1	141325	31,26
13,50	160	108	1	141350	26,96
14,00	160	108	1	141400	24,62
14,50	169	114	1	141450	35,35
15,00	169	114	1	141500	35,63
15,50	178	120	1	141550	42,21
16,00	178	120	1	141600	42,61
16,50	184	125	1	141650	50,17
17,00	184	125	1	141700	50,17
17,50	191	130	1	141750	55,67
18,00	191	130	1	141800	59,64
18,50	198	135	1	141850	66,27
19,00	198	135	1	141900	66,27
19,50	205	140	1	141950	74,23
20,00	205	140	1	142000	76,69

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,30	1	1430830	9,13
8,40	1	1430840	9,13
8,50	1	1430850	6,48
8,60	1	1430860	9,80
8,70	1	1430870	10,07
8,75	1	1430875	9,11
8,80	1	1430880	10,39
8,90	1	1430890	10,39
9,00	1	1430900	7,73
9,10	1	1430910	10,79
9,20	1	1430920	10,79
9,25	1	1430925	10,06
9,30	1	1430930	12,33
9,40	1	1430940	12,01
9,50	1	1430950	8,65
9,60	1	1430960	13,30
9,70	1	1430970	12,95
9,75	1	1430975	11,93
9,80	1	1430980	14,25
9,90	1	1430990	14,25
10,00	1	1431000	9,01
10,25	1	1431025	15,17
10,50	1	1431050	11,67
10,75	1	1431075	17,24
11,00	1	1431100	13,05
11,25	1	1431125	17,73
11,50	1	1431150	16,35
11,75	1	1431175	21,67
12,00	1	1431200	17,07
12,25	1	1431225	23,98
12,50	1	1431250	21,90
12,75	1	1431275	24,86
13,00	1	1431300	21,97

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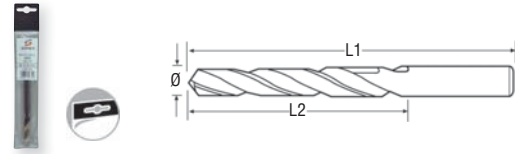
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DIN 338 N HSS-G INOX PROGRESIVA

DIN 338 N HSS-G PROGRESSIVE INOX
DIN 338 N HSS-G INOX PROGRESSIVE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	34	9	10	14P0100	0,99
1,25	38	10	10	14P0125	1,02
1,50	40	11	10	14P0150	1,02
1,75	46	12	10	14P0175	1,21
2,00	49	13	10	14P0200	1,21
2,25	53	14	10	14P0225	1,21
2,50	57	16	10	14P0250	1,21
2,75	61	18	10	14P0275	1,46
3,00	61	18	10	14P0300	1,29
3,25	65	20	10	14P0325	1,80
3,50	70	22	10	14P0350	1,80
3,75	75	25	10	14P0375	1,80
4,00	75	25	10	14P0400	1,69
4,25	80	28	10	14P0425	2,04
4,50	80	28	10	14P0450	2,04
4,75	86	32	10	14P0475	2,44
5,00	86	32	10	14P0500	2,29
5,25	86	32	10	14P0525	3,24
5,50	93	36	10	14P0550	3,24
5,75	93	36	10	14P0575	3,53
6,00	93	36	10	14P0600	3,14
6,25	101	40	10	14P0625	4,02
6,50	101	40	10	14P0650	4,02
6,75	109	45	10	14P0675	4,36
7,00	109	45	10	14P0700	4,38
7,25	109	45	10	14P0725	5,16
7,50	109	45	10	14P0750	5,16
7,75	117	51	10	14P0775	6,31
8,00	117	51	10	14P0800	6,14
8,25	117	51	10	14P0825	7,63
8,50	117	51	10	14P0850	7,63
8,75	125	57	5	14P0875	8,40
9,00	125	57	5	14P0900	8,30
9,25	125	57	5	14P0925	9,27
9,50	125	57	5	14P0950	9,27
9,75	133	63	5	14P0975	10,24
10,00	133	63	5	14P1000	9,88
10,25	133	63	5	14P1025	11,97
10,50	133	63	5	14P1050	11,97
10,75	142	71	5	14P1075	12,43
11,00	142	71	5	14P1100	12,25
11,25	142	71	5	14P1125	13,24
11,50	142	71	5	14P1150	13,24
11,75	142	71	5	14P1175	14,62
12,00	151	78	5	14P1200	14,28
12,25	151	78	5	14P1225	16,38
12,50	151	78	5	14P1250	16,38
12,75	151	78	5	14P1275	18,10
13,00	151	78	5	14P1300	18,21

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	2	14R0100	1,18
1,25	2	14R0125	1,20
1,50	2	14R0150	1,20
1,75	2	14R0175	1,43
2,00	2	14R0200	1,43
2,25	2	14R0225	1,43
2,50	2	14R0250	1,43
2,75	2	14R0275	1,71
3,00	1	14R0300	1,52
3,25	1	14R0325	2,12
3,50	1	14R0350	2,12
3,75	1	14R0375	2,12
4,00	1	14R0400	1,99
4,25	1	14R0425	2,41
4,50	1	14R0450	2,41
4,75	1	14R0475	2,87
5,00	1	14R0500	2,71
5,25	1	14R0525	3,57
5,50	1	14R0550	3,57
5,75	1	14R0575	3,88
6,00	1	14R0600	3,46
6,25	1	14R0625	4,41
6,50	1	14R0650	4,42
6,75	1	14R0675	4,79
7,00	1	14R0700	4,82
7,25	1	14R0725	5,67
7,50	1	14R0750	5,68
7,75	1	14R0775	6,94
8,00	1	14R0800	6,76
8,25	1	14R0825	8,40
8,50	1	14R0850	8,40
8,75	1	14R0875	9,23
9,00	1	14R0900	9,12
9,25	1	14R0925	10,19
9,50	1	14R0950	10,19
9,75	1	14R0975	11,26
10,00	1	14R1000	10,28
10,25	1	14R1025	12,44
10,50	1	14R1050	12,45
10,75	1	14R1075	12,93
11,00	1	14R1100	12,74
11,25	1	14R1125	13,77
11,50	1	14R1150	13,77
11,75	1	14R1175	15,20
12,00	1	14R1200	14,85
12,25	1	14R1225	17,03
12,50	1	14R1250	17,03
12,75	1	14R1275	18,84
13,00	1	14R1300	18,94

DIN 338 W HSS-CO PARA INOX
DIN 338 W HSS-CO SPECIAL INOX
DIN 338 W HSS-CO SPÉCIAL INOX

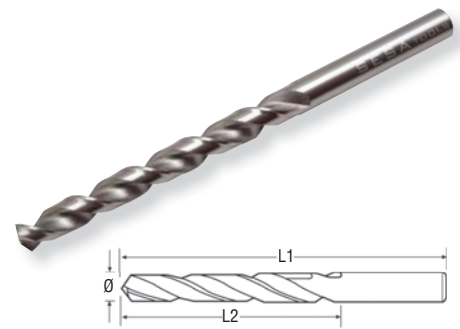


HSS-CO 5%

DIN 338 W



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	34	12	10	130104100	2,56
1,50	40	18	10	130104150	2,65
2,00	49	24	10	130104200	2,70
2,50	57	30	10	130104250	2,64
3,00	61	33	10	130104003	2,80
3,25	65	36	10	130104325	3,24
3,50	70	39	10	130104350	3,27
4,00	75	43	10	130104004	3,62
4,25	75	43	10	130104425	4,13
4,50	80	47	10	130104450	4,13
5,00	86	52	10	130104005	4,50
5,25	86	52	10	130104525	5,45
5,50	93	57	10	130104550	5,50
6,00	93	57	10	130104006	6,11
6,50	101	63	10	130104650	7,27
7,00	109	69	10	130104007	8,41
7,50	109	69	10	130104750	9,86
8,00	117	75	10	130104008	10,73
8,50	117	75	10	130104850	13,04
9,00	125	81	5	130104009	14,46
9,50	125	81	5	130104950	16,01
10,00	133	87	5	130104010	17,24
10,50	133	87	5	130104105	20,10
11,00	142	94	5	130104011	20,78
11,50	142	94	5	130104115	26,60
12,00	151	101	5	130104012	26,06
12,50	151	101	5	130104125	27,37
13,00	151	101	5	130104013	32,15



Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	2	131104100	2,82
1,50	2	131104150	2,92
2,00	2	131104200	2,97
2,50	2	131104250	2,90
3,00	1	131104003	3,09
3,25	1	131104325	3,56
3,50	1	131104350	3,60
4,00	1	131104004	3,99
4,25	1	131104425	4,55
4,50	1	131104450	4,55
5,00	1	131104005	4,94
5,25	1	131104525	6,00
5,50	1	131104550	6,05
6,00	1	131104006	6,72
6,50	1	131104650	7,99
7,00	1	131104007	9,26
7,50	1	131104750	10,86
8,00	1	131104008	11,79
8,50	1	131104850	14,35
9,00	1	131104009	15,91
9,50	1	131104950	17,61
10,00	1	131104010	17,93
10,50	1	131104105	20,91
11,00	1	131104011	21,61
11,50	1	131104115	27,66
12,00	1	131104012	27,10
12,50	1	131104125	28,47
13,00	1	131104013	33,44

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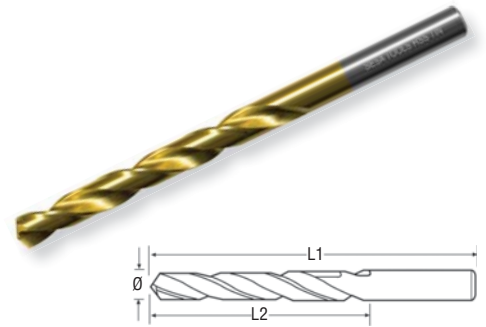
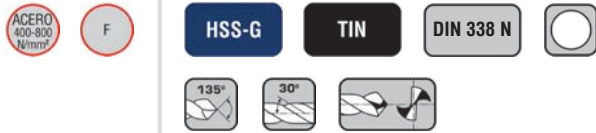
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DISPLAYS
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DIN 338 N HSS-G+TIN

DIN 338 N HSS-G+TIN • DIN 338 N HSS-G+TIN

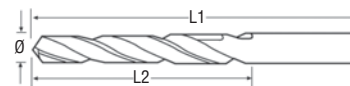


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	32	12	10	130100	1,27
1,25	38	16	10	130125	1,40
1,40*	40	18	10	130140	1,40
1,50	40	18	10	130150	1,37
1,75	46	22	10	130175	1,40
1,80*	46	22	10	130180	1,40
2,00	49	24	10	130200	1,33
2,25	53	27	10	130225	1,40
2,50	57	30	10	130250	1,37
2,75	61	33	10	130275	1,40
3,00	61	33	10	130300	1,38
3,25	65	36	10	130325	1,81
3,50	70	39	10	130350	1,81
3,75	70	39	10	130375	2,01
3,80*	75	43	10	130380	2,01
4,00	75	43	10	130400	1,89
4,25	75	43	10	130425	2,26
4,50	80	47	10	130450	2,26
4,75	80	47	10	130475	2,45
5,00	86	52	10	130500	2,32
5,20*	86	52	10	130520	3,27
5,25	86	52	10	130525	3,13
5,50	93	57	10	130550	3,13
5,75	93	57	10	130575	3,52
6,00	93	57	10	130600	3,29
6,25	101	63	10	130625	4,62
6,50	101	63	10	130650	4,53
6,75	109	69	10	130675	5,65
7,00	109	69	10	130700	5,34
7,25	109	69	10	130725	5,82
7,50	109	69	10	130750	5,71
7,75	117	75	10	130775	6,57
8,00	117	75	10	130800	6,21
8,25	117	75	10	130825	7,49
8,50	117	75	10	130850	7,34
8,75	125	81	5	130875	8,61
9,00	125	81	5	130900	7,82
9,25	125	81	5	130925	9,65
9,50	125	81	5	130950	9,47
9,75	133	87	5	130975	10,80
10,00	133	87	5	131000	9,86
10,50	133	87	5	131050	12,17
11,00	142	94	5	131100	13,15
11,50	142	94	5	131150	15,58
12,00	151	101	5	131200	17,39
12,50	151	101	5	131250	19,03
13,00	151	101	5	131300	20,06

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	2	1320100	1,54
1,25	2	1320125	1,65
1,40*	2	1320140	1,65
1,50	2	1320150	1,65
1,75	2	1320175	1,65
1,80*	2	1320180	1,65
2,00	2	1320200	1,59
2,25	2	1320225	1,65
2,50	2	1320250	1,65
2,75	2	1320275	1,65
3,00	1	1320300	1,66
3,25	1	1320325	2,19
3,50	1	1320350	2,19
3,75	1	1320375	2,36
3,80*	1	1320380	2,36
4,00	1	1320400	2,28
4,25	1	1320425	2,72
4,50	1	1320450	2,72
4,75	1	1320475	2,90
5,00	1	1320500	2,60
5,20*	1	1320520	3,59
5,25	1	1320525	3,51
5,50	1	1320550	3,51
5,75	1	1320575	3,87
6,00	1	1320600	3,69
6,25	1	1320625	5,08
6,50	1	1320650	5,08
6,75	1	1320675	6,22
7,00	1	1320700	6,00
7,25	1	1320725	6,41
7,50	1	1320750	6,41
7,75	1	1320775	7,23
8,00	1	1320800	6,96
8,25	1	1320825	8,23
8,50	1	1320850	8,23
8,75	1	1320875	9,47
9,00	1	1320900	8,77
9,25	1	1320925	10,61
9,50	1	1320950	10,62
9,75	1	1320975	11,88
10,00	1	1321000	10,46
10,50	1	1321050	12,90
11,00	1	1321100	13,94
11,50	1	1321150	16,51
12,00	1	1321200	18,43
12,50	1	1321250	20,18
13,00	1	1321300	21,27

*Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

DIN 338 S HSS-G PARA ALUMINIO
DIN 338 S HSS-G SPECIAL ALUMINIUM
DIN 338 S HSS-G SPÉCIALE ALUMINIUM



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,50	57	30	1	130107250	2,43
3,00	65	33	1	130107003	2,20
3,25	65	36	1	130107325	2,88
3,50	70	39	1	130107350	3,11
4,00	75	43	1	130107004	3,02
4,25	75	43	1	130107425	4,23
4,50	80	47	1	130107450	4,49
5,00	86	52	1	130107005	4,41
5,25	86	52	1	130107525	4,91
5,50	83	57	1	130107550	4,91
6,00	93	57	1	130107006	4,91
6,50	101	63	1	130107650	6,54
7,00	109	69	1	130107007	6,54

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
7,50	109	69	1	130107750	8,95
8,00	117	75	1	130107008	7,26
8,50	117	75	1	130107850	8,95
9,00	125	81	1	130107009	9,60
9,50	125	81	1	130107950	10,22
10,00	133	87	1	130107010	10,71
10,50	133	87	1	130107105	12,95
11,00	142	94	1	130107011	14,54
11,50	142	94	1	130107115	15,91
12,00	151	101	1	130107012	18,51
12,50	151	101	1	130107125	20,40
13,00	151	101	1	130107013	22,42

CONSTRUCCIÓN
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MADERA
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METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

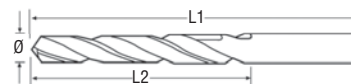
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

DIN 338 N HSS-CO + TIALN

DIN 338 N HSS-CO + TIALN • DIN 338 N HSS-CO + TIALN

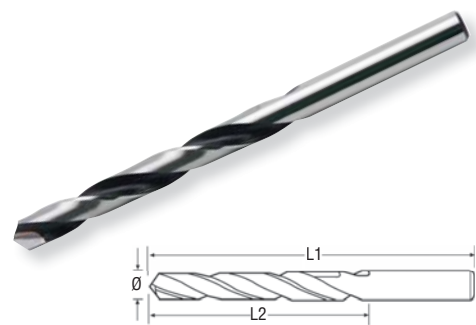

HSS-CO 5%
TIALN
DIN 338 N


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	34	12	1	130126001	5,34
1,50	40	18	1	130126150	5,62
2,00	49	24	1	130126002	5,93
2,50	57	30	1	130126250	7,61
3,00	61	33	1	130126003	7,07
3,25	65	36	1	130126325	7,61
3,50	70	39	1	130126350	7,99
4,00	75	43	1	130126004	8,96
4,25	75	43	1	130126425	8,50
4,50	80	47	1	130126450	7,79
5,00	86	52	1	130126005	9,85
5,25	86	52	1	130126525	12,01
5,50	93	57	1	130126550	10,89
6,00	93	57	1	130126006	10,41

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,50	101	63	1	130126650	15,51
7,00	109	69	1	130126007	17,03
7,50	109	69	1	130126750	20,01
8,00	117	75	1	130126008	19,83
8,50	117	75	1	130126850	22,22
9,00	125	81	1	130126009	25,95
9,50	125	81	1	130126950	27,44
10,00	133	87	1	130126010	29,26
10,50	133	87	1	130126105	38,24
11,00	142	94	1	130126011	39,04
11,50	142	94	1	130126115	40,57
12,00	151	101	1	130126012	49,37
12,50	151	101	1	130126125	53,42
13,00	151	101	1	130126013	53,24

K20 DIN 338 N HSS-MD

K20 DIN 338 N HSS-HM • K20 DIN N 338 HSS-HM



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	61	33	1	16M0300	19,34
3,50	70	39	1	16M0350	19,34
4,00	75	43	1	16M0400	19,34
4,50	80	47	1	16M0450	19,34
5,00	86	52	1	16M0500	19,34
5,50	93	57	1	16M0550	19,34
6,00	93	57	1	16M0600	20,67
6,50	101	63	1	16M0650	23,15
7,00	109	69	1	16M0700	25,63
7,50	109	69	1	16M0750	27,39
8,00	117	75	1	16M0800	28,72

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,50	117	75	1	16M0850	30,57
9,00	125	81	1	16M0900	30,95
9,50	125	81	1	16M0950	34,01
10,00	133	87	1	16M1000	36,77
10,50	133	87	1	16M1050	45,81
11,00	142	94	1	16M1100	49,72
11,50	142	94	1	16M1150	52,67
12,00	151	101	1	16M1200	56,80
12,50	151	101	1	16M1250	60,87
13,00	151	101	1	16M1300	65,23
14,00	160	108	1	16M1400	73,91

BROCA 3XD PARA MATERIALES DUROS - HARDOX

3XD DRILL BIT FOR HARD METALS - HARDOX

FORET 3XD POUR MATÉRIAUX DURS - HARDOX

NEW



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
5	86	26	1	14HX0500	8,66 €
6	93	28	1	14HX0600	9,76 €
8	117	37	1	14HX0800	14,41 €

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
10	133	43	1	14HX1000	19,98 €
12	151	51	1	14HX1200	29,12 €

Para otras medidas consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

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ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

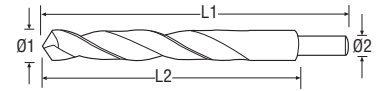
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

DIN 338 N HSS-G MANGO REDUCIDO

DIN 338 N HSS-G REDUCED SHANK • DIN 338 N HSS-G QUEUE RÉDUITE



Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
10,00	9,70	133	87	1	181000	9,46
10,50	9,70	133	87	1	181050	9,72
11,00	9,70	142	94	1	181100	9,46
11,50	9,70	142	94	1	181150	9,72
12,00	9,70	151	101	1	181200	10,79
12,25	9,70	151	101	1	181225	14,51
12,50	9,70	151	101	1	181250	11,95
12,75	9,70	151	101	1	181275	16,21
13,00	9,70	151	101	1	181300	12,33
13,25	12,70	160	108	1	181325	15,62
13,50	12,70	160	108	1	181350	15,99
13,75	12,70	160	108	1	181375	17,91
14,00	12,70	160	108	1	181400	15,64
14,25	12,70	169	114	1	181425	21,52
14,50	12,70	169	114	1	181450	18,51
14,75	12,70	169	114	1	181475	23,21
15,00	12,70	169	114	1	181500	18,72
15,25	12,70	178	120	1	181525	28,11
15,50	12,70	178	120	1	181550	23,44
15,75	12,70	178	120	1	181575	32,15
16,00	12,70	178	120	1	181600	22,01
16,25	12,70	184	125	1	181625	34,90
16,50	12,70	184	125	1	181650	25,72

Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
16,75	12,70	184	125	1	181675	38,21
17,00	12,70	184	125	1	181700	25,76
17,25	12,70	191	130	1	181725	39,50
17,50	12,70	191	130	1	181750	30,55
17,75	12,70	191	130	1	181775	40,41
18,00	12,70	191	130	1	181800	29,09
18,25	12,70	198	135	1	181825	43,18
18,50	12,70	198	135	1	181850	36,80
18,75	12,70	198	135	1	181875	41,96
19,00	12,70	198	135	1	181900	34,81
19,50	12,70	205	140	1	181950	38,50
20,00	12,70	205	140	1	182000	41,35
20,50	12,70	213	145	1	182050	47,90
21,00	12,70	213	145	1	182100	49,85
21,50	12,70	221	150	1	182150	54,20
22,00	12,70	221	150	1	182200	53,60
22,50	12,70	221	150	1	182250	57,14
23,00	12,70	229	155	1	182300	57,71
23,50	12,70	229	155	1	182350	61,02
24,00	12,70	236	160	1	182400	62,03
24,50	12,70	236	160	1	182450	66,51
25,00	12,70	236	160	1	182500	66,64
26,00	12,70	243	165	1	182600	84,33

CONSTRUCCIÓN
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ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

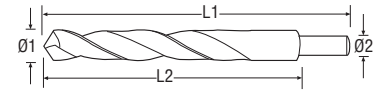
BROCAS PARA METAL MANGO REDUCIDO

REDUCED SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE



DIN 338 N HSS-CO MANGO REDUCIDO

DIN 338 N HSS-CO REDUCED SHANK • DIN338 N HSS-CO QUEUE RÉDUITE



HSS-CO 5%

DIN 338 N



Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
12,00	9,70	151	101	1	1841200	21,57
13,00	9,70	151	101	1	1841300	26,68
13,50	12,70	160	108	1	1841350	30,11
14,00	12,70	160	108	1	1841400	28,36
14,50	12,70	169	114	1	1841450	36,05
15,00	12,70	169	114	1	1841500	36,60
15,50	12,70	178	120	1	1841550	46,18
16,00	12,70	178	120	1	1841600	43,71

Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
16,50	12,70	184	125	1	1841650	53,08
17,00	12,70	184	125	1	1841700	53,09
17,50	12,70	191	130	1	1841750	60,95
18,00	12,70	191	130	1	1841800	60,06
18,50	12,70	198	135	1	1841850	66,00
19,00	12,70	198	135	1	1841900	67,54
19,50	12,70	205	140	1	1841950	73,64
20,00	12,70	205	140	1	1842000	75,57

CONSTRUCCIÓN
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ACCESORIOS
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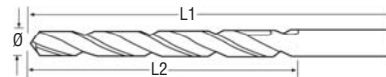
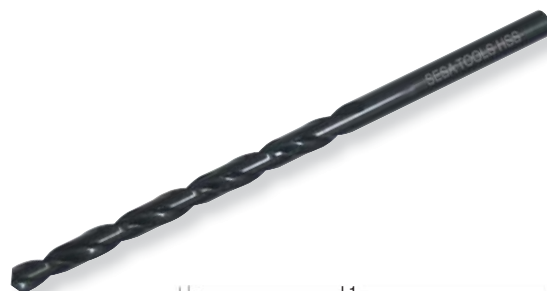
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

DIN 340 N HSS-G SERIE LARGA

DIN 340 N HSS-G LONG SERIES
 DIN 340 N HSS-G SÉRIE LONGUE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	56	33	1	100100	2,90
1,25	65	41	1	100125	3,14
1,50	70	45	1	100150	3,14
1,75	80	53	1	100175	3,14
2,00	85	56	1	100200	2,55
2,10	85	56	1	100210	4,20
2,25	90	59	1	100225	2,61
2,50	95	62	1	100250	2,47
2,60	95	62	1	100260	3,49
2,75	100	66	1	100275	2,77
2,80	100	66	1	100280	3,49
3,00	100	66	1	100300	2,42
3,10	106	69	1	100310	4,45
3,25	106	69	1	100325	2,91
3,30	112	73	1	100330	3,02
3,40	112	73	1	100340	4,45
3,50	112	73	1	100350	2,77
3,60	112	73	1	100360	3,42
3,75	112	73	1	100375	3,42
4,00	119	78	1	100400	2,88
4,10	119	78	1	100410	4,06
4,20	119	78	1	100420	4,06
4,25	119	78	1	100425	4,02
4,50	126	82	1	100450	3,66
4,60	126	82	1	100460	4,32
4,75	126	82	1	100475	4,36
4,80	132	87	1	100480	4,55
4,90	132	87	1	100490	4,55
5,00	132	87	1	100500	3,79
5,10	132	87	1	100510	5,19
5,25	132	87	1	100525	5,14
5,50	139	91	1	100550	5,01
5,60	139	91	1	100560	5,69
5,70	139	91	1	100570	5,69
5,75	139	91	1	100575	5,52
5,80	139	91	1	100580	6,66
6,00	139	91	1	100600	4,63

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,10	148	97	1	100610	7,09
6,25	148	97	1	100625	7,26
6,40	148	97	1	100640	7,27
6,50	148	97	1	100650	6,10
6,75	156	102	1	100675	7,07
7,00	156	102	1	100700	6,31
7,10	156	102	1	100710	7,60
7,25	156	102	1	100725	7,60
7,50	156	102	1	100750	7,48
7,75	165	109	1	100775	7,92
8,00	165	109	1	100800	8,11
8,25	165	109	1	100825	9,57
8,50	165	109	1	100850	9,45
8,75	175	115	1	100875	11,06
9,00	175	115	1	100900	9,87
9,25	175	115	1	100925	12,48
9,50	175	121	1	100950	10,89
9,75	184	121	1	100975	13,07
10,00	184	121	1	101000	11,54
10,25	184	121	1	101025	13,85
10,50	184	121	1	101050	14,30
10,75	195	128	1	101075	15,31
11,00	195	128	1	101100	15,91
11,25	195	128	1	101125	19,10
11,50	195	128	1	101150	17,39
11,75	205	134	1	101175	20,87
12,00	205	134	1	101200	18,91
12,25	205	134	1	101225	21,78
12,50	205	134	1	101250	20,66
12,75	205	134	1	101275	25,75
13,00	205	134	1	101300	22,29
13,50	214	140	1	101350	26,82
14,00	214	140	1	101400	28,98
14,50	220	144	1	101450	31,69
15,00	220	144	1	101500	31,31
16,00	227	149	1	101600	38,26

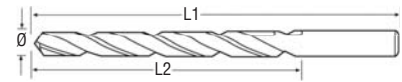
DIN 340 N HSS-CO SERIE LARGA

DIN 340 N HSS-CO LONG SERIES
DIN 340 N HSS-CO SÉRIE LONGUE



HSS-CO 5%

DIN 340 N



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	85	56	1	14L0200	7,06
2,50	95	62	1	14L0250	7,06
3,00	100	66	1	14L0300	7,06
3,20	106	69	1	14L0320	8,66
3,25	106	69	1	14L0325	6,95
3,50	112	73	1	14L0350	7,55
3,75	112	73	1	14L0375	7,75
4,00	119	78	1	14L0400	7,55
4,25	119	78	1	14L0425	8,25
4,50	126	82	1	14L0450	9,30
4,75	126	82	1	14L0475	10,69
5,00	132	87	1	14L0500	9,76
5,50	139	91	1	14L0550	11,70
6,00	139	91	1	14L0600	11,70

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,50	148	97	1	14L0650	14,87
7,00	156	102	1	14L0700	16,13
7,50	156	102	1	14L0750	19,75
8,00	165	109	1	14L0800	18,19
8,50	165	109	1	14L0850	22,44
9,00	175	115	1	14L0900	22,44
9,50	175	115	1	14L0950	26,10
10,00	184	121	1	14L1000	35,21
10,50	184	121	1	14L1050	44,18
11,00	195	128	1	14L1100	46,01
11,50	195	128	1	14L1150	59,65
12,00	205	134	1	14L1200	49,42
12,50	205	134	1	14L1250	63,05
13,00	205	134	1	14L1300	63,05

CONSTRUCCIÓN
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MADERA
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METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
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ACCESORIOS
ACCESSORIES • ACCESSOIRES

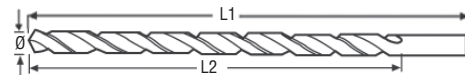
HEXAGONAL
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METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

DIN 1869 N HSS-G SERIE EXTRALARGA

DIN 1869 N HSS-G EXTRA LONG SERIES
 DIN 1869 N HSS-G EXTRA LONG



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	125	85	1	1002125	9,50
2,50	140	95	1	1002514	10,13
3,00	150	100	1	1003150	11,24
3,00	190	130	1	1003190	12,80
3,50	165	115	1	1003516	12,12
3,50	210	145	1	1003521	15,67
3,50	265	180	1	1003526	21,14
4,00	175	120	1	1004175	12,74
4,00	220	150	1	1004220	16,51
4,00	280	190	1	1004280	23,47
4,50	185	125	1	1004518	14,28
4,50	235	160	1	1004523	17,28
4,50	295	200	1	1004529	25,46
5,00	195	135	1	1005195	14,51
5,00	245	170	1	1005245	17,82
5,00	315	210	1	1005315	26,00
5,50	205	140	1	1005520	17,79
5,50	260	180	1	1005526	23,72
5,50	330	235	1	1005533	30,40
6,00	205	140	1	1006205	17,79
6,00	260	180	1	1006260	28,14
6,00	330	225	1	1006330	32,16
6,50	215	150	1	1006521	18,73
6,50	275	190	1	1006527	28,70

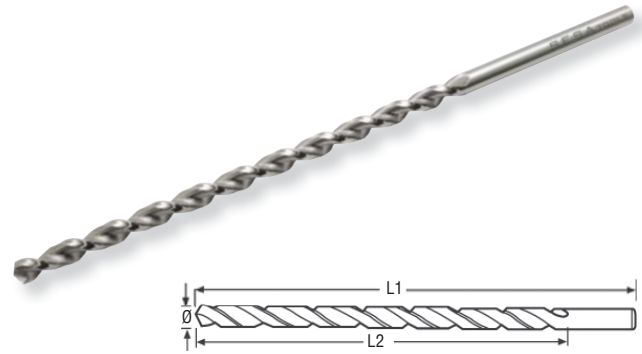
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,50	350	235	1	1006535	38,19
7,00	225	155	1	1007225	23,23
7,00	290	200	1	1007290	31,83
7,00	370	250	1	1007370	43,81
7,50	225	155	1	1007522	28,47
7,50	305	210	1	1007530	38,51
7,50	370	250	1	1007537	51,62
8,00	240	165	1	1008240	30,71
8,00	305	210	1	1008305	38,90
8,00	390	265	1	1008390	56,45
8,50	240	165	1	1008524	40,47
8,50	305	210	1	1008530	45,90
8,50	390	265	1	1008539	72,33
9,00	250	175	1	1009250	43,64
9,00	320	220	1	1009320	50,16
9,00	410	280	1	1009410	81,27
9,50	250	175	1	1009525	48,08
9,50	320	220	1	1009532	59,19
9,50	410	280	1	1009541	82,86
10,00	265	185	1	1010265	50,50
10,00	340	235	1	1010340	65,39
10,00	430	295	1	1010430	87,54
12,00	295	205	1	1012295	69,99
12,00	375	260	1	1012375	85,09

DIN 1869 S HSS-CO SERIE EXTRALARGA
DIN 1869 S HSS-CO EXTRA LONG SERIES
DIN 1869 S HSS-CO EXTRA LONG



HSS-CO 5%

DIN 1869 S



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	125	85	1	130127020125	18,75
2,50	140	95	1	130127250140	19,22
3,00	150	100	1	130127030150	20,46
3,25	155	105	1	130127325155	25,18
3,50	210	145	1	130127350210	27,44
4,00	175	120	1	130127040175	20,89
4,00	220	150	1	130127040220	27,28
4,25	220	150	1	130127425220	42,05
4,50	235	160	1	130127450235	31,93
5,00	195	135	1	130127050195	26,68
5,00	245	170	1	130127205245	34,59
5,50	260	180	1	130127550260	38,98
6,00	205	140	1	130127060205	24,80

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	260	180	1	130127060260	33,92
6,50	275	190	1	130127650275	43,28
7,00	295	200	1	130127070295	46,63
8,00	240	165	1	130127080290	43,95
8,00	305	210	1	130127080305	53,31
8,50	305	210	1	130127850305	64,01
9,00	320	220	1	130127090320	70,69
10,00	265	185	1	130127100265	62,67
10,00	340	235	1	130127100340	87,42
11,00	360	250	1	130127110360	106,47
12,00	380	260	1	130127120380	126,51

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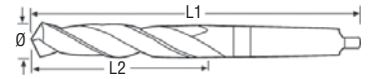
HEXAGONAL
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METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
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DIN 345 N HSS-G

DIN 345 N HSS-G • DIN 345 N HSS-G

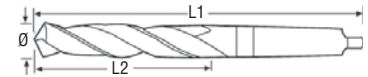


Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
4,00	1	124	43	1	150400	18,78
4,50	1	128	47	1	150450	20,28
5,00	1	133	52	1	150500	15,96
5,50	1	138	57	1	150550	17,28
5,75	1	138	57	1	150575	17,84
6,00	1	138	57	1	150600	15,52
6,25	1	144	63	1	150625	16,88
6,50	1	144	63	1	150650	17,09
6,75	1	150	69	1	150675	17,09
7,00	1	150	69	1	150700	16,50
7,50	1	150	69	1	150750	18,14
7,75	1	156	75	1	150775	21,45
8,00	1	156	75	1	150800	16,91
8,25	1	156	75	1	150825	22,43
8,50	1	156	75	1	150850	18,53
8,75	1	162	81	1	150875	22,83
9,00	1	162	81	1	150900	18,17
9,50	1	162	81	1	150950	18,81
9,75	1	168	87	1	150975	23,26
10,00	1	168	87	1	151000	17,69
10,25	1	168	87	1	151025	23,87
10,50	1	168	87	1	151050	19,41
10,75	1	175	94	1	151075	21,84
11,00	1	175	94	1	151100	19,16
11,25	1	175	94	1	151125	25,88
11,50	1	175	94	1	151150	21,44
11,75	1	175	94	1	151175	25,28
12,00	1	182	101	1	151200	20,03
12,25	1	182	101	1	151225	25,88
12,50	1	182	101	1	151250	23,87
12,75	1	182	101	1	151275	28,32
13,00	1	182	101	1	151300	21,39
13,25	1	189	108	1	151325	29,32
13,50	1	189	108	1	151350	23,66
13,75	1	189	108	1	151375	29,25
14,00	1	189	108	1	151400	23,47
14,25	2	212	114	1	151425	31,21
14,50	2	212	114	1	151450	26,86
14,75	2	212	114	1	151475	32,76
15,00	2	212	114	1	151500	25,18
15,25	2	218	120	1	151525	33,15
15,50	2	218	120	1	151550	27,04
15,75	2	218	120	1	151575	34,14
16,00	2	218	120	1	151600	27,37
16,25	2	223	125	1	151625	37,06
16,50	2	223	125	1	151650	30,80

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
16,75	2	223	125	1	151675	41,50
17,00	2	223	125	1	151700	30,36
17,25	2	228	130	1	151725	41,57
17,50	2	228	130	1	151750	32,75
17,75	2	228	130	1	151775	41,66
18,00	2	228	130	1	151800	31,11
18,25	2	233	135	1	151825	46,59
18,50	2	233	135	1	151850	36,63
18,75	2	233	135	1	151875	47,44
19,00	2	233	135	1	151900	35,06
19,25	2	238	140	1	151925	49,35
19,50	2	238	140	1	151950	39,44
19,75	2	238	140	1	151975	49,75
20,00	2	238	140	1	152000	38,85
20,25	2	243	145	1	152025	54,42
20,50	2	243	145	1	152050	47,34
20,75	2	243	145	1	152075	55,22
21,00	2	243	145	1	152100	42,80
21,25	2	248	150	1	152125	59,29
21,50	2	248	150	1	152150	49,58
21,75	2	248	150	1	152175	58,70
22,00	2	248	150	1	152200	44,82
22,25	2	253	155	1	152225	65,32
22,50	2	253	155	1	152250	48,76
22,75	2	253	155	1	152275	67,15
23,00	2	253	155	1	152300	53,78
23,25	3	276	155	1	152325	71,00
23,50	3	276	155	1	152350	58,12
23,75	3	281	160	1	152375	72,55
24,00	3	281	160	1	152400	55,47
24,25	3	281	160	1	152425	76,66
24,50	3	281	160	1	152450	64,56
24,75	3	281	160	1	152475	80,35
25,00	3	281	160	1	152500	61,50
25,25	3	286	165	1	152525	87,38
25,50	3	286	165	1	152550	68,65
25,75	3	286	165	1	152575	90,49
26,00	3	286	165	1	152600	67,97
26,25	3	286	165	1	152625	94,21
26,50	3	286	165	1	152650	78,22
26,75	3	291	170	1	152675	98,29
27,00	3	291	170	1	152700	72,65
27,25	3	291	170	1	152725	101,81
27,50	3	291	170	1	152750	80,95
27,75	3	291	170	1	152775	101,42

DIN 345 N HSS-G

DIN 345 N HSS-G • DIN 345 N HSS-G



Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
28,00	3	291	170	1	152800	78,87
28,25	3	296	175	1	152825	110,84
28,50	3	296	175	1	152850	90,70
28,75	3	296	175	1	152875	111,85
29,00	3	296	175	1	152900	87,39
29,25	3	296	175	1	152925	126,01
29,50	3	296	175	1	152950	100,25
29,75	3	296	175	1	152975	127,63
30,00	3	296	175	1	153000	101,43
30,25	3	301	180	1	153025	135,92
30,50	3	301	180	1	153050	114,11
30,75	3	301	180	1	153075	138,95
31,00	3	301	180	1	153100	108,50
31,25	3	301	180	1	153125	144,82
31,50	3	301	180	1	153150	125,21
31,75	3	306	185	1	153175	150,88
32,00	4	334	185	1	153200	118,74
32,25	4	334	185	1	153225	153,76
32,50	4	334	185	1	153250	148,45
32,75	4	334	185	1	153275	168,64
33,00	4	334	185	1	153300	133,54
33,25	4	334	185	1	153325	173,45
33,50	4	334	185	1	153350	159,00
33,75	4	339	190	1	153375	181,00
34,00	4	339	190	1	153400	141,16
34,25	4	339	190	1	153425	186,24
34,50	4	339	190	1	153450	168,64
34,75	4	339	190	1	153475	195,66
35,00	4	339	190	1	153500	150,66
35,25	4	339	190	1	153525	195,66
35,50	4	339	190	1	153550	186,24
35,75	4	344	195	1	153575	207,81
36,00	4	344	195	1	153600	167,13
36,50	4	344	195	1	153650	199,42
37,00	4	344	195	1	153700	182,62
37,50	4	344	195	1	153750	207,81
38,00	4	349	200	1	153800	192,00
38,50	4	349	200	1	153850	218,50
39,00	4	349	200	1	153900	197,28
39,50	4	349	200	1	153950	227,50
40,00	4	349	200	1	154000	211,75
40,50	4	354	205	1	154050	237,14
41,00	4	354	205	1	154100	219,17
41,50	4	354	205	1	154150	262,07
42,00	4	354	205	1	154200	239,12

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
42,50	4	354	205	1	154250	272,75
43,00	4	359	210	1	154300	251,83
43,50	4	359	210	1	154350	289,51
44,00	4	359	210	1	154400	267,92
44,50	4	359	210	1	154450	304,39
45,00	4	359	210	1	154500	279,43
45,50	4	364	215	1	154550	319,47
46,00	4	364	215	1	154600	295,09
46,50	4	364	215	1	154650	334,14
47,00	4	364	215	1	154700	306,99
47,50	4	364	215	1	154750	340,42
48,00	4	369	220	1	154800	317,49
48,50	4	369	220	1	154850	367,86
49,00	4	369	220	1	154900	321,87
49,50	4	369	220	1	154950	372,47
50,00	4	369	220	1	155000	332,55
50,50	4	369	220	1	155050	433,84
51,00	5	412	225	1	155100	390,58
52,00	5	412	225	1	155200	440,13
53,00	5	412	225	1	155300	451,46
54,00	5	417	230	1	155400	480,65
55,00	5	417	230	1	155500	504,64
56,00	5	417	230	1	155600	561,09
57,00	5	422	235	1	155700	594,00
58,00	5	422	235	1	155800	603,68
59,00	5	422	235	1	155900	626,71
60,00	5	422	235	1	156000	609,02
61,00	5	427	240	1	156100	724,27
62,00	5	427	240	1	156200	713,19
63,00	5	427	240	1	156300	744,05
64,00	5	432	245	1	156400	781,09
65,00	5	432	245	1	156500	819,57
66,00	5	432	245	1	156600	913,71
67,00	5	432	245	1	156700	932,35
68,00	5	437	250	1	156800	965,83
69,00	5	437	250	1	156900	1.008,81
70,00	5	437	250	1	157000	1.019,09
71,00	5	437	250	1	157100	1.031,88
72,00	5	442	255	1	157200	1.069,39
75,00	5	442	255	1	157500	1.120,08
78,00	6	514	260	1	157800	1.560,58
80,00	6	519	265	1	158000	1.776,83
85,00	6	519	265	1	158500	1.872,12
90,00	6	524	270	1	159000	2.099,22
95,00	6	529	275	1	159500	2.395,94

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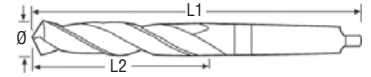
HEXAGONAL
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DIN 345 N HSS-CO

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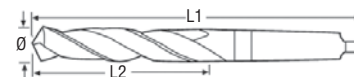
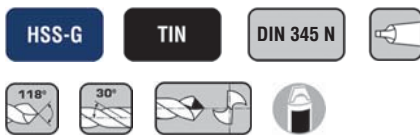


Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
10,00	1	168	87	1	14C1000	68,89
11,00	1	175	94	1	14C1100	69,61
11,50	1	175	94	1	14C1150	74,39
12,00	1	182	101	1	14C1200	69,47
12,50	1	182	101	1	14C1250	74,39
13,00	1	182	101	1	14C1300	66,64
13,50	1	189	102	1	14C1350	83,39
14,00	1	189	102	1	14C1400	77,89
14,50	2	212	114	1	14C1450	114,22
15,00	2	212	114	1	14C1500	93,24
15,50	2	218	120	1	14C1550	120,23
16,00	2	218	120	1	14C1600	103,05
16,50	2	223	125	1	14C1650	123,31
17,00	2	223	125	1	14C1700	105,10
17,50	2	228	130	1	14C1750	129,58
18,00	2	228	130	1	14C1800	107,91
18,50	2	233	135	1	14C1850	133,70
19,00	2	233	135	1	14C1900	122,88
19,50	2	238	140	1	14C1950	141,33
20,00	2	238	140	1	14C2000	128,92
20,50	2	243	145	1	14C2050	138,51
21,00	2	243	145	1	14C2100	150,15

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
21,50	2	248	150	1	14C2150	161,86
22,00	2	248	150	1	14C2200	162,83
22,50	2	253	155	1	14C2250	167,12
23,00	2	253	155	1	14C2300	169,34
24,00	3	281	160	1	14C2400	174,03
25,00	3	281	160	1	14C2500	194,22
26,00	3	286	165	1	14C2600	221,85
27,00	3	291	170	1	14C2700	242,77
28,00	3	291	170	1	14C2800	263,08
29,00	3	296	175	1	14C2900	271,09
30,00	3	296	175	1	14C3000	289,14
31,00	3	301	180	1	14C3100	309,59
32,00	4	334	185	1	14C3200	316,40
33,00	4	334	185	1	14C3300	360,61
34,00	4	339	190	1	14C3400	378,55
35,00	4	339	190	1	14C3500	404,60
36,00	4	344	195	1	14C3600	420,99
37,00	4	344	195	1	14C3700	432,03
38,00	4	349	200	1	14C3800	502,05
39,00	4	349	200	1	14C3900	563,73
40,00	4	349	200	1	14C4000	595,31

DIN 345 N HSS-G+TIN

DIN 345 N HSS-G+TIN • DIN 345 N HSS-G+TIN

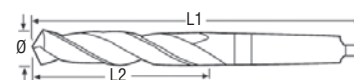


Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
13,50	1	189	108	1	1351350	73,03
14,00	1	189	108	1	1351400	73,11
14,50	2	212	114	1	1351450	90,62
15,00	2	212	114	1	1351500	90,62
15,50	2	218	120	1	1351550	94,10
16,00	2	218	120	1	1351600	91,54
16,50	2	223	125	1	1351650	98,01
17,00	2	223	125	1	1351700	97,07
17,50	2	228	130	1	1351750	112,18
18,00	2	228	130	1	1351800	100,52
18,50	2	233	135	1	1351850	117,38
19,00	2	233	135	1	1351900	115,45
19,50	2	238	140	1	1351950	132,77
20,00	2	238	140	1	1352000	132,82
20,50	2	243	145	1	1352050	136,25

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
21,00	2	243	145	1	1352100	135,12
21,50	2	248	150	1	1352150	148,78
22,00	2	248	150	1	1352200	154,75
22,50	2	253	155	1	1352250	170,79
23,00	2	253	155	1	1352300	168,81
23,50	3	276	155	1	1352350	184,27
24,00	3	281	160	1	1352400	185,51
24,50	3	281	160	1	1352450	202,46
25,00	3	281	160	1	1352500	198,71
26,00	3	286	165	1	1352600	211,49
27,00	3	291	170	1	1352700	224,61
28,00	3	291	170	1	1352800	242,92
29,00	3	296	175	1	1352900	261,93
30,00	3	296	175	1	1353000	280,89

BROCA CÓNICA 3XD PARA MATERIALES DUROS - HARDOX
3XD TAPER SHANK DRILL FOR HARD METALS - HARDOX
FORET CONIQUE 3XD POUR MATÉRIAUX DURS - HARDOX

NEW

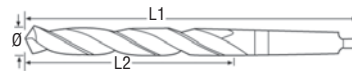


Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
8,00	1	124	43	1	15HX0800	81,87
9,00	1	127	46	1	15HX0900	80,85
10,00	1	131	50	1	15HX1000	81,87
11,00	1	136	55	1	15HX1100	88,49
12,00	2	157	59	1	15HX1200	82,55
13,00	2	157	59	1	15HX1300	85,86
14,00	2	161	63	1	15HX1400	109,36
15,00	2	164	66	1	15HX1500	114,39
16,00	2	168	70	1	15HX1600	110,38
17,00	2	171	73	1	15HX1700	116,11
18,00	2	175	77	1	15HX1800	122,76
19,00	3	201	80	1	15HX1900	133,72
20,00	3	204	83	1	15HX2000	156,18
21,00	3	208	87	1	15HX2100	175,00
22,00	3	211	90	1	15HX2200	183,41
23,00	3	215	94	1	15HX2300	196,90
24,00	3	219	98	1	15HX2400	200,23

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
25,00	3	219	98	1	15HX2500	209,69
26,00	3	224	103	1	15HX2600	284,84
27,00	4	256	107	1	15HX2700	305,06
28,00	4	256	107	1	15HX2800	311,60
29,00	4	261	112	1	15HX2900	323,36
30,00	4	261	112	1	15HX3000	340,07
31,00	4	266	117	1	15HX3100	406,94
32,00	4	271	122	1	15HX3200	437,20
33,00	4	271	122	1	15HX3300	504,07
34,00	4	277	128	1	15HX3400	562,49
35,00	4	277	128	1	15HX3500	537,31
36,00	4	282	132	1	15HX3600	707,83
37,00	4	282	132	1	15HX3700	808,16
38,00	4	288	139	1	15HX3800	908,61
39,00	4	288	139	1	15HX3900	1.077,22
40,00	4	288	139	1	15HX4000	1.210,15

DIN 341 N HSS-G SERIE LARGA

DIN 341 N HSS-G LONG SERIES • DIN 341 N HSS-G SERIE LONGUE



Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
14,00	2	223	142	1	15A1400	70,60
15,00	2	245	147	1	15A1500	81,18
15,50	2	251	153	1	15A1550	83,01
16,00	2	251	153	1	15A1600	89,43
16,50	2	257	159	1	15A1650	86,59
17,00	2	257	159	1	15A1700	94,98
17,50	2	263	165	1	15A1750	87,52
18,00	2	263	165	1	15A1800	102,97
18,50	2	269	171	1	15A1850	99,89
19,00	2	269	171	1	15A1900	109,22
19,50	2	275	177	1	15A1950	108,23
20,00	2	275	177	1	15A2000	116,05
20,50	2	282	184	1	15A2050	125,57
21,00	2	282	184	1	15A2100	128,95
21,50	2	289	191	1	15A2150	148,16
22,00	2	289	191	1	15A2200	149,79
22,50	2	296	198	1	15A2250	154,14
23,00	2	296	198	1	15A2300	146,90
23,50	3	319	198	1	15A2350	193,60
24,00	3	327	206	1	15A2400	190,65
24,50	3	327	206	1	15A2450	175,12

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
25,00	3	327	206	1	15A2500	194,06
25,50	3	333	214	1	15A2550	199,38
26,00	3	333	214	1	15A2600	217,16
26,50	3	333	214	1	15A2650	211,47
27,00	3	343	222	1	15A2700	218,15
27,50	3	343	222	1	15A2750	260,63
28,00	3	343	222	1	15A2800	253,88
28,50	3	351	230	1	15A2850	263,09
29,00	3	351	230	1	15A2900	255,96
29,50	3	351	230	1	15A2950	295,61
30,00	3	351	230	1	15A3000	288,46
31,00	3	360	239	1	15A3100	330,71
32,00	4	397	248	1	15A3200	342,90
33,00	4	397	248	1	15A3300	383,57
34,00	4	406	257	1	15A3400	473,08
35,00	4	406	257	1	15A3500	468,43
36,00	4	416	267	1	15A3600	542,58
37,00	4	416	267	1	15A3700	563,75
38,00	4	426	277	1	15A3800	603,77
39,00	4	426	277	1	15A3900	613,17
40,00	4	426	277	1	15A4000	663,37

DIN 1870 N HSS-G SERIE EXTRALARGA
DIN 1870 N HSS-G EXTRALONG SERIE
DIN 1870 N HSS-G SERIE EXTRALONGUE

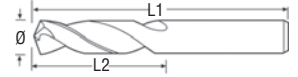


Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
10,00	1	285	185	1	15B1000	150,26
10,50	1	285	185	1	15B1050	170,49
11,00	1	300	195	1	15B1100	166,32
11,50	1	300	195	1	15B1150	175,30
12,00	1	310	205	1	15B1200	185,51
12,50	1	310	205	1	15B1250	192,36
13,00	1	310	205	1	15B1300	192,36
13,50	1	325	220	1	15B1350	205,57
14,00	1	325	220	1	15B1400	214,87
14,50	2	340	220	1	15B1450	232,15
15,00	2	340	220	1	15B1500	240,42
15,50	2	355	230	1	15B1550	317,81
16,00	2	355	230	1	15B1600	314,06
16,50	2	355	230	1	15B1650	250,39
17,00	2	355	230	1	15B1700	281,87
17,50	2	370	245	1	15B1750	305,07
18,00	2	370	245	1	15B1800	318,76
18,50	2	370	245	1	15B1850	301,79
19,00	2	370	245	1	15B1900	315,06
19,50	2	385	260	1	15B1950	334,94
20,00	2	385	260	1	15B2000	379,62

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
20,50	2	385	260	1	15B2050	415,68
21,00	2	385	260	1	15B2100	403,40
21,50	2	405	270	1	15B2150	441,17
22,00	2	405	270	1	15B2200	434,87
22,50	2	405	270	1	15B2250	495,74
23,00	2	405	270	1	15B2300	500,74
23,50	3	425	270	1	15B2350	544,78
24,00	3	440	290	1	15B2400	601,71
24,50	3	440	290	1	15B2450	712,56
25,00	3	440	290	1	15B2500	569,17
25,50	3	440	290	1	15B2550	803,95
26,00	3	440	290	1	15B2600	600,45
26,50	3	440	290	1	15B2650	803,95
27,00	3	460	305	1	15B2700	613,93
27,50	3	460	305	1	15B2750	849,49
28,00	3	460	305	1	15B2800	639,50
28,50	3	460	305	1	15B2850	901,91
29,00	3	460	305	1	15B2900	670,07
29,50	3	460	305	1	15B2950	722,74
30,00	3	460	305	1	15B3000	690,47

EXTRACORTA DIN 1897 N HSS-G

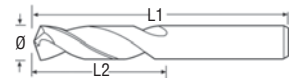
STUB SERIES DIN 1897 N HSS-G • EXTRA COURTE DIN 1897 N HSS-G



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.	Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	46	16	10	104300	1,16	7,50	74	34	10	104750	3,60
3,25	49	18	10	104325	1,24	7,75	79	37	10	104775	3,96
3,50	52	20	10	104350	1,24	8,00	79	37	10	104800	3,96
3,75	52	20	10	104375	1,37	8,25	79	37	10	104825	4,72
4,00	55	22	10	104400	1,37	8,50	79	37	10	104850	4,72
4,25	55	22	10	104425	1,63	8,75	84	40	10	104875	5,13
4,50	58	24	10	104450	1,63	9,00	84	40	10	104900	5,13
4,75	58	24	10	104475	1,83	9,50	84	40	10	104950	5,75
5,00	62	26	10	104500	1,83	10,00	89	43	10	104101	6,44
5,25	62	26	10	104525	2,00	10,50	89	43	5	104105	7,25
5,50	66	28	10	104550	2,00	11,00	95	47	5	104110	8,17
5,75	66	28	10	104575	2,29	11,50	95	47	5	104115	9,07
6,00	66	28	10	104600	2,29	12,00	102	51	5	104120	9,57
6,25	66	28	10	104625	2,76	12,50	102	51	5	104126	11,67
6,50	70	31	10	104650	2,76	13,00	102	51	5	104130	11,76
6,75	74	34	10	104675	3,20	14,00	107	54	1	104140	20,44
7,00	74	34	10	104700	3,20	15,00	111	56	1	104155	21,50
7,25	74	34	10	104725	3,60						

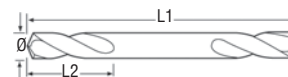
EXTRACORTA DIN 1897 N HSS-CO

STUB SERIES DIN 1897 N HSS-CO • EXTRA COURTE DIN 1897 N HSS-CO



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.	Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	46	16	10	14E300	2,30	7,50	74	34	10	14E750	7,58
3,25	49	18	10	14E325	2,35	7,75	79	37	10	14E775	8,67
3,50	52	20	10	14E350	2,48	8,00	79	37	10	14E800	7,36
3,75	52	20	10	14E375	2,92	8,25	79	37	10	14E825	9,62
4,00	55	22	10	14E400	2,76	8,50	79	37	10	14E850	8,73
4,25	55	22	10	14E425	3,02	8,75	84	40	10	14E875	12,00
4,50	58	24	10	14E450	3,15	9,00	84	40	10	14E900	9,55
4,75	58	24	10	14E475	3,37	9,25	84	40	10	14E925	13,51
5,00	62	26	10	14E500	3,57	9,50	84	40	10	14E950	10,72
5,25	62	26	10	14E525	3,76	9,75	89	43	10	14E975	15,03
5,50	66	28	10	14E550	3,76	10,00	89	43	10	14E100	11,95
5,75	66	28	10	14E575	4,51	10,50	89	43	5	14E105	15,56
6,00	66	28	10	14E600	4,28	11,00	95	47	5	14E110	14,91
6,25	66	28	10	14E625	6,53	11,50	95	47	5	14E115	16,54
6,50	70	31	10	14E650	5,09	12,00	102	51	5	14E120	19,80
6,75	74	34	10	14E675	8,18	12,50	102	51	5	14E125	20,76
7,00	74	34	10	14E700	5,88	13,00	102	51	5	14E130	27,17
7,25	74	34	10	14E725	8,67						

EXTRACORTA DOBLE PUNTA DIN 1897 N HSS-G
STUB SERIES DOUBLE POINT DIN 1897 N HSS-G
EXTRA COURTE DOUBLE POINT DIN 1897 N HSS-G



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	38	10	10	104D200	2,65
2,25	40	10	10	104D225	3,03
2,50	43	10	10	104D250	2,64
2,75	46	10	10	104D275	3,15
3,00	49	10	10	104D300	2,32
3,20	49	10	10	104D320	2,32
3,25	49	10	10	104D325	2,32
3,50	52	13	10	104D350	2,57
3,75	55	13	10	104D375	2,84
4,00	55	13	10	104D400	2,64
4,25	55	13	10	104D425	2,84
4,50	58	13	10	104D450	2,94

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4,75	62	13	10	104D475	4,75
5,00	62	13	10	104D500	3,36
5,25	62	13	10	104D525	4,75
5,50	66	16	10	104D550	4,06
5,75	66	16	10	104D575	5,59
6,00	66	16	10	104D600	4,54
6,50	70	19	10	104D650	5,02
7,00	74	19	10	104D700	5,97
7,50	74	19	10	104D750	6,11
8,00	79	19	10	104D800	7,32
9,00	84	20	10	104D900	9,77
10,00	89	22	10	104D100	10,55

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

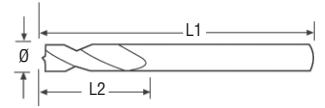
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BROCA CILÍNDRICA PARA PUNTO DE SOLDADURA
STRAIGHT SHANK WELD POINT DRILL BITS
FORETS DEPOINTEUR QUEUE CYLINDRIQUE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	66,00	28,00	1,00	TS0600	12,66
7,00	74,00	28,00	1,00	TS0700	16,33
8,00	79,00	37,00	1,00	TS0800	13,46
10,00	89,00	43,00	1,00	TS1000	18,97



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	66,00	28,00	1,00	TT0600	23,03
7,00	74,00	28,00	1,00	TT0700	25,35
8,00	79,00	37,00	1,00	TT0800	26,32

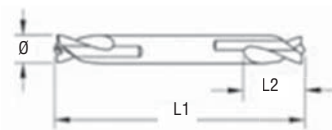


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	66,00	28,00	1,00	TF0600	27,94
7,00	74,00	28,00	1,00	TF0700	35,76
8,00	79,00	37,00	1,00	TF0800	32,17
10,00	89,00	43,00	1,00	TF1000	39,57

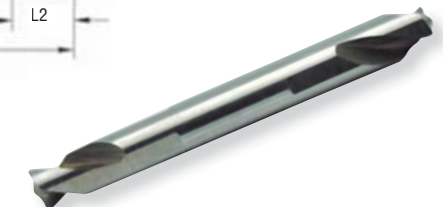


Recomendado para uso en aceros al Boro / Recommended for Boron steel / Recommandé pour aciers au Bore

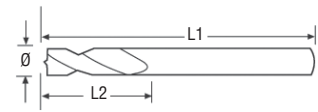
BROCA PARA PUNTO DE SOLDADURA - DOBLE PUNTA
WELD POINT DRILL BITS - DOUBLE POINT
FORETS DEPOINTEUR - DOUBLE POINT



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,00	70,00	16,30	1,00	TSD0800	34,43



BROCA CON CHAVETERO PARA MÁQUINA NEUMÁTICA
WELD POINT DRILL BITS PNEUMATIC TOOLS
FORETS DEPOINTEUR QUEUE CYLINDRIQUE MACHINES NEUMATIQUES



HSS-CO 5%



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	45,00	16,00	1,00	TSN600	15,99
8,00	45,00	18,00	1,00	TSN800	20,09



HSS-CO 5%

TIN



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	45,00	16,00	1,00	TTN600	21,47
8,00	45,00	18,00	1,00	TTN800	25,66



HSS-CO 5%

TIALN



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,00	45,00	18,00	1,00	TFN800	42,02



Recomendado para uso en aceros al Boro / Recommended for Boron steel / Recommandé pour aciers au Bore

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

SESA BOX



	COLGADOR	HANGER	CINTRE
	Herramienta siempre ordenada	Tools always organized	Outils toujours bien organisés
	CALIDAD HERRAMIENTA	TOOL QUALITY	QUALITÉ DES OUTILS
	Herramienta SESATOOLS, máximo rendimiento	SESATOOLS drill bits, maximum performance	Outils SESA TOOLS, maximum rendement
	APERTURA	OPENING	OUVERTURE
	Sistema de cierre, herramienta siempre bien guardada	Closing system, well kept tools	Système de fermeture, outils toujours bien gardés
	ACCESO A LA HERRAMIENTA	ACCES TO THE TOOLS	ACCÈS AUX OUTILS
	Bastidor móvil, acceso fácil y rápido a la herramienta	Moving frame, fast and easy tool fitting	Chassis mobile, accès facile et rapide
	RESISTENCIA CAÍDAS	RESISTENCE TO THE FALLS	RÉSISTENCE AUX CHUTE
	Plástico flexible y ultrarresistente	Ultra resistant and flexible plastic	Plastique flexible et ultrarésistant

ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA COMBINED SET METAL-CONSTRUCTION-WOOD COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

BASIC BOX (9 UDS. / PCS.)

Composición / Contains / Composition				Medidas / Sizes	Cod.	€/Unid.		
HSS WHITE	HSS	+	BASIC	+	MADERA	5 - 6 - 8 mm	19CB339	16,54



19CB339

STANDARD BOX (9 UDS. / PCS.)

Composición / Contains / Composition				Medidas / Sizes	Cod.	€/Unid.		
HSS G	HSS-G	+	GRANITO	+	MADERA	5 - 6 - 8 mm	19CM339	23,41



19CM339

ADVANCE BOX (9 UDS. / PCS.)

Composición / Contains / Composition				Medidas / Sizes	Cod.	€/Unid.		
HSS CO	HSS-CO 5%	+	TORNADO	+	MADERA	5 - 6 - 8 mm	19CA339	32,41



19CA339

ESTUCHE MODELO 314 - COMPOSICIÓN: 3-4-5-6-8 mm

SET MOD.: 314 - CONTAINS: 3-4-5-6-8 mm

COFFRET MOD.: 314 - COMPOSITION: 3-4-5-6-8 mm



1915314



155P314



194314



194P314



195P314



192314

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915314	13,69
HSS	WHITE WHITE	1	155P314	10,83
HSS-CO 5%		1	194314	19,81

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
INOX	HSS-G INOX PROGRESIVA PROGRESSIVE INOX	1	194P314	22,14
INOX	HSS-CO 5%	1	195P314	29,16
	TIN	1	192314	20,41

ESTUCHE MODELO 333 - COMPOSICIÓN: 3-4-5-6-7-8-9-10 mm

SET MOD.: 333- CONTAINS: 3-4-5-6-7-8-9-10 mm

COFFRET MOD.: 333 - COMPOSITION: 3-4-5-6-7-8-9-10 mm



1915333



155P333



194333



194P333



195P333



192333

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915333	28,26
HSS	WHITE WHITE	1	155P333	22,04
HSS-CO 5%		1	194333	43,18

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
INOX	HSS-G INOX PROGRESIVA PROGRESSIVE INOX	1	194P333	45,50
INOX	HSS-CO 5%	1	195P333	64,22
	TIN	1	192333	44,14

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

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HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
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ESTUCHE CRT19 PLÁSTICO - COMPOSICIÓN: 19 PIEZAS, 1-10 x 0,5 mm

SET MOD.: CRT19 PLASTIC - 19 PIECES, 1-10 x 0,5 mm

COFFRET MOD.: CRT19 PLASTIQUE - 19 PIÈCES, 1-10 x 0,5 mm


1915019T

194019T

194P019T

1935019T

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915019T	51,03
		1	194019T	77,72
	INOX PROGRESIVA PROGRESSIVE INOX	1	194P019T	93,56

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
		1	1935019T	140,12
ESTUCHE VACÍO / EMPTY SET		1	19R2008	20,09

ESTUCHE DRT25 PLÁSTICO - COMPOSICIÓN: 25 PIEZAS, 1-13 x 0,5 mm

SET MOD.: DRT25 PLASTIC - 25 PIECES, 1-13 x 0,5 mm

COFFRET MOD.: DRT25 PLASTIQUE - 25 PIÈCES, 1-13 x 0,5 mm


1915025T

194025T

194P025T

1935025T

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915025T	101,47
		1	194025T	178,97
	INOX PROGRESIVA PROGRESSIVE INOX	1	194P025T	206,58

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
		1	1935025T	255,92
ESTUCHE VACÍO / EMPTY SET		1	19R2007	23,60

ESTUCHE CR19 METAL - COMPOSICIÓN: 19 PIEZAS, 1-10 x 0,5 mm

SET MOD.: CR19 METAL - 19 PIECES, 1-10 x 0,5 mm

COFFRET MOD.: CR19 MÉTAL - 19 PIÈCES, 1-10 x 0,5 mm

DIN 338



1915119

1935519

194019

192119

1935119

1915019NI

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915119	48,32
HSS	WHITE WHITE	1	1935519	38,30
HSS-CO 5%		1	194019	75,49

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
TIN		1	192119	86,72
HSS		1	1935119	38,30
HSS-G	A IZQUIERDAS 2-10 mm LEFT 2-10 mm	1	1915019NI	201,56
ESTUCHE VACÍO / EMPTY SET		1	19CR19	17,13

ESTUCHE DR25 METAL - COMPOSICIÓN: 25 PIEZAS, 1-13 x 0,5 mm

SET MOD.: DR25 METAL - 25 PIECES, 1-13 x 0,5 mm

COFFRET MOD.: DR25 MÉTAL - 25 PIÈCES, 1-13 x 0,5 mm

DIN 338



1915025

1935525

194025

192025

1935025

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915025	100,49
HSS	WHITE WHITE	1	1935525	78,24
HSS-CO 5%		1	194025	177,40

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
TIN		1	192025	188,93
HSS		1	1935025	78,24
ESTUCHE VACÍO / EMPTY SET		1	19DR25	21,38

ESTUCHE FR37 METAL - COMPOSICIÓN: 37 PIEZAS, 1-10 x 0,25 mm

 SET MOD.: FR37 METAL - 37 PIECES, 1-10 x 0,25 mm
 COFFRET MOD.: FR37 METAL - 37 PIÈCES, 1-10 x 0,25 mm


Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
HSS-G ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915037	125,99
HSS-CO 5%	1	194037	187,08
TIN	1	192037	209,25

Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
HSS-G INOX PROGRESIVA PROGRESSIVE INOX	1	194P037	198,45
ESTUCHE VACÍO / EMPTY SET	1	19R037	46,12

ESTUCHE LR49 METAL - COMPOSICIÓN: 49 PIEZAS 1-13 x 0,25 mm

 SET MOD.: LR49 METAL - 49 PIECES 1-13 x 0,25 mm
 COFFRET MOD.: LR49 METAL - 49 PIÈCES 1-13 x 0,25 mm


Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
HSS-G ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915049	230,69
HSS-CO 5%	1	194049	421,26
TIN	1	192049	434,54

Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
HSS-G INOX PROGRESIVA PROGRESSIVE INOX	1	194P049	446,49
ESTUCHE VACÍO / EMPTY SET	1	19R049	49,30

ESTUCHE M.014 METAL - COMPOSICIÓN: 51 PIEZAS 1-6,0 x 0,1 mm
SET MOD.: M.014 METAL - 51 PIECES 1-6,0 x 0,1mm
COFFRET MOD.: M.014 METAL - 51 PIÈCES 1-6,0 x 0,1 mm



Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
HSS-G ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915014	96,06
HSS-CO 5%	1	194014	149,67

Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
ESTUCHE VACÍO / EMPTY SET	1	19R0014	49,30

ESTUCHE M.015 METAL - COMPOSICIÓN: 41 PIEZAS 6-10 x 0,1 mm
SET MOD.: M.015 METAL - 41 PIECES 6-10 x 0,1 mm
COFFRET MOD.: M.015 METAL - 41 PIÈCES 6-10 x 0,1 mm



Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
HSS-G ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915015	242,59
HSS-CO 5%	1	1940015	392,30

Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
ESTUCHE VACÍO / EMPTY SET	1	19R0015	90,10

ESTUCHE M.9965 PLÁSTICO - COMPOSICIÓN: 91 PIEZAS 1-10 x 0,1mm
SET MOD.: M.9965 METAL - 91 PIECES 1-10 x 0,1 mm
COFFRET MOD.: M.9965 METAL - 91 PIÈCES 1-10 x 0,1 mm



Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
HSS-G ALTO RENDIMIENTO HIGH PERFORMANCE	1	19159965	275,22
HSS-CO 5%	1	1949965	465,88

Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
ESTUCHE VACÍO / EMPTY SET	1	19R9965	63,34

ESTUCHE M.880 PLÁSTICO - COMPOSICIÓN: 292 PIEZAS 1-10 x 0.5 mm

SET MOD.: M.880 PLASTIC

292 PIECES 1-10 x 0,5 mm

COFFRET MOD.: M.880 PLASTIQUE

292 PIÈCES 1-10 x 0,5 mm



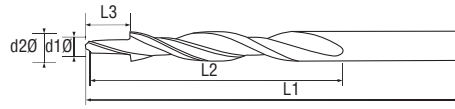
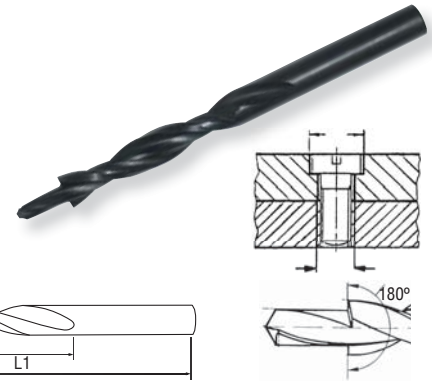
Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
HSS-G ALTO RENDIMIENTO HIGH PERFORMANCE	1	145R880	507,83
HSS WHITE WHITE	1	155R880	303,24
HSS-CO 5%	1	14R880	813,49
INOX HSS-G INOX PROGRESIVA PROGRESSIVE INOX	1	14PR880	854,78

Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
INOX HSS-CO 5%	1	193R880	1587,52
TIN	1	13R880	900,77
ESTUCHE VACÍO / EMPTY SET	1	19R880	40,63

Contenido / Contains / Contenu

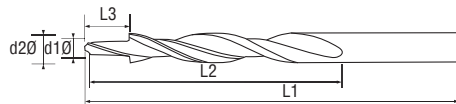
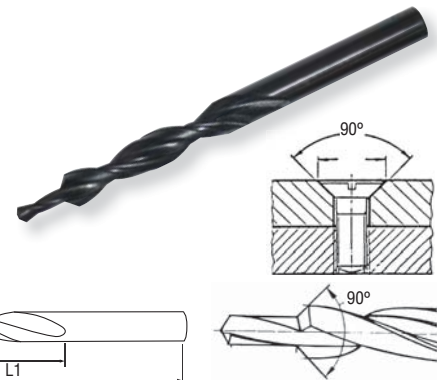
Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.
1,00	20	3,50	20	6,00	20	8,50	8
1,50	20	4,00	15	6,50	15	9,00	8
2,00	20	4,50	15	7,00	15	9,50	8
2,50	20	5,00	15	7,50	15	10,00	8
3,00	20	5,50	15	8,00	15		

BROCA BIDIAMETRAL PARA ASIENTOS DE TORNILLO 180°
SUBLAND DRILL BITS 180° • FORETS ÉTAGÉS À VIS 180°



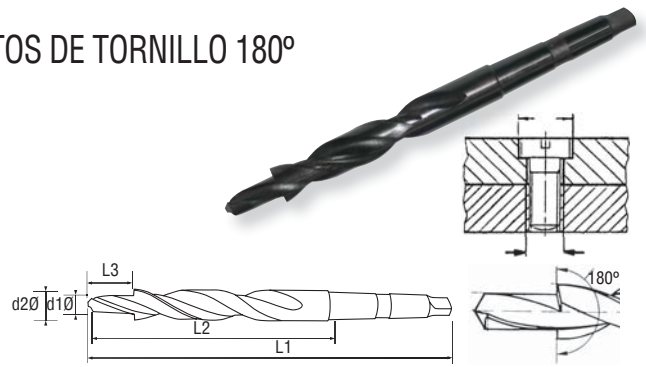
Ø (mm)	L1 (mm)	L2 (mm)	L3 (mm)	d1 (mm)	d2 (mm)	Cod.	€/Unid.
M 3	93	57	9	3,4	6	16B0300	78,59
M 4	117	75	11	4,5	8	16B0400	82,36
M 5	133	87	13	5,5	10	16B0500	98,86
M 6	142	94	15	6,5	11	16B0600	110,62
M 8	169	114	19	9,0	15	16B0800	135,83
M 10	191	130	23	11,0	18	16B1000	270,21

BROCA BIDIAMETRAL PARA ASIENTOS DE TORNILLO 90°
SUBLAND DRILL BITS 90° • FORETS ÉTAGÉS À VIS 90°



Ø (mm)	L1 (mm)	L2 (mm)	L3 (mm)	d1 (mm)	d2 (mm)	Cod.	€/Unid.
M 3	93	57	9	3,2	6,0	16C0300	91,72
M 4	117	75	11	4,3	8,0	16C0400	96,14
M 5	133	87	13	5,3	10,0	16C0500	114,39
M 6	142	94	15	6,4	11,5	16C0600	130,49
M 8	169	114	19	8,4	15,0	16C0800	178,75
M 10	198	135	23	10,5	19,0	16C1000	275,60

BROCA BIDIAMETRAL MANGO CÓNICO PARA ASIENTOS DE TORNILLO 180°
TAPPER SHANK SUBLAND DRILL BITS 180°
FORETS ÉTAGÉS Á VIS 180° QUEUE CONIQUE



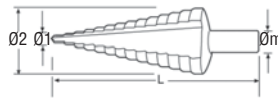
Ø (mm)	L1	L2	L3	d1	d2	Cono Morse / Tapper Shank	Cod.	€/Unid.
M 8	212	114	19	9,0	15	2	16D0800	198,95
M 10	228	130	23	11,0	18	2	16D1000	224,67
M 12	238	140	27	13,5	20	2	16D1200	251,44
M 14	281	160	31	15,5	24	3	16D1400	357,25
M 16	286	165	35	17,5	26	3	16D1600	509,25
M 18	296	175	39	20,0	30	3	16D1800	566,99
M 20	334	185	43	22,0	33	4	16D2000	639,16

BROCA BIDIAMETRAL MANGO CÓNICO PARA ASIENTOS DE TORNILLO 90°
TAPPER SHANK SUBLAND DRILL BITS 90°
FORETS ÉTAGÉS Á VIS 90° QUEUE CONIQUE



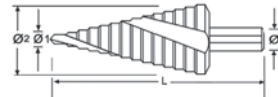
Ø (mm)	L1	L2	L3	d1	d2	Cono Morse / Tapper Shank	Cod.	€/Unid.
M 5	175	94	13	5,5	11,0	1	16E0500	192,26
M 6	182	101	15	6,6	13,0	1	16E0600	196,23
M 8	228	130	19	9,0	17,2	2	16E0800	233,84
M 10	248	150	23	11,0	21,5	2	16E1000	277,03

BROCAS ESCALONADAS RECTAS
STEP DRILL-BITS • FRAISES ÉTAGÉES



Ø 1 (mm)	L1 (mm)	Ø Mango / Ø Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
4 a 12 / 1	74	6,5	1	109401	33,80
4 a 20 / 2	68	10	1	109402	52,54
4 a 30 / 2	101	10	1	109403	79,32
6 a 38 / 2	101	10	1	109632	162,87

BROCAS ESCALONADAS CANAL HELICOIDAL
SPIRAL STEP DRILL-BITS • FRAISES ÉTAGÉES SPIRAL



Ø 1 a Ø 2 (mm)	L1 (mm)	Ø Mango / Ø Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
4-12	65	6	1	110401	48,44
4-20	75	8	1	110402	79,55
4-30	100	10	1	110403	115,65
6-38	100	10	1	110632	175,20

ESTUCHE DE BROCAS ESCALONADAS
STEP DRILL BITS SET
COFFRETS FRAISES ETAGÉES

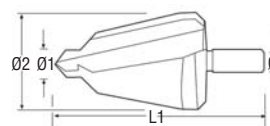
Medidas / Sizes
4 a 12 / 1 - 4 a 20 / 2 - 4 a 30 / 2 mm

Tipo / Type	Uds. Pcs.	Cod.	€/Unid.
RECTA STRAIGHT	3	109169	185,30

Medidas / Sizes
4 a 12 / 1 - 4 a 20 / 2 - 4 a 30 / 2 mm

Tipo / Type	Uds. Pcs.	Cod.	€/Unid.
HELICOIDAL 35° SPIRAL 35°	3	109170	258,37

BROCAS CÓNICA PARA TUBO Y CHAPA
SHEET METAL DRILL-BITS • FORETS CONIQUES



Ø 1 a Ø 2 (mm)	L1 (mm)	Ø Mango / Ø Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
3 a 14	58	6	1	108031	22,68
6 a 20	70	8	1	108062	30,69
16 a 30,5	79	10	1	108163	58,06
26 a 40	86	10	1	108264	117,81

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

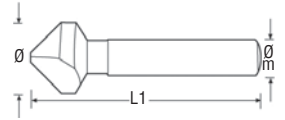
ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

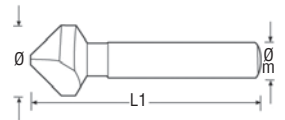
DISPLAYS
DISPLAYS • DISPLAYS

AVELLANADOR HSS-G 90°
90° HSS-G COUNTERSINK CUTTERS • FRAISES CONIQUE 90° HSS-G

HSS-G
DIN 335C

3Z
90°

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
4,30	44	4	1	T04344	13,64
6,30	45	5	1	T06344	11,82
8,30	50	6	1	T08350	14,11
10,40	50	6	1	T10454	16,40
12,40	54	8	1	T12454	18,10

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
16,50	60	10	1	T16560	24,88
20,50	63	10	1	T20563	36,62
25,00	66	10	1	T25066	46,18
31,00	72	12	1	T31071	73,93

AVELLANADOR HSS-CO 90°
90° HSS-CO COUNTERSINK CUTTERS • FRAISES CONIQUE 90° HSS-CO

HSS-CO 5%
DIN 335C

3Z
90°

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
4,30	40	4	1	3AE0430	21,71
6,30	45	5	1	3AE0630	15,33
8,30	50	6	1	3AE0830	21,71
10,40	50	6	1	3AE1040	25,36
12,40	56	8	1	3AE1250	27,55

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
16,50	60	10	1	3AE1650	37,04
20,50	63	10	1	3AE2050	55,28
25,00	67	10	1	3AE2500	72,06
31,00	71	12	1	3AE3100	116,22
40,00	80	15	1	3AE4000	133,15

ESTUCHE AVELLANADORES 90°
90° COUNTERSINKS SETS • COFFRETS FRAISES À CHANFREINER 90°

Medidas / Sizes

6,3 - 8,3 - 10,4 - 12,4 - 16,5 - 20,5 mm

Calidad Quality	Uds. Pcs.	Cod.	€/Unid.
HSS-G	6	T40757	153,64
HSS-CO 5%	6	T40757C	206,46

AVELLANADOR HSS-G 90° MANGO CÓNICO
90° TAPER SHANK HSS-G COUNTERSINK CUTTERS
FRAISE CONIQUE QUEUE CONIQUE 90° HSS-G



HSS-G

DIN 335D



3Z

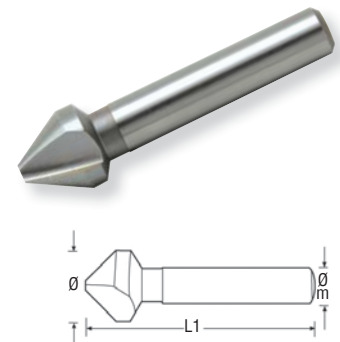
90°

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds, Pcs,	Cod,	€/Unid.
16,50	85	12,065 (CM 1)	1	3AM1650	95,43
20,50	100	17,780 (CM 2)	1	3AM2050	113,19
25,00	106	17,780 (CM 2)	1	3AM2500	114,24
31,00	112	17,780 (CM 2)	1	3AM3100	127,07

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds, Pcs,	Cod,	€/Unid.
40,00	140	23,825 (CM 3)	1	3AM4000	193,86
50,00	150	23,825 (CM 3)	1	3AM5000	236,39
63,00	180	31,267 (CM 4)	1	3AM6300	352,39
80,00*	190	31,267 (CM 4)	1	3AM8000	607,59

*Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

AVELLANADOR HSS-G 60°
60° HSS-G COUNTERSINK CUTTERS
FRAISES CONIQUE 60° HSS-G



HSS-G

DIN 334C



3Z

60°

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds, Pcs,	Cod,	€/Unid.
6,30	45	5	1	3AS0630	21,24
8,30	50	6	1	3AS0800	23,05
10,00	53	6	1	3AS1000	24,76

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds, Pcs,	Cod,	€/Unid.
12,50	56	8	1	3AS1250	26,84
16,00	63	10	1	3AS1600	35,00
20,50	67	10	1	3AS2050	44,35

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

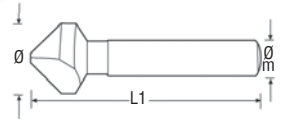
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

AVELLANADORES HSS-G 90° HEXAGONAL
90° HSS-G HEXAGONAL COUNTERSINK
FRAISE CONIQUE 90° HSS-G HEXAGONALE

HSS-G


Ø (mm)	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,30	31	1	3R67306	18,58
8,30	31	1	3R67308	18,58
10,40	34	1	3R67310	20,01
12,40	35	1	3R67312	21,06
16,50	40	1	3R67316	23,64
20,50	41	1	3R67320	26,78

MANGO SILICONA ENTRADA HEXAGONAL
SILICONE HEXAGONAL SHANK HOLDER, INLET 1/4"
MANCHE À SILICONE, ENTRÉE 1/4"

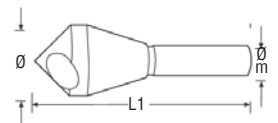
Uds. / Pcs.	Cod.	€/Unid.
1	NZBD14	20,39

CJTO. AVELLANANADORES C/ADAPTADOR Y MANGO
COUNTERSINKS SETS
COFFRET FRAISES
À CHANFREINER

Medidas / Sizes

 6,3 - 8,3 - 10,4 - 12,4,
 16,5 - 20,5 mm

Uds. / Pcs.	Cod.	€/Unid.
8	3R67423	87,54

AVELLANADOR 90° HSS-G CON AGUJERO
90° HSS-G COUNTERSINK CUTTERS WITH HOLE
FRAISES À TROU ET À CHANFREINER 90° HSS-G

HSS-G


Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
2-5	45	6	1	T50001	18,56
5-10	48	8	1	T50002	20,28
10-15	65	10	1	T50003	41,50

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
15-20	85	12	1	T50004	72,03
20-25	100	15	1	T50005	147,94

AVELLANADOR HSS-G PARA ASIENTO DE TORNILLOS "ALLEN"
FLAT COUNTERSINK • FRAISES À LAMER



HSS-G

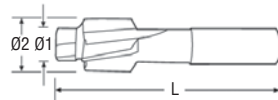
DIN 373



Ø (mm)	Ø 1 (mm)	Ø 2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	3,2	6,0	1	TAAM03	24,28
4,00	4,3	8,0	1	TAAM04	24,28
5,00	5,3	10,0	1	TAAM05	25,33
6,00	6,4	11,0	1	TAAM06	26,67
8,00	8,4	15,0	1	TAAM08	44,09
10,00	10,5	18,0	1	TAAM10	54,42
12,00	13,0	20,0	1	TAAM12	56,76
14,00*	15,0	24,0	1	TAAM14	105,13
16,00*	17,0	26,0	1	TAAM16	116,77

*Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

AVELLANADOR HSS-G PARA ASIENTO DE TORNILLOS "ALLEN"
FLAT COUNTERSINK • FRAISES À LAMER

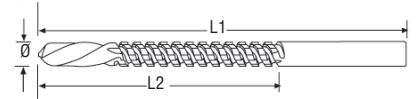


HSS-G

DIN 375



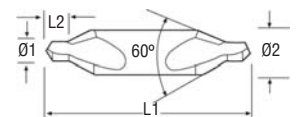
Ø (mm)	Ø 1 (mm)	Ø 2 (mm)	Cono Morse / Tapper Shank	Uds. / Pcs.	Cod.	€/Unid.
8,00	8,4	15,0	2	1	TABM08	89,50
10,00	10,5	18,0	2	1	TABM10	92,09
12,00	13,0	20,0	2	1	TABM12	97,12
14,00	15,0	24,0	2	1	TABM14	113,58
16,00	17,0	26,0	3	1	TABM16	127,23
18,00	19,0	30,0	3	1	TABM18	160,49
20,00	21,0	33,0	3	1	TABM20	177,11

BROCA FRESA CUTTING DRILL BITS • FORETS FRAISEUR

HSS-G
TIN


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	90	60	1	1360600	23,12
8,00	90	60	1	1360800	26,90

BROCAS DE CENTRAR

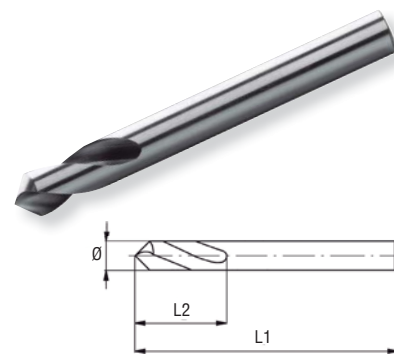
CENTER DRILLS • FORETS À CENTRER

BROCA HSS DE CENTRAR 60°
HSS 60° CENTER DRILLS • FORETS À CENTRER HSS 60°

HSS-G
DIN 333 A


Ø 1 (mm)	Ø 2 (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	3,15	31,5	1,6	1	106100	7,05
1,25	3,15	33,5	1,9	1	106125	7,05
1,60	4,00	37,5	2,4	1	106160	7,05
2,00	5,00	42,0	2,9	1	106200	7,51
2,50	6,30	47,0	3,6	1	106250	8,31
3,15	8,00	52,0	4,4	1	106315	9,17
4,00	10,00	59,0	5,6	1	106400	11,97
5,00	12,50	66,0	6,9	1	106500	20,09
6,30	16,00	74,0	8,6	1	106630	32,23
10,00	25,00	100,0	31,5	1	106102	87,37
12,50*	31,50	125,0	33,5	1	1061250	208,52

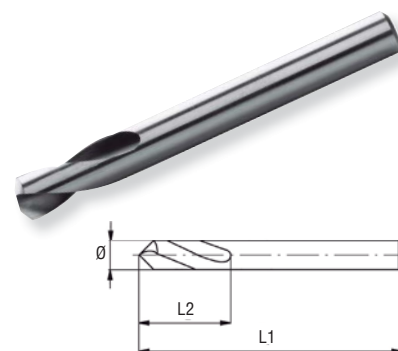
*Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

BROCA DE PUNTEAR 90°
90° NC SPOTTING DRILLS • FORETS À CENTRER 90°

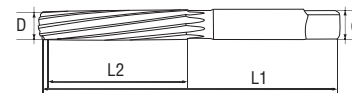


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	46,00	12,00	1	11590030	11,63
4,00	55,00	12,00	1	11590040	13,86
5,00	62,00	14,00	1	11590050	17,61
6,00	66,00	16,00	1	11590060	16,85
8,00	79,00	21,00	1	11590080	22,21
10,00	89,00	25,00	1	11590100	27,74
12,00	102,00	30,00	1	11590120	37,49
14,00	107,00	34,00	1	11590140	62,37
16,00	115,00	38,00	1	11590160	91,53

BROCA DE PUNTEAR 120°
120° NC SPOTTING DRILLS • FORETS À CENTRER 120°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	46,00	12,00	1	115128030	11,42
4,00	55,00	12,00	1	115128040	13,86
5,00	62,00	14,00	1	115128050	15,23
6,00	66,00	16,00	1	115128060	16,85
8,00	79,00	21,00	1	115128080	22,21
10,00	89,00	25,00	1	115128100	27,74
12,00	102,00	30,00	1	115128120	37,49
14,00	107,00	34,00	1	115128140	62,37
16,00	115,00	38,00	1	115128160	97,08

ESCARIADOR HELICOIDAL DE MANO
HAND REAMER • ALÉSOIR À MAIN


D Ø (mm)	d Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
3,00	3,00	62	31	4	1	N10300	27,40
3,50	3,50	71	35	4	1	N10350	27,40
4,00	4,00	76	38	6	1	N10400	27,40
4,50	4,50	81	41	6	1	N10450	30,32
5,00	5,00	87	44	6	1	N10500	31,22
5,50	5,50	93	47	6	1	N10550	31,39
6,00	6,00	93	47	6	1	N10600	31,39
6,50	6,50	107	54	6	1	N10650	31,39
7,00	7,00	107	54	6	1	N10700	31,39
7,50	7,50	115	58	6	1	N10750	33,13
8,00	8,00	115	58	6	1	N10800	33,13
8,50	8,50	124	62	6	1	N10850	33,13
9,00	9,00	124	62	6	1	N10900	33,13
9,50	9,50	133	66	6	1	N10950	36,23
10,00	10,00	133	66	6	1	N11000	36,23
10,50	10,50	142	71	6	1	N11050	41,51
11,00	11,00	142	71	6	1	N11100	41,51
11,50	11,50	152	76	6	1	N11150	42,99
12,00	12,00	152	76	6	1	N11200	42,99
12,50	12,50	152	76	6	1	N11250	57,00
13,00	13,00	152	76	6	1	N11300	57,00
13,50	13,50	163	81	8	1	N11350	60,87
14,00	14,00	163	81	8	1	N11400	60,87
14,50	14,50	163	81	8	1	N11450	62,33
15,00	15,00	163	81	8	1	N11500	66,50
15,50	15,50	175	87	8	1	N11550	73,06
16,00	16,00	175	87	8	1	N11600	73,06
16,50	16,50	175	87	8	1	N11650	76,14
17,00	17,00	175	87	8	1	N11700	76,14
17,50	17,50	188	93	8	1	N11750	82,32
18,00	18,00	188	93	8	1	N11800	82,32
18,50	18,50	188	93	8	1	N11850	103,51
19,00	19,00	188	93	8	1	N11900	103,51
20,00	20,00	201	100	8	1	N12000	106,00
21,00	21,00	215	107	8	1	N12100	118,96
22,00	22,00	215	107	8	1	N12200	124,79
23,00	23,00	231	115	8	1	N12300	130,53
24,00	24,00	231	115	8	1	N12400	159,99
25,00	25,00	231	115	10	1	N12500	172,60
26,00	26,00	231	115	10	1	N12600	178,43
27,00	27,00	247	124	10	1	N12700	186,16
28,00	28,00	247	124	10	1	N12800	197,51
29,00	29,00	247	124	10	1	N12900	203,14
30,00	30,00	265	133	10	1	N13000	203,88
32,00	32,00	265	133	10	1	N13200	256,12

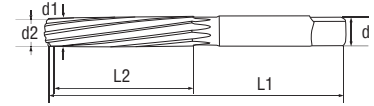
Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

ESCARIADOR HELICOIDAL CÓNICO DE MANO - CONICIDAD 2:100
TAPPER SHANK REAMER - 2 IN 100 TAPPER
ALÉSOIR CONIQUE À MAIN - CONICITÉ 2:100



HSS-G

DIN 9 A



D Ø NOMINAL (mm)	d1 Ø (mm)	d2 Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	1,90	2,86	68	48	4	1	N20200	55,92
2,50	2,40	3,36	68	48	4	1	N20250	56,92
3,00	2,90	4,06	80	58	4	1	N20300	58,08
4,00	3,90	5,26	93	68	4	1	N20400	48,82
5,00	4,90	6,36	100	73	4	1	N20500	49,61
6,00	5,90	8,00	135	105	6	1	N20600	60,46
8,00	7,90	10,80	180	145	6	1	N20800	93,00
10,00	9,90	13,40	215	175	6	1	N21000	114,71
12,00	11,80	16,00	255	210	8	1	N21200	156,57
13,00	12,80	17,00	255	210	8	1	N21300	177,36
14,00	13,80	18,00	255	210	8	1	N21400	243,05
16,00	15,80	20,40	280	230	8	1	N21600	239,54
20,00	19,80	24,80	310	250	8	1	N22000	333,37

Consultar medidas no tarifadas y disponibilidad de medidas en tipo B
Request measurements not listed and availability in type B
Consulter les mesures non tarifaires et la disponibilité dans le type B

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

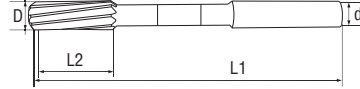
ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

ESCARIADOR HELICOIDAL DE MÁQUINA
MACHINE REAMER • ALÉSOIR MACHINE


D Ø (mm)	d Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
3,00	3,00	61	15	6	1	N70300	34,52
3,50	3,50	70	18	6	1	N70350	34,52
4,00	4,00	75	19	6	1	N70400	33,86
4,50	4,50	80	21	6	1	N70450	38,28
5,00	5,00	86	23	6	1	N70500	37,54
5,50	5,60	93	26	6	1	N70550	39,31
6,00	5,60	93	26	6	1	N70600	38,55
7,00	7,10	109	31	6	1	N70700	40,18
8,00	8,00	117	33	6	1	N70800	43,67
9,00	9,00	125	36	6	1	N70900	49,40
10,00	10,00	133	38	6	1	N71000	53,19
11,00	10,00	142	41	6	1	N71100	56,73
12,00	10,00	151	44	6	1	N71200	59,78
13,00	10,00	151	44	6	1	N71300	77,13
14,00	12,50	160	47	8	1	N71400	79,28
15,00	12,50	162	50	8	1	N71500	83,48
16,00	12,50	170	52	8	1	N71600	84,16

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

MATERIAL / MATERIAL / MATIERE		Resistencia Resistance N/mm	Vc (m/min.)	Avance	Ø Previo
ACEROS STEELS • ACIERS	Decoletaje <i>Machining • Décolletage</i>	<500	8-12	0,080	0,2 mm
	Carbono <0,4% <i><0,4% Carbon • Carbon <0,4%</i>	<850			
	Acero para herramientas <i>Steel for tools • Acier pour outils</i>	<1200	6-8		
	Templado - Revenido <i>Tempered - Quenched • Trempé - Revenu</i>	<1400	4-6		
ACEROS INOXIDABLES STAINLESS STEEL ACIER INOXYDABLE	Austeníticos Cr-Ni <i>Cr-Ni Austenitics • Cr-Ni austenitique</i>	<850	4-6	0,080	0,2 mm
	Martensíticos Cr-Mo <i>Cr-Mo Martensitics • Cr-Mo martensitique</i>	<1200			
FUNDICIÓN CAST IRON • FONTE	Fundición gris <i>Grey cast iron • Fonte grise</i>	<700	15-30	0,120	0,2 mm
	Fundición dura <i>Hard cast iron • Fonte dur</i>	<1000			
ALUMINIO ALUMINIUM • ALUMINIUM	Puro <i>Pure • Pure</i>	<350	15-30	0,120	0,2 mm
	Si < 10%	<600	15-30		
	Si > 10%	<600	8-10		
	Zamak <i>Zamak • Zamak</i>	<600			
COBRE COPPER • CUIVRE	Bronce <i>Bronze • Bronze</i>	<350			
	Cobre viruta larga <i>Long chip copper • Cuivre coupage long</i>	<700			
	Cobre viruta corta <i>Short chip coppe • Cuivre coupage court</i>	<700			
	Latón duro <i>Hard Brass • Laiton dur</i>	<700			
	Latón tenaz <i>Tough Brass • Laiton tenace</i>	<700			
TITANIO TITANIUM • TITANE	Puro <i>Pure • Pure</i>	<700			
	Aleaciones de Titanio <i>Titanium alloys • Alliages de titane</i>	<1200			
SINTÉTICOS PLASTICS • PLASTIQUES	Termoplásticos <i>Thermoplastics • Thermoplastique</i>	-			
	Duroplásticos <i>Hard-plastics • Duroplastique</i>	-			

20 - 25

 Broca recomendada por SESATOOLS y velocidad de corte (M/Min)
 SESA TOOLS recommendation and cutting speed
 Foret recommandé par SESA TOOLS et vitesse de coupe

20 - 25

 Buen rendimiento y velocidad de corte (M/Min)
 Good performance and cutting speed (M/Min)
 Bon rendement et vitesse de coup recommandée (M/Min)

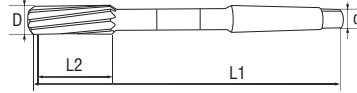
ESCARIADOR HELICOIDAL DE MÁQUINA ANCLAJE CÓNICO
TAPPER SHANK MACHINE REAMER
ALÉSOIR MACHINE QUEUE CONIQUE



HSS-CO 5%

DIN 208 B

TOL 7H



D Ø (mm)	Cono Morse / Tapper Shank	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
5,00	1	133	23	4	1	N30500	55,21
6,00	1	138	26	4	1	N30600	46,55
7,00	1	150	31	4	1	N30700	49,84
8,00	1	156	33	4	1	N30800	48,73
9,00	1	162	36	4	1	N30900	54,42
10,00	1	168	38	4	1	N31000	51,05
11,00	1	175	41	4	1	N31100	54,92
12,00	1	182	44	4	1	N31200	52,42
13,00	1	182	44	4	1	N31300	60,85
14,00	1	189	47	4	1	N31400	67,44
15,00	2	204	50	4	1	N31500	72,93
16,00	2	210	52	6	1	N31600	75,76
17,00	2	214	54	6	1	N31700	88,66
18,00	2	219	56	6	1	N31800	94,38
19,00	2	223	58	6	1	N31900	98,54
20,00	2	228	60	6	1	N32000	97,11
21,00	2	232	62	6	1	N32100	112,40
22,00	2	237	64	6	1	N32200	109,27
23,00	2	241	66	6	1	N32300	135,14
24,00	3	268	68	6	1	N32400	128,00
25,00	3	268	68	6	1	N32500	147,23
26,00	3	273	70	6	1	N32600	182,78
27,00	3	277	71	6	1	N32700	210,37
28,00	3	277	71	6	1	N32800	182,92
29,00	3	281	73	6	1	N32900	201,08
30,00	3	281	73	6	1	N33000	190,49

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

6 mm.		10 mm.		16 mm.		20 mm.		25 mm.		30 mm.	
Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo
0,120	0,2 mm	0,180	0,2 mm	0,250	0,2-0,3 mm	0,300	0,3 mm.	0,350	0,3 mm.	0,400	0,3 mm.
0,100		0,120		0,200	0,2 mm	0,220		0,250		0,350	
0,100		0,120		0,160	0,2 mm	0,200		0,240		0,300	
0,100	0,2 mm	0,120	0,2 mm	0,160	0,2 mm	0,200	0,3 mm.	0,240	0,3 mm.	0,300	0,3 mm.
0,160	0,3 mm	0,200	0,3 mm	0,200	0,3-0,4 mm	0,300	0,3-0,5 mm	0,400	0,3-0,5 mm	0,500	0,3-0,5 mm

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

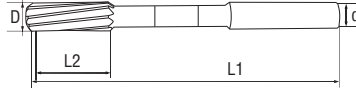
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

ESCARIADOR HELICOIDAL DE MÁQUINA TIPO "GAMMON"
"GAMMON TYPE" MACHINE REAMER
ALÉSOIR MACHINE TIPE "GAMMON"

HSS-CO 5%
DIN 212 E
TOL 7H


D Ø (mm)	d Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
3,00	3,00	61	15	4	1	N80300	39,65
3,50	3,50	70	18	4	1	N80350	42,83
4,00	4,00	75	19	4	1	N80400	37,70
4,50	4,50	80	21	4	1	N80450	43,55
5,00	5,00	86	23	4	1	N80500	42,26
5,50	5,60	93	26	4	1	N80550	43,49
6,00	5,60	93	26	4	1	N80600	42,52
7,00	7,10	109	31	4	1	N80700	44,27
8,00	8,00	117	33	4	1	N80800	44,72
9,00	9,00	125	36	4	1	N80900	47,65
10,00	10,00	133	38	4	1	N81000	49,73
11,00	10,00	142	41	4	1	N81100	62,41
12,00	10,00	151	44	4	1	N81200	65,14
13,00	10,00	151	44	4	1	N81300	83,40
14,00	12,50	160	47	4	1	N81400	89,84
15,00	12,50	162	50	4	1	N81500	96,86
16,00	12,50	170	52	6	1	N81600	105,31
17,00	14,00	175	54	6	1	N81700	148,21
18,00	14,00	182	56	6	1	N81800	166,42
19,00	16,00	189	58	6	1	N81900	160,57
20,00	16,00	195	60	6	1	N82000	153,41

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

MATERIAL / MATERIAL / MATIERE		Resistencia Resistance N/mm	Vc (m/min.)	4 mm. Avance	Ø Previo
ACEROS STEELS • ACIERS	Decoletaje <i>Machining • Décolletage</i>	<500	8-12	0,080	0,2 mm
	Carbono <0,4% <i><0,4% Carbon • Carbon <0,4%</i>	<850			
	Acero para herramientas <i>Steel for tools • Acier pour outils</i>	<1200	6-8		
	Templado - Revenido <i>Tempered - Quenched • Trempé - Revenu</i>	<1400	4-6		
ACEROS INOXIDABLES STAINLESS STEEL ACIER INOXYDABLE	Austeníticos Cr-Ni <i>Cr-Ni Austenitics • Cr-Ni austenitique</i>	<850	4-6	0,080	0,2 mm
	Martensíticos Cr-Mo <i>Cr-Mo Martensitics • Cr-Mo martensitique</i>	<1200			
FUNDICIÓN CAST IRON • FONTE	Fundición gris <i>Grey cast iron • Fonte grise</i>	<700	8-12	0,080	0,2 mm
	Fundición dura <i>Hard cast iron • Fonte dur</i>	<1000	4-8	0,120	
ALUMINIO ALUMINIUM • ALUMINIUM	Puro <i>Pure • Pure</i>	<350			
	Si < 10%	<600			
	Si > 10%	<600			
	Zamak <i>Zamak • Zamak</i>	<600			
COBRE COPPER • CUIVRE	Bronce <i>Bronze • Bronze</i>	<350	8-15	0,080	
	Cobre viruta larga <i>Long chip copper • Cuivre coupage long</i>	<700	15-20	0,120	
	Cobre viruta corta <i>Short chip copper • Cuivre coupage court</i>	<700	8-15	0,080	0,2 mm
	Latón duro <i>Hard Brass • Laiton dur</i>	<700	8-15	0,080	
	Latón tenaz <i>Tough Brass • Laiton tenace</i>	<700	8-15	0,080	
TITANIO TITANIUM • TITANE	Puro <i>Pure • Pure</i>	<700			
	Aleaciones de Titanio <i>Titanium alloys • Alliages de titane</i>	<1200	3-5	0,060	0,2 mm
SINTÉTICOS PLASTICS • PLASTIQUES	Termoplásticos <i>Thermoplastics • Thermoplastique</i>	-			
	Duroplásticos <i>Hard-plastics • Duroplastique</i>	-			

20 - 25

 Broca recomendada por SESATOOLS y velocidad de corte (M/Min)
 SESA TOOLS recommendation and cutting speed
 Foret recommandé par SESA TOOLS et vitesse de coupe

20 - 25

 Buen rendimiento y velocidad de corte (M/Min)
 Good performance and cutting speed (M/Min)
 Bon rendement et vitesse de coup recommandée (M/Min)

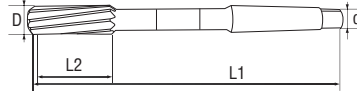
ESCARIADOR HELICOIDAL DE MÁQUINA "GAMMON" ANCLAJE CÓNICO
TAPPER SHANK "GAMMON TYPE" MACHINE REAMER
ALÉSOIR MACHINE TIPE "GAMMON" QUEUE CONIQUE



HSS-CO 5%

DIN 208 C

TOL 7H



D Ø (mm)	Cono Morse / Tapper Shank	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
5,00	1	133	23	4	1	N40500	92,00
6,00	1	138	26	4	1	N40600	97,24
7,00	1	150	31	4	1	N40700	105,45
8,00	1	156	33	4	1	N40800	105,45
9,00	1	162	36	4	1	N40900	105,45
10,00	1	168	38	4	1	N41000	87,40
11,00	1	175	41	4	1	N41100	98,71
12,00	1	182	44	4	1	N41200	94,15
13,00	1	182	44	4	1	N41300	123,75
14,00	1	189	47	4	1	N41400	123,75
15,00	2	204	50	4	1	N41500	134,97
16,00	2	210	52	6	1	N41600	134,97
17,00	2	214	54	6	1	N41700	145,05
18,00	2	219	56	6	1	N41800	146,83
19,00	2	223	58	6	1	N41900	163,00
20,00	2	228	60	6	1	N42000	151,30
21,00	2	232	62	6	1	N42100	185,60
22,00	2	237	64	6	1	N42200	187,54
23,00	2	241	66	6	1	N42300	214,53
24,00	3	268	68	6	1	N42400	217,85
25,00	3	268	68	6	1	N42500	222,80
26,00	3	273	70	6	1	N42600	229,15
27,00	3	277	71	6	1	N42700	268,48
28,00	3	277	71	6	1	N42800	264,98
29,00	3	281	73	6	1	N42900	298,21
30,00	3	281	73	6	1	N43000	287,66
32,00	4	317	77	8	1	N43200	385,17

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

6 mm.		10 mm.		16 mm.		20 mm.		25 mm.		30 mm.	
Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo
0,120	0,2 mm	0,180	0,2 mm	0,250	0,2-0,3 mm	0,300	0,3 mm	0,350	0,3 mm	0,400	0,3 mm.
0,100		0,200		0,2 mm	0,220	0,3 mm	0,250	0,3 mm	0,350	0,3 mm.	
0,100	0,2 mm	0,120	0,2 mm	0,160	0,2 mm	0,200	0,3 mm	0,240	0,3 mm	0,300	0,3 mm.
0,100		0,120		0,2-0,3 mm	0,160	0,2-0,3 mm	0,200	0,3-0,4 mm	0,240	0,3-0,4 mm	0,300
0,160	0,2 mm	0,200	0,2-0,3 mm	0,250	0,2-0,3 mm	0,300	0,3-0,4 mm	0,400	0,3-0,4 mm	0,500	0,3-0,4 mm.
0,100		0,120		0,160	0,200	0,240	0,300	0,300			
0,160	0,2 mm	0,200	0,2-0,3 mm	0,250	0,2-0,3 mm	0,300	0,3 mm	0,400	0,3 mm	0,500	0,3 mm.
0,100		0,120		0,160	0,200	0,240	0,300	0,300			
0,100	0,2 mm	0,120	0,2-0,3 mm	0,160	0,2-0,3 mm	0,200	0,3 mm	0,240	0,3 mm	0,300	0,3 mm.
0,100		0,120		0,160	0,200	0,240	0,300				
0,100	0,2 mm	0,120	0,2-0,3 mm	0,160	0,2-0,3 mm	0,200	0,3 mm	0,240	0,3 mm	0,300	0,3 mm.
0,100		0,120		0,160	0,200	0,240	0,300				
0,100	0,2 mm	0,140	0,3 mm	0,180	0,3 mm	0,220	0,3-0,4 mm	0,300	0,3-0,4 mm.	0,350	0,3-0,4 mm.
0,100		0,140		0,180	0,220	0,240	0,300				

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

ESCARIADOR EXTENSIBLE CON GUÍA DE AJUSTE RÁPIDO
EXTENDABLE REAMERS • ALÉSOIR EXTENSIBLE

HSS-G
S./859

Ø MIN. (mm)	Ø MAX. (mm)	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
8,00	9,00	175	36	5	1	N508009	142,61
9,00	10,00	185	36	5	1	N509010	142,61
10,00	11,00	200	40	5	1	N510011	142,61
11,00	12,00	210	42	5	1	N511012	142,61
12,00	13,50	220	43	5	1	N5121350	145,45
13,50	15,50	245	52	5	1	N513515	151,23
15,50	18,00	275	61	5	1	N515518	156,87
18,00	21,00	300	66	5	1	N518021	168,42
21,00	24,00	320	70	5	1	N521024	182,61
24,00	27,50	350	78	5	1	N524275	204,94
27,50	31,50	380	83	6	1	N527531	238,42
31,50	37,00	430	97	6	1	N531537	320,92
37,00	45,00	500	108	6	1	N537045	446,80
45,00	55,00	600	126	6	1	N545055	643,23
55,00	67,00	750	151	6	1	N555067	1040,04
67,00	80,00	830	167	10	1	N567080	1485,84

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

SET ESCARIADORES EXTENSIBLES
EXTENDABLE REAMERS SET • COFFRET ALÉSOIR EXTENSIBLE

Ref.	Medidas / Sizes	Uds. / Pcs.	Cod.	€/Unid.
184	De 8 a 31,5 mm	11	N500184	1.968,74

Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks



ESCARIADOR EXTENSIBLE REFORZADO DE AJUSTE RÁPIDO
REINFORCED EXTENDABLE REAMERS
ALÉSOIR EXTENSIBLE RENFORCÉ



HSS-G

S./859

Ø MIN. (mm)	Ø MAX. (mm)	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
8,00	9,00	115	36	5	1	N608009	106,85
9,00	10,00	115	36	5	1	N609010	106,85
10,00	11,00	115	42	5	1	N610011	106,85
11,00	12,00	135	44	5	1	N611012	106,85
12,00	13,50	135	45	5	1	N612135	107,84
13,50	15,50	145	48	5	1	N613515	107,84
15,50	18,00	170	61	5	1	N615518	121,04
18,00	21,00	180	66	5	1	N618021	125,11
21,00	24,00	195	70	5	1	N621024	145,05
24,00	27,50	218	78	5	1	N624275	160,91
27,50	31,50	245	83	6	1	N627531	172,63
31,50	37,00	280	97	6	1	N631537	224,39
37,00	45,00	325	108	6	1	N637045	335,94
45,00	55,00	385	126	6	1	N645055	493,14
55,00	67,00	450	151	8	1	N655067	897,10
67,00	80,00	545	182	10	1	N667080	1.377,32

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

CONJUNTO DE ESCARIADORES EXTENSIBLES TIPO REFORZADO
REINFORCED EXTENDABLE REAMERS SET
COFFRET ALÉSOIR EXTENSIBLE RENFORCÉS

Ref.	Medidas / Sizes	Uds. / Pcs.	Cod.	€/Unid.
187	De 12 a 26,98 mm	8	N600187	873,83

Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks



RECOMENDACIONES TÉCNICAS
TECHNICAL RECOMMENDATIONS • RECOMMANDATIONS TECHNIQUES



TABLA DE VELOCIDADES RECOMENDADAS / RECOMMENDED SPEED / VITESSES RECOMMANDÉES

	ACERO 400-800 N/mm²	ACERO 800-1100 N/mm²	INOX	F	LT	AL	PL	
VC=m/min	25-30	13-17	12-15	10-15	30-35	30-40	15-20	35-45
Refrigeración	Emulsión Aceite de corte	Emulsión Aceite de corte	Emulsión Aceite de corte	Aire a presión	Aire a presión	Aceite de corte Spray	Aire	Aire a presión
Ø (mm)	RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM
14	580	300	270	400	790	900	385	910
16	550	275	240	365	730	825	340	795
17	500	250	225	330	665	750	320	750
19	460	230	200	300	600	690	285	670
20	435	240	190	290	570	630	270	635
21	425	210	180	280	560	630	260	605
22	390	195	175	260	520	575	245	580
24	370	185	160	245	495	525	225	530
25	350	175	155	235	470	525	215	510
27	325	160	140	215	435	480	200	470
29	300	150	130	200	400	435	185	440
30	285	145	125	190	380	425	180	425
32	275	140	120	180	360	410	170	400
33	260	135	115	175	345	380	165	385
35	250	125	110	165	330	375	155	365
37	240	120	105	160	315	360	145	345
38	230	115	100	150	300	330	140	335
40	220	110	95	145	290	330	135	320
41	210	105	95	140	280	310	130	310
43	205	100	90	135	270	305	125	295
44	195	95	85	130	260	285	125	290
46	190	95	85	125	250	285	120	275
48	180	90	80	120	240	270	115	265
50	175	85	75	115	235	265	110	260
51	170	85	75	115	230	255	105	250
52	165	80	75	110	220	245	105	245
54	160	80	70	105	210	240	100	235
56	155	75	65	100	205	220	95	230
57	150	75	65	100	200	225	95	225
59	145	75	65	100	195	225	90	215
60	140	70	65	95	190	205	90	210
63	135	65	6	90	180	200	85	205
64	135	65	60	90	180	200	85	200
65	130	65	60	85	175	200	85	195
67	130	65	55	85	170	195	80	190
68	125	60	55	80	165	190	75	190
70	125	60	55	80	160	185	75	180
73	120	60	50	80	160	180	75	175
76	115	55	50	75	150	170	70	170
79	110	55	50	70	140	165	70	160
83	105	50	45	70	140	155	65	155
86	100	50	45	65	130	150	65	150
89	95	45	45	65	130	145	60	145
92	95	45	40	60	120	140	60	140
95	90	45	40	60	120	135	55	135
98	90	45	40	60	120	135	55	130
102	85	40	35	55	110	130	55	125
105	80	40	35	55	110	120	50	120
108	80	40	35	55	110	120	50	120
111	80	40	35	50	100	120	50	115
114	75	35	35	50	100	105	45	110
121	70	35	30	45	90	105	45	105
127	65	30	30	45	85	100	45	100
140	60	25	25	40	80	90	40	90
146	60	25	25	40	75	85	35	85
152	55	25	25	35	75	85	35	85
160	50	25	25	35	70	80	35	80
168	50	25	25	35	65	75	30	75
177	45	25	20	30	60	70	30	70
200	40	20	20	30	55	65	25	65
210	40	20	20	25	55	60	25	60

CORONAS BIMETAL M42
BIMETAL HOLE SAWS M42 • SCIÉS TRÉPAN BIMETAL M42



Ø (mm)	Profundidad de Corte Depth of the Cut (mm)	Equivalencia P.G. Equivalence P.G.	Uds. / Pcs.	Cod.	€/Unid.
14	32	7	1	UC20014	12,65
16	32	9	1	UC20016	12,65
17	32	-	1	UC20017	12,65
19	32	11	1	UC20019	12,65
20	32	-	1	UC20020	12,65
21	32	13,5	1	UC20021	12,65
22	32	-	1	UC20022	12,65
24	32	16	1	UC20024	13,03
25	32	-	1	UC20025	13,03
27	32	-	1	UC20027	13,86
29	32	21	1	UC20029	13,86
30	32	-	1	UC20030	14,44
32	32	-	1	UC20032	14,44
33	32	-	1	UC20033	14,44
35	32	-	1	UC20035	15,35
37	32	-	1	UC20037	15,35
38	32	29	1	UC20038	15,35
40	32	-	1	UC20040	15,35
41	32	-	1	UC20041	15,35
43	32	-	1	UC20043	15,35
44	32	-	1	UC20044	18,46
46	32	-	1	UC20046	18,46
48	32	36	1	UC20048	19,03
50	32	-	1	UC20050	19,03
51	32	-	1	UC20051	19,03
52	32	-	1	UC20052	21,20
54	32	42	1	UC20054	21,20
56	32	-	1	UC20056	21,20
57	32	-	1	UC20057	21,20
59	32	-	1	UC20059	21,79
60	32	48	1	UC20060	21,79
63	32	-	1	UC20063	21,79
64	32	-	1	UC20064	22,55
65	32	-	1	UC20065	23,34
67	32	-	1	UC20067	24,11
68	32	-	1	UC20068	24,50
70	32	-	1	UC20070	24,50
73	32	-	1	UC20073	24,50
76	32	-	1	UC20076	25,05
79	32	-	1	UC20079	25,05
83	32	-	1	UC20083	25,05
86	32	-	1	UC20086	25,05
89	32	-	1	UC20089	25,05
92	32	-	1	UC20092	28,88

CORONAS BIMETAL M42

BIMETAL HOLE SAWS M42 • SCIES TRÉPAN BIMETAL M42



Ø (mm)	Profundidad de Corte Depth of the Cut (mm)	Equivalencia P.G. Equivalence P.G.	Uds. / Pcs.	Cod.	€/Unid.
95,00	32	-	1	UC20095	32,93
98,00	32	-	1	UC20098	35,33
102,00	32	-	1	UC20102	37,21
105,00	32	-	1	UC20105	40,44
108,00	32	-	1	UC20108	45,12
111,00	32	-	1	UC20111	49,65
114,00	32	-	1	UC20114	53,00
121,00	32	-	1	UC20121	56,62
127,00	32	-	1	UC20127	59,64
140,00	32	-	1	UC20140	66,36
146,00	32	-	1	UC20146	74,01
152,00	32	-	1	UC20152	81,10
160,00	32	-	1	UC20160	100,41
168,00	32	-	1	UC20168	115,85
177,00	32	-	1	UC20177	135,18
200,00	32	-	1	UC20200	154,49
210,00	32	-	1	UC20210	173,80

CORONAS BIMETAL M3 SERIE LARGA NEW

BIMETAL HOLE SAWS M3 LONG SERIES
SCIES TRÉPAN BIMETAL M3 SÉRIE LONGUE



Ø (mm)	Profundidad de Corte Depth of the Cut (mm)	Uds. / Pcs.	Cod.	€/Unid.
32	97	1	UC20032L	75,46
35	97	1	UC20035L	72,86
40	97	1	UC20040L	78,21

Se recomienda utilizar los siguientes husillos y broca piloto
Recommended to use with the below arbors and centre drill
Il est recommandé d'utiliser les suivants arbres and foret centrage

Husillo / Arbor	Broca Piloto / Centre Drill
UH20A2T - Amarre hexagonal 11,00	6,35x150mm
UH20A3T - Amarre hexagonal 9,50	Ref. UB1014A
UH200A4 - Amarre SDS-PLUS	

HUSILLOS PARA CORONAS BIMETAL
ARBORS FOR BIMETAL HOLE SAWS
ARBRES POUR SCIÉS TRÉPAN BIMÉTAL



Tipo Amarre Shank	Para Coronas For Hole Saws (mm)	Rosca del Husillo Arbor Thread	Uds. Pcs.	Cod.	€/Unid.
CILÍNDRICA / STRAIGHT	14 a 30	1/2 x 20h UNF	1	UH20A0N	9,02



Tipo Amarre Shank (mm)	Para Coronas For Hole Saws (mm)	Rosca del Husillo Arbor Thread	Uds. Pcs.	Cod.	€/Unid.
HEXAGONAL 11,00	14 a 30	1/2 x 20h UNF	1	UH200A1	13,12
HEXAGONAL 9,50	14 a 30	1/2 x 20h UNF	1	UH200A0	13,12
HEXAGONAL 11,00	32 a 210	5/8 x 18h UNF	1	UH20A2T	23,67
HEXAGONAL 9,50	32 a 210	5/8 x 18h UNF	1	UH20A3T	23,67



Tipo Amarre Shank	Para Coronas For Hole Saws (mm)	Rosca del Husillo Arbor Thread	Uds. Pcs.	Cod.	€/Unid.
SDS-PLUS	14 a 30	1/2 x 20h UNF	1	UH20A1N	16,23
SDS-PLUS	32 a 210	5/8 x 18h UNF	1	UH200A4	27,04



BROCAS PILOTO Y MUELLE EXPULSOR UNIVERSAL
CENTER DRILL & SPRING EJECTORS
FORET CENTRAGE ET RESSORT À EXPULSER

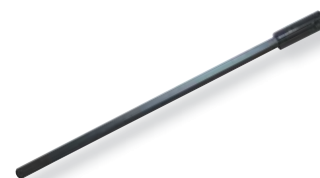
Tipo Amarre / Shank (mm)	Para husillos / For Arbors	Uds. / Pcs.	Cod.	€/Unid.
6,35 X 150 mm	A2T-A3T-A4	1	UB1014A	6,09
6,35 x 105*	A0N	1	UB1014C	4,66
6,35 x 85	A0-A1-A2T-A3T-A1N-A4	1	UB1014B	4,66
MUELLE EXPULSOR UNIVERSAL SPRING EJECTOR		1	UM0000	2,01



* Las brocas piloto de 6,35 x 105 también se recomiendan para taladrado de difícil acceso. / * 6.35 x 105 pilot bits are also recommended for drilling in difficult to access locations / * Les forets pilote de 6,35 x 105 sont aussi recommandés pour le perçage à des endroits d'accès difficile

ALARGADORES PARA HUSILLOS 330 MM
EXTENSION 330 MM • EXTENSION 330 MM

Husillo / Arbor	Para husillos / For Arbors	Uds. / Pcs.	Cod.	€/Unid.
HEXAGONAL 11,00 mm	A1 - A2T	1	UL00330	18,76
HEXAGONAL 9,50 mm	A0 - A3T	1	UL00331	18,76
SDS-PLUS	A1 - A2T	1	UL00332	23,45
SDS-PLUS	A0 - A3T	1	UL00333	23,45



CONJUNTOS DE CORONAS BIMETÁLICAS
HOLE SAWS SETS
COFFRETS SCIES TRÉPANS



Cod.	Modelo / Model / Modéle	Contenido / Contains / Contenu			€/Unid.
		Coronas Hole Saws / Scies Trépons	Diámetros / Diameters Diametres (mm)	Husillos Arbors / Arbres	
UT20EK2A	ELECTRICISTA PG. ELECTRICIAN PG. ÉLECTRICITÉ PG.	6	16 - 21 - 24 - 29 - 38 - 48 PG. 9 - 3,5 - 16 - 21 - 29 - 36	A1 + A2T	178,58
UT20EK4	ELECTRICISTA- 3 ELECTRICIAN -3 ÉLECTRICITÉ-3	6	22 - 29 - 35 - 38 - 44 - 51	A1 + A2T	187,73
UT20EK5	ELECTRICISTA- 4 ELECTRICIAN-4 ÉLECTRICITÉ-4	6	19 - 21 - 24 - 29 - 38 - 48	A1 + A2T	178,58
UT20EK5A	ELECTRICISTA- 5 ELECTRICIAN-5 ÉLECTRICITÉ-5	6	19 - 21 - 25 - 30 - 37 - 46	A1 + A2T	178,58
UT20EK5B	ELECTRICISTA-6 ELECTRICIAN-6 ÉLECTRICITÉ-6	6	17 - 21 - 24 - 29 - 35 - 46	A1 + A2T	177,91
UT20EK6	FONTANERÍA- 1 PLUMBING-1 PLOMBERIE-1	6	19 - 22 - 29 - 38 - 44 - 51	A1 + A2T	184,72
UT20EK7	FONTANERÍA- 2 PLUMBING-2 PLOMBERIE-2	6	22 - 25 - 33 - 35 - 41 - 51	A1 + A2T	182,30
UT20EK8	REFRIGERACIÓN COOLING RÉFRIGÉRATION	6	16 - 22 - 29 - 35 - 41 - 52	A1 + A2T	183,66
UT20EK9	CERRAJERÍA HARDWARE SERRURERIE	6	22 - 25 - 32 - 38 - 44 - 52	A1 + A2T	188,26
UT20EK10	INSTALACIÓN AUTOMÓVIL VEHICLE INSTALLATION INSTALLATION AUTOMOBILE	6	19 - 22 - 32 - 38 - 44 - 52	A1 + A2T	187,84
UT20EK11	BÁSICO BASIC BASIQUE	6	22 - 29 - 33 - 38 - 43 - 51	A1 + A2T	183,25

CONJUNTOS DE CORONAS BIMETÁLICAS
HOLE SAWS SETS
COFFRETS SCIÉS TRÉPANS



Cod.	Modelo / Model / Modéle	Contenido / Contains / Contenu			€/Unid.
		Coronas Hole Saws / Sciés Trépan	Diámetros / Diameters Diametres (mm)	Husillos Arbors / Arbres	
UT20EK0	MANTENIMIENTO INDUSTRIAL INDUSTRIAL MAINTENANCE MAINTENANCE INDUSTRIELLE	11	21 - 25 - 27 - 33 - 37 - 38 - 44 - 51 60 - 65 - 73	A1 + A2T + PROLONGADOR EXTENSION EXTENSION	321,15
UT20EK1	UNIVERSAL UNIVERSAL UNIVERSALE	11	19 - 22 - 25 - 29 - 35 - 38 - 44 - 51 57 - 64 - 70	A1 + A2T	320,68
UT20EK2	ELECTRICISTA PG. ELECTRICIAN PG. ÉLECTRICITÉ PG.	10	14 - 16 - 19 - 21 - 24 - 29 - 38 - 48 - 54 - 60 PG. 7 - 11 - 13,5 - 16 - 21 - 29 - 36 - 42 - 48	A1 + A2T	269,87
UT20EK3	ELECTRICISTA-2. ELECTRICIAN-2. ÉLECTRICITÉ-2	10	16 - 19 - 21 - 24 - 29 - 38 43 - 48 - 60 - 65	A 1+ A2T	274,88
UT20EK12	CARPINTERÍA CARPENTRY MENUISERIE	11	14 - 16 - 19 - 22 - 24 - 25 - 30 - 35 40 - 51 - 59	A1 + A2T + PROLONGADOR EXTENSION EXTENSION	293,66

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

PERFORADORES DE CHAPA

CIRCULAR PUNCHES • EMPORTE PIÈCES



CAPACIDAD DE CORTE: 2 mm en chapa de acero; 1,5 mm en chapa inox.
 CUTTING LENGTH: 2 mm on steel sheet; 1,5 mm on Stainless steel
 PROFONDEUR DE COUPAGE: 2 mm en plaque d'acier; 1,5 mm en plaque d'INOX



Ø (mm)	Tornillo / Screw	Uds. / Pcs.	advance		Basic	
			Cod.	€/Unid.	Cod.	€/Unid.
12,7 (1/2")	M 8	1	P0013	65,23	PS013	38,14
14,00		1	P0014	65,23	PS014	38,14
15,00		1	P0015	65,23	PS015	38,14
16 (5/8")		1	P0016	65,23	PS016	38,14
17,00		1	P0017	71,28	-	-
18,00		1	P0018	71,28	PS018	41,13
19 (3/4")		1	P0019	71,28	PS019	41,13
20,00		1	P0020	81,77	PS020	43,23
21,00		1	P0021	81,77	-	-
22 (7/8")		1	P0022	81,77	PS022	47,21
23,00	M 10	1	P0023	95,86	-	-
24,00		1	P0024	95,86	-	-
25 (1")		1	P0025	95,86	PS025	52,31
26,00		1	P0026	95,86	-	-
27,00		1	P0027	95,86	-	-
28 (1.3/32")		1	P0028	112,60	PS028	58,35
29,00		1	P0029	112,60	-	-
30,00		1	P0030	112,60	PS030	58,35
31,00	M 12	1	P0031	112,60	-	-
32 (1.1/4")		1	P0032	112,60	PS032	58,35
33,00		1	P0033	124,46	-	-
34 (1.11/32")		1	P0034	124,46	PS034	66,26
35,00		1	P0035	124,46	PS035	66,26
36,00		1	P0036	124,46	-	-
37,00		1	P0037	124,46	PS037	66,26
38 (1.1/2")		1	P0038	124,46	PS038	66,26
39,00		1	P0039	124,46	-	-
40,00		1	P0040	137,86	PS040	91,12
41,00	1	P0041	137,86	-	-	
42,00	1	P0042	150,37	-	-	
43,00	1	P0043	150,37	-	-	
44,00	1	P0044	150,37	-	-	
45,00	M 14	1	P0045	150,37	PS045	108,33
46,00		1	P0046	150,37	-	-
47,00		1	P0047	162,18	PS047	123,66
48,00		1	P0048	162,18	-	-
49,00		1	P0049	162,18	-	-
50,00		1	P0050	162,18	PS050	125,33
51 (2")		1	P0051	170,68	-	-
52,00		1	P0052	170,68	PS052	122,19
55,00		1	P0055	297,12	PS055	147,36
60 (2.3/8")		1	P0060	356,79	PS060	166,17
63,00	1	P0063	404,35	PS063	188,28	
65,00	1	P0065	417,75	-	-	
70,00	1	P0070	449,03	-	-	
72,00	1	P0072	460,20	-	-	
75,00	1	P0075	478,08	-	-	
80,00	M 20	1	P0080	487,01	-	-
85,00	1	P0085	504,88	-	-	
90,00	1	P0090	518,96	-	-	
95,00	1	P0095	547,55	-	-	
100,00	1	P0100	618,82	-	-	
105,00	1	P0105	659,03	-	-	
110,00	1	P0110	714,87	-	-	
115,00	1	P0115	750,62	-	-	

TORNILLOS DE REPUESTO
SPARE CREWS • VIS DE REMPLACEMENT



Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
M 8 x 125	1	PT001	11,49
M 10 x 125	1	PT002	15,01
M 12 x 150	1	PT003	16,88
M 14 x 150	1	PT004	25,33
M 20 x 150	1	PT005	52,78

JUEGOS PERFORADORES
CIRCULAR PUNCHES SETS • COFFRETS EMPORTE PIECES

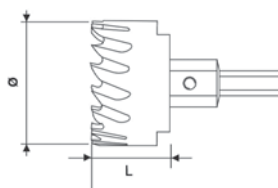


Ø	advance DURABLE PERFORMANCE		Basic	
	Cod.	€/Unid.	Cod.	€/Unid.
18-22-25-32 mm	PJ003	358,58	PSJ001	195,94
15-20-22-28 mm	PJ006	338,47	PSJ002	184,57
5/8"-3/4"-1"-1.1/4"	PJ007	346,07	PSJ003	188,69
1/2"-3/4"-1"-1.1/4"	PJ008	346,07	PSJ004	188,69

CORONAS HSS-G REAFILABLES
HOLE SAWS HSS-G REGRINDABLE
SCIES TRÉPAN HSS-G RÉAFFÛTABLE



HSS-G



Ø mm	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
10*	23	5	1	UV00010	22,37
12	23	5	1	UV00012	22,94
13	23	5	1	UV00013	22,94
14	23	6	1	UV00014	23,43
15	23	6	1	UV00015	21,97
16	23	6	1	UV00016	23,43
17	23	6	1	UV00017	21,97
18	23	6	1	UV00018	21,97
19	23	8	1	UV00019	22,67
20	23	8	1	UV00020	24,02
21	23	8	1	UV00021	25,13
22	23	8	1	UV00022	26,29
23	23	8	1	UV00023	30,24
24	23	8	1	UV00024	30,73
25	23	8	1	UV00025	29,78
26	23	10	1	UV00026	31,76
27	23	10	1	UV00027	32,26
28	23	10	1	UV00028	33,58
29	23	10	1	UV00029	34,78
30	23	10	1	UV00030	35,39
31	23	12	1	UV00031	37,94
32	23	12	1	UV00032	37,94
33	23	12	1	UV00033	41,78
34	23	12	1	UV00034	43,22
35	23	12	1	UV00035	44,24
36	23	12	1	UV00036	46,38
37	23	12	1	UV00037	46,89
38	23	12	1	UV00038	48,14
39	23	12	1	UV00039	52,21
40	23	12	1	UV00040	52,21
41	23	14	1	UV00041	52,87
42	23	14	1	UV00042	53,97
43	23	14	1	UV00043	55,87
44	23	16	1	UV00044	56,89
45	23	16	1	UV00045	60,16
46	23	16	1	UV00046	60,16
47	23	16	1	UV00047	60,69
48	23	16	1	UV00048	64,23
49	23	16	1	UV00049	65,44
50	23	16	1	UV00050	65,44
60	23	18	1	UV00060	95,26
65	23	20	1	UV00065	122,83
70	23	20	1	UV00070	131,76
75	23	22	1	UV00075	141,89
80	23	22	1	UV00080	158,60
85	23	24	1	UV00085	178,86
90	23	24	1	UV00090	198,07
95	23	24	1	UV00095	212,76
100	23	24	1	UV00100	229,26

* Integral / * Integrale / * Intégrale

Para medidas no tarifadas consultar / For measurements not listed, request / Pour des mesures non cotées consulter

Producto bajo demanda / Product on demand / Produit à la demande

Profundidad de corte: 5 mm / Cutting depth: 5 mm / Profondeur de coupe: 5 mm

RECOMENDACIONES TÉCNICAS
TECHNICAL RECOMMENDATIONS • RECOMMANDATIONS TECHNIQUES

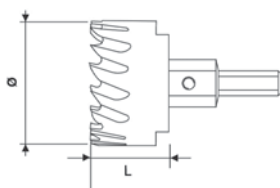
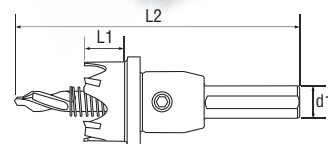


TABLA DE VELOCIDADES RECOMENDADAS / RECOMMENDED SPEED / VITESSES RECOMMANDÉES

	ACERO 400-800 N/mm²	ACERO 800-1100 N/mm²	INOX	F	LT	AL	PL
VC=m/min	25-30	13-17	12-15	10-15	30-35	30-40	15-20
Refrigeración	Emulsión Aceite de corte	Emulsión Aceite de corte	Emulsión Aceite de corte	Aire a presión	Aire a presión	Aceite de corte Spray	Aire
Ø (mm)	RPM	RPM	RPM	RPM	RPM	RPM	RPM
10	800	410	380	320	960	990	480
20	400	210	190	160	480	490	240
30	270	140	130	110	320	330	160
50	160	80	80	60	190	200	100
60	130	70	60	50	160	160	80
70	110	60	50	50	140	140	70
80	100	50	50	40	120	120	60
90	90	50	40	40	110	110	50
100	80	40	40	30	100	100	50

CORONAS CON DIENTE METAL DURO SERIE CORTA
TUNGSTEN CARBIDE TIPED HOLE SAWS SHORT SERIES
SCIES TRÉPANS AU CARBURE DE TUNGSTENE SERIE COURTE



Ø (mm)	Z	D1 (mm)	L1 (mm)	L2 (mm)	Espesor máximo de corte Max. Cutting Thickness (mm)	Uds. / Pcs.	Cod.	€/Unid.
16,00	4	10	12	65	04	1	UI00016	56,54
18,00	4	10	12	65	04	1	UI00018	56,54
20,00	5	10	12	65	04	1	UI00020	58,56
22,00	5	10	12	65	04	1	UI00022	60,84
23,00	5	10	12	65	04	1	UI00023	61,62
25,00	5	10	12	65	04	1	UI00025	61,62
30,00	5	10	12	65	04	1	UI00030	66,50
32,00	6	10	12	65	04	1	UI00032	71,50
33,00	7	10	12	65	04	1	UI00033	75,53
35,00	7	10	12	65	04	1	UI00035	77,74
40,00	7	10	12	65	04	1	UI00040	91,06
50,00	9	10	12	65	04	1	UI00050	106,66
60,00	10	13	12	65	04	1	UI00060	139,88
63,00	11	13	12	65	04	1	UI00063	141,31
65,00	11	13	12	65	04	1	UI00065	143,66

Junto con la corona se incluye el husillo y la broca centradora / *The spindle and central bit come together with the core bit* / *La couronne est accompagnée de la broche et du foret de centrage*

BROCA PILOTO / PILOT DRILL / FORET DE CENTRAGE

Tipo Broca / Drill Bit Type	Uds. / Pcs.	Cod.	€/Unid.
Para Corona Serie Corta For short series	1	UIB0660	5,65

TABLA DE VELOCIDADES RECOMENDADAS / RECOMMENDED SPEED / VITESSES RECOMMANDÉES

Ø (mm)	VELOCIDAD DE CORTE RECOMENDADAS (R.P.M.) CUTTING SPEED / VITESSE DE COUP		
	INOX	ACERO 400-800 10mm²	F
	Inox	Acero / Steel	Fundición / Cast Iron
20,00	400	600	800
30,00	280	400	550
40,00	200	300	400
50,00	160	250	320
60,00	130	200	260
80,00	100	150	200
100,00	80	120	160

Coronas reomendadas para espesores de hasta 4 mm. En caso de aceros inoxidables se recomienda no sobrepasar los 2 mm. de espesor. / *Recommended maximum cutting depth of 4 mm, for stainless steel 2 mm* / *Profondeur de coupage maximum recommandée 4 mm, pour INOX 2 mm*

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

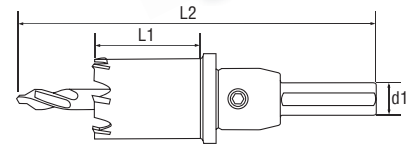
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

CORONAS CON DIENTE METAL DURO SERIE LARGA
TUNGSTEN CARBIDE TYPED HOLE SAWS LONG SERIES
SCIÉS TRÉPANS AU CARBURE DE TUNGSTENE SERIE LONGUE



Ø (mm)	Z	D1 (mm)	L1 (mm)	L2 (mm)	Espesor máximo de corte Max. Cutting Thickness (mm)	Uds. / Pcs.	Cod.	€/Unid.
20,00	5	10	35	90	4	1	UIL0020	90,68
22,00	5	10	35	90	4	1	UIL0022	92,67
23,00	5	10	35	90	4	1	UIL0023	93,23
25,00	6	10	35	90	4	1	UIL0025	85,11
30,00	6	10	35	90	4	1	UIL0030	101,12
32,00	8	10	35	90	4	1	UIL0032	118,61
33,00	8	10	35	90	4	1	UIL0033	118,89
35,00	8	10	35	90	4	1	UIL0035	119,17
40,00	10	10	35	90	4	1	UIL0040	133,99
45,00	10	10	35	90	4	1	UIL0045	156,97
50,00	12	10	35	90	4	1	UIL0050	175,17
54,00	12	13	35	90	4	1	UIL0054	198,16
60,00	14	13	35	90	4	1	UIL0060	239,20
65,00	14	13	35	90	4	1	UIL0065	286,31

Junto con la corona se incluye el husillo y la broca centradora / The spindle and central bit come together with the core bit / La couronne est accompagnée de la broche et du foret de centrage

BROCA PILOTO / PILOT DRILL / FORET DE CENTRAGE

Tipo Broca / Drill Bit Type	Uds. / Pcs.	Cod.	€/Unid.
Para Corona Serie Larga (Ø 20 a Ø 30) For long series	1	UILB680	9,20
Para Corona Serie Larga (Ø 32 a Ø 54) For long series	1	UILB880	11,68
Para Corona Serie Larga (Ø 60 a Ø 65) For long series	1	UILB8100	13,27

TABLA DE VELOCIDADES RECOMENDADAS / RECOMMENDED SPEED / VITESSES RECOMMANDÉES

Ø (mm)	VELOCIDAD DE CORTE RECOMENDADAS (R.P.M.) CUTTING SPEED / VITESSE DE COUP		
	INOX	ACERO 400-800 N/mm²	F
	Inox	Acero / Steel	Fundición / Cast Iron
20,00	400	600	800
30,00	280	400	550
40,00	200	300	400
50,00	160	250	320
60,00	130	200	260
80,00	100	150	200
100,00	80	120	160

Coronas recomendadas para espesores de hasta 4 mm. En caso de aceros inoxidables se recomienda no sobrepasar los 2 mm. de espesor. / Recommended maximum cutting depth of 4 mm, for stainless steel 2 mm / Profondeur de coupage maximum recommandée 4 mm, pour INOX 2 mm

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

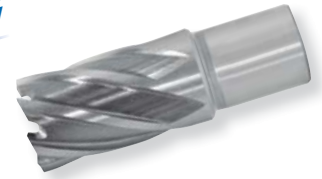
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-G NEW

HSS-G ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES HSS-G



Ø (mm)	Profundidad de Corte Depth of the cut (mm)	Ø Mango / Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,00	30	19	1	1917012030	33,09
13,00	30	19	1	1917013030	33,09
14,00	30	19	1	1917014030	33,09
15,00	30	19	1	1917015030	34,35
16,00	30	19	1	1917016030	39,17
17,00	30	19	1	1917017030	39,17
18,00	30	19	1	1917018030	41,75
19,00	30	19	1	1917019030	43,38
20,00	30	19	1	1917020030	44,70
21,00	30	19	1	1917021030	47,53
22,00	30	19	1	1917022030	48,79
23,00	30	19	1	1917023030	51,74
24,00	30	19	1	1917024030	51,74
25,00	30	19	1	1917025030	54,57
26,00	30	19	1	1917026030	55,89
27,00	30	19	1	1917027030	58,84
28,00	30	19	1	1917028030	60,10
29,00	30	19	1	1917029030	61,43
30,00	30	19	1	1917030030	62,93
31,00	30	19	1	1917031030	77,31
32,00	30	19	1	1917032030	82,90
33,00	30	19	1	1917033030	87,24
34,00	30	19	1	1917034030	90,24
35,00	30	19	1	1917035030	95,60
36,00	30	19	1	1917036030	98,37
38,00	30	19	1	1917038030	108,23
40,00	30	19	1	1917040030	108,89
42,00	30	19	1	1917042030	116,29
44,00	30	19	1	1917044030	120,32
45,00	30	19	1	1917045030	120,50
46,00	30	19	1	1917046030	122,49
50,00	30	19	1	1917050030	133,38
52,00	30	19	1	1917052030	135,55
55,00	30	19	1	1917055030	150,47
60,00	30	19	1	1917060030	164,42

PUNZÓN EXPULSOR / PUNCHER / POINÇON

Ø (mm)	L1 (mm)	Para / For / Pour	Uds. / Pcs.	Cod.	€/Unid.
4,00	77	Coronas Ø12mm	1	1912030	25,28
6,35	77	Coronas Ø13-60mm	1	1926500	25,28



Adaptadores de WELDON a FEIN y portafresas con cono morse en pag. 401 / Adaptor from WELDON to FEIN and morse taper at pag. 401 / Adaptateur du WELDON au FEIN et queue conique surge la page. 401

ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-G NEW

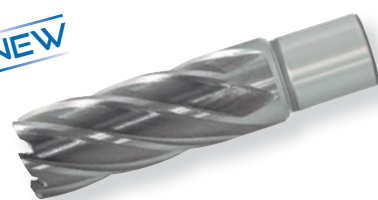
HSS-G ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES HSS-G

Medidas mm / Sizes mm	Uds. / Pcs.	Cod.	€/Unid.
12x30, 14x30, 16x30, 18x30, 20x30, 22x30, punzón expulsor 4x77 y 6.35x77	8	19CW05	295,22



CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-G
HSS-G ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES HSS-G

NEW



Ø (mm)	Profundidad de Corte Depth of the cut (mm)	Ø Mango / Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,00	50	19	1	1917012050	39,65
13,00	50	19	1	1917013050	39,65
14,00	50	19	1	1917014050	39,65
15,00	50	19	1	1917015050	41,21
16,00	50	19	1	1917016050	42,90
17,00	50	19	1	1917017050	44,46
18,00	50	19	1	1917018050	46,14
19,00	50	19	1	1917019050	47,23
20,00	50	19	1	1917020050	51,62
21,00	50	19	1	1917021050	55,05
22,00	50	19	1	1917022050	57,33
23,00	50	19	1	1917023050	59,56
24,00	50	19	1	1917024050	61,85
25,00	50	19	1	1917025050	64,01
26,00	50	19	1	1917026050	66,24
27,00	50	19	1	1917027050	68,53
28,00	50	19	1	1917028050	70,75
29,00	50	19	1	1917029050	73,04
30,00	50	19	1	1917030050	75,20
31,00	50	19	1	1917031050	86,63
32,00	50	19	1	1917032050	93,37
33,00	50	19	1	1917033050	97,79
34,00	50	19	1	1917034050	106,25
35,00	50	19	1	1917035050	113,23
36,00	50	19	1	1917036050	114,13
38,00	50	19	1	1917038050	116,46
40,00	50	19	1	1917040050	129,41
42,00	50	19	1	1917042050	132,30
44,00	50	19	1	1917044050	132,70
45,00	50	19	1	1917045050	133,08
46,00	50	19	1	1917046050	138,37
50,00	50	19	1	1917050050	152,39
52,00	50	19	1	1917052050	192,64
55,00	50	19	1	1917055050	209,91
60,00	50	19	1	1917060050	216,04

PUNZÓN EXPULSOR / PUNCHER / POINÇON

Ø (mm)	L1 (mm)	Para / For / Pour	Uds. / Pcs.	Cod.	€/Unid.
4,00	102	Coronas Ø12mm	1	1912050	28,05
6,35	102	Coronas Ø13-60mm	1	1950500	28,05

NEW



Adaptadores de WELDON a FEIN y portafresas con cono morse en pag. 401 / Adaptor from WELDON to FEIN and morse taper at pag. 401 / Adaptateur du WELDON au FEIN et queue conique sur la page. 401

ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-G
HSS-G ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES HSS-G

NEW



Medidas mm / Sizes mm	Uds. / Pcs.	Cod.	€/Unid.
12x50, 14x50, 16x50, 18x50, 20x50, 22x50, punzón expulsor 4x102 y 6.35x102	8	19CW06	333,39



CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-CO
HSS-CO ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES HSS-CO



Ø (mm)	Profundidad de Corte Depth of the cut (mm)	Ø Mango / Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,00	30	19	1	1907012030	45,57
13,00	30	19	1	1907013030	45,77
14,00	30	19	1	1907014030	45,91
15,00	30	19	1	1907015030	53,26
16,00	30	19	1	1907016030	55,21
17,00	30	19	1	1907017030	57,10
18,00	30	19	1	1907018030	58,25
19,00	30	19	1	1907019030	62,16
20,00	30	19	1	1907020030	65,05
21,00	30	19	1	1907021030	68,97
22,00	30	19	1	1907022030	70,11
23,00	30	19	1	1907023030	72,74
24,00	30	19	1	1907024030	76,38
25,00	30	19	1	1907025030	80,09
26,00	30	19	1	1907026030	81,10
27,00	30	19	1	1907027030	85,01
28,00	30	19	1	1907028030	87,03
29,00	30	19	1	1907029030	90,88
30,00	30	19	1	1907030030	92,29
31,00	30	19	1	1907031030	101,93
32,00	30	19	1	1907032030	109,14
35,00	30	19	1	1907035030	134,83
40,00	30	19	1	1907040030	158,15
45,00	30	19	1	1907045030	178,21
50,00	30	19	1	1907050030	199,60
52,00	30	19	1	1907052030	208,08
55,00	30	19	1	1907055030	217,62
60,00	30	19	1	1907060030	235,45

PUNZÓN EXPULSOR / PUNCHER / POINÇON

Ø (mm)	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,35	77	1	1926500	25,28



ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-CO
HSS-CO ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES HSS-CO

Medidas mm / Sizes mm	Uds. / Pcs.	Cod.	€/Unid.
12x30, 14x30, 16x30, 18x30, 20x30, 22x30, punzón expulsor 6.35x77	7	19CW01	365,38



CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-CO
HSS-CO ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES HSS-CO



Ø (mm)	Profundidad de Corte Depth of the cut (mm)	Ø Mango / Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,00	50	19	1	1907012050	61,62
13,00	50	19	1	1907013050	61,81
14,00	50	19	1	1907014050	62,14
15,00	50	19	1	1907015050	73,58
16,00	50	19	1	1907016050	79,29
17,00	50	19	1	1907017050	85,07
18,00	50	19	1	1907018050	87,73
19,00	50	19	1	1907019050	94,35
20,00	50	19	1	1907020050	94,68
21,00	50	19	1	1907021050	102,80
22,00	50	19	1	1907022050	104,02
23,00	50	19	1	1907023050	105,52
24,00	50	19	1	1907024050	108,89
25,00	50	19	1	1907025050	115,59
26,00	50	19	1	1907026050	115,79
27,00	50	19	1	1907027050	122,73
28,00	50	19	1	1907028050	126,30
29,00	50	19	1	1907029050	133,25
30,00	50	19	1	1907030050	140,26
31,00	50	19	1	1907031050	147,28
32,00	50	19	1	1907032050	156,30
35,00	50	19	1	1907035050	175,84
36,00	50	19	1	1907036050	180,81
40,00	50	19	1	1907040050	198,45
45,00	50	19	1	1907045050	225,72
50,00	50	19	1	1907050050	250,76
52,00	50	19	1	1907052050	260,58
55,00	50	19	1	1907055050	275,80
60,00	50	19	1	1907060050	301,07

PUNZÓN EXPULSOR / PUNCHER / POINÇON

Ø (mm)	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,35	102	1	1950500	28,05



ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-CO
HSS-CO ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES HSS-CO

Medidas mm / Sizes mm	Uds. / Pcs.	Cod.	€/Unid.
12x50, 14x50, 16x50, 18x50, 20x50, 22x50, punzón expulsor 6.35x102	7	19CW02	517,54



CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA MD
HM ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES MD



Ø (mm)	Profundidad de Corte Depth of the cut (mm)	Ø Mango / Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
18,00	35	19	1	2003018035	161,45
19,00	35	19	1	2003019035	162,05
20,00	35	19	1	2003020035	162,44
21,00	35	19	1	2003021035	162,57
22,00	35	19	1	2003022035	165,19
23,00	35	19	1	2003023035	165,26
24,00	35	19	1	2003024035	165,39
25,00	35	19	1	2003025035	169,40
26,00	35	19	1	2003026035	170,12
27,00	35	19	1	2003027035	170,25
28,00	35	19	1	2003028035	170,70
29,00	35	19	1	2003029035	170,97
30,00	35	19	1	2003030035	173,26
31,00	35	19	1	2003031035	173,99
32,00	35	19	1	2003032035	174,25
33,00	35	19	1	2003033035	174,32
34,00	35	19	1	2003034035	174,51
35,00	35	19	1	2003035035	187,97

PUNZÓN EXPULSOR / PUNCHER / POINÇON

Ø (mm)	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8	87	1	2001500	28,32



ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA MD
MD ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES MD

Medidas mm / Sizes mm	Uds. / Pcs.	Cod.	€/Unid.
18x35, 20x35, 22x35, 24x35, 26x35, 28x35, punzón expulsor 8x87	7	19CW03	1023,61



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILÉTAGÉ

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA MD
HM ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES MD



Ø (mm)	Profundidad de Corte Depth of the cut (mm)	Ø Mango / Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
18,00	50	19	1	2003018050	178,32
19,00	50	19	1	2003019050	179,07
20,00	50	19	1	2003020050	179,27
21,00	50	19	1	2003021050	179,62
22,00	50	19	1	2003022050	183,77
23,00	50	19	1	2003023050	183,84
24,00	50	19	1	2003024050	185,13
25,00	50	19	1	2003025050	186,01
26,00	50	19	1	2003026050	187,51
27,00	50	19	1	2003027050	187,85
28,00	50	19	1	2003028050	188,13
29,00	50	19	1	2003029050	188,47
30,00	50	19	1	2003030050	189,89
31,00	50	19	1	2003031050	190,57
32,00	50	19	1	2003032050	190,98
33,00	50	19	1	2003033050	191,32
34,00	50	19	1	2003034050	193,29
35,00	50	19	1	2003035050	197,44
36,00	50	19	1	2003036050	203,70
37,00	50	19	1	2003037050	203,70
38,00	50	19	1	2003038050	202,18
39,00	50	19	1	2003039050	198,74
40,00	50	19	1	2003040050	229,46
41,00	50	19	1	2003041050	233,61
42,00	50	19	1	2003042050	234,49
43,00	50	19	1	2003043050	234,92
44,00	50	19	1	2003044050	235,41
45,00	50	19	1	2003045050	235,71
46,00	50	19	1	2003046050	296,76
47,00	50	19	1	2003047050	299,61
48,00	50	19	1	2003048050	300,42
49,00	50	19	1	2003049050	301,10
50,00	50	19	1	2003050050	302,20

PUNZÓN EXPULSOR / PUNCHER / POINÇON

Ø (mm)	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8	102	1	2001501	28,32



ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA MD
MD ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES MD

Medidas mm / Sizes mm	Uds. / Pcs.	Cod.	€/Unid.
18x50, 20x50, 22x50, 24x50, 26x50, 28x50, punzón expulsor 8x102	7	19CW04	1130,45

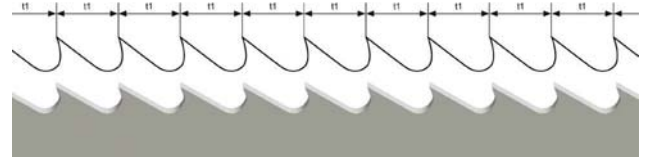


TIPOS DE DENTADOS *TOOTH PITCH* • *DENTURES*



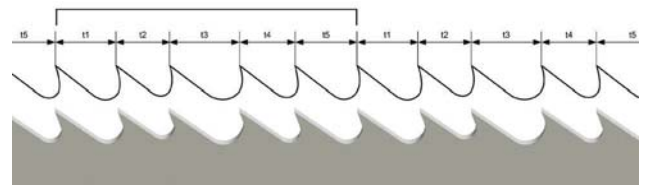
DENTADO FIJO / *CONSTANT TOOTH PITCH* / *DENTURE CONSTANTE*

Dentado constante en toda la longitud. Para cortes en materiales macizos. Recomendado para aceros, aceros inoxidables.
Constant tooth pitch, suitable for solid materials.
Dentures constante, appropriés pour des matériaux solides.



DENTADO VARIABLE / *VARIABLE TOOTH PITCH* / *DENTURE VARIABLE*

Dentado alterno en intervalos regulares an toda la longitud. Para cortes en perfiles y tubos, reduce la vibración.
Variable pitch, recommended to suppress the resonance phenomena and vibrations.
Denture variable, recommandés pour supprimer les phénomènes de résonance et les vibrations.



TIPOS DE TRISCADOS *TOOTH SETTINGS* • *TYPES D'AVOYAGES*

TRISCADO ESTÁNDAR / *STANDARD SET* / *AVOYAGE STANDARD*

Triscado constante con secuencia de izquierda / derecha / recto. Recomendado para multiusos. / *Constant tooth set, with sequence left / right / straight. Recommended for multipurpose.*
Denture constante, avoyage gauche / droite / centre.

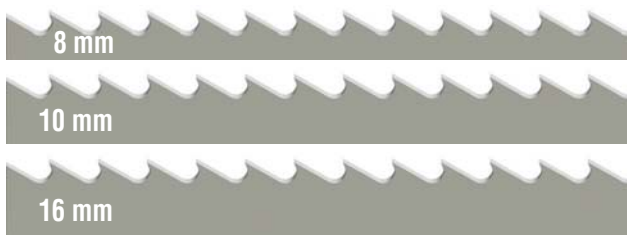


TRISCADO DE GRUPO / *GROUP TOOTH SET* / *AVOYAGE GROUPE*

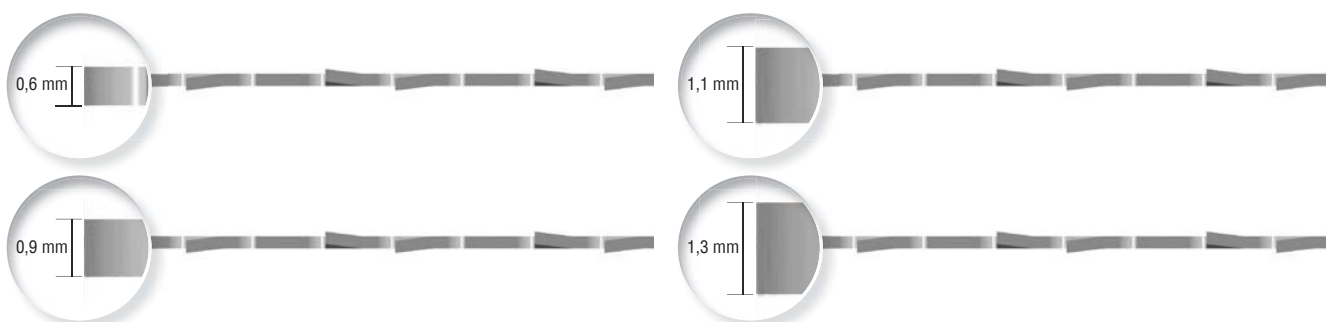
Triscado agrupado, secuencia de dientes por grupo. Mejora los acabados. / *Group tooth set, improve surfaces quality.*
Avoyage groupé, améliore la qualité de la surface.



ANCHO DE LA CINTA *BAND WIDTH* • *LARGEURS DES LAMES*



GROSOR DE LA CINTA *BAND THICKNESS* • *ÉPAISSEUR DE LAME*



CAUSAS DEL MAL FUNCIONAMIENTO Y SOLUCIONES CAUSES OF MALFUNCTION AND SOLUTIONS CAUSES DE DYSFONCTIONNEMENT ET SOLUTIONS



Procedente
Procédente
Procédente



No procedente
No procédente
No procédente

ROTURA DE LA SIERRA / *BROKEN SAW* / *RUPTURE DE LA SCIE*



CAUSA / CAUSE	SOLUCIÓN / SOLUTION
Guías laterales demasiado prietas. <i>Side guide rails too tight.</i> <i>Guides latéraux trop serrés.</i>	Comprobar y ajustar las guías. <i>Check and adjust the guide rails.</i> <i>Vérifier et ajuster les guides.</i>
Guías desgastadas, rotas o no alineadas. <i>Worn, broken or misaligned guide rails.</i> <i>Guides usés, cassés ou non alignés.</i>	Revisar o reemplazar las guías. <i>Service or replace the guide rails.</i> <i>Vérifier ou remplacer les guides.</i>
Tensión excesiva, volantes de la máquina desgastados o problemas de rodamientos. <i>Excessive tension, worn flywheels or bearing problems.</i> <i>Tension excessive, volants de la machine usés ou problèmes de roulements.</i>	Revisar la máquina. <i>Service the machine.</i> <i>Vérifier la machine.</i>
Rotura limpia por la soldadura. <i>Clean break from welding.</i> <i>Cassure propre à cause de la soudure.</i>	Reclamación procedente. <i>Appropriate complaint.</i> <i>Réclamation adaptée.</i>

DESGASTE DE LOS DIENTES / *WORN TEETH* / *USURE DES DENTS*



CAUSA / CAUSE	SOLUCIÓN / SOLUTION
Velocidad de corte superior a la recomendada. <i>Cutting speed higher than recommended.</i> <i>Vitesse de coupe supérieure à la vitesse recommandée.</i>	Reducción de la velocidad de corte. <i>Reduce the cutting speed.</i> <i>Réduction de la vitesse de coupe.</i>
Refrigeración insuficiente. <i>Insufficient cooling.</i> <i>Faible réfrigération.</i>	Aumentar refrigeración o concentración. <i>Increase cooling or concentration.</i> <i>Augmenter réfrigération ou concentration.</i>
El material no está bien sujeto. <i>The material is not securely fastened.</i> <i>Le matériel n'est pas bien fixé.</i>	Ajustar la mordaza de la máquina. <i>Adjust the jaws of the machine.</i> <i>Ajuster la fixation de la machine.</i>
Material poco homogéneo. <i>The material is not sufficiently uniform.</i> <i>Matériel peu homogène.</i>	Realizar un análisis metalúrgico del material. <i>Conduct a metallurgical analysis of the material.</i> <i>Réaliser une analyse métallurgique du matériel.</i>
Rodaje inadecuado. <i>Incorrect running-in.</i> <i>Rodage non adapté.</i>	Realizar el proceso de rodaje correcto. <i>Conduct the running in process correctly.</i> <i>Réaliser la procédure de de rodage correctement.</i>

ROTURA DE LOS DIENTES / *BROKEN TEETH* / *RUPTURE DES DENTS*



CAUSA / CAUSE	SOLUCIÓN / SOLUTION
Velocidad de corte baja. <i>Low cutting speed.</i> <i>Vitesse de coupe faible.</i>	Adaptar la velocidad de corte al material a cortar. <i>Adjust the cutting speed to the material to be cut.</i> <i>Adapter la vitesse de coupe au matériel à couper.</i>
Avance demasiado alto. <i>Feed rate too high.</i> <i>Avancée trop élevée.</i>	Reducir el avance. <i>Reduce the feed rate.</i> <i>Réduire l'avancée.</i>
Dentado inapropiado. <i>Unsuitable tooth size.</i> <i>Dents non adaptées.</i>	Seleccionar el dentado correcto. <i>Select the correct tooth size.</i> <i>Sélectionner les dents adaptées.</i>
El material no está bien sujeto. <i>The material is not securely fastened.</i> <i>Le matériel n'est pas bien fixé.</i>	Ajustar la mordaza de la máquina. <i>Adjust the jaw of the machine.</i> <i>Ajuster la fixation de la machine.</i>
Refrigeración insuficiente. <i>Insufficient cooling.</i> <i>Faible réfrigération.</i>	Aumentar refrigeración o concentración. <i>Increase cooling or concentration.</i> <i>Augmenter réfrigération ou concentration.</i>
Cepillo limpia virutas no funciona. <i>Shavings cleaning brush not working.</i> <i>Brosse qui nettoie les copeaux ne fonctionne pas.</i>	Comprobar o sustituir el cepillo limpia viruta. <i>Check or replace shavings cleaning brush.</i> <i>Vérifier ou remplacer la brosse.</i>

CAUSAS DEL MAL FUNCIONAMIENTO Y SOLUCIONES
CAUSES OF MALFUNCTION AND SOLUTIONS
CAUSES DE DYSFONCTIONNEMENT ET SOLUTIONS

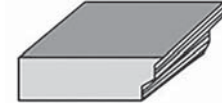


Procedente
Procedente
Procedente



No procedente
No procedente
No procedente

CORTE IRREGULAR / IRREGULAR CUT / COUPE IRRÉGULIÈRE



CAUSA / CAUSE	SOLUCIÓN / SOLUTION
Hoja de sierra de cinta desafilada. <i>Blunt band saw blade.</i> <i>Feuille de scie du tapis mal aiguisée.</i>	Cambiar la cinta. <i>Replace the blade.</i> <i>Changer le tapis.</i>
Guías de la hoja de sierra de cinta flojas o desalineadas. <i>Loose or misaligned band saw blade guides.</i> <i>Guides de la feuille peu serrés ou mal alignés.</i>	Ajustar o sustituir las guías. <i>Adjust or replace the guides.</i> <i>Ajuster ou remplacer les guides.</i>
Brazos guía de la máquina están demasiado separados. <i>The machine's guide arms are too far apart.</i> <i>Bras guide la machine trop séparée.</i>	Ajustar al máximo la apertura de los brazos guías al tamaño de la pieza a cortar. <i>Open the guide arms as far as possible to the size of the piece to be cut.</i> <i>Ajuster au maximum l'ouverture des bras guides aux dimensions de la pièce à couper.</i>
Dentado demasiado pequeño. <i>Blade teeth too small.</i> <i>Dents trop petites.</i>	Seleccionar el dentado apropiado. <i>Select the correct blade teeth size.</i> <i>Sélectionner les dents adaptées.</i>
Avance demasiado alto. <i>Feed rate too high.</i> <i>Avancée trop élevée.</i>	Reducir el avance. <i>Reduce the feed rate.</i> <i>Réduire l'avancée.</i>
Tensión baja de la hoja. <i>Blade tension too low.</i> <i>Tension de la feuille faible.</i>	Aumentar la tensión. <i>Increase the tension.</i> <i>Augmenter la tension.</i>
Cepillo limpia virutas no funciona. <i>Shavings cleaning brush not working.</i> <i>Brosse qui nettoie les copeaux ne fonctionne pas.</i>	Comprobar o sustituir el cepillo. <i>Check or replace the brush.</i> <i>Vérifier ou remplacer la brosse.</i>

RECOMENDACIONES
TIPS • RECOMMANDATIONS

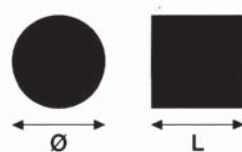
- Comprobar con frecuencia el buen estado de la máquina, el funcionamiento del cepillo, el desgaste y la alineación de las guías, la tensión de la cinta, etc.
Conduct frequent checks of the condition of the machine, the operation of the brush, the wear and alignment of the guide rails, the tension of the belt, etc.
Vérifier fréquemment le bon état de la machine, le fonctionnement de la brosse, l'usure et l'alignement des guides, la tension du tapis, etc.
- Comprobar que estamos utilizando el refrigerante adecuado al trabajo que estamos realizando.
Check you are using the correct coolant for the work being carried out.
Vérifier que nous utilisons le liquide de refroidissement adapté au travail à réaliser.
- Asegurarnos que la pieza está perfectamente sujeta en las mordazas de la máquina.
Make sure that the piece is securely fastened in the jaws of the machine.
S'assurer que la pièce est parfaitement fixée à la machine.
- Elegir el dentado correcto de acuerdo a las tablas que les adjuntamos, teniendo en cuenta el espesor de las piezas y la geometría de las mismas.
Choose the correct blade tooth size in accordance with the tables attached hereto, taking the thickness and geometry of the pieces into account.
Choisir les dents correctes selon les tableaux joints, en prenant en compte l'épaisseur des pièces et leur géométrie.

PARA EL CORTE DE TUBOS Y PERFILES / TO CUT TUBES AND BEAMS / POUR LA COUPE DE TUBES ET PROFILES



S (mm)	D (mm)													
	20	40	60	80	100	120	150	200	300	400	500			
2	14	14	14	14	10/14	10/14	10/14	10/14	10/14	8/12	8/12			
3				10/14					6/10			6/10		
4			10/14	10/14	8/12	6/10	6/10	6/10	6/10	4/6	4/6	4/6		
5													6/10	5/8
6	10/14	8/12	6/10	6/10	6/10	5/8	5/8	4/6	4/6	4/6	4/6			
7												6/10	5/8	4/6
8												6/10	5/8	4/6
10												6/10	5/8	4/6
12	-	6/10	5/8	5/8	5/8	4/6	4/6	4/6	3/4	3/4	3/4			
15	6/10											4/6	3/4	
20	-	-	5/8	4/6	4/6	3/4	3/4	3/4	3/4	3/4	3/4			
30	-	-	-	4/6	3/4	3/4	3/4	3/4	2/3	2/3	2/3			
50	-	-	-	-	-	-	2/3	2/3	2/3	2/3	2/3			

PARA EL CORTE DE SECCIONES MACIZAS / TO CUT SOLID MATERIALS / POUR LA COUPE DE MATÉRIAUX PLEINS



Ø (mm) / L (mm)	Dentado Variable / Variable Tooth Pitch	Dentado Fijo / Constant Tooth Pitch
- 10	10 / 14	14,00
10 - 20	8 / 12	10,00
20 - 40	6 / 10	8,00
40 - 70	4 / 6	6,00
70 - 140	3 / 4	4,00
140 - 200	3 / 4	3,00
200 - 400	2 / 3	2,00
+ 400	1 / 2	1,25

5 Con el fin de proteger los dientes de la sierra no quitar el protector del dentado hasta que esté la sierra montada.

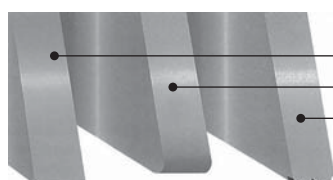
In order to protect the teeth of the saw, do not remove the tooth guard until the saw has been assembled.

Afin de protéger les dents de la scie, ne pas quitter la protection des dents jusqu'à ce que la scie soit montée.

6 Hacer el rodaje de las sierras adecuadamente aumenta su vida útil. Consiste en cortar durante un pequeño periodo de tiempo a una velocidad de corte y a un avance reducido. Se trata de trabajar aproximadamente al 70% de la velocidad de corte y a un 50% de la velocidad de avance. Después de haber cortado aproximadamente 500 cm² de área, se puede incrementar la velocidad de corte gradualmente hasta el máximo, y después incrementar también el avance.

Running in the saw in the correct manner increases its service life. This consists of cutting at a reduced cutting speed and feed rate for a short period of time. This means working at around 70% of the cutting speed and 50% of the feed rate. After having cut an area of approximately 500 cm² in size, you may gradually increase the cutting speed to the maximum and then increase the feed rate.

Faire le rodage des scies de façon adaptée augmente leur vie utile. Consiste à découper pendant une courte période de temps à une vitesse de coupe et une avancée réduite. Il s'agit de travailler à environ 70% de la vitesse de coupe et 50% de la vitesse d'avancée. Après avoir coupé environ 500 cm² de surface, on peut augmenter la vitesse de coupe graduellement jusqu'au maximum, et ensuite augmenter également l'avancée.



Sierra nueva / New saw / Nouvelle scie

Sierra con rodaje / Saw with running / Scie avec rodage

Sierra sin rodaje / Saw without running / Scie sans rodage

CÁLCULO DEL PRECIO DE UNA SIERRA DE CINTA
PRICE CALCULATION • CALCULE DU PRIX


Anchura / Width (mm)	Grosor / Thickness (mm)	Precio Metro / Meter price €	Precio Soldadura / Welding Price €
6	0,9	19,85	8,90
10	0,9	19,85	8,90
13	0,6	18,87	8,90
13	0,9	18,87	8,90
20	0,9	20,96	8,90
27	0,9	22,27	8,90
34	1,1	29,93	11,50
41	1,3	38,18	12,92

	PRECIO METRO METER PRICE PRIX METRE	x	DESARROLLO / MM LENGTH LONGEUR	+	SOLDADURA / WELD WELD SOUDURE	=	PRECIO FINAL PRICE PRIX
Ej / Ex:	22,27	x	2,450 mm	+	8,90	=	63,46 €

PVP CORTES MÁS HABITUALES M42
PRICES OF MOST USUAL CUTS
PRIX DES LAMES DE SCIES À RUBAN PLUS HABITUELS

Desarrollo / Length (mm)	Anchura / Width (mm)	€/Unid.
1,325	13	33,91
1,330	13	34,00
1,470	13	36,64
1,475	13	36,73
2,000	20	50,82
2,060	20	52,07
2,352	20	55,43
2,960	20	74,49
2,070	27	55,02
2,360	27	61,46
2,450	27	63,47

Desarrollo / Length (mm)	Anchura / Width (mm)	€/Unid.
2,460	27	63,70
2,600	27	66,81
2,750	27	70,15
2,835	27	72,04
2,945	27	74,50
3,010	27	75,95
3,660	27	90,42
3,500	34	122,07
4,570	34	148,34
5,300	34	170,22

RECOMENDACIÓN DE VELOCIDADES DE CORTE PARA SIERRAS DE CINTA M42 SPEED RECOMMENDATION VITESSE RECOMMANDÉE



HSS-CO 8%

HRC
68-69

MATERIAL	Selección Del Dentado Tooth Selecting		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	Refrigeración Aceite de Corte Coolant Cutting Fluid	
	Dimensión A Cortar / To Cut		0 - 13 mm	13-25 mm	25 - 75 mm	75 - 150 mm	150 - 200 mm	SI / YES	NO
	REF - I.HA	REF - SAE / AISI	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)		
Aceros Al Carbono Carbon Steels	F-151	1010	105	100	90	85	80		X
	F-111 - F-112	1015 - 1025	110	105	100	95	85		X
	F-113	1035	83	79	73	64	61		X
	M14 - F-115	1045 - 1055	71	73	70	60	49		X
	F-S12 - F 516	W-1 - W-2	78	72	66	60	54		X
Aceros Fácil Mecanización Free Cutting Steels	-	1108-1111	105	105	105	102	87		X
	F-211	1117 -1118	102	102	102	99	84		X
	-	1108-1111	100	93	84	81	72		X
Aceros al Manganeso Manganese Steels	F-212	1137-1151 1211 -1215	110	110	105	105	93		X
	-	1330 - 1340	80	75	71	65	56		X
	-	1513 - 1536	115	112	105	97	85		X
Aceros Molibdeno Molybdenum Steels	-	1541 - 1572	75	72	70	60	50		X
	-	4012- 4024	102	97	90	85	75		X
	-	4027 - 4037	36	93	83	81	71		X
Aceros Cromo Molibdeno Chrome Molybdenum Steels	-	4042 - 4047	82	77	68	63	56		X
	-	4118 - 4130	100	88	80	80	75		X
	F-125	4135 - 4142	94	86	77	75	64		X
Aceros Níquel Nickel Steels	F-155	4145 - 4161	75	70	67	63	55		X
	-	2317	90	85	82	77	70	X	
	-	2330 - 2345	74	70	67	61	55	X	
Aceros Cromo Níquel Chrome Nickel Steels	-	2512 - 2517	64	61	58	52	49	X	
	F-158	3115 - 3130	90	84	78	75	72	X	
	-	3135 - 3150	70	65	61	57	50	X	
	F-153	3310 - 3315	67	61	55	54	45	X	
	F-154	3320 - 3340	55	50	43	44	40	X	

Reducir de 10 a 20% con dimensiones superiores a 200 mm. / Reduce from 10% to 20% for sizes over 200 mm. / Reduire du 10% à 20% dans les mesures plus grandes.

RECOMENDACIÓN DE VELOCIDADES DE CORTE
PARA SIERRAS DE CINTA M42
SPEED RECOMMENDATION
VITESSE RECOMMANDÉE



MATERIAL	Selección Del Dentado Tooth Selecting		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	Refrigeración Aceite de Corte Coolant Cutting Fluid	
	Dimensión A Cortar / To Cut		0 -13 mm	13-25 mm	25 - 75 mm	75 - 150 mm	150 - 200 mm	SI / YES	NO
	REF - I.HA	REF - SAE / AISI	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)		
Aceros Cromo Níquel Molibdeno <i>CR-Ni-Mb Steels</i>	-	4317 - 4320	83	78	70	68	62	X	
	F-127	4337 - 4340	83	75	68	66	54	X	
	-	8615 - 8627	83	78	75	68	54	X	
	F-12S	8630 - 8645	83	78	72	65	54	X	
	-	8647 - 8660	75	69	63	60	48	X	
	-	8716 - 6750	63	78	75	69	54	X	
	F-156	9310 - 9317	73	66	55	52	45	X	
	-	9437 - 9446	86	78	74	68	65	X	
	-	9447 - 9763	80	77	74	66	62	X	
	-	9840 - 9850	78	75	70	66	52	X	
Aceros Níquel Molibdeno <i>Ni-Mb Steels</i>	-	4608 - 4626	89	84	80	75	65	X	
	-	4640	79	72	68	63	64	X	
	-	4812	74	67	62	60	52	X	
Aceros Cromo <i>Chrome Steel</i>	-	5040 - 5050	90	86	80	78	65		X
	F-121	5120 - 5135	90	87	70	75	60		X
	F-122	5140 - 5160	81	77	74	70	58		X
	F-131	50100 - 52100	63	56	52	48	35		X
Aceros Cromo Vanadio <i>Chrome Vanadium Steels</i>	-	6117 - 6120	80	77	70	70	49		X
	F-143	6145 - 6152	76	69	63	60	47		X
Aceros 5(Uck) Manganeso <i>5 (UCK)-Mg Steels</i>	F-144	9255 - 9260	69	63	60	57	46		X
	-	9261 - 9262	67	60	57	54	45		X
Aceros Trabajados en Frío <i>Cold Worked Steels</i>	F-522 - F-520 H	01 - 02	74	67	65	60	50		
	F-523	L-3	63	58	S2	46	36		
	F-520 P	06 - 07	70	65	62	57	46		
	F-S36	A2 - A3 - A6	72	66	65	60	50		
	-	D2 - D3 - D6	44	39	35	33	24		X
	-	D7	33	30	27	25	20		X
	-								

Reducir de 10 a 20% con dimensiones superiores a 200 mm. / Reduce from 10% to 20% for sizes over 200 mm. / Reduire du 10% á 20% dans les mesures plus grandes.

RECOMENDACIÓN DE VELOCIDADES DE CORTE PARA SIERRAS DE CINTA M42 SPEED RECOMMENDATION VITESSE RECOMMANDÉE



HSS-CO 8%

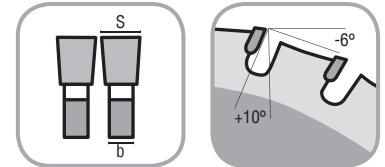
HRC
68-69

MATERIAL	Selección Del Dentado Tooth Selecting					Refrigeración Aceite de Corte Coolant Cutting Fluid			
	Dimensión A Cortar / To Cut		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	SI / YES	NO
	REF - I.HA	REF - SAE / AISI	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)		
Aceros Trabajos en Caliente Hot Worked Steels	F-526 - F-536	H12 - H13 - H21	70	68	62	60	48	X	
	-	H22 - H24 - H26	60	54	50	48	42	X	
	F-528	L2 L6 - L7	65	61	50	55	46	X	
	F-532	F-1	62	60	56	50	38		X
Aceros Trabajos de Choque Steel Shock Works	F-524	S1	70	63	60	58	48		
	F-520 E	S-2 - S-5	55	50	48	40	35	X	
Aceros Rápidos High Speed Steels	F-552	T-1 - T-2	46	43	39	36	28		X
	F-553 - F-554	T4 - T5	39	35	33	30	24		X
	-	T-6 - T4	35	31	28	28	20		X
	-	T-15 - M-1S	23	26	21	19	te		X
	-	M-1	53	50	46	43	35		X
	F-S50A	M-2 - M-3	39	36	33	30	24		X
	-	M-41 - M-43	35	31	28	25	20		X
Aceros Inoxidables Stainless Steels	F-314	201 - 202 - 304	42	39	35	34	26	★	
	F-310 C	303 - 303 F	50	45	42	38	30		
	F-331	308 - 309 - 310	31	30	27	24	19		
	F-310 A	314 - 316 - 317	31	30	27	24	18		
	F-332	321 - 347	44	38	35	35	30		
	F-311 - F-312	410 - 420	53	50	45	42	33		
	-	330	27	24	20	17	14		
	F-313	431	39	33	30	28	24		
	-	440A-B-C	42	36	34	30	24		
	-	I7-7Ph - 17-4Ph	36	30	27	24	15		
	-	NITRONIC - 33	18	18	16	15	12		
	F-330 B	446	30	26	23	20	17		
	D2 - D3 - D6	44	39	35	33	24			
	D7	33	30	27	25	20			

★ Especial para INOX / For INOX / Pour INOX

Reducir de 10 a 20% con dimensiones superiores a 200 mm. / Reduce from 10% to 20% for sizes over 200mm. / Reduire du 10% à 20% dans les mesures plus grandes.

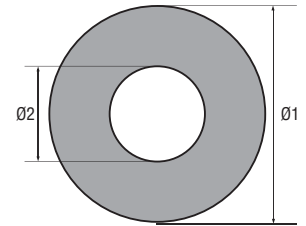
DISCO PARA ALUMINIO Y METALES NO FÉRRICOS
ALUMINIUM AND NON-FERROUS METAL DISCS
DISQUE POUR ALUMINIUM ET METAUX NON FERREUX



Ø (mm)	S Grosor / Thickness	B Grosor / Thickness	Ø Eje / Axe	Z	Cod.	€/Unid.
250	3,2	2,2	32	80	3DM0250	73,07
300	3,2	2,2	32	96	3DM0300	91,13

ANILLOS REDUCTORES
REDUCTIONS RINGS • BIAGUES DE RÉDUCTION

Ø1 / Ø2 (mm)	Cod.	€/Unid.
32/30	2DR3230	4,26
32/25	2DR3225	4,26
32/20	2DR3220	4,26



HOJAS DE SIERRA DE MANO ACERO AL CARBONO
HAND HACKSAW BLADE CARBON STEEL
LAMES DE SCIES ACIER CARBONE

NEW



L1 (mm)	A	Grosor / Thickness	Dtes. x pulgada / Teeth x inch	Uds. / Pcs.	Cod.	€/Unid.
300	13	0,65	24	100	S31225	1,25

HOJAS DE SIERRA DE MANO BIMETAL
BIMETAL HAND HACKSAW BLADE
LAMES DE SCIES BIMETAL



L1 (mm)	A	Grosor / Thickness	Dtes. x pulgada / Teeth x inch	Uds. / Pcs.	Cod.	€/Unid.
300	13	0,65	24	100	S21224	2,41
NEW 300	13	0,65	32	100	S21232	2,41

HOJA DE SIERRA DOBLE FILO ACERO AL CARBONO
DOUBLE SIDED HACKSAW BLADE CARBON STEEL
LAME DE SCIE À DOUBLE BORD ACIER CARBONE

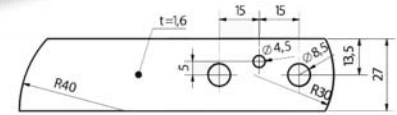
NEW



L1 (mm)	A	Grosor / Thickness	Dtes. x pulgada / Teeth x inch	Uds. / Pcs.	Cod.	€/Unid.
300	13	0,65	24	100	S31224	1,48

SIERRAS DE SABLE PARA MÁQUINAS FEIN SABRE SAW BLADES FOR FEIN MACHINE SCIE SABRE POUR FEIN MACHINES

NEW



L1 (mm)	A	Grosor / Thickness	Dtes. x pulgada / Teeth x inch	Uds. / Pcs.	Cod.	€/Unid.
300	27	1,60	14	5	S8300271614	18,00
400	27	1,60	14	5	S8400271614	23,19
500	27	1,60	14	5	S8500271614	26,38
600	27	1,60	14	5	S8600271614	33,24
700	28	2,00	14	5	S8700282014	49,35

Para máquinas neumáticas y eléctricas con anclaje FEIN, SPITZHAS, PREMAG, ROCKWELL...
For pneumatic and electric machines with anchor FEIN, SPITZHAS, PREMAG, ROCKWELL...
Pour machines pneumatiques et électriques avec ancre FEIN, SPITZHAS, PREMAG, ROCKWELL...

HOJA SIERRA DE MÁQUINA BIMETAL BIMETAL POWER HACKSAW BLADES FOR MACHINE LAME DE SCIE MACHINE BIMETAL

NEW



L1 (mm)		Dtes. x pulgada / Teeth x inch	Uds. / Pcs.	Cod.	€/Unid.
300 x 25 x 1,20	-	6 8 10 14	5	S73002512XX*	11,73
350 x 32 x 1,60	4	6 8 10 14	5	S73503216XX*	16,54
400 x 32 x 1,60	4	6 8 10 14	5	S74003216XX*	19,20
400 x 40 x 2,00	4	6 8 10 -	5	S74004020XX*	27,81
450 x 32 x 1,60	4	6 8 10 14	5	S74503216XX*	20,23
450 x 40 x 2,00	4	6 8 10 -	5	S74504020XX*	30,21
500 x 40 x 2,00	4	6 8 10 -	5	S75004020XX*	32,72
550 x 50 x 2,50	4	6 8 10 -	5	S75505025XX*	55,82
600 x 50 x 2,00	-	6 8 10 -	5	S76005020XX*	65,04
600 x 50 x 2,50	4	6 8 10 -	5	S76005025XX*	67,08
650 x 50 x 2,50	4	6 8 10 -	5	S76505025XX*	72,97
700 x 50 x 2,50	4	6 8 10 -	5	S77005025XX*	75,07

Consultar plazo / Request delivery time / Consultar plazo

*Las "XX" hacen referencia al número de dientes por pulgada
* The "XX" refer to the number of teeth per inch
* Les "XX" se référer au nombre de dents par pouce

Ejemplo para pedir: / Example to order: / Exemple de commande:

300 x 25 x 1,20 8 TPI → Cod. S730025128
300 x 25 x 1,20 10 TPI → Cod. S7300251210

DESBARBADOR
DEBURRING TOOL
ÉBAVUREUR



HSS-G



Uds. / Pcs.	Cod.	€/Unid.
1	3DE1000	21,86

CUCHILLAS RECAMBIO
DEBURRING TOOLS BLADES • LAMES

Uds. / Pcs.	Cod.	€/Unid.
10	3DE1001	2,51



DESBARBADOR PARA VARILLAS
BOLT CHAMFER
CHAMFER À BOULON

NEW



Uds. / Pcs.	Cod.	Ø	€/Unid.
1	3DE1003	8-22mm	27,00

GRANETES
POUNCES • POINTEAU

GRANETE AUTOMÁTICO
AUTHOMATIC CENTER PUNCH • POINTEAU AUTOMATIQUE

Uds. / Pcs.	Cod.	€/Unid.
1	5PU5000	12,26



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS





FRRESA DDO

MILLING
FRAISAGE



TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS

APPLICATION GUIDE AND CUTTING SPEED
TABLE D'APPLICATIONS ET VITESSE DE COUPE RECOMMANDÉ



MD



MD



MD



MATERIAL / MATERIAL / MATIERE	Resistencia Resistance Resistance N/mm ²	3 Cortes 3 Cuts 3 Dents	6 Cortes 6 Cuts 6 Dents	Corte INOX INOX cut INOX dent
ACEROS STEELS • ACIERS	Decoletaje Machining • Décolletage	<500		
	Carbono <0,4% <0,4% Carbon • Carbon <0,4%	<850		
	Acero para herramientas Steel for tools • Acier pour outils	<1.200		
	Templado - Revenido Tempered - Quenched • Trempé - Revenu	<1.400		
ACEROS INOXIDABLES STAINLESS STEEL ACIER INOXYDABLE	Austeníticos Cr-Ni Cr-Ni Austenitics • Cr-Ni austenitique	<850		
	Martensíticos Cr-Mo Cr-Mo Martensitics • Cr-Mo martensitique	<1.200		
FUNDICIÓN CAST IRON • FONTE	Fundición gris Grey cast iron • Fonte grise	<700		
	Fundición dura Hard cast iron • Fonte dur	<1.000		
ALUMINIO ALUMINIUM • ALUMINIUM	Puro Pure • Pure	<350		
	Si < 10%	<600		
	Si > 10%	<600		
	Zamak Zamak • Zamak	<600		
COBRE COPPER • CUIVRE	Bronce Bronze • Bronze	<350		
	Cobre viruta larga Long chip copper • Cuivre coupage long	<700		
	Cobre viruta corta Short chip copper • Cuivre coupage court	<700		
	Latón duro Hard Brass • Laiton dur	<700		
	Latón tenaz Tough Brass • Laiton tenace	<700		
TITANIO TITANIUM • TITANE	Puro Pure • Pure	<700		
	Aleaciones de Titanio Titanium alloys • Alliages de titane	<1.200		
SINTÉTICOS PLASTICS • PLASTIQUES	Termoplásticos Thermoplastics • Thermoplastique	-		
	Duroplásticos Hard-plastics • Duroplastique	-		

*VELOCIDADES RECOMENDADAS PARA FRESAS CON MANGO DE LONGITUD ESTANDAR.

*RECOMMENDED SPEEDS FOR STANDARD LENGTH BURRS.

*VITESSE RECOMMANDÉE POUR LES FRAISES DE LONGUEUR STANDARD.

Diámetro de la cabeza de la fresa - RPM x 1000 / Burr head diameter - RPM x 1000 / Diamètre de la tête de la fraise - RPM x 1000

Ø 3 mm		Ø 6 mm		Ø 10 mm		Ø 12 mm		Ø 16 mm						
RPM Max.	RPM	RPM Inicial Initiale	RPM Max.	RPM	RPM Inicial Initiale	RPM Max.	RPM	RPM Inicial Initiale	RPM Max.	RPM	RPM Inicial Initiale	RPM Max.	RPM	RPM Inicial Initiale
100	60-80	65	65	45-60	50	55	30-40	30	35	22-30	25	25	18-20	20
				30-45	40		19-30	25		15-22	20		12-18	15
	60-80	80		30-45	40		19-30	25		15-22	20		12-18	15
	45-80	65		22-60	45		15-40	30		11-30	25		9-20	20
	60-80	65		15-60	40		10-50	25		7-30	20		6-20	15
	45-80	65		22-60	45		15-40	30		11-30	25		9-20	20
	60-80	80		30-45	40		19-30	25		15-22	20		12-18	15
	60-80	80		15-60	40		10-50	25		7-30	20		6-20	15

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

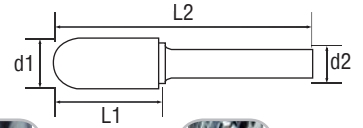
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR

MD

CILÍNDRICA CYLINDER • CYLINDRIQUE


3 Cortes / 3 Cuts



6 Cortes / 6 Cuts

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.	Cod.	€/Unid.
A	3,00	3,00	14,00	38,00	FRA3104	19,43	FRA6100	15,19
		6,35	12,70	45,00	FRA3105	30,25	FRA6101	24,37
		4,00	14,00	50,00	*	*	FRA6107	28,24
		6,00	18,00	50,00	FRA3102	31,33	FRA6102	26,23
6,00	6,00	8,00	19,00	64,00	FRA3103	42,12	FRA6103	33,89
		9,60	19,00	64,00	FRA3100	43,37	FRA6104	41,02
		9,60	25,00	70,00	FRA3106 NEW	45,85	FRA6109	44,51
		12,70	19,00	64,00	*	*	FRA6105	60,47
		12,70	25,00	70,00	FRA3101	68,08	FRA6106	56,45
		12,70	25,00	70,00	FRA3101	68,08	FRA6106	56,45

CILÍNDRICA CORTE FRONTAL
CYLINDER END CUT • CYLINDRIQUE COUP FRONTALE


3 Cortes / 3 Cuts



6 Cortes / 6 Cuts

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.	Cod.	€/Unid.
B	3,00	3,00	14,00	38,0	FRB3103	25,09	FRB6100	15,62
		6,35	12,70	45,00	FRB3104	30,74	FRB6101	25,50
		4,00	14,00	50,00	*	*	FRB6107	29,91
		6,00	18,00	50,00	FRB3100	38,30	FRB6102	27,03
6,00	6,00	8,00	19,00	64,00	FRB3101	46,54	FRB6103	35,22
		9,60	25,00	70,00	*	*	FRB6109	48,01
		9,60	19,00	64,00	FRB3102	50,05	FRB6104	41,30
		12,70	19,00	64,00	*	*	FRB6105	61,85
		12,70	25,00	70,00	FRB3105	71,03	FRB6106	56,56
		16,00	25,00	70,00	FRB3106	92,96	FRB6108	65,80

CILÍNDRICA CON RADIO BULL NOSE • CYLINDRIQUE A RAYON


3 Cortes / 3 Cuts



6 Cortes / 6 Cuts

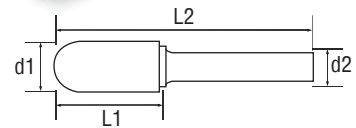
Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.	Cod.	€/Unid.
C	3,00	3,00	14,00	38,00	FRC3104	25,06	FRC6100	15,88
		6,35	12,70	45,00	FRC3105	33,90	FRC6101	23,60
		4,00	14,00	50,00	*	*	FRC6108	30,00
		6,00	18,00	50,00	FRC3102	41,21	FRC6102	31,88
6,00	6,00	8,00	19,00	64,00	FRC3103	45,86	FRC6103	36,02
		9,60	19,00	64,00	FRC3100	48,25	FRC6104	41,72
		12,70	19,00	64,00	*	*	FRC6105	60,76
		12,70	25,00	70,00	FRC3101	81,01	FRC6106	61,38
		16,00	25,00	70,00	FRC3106	95,21	FRC6107	74,79
		6,00	18,00	100,00	*	*	FRC6109	62,66

Especial cerrajería / Special locksmith / Serrurerie spécial

FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR



MD



ESFÉRICA BALL • SPHERIQUE



D



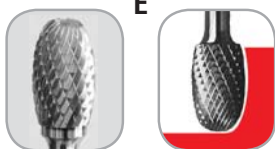
3 Cortes / 3 Cuts



6 Cortes / 6 Cuts

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.	Cod.	€/Unid.
	3,00	3,00	2,50	38,00	*	*	FRD6100	15,46
		4,00	3,40	38,00	FRD3103	46,30	FRD6102	35,43
		6,35	5,00	38,00	*	*	FRD6101	24,22
	6,00	6,00	4,70	50,00	FRD3100	38,50	FRD6103	26,04
		8,00	6,00	52,00	*	*	FRD6106	28,84
		9,60	8,00	54,00	FRD3101	39,16	FRD6104	31,74
		12,70	11,00	56,00	FRD3102	53,14	FRD6105	43,94
		16,00	14,00	59,00	FRD3104	69,96	FRD6107	54,93

OVAL OVAL • OVALE



E



3 Cortes / 3 Cuts



6 Cortes / 6 Cuts

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.	Cod.	€/Unid.
	3,00	3,00	6,00	38,00	*	*	FRE6100	18,27
		6,35	9,50	42,00	*	*	FRE6101	23,37
	6,00	8,00	15,00	60,00	*	*	FRE6102	35,22
		9,60	16,00	60,00	FRE3100	51,40	FRE6103	38,69
		12,70	22,00	67,00	FRE3101	73,71	FRE6104	58,43
		16,00	25,00	70,00	*	*	FRE6105	78,22

ÁRBOL CON RADIO ROUND TREE • OGIVE A RAYON



F



3 Cortes / 3 Cuts

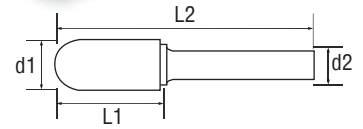


6 Cortes / 6 Cuts



Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.	Cod.	€/Unid.
	3,00	3,00	14,00	38,00	*	*	FRF6100	19,97
		6,35	12,70	45,00	*	*	FRF6101	22,98
	6,00	6,00	18,00	50,00	FRF3102	45,75	FRF6102	30,80
		8,00	20,00	65,00	FRF3103	45,10	FRF6106	35,97
		9,60	19,00	64,00	FRF3100	48,41	FRF6103	45,36
		12,70	25,00	70,00	FRF3101	72,69	FRF6104	57,52
		16,00	25,00	70,00	FRF3104	96,26	FRF6105	75,38

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR



MD

ÁRBOL CON PUNTA POINTED TREE • ARBRE

3 Cortes / 3 Cuts
6 Cortes / 6 Cuts

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.	Cod.	€/Unid.
G 	3,00	3,00	14,00	38,00	*	*	FRG6100	19,97
		6,35	12,70	45,00	*	*	FRG6101	23,30
	6,00	6,00	18,00	50,00	*	*	FRG6102	29,73
		8,00	19,00	64,00	FRG3100	51,39	FRG6106	35,56
		9,60	19,00	64,00	*	*	FRG6103	42,32
		12,70	19,00	64,00	*	*	FRG6104	53,38
		12,70	25,00	70,00	FRG3101	71,71	FRG6105	57,53


LLAMA FLAME • FLAMME

3 Cortes / 3 Cuts
6 Cortes / 6 Cuts

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.	Cod.	€/Unid.
H 	3,00	3,00	6,00	38,00	*	*	FRH6104	19,91
		6,00	14,00	50,00	*	*	FRH6101	30,49
	6,00	8,00	19,00	64,00	*	*	FRH6102	37,90
		9,60	19,00	65,00	FRH3102	85,87	FRH6103	70,08
		12,70	32,00	77,00	*	*	FRH6100	78,23

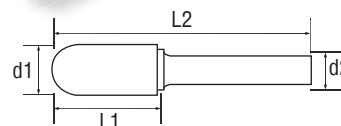
CÓNICA 90° COUNTER SINK 90° • CONIQUE 90°

3 Cortes / 3 Cuts
6 Cortes / 6 Cuts

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.	Cod.	€/Unid.
K 	6,00	9,60	4,70	53,00	*	*	FRK6101	33,99
		16,00	8,00	57,00	*	*	FRK6102	56,76

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR



MD



CÓNICA CON RADIO *BALL NOSE CONE • CONIQUE A RAYON*

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts		6 Cortes / 6 Cuts	
					Cod.	€/Unid.	Cod.	€/Unid.
L	3,00	3,00	14,00	38,00	*	*	FRL6100	17,77
		6,35	15,80	48,00	*	*	FRL6101	26,47
	6,00	6,00	18,00	50,00	FRL3102	42,59	FRL6106	31,34
		8,00	25,40	70,00	*	*	FRL6105	40,95
		9,60	30,00	76,00	FRL3100	61,84	FRL6102	47,94
		10,00	20,00	65,00	FRL3103	59,48	FRL6107	43,63
		12,00	25,00	70,00	FRL3104	63,73	FRL6108	53,30
		12,70	32,00	77,00	FRL3101	74,88	FRL6103	61,57
		16,00	33,30	78,00	*	*	FRL6104	113,33

CÓNICA CON PUNTA *CONE • CONIQUE TRONQUEE*

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts		6 Cortes / 6 Cuts	
					Cod.	€/Unid.	Cod.	€/Unid.
M	3,00	3,00	11,00	38,00	*	*	FRM6100	20,48
		6,00	20,00	50,00	*	*	FRM6101	30,20
	6,00	8,00	18,00	18,00	*	*	FRM6104	43,45
		9,60	16,00	64,00	FRM3101	61,84	FRM6102	45,30
		12,70	22,00	71,00	FRM3102	78,07	FRM6103	63,21
		16,00	25,00	71,00	*	*	FRM6105	81,64

CONO INVERTIDO *INVERTED CONE • CONIQUE RENVERSEE*

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts		6 Cortes / 6 Cuts	
					Cod.	€/Unid.	Cod.	€/Unid.
N	3,00	3,00	4,00	38,00	*	*	FRN6101	18,05
		6,00	8,00	50,00	*	*	FRN6102	30,25
		12,70	12,70	58,00	*	*	FRN6103	58,36

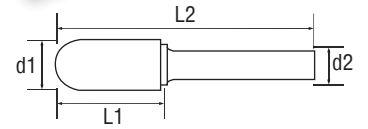
PASTILLA *RIM SHAPE • DISQUE*

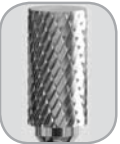

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	2 Cortes / 2 Cuts		2 Cortes / 2 Cuts	
					Cod.	€/Unid.	Cod.	€/Unid.
P	3,00	10,00	1,60	34,00	FRP3101	44,87	*	*
		12,00	2,60	48,00	*	*	FRP6101	43,51

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter



FRESAS ROTATIVAS DE METAL DURO
 RECOMENDADO PARA ACERO INOXIDABLE

HARD METAL ROTARY BURRS
 RECOMMENDED FOR STAINLESS STEEL



FRAISES ROTATIVAS MÉTAL DUR
 RECOMMANDÉ POUR INOX

CILÍNDRICA CYLINDER • CYLINDRIQUE


Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.
A  	6,00	6,00	18,00	50,00	FRA3102-INOX	29,82
		12,70	25,00	70,00	FRA3101-INOX	65,43



CILÍNDRICA CON RADIO BULL NOSE • CYLINDRIQUE A RAYON


Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.
C  	6,00	6,00	18,00	50,00	FRC3102-INOX	34,69
		12,70	25,00	70,00	FRC3101-INOX	73,37

ESFÉRICA BALL • SPHERIQUE


Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.
D  	6,00	6,00	4,70	50,00	FRD3100-INOX	31,88
		12,70	11,00	56,00	FRD3102-INOX	51,70

ÁRBOL CON RADIO ROUND TREE • OGIVE A RAYON


Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.
F  	6,00	6,00	18,00	50,00	FRF3102-INOX	36,24
		12,70	25,00	70,00	FRF3101-INOX	67,56

ESTUCHES DE FRESAS ROTATIVAS
ROTARY BURRS SETS
COFFRET FRAISES ROTATIVES



130801256



130801966



130801255



130801965



130801967*

Cod. FR	Uds. Pcs.	€/Unid.
FRA6106	1	
FRB6106	1	
FRC6106	1	
FRD6105	1	
FRE6104	1	
FRF6104	1	
FRG6105	1	
FRL6103	1	
FRM6103	1	
FRH6100	1	
TOTAL	10	594,82

Cod. FR	Uds. Pcs.	€/Unid.
FRB6106	1	
FRB6104	1	
FRC6106	1	
FRC6104	1	
FRL6103	1	
FRE6103	1	
FRG6105	1	
FRG6103	1	
FRD6105	1	
FRF6104	1	
TOTAL	10	502,53

Cod. FR	Uds. Pcs.	€/Unid.
FRB6106	1	
FRF6104	1	
FRC6106	1	
FRD6105	1	
FRM6103	1	
TOTAL	5	282,61

Cod. FR	Uds. Pcs.	€/Unid.
FRC6104	1	
FRB6104	1	
FRG6103	1	
FRF6103	1	
FRM6102	1	
TOTAL	5	216,01

Cod. FR	Uds. Pcs.	€/Unid.
CILINDRICA CYLINDER	1	
CIL. CON RADIO BULL NOSE	1	
ESFÉRICA BALL	1	
OVAL OVAL	1	
ÁRBOL RADIO ROUND TREE	1	
ÁRBOL PUNTA POINTED TREE	1	
LLAMA FLAME	1	
CÓNICA RADIO BALL NOSE CONE	1	
CÓNICA PUNTA CONE	1	
CONO INVERTIDO INVERTED CONE	1	
TOTAL	10	177,19



FREST6DT



FRESTINOX



FREST3DT

Cod. FR	Uds. Pcs.	€/Unid.
FRB6106	1	
FRC6106	1	
FRD6105	1	
FRF6104	1	
FRG6105	1	
11ESTFR	1	
TOTAL	6	276,93

Cod. FR	Uds. Pcs.	€/Unid.
FRA3101-INOX	1	
FRC3101-INOX	1	
FRC3102-INOX	1	
FRF3101-INOX	1	
FRD3102-INOX	1	
11ESTFR	1	
TOTAL	6	292,76

Cod. FR	Uds. Pcs.	€/Unid.
FRA3101	1	
FRB3105	1	
FRC3101	1	
FRG3101	1	
FRF3101	1	
11ESTFR	1	
TOTAL	6	364,52

USO GENERAL
GENERAL USE
USAGE GÉNÉRAL

ESPECIAL INOX
SPECIAL STAINLESS STEEL
SPÉCIAL ACIER INOXYDABLE

ESPECIAL ALUMINIO
SPECIAL ALUMINIUM
SPÉCIAL ALUMINIUM

*Diámetro fresa/mango 3 mm, dentado cruzado
*Burr and shank diameter 3 mm, 6 cuts
*Diametre fraise et queue 3 mm, 6 coups

EXPOSITOR 40 PIEZAS
DISPLAY 40 PIECES • DISPLAY 40 PIECES
EXPFR2

Cod.	Uds. / Pcs.	Cod.	Uds. / Pcs.
FRB6102	2	FRB6104	2
FRC6102	2	FRC6104	2
FRF6102	2	FRF6103	2
FRG6102	2	FRG6103	2
FRL6103	2	FRL6102	2
FRB6103	2	FRB6106	2
FRC6103	2	FRC6106	2
FRE6104	2	FRF6104	2
FRD6104	2	FRG6105	2
FRH6100	2	FRA6105	2
		TOTAL €	1.865,49

Nota: Se puede adaptar el contenido del expositor según requisitos cliente.
Content of display adaptable / Contenu du display adaptable

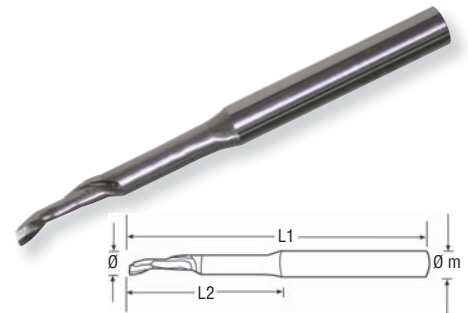


FRESA FRONTAL UN DIENTE
1Z FINISHING END MILLS • FRAISE 1Z FINITION



Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Uds. / Pcs.	Cod.	€/Unid.
3,00	60	12	8	1	TC0300	18,49
4,00	60	12	8	1	TC0400	18,49
5,00	60	14	8	1	TC0500	18,49
6,00	60	14	8	1	TC0600	18,49
7,00	60	14	8	1	TC0700	21,38
8,00	80	14	8	1	TC0800	20,24
10,00	80	14	8	1	TC1000	25,77

FRESA FRONTAL LARGA UN DIENTE
1Z FINISHING LONG END MILLS • FRAISE LONGUE 1Z FINITION



Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Uds. / Pcs.	Cod.	€/Unid.
4,00	80	16 - 45	8	1	TL0400	26,67
5,00	80	16 - 45	8	1	TL0500	26,67
6,00	90	16 - 45	8	1	TL0600	26,67
8,00	100	30 - 70	8	1	TL0800	40,40

FRESA FRONTAL LARGA UN DIENTE PARA PVC
1Z FINISHING LONG END MILLS FOR PVC
FRAISE LONGUE 1Z FINITION POUR PVC



Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Uds. / Pcs.	Cod.	€/Unid.
5,00 PVC +	120	84	8	1	TPVC05	40,66
8,00 PVC +	120	80	8	1	TPVC08	55,49

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Composición	Vc	fz(mm/z)			
			Ø 3	Ø 6	Ø 8	Ø 10
AL	Si ≤ 12%	160-260	0.008	0.018	0.024	0.03

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

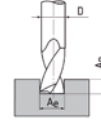
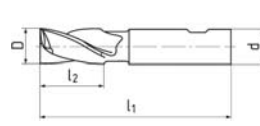
ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

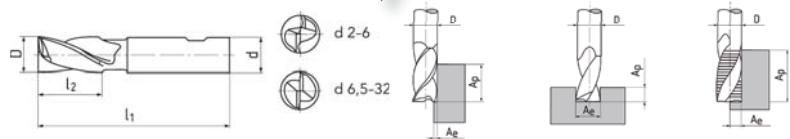
FRESA FRONTAL DOS DIENTES PARA ALUMINIO
2Z STRAIGHT SHANK END MILLS ESPECIAL FOR ALUMINIUM
FRAISES QUEUE CYLINDRIQUE 2Z POUR L'ALUMINIUM


Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	51	7	6	2	1	TDW0200	17,53
2,50	52	8	6	2	1	TDW0250	17,53
3,00	52	8	6	2	1	TDW0300	17,53
3,50	54	10	6	2	1	TDW0350	17,53
4,00	55	11	6	2	1	TDW0400	17,53
4,50	55	11	6	2	1	TDW0450	17,53
5,00	57	13	6	2	1	TDW0500	17,53
5,50	57	13	6	2	1	TDW0550	17,53
6,00	57	13	6	2	1	TDW0600	17,53
6,50	66	16	10	2	1	TDW0650	23,87
7,00	66	16	10	2	1	TDW0700	23,87
7,50	66	16	10	2	1	TDW0750	23,87
8,00	69	19	10	2	1	TDW0800	23,87
8,50	69	19	10	2	1	TDW0850	24,99
9,00	69	19	10	2	1	TDW0900	24,99
9,50	69	19	10	2	1	TDW0950	24,99
10,00	72	22	10	2	1	TDW1000	24,99
11,00	79	22	12	2	1	TDW1100	32,40
12,00	83	26	12	2	1	TDW1200	32,40
13,00	83	26	12	2	1	TDW1300	35,81
14,00	83	26	12	2	1	TDW1400	35,81
15,00	83	26	12	2	1	TDW1500	43,69
16,00	92	32	16	2	1	TDW1600	43,69
17,00	92	32	16	2	1	TDW1700	54,19
18,00	92	32	16	2	1	TDW1800	54,19
19,00	92	32	16	2	1	TDW1900	65,96
20,00	104	38	20	2	1	TDW2000	65,96
21,00	104	38	20	2	1	TDW2100	105,42
22,00	104	38	20	2	1	TDW2200	105,42
24,00	121	45	25	2	1	TDW2400	105,42
25,00	121	45	25	2	1	TDW2500	105,42
26,00	121	45	25	2	1	TDW2600	140,51
28,00	121	45	25	2	1	TDW2800	166,73
30,00	121	45	25	2	1	TDW3000	178,50
32,00	133	53	25	2	1	TDW3200	201,30

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz (mm/z)							
					Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm ²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
AL	Si ≤ 12%	0,5xD	1xD	160-300	0.0117	0.0286	0.0377	0.0468	0.0572	0.0754	0.0845	0.0949

FRESA FRONTAL LARGA DOS DIENTES PARA ALUMINIO
2Z STRAIGHT SHANK LONG END MILLS ESPECIAL FOR ALUMINIUM
FRAISE LONGUE QUEUE CYLINDRIQUE 2Z POUR L'ALUMINIUM



Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	54	10	6	2	1	TDWL0200	24,54
3,00	56	12	6	2	1	TDWL0300	24,54
4,00	63	19	6	2	1	TDWL0400	24,54
5,00	68	24	6	2	1	TDWL0500	24,54
6,00	68	24	6	2	1	TDWL0600	24,54
7,00	80	30	10	2	1	TDWL0700	32,87
8,00	88	38	10	2	1	TDWL0800	35,15
10,00	95	45	10	2	1	TDWL1000	36,55
11,00	102	45	12	2	1	TDWL1100	50,11
12,00	110	53	12	2	1	TDWL1200	50,11
13,00	110	53	12	2	1	TDWL1300	60,43
14,00	110	53	12	2	1	TDWL1400	57,55
15,00	110	53	12	2	1	TDWL1500	65,41
16,00	123	63	16	2	1	TDWL1600	65,41
18,00	123	63	16	2	1	TDWL1800	84,08
20,00	141	75	20	2	1	TDWL2000	97,40
22,00	141	75	20	2	1	TDWL2200	138,52
25,00	166	90	25	2	1	TDWL2500	150,95

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz (mm/z)							
					Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm ²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
AL	Si ≤ 12%	0,5xD	1xD	160-300	0.0117	0.0286	0.0377	0.0468	0.0572	0.0754	0.0845	0.0949

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THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

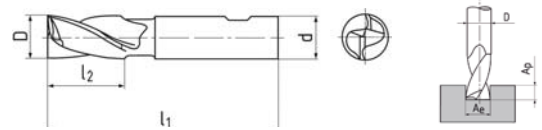
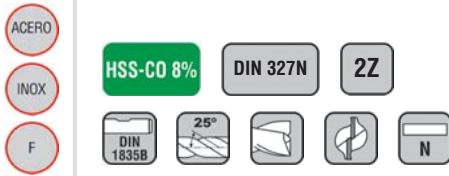
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FRESA FRONTAL ACABADO DOS DIENTES

2Z FINISHING STRAIGHT SHANK END MILLS

FRAISES QUEUE CYLINDRIQUE FINITION 2Z

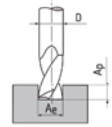
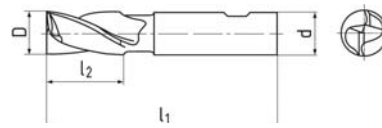
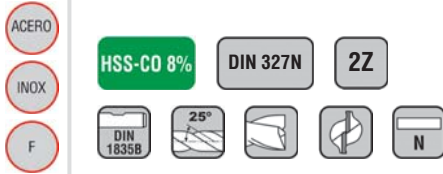


Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	48	4	6	2	1	TDC0200	16,25
2,50	49	5	6	2	1	TDC0250	16,25
3,00	49	5	6	2	1	TDC0300	16,25
3,50	51	7	6	2	1	TDC0350	17,64
4,00	51	7	6	2	1	TDC0400	15,54
5,00	52	8	6	2	1	TDC0500	15,54
6,00	52	8	6	2	1	TDC0600	15,54
7,00	60	10	10	2	1	TDC0700	25,32
8,00	61	11	10	2	1	TDC0800	20,00
9,00	61	11	10	2	1	TDC0900	25,92
10,00	63	13	10	2	1	TDC1000	19,84
11,00	70	13	12	2	1	TDC1100	30,49
12,00	73	16	12	2	1	TDC1200	25,62
13,00	73	16	12	2	1	TDC1300	39,29
14,00	73	16	12	2	1	TDC1400	37,59
15,00	73	16	16	2	1	TDC1500	43,95
16,00	79	19	16	2	1	TDC1600	37,69
17,00	79	19	16	2	1	TDC1700	52,31
18,00	79	19	16	2	1	TDC1800	50,04
19,00	79	19	16	2	1	TDC1900	66,00
20,00	88	22	20	2	1	TDC2000	59,75
22,00	88	22	20	2	1	TDC2200	81,72
24,00	102	26	25	2	1	TDC2400	109,41
25,00	102	26	25	2	1	TDC2500	103,55
NEW 26,00	102	26	25	2	1	TDC2600	105,15
28,00	102	26	25	2	1	TDC2800	131,01
30,00	102	26	25	2	1	TDC3000	149,27
32,00	112	32	32	2	1	TDC3200	153,33
36,00	112	32	32	2	1	TDC3600	205,11
40,00	130	38	38	2	1	TDC4000	251,83

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z)							
					Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm ²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 850 N/mm ²	0,5xD	1xD	39	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm ²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 900 N/mm ²	0,5xD	1xD	30	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
INOX	≤ 1100 N/mm ²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	750 - 850 N/mm ²	0,5xD	1xD	15	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	< 240 HB	0,5xD	1xD	35	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 240 HB	0,5xD	1xD	25	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073

FRESA FRONTAL LARGA ACABADO DOS DIENTES
2Z FINISHING STRAIGHT SHANK LONG END MILLS
FRAISE LONGUE QUEUE CYLINDRIQUE FINITION 2Z



Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	54	7	6	2	1	TDCL0200	19,87
3,00	56	8	6	2	1	TDCL0300	19,87
3,50	59	10	6	2	1	TDCL0350	19,87
4,00	63	11	6	2	1	TDCL0400	18,06
4,50	63	11	6	2	1	TDCL0450	19,87
5,00	68	13	6	2	1	TDCL0500	18,06
5,50	68	13	6	2	1	TDCL0550	19,87
6,00	68	13	6	2	1	TDCL0600	18,06
6,50	80	16	10	2	1	TDCL0650	24,89
7,00	80	16	10	2	1	TDCL0700	22,63
8,00	88	19	10	2	1	TDCL0800	22,63
8,50	88	19	10	2	1	TDCL0850	29,33
9,00	88	19	10	2	1	TDCL0900	26,67
10,00	95	22	10	2	1	TDCL1000	26,67
11,00	102	22	12	2	1	TDCL1100	30,90
12,00	110	26	12	2	1	TDCL1200	30,90
13,00	110	26	12	2	1	TDCL1300	38,44
14,00	110	26	12	2	1	TDCL1400	38,44
15,00	110	26	12	2	1	TDCL1500	44,54
16,00	123	32	16	2	1	TDCL1600	44,54
18,00	123	32	16	2	1	TDCL1800	54,88
20,00	141	38	20	2	1	TDCL2000	68,48
22,00	141	38	20	2	1	TDCL2200	94,32
24,00	166	45	25	2	1	TDCL2400	120,32
25,00	166	45	25	2	1	TDCL2500	131,96
26,00	166	45	25	2	1	TDCL2600	143,79
28,00	166	45	25	2	1	TDCL2800	167,84
30,00	166	45	25	2	1	TDCL3000	190,13
32,00	182	53	32	2	1	TDCL3200	221,85
36,00	182	53	32	2	1	TDCL3600	350,88
40,00	196	63	32*	2	1	TDCL4000	409,08

* d≠ DIN 327

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z)							
					Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm ²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 850 N/mm ²	0,5xD	1xD	39	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm ²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 900 N/mm ²	0,5xD	1xD	30	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm ²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm ²	0,5xD	1xD	15	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	< 240 HB	0,5xD	1xD	35	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 240 HB	0,5xD	1xD	25	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073

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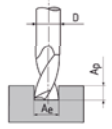
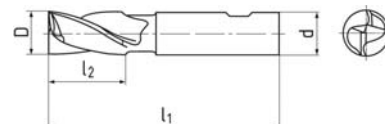
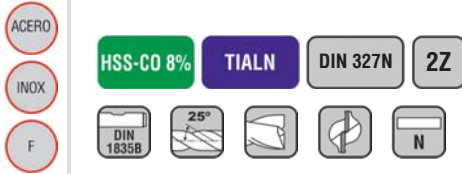
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HEXAGONAL
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FRESA FRONTAL ACABADO DOS DIENTES-TIALN 2Z FINISHING STRAIGHT SHANK END MILLS- TIALN FRAISES QUEUE CYLINDRIQUE FINITION 2Z- TIALN



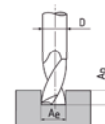
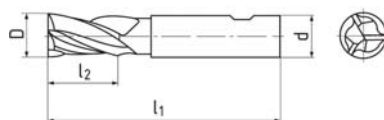
Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	48	4	6	2	1	TDC0200T	17,64
2,50	49	5	6	2	1	TDC0250T	19,13
3,00	49	5	6	2	1	TDC0300T	18,90
3,50	50	6	6	2	1	TDC0350T	20,39
4,00	51	7	6	2	1	TDC0400T	20,16
5,00	52	8	6	2	1	TDC0500T	21,41
6,00	52	8	6	2	1	TDC0600T	22,67
7,00	60	10	10	2	1	TDC0700T	27,71
8,00	61	11	10	2	1	TDC0800T	29,05
9,00	61	11	10	2	1	TDC0900T	33,64
10,00	63	13	10	2	1	TDC1000T	35,02
11,00	70	13	12	2	1	TDC1100T	39,70
12,00	73	16	12	2	1	TDC1200T	40,95
13,00	73	16	12	2	1	TDC1300T	48,48
14,00	73	16	12	2	1	TDC1400T	49,73
15,00	73	16	12	2	1	TDC1500T	56,09
16,00	79	19	16	2	1	TDC1600T	57,33
17,00	79	19	16	2	1	TDC1700T	67,40
18,00	79	19	16	2	1	TDC1800T	68,66
19,00	79	19	16	2	1	TDC1900T	81,15
20,00	88	22	20	2	1	TDC2000T	82,55
22,00	88	22	20	2	1	TDC2200T	99,87
24,00	102	26	25	2	1	TDC2400T	114,74
25,00	102	26	25	2	1	TDC2500T	117,98
28,00	102	26	25	2	1	TDC2800T	141,45
30,00	102	26	25	2	1	TDC3000T	156,21
32,00	112	32	32	2	1	TDC3200T	176,23
36,00	112	32	32	2	1	TDC3600T	221,45
40,00	118	38	32*	2	1	TDC400032T	272,54

* d≠ DIN 327

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz (mm/z)							
					Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm ²	0,5xD	1xD	67	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 850 N/mm ²	0,5xD	1xD	58	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm ²	0,5xD	1xD	36	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 900 N/mm ²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
INOX	≤ 1100 N/mm ²	0,5xD	1xD	36	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	750 - 850 N/mm ²	0,5xD	1xD	22,5	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	< 240 HB	0,5xD	1xD	52	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 240 HB	0,5xD	1xD	37	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073

FRESA FRONTAL ACABADO TRES DIENTES - PM ALTIN
3Z FINISHING STRAIGHT SHANK END MILLS - PM ALTIN
FRAISES QUEUE CYLINDRIQUE FINITION 3Z - PM ALTIN



Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
6,00	52	8	6	3	1	TDC0600PM	28,57
8,00	61	11	10	3	1	TDC0800PM	37,34
10,00	63	13	10	3	1	TDC1000PM	42,12
12,00	73	16	12	3	1	TDC1200PM	52,40
14,00	73	16	12	3	1	TDC1400PM	62,22
16,00	79	19	16	3	1	TDC1600PM	76,15
18,00	79	19	16	3	1	TDC1800PM	87,48
20,00	88	22	20	3	1	TDC2000PM	118,26

Más rápida y menor vibración / Faster and less vibration / Plus rapide et moins de vibrations

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz (mm/z)						
					Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm ²	0,5xD	1xD	114	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 850 N/mm ²	0,5xD	1xD	99	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 1100 N/mm ²	0,5xD	1xD	62	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 900 N/mm ²	0,5xD	1xD	77	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 1100 N/mm ²	0,5xD	1xD	62	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	> 1100 N/mm ²	0,5xD	1xD	51	0.0168	0.0224	0.028	0.0336	0.0448	0.0504	0.056
INOX	750 - 850 N/mm ²	0,5xD	1xD	38	0.024	0.032	0.04	0.048	0.064	0.072	0.08
F	< 240 HB	0,5xD	1xD	89	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	> 240 HB	0,5xD	1xD	66	0.024	0.032	0.04	0.048	0.064	0.072	0.08

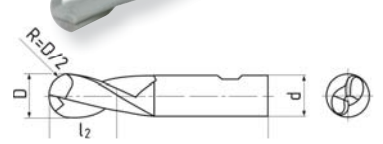
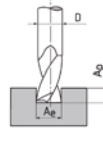
FRESA FRONTAL RADIAL ACABADO DOS DIENTES 2Z FINISHING RADIAL STRAIGHT SHANK END MILLS FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z



HSS-CO 8%

DIN 1889

2Z



Ø mm (h10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	48	4	6	2	1	TRC0200	32,28
3,00	49	5	6	2	1	TRC0300	32,28
4,00	51	7	6	2	1	TRC0400	32,28
4,50	51	7	6	2	1	TRC0450	32,28
5,00	52	8	6	2	1	TRC0500	32,28
6,00	52	8	6	2	1	TRC0600	32,28
7,00	60	10	10	2	1	TRC0700	33,59
8,00	61	11	10	2	1	TRC0800	34,76
9,00	61	11	10	2	1	TRC0900	37,60
10,00	63	13	10	2	1	TRC1000	34,89
11,00	70	13	12	2	1	TRC1100	45,94
12,00	73	16	12	2	1	TRC1200	45,74
13,00	73	16	12	2	1	TRC1300	52,84
14,00	73	16	12	2	1	TRC1400	60,38
15,00	73	16	12	2	1	TRC1500	65,61
16,00	79	19	16	2	1	TRC1600	68,07
18,00	79	19	16	2	1	TRC1800	81,86
20,00	88	22	20	2	1	TRC2000	97,07
22,00	88	22	20	2	1	TRC2200	125,50
24,00	102	26	25	2	1	TRC2400	144,00
25,00	102	26	25	2	1	TRC2500	147,37
28,00	102	26	25	2	1	TRC2800	180,69
30,00	102	26	25	2	1	TRC3000	201,68
32,00	112	32	32	2	1	TRC3200	231,48

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz (mm/z)						
					Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 850 N/mm ²	0,5xD	1xD	39	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm ²	0,5xD	1xD	24	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 900 N/mm ²	0,5xD	1xD	30	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm ²	0,5xD	1xD	24	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 1100 N/mm ²	0,5xD	1xD	20	0.0154	0.0203	0.0252	0.0308	0.0406	0.0455	0.0511
INOX	750 - 850 N/mm ²	0,5xD	1xD	15	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	> 240 HB	0,5xD	1xD	25	0.022	0.029	0.036	0.044	0.058	0.065	0.073
TI	≤ 1500 N/mm ²	0,5xD	1xD	12	0.0154	0.0203	0.0252	0.0308	0.0406	0.0455	0.051

FRESA FRONTAL RADIAL ACABADO DOS DIENTES - PM ALTIN 2Z FINISHING RADIAL STRAIGHT SHANK END MILLS - PM ALTIN FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z - PM ALTIN

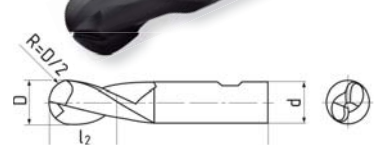
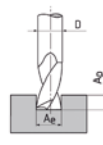


PM

ALTIN

DIN 1889

2Z

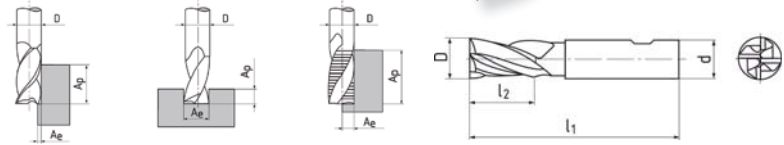


Ø min (h10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
4,00	49	5	6	2	1	TRC0400PM	40,18
5,00	51	7	6	2	1	TRC0500PM	40,18
6,00	52	8	6	2	1	TRC0600PM	40,18
7,00	52	8	6	2	1	TRC0700PM	51,47
8,00	61	11	10	2	1	TRC0800PM	51,47
9,00	63	13	10	2	1	TRC0900PM	59,10
10,00	73	16	10	2	1	TRC1000PM	59,10
12,00	73	16	12	2	1	TRC1200PM	70,98
14,00	79	19	16	2	1	TRC1400PM	85,26
16,00	79	19	16	2	1	TRC1600PM	98,26
18,00	88	22	20	2	1	TRC1800PM	118,51
20,00	88	22	20	2	1	TRC2000PM	146,97

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz (mm/z)						
					Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm ²	0,5xD	1xD	114	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 850 N/mm ²	0,5xD	1xD	99	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 900 N/mm ²	0,5xD	1xD	77	0.024	0.032	0.04	0.048	0.064	0.072	0.08
F	< 240 HB	0,5xD	1xD	89	0.024	0.032	0.04	0.048	0.064	0.072	0.08

FRESA FRONTAL ACABADO - VARIOS DIENTES
NZ FINISHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE FINITION NZ



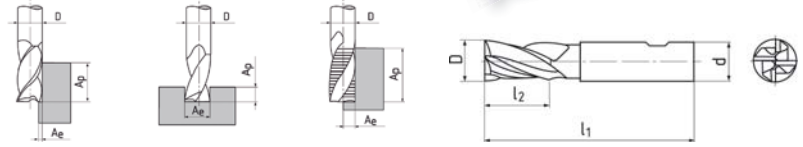
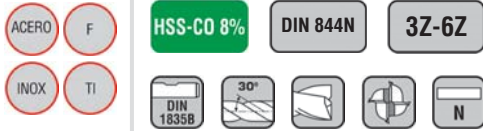
Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	51	7	6	3	1	TVC0200	17,97
2,50	52	8	6	3	1	TVC0250	17,97
3,00	52	8	6	4	1	TVC0300	17,97
3,50	55	11	6	4	1	TVC0350	17,97
4,00	55	11	6	4	1	TVC0400	17,19
4,50	57	13	6	4	1	TVC0450	17,97
5,00	57	13	6	4	1	TVC0500	17,19
6,00	57	13	6	4	1	TVC0600	17,19
7,00	66	16	10	4	1	TVC0700	26,35
8,00	69	19	10	4	1	TVC0800	20,86
9,00	69	19	10	4	1	TVC0900	27,53
10,00	72	22	10	4	1	TVC1000	23,94
11,00	79	22	12	4	1	TVC1100	33,20
12,00	83	26	12	4	1	TVC1200	28,94
13,00	83	26	12	4	1	TVC1300	42,70
14,00	83	26	12	4	1	TVC1400	38,56
15,00	83	26	12	4	1	TVC1500	46,02
16,00	92	32	16	4	1	TVC1600	44,92
17,00	92	32	16	4	1	TVC1700	55,30
18,00	92	32	16	4	1	TVC1800	52,90
20,00	104	38	20	4	1	TVC2000	61,96
22,00	104	38	20	5	1	TVC2200	89,93
24,00	121	45	25	5	1	TVC2400	111,70
25,00	121	45	25	5	1	TVC2500	111,70
26,00	121	45	25	5	1	TVC2600	135,58
28,00	121	45	25	5	1	TVC2800	139,61
30,00	121	45	25	5	1	TVC3000	161,59
32,00	133	53	32	6	1	TVC3200	166,42
36,00	133	53	32	6	1	TVC3600	217,80
40,00	143	63	32*	6	1	TVC400032	261,81

* d≠ DIN 844

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz (mm/z)										
					Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 30	Ø 40
ACERO	≤ 600 N/mm ²	1xD	0,1xD	45	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 850 N/mm ²	1xD	0,1xD	39	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 1100 N/mm ²	1xD	0,1xD	24	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 900 N/mm ²	1xD	0,1xD	30	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
INOX	> 1100 N/mm ²	1xD	0,1xD	20	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077
	750 - 850 N/mm ²	1xD	0,1xD	15	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
F	< 240 HB	1xD	0,1xD	35	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
TI	≤ 1500 N/mm ²	1xD	0,1xD	12	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077

FRESA FRONTAL LARGA ACABADO VARIOS DIENTES
NZ FINISHING STRAIGHT SHANK LONG END MILS
FRAISES LONGUE QUEUE CYLINDRIQUE FINITION NZ



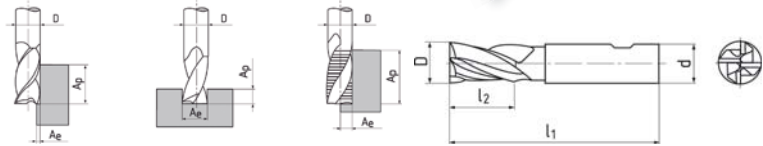
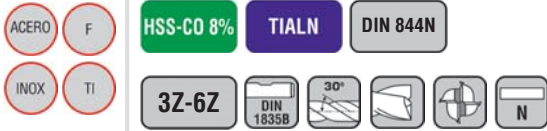
Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	54	10	6	3	1	TVCL0200	18,88
3,00	56	12	6	4	1	TVCL0300	18,88
3,50	59	15	6	4	1	TVCL0350	20,77
4,00	63	19	6	4	1	TVCL0400	19,48
4,50	63	19	6	4	1	TVCL0450	21,21
5,00	68	24	6	4	1	TVCL0500	19,87
5,50	68	24	6	4	1	TVCL0550	21,86
6,00	68	24	6	4	1	TVCL0600	19,87
7,00	80	30	10	4	1	TVCL0700	25,40
8,00	88	38	10	4	1	TVCL0800	25,40
9,00	88	38	10	4	1	TVCL0900	29,78
10,00	95	45	10	4	1	TVCL1000	29,78
11,00	102	45	12	4	1	TVCL1100	36,75
12,00	110	53	12	4	1	TVCL1200	36,75
13,00	110	53	12	4	1	TVCL1300	43,84
14,00	110	53	12	4	1	TVCL1400	43,00
15,00	110	53	12	4	1	TVCL1500	51,24
16,00	123	63	16	4	1	TVCL1600	51,24
18,00	123	63	16	4	1	TVCL1800	59,52
20,00	141	75	20	4	1	TVCL2000	72,61
22,00	141	75	20	5	1	TVCL2200	95,61
24,00	166	90	25	5	1	TVCL2400	117,01
25,00	166	90	25	5	1	TVCL2500	123,91
26,00	166	90	25	5	1	TVCL2600	137,12
28,00	166	90	25	5	1	TVCL2800	139,79
30,00	166	90	25	5	1	TVCL3000	157,35
32,00	186	106	32	6	1	TVCL3200	162,54
36,00	186	106	32	6	1	TVCL3600	292,54
40,00	205	125	32*	6	1	TVCL400032	395,74

* d≠ DIN844

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z)										
					Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 30	Ø 40
ACERO	≤ 600 N/mm ²	1xD	0,1xD	45	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 850 N/mm ²	1xD	0,1xD	39	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 1100 N/mm ²	1xD	0,1xD	24	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 900 N/mm ²	1xD	0,1xD	30	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	> 1100 N/mm ²	1xD	0,1xD	20	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077
INOX	750 - 850 N/mm ²	1xD	0,1xD	15	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
F	< 240 HB	1xD	0,1xD	35	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
TI	≤ 1500 N/mm ²	1xD	0,1xD	12	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077

FRESA FRONTAL ACABADO VARIOS DIENTES -TIALN
NZ FINISHING STRAIGHT SHANK END MILLS-TIALN
FRAISES QUEUE CYLINDRIQUE FINITION NZ- TIALN



Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	51	7	6	3	1	TVC0200T	20,31
2,50	52	8	6	3	1	TVC0250T	20,86
3,00	52	8	6	4	1	TVC0300T	19,77
3,50	55	11	6	4	1	TVC0350T	21,98
4,00	55	11	6	4	1	TVC0400T	20,89
4,50	57	13	6	4	1	TVC0450T	23,09
5,00	57	13	6	4	1	TVC0500T	22,01
5,50	57	13	6	4	1	TVC0550T	24,21
6,00	57	13	6	4	1	TVC0600T	23,12
6,50	66	16	10	4	1	TVC0650T	30,34
7,00	66	16	10	4	1	TVC0700T	28,79
7,50	66	16	10	4	1	TVC0750T	31,45
8,00	69	19	10	4	1	TVC0800T	29,99
8,50	69	19	10	4	1	TVC0850T	36,70
9,00	69	19	10	4	1	TVC0900T	34,80
9,50	69	19	10	4	1	TVC0950T	37,82
10,00	72	22	10	4	1	TVC1000T	33,93
11,00	79	22	12	4	1	TVC1100T	41,85
12,00	83	26	12	4	1	TVC1200T	40,17
13,00	83	26	12	4	1	TVC1300T	49,06
14,00	83	26	12	4	1	TVC1400T	50,18
15,00	83	26	12	4	1	TVC1500T	57,86
16,00	92	32	16	4	1	TVC1600T	58,98
17,00	92	32	16	4	1	TVC1700T	69,69
18,00	92	32	16	4	1	TVC1800T	70,80
20,00	104	38	20	4	1	TVC2000T	81,94
22,00	104	38	20	5	1	TVC2200T	107,59
24,00	121	45	25	5	1	TVC2400T	130,48
25,00	121	45	25	5	1	TVC2500T	135,61
26,00	121	45	25	5	1	TVC2600T	150,54
28,00	121	45	25	5	1	TVC2800T	158,83
30,00	121	45	25	5	1	TVC3000T	170,23
32,00	133	53	32	6	1	TVC3200T	184,04
35,00	133	53	32	6	1	TVC3500T	283,71
36,00	133	53	32	6	1	TVC3600T	278,21
40,00	143	63	32*	6	1	TVC400032T	343,71

* d≠ DIN844

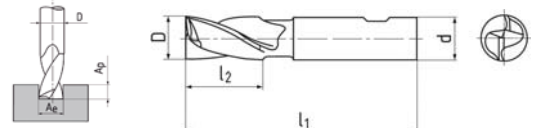
Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z)										
					Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	Ø 40
ACERO	≤ 600 N/mm²	1xD	0,1xD	67,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
	≤ 850 N/mm²	1xD	0,1xD	58,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
	≤ 1100 N/mm²	1xD	0,1xD	36	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
	≤ 900 N/mm²	1xD	0,1xD	45	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
	> 1100 N/mm²	1xD	0,1xD	30	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077
INOX	750 - 850 N/mm²	1xD	0,1xD	22,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
F	< 240 HB	1xD	0,1xD	52,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
TI	≤ 1500 N/mm²	1xD	0,1xD	18	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077

FRESA FRONTAL ACABADO VARIOS DIENTES- PM ALTIN

NZ FINISHING STRAIGHT SHANK END MILLS- PM ALTIN
FRAISES QUEUE CYLINDRIQUE FINITION NZ-PM ALTIN

NEW

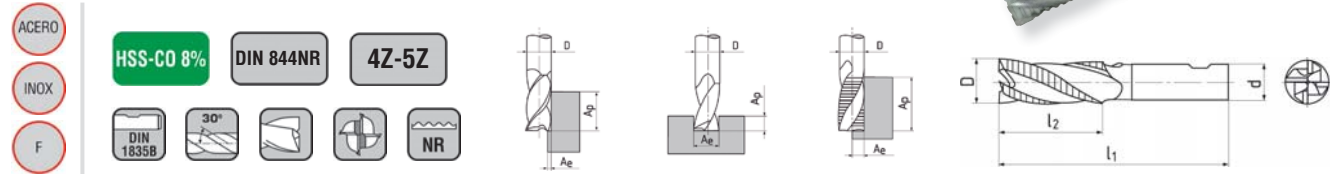


Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	51	7	6	4	1	TVC0200PM	35,10
3,00	52	8	6	4	1	TVC0300PM	35,10
4,00	55	11	6	4	1	TVC0400PM	35,10
5,00	57	13	6	4	1	TVC0500PM	35,10
6,00	57	13	6	4	1	TVC0600PM	35,10
8,00	69	19	10	4	1	TVC0800PM	43,81
10,00	72	22	10	4	1	TVC1000PM	51,90
12,00	83	26	12	4	1	TVC1200PM	61,98
14,00	83	26	12	4	1	TVC1400PM	72,56
16,00	92	32	16	4	1	TVC1600PM	88,50
18,00	92	32	16	4	1	TVC1800PM	108,29
20,00	104	38	20	4	1	TVC2000PM	133,30
25,00	121	45	25	5	1	TVC2500PM	206,12
30,00	121	45	25	5	1	TVC3000PM	271,71

Condiciones de corte / Cutting conditions / Conditions de coupe

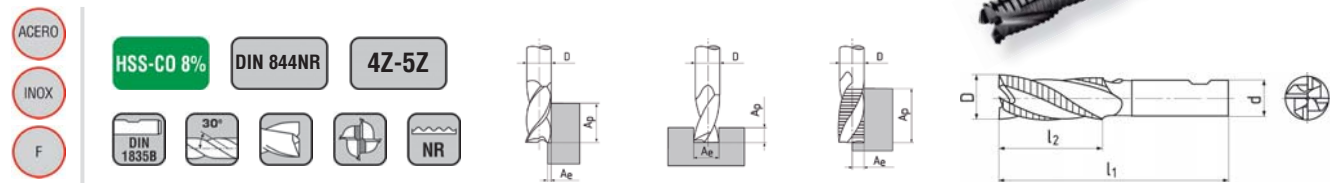
Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz (mm/z)								
					Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
ACERO	≤ 850 N/mm ²	1xD	0,1xD	99	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
	≤ 1100 N/mm ²	1xD	0,1xD	61.5	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
	≤ 900 N/mm ²	1xD	0,1xD	76.5	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
	≤ 1100 N/mm ²	1xD	0,1xD	61.5	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
INOX	750 - 850 N/mm ²	1xD	0,1xD	37.5	0.015	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
F	≤ 240 HB	1xD	0,1xD	88.5	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
AL (Si ≤ 12%)	≤ 600 N/mm ²	1xD	0,1xD	240-450	0.0221	0.0299	0.0403	0.0481	0.0624	0.0728	0.0819	0.1103	0.1301
TI	≤ 1500 N/mm ²	1xD	0,1xD	31.5	0.0119	0.0161	0.0217	0.0259	0.0336	0.0392	0.0441	0.052	0.0701

FRESA DESBASTE GRUESO - VARIOS DIENTES
NZ COARSE ROUGHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE EBAUCHE NZ



Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
6,00	57	13	6	4	1	TVG0600	43,96
8,00	69	19	10	4	1	TVG0800	46,27
10,00	72	22	10	4	1	TVG1000	46,68
12,00	83	26	12	4	1	TVG1200	54,98
14,00	83	26	12	4	1	TVG1400	64,62
16,00	92	32	16	4	1	TVG1600	75,81
18,00	92	32	16	4	1	TVG1800	83,66
20,00	104	38	20	4	1	TVG2000	104,92
22,00	104	38	20	5	1	TVG2200	123,41
24,00	121	45	25	5	1	TVG2400	155,37
25,00	121	45	25	5	1	TVG2500	154,13

FRESA LARGA DESBASTE GRUESO - VARIOS DIENTES
NZ COARSE ROUGHING STRAIGHT SHANK LONG END MILL
FRAISES LONGUE QUEUE CYLINDRIQUE EBAUCHE NZ



Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
6,00	68	24	6	4	1	TVGL0600	39,78
8,00	88	38	10	4	1	TVGL0800	43,77
10,00	95	45	10	4	1	TVGL1000	49,87
12,00	110	53	12	4	1	TVGL1200	58,58
14,00	110	53	12	4	1	TVGL1400	71,07
16,00	123	63	16	4	1	TVGL1600	82,80
18,00	123	63	16	4	1	TVGL1800	102,22
20,00	141	75	20	4	1	TVGL2000	122,76
22,00	141	75	20	5	1	TVGL2200	150,51
24,00	166	90	25	5	1	TVGL2400	183,98
25,00	166	90	25	5	1	TVGL2500	180,37

* d≠ DIN844

Condiciones de corte / Cutting conditions / Conditions de coupe (TVG Y TVGL)

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z)									
					Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 30	Ø 40
ACERO	≤ 600 N/mm ²	1,5xD	0,5xD	45	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
	≤ 850 N/mm ²	1,5xD	0,5xD	39	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
	≤ 900 N/mm ²	1,5xD	0,5xD	30	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
INOX	750 - 850 N/mm ²	1,5xD	0,5xD	15	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
F	< 240 HB	1,5xD	0,5xD	35	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14

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WOOD • BOIS

METAL
METAL • MÉTAL

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HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

FRESA DESBASTE FINO - VARIOS DIENTES

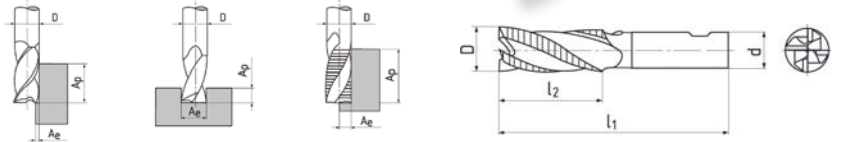
NZ FINE PITCH ROUGHING STRAIGHT SHANK END MILLS

FRAISES QUEUE CYLINDRIQUE EBAUCHE PAS FIN NZ

- ACERO
- INOX
- F

HSS-CO 8%
DIN 844NR-F
4Z

DIN 1835B
30°
[Flute icon]
[Flute icon]
NR-F



Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
6,00	57	13	6	4	1	TVF0600	49,56
8,00	69	19	10	4	1	TVF0800	51,59
10,00	72	22	10	4	1	TVF1000	51,81
12,00	83	26	12	4	1	TVF1200	61,70
14,00	83	26	12	4	1	TVF1400	71,77
16,00	92	32	16	4	1	TVF1600	84,20

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z)								
					Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
ACERO	≤ 600 N/mm ²	1,5xD	0,5xD	45	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
	≤ 850 N/mm ²	1,5xD	0,5xD	39	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
	≤ 900 N/mm ²	1,5xD	0,5xD	30	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
	≤ 1100 N/mm ²	1,5xD	0,5xD	24	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
INOX	750 - 850 N/mm ²	1,5xD	0,5xD	15	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
F	< 240 HB	1,5xD	0,5xD	35	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12

FRESA DESBASTE GRUESO - VARIOS DIENTES - RECOMENDADO PARA MATERIALES DUROS

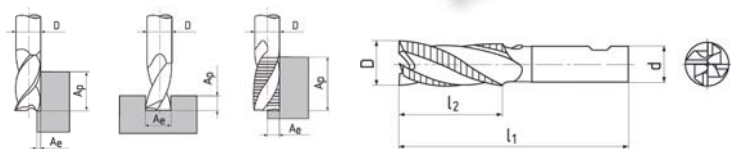
NZ COARSE ROUGHING STRAIGHT SHANK END MILLS - RECOMMENDED FOR HARD MATERIALS

FRAISES QUEUE CYLINDRIQUE EBAUCHE NZ - RECOMMANDÉ POUR MATÉRIAUX DURS

- ACERO
- F
- INOX
- TI

PM
ALTIM
DIN 844HR
5Z

DIN 1835B
30°
[Flute icon]
[Flute icon]
HR

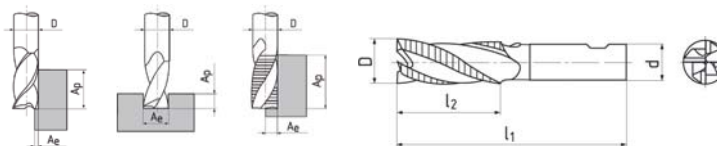


Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
9,00	69	19	10	5	1	TVGH0900PM	77,53
10,00	72	22	10	5	1	TVGH1000PM	81,54
11,00	79	22	12	5	1	TVGH1100PM	90,55
12,00	83	26	12	5	1	TVGH1200PM	95,91
13,00	83	26	12	5	1	TVGH1300PM	106,73
14,00	83	26	12	5	1	TVGH1400PM	113,69
15,00	83	26	12	5	1	TVGH1500PM	125,11
16,00	92	32	16	5	1	TVGH1600PM	134,19
18,00	92	32	16	5	1	TVGH1800PM	158,46
20,00	104	38	20	5	1	TVGH2000PM	194,67

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z)								
					Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
ACERO	≤ 1100 N/mm ²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	≤ 1100 N/mm ²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	> 1100 N/mm ²	1,5xD	0,5xD	51	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
INOX	750 - 850 N/mm ²	1,5xD	0,5xD	37,5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
F	> 240 HB	1,5xD	0,5xD	66	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
TI	≤ 1500 N/mm ²	1,5xD	0,5xD	31.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
	≤ 1250 N/mm ²	1,5xD	0,5xD	30	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924

FRESA DESBASTE FINO - VARIOS DIENTES-PM - RECOMENDADO PARA MATERIALES DUROS
NZ FINE PITCH ROUGHING STRAIGHT SHANK END MILLS-PM - RECOMMENDED FOR HARD MATERIALS
FRAISES QUEUE CYLINDRIQUE EBAUCHE PAS FIN NZ-PM - RECOMMANDÉ POUR MATÉRIAUX DURS



Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
6,00	57	13	6	4	1	TVFH0600PM	59,50
8,00	69	19	10	4	1	TVFH0800PM	68,24
10,00	72	22	10	4	1	TVFH1000PM	76,10
11,00	79	22	12	4	1	TVFH1100PM	92,38
12,00	83	26	12	4	1	TVFH1200PM	89,13
13,00	83	26	12	4	1	TVFH1300PM	97,51
14,00	83	26	12	4	1	TVFH1400PM	104,98
15,00	83	26	12	4	1	TVFH1500PM	118,57
16,00	92	32	16	4	1	TVFH1600PM	123,40
17,00	92	32	16	4	1	TVFH1700PM	141,17
18,00	92	32	16	4	1	TVFH1800PM	145,75
20,00	104	38	20	4	1	TVFH2000PM	184,57
22,00	104	38	20	5	1	TVFH2200PM	213,92
25,00	121	45	25	5	1	TVFH2500PM	259,19
28,00	121	45	25	5	1	TVFH2800PM	321,83
30,00	121	45	25	5	1	TVFH3000PM	370,28
32,00	133	53	32	6	1	TVFH3200PM	412,72

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z)								
					Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
ACERO	≤ 1100 N/mm ²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	≤ 1100 N/mm ²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	> 1100 N/mm ²	1,5xD	0,5xD	51	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
INOX	750 - 850 N/mm ²	1,5xD	0,5xD	37,5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
F	> 240 HB	1,5xD	0,5xD	66	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
TI	≤ 1500 N/mm ²	1,5xD	0,5xD	31.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
	≤ 1250 N/mm ²	1,5xD	0,5xD	30	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924

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METAL
METAL • MÉTAL

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ACCESORIOS
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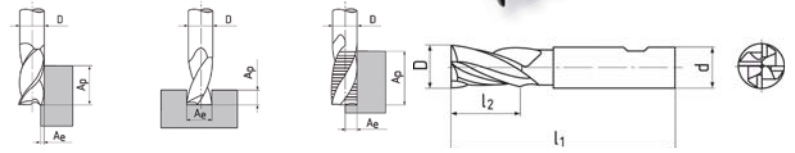
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

FRESA FRONTAL VARIOS DIENTES

NZ FINISHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE FINITION NZ



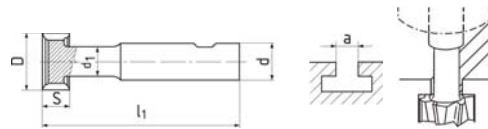
Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
6,00	57	7	6	4	1	TVC0600PMC	40,75
8,00	65	9	8	4	1	TVC0800PMC	59,58
10,00	72	11	10	4	1	TVC1000PMC	63,30
12,00	83	13	12	4	1	TVC1200PMC	78,40
16,00	92	17	16	4	1	TVC1600PMC	117,74
20,00	104	21	20	4	1	TVC2000PMC	161,77

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ae	Ap	Vc	fz(mm/z)					
					Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 20
ACERO	≤ 600 N/mm ²	1xD	0,1xD	78	0.2	0.027	0.038	0.044	0.054	0.065
	≤ 850 N/mm ²	1xD	0,1xD	78	0.2	0.027	0.038	0.044	0.054	0.065
	≤ 1100 N/mm ²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
	≤ 900 N/mm ²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
	≤ 1100 N/mm ²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
INOX	> 1100 N/mm ²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
	≤ 750 N/mm ²	1xD	0,1xD	60	0.018	0.024	0.03	0.036	0.042	0.054
	750 - 850 N/mm ²	1xD	0,1xD	48	0.018	0.024	0.03	0.036	0.042	0.054
	> 850 mm ²	1xD	0,1xD	48	0.018	0.024	0.03	0.036	0.042	0.054

FRESA PARA RANURAS EN T

T SLOTS SHANK TOOL • FRAISE POUR RANURES À "T"



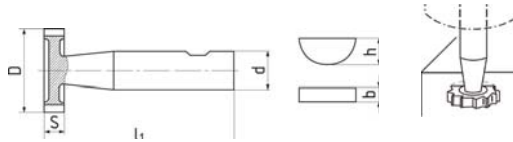
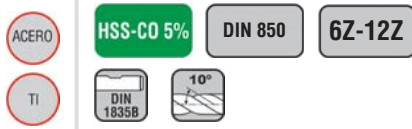
Ø mm (d11)	d (h6)	s (d11)	d1	l1	z	a	Uds. / Pcs.	Cod.	€/Unid.
11,00	10	4	4	53,5	6	5	1	T851N01100	89,49
12,50	10	6	5	57	6	6	1	T851N01250	89,85
16,00	10	8	7	62	6	8	1	T851N01600	93,89
18,00	12	8	8	70	6	10	1	T851N01800	97,67
21,00	12	9	10	74	6	12	1	T851N02100	105,19
25,00	16	11	12	82	8	14	1	T851N02500	115,83
32,00	16	14	15	90	8	18	1	T851N03200	146,72
40,00	25	18	19	108	10	22	1	T851N04000	254,88
50,00	32	22	25	124	10	28	1	T851N05000	367,53
60,00	32	28	30	139	10	36	1	T851N06000	448,79

Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ae	Ap	Vc	fz(mm/z)			
					Ø 21	Ø 25	Ø 40	Ø 50
ACERO	≤ 600 N/mm ²	0,1xD	1xb	37.5	0.07	0.08	0.04	0.05
	≤ 850 N/mm ²	0,1xD	1xb	32.5	0.07	0.08	0.04	0.05
	≤ 1100 N/mm ²	0,1xD	1xb	18	0.07	0.08	0.04	0.05
TI	≤ 1250 N/mm ²	0,1xD	1xb	9	0.049	0.056	0.028	0.035

FRESA PARA RANURAS WOODRUFF
WOODRUFF SLOTS SHANK TOOL • FRAISE POUR RANURES WOODRUFF



Ø mm (h12)	d (h6)	s (e8) / b	l1	z	h	Uds. / Pcs.	Cod.	€/Unid.
4,50	6	1	50	6	1,4	1	T850045010	60,57
7,50	6	1,5	50	6	2,6	1	T850075015	48,44
7,50	6	2	50	6	2,6	1	T850075020	48,44
10,50	6	2	50	6	3,7	1	T850105020	57,97
10,50	6	2,5	50	6	3,7	1	T850105025	57,97
10,50	6	3	50	6	3,7	1	T850105030	57,97
13,50*	10	2	56	6		1	T850135020	60,77
13,50	10	3	56	6	5	1	T850135030	60,77
13,50	10	4	56	6	5	1	T850135040	60,77
16,50	10	3	56	6	6,5	1	T850165030	66,31
16,50	10	4	56	6	6,5	1	T850165040	66,31
16,50	10	5	56	6	6,5	1	T850165050	66,31
19,50*	10	3	63	8		1	T850195030	81,40
19,50	10	4	63	8	7,5	1	T850195040	81,40
19,50	10	5	63	8	7,5	1	T850195050	81,40
19,50	10	6	63	8	7,5	1	T850195060	81,40
22,50*	10	4	63	8		1	T850225040	92,24
22,50	10	5	63	8	9	1	T850225050	92,24
22,50	10	6	63	8	9	1	T850225060	92,24
22,50	10	8	63	8	9	1	T850225080	92,24
25,50*	10	5	63	10		1	T850255050	103,17
25,50	10	6	63	10	10	1	T850255060	103,17
28,50	10	6	63	10	11	1	T850285060	104,54
28,50	10	8	63	10	11	1	T850285080	104,54
28,50	12	10	71	10	11	1	T850285100	104,54
32,50*	12	6	71	10		1	T850325060	116,82
32,50*	12	7	71	10		1	T850325070	116,82
32,50	12	8	71	10	13	1	T850325080	116,82
32,50	12	10	71	10	13	1	T850325100	116,82
38,50*	12	8	71	10		1	T850385080	138,71
45,50*	12	8	71	12		1	T850455080	165,82
45,50	12	10	71	12	16	1	T850455100	165,82

Diámetros inferiores a 7,50 mm dentado no cruzado / Diametros inferiores a 7,50.-mm dentado no cruzado / Diametros inferiores a 7,50.-mm dentado no cruzado
Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

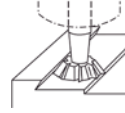
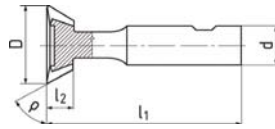
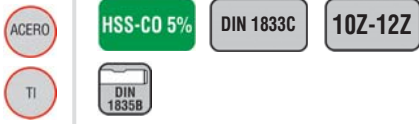
* ≠ DIN 850, ≠ DIN 6888

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ae	Ap	Vc	fz (mm/z)				
					Ø 7.5	Ø 16.5	Ø 22.5	Ø 32.5	Ø 45.5
ACERO	≤ 600 N/mm ²	0,1xD	1xb	37.5	0.04	0.07	0.075	0.09	0.1
	≤ 850 N/mm ²	0,1xD	1xb	32.5	0.04	0.07	0.075	0.09	0.1
	≤ 1100 N/mm ²	0,1xD	1xb	18	0.04	0.07	0.075	0.09	0.1
TI	≤ 1250 N/mm ²	0,1xD	1xb	9	0.028	0.049	0.0525	0.063	0.07

FRESA EN BISEL

DOVETAIL MILLING CUTTERS • FRAISES ANGULAIRES

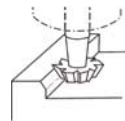
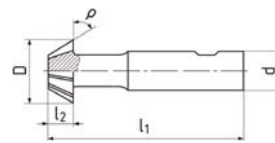
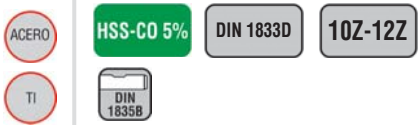


P° (±30°)	Ø mm (js16)	Ø Mango / Shank (h6)	L1	L2	Z	Uds. / Pcs.	Cod.	€/Unid.
45	16,00	12	60	4	10	1	T1833C4516	70,88
45	20,00	12	63	5	10	1	T1833C4520	90,50
45	25,00	12	67	6,3	10	1	T1833C4525	112,87
45	32,00	16	71	8	12	1	T1833C4532	146,24
45	40,00	16	80	10	12	1	T1833C4540	246,15
60	16,00	12	60	6,3	10	1	T1833C6016	70,88
60	20,00	12	63	8	10	1	T1833C6020	90,50
60	25,00	12	67	10	10	1	T1833C6025	112,87
60	32,00	16	71	12,5	12	1	T1833C6032	146,24
60	40,00	16	80	16	12	1	T1833C6040	246,15

Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

FRESA EN BISEL

DOVETAIL MILLING CUTTERS • FRAISES ANGULAIRES



P° (±30°)	Ø mm (js16)	Ø Mango / Shank (h6)	L1	L2	Z	Uds. / Pcs.	Cod.	€/Unid.
45	16,00	12	60	4	10	1	T1833D4516	70,88
45	20,00	12	63	5	10	1	T1833D4520	90,50
45	25,00	12	67	6,3	10	1	T1833D4525	112,87
45	32,00	16	71	8	12	1	T1833D4532	121,86
45	40,00	16	80	10	12	1	T1833D4540	246,15
60	16,00	12	60	6,3	10	1	T1833D6016	70,88
60	20,00	12	63	8	10	1	T1833D6020	90,50
60	25,00	12	67	10	10	1	T1833D6025	112,87

Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

Condiciones de corte / Cutting conditions / Conditions de coupe (T1833C y T1833D)

Material	Dureza / Strength / Dureté	Ae	Vc	fz (mm/z)			
				Ø 16	Ø 20	Ø 25	Ø 32
ACERO	≤ 600 N/mm ²	1xb	37.5	0.07	0.075	0.08	0.09
	≤ 850 N/mm ²	1xb	32.5	0.07	0.075	0.08	0.09
	≤ 1100 N/mm ²	1xb	18	0.07	0.075	0.08	0.09
TI	≤ 1250 N/mm ²	1xb	9	0.049	0.0525	0.056	0.063

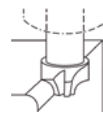
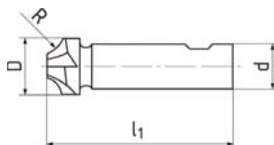
FRESA RADIO
CORNER ROUNDING CUTTER • FRAISE A RAYON



HSS-CO 8%

DIN 6518

4Z-6Z



R (H11)	Ø mm (js15)	Ø Mango / Shank (h6)	L1	Z	Uds. / Pcs.	Cod.	€/Unid.
1,00	8	10	60	4	1	T65180100	82,31
1,50	9	10	60	4	1	T65180150	89,87
1,60	9,2	10	60	4	1	T65180160	89,87
2,00	10	10	60	4	1	T65180200	89,87
2,50	11	10	60	4	1	T65180250	89,87
3,00	12	12	60	4	1	T65180300	93,43
3,50	13	12	60	4	1	T65180350	101,09
4,00	14	12	60	4	1	T65180400	101,09
4,50	15	12	60	4	1	T65180450	108,38
5,00	16	12	60	4	1	T65180500	108,38
5,50	19	16	67	4	1	T65180550	114,23
6,00	20	16	67	4	1	T65180600	114,23
6,50	21	16	71	4	1	T65180650	140,29
7,00	22	16	71	4	1	T65180700	140,29
7,50	23	16	71	4	1	T65180750	140,29
8,00	24	16	71	4	1	T65180800	140,29
8,50	25	25	85	4	1	T65180850	168,88
9,00	26	25	85	4	1	T65180900	168,88
9,50	27	25	85	4	1	T65180950	168,88
10,00	28	25	85	4	1	T65181000	168,88
10,50	31	25	90	4	1	T65181050	186,50
11,00	32	25	90	4	1	T65181100	186,50
12,00	34	25	90	4	1	T65181200	186,50
12,50	41	25	100	6	1	T65181250	261,12
13,00	42	25	100	6	1	T65181300	261,12
14,00	44	25	100	6	1	T65181400	261,12
15,00	46	25	100	6	1	T65181500	298,64
16,00	48	25	100	6	1	T65181600	298,64
18,00	52	32	112	6	1	T65181800	336,91
19,00	56	32	112	6	1	T65181900	373,47
20,00	56	32	112	6	1	T65182000	374,23

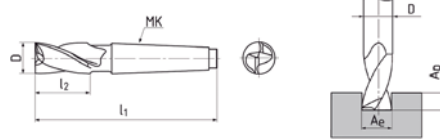
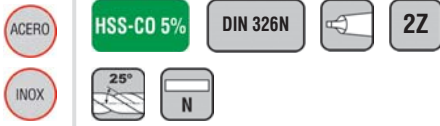
Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ae	Ap	Vc	fz (mm/z)				
					Ø 8	Ø 10	Ø 12	Ø 16	Ø 20
ACERO	≤ 600 N/mm ²	1xR	1xR	45	0.04	0.05	0.06	0.065	0.07
	≤ 850 N/mm ²	1xR	1xR	39	0.04	0.05	0.06	0.065	0.07
	≤ 1100 N/mm ²	1xR	1xR	24	0.04	0.05	0.06	0.065	0.07
TI	≤ 1250 N/mm ²	1xR	1xR	12	0.028	0.035	0.042	0.0455	0.049

FRESA FRONTAL ACABADO DOS DIENTES MANGO CÓNICO

2 Z FINISHING TAPER SHANK END MILL • FRAISE QUEUE CONIQUE FINITION 2Z



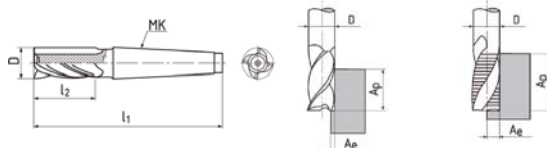
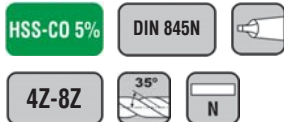
Ø mm (e8)	MK	L1	L2	Z	Uds. / Pcs.	Cod.	€/Unid.
12,00	1	85	14	2	1	TDMC1200	57,53
14,00	2	100	16	2	1	TDMC1400	71,87
16,00	2	105	18	2	1	TDMC1600	79,61
18,00	2	110	20	2	1	TDMC1800	87,46
20,00	2	115	20	2	1	TDMC2000	95,30
22,00	2	120	22	2	1	TDMC2200	103,03
24,00	3	140	25	2	1	TDMC2400	123,17
25,00	3	140	25	2	1	TDMC2500	131,14
28,00	3	145	28	2	1	TDMC2800	142,02
30,00	3	150	30	2	1	TDMC3000	148,33
32,00	4	175	32	2	1	TDMC3200	161,51
36,00	4	175	34	2	1	TDMC3600	192,34
40,00	4	180	38	2	1	TDMC4000	244,39
45,00	4	185	42	2	1	TDMC4500	275,11
50,00	5	220	45	2	1	TDMC5000	335,97

Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z)			
					Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm ²	0,5xD	1xD	45	0.044	0.058	0.065	0.073
	≤ 850 N/mm ²	0,5xD	1xD	39	0.044	0.058	0.065	0.073
	≤ 1100 N/mm ²	0,5xD	1xD	24	0.044	0.058	0.065	0.073
	≤ 900 N/mm ²	0,5xD	1xD	30	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm ²	0,5xD	1xD	15	0.044	0.058	0.065	0.073

FRESA FRONTAL 4-8 DIENTES MANGO CÓNICO
NZ TAPER SHANK END MILLS • FRAISE QUEUE CONIQUE NZ



Ø mm (e8)	MK	L1	L2	Z	Uds. / Pcs.	Cod.	€/Unid.
10,00	1	92	22	4	1	TVMC1000	54,19
12,00	2	111	26	4	1	TVMC1200	55,35
14,00	2	111	26	4	1	TVMC1400	68,40
16,00	2	117	32	4	1	TVMC1600	76,43
18,00	2	117	32	4	1	TVMC1800	88,93
20,00	2	123	38	4	1	TVMC2000	96,53
22,00	2	123	38	5	1	TVMC2200	110,18
24,00	3	147	45	5	1	TVMC2400	127,74
25,00	3	147	45	5	1	TVMC2500	133,73
26,00	3	147	45	5	1	TVMC2600	141,45
28,00	3	147	45	5	1	TVMC2800	142,77
30,00	3	147	45	6	1	TVMC3000	153,39
32,00	4	178	53	6	1	TVMC3200	173,70
36,00	4	178	53	6	1	TVMC3600	212,90
40,00	4	188	63	6	1	TVMC4000	261,00
45,00	4	188	63	6	1	TVMC4500	328,65
50,00	5	233	75	6	1	TVMC5000	398,86
56,00	5	233	75	8	1	TVMC5600	557,78
63,00	5	248	90	8	1	TVMC6300	716,65

Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

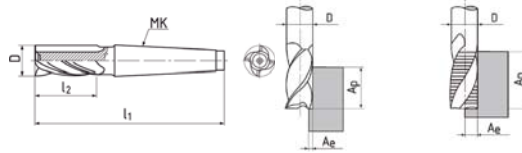
Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z)								
					Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	Ø 40	Ø 50
ACERO	≤ 600 N/mm ²	1xD	0,1xD	37.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 850 N/mm ²	1xD	0,1xD	32.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 1100 N/mm ²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 900 N/mm ²	1xD	0,1xD	25	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 1100 N/mm ²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
F	> 1100 N/mm ²	1xD	0,1xD	16	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091
	> 240 HB	1xD	0,1xD	22	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
INOX	750 - 850 N/mm ²	1xD	0,1xD	10	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
TI	≤ 1500 N/mm ²	1xD	0,1xD	8	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091

FRESA FRONTAL LARGA 4-8 DIENTES MANGO CONICO

LONG NZ TAPER SHANK END MILLS • FRAISE QUEUE CONIQUE NZ LONGUE

ACERO F HSS-CO 5% DIN 845N
INOX TI 4Z-8Z 35° N



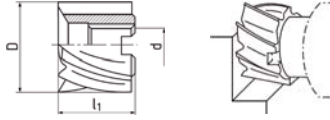
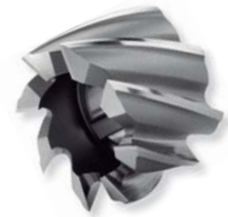
Ø mm (e8)	MK	L1	L2	Z	Uds. / Pcs.	Cod.	€/Unid.
10,00	1	115	45	4	1	TVMCL1000	72,44
12,00	2	138	53	4	1	TVMCL1200	74,11
14,00	2	138	53	4	1	TVMCL1400	91,49
16,00	2	148	63	4	1	TVMCL1600	100,13
18,00	2	148	63	4	1	TVMCL1800	113,18
20,00	2	160	75	4	1	TVMCL2000	122,86
22,00	2	160	75	5	1	TVMCL2200	145,70
24,00	3	192	90	5	1	TVMCL2400	162,72
25,00	3	192	90	5	1	TVMCL2500	171,73
26,00	3	192	90	5	1	TVMCL2600	214,58
28,00	3	192	90	5	1	TVMCL2800	228,71
30,00	3	192	90	6	1	TVMCL3000	245,70
32,00	4	231	106	6	1	TVMCL3200	281,60
36,00	4	231	106	6	1	TVMCL3600	313,40
40,00	4	250	125	6	1	TVMCL4000	345,19
45,00	4	250	125	6	1	TVMCL4500	436,44
50,00	5	308	150	6	1	TVMCL5000	527,50
56,00	5	308	150	8	1	TVMCL5600	774,53
63,00	5	338	180	8	1	TVMCL6300	995,17

Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

Condiciones de corte / Cutting conditions / Conditions de coupe

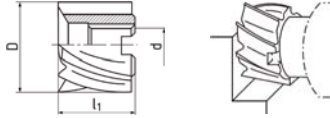
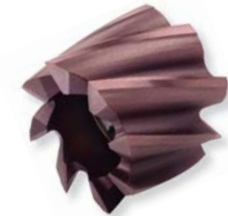
Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z)								
					Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	Ø 40	Ø 50
ACERO	≤ 600 N/mm ²	1xD	0,1xD	37.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 850 N/mm ²	1xD	0,1xD	32.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 1100 N/mm ²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 900 N/mm ²	1xD	0,1xD	25	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 1100 N/mm ²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	> 1100 N/mm ²	1xD	0,1xD	16	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091
F	> 240 HB	1xD	0,1xD	22	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
INOX	750 - 850 N/mm ²	1xD	0,1xD	10	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
TI	≤ 1500 N/mm ²	1xD	0,1xD	8	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091

FRESA FRONTAL ACABADO AGUJERO
FINISHING END MILLING CUTTER • FRAISE À TROU FINITION



Ø mm (js16)	d (H7)	L1	Z	Uds. / Pcs.	Cod.	€/Unid.
40,00	16	32	6	1	T1880N040	144,01
50,00	22	36	8	1	T1880N050	183,24
63,00	27	40	8	1	T1880N063	248,98
80,00	27	45	10	1	T1880N080	365,38
100,00	32	50	10	1	T1880N100	579,78
125,00	40	56	14	1	T1880N125	886,72

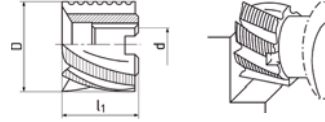
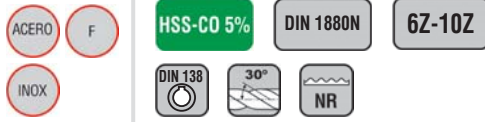
FRESA FRONTAL ACABADO AGUJERO-TIALN
FINISHING END MILLS-TIALN • FRAISE À TROU FINITION-TIALN



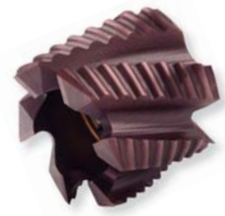
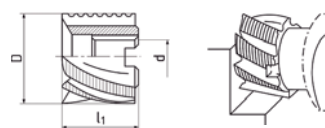
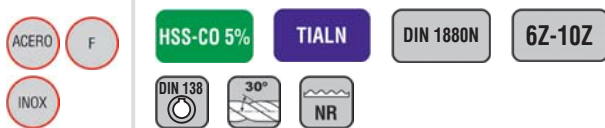
Ø mm (js16)	d (H7)	L1	Z	Uds. / Pcs.	Cod.	€/Unid.
40,00	16	32	6	1	T1880N040T	207,47
50,00	22	36	8	1	T1880N050T	256,58
63,00	27	40	8	1	T1880N063T	341,72
80,00	27	45	10	1	T1880N080T	485,67
100,00	32	50	10	1	T1880N100T	754,31
125,00	40	56	14	1	T1880N125T	1017,28

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc HSSCO 5%	Vc TIALN	fz (mm/z)			
						Ø 40	Ø 50	Ø 80	Ø 100
ACERO	≤ 600 N/mm ²	0,05xD	0,75xD	37,50	56,25	0.08	0.085	0.11	0.11
	≤ 850 N/mm ²	0,05xD	0,75xD	32,50	48,75	0.08	0.085	0.11	0.11
	≤ 1100 N/mm ²	0,05xD	0,75xD	18,00	27	0.08	0.085	0.11	0.11
	≤ 900 N/mm ²	0,05xD	0,75xD	25,00	37,5	0.08	0.085	0.11	0.11
	≤ 1100 N/mm ²	0,05xD	0,75xD	18,00	27	0.08	0.085	0.11	0.11
INOX	750 - 850 N/mm ²	0,05xD	0,75xD	10,00	15	0.08	0.085	0.11	0.11
F	> 240 HB	0,05xD	0,75xD	22,00	33	0.08	0.085	0.11	0.11

FRESA FRONTAL DESBASTE AGUJERO
ROUGHING END MILLS • FRAISE À TROU EBAUCHE


Ø mm (js16)	d (H7)	L1	Z	Uds. / Pcs.	Cod.	€/Unid.
40,00	16	32	6	1	T1880NR040	213,47
50,00	22	36	8	1	T1880NR050	265,25
63,00	27	40	8	1	T1880NR063	336,52
80,00	27	45	10	1	T1880NR080	467,92
100,00	32	50	10	1	T1880NR100	726,27

FRESA FRONTAL DESBASTE AGUJERO - TIALN
ROUGHING END MILLS - TIALN • FRAISE À TROU EBAUCHE - TIALN


Ø mm (js16)	d (H7)	L1	Z	Uds. / Pcs.	Cod.	€/Unid.
40,00	16	32	6	1	T1880NR040T	287,25
50,00	22	36	8	1	T1880NR050T	351,04
63,00	27	40	8	1	T1880NR063T	444,23
80,00	27	45	10	1	T1880NR080T	607,52
100,00	32	50	10	1	T1880NR100T	929,90

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc HSSCO 5%	Vc TIALN	fz (mm/z)			
						Ø 40	Ø 50	Ø 80	Ø 100
ACERO	≤ 600 N/mm ²	0,05xD	0,75xD	45,00	67,5	0,08	0,085	0,11	0,11
	≤ 850 N/mm ²	0,05xD	0,75xD	39,00	58,5	0,08	0,085	0,11	0,11
	≤ 900 N/mm ²	0,05xD	0,75xD	30,00	45	0,08	0,085	0,11	0,11
INOX	750 - 850 N/mm ²	0,05xD	0,75xD	15,00	22,5	0,08	0,085	0,11	0,11
F	> 240 HB	0,05xD	0,75xD	25,00	37,5	0,08	0,085	0,11	0,11

FRESA 3 CORTES DENTADO FINO CRUZADO - RECOMENDADO PARA MATERIALES Duros

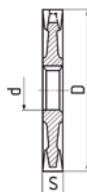
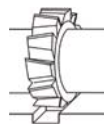
SIDE AND FACE MILLING CUTTERS FINE TEETH - RECOMMENDED FOR HARD MATERIALS

FRAISE CIRCULAIRES 3 TAILLES DENTURE FINE - RECOMMANDÉ POUR MATÉRIAUX DURS



HSS-CO 5%

DIN 885A



Ø mm (js16)	s (k11)	d (H7)	Z	Uds. / Pcs.	Cod.	€/Unid.
50	4	16	16	1	T885A05004	118,12
50	5	16	16	1	T885A05005	118,97
50	6	16	16	1	T885A05006	125,25
50	8	16	16	1	T885A05008	134,51
50	10	16	16	1	T885A05010	147,35
63	4	16	18	1	T885A06304	132,10
63	5	22	18	1	T885A06305	136,14
63	6	22	18	1	T885A06306	141,89
63	8	22	18	1	T885A06308	152,73
63	10	22	18	1	T885A06310	170,49
63	12	22	18	1	T885A06312	193,52
63	14	22	18	1	T885A06314	217,34
63	16	22	18	1	T885A06316	231,25
80	4	27	20	1	T885A08004	164,26
80	5	27	20	1	T885A08005	171,23
80	6	27	20	1	T885A08006	180,72
80	8	27	20	1	T885A08008	191,82
80	10	27	18	1	T885A08010	196,64
80	12	27	18	1	T885A08012	221,47
80	14	27	18	1	T885A08014	255,94
80	16	27	18	1	T885A08016	277,27
80	18	27	18	1	T885A08018	319,65
80	20	27	18	1	T885A08020	319,86
100	4	32	20	1	T885A10004	185,19
100	5	32	20	1	T885A10005	193,66
100	6	32	20	1	T885A10006	214,46
100	8	32	20	1	T885A10008	238,20
100	10	32	20	1	T885A10010	276,14
100	12	32	20	1	T885A10012	297,76
100	14	32	20	1	T885A10014	332,17
100	16	32	20	1	T885A10016	350,27
100	18	32	20	1	T885A10018	411,75
100	20	32	20	1	T885A10020	414,40
100	25	32	20	1	T885A10025	512,93
125	5	32	24	1	T885A12505	231,12
125	6	32	24	1	T885A12506	253,26
125	8	32	24	1	T885A12508	286,47
125	10	32	22	1	T885A12510	330,52
125	12	32	22	1	T885A12512	394,20
125	14	32	22	1	T885A12514	444,20
125	16	32	22	1	T885A12516	460,49
125	18	32	22	1	T885A12518	530,42
125	20	32	22	1	T885A12520	541,47
125	25	32	22	1	T885A12525	648,34
125	28	32	22	1	T885A12528	697,13
160	6	40	26	1	T885A16006	377,24
160	8	40	26	1	T885A16008	430,42
160	10	40	26	1	T885A16010	470,30
160	12	40	26	1	T885A16012	511,98
160	14	40	26	1	T885A16014	637,15
160	16	40	26	1	T885A16016	685,55
160	18	40	26	1	T885A16018	767,85
160	20	40	26	1	T885A16020	850,34
160	25	40	26	1	T885A16025	940,77
160	32	40	26	1	T885A16032	1182,76

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

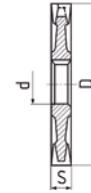
ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
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FRESA 3 CORTES DENTADO FINO CRUZADO - RECOMENDADO PARA MATERIALES DUROS
SIDE AND FACE MILLING CUTTERS FINE TEETH - RECOMMENDED FOR HARD MATERIALS
FRAISE CIRCULAIRES 3 TAILLES DENTURE FINE - RECOMMANDÉ POUR MATÉRIAUX DURS


Ø mm (js16)	s (k11)	d (H7)	Z	Uds. / Pcs.	Cod.	€/Unid.
200	8	40	32	1	T885A20008	667,94
200	10	40	32	1	T885A20010	721,21
200	12	40	32	1	T885A20012	813,70
200	14	40	32	1	T885A20014	919,85
200	16	40	32	1	T885A20016	942,22
200	18	40	32	1	T885A20018	1030,92
200	20	40	32	1	T885A20020	1052,32
200	25	40	32	1	T885A20025	1277,34
200	32	40	32	1	T885A20032	1615,22

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ae	Ap	Vc	fz(mm/z)				
					Ø 50	Ø 80	Ø 100	Ø 160	Ø 200
ACERO	≤ 600 N/mm ²	0,1xD	1xb	37.5	0.05	0.07	0.08	0.09	0.09
	≤ 850 N/mm ²	0,1xD	1xb	32.5	0.05	0.07	0.08	0.09	0.09
	≤ 900 N/mm ²	0,1xD	1xb	25	0.05	0.07	0.08	0.09	0.09
	≤ 1100 N/mm ²	0,1xD	1xb	18	0.05	0.07	0.08	0.09	0.09
F	< 240 HB	0,1xD	1xb	30	0.05	0.07	0.08	0.09	0.09
	> 240 HB	0,1xD	1xb	22	0.05	0.07	0.08	0.09	0.09
INOX	750 - 850 N/mm ²	0,1xD	1xb	10	0.05	0.07	0.08	0.09	0.09
CU	≤ 800 N/mm ²	0,1xD	1xb	60-100	0.05	0.07	0.08	0.09	0.09

FRESA FRONTAL DOS DIENTES PARA ALUMINIO

2Z STRAIGHT SHANK END MILLS ESPECIAL FOR ALUMINIUM
FRAISES QUEUE CYLINDRIQUE 2Z POUR ALUMINIUM

Ref		
TDW0400, TDW0500, TDW0600, TDW0800, TDW1000, TDW1200		
Uds. / Pcs.	Cod.	€/Unid.
6	TDW0601	132,60

*Medidas y condiciones de Corte en pag. 202 /
Cutting conditions and sizes in pag. 202 / Condition
de coupe et dimensions a la pag. 202



FRESA FRONTAL RADIAL ACABADO - DOS DIENTES PM ALTIN

2Z FINISHING RADIAL STRAIGHT SHANK END MILLS PM ALTIN
FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z PM ALTIN

Ref		
TRC0400PM, TRC0500PM, TRC0600PM, TRC0800PM, TRC1000PM, TRC1200PM		
Uds. / Pcs.	Cod.	€/Unid.
6	TRC0601PM	299,24

*Medidas y condiciones de Corte en pag. 208 /
Cutting conditions and sizes in pag. 208 / Condition
de coupe et dimensions a la pag. 208



FRESA FRONTAL ACABADO DOS DIENTES

2Z FINISHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE FINITION 2Z

Ref		
TDC0400, TDC0500, TDC0600, TDC0800, TDC1000, TDC1200		
Uds. / Pcs.	Cod.	€/Unid.
6	TDC0601	113,19

*Medidas y condiciones de Corte en pag. 204 /
Cutting conditions and sizes in pag. 204 / Condition
de coupe et dimensions a la pag. 204



FRESA FRONTAL ACABADO VARIOS DIENTES

NZ FINISHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE FINITION NZ

Ref		
TVC0400, TVC0500, TVC0600, TVC0800, TVC1000, TVC1200		
Uds. / Pcs.	Cod.	€/Unid.
6	TVC0601	126,51

*Medidas y condiciones de Corte en pag. 209 /
Cutting conditions and sizes in pag. 209 / Condition
de coupe et dimensions a la pag. 209



FRESA FRONTAL ACABADO DOS DIENTES-TIALN

2Z FINISHING STRAIGHT SHANK END MILLS- TIALN
FRAISES QUEUE CYLINDRIQUE FINITION 2Z- TIALN

Ref		
TDC0400T, TDC0500T, TDC0600T, TDC0800T, TDC1000T, TDC1200T		
Uds. / Pcs.	Cod.	€/Unid.
6	TDC0601T	166,10

*Medidas y condiciones de Corte en pag. 206 /
Cutting conditions and sizes in pag. 206 / Condition
de coupe et dimensions a la pag. 206



FRESA FRONTAL ACABADO VARIOS DIENTES TIALN

NZ FINISHING STRAIGHT SHANK END MILLS TIALN
FRAISES QUEUE CYLINDRIQUE FINITION NZ TIALN

Ref		
TVC0400T, TVC0500T, TVC0600T, TVC0800T, TVC1000T, TVC1200T		
Uds. / Pcs.	Cod.	€/Unid.
6	TVC0601T	166,93

*Medidas y condiciones de Corte en pag. 211 /
Cutting conditions and sizes in pag. 211 / Condition
de coupe et dimensions a la pag. 211



FRESA FRONTAL RADIAL ACABADO - DOS DIENTES

2Z FINISHING RADIAL STRAIGHT SHANK END MILLS
FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z

Ref		
TRC0400, TRC0500, TRC0600, TRC0800, TRC1000, TRC1200		
Uds. / Pcs.	Cod.	€/Unid.
6	TRC0601	210,26

*Medidas y condiciones de Corte en pag. 208 /
Cutting conditions and sizes in pag. 208 / Condition
de coupe et dimensions a la pag. 208







ROSSCADO

THREADING
FILETAGE



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

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TABLA DE ROSCAS Y PASOS EN PULGADAS

TABLE OF THREADS AND PICHES IN INCHES
TABLE DES FILLETAGES ET PAS EN POUGES

Ø	WHITWORTH 55°				UN 60°		
	CILÍNDRICAS / CYLINDRICAL		CÓNICA / TAPPER		CILÍNDRICAS / CYLINDRICAL		
	BSW	BSF	G(BSP)	BSPT	NPS	NPSF	UNC
Nº 0	-	-	-	-	-	-	-
Nº 1	-	-	-	-	-	-	64
Nº 2	-	-	-	-	-	-	56
Nº 3	-	-	-	-	-	-	48
Nº 4	-	-	-	-	-	-	40
Nº 5	-	-	-	-	-	-	40
Nº 6	-	-	-	-	-	-	32
Nº 8	-	-	-	-	-	-	32
Nº 10	-	-	-	-	-	-	24
Nº 12	-	-	-	-	-	-	24
1/16	60	-	-	-	-	-	-
5/64	56	-	-	-	-	-	-
3/32	48	-	-	-	-	-	-
7/64	48	-	-	-	-	-	-
1/8	40	-	28	28	27	27	32
9/64	-	-	-	-	-	-	-
5/32	32	-	-	-	-	-	32
11/64	32	-	-	-	-	-	-
3/16	24	32	-	-	-	-	24
13/63	24	-	-	-	-	-	-
7/32	24	28	-	-	-	-	-
15/64	24	-	-	-	-	-	-
1/4	20	26	19	19	18	18	20
9/32	20	-	-	-	-	-	-
5/16	18	22	-	-	-	-	18
11/32	18	20	-	-	-	-	-
3/8	16	20	19	19	18	18	16
13/32	16	20	-	-	-	-	-
7/16	14	18	-	-	-	-	14
15/32	14	-	-	-	-	-	-
1/2	12	16	14	14	14	14	13
9/16	12	16	-	-	-	-	12
5/8	11	14	14	14	-	-	11
11/16	11	14	-	-	-	-	11
3/4	10	12	14	14	14	14	10
13/16	10	12	-	-	-	-	-
7/8	9	11	14	14	-	-	9
15/16	9	11	-	-	-	-	-
1"	8	10	11	11	11,5	-	8
1" 1/16	8	-	-	-	-	-	-
1" 1/8	7	9	11	11	11,5	-	7
1" 3/16	7	-	-	-	-	-	-
1" 1/4	7	9	11	11	-	-	7
1" 3/8	6	8	11	11	-	-	6
1" 1/2	6	8	11	11	11,5	-	6
1" 5/8	5	8	11	11	-	-	5
1" 3/4	5	7	11	11	-	-	5
1" 7/8	4,5	7	11	11	-	-	4,5
2"	4,5	7	11	11	11,5	-	4,5
2" 1/4	4	6	11	11	-	-	4,5
2" 1/2	4	6	11	11	8	-	4
2" 3/4	3,5	6	11	11	-	-	4
3"	3,5	5	11	11	8	-	4
3" 1/2	-	-	11	-	8	-	-
4"	-	-	11	-	8	-	-

UN 60°				UNS 60°		
CILÍNDRICAS / CYLINDRICAL		CÓNICA / TAPPER		CILÍNDRICAS / CYLINDRICAL		
UNF	UNEF	NPT API	NPTF	UN	UNS	
80	-	-	-	-	-	
72	-	-	-	-	-	
64	-	-	-	-	-	
56	-	-	-	-	-	
48	-	-	-	-	-	
44	-	-	-	-	-	
40	-	-	-	-	-	
36	-	-	-	-	-	
32	-	-	-	-	-	
28	-	-	-	-	-	
-	-	27	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	27	27	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
32	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
28	32	18	18	-	24 - 27 - 36 - 40 - 48 - 56	
-	-	-	-	-	-	
24	32	-	-	20 - 28	27 - 36 - 40 - 48	
-	-	-	-	-	-	
24	32	18	18	20 - 28	18 - 27 - 36 - 40	
-	-	-	-	-	-	
20	28	-	-	16 - 32	18 - 24 - 27	
-	-	-	-	-	-	
20	28	14	14	16 - 32	12 - 14 - 18 - 24 - 27	
18	24	-	-	16 - 20 - 28 - 32	14 - 27	
18	24	14	-	12 - 16 - 20 - 28 - 32	14 - 27	
-	24	-	-	12 - 16 - 20 - 28 - 32	-	
16	20	14	14	12 - 28 - 32	14 - 18 - 24 - 27	
-	20	-	-	-	-	
14	20	-	-	12 - 16 - 28 - 32	10 - 18 - 24 - 27	
-	20	-	-	-	-	
14 y 12	20	-	-	16 - 28 - 32	10 - 14 - 18 - 24 - 27	
-	20	-	-	-	-	
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24	
-	18	-	-	-	-	
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24	
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24	
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24	
-	18	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 24	
-	-	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 18	
-	-	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 18	
-	-	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 18	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	

EQUIVALENCIAS DE PULGADAS EN MM

EQUIVALENTS OF INCHES IN MM • ÉQUIVALENCES DES POUCHES EN MM

BSW / BSF / UNC / UNF

Ø (")	Paso Pitch	Ø (mm)	Ø (")	Paso Pitch	Ø (mm)
1/16	60	1,587	7/8	9	22,226
3/32	48	2,381	1	8	25,401
1/8	40	3,175	1 1/8	7	28,576
5/32	32	3,969	1 1/4	7	31,751
3/16	24	4,762	1 3/8	6	34,926
7/32	24	5,556	1 1/2	6	38,101
1/4	20	6,350	1 5/8	5	41,277
5/16	18	7,938	1 3/4	5	44,452
3/8	16	9,525	1 7/8	4 1/2	47,627
7/16	14	11,113	2	4 1/2	50,802
1/2	12	12,700	2 1/4	4	57,152
9/16	12	14,288	2 1/2	4	63,502
5/8	11	15,876	2 3/4	3 1/2	69,853
3/4	10	19,051	3	3 1/2	76,203

G (BSP)

Ø (")	Paso Pitch	Ø (mm)	Ø (")	Paso Pitch	Ø (mm)
G 1/8	28	9,728	G 1 1/2	11	47,803
G 1/4	19	13,157	G 1 3/4	11	53,746
G 3/8	19	16,662	G 2	11	59,614
G 1/2	14	20,955	G 2 1/4	11	65,710
G 5/8	14	22,911	G 2 3/2	11	75,184
G 3/4	14	26,441	G 2 3/4	11	81,534
G 7/8	14	30,201	G 3	11	87,884
G 1	11	33,249	G 3 1/4	11	93,980
G 1 1/8	11	37,897	G 3 1/2	11	100,330
G 1 1/4	11	41,910	G 3 3/4	11	106,680
G 1 3/8	11	44,323	G 4	11	113,030

CONVERSIÓN DE VELOCIDAD DE CORTE, DE M/MIN A RPM

CONVERSION TABLE OF CUTTING SPEED M/MIN TO R/MIN
CONVERSION DE VITESSE DE COUPAGE, DE M/MIN Á RPM

m/min.		4	6	8	9	10	12
Medida / Size		RPM					
mm	Pulgada / Inches						
1,6	1/16	800	1.194	1.592	1.791	1.988	2.386
1,8		708	1.065	1.415	1.598	1.768	2.121
2,0		637	955	1.274	1.433	1.591	1.909
2,2	3/32	579	869	1.158	1.303	1.446	1.736
2,5		510	764	1.019	1.147	1.274	1.527
3,0	1/8	425	637	849	955	1.061	1.273
3,5		364	546	728	819	909	1.091
4,0	5/32	318	478	637	718	796	955
4,5		283	425	566	637	707	849
5,0	3/16	255	382	510	573	637	764
6,0	1/4	212	319	425	477	530	636
7,0	9/32	182	273	364	409	455	546
8,0	5/16	159	239	319	358	398	477
9,0		142	212	283	318	354	425
10,0	3/8	127	191	255	286	318	382
11,0		116	174	232	260	289	347
12,0	1/2	106	159	212	238	265	318
13,0		98	147	196	220	245	294
14,0	9/16	91	136	182	205	227	273
16,0	5/8	80	119	159	179	199	239
18,0		71	106	141	159	177	212
20,0	3/4	64	96	127	143	159	191
22,0	7/8	58	87	116	130	145	174
24,0	1	53	80	106	119	133	159
27,0		47	71	94	106	118	141
30,0	1-1/8	43	64	85	95	106	127
33,0	1-1/4	39	58	77	87	96	116
36,0		35	53	71	80	88	106
39,0	1-1/2	33	49	65	73	82	98
42,0		30	46	61	68	76	91
45,0	1-3/4	28	42	57	64	71	85
48,0		27	40	53	60	66	80
52,0		24	37	49	55	61	73
56,0	2	23	34	46	51	57	68

UNC / UNF

Nº	Paso UNC / Pitch UNC	Paso UNF / Pitch UNF	Ø (mm)
Nr. 0	-	80	1,52
Nr. 1	64	72	1,85
Nr. 2	56	72	1,85
Nr. 3	48	56	2,52
Nr. 4	40	48	2,85
Nr. 5	40	44	3,18
Nr. 6	32	40	3,51
Nr. 8	32	36	4,17
Nr. 10	24	32	4,83
Nr. 12	24	38	5,49

PG

Nº	Paso / Pitch	Ø (mm)
PG 7	20	12,500
PG 9	18	15,200
PG 11	18	18,600
PG 13,5	18	20,400
PG 16	18	22,500
PG 21	16	28,300
PG 29	16	37,000
PG 36	16	47,000
PG 42	16	54,000
PG 48	16	59,500

NSP / NPT

Ø (")	Paso / Pitch	Ø (mm)
1/8	27	10,287
1/4	18	13,716
3/8	18	17,145
1/2	14	21,336
3/4	14	26,670
1	11,5	33,401
1 1/4	11,5	42,164
1 1/2	11,5	48,260
2	11,5	60,320

15	18	21	25	27	30	36
RPM						
2.983	3.579	4.176	4.971	5.369	5.965	7.158
2.652	3.182	3.712	4.419	4.743	5.303	6.364
2.386	2.863	3.341	3.977	4.295	4.773	5.727
2.169	2.603	3.037	3.616	3.905	4.339	5.207
1.909	2.291	2.673	3.182	3.436	3.818	4.582
1.591	1.909	2.227	2.651	2.864	3.182	3.818
1.364	1.636	1.909	2.273	2.455	2.727	3.273
1.193	1.432	1.671	1.989	2.148	2.387	2.864
1.061	1.273	1.485	1.768	1.909	2.122	2.546
955	1.146	1.337	1.591	1.719	1.909	2.292
795	954	1.113	1.326	1.432	1.592	1.909
682	818	955	1.136	1.227	1.364	1.636
597	716	835	994	1.074	1.193	1.432
531	637	742	885	955	1.061	1.293
477	573	668	795	859	955	1.146
434	521	608	723	781	868	1.041
398	477	557	663	716	796	955
367	441	514	612	661	734	881
341	409	477	568	614	682	818
298	358	418	497	537	597	716
265	318	371	442	477	530	636
239	286	334	398	430	477	573
217	260	304	362	391	434	521
199	239	275	331	353	398	477
177	212	245	295	318	354	424
159	191	223	265	286	318	382
145	174	203	241	260	289	347
133	159	186	221	239	265	318
122	147	171	204	220	245	294
114	136	159	189	205	227	273
106	127	149	177	191	212	255
99	119	139	166	179	199	239
92	110	129	153	165	184	220
85	102	119	142	153	170	205

CONSTRUCCIÓN
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DIÁMETRO DE BROCA PREVIA RECOMENDADO

RECOMMENDED TAPPING DRILL SIZES • DIAMÈTRES PRÉALABLES AU FILETAGE

M	Ø (mm)	Mf	Ø (mm)	Mf	Ø (mm)	BSW	Ø (mm)	UNC	Ø (mm)	UNF	Ø (mm)
1 x 0,25	0,75	3 x 0,35	2,65	24 x 2	22,00	W 3/32	1,80	Nº 1-64	1,50	Nº 0-80	1,30
1,1 x 0,25	0,85	3,5 x 0,35	3,15	25 x 1	24,00	W 1/8	2,60	Nº 2-56	1,80	Nº 1-72	1,60
1,2 x 0,25	0,95	4 x 0,35	3,65	25 x 1,5	23,50	W 5/32	3,10	Nº 3-48	2,10	Nº 2-64	1,90
1,4 x 0,3	1,10	4 x 0,5	3,50	26 x 1	25,00	W 3/16	3,60	Nº 4-40	2,30	Nº 3-56	2,10
1,6 x 0,35	1,25	5 x 0,5	4,50	26 x 1,5	24,50	W 7/32	4,40	Nº 5-40	2,60	Nº 4-48	2,40
(1,7) x 0,35	1,30	6 x 0,5	5,50	27 x 1	26,00	W 1/4	5,10	Nº 6-32	2,85	Nº 5-44	2,70
1,8 x 0,35	1,45	6 x 0,75	5,20	27 x 1,5	25,50	W 5/16	6,50	Nº 8-32	3,50	Nº 6-40	3,00
2 x 0,4	1,60	7 x 0,75	6,20	27 x 2	25,00	W 3/8	7,90	Nº 10-24	3,90	Nº 8-36	3,50
2,2 x 0,45	1,75	8 x 0,5	7,50	28 x 1,5	26,50	W 7/16	9,30	Nº 12-24	4,50	Nº 10-32	4,10
(2,3) x 0,4	1,90	8 x 0,75	7,20	28 x 2	26,00	W 1/2	10,50	1/4-20	5,20	Nº 12-28	4,70
2,5 x 0,45	2,05	8 x 0,1	7,00	30 x 1	29,00	W 9/16	12,00	5/16-18	6,60	1/4-28	5,50
(2,6) x 0,45	2,10	9 x 0,1	8,00	30 x 1,5	28,50	W 5/8	13,50	3/8-16	8,00	5/16-24	6,90
3 x 0,5	2,50	10 x 0,5	9,50	30 x 2	28,00	W 3/4	16,50	7/16-14	9,40	3/8-24	8,50
(3) x 0,6	2,40	10 x 0,75	9,20	32 x 1,5	30,50	W 7/8	19,25	1/2-13	10,80	7/16-20	9,90
3,5 x 0,6	2,90	10 x 1	9,00	33 x 1,5	31,50	W 1"	22,00	9/16-12	12,20	1/2-20	11,50
(3,5) x 0,75	2,75	10 x 1,25	8,80	33 x 2	31,00	W 1" 1/8	24,75	5/8-11	13,50	9/16-18	12,90
4 x 0,7	3,30	11 x 1	10,00	34 x 1,5	32,50	W 1" 1/4	27,75	3/4-10	16,50	5/8-18	14,50
(4) x 0,75	3,25	12 x 0,75	11,20	35 x 1,5	33,50	W 1" 3/8	30,20	7/8-9	19,50	3/4-16	17,50
4,5 x 0,75	3,70	12 x 1	11,00	36 x 1,5	34,50	W 1" 1/2	33,50	1"-8	22,25	7/8-14	20,25
5 x 0,8	4,20	12 x 1,25	10,80	36 x 2	34,00	W 1" 3/4	38,50	1" 1/8-7	25,00	1"-12	23,25
(5) x 0,9	4,10	12 x 1,5	10,50	36 x 3	33,00	W 2"	44,50	1" 1/4-7	28,25	1" 1/8-12	26,50
6 x 1	5,00	13 x 1	12,00	38 x 1,5	36,50	BSF Ø (mm)		1" 3/8-6	30,75	1" 1/4-12	29,50
7 x 1	6,00	13 x 1,5	11,50	39 x 1,5	37,50	BSF 1/4	5,20	1" 1/2-6	34,00	1" 3/8-12	32,50
8 x 1,25	6,80	13 x 1,75	11,20	39 x 2	37,00	BSF 5/16	6,60	1" 3/4-5	39,50	1" 1/2-12	36,00
9 x 1,25	7,80	14 x 1	13,00	39 x 3	36,00	BSF 3/8	8,10	2"-4,5	45,00	BSP Ø (mm)	
10 x 1,5	8,50	14 x 1,25	12,80	40 x 1,5	38,50	BSF 7/16	9,50	2" 1/4-4,5	51,50	G 1/8	8,80
11 x 1,5	9,50	14 x 1,5	12,50	40 x 2	38,00	BSF 1/2	11,00	2" 1/2-4	57,25	G 1/4	11,80
12 x 1,75	10,20	15 x 1	14,00	40 x 3	37,00	BSF 5/8	14,00	2" 3/4-4	63,50	G 3/8	15,25
14 x 2	12,00	15 x 1,5	13,50	42 x 1,5	40,50	BSF 3/4	16,50	3"-4	70,00	G 1/2	19,00
16 x 2	14,00	15 x 2	13,00	42 x 2	40,00	BSF 7/8	19,50	3" 1/4-4	76,20	G 5/8	21,00
18 x 2,5	15,50	16 x 1	15,00	42 x 3	39,00	BSF 1"	22,50	3" 1/2-4	82,60	G 3/4	24,50
20 x 2,5	17,50	16 x 1,5	14,50	45 x 1,5	43,50	NPT Ø (mm)		PG Ø (mm)		G 7/8	28,25
22 x 2,5	19,50	18 x 1	17,00	45 x 2	43,00	1/16-27	6,30	PG 7	11,40	G 1"	30,75
24 x 3	21,00	18 x 1,5	16,50	45 x 3	42,00	1/8-27	8,50	PG 9	14,00	G 1" 1/8	35,30
27 x 3	24,00	18 x 2	16,00	48 x 1,5	46,50	1/4-18	11,20	PG 11	17,25	G 1" 1/4	39,30
30 x 3,5	26,50	20 x 1	19,00	48 x 2	46,00	3/8-18	14,50	PG 13,5	19,00	G 1" 3/8	41,70
33 x 3,5	29,50	20 x 1,5	18,50	48 x 3	45,00	1/2-14	18,00	PG 16	21,25	G 1" 1/2	45,20
36 x 4	32,00	20 x 2	18,00	50 x 1,5	48,50	3/4-14	23,00	PG 21	26,75	G 1" 3/4	51,10
39 x 4	35,00	22 x 1	21,00	50 x 2	48,00	1"-11,5	29,00	PG 29	35,50	G 2"	57,00
42 x 4,5	37,50	22 x 1,5	20,50	50 x 3	47,00	1" 1/4-11,5	38,00	PG 36	45,50	G 2" 1/4	63,10
45 x 4,5	40,50	22 x 2	20,00	52 x 1,5	50,50	1" 1/2-11,5	44,00	PG 42	52,50	G 2" 1/2	72,60
48 x 5	43,00	24 x 1	23,00	52 x 2	50,00	2"-11,5	56,00	PG 48	58,00	G 2" 3/4	78,90
52 x 5	47,00	24 x 1,5	22,50	52 x 3	49,00	2" 1/2-8	67,00			G 3"	85,30
						3"-8	83,00				

DIÁMETRO PREVIO DEL EJE A ROSCAR
RECOMMENDED OUTSIDE DIAMETER • AXES PRÉALABLES AU FILETAGE

M	Ø (mm)	Mf	Ø (mm)	Mf	Ø (mm)	BSW	Ø (mm)	UNC	Ø (mm)	UNF	Ø (mm)
1 x 0,25	0,97	3 x 0,35	2,94	24 x 2	22,82	W 1/4	6,16	Nº 1-64	1,79	Nº 0-80	1,47
1,1 x 0,25	1,07	3,5 x 0,35	3,44	25 x 1	24,88	W 5/16	7,76	Nº 2-56	2,12	Nº 1-72	1,79
1,2 x 0,25	1,17	4 x 0,35	3,94	25 x 1,5	24,85	W 3/8	9,30	Nº 3-48	2,44	Nº 2-64	2,12
1,4 x 0,3	1,36	4 x 0,5	3,93	26 x 1	25,88	W 7/16	10,89	Nº 4-40	2,76	Nº 3-56	2,44
1,6 x 0,35	1,54	5 x 0,5	4,93	26 x 1,5	25,85	W 1/2	12,43	Nº 5-40	3,09	Nº 4-48	2,77
(1,7) x 0,35	1,64	6 x 0,5	5,93	27 x 1	26,88	W 9/16	13,92	Nº 6-32	3,41	Nº 5-44	3,10
1,8 x 0,35	1,74	6 x 0,75	5,90	27 x 1,5	26,85	W 5/8	15,62	Nº 8-32	4,07	Nº 6-40	3,42
2 x 0,4	1,93	7 x 0,75	6,90	27 x 2	26,82	W 3/4	18,76	Nº 10-24	4,71	Nº 8-36	4,08
2,2 x 0,45	2,13	8 x 0,5	7,93	28 x 1,5	27,85	W 7/8	21,89	Nº 12-24	5,37	Nº 10-32	7,73
(2,3) x 0,4	2,23	8 x 0,75	7,90	28 x 2	27,82	W 1"	25,08	1/4-20	6,22	Nº 12-28	5,38
2,5 x 0,45	2,43	8 x 0,1	7,83	30 x 1	29,88	W 1" 1/8	28,21	5/16-18	7,80	1/4-28	6,24
(2,6) x 0,45	2,53	9 x 0,1	8,88	30 x 1,5	29,85	BSF Ø (mm)		3/8-16	9,37	5/16-24	7,82
3 x 0,5	2,92	10 x 0,5	9,93	30 x 2	29,82	BSF 1/4	6,25	7/16-14	10,95	3/8-24	9,41
(3) x 0,6	2,91	10 x 0,75	9,90	32 x 1,5	31,85	BSF 5/16	7,82	1/2-13	12,52	7/16-20	10,98
3,5 x 0,6	3,41	10 x 1	9,88	33 x 1,5	32,85	BSF 3/8	9,39	9/16-12	14,10	1/2-20	12,56
(3,5) x 0,75	3,41	10 x 1,25	9,86	33 x 2	32,82	BSF 7/16	10,97	5/8-11	15,68	9/16-18	14,14
4 x 0,7	3,91	11 x 1	10,88	34 x 1,5	33,85	BSF 1/2	12,54	3/4-10	18,84	5/8-18	15,73
(4) x 0,75	3,91	12 x 0,75	11,90	35 x 1,5	34,85	BSF 5/8	15,71	7/8-9	22,00	3/4-16	18,89
4,5 x 0,75	4,41	12 x 1	11,88	36 x 1,5	35,85	BSF 3/4	18,85	1"-8	25,16	7/8-14	22,05
5 x 0,8	4,90	12 x 1,25	11,86	36 x 2	35,82	BSF 7/8	22,02	1" 1/8-7	28,31	1"-12	25,21
(5) x 0,9	4,89	12 x 1,5	11,85	36 x 3	35,76	BSF 1"	25,17	1" 1/4-7	31,49	1" 1/8-12	28,38
6 x 1	5,88	13 x 1	12,88	38 x 1,5	37,85	NPT Ø (mm)		1" 3/8-6	34,63	1" 1/4-12	31,56
7 x 1	6,88	13 x 1,5	12,85	39 x 1,5	38,85	1/16-27	8,17	1" 1/2-6	37,81	1" 3/8-12	34,73
8 x 1,25	7,87	13 x 1,75	12,83	39 x 2	38,82	1/8-27	10,55	1" 3/4-5	44,12	1" 1/2-12	37,91
9 x 1,25	8,87	14 x 1	13,88	39 x 3	38,76	1/4-18	14,10	2"-4,5	50,45	BSP Ø (mm)	
10 x 1,5	9,85	14 x 1,25	13,86	40 x 1,5	39,85	3/8-18	17,52	2" 1/4-4,5	56,80	G 1/8	9,62
11 x 1,5	10,85	14 x 1,5	13,85	40 x 2	39,82	1/2-14	21,85	2" 1/2-4	63,10	G 1/4	13,03
12 x 1,75	11,83	15 x 1	14,88	40 x 3	39,76	3/4-14	27,16	2" 3/4-4	69,45	G 3/8	16,53
14 x 2	13,82	15 x 1,5	14,85	42 x 1,5	41,85	1"-11,5	34,16	3"-4	75,80	G 1/2	20,81
16 x 2	15,82	15 x 2	14,82	42 x 2	41,85	1" 1/4-11,5	42,74	3" 1/4-4		G 5/8	22,77
18 x 2,5	17,79	16 x 1	15,88	42 x 3	41,76	1" 1/2-11,5	48,87	3" 1/2-4		G 3/4	26,30
20 x 2,5	19,79	16 x 1,5	15,85	45 x 1,5	44,85	2"-11,5	60,95	PG Ø (mm)		G 7/8	30,06
22 x 2,5	21,79	18 x 1	17,88	45 x 2	44,82			PG 7	12,40	G 1"	33,07
24 x 3	23,77	18 x 1,5	17,85	45 x 3	44,76			PG 9	15,10	G 1" 1/8	37,71
27 x 3	26,77	18 x 2	17,82	48 x 1,5	47,85			PG 11	18,50	G 1" 1/4	41,73
30 x 3,5	29,73	20 x 1	19,88	48 x 2	47,82			PG 13,5	20,30	G 1" 3/8	44,14
33 x 3,5	32,73	20 x 1,5	19,85	48 x 3	47,46			PG 16	22,40	G 1" 1/2	47,62
36 x 4	35,70	20 x 2	19,82	50 x 1,5	49,85			PG 21	28,15	G 1" 3/4	53,56
39 x 4	38,70	22 x 1	21,88	50 x 2	49,82			PG 29	36,85	G 2"	59,43
42 x 4,5	41,69	22 x 1,5	21,85	50 x 3	49,76			PG 36	46,85		
45 x 4,5	44,68	22 x 2	21,82	52 x 1,5	51,85			PG 42	53,85		
48 x 5	47,66	24 x 1	23,88	52 x 2	51,82			PG 48	59,15		
52 x 5	51,66	24 x 1,5	23,85	52 x 3	51,76						

CONSTRUCCIÓN
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FRESADO
MILLING • FRAISAGE

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ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
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DISPLAYS
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GIRAMACHOS CON CRIQUE IZQ-DCH
TAP HOLDER WITH RATCHET, LEFT-RIGHT HAND
PORTE TARAUDS



Nº	Para machos / For Taps	∅ (mm)	L1 (mm)	Peso / Weight (kg)	Uds. / Pcs.	Cod.	€/Unid.
1	M 3 - 10 1/8 - 3/8	2,4 - 5,5	85	0,165	1	1R10001	19,48
2	M 5 - 12 7/32 - 1/2	4,5 - 8,0	100	0,310	1	1R10002	24,67
10	M 3 - 10 1/8 - 3/8	2,4 - 5,5	250	0,250	1	1R10010	32,45
20	M 5 - 12 7/32 - 1/2	4,5 - 8,0	300	0,440	1	1R10020	38,95

GIRAMACHOS AJUSTABLES DE ZINC FUNDIDO DIN1814
ZINC ADJUSTABLE TAP WRENCHES DIN 1814
PORTE TARAUDS EN ZINC DIN 1814



DIN 1814

Nº	Para machos / For Taps	∅ (mm)	L1 (mm)	Peso / Weight (kg)	Uds. / Pcs.	Cod.	€/Unid.
0	M 1 - 8 1/16 - 1/4	2,0 - 5,0	130	0,050	1	1R13000	8,87
1	M 1 - 10 1/16 - 3/8 G 1/8	2,0 - 6,3	176	0,095	1	1R13010	9,14
1.1/2	M 1 - 12 1/16 - 1/2 G 1/8	2,1 - 8,0	176	0,120	1	1R13015	9,14
2	M 4 - 12 5/32 - 1/2 G 1/8	3,0 - 9,0	280	0,285	1	1R13020	14,67
3	M 5 - 20 7/32 - 3/4 G 1/8 - 1/2	4,9 - 12,0	380	0,660	1	1R13030	24,77
4	M 11 - 27 7/16 - 1 G 1/4 - 3/4	5,5 - 16,0	505	1,500	1	1R13040	44,26
5 L	M 13 - 32 1/2 - 1.1/4 G 1/4 - 1	7,0 - 20,0	700	1,800	1	1R13050	69,04

GIRAMACHOS AJUSTABLES DE ACERO DIN 1814
STEEL ADJUSTABLE TAP WRENCHES DIN 1814
PORTE TARAUDS EN ACIER DIN1814

DIN 1814



Nº	Para machos / For Taps		∅ (mm)	L1 (mm)	Peso / Weight (kg)	Uds. / Pcs.	Cod.	€/Unid.
0	M 1 - 8	1/16 - 1/4	2,0 - 5,0	130	0,050	1	1R14000	17,70
1	M 1 - 10	1/16 - 3/8	2,0 - 6,3	176	0,100	1	1R14010	16,92
1.1/2	M 1 - 12	1/16 - 1/2	G 1/8	2,1 - 8,0	176	1	1R14015	17,96
2	M 4 - 12	5/32 - 1/2	G 1/8	3,0 - 9,0	280	1	1R14020	22,56
3	M 5 - 20	7/32 - 3/4	G 1/8 - 1/2	4,9 - 12	380	1	1R14030	34,88
4	M 11 - 27	7/16 - 1	G 1/4 - 3/4	5,5 - 16	500	1	1R14040	64,27
5	M 13 - 32	1/2 - 1.1/4	G 1/4 - 1	7 - 20	700	1	1R14050	107,54
6	M 18 - 42	3/4 - 1.1/2	G 1/2 - 1.1/4	11 - 24	1000	1	1R14060	114,10
7	M 25 - 52	1 - 2.1/8	G 3/4 - 2.1/4	16 - 32	1250	1	1R14070	192,79
8	M 25 - 64	1 - 2.1/2	G 3/4 - 3	16 - 40	1250	1	1R14080	438,33

PROLONGADOR PARA MACHOS DIN 377
TAP EXTENSION DIN 377
EXTENSION POUR TARAUDS

DIN 377



∅ (mm)	Dmin	Dmax	L1	Para / For DIN 352	Cod.	€/Unid.
2,1	5	2,7	60	M 1-2.6	1R14521	8,54
2,4	6	3	70		1R14524	8,54
2,7	7	3,5	80	M 3	1R14527	8,54
3,0	7	4	90	M 3.5	1R14530	8,54
3,4	8	4,5	95	M 4	1R14534	8,81
3,8	9	5	100		1R14538	9,34
4,3	10	5,5	105		1R14543	10,15
4,9	11	6	110	M 4.5-8	1R14549	10,41
5,5	12	7	115	M 9-10	1R14555	10,68
6,2	14	8	120	M 11	1R14562	14,16
7,0	15	9	125	M 12	1R14570	14,68
8,0	17	10	125		1R14580	16,55
9,0	19	12	130	M 14-16	1R14590	19,47
10,0	21	13	140		1R14610	23,78
11,0	23	14	150	M 18	1R14611	27,50
12,0	25	16	155	M 20	1R14612	30,70
13,0	27	17	165		1R14613	40,84
14,5	29	18	175	M 22-24	1R14614	46,98
16,0	30	20	180	M 27	1R14616	48,65
18,0	33	22	200	M 30	1R14618	56,35
20,0	36	25	220	M 33	1R14620	75,83
22,0	38	28	220	M 36	1R14622	102,79
24,0	42	32	235	M 39-42	1R14624	126,55
26,0	45	34	250		1R14626	154,72
29,0	50	36	265	M 45-48	1R14629	186,36
32,0	55	40	285	M 52	1R14632	257,44

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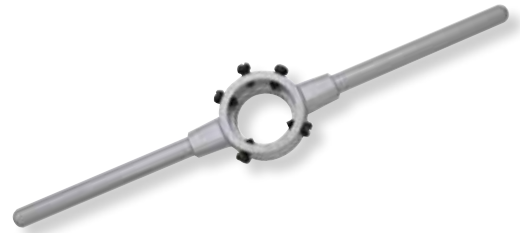
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DISPLAYS
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VOLVEDORES ZINC FUNDIDO DIN 225 (EN 22568)

ZINC DIE HOLDERS DIN 225 (EN 22568)
PORTE FILIÈRES DIN 225 (EN 22568) EN ZINC



DIN 225

DIN 22568

Ø (mm)	Para cojinetes / For Taps		L1 (mm)	Peso / Weight (kg)	Uds. / Pcs.	Cod.	€/Unid.	
16 x 5	M	1,0 - 2,6	BSW 1/16 - 3/32	160	0,050	1	1R15001	5,77
20 x 5	M	3,0 - 4,0	BSW 1/8 - 5/32	200	0,065	1	1R15002	6,02
20 x 7	M	4,5 - 6,0	BSW 3/16 - 1/4	200	0,065	1	1R15003	6,02
25 x 9	M	7,0 - 9,0	BSW 5/16	224	0,105	1	1R15004	6,74
30 x 11	M	10,0 - 11,0	BSW 3/8 - 7/16	280	0,190	1	1R15005	11,09
38 x 10	Mf	12,0 - 15,0	G 1/4	315	0,340	1	1R15006	17,33
38 x 14	M	12,0 - 15,0	BSW 1/2 - 9/16	315	0,340	1	1R15007	17,33
45 x 14	Mf	16,0 - 21,0	G 3/8 - 1/2	450	0,650	1	1R15008	20,47
45 x 18	M	16,0 - 20,0	BSW 5/8 - 13/16	450	0,650	1	1R15009	20,47
55 x 16	Mf	22,0 - 26,0	G 5/8 - 3/4	560	0,900	1	1R15010	26,49
55 x 22	M	22,0 - 24,0	BSW 7/8 - 1	560	0,900	1	1R15011	26,49
65 x 18	Mf	27,0 - 36,0	G 7/8 - 1	630	1,400	1	1R15012	44,55
65 x 25	M	27,0 - 36,0	BSW 1.1/8 - 1.3/8	630	1,400	1	1R15013	44,55

VOLVEDORES ZINC FUNDIDO EN PULGADAS - 3 TORNILLOS

ZINC DIE HOLDERS IN INCH 3 SCREWS
PORTE FILIÈRES EN POUÇES Á 3 VISSÉS



Ø (")	Para cojinetes / For Taps		L1 (mm)	Peso / Weight (kg)	Uds. / Pcs.	Cod.	€/Unid.
13/16	20,6 x 6,35	13/16 x 1/4	200	0,060	1	1R15520	6,49
1	25,4 x 9,5	1 x 3/8"	224	0,100	1	1R15525	6,75
1.5/16	33,4 x 11,1	1.5/16 x 7/16	270	0,180	1	1R15533	10,00
1.1/2	38,1 x 12,7	1.1/2 x 1/2	315	0,320	1	1R15538	18,76
2	50,8 x 15,9	2 x 5/8	560	0,900	1	1R15550	30,01
2.1/4	57,1 x 17,5	2.1/4 x 11/16	560	0,900	1	1R15557	30,01
2.1/2	63,5 x 19,0	2.1/2 x 3/4	630	1,400	1	1R15563	46,28
3	76,2 x 22,2	3 x 7/8"	800	2,200	1	1R15576	105,06
3.1/2	88,9 x 25,4	3.1/2 x 1	900	3,300	1	1R15588	130,08
4	101,6 x 25,4	4 x 1	1.000	3,600	1	1R15599	412,76

VOLVEDORES ACERO DIN 225 (EN 22568)

STEEL DIE HOLDERS DIN 225 (EN 22568)

PORTE FILIÈRES DIN 225 (EN 22568) EN ACIER



DIN 225

DIN 22568

Ø (mm)	Para cojinetes / For Taps		L1 (mm)	Peso / Weight (kg)	Uds. / Pcs.	Cod.	€/Unid.
45 x 18	M 16 - 20	BSW 5/8 - 13/16	450	0,650	1	1R15209	30,26
55 x 22	M 22 - 24	BSW 7/8 - 1	560	0,900	1	1R15211	43,01
65 x 25	M 27 - 36	BSW 1.1/8 - 1.3/8	630	1,400	1	1R15213	55,74
75 x 20	Mf 38 - 42	G 1.1/8 - 1.1/4	800	2,250	1	1R15214	89,40
75 x 30	M 38 - 42	BSW 1.1/2 - 1.5/8	800	2,100	1	1R15215	89,40
90 x 22	Mf 45 - 52	G 1.3/8 - 1.5/8	900	3,200	1	1R15216	111,06
90 x 36	M 45 - 52	BSW 1.3/4 - 2	900	3,000	1	1R15217	111,06
105 x 22	Mf 54 - 63	G 1.3/4 - 2	975	3,500	1	1R15218	177,16
105 x 36	M 54 - 63	BSW 2.1/4	975	3,500	1	1R15219	177,16
120 x 22	Mf 64 - 71	G 2.1/4 - 2.3/4	956	3,170	1	1R15220	448,80
120 x 36	M 64 - 71	BSW 2.1/2 - 2.3/4	956	3,910	1	1R15221	448,80
130 x 25		G 3	966	3,505	1	1R15222	637,76
130 x 36			966	4,025	1	1R15223	803,10
140 x 22			976	3,620	1	1R15224	803,10
150 x 25		G 3.1/2	986	3,950	1	1R15226	911,76
160 x 25		G 4	996	4,115	1	1R15228	1.251,88

ACEITE DE CORTE Y ROSCADO

CUTTING AND TAPPING FLUID

FLUIDE POUR FILETAGE ET DE COUP

Contenido / Content	Uds.	Cod	€/Unid.
400 ml	1	1AC4000	19,10

Metales duros y blandos. Alto poder refrigerante y anticorrosivo.
Suitable for hard and soft metals. High refrigerating and anti-corrosion capacity.
Métaux doux et durs. Haut pouvoir anticorrosion.



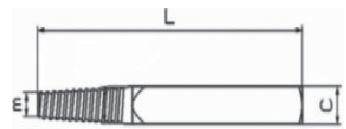
EXTRACTOR DE TORNILLOS 5 PIEZAS ADVANCE

5 PCS ADVANCE SCREW EXTRACTORS
EXTRACTEURS DE VIS ADVANCE 5 PCS



Para Tornillos / Screws	Uds. / Pcs.	Cod.	€/Unid.
3 - 22	5	6Z00GR30	51,79

Broca / Drill Bit	m (mm)	C (mm)	L (mm)
3	2,7	5	51
4	3,3	5	68
5	4,6	6	66
6	5,5	8	73
8	6,7	10	80



EXTRACTOR DE TORNILLOS STANDARD

STANDARD SCREW EXTRACTORS
EXTRACTEURS DE VIS STANDARD



Para Tornillos / Screws	Uds. / Pcs.	Cod.	€/Unid.
3 - 18	5	6Z00GR15	15,67
3 - 24	6	6Z00GR16	19,50
3 - 45	8	6Z00GR18	39,38



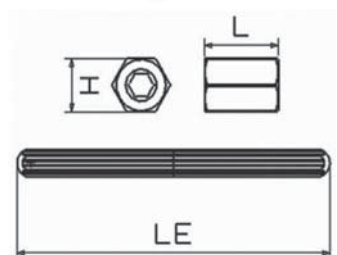
JUEGOS DE MACHOS ESTRIADOS 5 PIEZAS

FLUTES TAPS SET - 5 PCS
JEU DE TARAUDS CANÉLÉS 5 PCS

Para Tornillos / Screws	Uds. / Pcs.	Cod.	€/Unid.
5 - 14	5	6Z00ST01	94,73

Contenido / Contains / Contenu

Extractor	Broca / Drill Bit	H (mm)	L (mm)	LE (mm)
H1	4,0	16	10	57
H2	5,0	16	11	68
H3	6,0	16	13	78
H4	7,5	16	14	84
H5	8,5	16	16	94



JUEGOS DE BROCAS Y GUIAS EXTERIORES E INTERIORES

FULL SET WITH 5 DRILLS AND EXTERNAL AND INTERNAL GUIDES
JEU COMPLET AVEC 5 FORETS ET 10 INTERNE ET EXTERNE GUIDES



Para Tornillos / Screws	Uds. / Pcs.	Cod.	€/Unid.
5 - 14	25	6Z00ST02	195,87

Contenido / Contains / Contenu

Guía / Guide	1	2	3	4	5	6	7	8	9	10
Ext.	M5	M6	M7	M8	M8	M9	M10	M11	M12	M14
Int.	-	M6	M8	3/8"	1/2"	M10	7/16"	M12	M14	M16
Broca / Drill Bit	4	4	4	4	5	5	5	6	7,5	8,5
Extractor	H1	H1	H1	H1	H2	H2	H2	H3	H4	H5

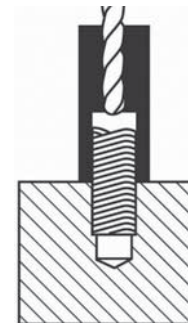
Instrucciones de uso / Instructions / Mode d'emploi

INTERIOR

EXTERIOR

- Taladrar el espárrago roto con el diámetro correspondiente.
- Se introduce el extractor con un golpe de martillo.
- Con una llave se gira en sentido inverso a la rosca.

- Drill the broken screw with the diameter wich corresponds.
- The extractor is introduced with a hammer.
- With a wrench turn the inverse way to the screw.

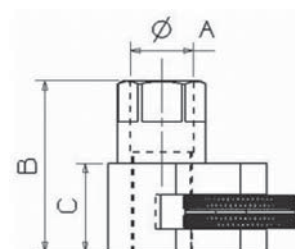


EXTRACTORES DE ESPÁRRAGOS SALIENTES

STUD EXTRACTORS • EXTRACTEURS DE GOUJONS



Para Tornillos / Screws	A (mm)	B (mm)	C (mm)	Cod.	€/Unid.
4,5 - 9,5	12	46	25	6Z00GR31	83,50
8 - 19	21	60	31	6Z00GR32	128,29
15 - 25	30	68	38	6Z00GR33	198,03



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M JUEGOS DE MACHOS MÉTRICA ISO-ROSCA DIN 13 CON COLGADOR NEW

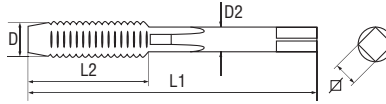
METRIC ISO-THREAD DIN 13 HAND TAPS - WITH HANGER
JEUX DE TARAUDS À MAIN, METRIQUE DIN-13 - AVEC CROCHET



HSS-G

DIN 352

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Set
M 3 x 0.50	40	11.0	3.5	2.7	2R27326BL	20,55
M 4 x 0.70	45	13.0	4.5	3.4	2R27330BL	19,54
M 5 x 0.80	50	16.0	6.0	4.9	2R27334BL	20,55
M 6 x 1.00	50	19.0	6.0	4.9	2R27338BL	20,55
M 8 x 1.25	56	22.0	6.0	4.9	2R27342BL	22,97
M 10 x 1.50	70	24.0	7.0	5.5	2R27346BL	31,13
M 12 x 1.75	75	29.0	9.0	7.0	2R27350BL	40,75

M MÉTRICA ISO-ROSCA DIN 13 CON COLGADOR NEW

METRIC ISO-THREAD DIN 13 WITH HANGER
MÉTRIQUE DIN-13 AVEC CROCHET



HSS-G

DIN 223

TOL 6g



D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.	D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 3 x 0.50	20 x 5	4R27426BL	25,82	M 8 x 1.25	25 x 9	4R27442BL	25,82
M 4 x 0.70	20 x 5	4R27430BL	25,82	M 10 x 1.50	30 x 11	4R27446BL	30,39
M 5 x 0.80	20 x 7	4R27434BL	25,82	M 12 x 1.75	38 x 14	4R27450BL	34,94
M 6 x 1.00	20 x 7	4R27438BL	25,82				

M MÉTRICA ISO-ROSCA DIN 13 - BLISTER NEW

METRIC ISO-THREAD DIN 13 - BLISTER
MÉTRIQUE DIN-13 - BLISTER

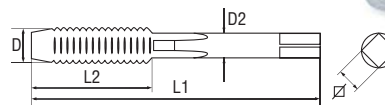


HSS-CO 5%

DIN 371

FORM C

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0.50	56	11	3.5	2.7	3R37426BL	13,17
M 4 x 0.70	63	13	4.5	3.4	3R37430BL	13,40
M 5 x 0.80	70	16	6.0	4.9	3R37434BL	13,58
M 6 x 1.00	80	19	6.0	4.9	3R37438BL	14,00
M 8 x 1.25	90	22	8.0	6.2	3R37442BL	17,31
M 10 x 1.50	100	24	10.0	8.0	3R37446BL	19,80

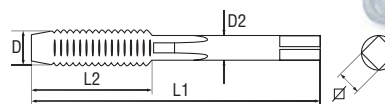


HSS-CO 5%

DIN 376

FORM C

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 12 x 1.75	110	29	9.0	7.0	3R38450BL	24,20

M MÉTRICA ISO-ROSCA DIN 13 - BLISTER **NEW**
 METRIC ISO-THREAD DIN 13 - BLISTER
 MÉTRIQUE DIN-13 - BLISTER

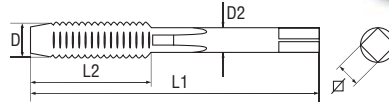


HSS-CO 5%

DIN 371

FORM B

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0.50	56	11	3.5	2.7	3R37526BL	13,82
M 4 x 0.70	63	13	4.5	3.4	3R37530BL	13,77
M 5 x 0.80	70	16	6.0	4.9	3R37534BL	14,32
M 6 x 1.00	80	19	6.0	4.9	3R37538BL	15,00
M 8 x 1.25	90	22	8.0	6.2	3R37542BL	17,34
M 10 x 1.5	100	24	10.0	8.0	3R37546BL	20,85

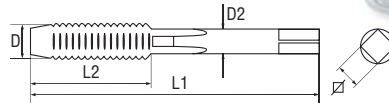


HSS-CO 5%

DIN 376

FORM B

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 12 x 1.75	110	29	9.0	7.0	3R38550BL	27,93

M MÉTRICA ISO-ROSCA DIN 13 - BLISTER **NEW**
 METRIC ISO-THREAD DIN 13 - BLISTER
 MÉTRIQUE DIN-13 - BLISTER

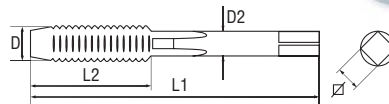


HSS-CO 5%

DIN 371

FORM C/35°

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0.5	56	6	3.5	2.7	3R37726BL	16,51
M 4 x 0.7	63	7	4.5	3.4	3R37730BL	16,51
M 5 x 0.8	70	8	6.0	4.9	3R37734BL	17,32
M 6 x 1.0	80	10	6.0	4.9	3R37738BL	17,32
M 8 x 1.25	90	14	8.0	6.2	3R37742BL	20,97
M 10 x 1.5	100	16	10.0	8.0	3R37746BL	24,49

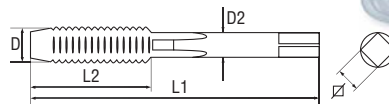


HSS-CO 5%

DIN 376

FORM C/35°

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 12 x 1.75	110	18	9.0	7.0	3R38750BL	30,95

CONSTRUCCIÓN
 CONSTRUCTION • CONSTRUCTION

MADERA
 WOOD • BOIS

METAL
 METAL • MÉTAL

FRESADO
 MILLING • FRAISAGE

ROSCADO
 THREADING • FILETAGE

ACCESORIOS
 ACCESSORIES • ACCESSOIRES

HEXAGONAL
 HEXAGONAL • HEXAGONAL

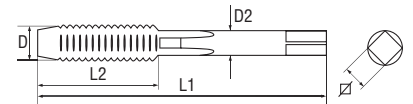
METROLOGÍA
 METROLOGY • MÉTROLOGIE

DISPLAYS
 DISPLAYS • DISPLAYS

M

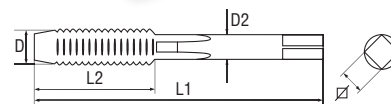
JUEGOS DE MACHOS MÉTRICA ISO- ROSCA DIN 13

METRIC ISO-THREAD DIN 13 HAND TAPS
 JEUX DE TARAUDS À MAIN, METRIQUE DIN 13


HSS-G
DIN 352
TOL 6H


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
M 1,00 x 0,25	32	5,5	2,5	2,1	2R27302	22,38	67,14
M 1,10 x 0,25	32	5,5	2,5	2,1	2R27304	22,38	67,14
M 1,20 x 0,25	32	5,5	2,5	2,1	2R27306	22,38	67,14
M 1,40 x 0,30	32	7,0	2,5	2,1	2R27308	22,38	67,14
M 1,60 x 0,35	32	8,0	2,5	2,1	2R27310	22,38	67,14
M 1,70 x 0,35	32	8,0	2,5	2,1	2R27312	22,38	67,14
M 1,80 x 0,35	32	8,0	2,5	2,1	2R27314	22,38	67,14
M 2,00 x 0,40	36	8,0	2,8	2,1	2R27316	9,15	27,45
M 2,20 x 0,45	36	9,0	2,8	2,1	2R27318	9,15	27,45
M 2,30 x 0,40	36	9,0	2,8	2,1	2R27320	9,15	27,45
M 2,50 x 0,45	40	9,0	2,8	2,1	2R27322	9,15	27,45
M 2,60 x 0,45	40	9,0	2,8	2,1	2R27324	9,15	27,45
M 3,00 x 0,50	40	11,0	3,5	2,7	2R27326	5,85	17,56
M 3,50 x 0,60	45	13,0	4,0	3,0	2R27328	7,61	22,83
M 4,00 x 0,70	45	13,0	4,5	3,4	2R27330	5,57	16,70
M 4,50 x 0,75	50	16,0	6,0	4,9	2R27332	8,54	25,61
M 5,00 x 0,80	50	16,0	6,0	4,9	2R27334	5,85	17,56
M 5,50 x 0,90	50	18,0	6,0	4,9	2R27336	13,84	41,52
M 6,00 x 1,00	50	19,0	6,0	4,9	2R27338	5,85	17,56
M 7,00 x 1,00	50	19,0	6,0	4,9	2R27340	8,72	26,16
M 8,00 x 1,25	56	22,0	6,0	4,9	2R27342	6,54	19,63
M 9,00 x 1,25	63	22,0	7,0	5,5	2R27344	11,60	34,79
M 10,00 x 1,50	70	24,0	7,0	5,5	2R27346	8,87	26,61
M 11,00 x 1,50	70	24,0	8,0	6,2	2R27348	15,25	45,75
M 12,00 x 1,75	75	29,0	9,0	7,0	2R27350	11,61	34,83
M 14,00 x 2,00	80	30,0	11,0	9,0	2R27354	13,39	40,17
M 15,00 x 2,00	80	32,0	12,0	9,0	2R27356	14,00	42,00
M 16,00 x 2,00	80	32,0	12,0	9,0	2R27358	18,85	56,56
M 18,00 x 2,50	95	40,0	14,0	11,0	2R27362	26,52	79,55
M 20,00 x 2,50	95	40,0	16,0	12,0	2R27366	28,27	84,80
M 22,00 x 2,50	100	40,0	18,0	14,5	2R27370	35,34	106,02
M 24,00 x 3,00	110	50,0	18,0	14,5	2R27374	47,12	141,37
M 27,00 x 3,00	110	50,0	20,0	16,0	2R27376	60,64	181,91
M 30,00 x 3,50	125	56,0	22,0	18,0	2R27378	81,61	244,84
M 33,00 x 3,50	125	56,0	25,0	20,0	2R27380	110,98	332,94
M 36,00 x 4,00	150	63,0	28,0	22,0	2R27382	139,32	417,95
M 39,00 x 4,00	150	63,0	32,0	24,0	2R27384	175,45	526,35
M 42,00 x 4,50	150	63,0	32,0	24,0	2R27386	196,23	588,68
M 45,00 x 4,50	160	70,0	36,0	29,0	2R27388	229,38	688,13
M 48,00 x 5,00	180	75,0	36,0	36,0	2R27390	311,12	933,37
M 52,00 x 5,00	180	75,0	40,0	32,0	2R27392	337,05	1.011,15
M 56,00 x 5,50	200	85,0	45,0	35,0	2R27394	427,08	1.281,25
M 60,00 x 5,50	200	85,0	45,0	35,0	2R27396	581,76	1.745,27
M 64,00 x 6,00	220	90,0	50,0	39,0	2R27398	706,51	2.119,52
M 68,00 x 6,00	220	90,0	50,0	39,0	2R27399	828,15	2.484,46

M JUEGOS DE MACHOS MÉTRICA ISO- ROSCA DIN 13 CON ENTRADA CÓNICA
METRIC ISO-THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS À MAIN, METRIQUE DIN 13



HSS-G

DIN 352

TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
M 2,00 x 0,40	36	8	2,8	2,1	2R27616	9,08	27,25
M 2,50 x 0,45	40	9	2,8	2,1	2R27622	9,08	27,25
M 3,00 x 0,50	40	11	3,5	2,7	2R27626	6,26	18,77
M 4,00 x 0,70	45	13	4,5	3,4	2R27630	5,95	17,85
M 5,00 x 0,80	50	16	6,0	4,9	2R27634	6,26	18,77
M 6,00 X 100	50	19	6,0	4,9	2R27638	6,26	18,77
M 8,00 x 1,25	56	22	6,0	4,9	2R27642	7,00	20,99
M 9,00 x 1,25	63	22	7,0	5,5	2R27644	11,86	35,58
M 10,00 x 1,50	70	24	7,0	5,5	2R27646	9,48	28,45
M 11,00 x 1,50	70	24	8,0	6,2	2R27648	15,14	45,42
M 12,00 x 1,75	75	29	9,0	7,0	2R27650	12,42	37,25
M 13,00 x 1,75	75	29	9,0	7,0	2R27652	17,09	51,26
M 14,00 x 2,00	80	30	11,0	9,0	2R27654	14,31	42,94
M 16,00 x 2,00	80	32	12,0	9,0	2R27658	20,15	60,46
M 18,00 x 2,50	95	40	14,0	11,0	2R27662	27,12	81,36
M 19,00 x 2,50	95	40	14,0	11,0	2R27664	37,42	112,26
M 20,00 x 2,50	95	40	16,0	12,0	2R27666	28,90	86,71
M 22,00 x 2,50	100	40	18,0	14,5	2R27670	36,14	108,42
M 24,00 x 3,00	110	50	18,0	14,5	2R27674	48,19	144,57
M 27,00 x 3,00	110	50	20,0	16,0	2R27676	60,58	181,73
M 30,00 x 3,50	125	56	22,0	18,0	2R27678	81,53	244,60
M 33,00 x 3,50	125	56	25,0	20,0	2R27680	107,65	322,94
M 36,00 x 4,00	150	63	28,0	22,0	2R27682	135,13	405,40
M 39,00 x 4,00	150	63	32,0	24,0	2R27684	156,43	469,29
M 42,00 x 4,50	150	63	32,0	24,0	2R27686	187,87	563,62
M 3,00 x 0,60	40	11	3,5	2,7	2R27627*	11,75	35,25
M 4,00 x 0,75	45	13	4,5	3,4	2R27631*	11,75	35,26

*Hasta fin de existencias / *Until end of stock / *Jusqu'à épuisement des stocks

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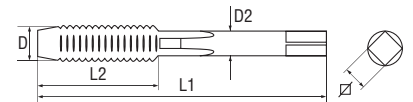
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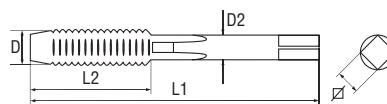
JUEGOS DE MACHOS MÉTRICA FINA DIN 13

METRIC FINE THREAD DIN 13 HAND TAPS
 JEUX DE TARAUDS MÉTRIQUE FINE DIN 13


HSS-G
DIN 2181
TOL 6H


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
M 2,50 x 0,35	40	9	2,8	2,1	2R26304	16,84	33,67
M 2,60 x 0,35	40	9	2,8	2,1	2R26305	16,84	33,67
M 3,00 x 0,35	40	9	3,5	2,7	2R26308	16,84	33,67
M 3,50 x 0,35	45	10	4,0	3,0	2R26309	16,84	33,67
M 4,00 x 0,35	45	10	4,5	3,4	2R26310	16,84	33,67
M 4,00 x 0,50	45	10	4,5	3,4	2R26312	16,84	33,67
M 4,50 x 0,50	50	12	6,0	4,9	2R26313	16,84	33,67
M 5,00 x 0,50	50	12	6,0	4,9	2R26314	16,84	33,67
M 5,00 x 0,75	50	12	6,0	4,9	2R26316	16,84	33,67
M 5,50 x 0,50	50	12	6,0	4,9	2R26315	16,84	33,68
M 6,00 x 0,50	50	14	6,0	4,9	2R26317	13,35	26,70
M 6,00 x 0,75	50	14	6,0	4,9	2R26318	11,12	22,25
M 7,00 x 0,50	50	14	6,0	4,9	2R26319	15,24	30,47
M 7,00 x 0,75	50	14	6,0	4,9	2R26320	13,48	26,97
M 8,00 x 0,50	50	19	6,0	4,9	2R26322	19,91	39,82
M 8,00 x 0,75	50	19	6,0	4,9	2R26324	14,58	29,17
M 8,00 x 1,00	56	22	6,0	4,9	2R26326	11,36	22,72
M 9,00 x 0,50	56	19	7,0	5,5	2R26327	16,84	33,67
M 9,00 x 0,75	56	19	7,0	5,5	2R26328	16,84	33,67
M 9,00 x 1,00	63	20	7,0	5,5	2R26330	14,22	28,44
M 10,00 x 0,50	63	20	7,0	5,5	2R26331	19,91	39,82
M 10,00 x 0,75	63	20	7,0	5,5	2R26332	19,91	39,82
M 10,00 x 1,00	63	20	7,0	5,5	2R26336	11,17	22,34
M 10,00 x 1,25	70	24	7,0	5,5	2R26338	13,40	26,80
M 11,00 x 0,75	63	20	8,0	6,2	2R26339	26,79	53,57
M 11,00 x 1,00	63	20	8,0	6,2	2R26340	20,66	41,33
M 11,00 x 1,25	63	22	8,0	6,2	2R26342	20,66	41,33
M 12,00 x 0,50	70	22	9,0	7,0	2R26345	26,79	53,57
M 12,00 x 0,75	70	22	9,0	7,0	2R26343	26,79	53,57
M 12,00 x 1,00	70	22	9,0	7,0	2R26344	19,68	39,36
M 12,00 x 1,25	70	22	9,0	7,0	2R26346	19,68	39,36
M 12,00 x 1,50	70	22	9,0	7,0	2R26348	17,35	34,71
M 13,00 x 0,50	70	22	11,0	9,0	2R26347	30,61	61,22
M 13,00 x 0,75	70	22	11,0	9,0	2R26349	29,15	58,30
M 13,00 x 1,00	70	22	11,0	9,0	2R26350	30,61	61,22
M 13,00 x 1,50	70	22	11,0	9,0	2R26351	30,61	61,22
M 14,00 x 0,50	70	22	11,0	9,0	2R26355	34,44	68,88
M 14,00 x 0,75	70	22	11,0	9,0	2R26352	34,44	68,88
M 14,00 x 1,00	70	22	11,0	9,0	2R26353	29,15	58,30
M 14,00 x 1,25	70	22	11,0	9,0	2R26354	25,51	51,02
M 14,00 x 1,50	70	22	11,0	9,0	2R26356	19,05	38,10
M 15,00 x 0,75	70	22	12,0	9,0	2R26357	37,88	75,77
M 15,00 x 1,00	70	22	12,0	9,0	2R26358	37,88	75,77
M 15,00 x 1,50	70	22	12,0	9,0	2R26360	37,88	75,77
M 16,00 x 0,50	70	22	12,0	9,0	2R26361	34,82	69,64

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13
METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



HSS-G

DIN 2181

TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
M 16,00 x 0,75	70	22	12,0	9,0	2R26363	34,82	69,64
M 16,00 x 1,00	70	22	12,0	9,0	2R26362	33,16	66,33
M 16,00 x 1,25	70	22	12,0	9,0	2R26364	33,16	66,33
M 16,00 x 1,50	70	22	12,0	9,0	2R26366	23,16	46,33
M 17,00 x 1,00	70	22	12,0	9,0	2R26368	37,88	75,77
M 17,00 x 1,50	70	22	12,0	9,0	2R26369	37,88	75,77
M 18,00 x 0,50	80	22	14,0	11,0	2R26367	37,88	75,77
M 18,00 x 0,75	80	22	14,0	11,0	2R26373	37,88	75,77
M 18,00 x 1,00	80	22	14,0	11,0	2R26370	36,08	72,16
M 18,00 x 1,25	80	22	14,0	11,0	2R26371	37,88	75,77
M 18,00 x 1,50	80	22	14,0	11,0	2R26372	31,58	63,17
M 18,00 x 2,00	80	22	14,0	11,0	2R26374	36,08	72,16
M 19,00 x 1,00	80	22	16,0	12,0	2R26375	49,75	99,50
M 19,00 x 1,50	80	22	14,0	11,0	2R26376	49,75	99,50
M 20,00 x 0,50	80	22	16,0	12,0	2R26377	49,75	99,50
M 20,00 x 0,75	80	22	16,0	12,0	2R26379	49,75	99,50
M 20,00 x 1,00	80	22	16,0	12,0	2R26378	49,75	99,50
M 20,00 x 1,25	80	22	16,0	12,0	2R26380	49,75	99,50
M 20,00 x 1,50	80	22	16,0	12,0	2R26384	38,70	77,40
M 20,00 x 2,00	80	22	16,0	12,0	2R26386	47,38	94,76
M 21,00 x 1,00	80	22	16,0	12,0	2R26387	49,75	99,50
M 21,00 x 1,50	80	22	16,0	12,0	2R26388	49,75	99,50
M 22,00 x 0,50	80	22	18,0	14,5	2R26389	49,75	99,50
M 22,00 x 0,75	80	22	18,0	14,5	2R26391	49,75	99,50
M 22,00 x 1,00	80	22	18,0	14,5	2R26390	49,75	99,50
M 22,00 x 1,25	80	22	18,0	14,5	2R26392	49,75	99,50
M 22,00 x 1,50	80	22	18,0	14,5	2R26394	45,20	90,39
M 22,00 x 2,00	80	22	18,0	14,5	2R26396	47,38	94,76
M 23,00 x 1,00	80	22	18,0	14,5	2R26397	68,89	137,78
M 23,00 x 1,50	80	22	18,0	14,5	2R26398	68,89	137,77
M 24,00 x 0,50	90	22	18,0	14,5	2R26501	68,89	137,78
M 24,00 x 0,75	90	22	18,0	14,5	2R26503	68,89	137,78
M 24,00 x 1,00	90	22	18,0	14,5	2R26500	68,89	137,77
M 24,00 x 1,25	90	22	18,0	14,5	2R26502	68,89	137,77
M 24,00 x 1,50	90	22	18,0	14,5	2R26504	59,93	119,87
M 24,00 x 2,00	90	22	18,0	14,5	2R26506	65,61	131,21
M 25,00 x 1,00	90	22	18,0	14,5	2R26507	99,50	198,99
M 25,00 x 1,50	90	22	18,0	14,5	2R26508	95,67	191,34
M 26,00 x 1,00	90	22	18,0	14,5	2R26510	95,67	191,34
M 26,00 x 1,50	90	22	18,0	14,5	2R26512	85,38	170,76
M 26,00 x 2,00	90	22	18,0	14,5	2R26514	94,76	189,52
M 27,00 x 1,00	90	22	20,0	16,0	2R26516	99,50	198,99
M 27,00 x 1,50	90	22	20,0	16,0	2R26517	99,50	198,99
M 27,00 x 2,00	90	22	20,0	16,0	2R26518	113,27	226,54
M 28,00 x 1,00	90	22	20,0	16,0	2R26520	122,45	244,90

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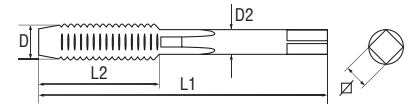
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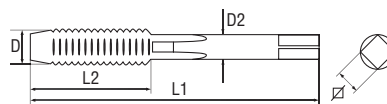
JUEGOS DE MACHOS MÉTRICA FINA DIN 13

METRIC FINE THREAD DIN 13 HAND TAPS
 JEUX DE TARAUDS MÉTRIQUE FINE DIN 13


HSS-G
DIN 2181
TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
M 28,00 x 1,50	90	22	20,0	16,0	2R26522	103,31	206,63
M 28,00 x 2,00	90	22	20,0	16,0	2R26524	114,80	229,60
M 29,00 x 1,50	90	22	22,0	18,0	2R26526	118,63	237,25
M 30,00 x 1,00	90	22	22,0	18,0	2R26528	119,39	238,78
M 30,00 x 1,50	90	22	22,0	18,0	2R26530	107,91	215,82
M 30,00 x 2,00	90	22	22,0	18,0	2R26532	122,45	244,90
M 30,00 x 2,50	125	56	22,0	18,0	2R26533	122,45	244,90
M 30,00 x 3,00	125	56	22,0	18,0	2R26534	130,11	260,22
M 32,00 x 1,00	90	22	22,0	18,0	2R26539	130,11	260,22
M 32,00 x 1,50	90	22	22,0	18,0	2R26536	130,11	260,22
M 32,00 x 2,00	90	22	22,0	18,0	2R26535	130,11	260,22
M 32,00 x 3,00	125	56	22,0	18,0	2R26537	130,11	260,22
M 33,00 x 1,50	100	25	25,0	20,0	2R26538	130,11	260,22
M 33,00 x 2,00	100	25	25,0	20,0	2R26540	160,72	321,44
M 33,00 x 3,00	125	56	25,0	20,0	2R26542	160,72	321,44
M 34,00 x 1,00	100	25	28,0	22,0	2R26543	160,72	321,45
M 34,00 x 1,50	100	25	28,0	22,0	2R26544	160,72	321,44
M 34,00 x 2,00	125	40	28,0	22,0	2R26546	168,38	336,76
M 35,00 x 1,00	100	25	28,0	22,0	2R26547	160,72	321,44
M 35,00 x 1,50	100	25	28,0	22,0	2R26548	160,72	321,44
M 35,00 x 2,00	125	40	28,0	22,0	2R26549	160,72	321,44
M 36,00 x 1,00	100	25	28,0	22,0	2R26551	171,43	342,87
M 36,00 x 1,50	100	25	28,0	22,0	2R26550	171,43	342,87
M 36,00 x 2,00	125	40	28,0	22,0	2R26552	176,03	352,06
M 36,00 x 3,00	125	40	28,0	22,0	2R26554	176,03	352,06
M 37,00 x 1,50	100	25	28,0	22,0	2R26553	198,99	397,98
M 38,00 x 1,00	100	25	28,0	22,0	2R26555	198,99	397,98
M 38,00 x 1,50	100	25	28,0	22,0	2R26556	198,99	397,98
M 38,00 x 2,00	125	40	28,0	22,0	2R26557	214,30	428,59
M 38,00 x 3,00	125	40	28,0	22,0	2R26559	214,29	428,59
M 39,00 x 1,50	110	25	32,0	24,0	2R26558	214,30	428,59
M 39,00 x 2,00	125	40	32,0	24,0	2R26560	214,30	428,59
M 39,00 x 3,00	125	40	32,0	24,0	2R26562	214,30	428,59
M 40,00 x 1,00	110	25	32,0	24,0	2R26563	214,29	428,59
M 40,00 x 1,50	110	25	32,0	24,0	2R26564	214,30	428,59
M 40,00 x 2,00	125	40	32,0	24,0	2R26566	214,30	428,59
M 40,00 x 3,00	125	40	32,0	24,0	2R26568	229,60	459,21
M 42,00 x 1,00	110	25	32,0	24,0	2R26569	229,60	459,20
M 42,00 x 1,50	110	25	32,0	24,0	2R26570	229,60	459,21
M 42,00 x 2,00	125	40	32,0	24,0	2R26572	229,60	459,21
M 42,00 x 3,00	125	40	32,0	24,0	2R26574	260,22	520,44
M 44,00 x 1,50	110	25	36,0	29,0	2R26571	267,87	535,73
M 44,00 x 2,00	125	40	36,0	29,0	2R26573	267,87	535,74
M 45,00 x 1,00	110	25	36,0	29,0	2R26575	267,87	535,73
M 45,00 x 1,50	110	25	36,0	29,0	2R26576	267,87	535,74

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13
METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



HSS-G

DIN 2181

TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
M 45,00 x 2,00	125	40	36,0	29,0	2R26578	267,87	535,74
M 45,00 x 3,00	125	40	36,0	29,0	2R26580	267,87	535,74
M 46,00 x 1,50	140	40	36,0	29,0	2R26581	267,87	535,73
M 48,00 x 1,00	140	40	36,0	29,0	2R26583	290,83	581,65
M 48,00 x 1,50	140	40	36,0	29,0	2R26582	290,83	581,66
M 48,00 x 2,00	140	40	36,0	29,0	2R26584	290,83	581,66
M 48,00 x 3,00	140	40	36,0	29,0	2R26586	290,83	581,66
M 50,00 x 1,50	140	40	36,0	29,0	2R26588	325,27	650,53
M 50,00 x 2,00	140	40	36,0	29,0	2R26590	325,27	650,53
M 50,00 x 3,00	140	40	36,0	29,0	2R26592	325,27	650,53
M 52,00 x 1,50	140	40	40,0	32,0	2R26594	355,88	711,76
M 52,00 x 2,00	140	40	40,0	32,0	2R26596	382,67	765,34
M 52,00 x 3,00	140	40	40,0	32,0	2R26598	382,67	765,34
M 54,00 x 1,00	140	32	40,0	32,0	2R28118	416,17	832,34
M 54,00 x 1,50	140	32	40,0	32,0	2R28001	417,94	835,88
M 54,00 x 2,00	140	36	40,0	32,0	2R28002	417,94	835,89
M 54,00 x 3,00	140	40	40,0	32,0	2R28003	417,94	835,88
M 54,00 x 4,00	180	50	40,0	32,0	2R28004	417,94	835,88
M 55,00 x 1,50	140	32	40,0	32,0	2R28005	549,31	1.098,62
M 55,00 x 2,00	140	36	40,0	32,0	2R28006	549,31	1.098,61
M 55,00 x 3,00	140	40	40,0	32,0	2R28007	549,31	1.098,62
M 55,00 x 4,00	180	50	40,0	32,0	2R28008	549,31	1.098,62
M 56,00 x 1,00	140	32	40,0	32,0	2R28119	583,64	1.167,27
M 56,00 x 1,50	140	32	40,0	32,0	2R28009	583,64	1.167,27
M 56,00 x 2,00	140	36	40,0	32,0	2R28010	582,79	1.165,58
M 56,00 x 3,00	140	40	40,0	32,0	2R28011	582,79	1.165,58
M 56,00 x 4,00	180	50	40,0	32,0	2R28012	506,77	1.013,55
M 58,00 x 1,00	160	32	45,0	35,0	2R28120	617,97	1.235,94
M 58,00 x 1,50	160	32	45,0	35,0	2R28013	617,97	1.235,94
M 58,00 x 2,00	160	36	45,0	35,0	2R28014	617,97	1.235,94
M 58,00 x 3,00	160	40	45,0	35,0	2R28015	617,97	1.235,94
M 58,00 x 4,00	200	55	45,0	35,0	2R28016	617,97	1.235,94
M 60,00 x 1,50	160	34	45,0	35,0	2R28017	635,13	1.270,26
M 60,00 x 2,00	160	36	45,0	35,0	2R28018	635,13	1.270,26
M 60,00 x 3,00	160	40	45,0	35,0	2R28019	635,13	1.270,26
M 60,00 x 4,00	200	55	45,0	35,0	2R28020	635,13	1.270,26
M 62,00 x 1,50	160	34	50,0	39,0	2R28021	686,63	1.373,26
M 62,00 x 2,00	160	36	50,0	39,0	2R28022	686,63	1.373,26
M 62,00 x 3,00	180	45	50,0	39,0	2R28023	686,52	1.373,05
M 62,00 x 4,00	220	55	50,0	39,0	2R28024	686,63	1.373,26
M 63,00 x 1,50	160	32	50,0	39,0	2R28025	703,80	1.407,61
M 64,00 x 1,50	160	34	50,0	39,0	2R28026	703,80	1.407,61
M 64,00 x 2,00	160	36	50,0	39,0	2R28027	703,80	1.407,61
M 64,00 x 3,00	180	45	50,0	39,0	2R28028	703,80	1.407,61
M 64,00 x 4,00	220	60	50,0	39,0	2R28029	703,80	1.407,61

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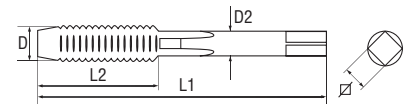
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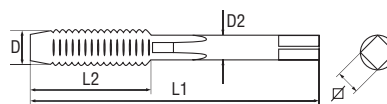
JUEGOS DE MACHOS MÉTRICA FINA DIN 13

METRIC FINE THREAD DIN 13 HAND TAPS
 JEUX DE TARAUDS MÉTRIQUE FINE DIN 13


HSS-G
DIN 2181
TOL 6H


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
M 65,00 x 1,50	160	34	50,0	39,0	2R28030	755,30	1.510,59
M 65,00 x 2,00	160	36	50,0	39,0	2R28031	755,30	1.510,59
M 65,00 x 3,00	180	45	50,0	39,0	2R28032	755,30	1.510,59
M 65,00 x 4,00	220	60	50,0	39,0	2R28033	755,30	1.510,60
M 68,00 x 1,50	160	36	50,0	39,0	2R28034	772,47	1.544,94
M 68,00 x 2,00	160	40	50,0	39,0	2R28035	772,47	1.544,94
M 68,00 x 3,00	180	50	50,0	39,0	2R28036	772,47	1.544,94
M 68,00 x 4,00	220	60	50,0	39,0	2R28037	772,47	1.544,93
M 70,00 x 1,50	160	36	50,0	39,0	2R28038	1.243,50	2.487,00
M 70,00 x 2,00	160	40	50,0	39,0	2R28039	1.243,50	2.487,00
M 70,00 x 3,00	200	50	50,0	39,0	2R28040	1.414,48	2.828,96
M 70,00 x 4,00	240	60	50,0	39,0	2R28041	1.414,48	2.828,96
M 72,00 x 1,50	160	36	50,0	39,0	2R28042	1.243,50	2.487,00
M 72,00 x 2,00	160	40	50,0	39,0	2R28043	1.243,50	2.487,00
M 72,00 x 3,00	200	50	50,0	39,0	2R28044	1.414,48	2.828,96
M 72,00 x 4,00	240	60	50,0	39,0	2R28045	1.414,48	2.828,96
M 74,00 x 1,50	160	36	50,0	39,0	2R28046	1.367,85	2.735,70
M 74,00 x 2,00	160	40	50,0	39,0	2R28047	1.367,85	2.735,70
M 74,00 x 3,00	200	50	50,0	39,0	2R28048	1.616,55	3.233,11
M 74,00 x 4,00	240	60	50,0	39,0	2R28049	1.616,55	3.233,11
M 75,00 x 1,50	160	36	50,0	39,0	2R28050	1.392,72	2.785,45
M 75,00 x 2,00	160	40	50,0	39,0	2R28051	1.392,72	2.785,45
M 75,00 x 3,00	200	50	50,0	39,0	2R28052	1.647,64	3.295,28
M 75,00 x 4,00	240	60	50,0	39,0	2R28053	1.647,64	3.295,28
M 76,00 x 1,50	160	36	50,0	39,0	2R28054	1.414,48	2.828,96
M 76,00 x 2,00	160	40	50,0	39,0	2R28055	1.414,48	2.828,96
M 76,00 x 3,00	220	50	50,0	39,0	2R28056	1.740,90	3.481,80
M 76,00 x 4,00	260	60	50,0	39,0	2R28057	1.740,90	3.481,80
M 78,00 x 1,50	160	36	50,0	39,0	2R28058	1.414,48	2.828,96
M 78,00 x 2,00	160	40	50,0	39,0	2R28059	1.414,48	2.828,96
M 78,00 x 3,00	220	55	50,0	39,0	2R28060	1.735,60	3.471,20
M 78,00 x 4,00	260	65	50,0	39,0	2R28061	1.740,90	3.481,80
M 80,00 x 1,50	160	36	50,0	39,0	2R28062	1.538,83	3.077,67
M 80,00 x 2,00	160	40	50,0	39,0	2R28063	1.538,83	3.077,67
M 80,00 x 3,00	220	55	50,0	39,0	2R28064	1.911,88	3.823,76
M 80,00 x 4,00	260	65	50,0	39,0	2R28065	1.911,88	3.823,76
M 82,00 x 1,50	160	36	50,0	39,0	2R28066	1.538,83	3.077,67
M 82,00 x 2,00	160	40	50,0	39,0	2R28067	1.538,83	3.077,67
M 82,00 x 3,00	220	55	50,0	39,0	2R28068	1.911,88	3.823,76
M 82,00 x 4,00	260	65	50,0	39,0	2R28069	1.911,88	3.823,76
M 84,00 x 1,50	160	36	50,0	39,0	2R28070	1.787,53	3.575,06
M 84,00 x 2,00	160	40	50,0	39,0	2R28071	1.787,53	3.575,06
M 84,00 x 3,00	220	55	50,0	39,0	2R28072	2.176,13	4.352,25
M 84,00 x 4,00	260	65	50,0	39,0	2R28073	2.176,13	4.352,25
M 85,00 x 1,50	160	36	50,0	39,0	2R28074	2.331,57	4.663,13

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13
METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



HSS-G

DIN 2181

TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
M 85,00 x 2,00	160	40	50,0	39,0	2R28075	2.331,57	4.663,13
M 85,00 x 3,00	220	55	50,0	39,0	2R28076	2.828,97	5.657,93
M 85,00 x 4,00	260	65	50,0	39,0	2R28077	2.828,97	5.657,93
M 86,00 x 1,50	160	36	50,0	39,0	2R28078	2.331,57	4.663,13
M 86,00 x 2,00	160	40	50,0	39,0	2R28079	2.331,57	4.663,13
M 86,00 x 3,00	220	55	50,0	39,0	2R28080	2.828,97	5.657,93
M 86,00 x 4,00	260	65	50,0	39,0	2R28081	2.828,97	5.657,93
M 88,00 x 1,50	160	38	50,0	39,0	2R28082	2.533,63	5.067,27
M 88,00 x 2,00	160	40	50,0	39,0	2R28083	2.533,63	5.067,27
M 88,00 x 3,00	220	55	50,0	39,0	2R28084	2.937,77	5.875,54
M 88,00 x 4,00	260	65	50,0	39,0	2R28085	2.937,77	5.875,54
M 90,00 x 1,50	160	38	50,0	39,0	2R28086	2.642,44	5.284,88
M 90,00 x 2,00	160	40	50,0	39,0	2R28087	2.642,44	5.284,88
M 90,00 x 3,00	220	55	50,0	39,0	2R28088	3.139,84	6.279,67
M 90,00 x 4,00	260	65	50,0	39,0	2R28089	3.139,84	6.279,67
M 92,00 x 1,50	180	40	56,0	44,0	2R28090	2.642,44	5.284,88
M 92,00 x 2,00	180	45	56,0	44,0	2R28091	2.642,44	5.284,88
M 92,00 x 3,00	240	60	56,0	44,0	2R28092	3.341,91	6.683,82
M 92,00 x 4,00	280	70	56,0	44,0	2R28093	3.341,91	6.683,82
M 95,00 x 1,50	180	40	56,0	44,0	2R28094	3.383,56	6.767,12
M 95,00 x 2,00	180	45	56,0	44,0	2R28095	3.383,56	6.767,12
M 95,00 x 3,00	240	60	56,0	44,0	2R28096	3.808,22	7.616,45
M 95,00 x 4,00	280	70	56,0	44,0	2R28097	3.808,22	7.616,45
M 96,00 x 1,50	180	40	56,0	44,0	2R28098	2.875,59	5.751,19
M 96,00 x 2,00	180	45	56,0	44,0	2R28099	2.875,59	5.751,19
M 96,00 x 3,00	240	60	56,0	44,0	2R28100	3.808,22	7.616,45
M 96,00 x 4,00	280	70	56,0	44,0	2R28101	3.808,22	7.616,45
M 98,00 x 1,50	180	40	56,0	44,0	2R28102	4.632,04	9.264,08
M 98,00 x 2,00	180	45	56,0	44,0	2R28103	4.632,04	9.264,08
M 98,00 x 3,00	240	60	56,0	44,0	2R28104	4.041,38	8.082,75
M 98,00 x 4,00	280	70	56,0	44,0	2R28105	4.041,38	8.082,75
M 100,00 x 1,50	180	45	56,0	44,0	2R28106	3.512,89	7.025,78
M 100,00 x 2,00	180	50	56,0	44,0	2R28107	3.512,89	7.025,78
M 100,00 x 3,00	240	65	56,0	44,0	2R28108	4.274,53	8.549,06
M 100,00 x 4,00	280	75	56,0	44,0	2R28109	4.274,53	8.549,06
M 105,00 x 1,50	180	45	56,0	44,0	2R28110	3.808,22	7.616,45
M 105,00 x 2,00	180	50	56,0	44,0	2R28111	3.808,22	7.616,45
M 105,00 x 3,00	240	65	56,0	44,0	2R28112	4.585,41	9.170,82
M 105,00 x 4,00	280	75	56,0	44,0	2R28113	4.585,41	9.170,82
M 110,00 x 1,50	180	45	56,0	44,0	2R28114	4.212,36	8.424,71
M 110,00 x 2,00	180	50	56,0	44,0	2R28115	4.212,36	8.424,71
M 110,00 x 3,00	240	65	56,0	44,0	2R28116	5.176,07	10.352,14
M 110,00 x 4,00	280	75	56,0	44,0	2R28117	5.176,07	10.352,14

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

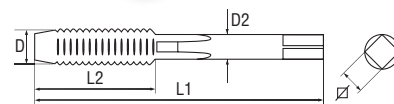
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BSW

JUEGOS DE MACHOS WHITWORTH BS 84
 METRIC HAND TAPS WHITWORTH BS 84
 JEUX DE TARAUDS À MAIN WHITWORTH


HSS-G
DIN 351
≈DIN 352

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
1/16 x 60	36	10	2,5	2,1	2R22302	13,34	40,01
3/32 x 48	36	10	2,8	2,1	2R22304	10,48	31,43
1/8 x 40	40	12	3,5	2,7	2R22306	7,99	23,98
5/32 x 32	45	14	4,5	3,4	2R22308	7,99	23,98
3/16 x 24	50	18	6,0	4,9	2R22310	7,99	23,98
7/32 x 24	50	18	6,0	4,9	2R22312	10,48	31,43
1/4 x 20	50	19	6,0	4,9	2R22314	8,64	25,92
5/16 x 18	56	22	6,0	4,9	2R22316	9,98	29,93
3/8 x 16	70	24	7,0	5,5	2R22318	11,23	33,70
7/16 x 14	70	24	8,0	6,2	2R22320	14,51	43,54
1/2 x 12	75	29	9,0	7,0	2R22322	16,42	49,25
9/16 x 12	80	30	11,0	9,0	2R22324	22,68	68,05
5/8 x 11	80	32	12,0	9,0	2R22326	25,85	77,54
3/4 x 10	95	40	14,0	11,0	2R22330	34,99	104,96
7/8 x 9	100	40	18,0	14,5	2R22334	43,74	131,21
1 x 8	110	50	18,0	14,5	2R22338	58,31	174,93
1.1/8 x 7	132	56	22,0	18,0	2R22342	90,14	270,41
1.1/4 x 7	132	56	22,0	18,0	2R22346	95,29	285,88
1.3/8 x 6	150	63	28,0	22,0	2R22350	128,78	386,33
1.1/2 x 6	150	63	32,0	24,0	2R22354	151,95	455,85
1.5/8 x 5	160	70	32,0	24,0	2R22358	254,96	764,88
1.3/4 x 5	160	70	36,0	29,0	2R22362	273,00	818,99
1.7/8 x 4.1/2	190	80	36,0	29,0	2R22366	365,71	1.097,12
2 x 4.1/2	190	80	40,0	32,0	2R22370	370,85	1.112,56
2.1/4 x 4	220	80	45,0	35,0	2R22372	716,92	2.150,77
2.1/2 x 4	220	80	50,0	39,0	2R22374	923,49	2.770,47
2.3/4 x 3.1/2	240	80	50,0	39,0	2R22376	2.357,33	7.071,99
3 x 3.1/2	260	80	50,0	39,0	2R22378	3.037,80	9.113,39

 CONSTRUCCIÓN
 CONSTRUCTION • CONSTRUCTION

 MADERA
 WOOD • BOIS

 METAL
 METAL • MÉTAL

 FRESADO
 MILLING • FRAISAGE

 ROSCADO
 THREADING • FILETAGE

 ACCESORIOS
 ACCESSORIES • ACCESSOIRES

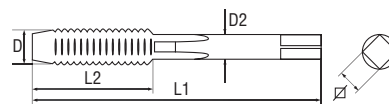
 HEXAGONAL
 HEXAGONAL • HEXAGONAL

 METROLOGÍA
 METROLOGY • MÉTROLOGIE

 DISPLAYS
 DISPLAYS • DISPLAYS

BSF

JUEGOS DE MACHOS ROSCA BRITÁNICA STANDARD FINA BS 84
BRITISH STANDARD FINE THREAD BS 84
JEUX DE TARAUDS À MAIN FILETAGE WHITWORTH BS 84



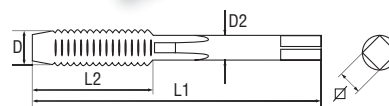
HSS-G

≈DIN 2181

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
3/16 x 32	50	14	6,0	4,9	2R22710	26,40	52,81
1/4 x 26	50	18	6,0	4,9	2R22714	18,37	36,74
5/16 x 22	56	22	6,0	4,9	2R22716	19,14	38,27
3/8 x 20	63	22	7,0	5,5	2R22718	22,96	45,93
7/16 x 18	63	22	8,0	6,2	2R22720	29,09	58,18
1/2 x 16	75	24	9,0	7,0	2R22722	34,44	68,88
9/16 x 16	80	28	11,0	9,0	2R22724	38,27	76,54
5/8 x 14	80	28	12,0	9,0	2R22726	53,57	107,15
3/4 x 12	95	32	14,0	11,0	2R22730	76,53	153,06
7/8 x 11	100	36	18,0	14,5	2R22734	95,67	191,34
1 x 10	110	40	18,0	14,5	2R22738	114,80	229,60

BA

JUEGOS DE MACHOS ENTRADA CÓNICA BA, BS 93
BA THREAD BS 93
JEUX DE TARAUDS À MAIN FILETAGE BA, BS 93



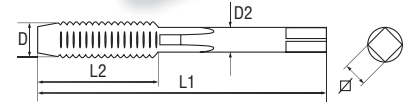
HSS-G

BA ISO 529

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Set
BA 0 x 1,00	66	19,0	6,30	5,00	2R89400	96,52
BA 1 x 0,90	62	17,0	5,60	4,50	2R89401	96,52
BA 2 x 0,81	58	16,0	5,00	4,00	2R89402	96,52
BA 3 x 0,73	53	13,0	4,50	3,55	2R89403	96,52
BA 4 x 0,66	50	13,0	3,55	2,80	2R89404	96,52
BA 5 x 0,59	48	11,0	3,15	2,50	2R89405	96,52
BA 6 x 0,53	45	9,5	2,80	2,24	2R89406	96,52

UNC

JUEGOS DE MACHOS ROSCA GRUESA UNIFICADA ANSI B 1.1
 UNIFIED COARSE THREAD ANSI B 1.1
 JEUX DE TARAUDS À MAIN FILETAGE UNIFIÉ
 PAS GROS ANSI B 1.1


HSS-G

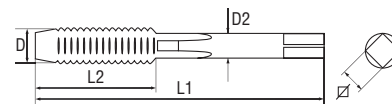
≈DIN 352

TOL 2B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
Nr. 1 x 64	32	10	2,5	2,1	2R23301	24,05	72,16
Nr. 2 x 56	36	11	2,8	2,1	2R23302	21,87	65,61
Nr. 3 x 48	36	11	2,8	2,1	2R23303	21,87	65,61
Nr. 4 x 40	40	12	3,5	2,7	2R23304	14,96	44,89
Nr. 5 x 40	40	12	3,5	2,7	2R23305	14,96	44,89
Nr. 6 x 32	45	14	4,0	3,0	2R23306	17,24	51,71
Nr. 8 x 32	45	14	4,5	3,4	2R23308	17,24	51,71
Nr. 10 x 24	50	16	6,0	4,9	2R23310	17,24	51,71
Nr. 12 x 24	50	18	6,0	4,9	2R23312	17,24	51,71
1/4 x 20	50	19	6,0	4,9	2R23314	11,57	34,71
5/16 x 18	56	22	6,0	4,9	2R23316	13,42	40,27
3/8 x 16	70	24	7,0	5,5	2R23318	14,81	44,44
7/16 x 14	70	24	8,0	6,2	2R23320	19,43	58,30
1/2 x 13	75	29	9,0	7,0	2R23322	23,14	69,43
9/16 x 12	80	30	11,0	9,0	2R23324	26,84	80,52
5/8 x 11	80	32	12,0	9,0	2R23326	32,39	97,18
3/4 x 10	95	40	14,0	11,0	2R23330	41,65	124,96
7/8 x 9	100	40	18,0	14,5	2R23334	53,45	160,36
1 x 8	110	50	18,0	14,5	2R23338	82,61	247,83
1.1/8 x 7	132	56	22,0	18,0	2R23342	92,72	278,15
1.1/4 x 7	132	56	22,0	18,0	2R23346	95,29	285,88
1.3/8 x 6	150	63	28,0	22,0	2R23350	128,78	386,33
1.1/2 x 6	150	63	32,0	24,0	2R23354	162,90	488,69
1.5/8 x 5	160	70	32,0	24,0	2R23358	360,56	1.081,67
1.3/4 x 5	160	70	36,0	29,0	2R23362	360,56	1.081,67
1.7/8 x 4.1/2	190	80	36,0	29,0	2R23366	412,06	1.236,18
2 x 4.1/2	190	80	40,0	32,0	2R23370	384,59	1.153,77

UNF

JUEGOS DE MACHOS ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
JEUX DE TARAUDS À MAIN FILETAGE UNIFIÉ
PAS FIN ANSI B 1.1



HSS-G

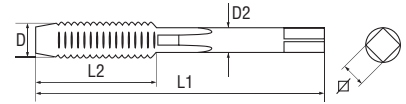
≈DIN 2181

TOL
2B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
Nr. 0 x 80	28	8	2,5	2,1	2R24300	29,88	59,77
Nr. 1 x 72	32	9	2,8	2,1	2R24301	29,88	59,77
Nr. 2 x 64	32	10	2,8	2,1	2R24302	27,27	54,54
Nr. 3 x 56	32	10	2,8	2,1	2R24303	27,27	54,54
Nr. 4 x 48	36	11	3,5	2,7	2R24304	18,37	36,74
Nr. 5 x 44	36	11	3,5	2,7	2R24305	18,37	36,74
Nr. 6 x 40	40	12	4,5	3,4	2R24306	18,37	36,74
Nr. 8 x 36	40	12	4,5	3,4	2R24308	18,37	36,74
Nr. 10 x 32	45	14	6,0	4,9	2R24310	17,49	34,99
Nr. 12 x 28	50	14	6,0	4,9	2R24312	18,37	36,74
1/4 x 28	50	18	6,0	4,9	2R24314	11,01	22,02
5/16 x 24	56	22	6,0	4,9	2R24316	11,66	23,33
3/8 x 24	63	22	7,0	5,5	2R24318	14,90	29,81
7/16 x 20	63	22	8,0	6,2	2R24320	16,20	32,39
1/2 x 20	75	24	9,0	7,0	2R24322	18,79	37,58
9/16 x 18	80	28	11,0	9,0	2R24324	23,78	47,55
5/8 x 18	80	28	12,0	9,0	2R24326	29,15	58,30
3/4 x 16	95	32	14,0	11,0	2R24330	40,26	80,52
7/8 x 14	100	36	18,0	14,5	2R24334	54,67	109,34
1 x 12	110	40	18,0	14,5	2R24338	76,53	153,07
1 x 14	110	40	18,0	14,5	2R24340	87,47	174,93
1.1/8 x 12	110	50	22,0	18,0	2R24342	96,58	193,16
1.1/4 x 12	132	56	22,0	18,0	2R24346	135,20	270,41
1.3/8 x 12	132	56	28,0	22,0	2R24350	212,47	424,94
1.1/2 x 12	150	63	32,0	24,0	2R24354	231,79	463,58

G(BSP)

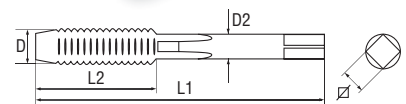
JUEGOS DE MACHOS ROSCA GAS DIN ISO 228
 PIPE THREAD DIN ISO 228
 JEUX DE TARAUDS À MAIN FILETAGE
 PAS GAZ DIN ISO 228


HSS-G
DIN 5157

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
G 1/8 x 28	63	20	7,0	5,5	2R25312	14,63	29,27
G 1/4 x 19	70	22	11,0	9,0	2R25314	19,96	39,91
G 3/8 x 19	70	22	12,0	9,0	2R25316	25,29	50,57
G 1/2 x 14	80	22	16,0	12,0	2R25318	35,92	71,84
G 5/8 x 14	80	22	18,0	14,5	2R25320	46,56	93,12
G 3/4 x 14	90	22	20,0	16,0	2R25322	53,22	106,45
G 7/8 x 14	90	22	22,0	18,0	2R25324	72,89	145,78
G 1 x 11	100	25	25,0	20,0	2R25326	92,05	184,09
G 1.1/8 x 11	125	40	28,0	22,0	2R25330	129,03	258,07
G 1.1/4 x 11	125	40	32,0	24,0	2R25334	154,52	309,05
G 1.3/8 x 11	140	40	36,0	29,0	2R25338	185,43	370,86
G 1.1/2 x 11	140	40	36,0	29,0	2R25342	212,47	424,94
G 1.5/8 x 11	140	40	40,0	32,0	2R25346	370,85	741,71
G 1.3/4 x 11	140	40	40,0	32,0	2R25350	370,85	741,71
G 2 x 11	160	40	45,0	35,0	2R25354	405,62	811,24
G 2.1/4 x 11	160	40	50,0	39,0	2R25358	728,48	1.456,96
G 2.1/2 x 11	160	40	50,0	39,0	2R25362	1.015,44	2.030,88
G 2.3/4 x 11	160	40	50,0	39,0	2R25366	1.406,17	2.812,33
G 3 x 11	160	40	50,0	39,0	2R25370	1.664,75	3.329,51
G 3.1/2 x 11	180	45	56,0	44,0	2R25374	2.614,18	5.228,37
G 4 x 11	180	45	56,0	44,0	2R25378	3.251,47	6.502,95

VG

PARA ROSCAS DE VALVULAS DE NEUMÁTICO DIN 7756
 FOR TIRE VALVES THREADS DIN 7756
 POUR LES VALVES DES PNEUMATIQUES DIN 7756


HSS-G
DIN 2181
TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Set
VG 5 X 36	50	12	6	4,9	2R21501	494,59
VG 5,2 X 24	56	17	6	4,9	2R21502	454,64
VG 6 X 32	56	14	6	4,9	2R21503	516,64
VG 8 X 32	56	16	7	5,5	2R21504	578,64
VG 10 X 28	63	18	8	6,2	2R21505	619,96
VG 12X26	64	22	9	7,0	2R21506	659,41

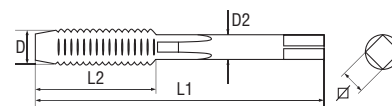
 CONSTRUCCIÓN
 CONSTRUCTION • CONSTRUCTION
 MADERA
 WOOD • BOIS
 METAL
 METAL • METAL
 FRESADO
 MILLING • FRAISAGE
 ROSCADO
 THREADING • FILETAGE
 ACCESORIOS
 ACCESSORIES • ACCESSOIRES
 HEXAGONAL
 HEXAGONAL • HEXAGONAL
 METROLOGÍA
 METROLOGY • MÉTROLOGIE
 DISPLAYS
 DISPLAYS • DISPLAYS

PG ROSCA PARA TUBOS BLINDADOS DIN 40 430
ARMoured TUBE THREAD DIN 40 430
JEUX DE TARAUDS À MAIN FILETAGE ÉLECTRIQUE DIN 40 430



HSS-G

DIN 40432



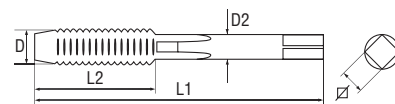
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
PG 7 - 12,50 x 20	70	22	9,0	7,0	2R25707-3	29,33
PG 9 - 15,20 x 18	70	22	12,0	9,0	2R25709-3	36,68
PG 11 - 18,60 x 18	80	22	14,0	11,0	2R25711-3	51,34
PG 13,5 - 20,40 x 18	80	22	16,0	12,0	2R25713-3	60,14
PG 16 - 22,50 x 18	80	22	18,0	14,5	2R25716-3	69,89
PG 21 - 28,30 x 16	90	22	22,0	18,0	2R25721-3	92,38
PG 29 - 37,00 x 16	100	25	28,0	22,0	2R25729-3	156,65
PG 36 - 47,00 x 16	140	40	36,0	29,0	2R25736-3	249,80
PG 48 - 59,30 x 16	160	40	45,0	35,0	2R25748-3	415,47

Equivalencia de roscas PG a roscas Mf
Equivalents of threads PG to threads Mf / Équivalence du pas PG à pas Mf

PG 7	M 12 x 150
PG 9	M 16 x 150
PG 11	M 20 x 150
PG 13,5	M 20 x 150
PG 16	M 25 x 150
PG 21	M 32 x 150
PG 29	M 40 x 150
PG 36	M 50 x 150
PG 48	M 63 x 150

UNEF

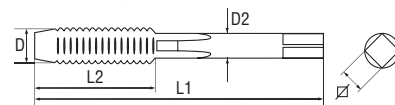
JUEGOS DE MACHOS ROSCA EXTRAFINA UNIFICADA ANSI B 1.1, ENTRADA CÓNICA
 UNIFIED EXTRA FINE THREAD
 ANSI B 1.1, NON SERIAL FORM
 JEUX DE TARAUDS À MAIN FILETAGE UNIFIÉ PAS FIN ANSI B 1.1


HSS-G
ISO 529
TOL 2B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
1/4 x 32	66	19	6.3	5.0	2R83821	35,42	106,26
5/16 x 32	72	22	8.0	6.3	2R83822	41,72	125,15
3/8 x 32	80	24	10.0	8.0	2R83823	47,28	141,83
7/16 x 28	85	25	8.0	6.3	2R83824	58,40	175,21
1/2 x 28	89	29	9.0	7.1	2R83825	67,42	202,27
9/16 x 24	95	30	11.2	9.0	2R83826	70,23	210,69
5/8 x 24	102	32	12.5	10.0	2R83827	103,83	311,49
3/4 x 20	112	37	14.0	11.2	2R83829	135,69	407,07
7/8 x 20	118	38	16.0	12.5	2R83831	155,07	465,21
1"x20	130	45	16.0	14.0	2R83833	187,73	563,20

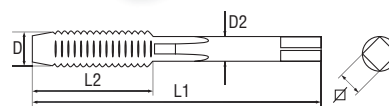
Tr

JUEGOS DE MACHOS ROSCA TRAPEZOIDAL DIN 103
 TRAPEZOIDAL THREAD DIN 103
 JEUX DE TARAUDS À MAIN FILETAGE TRAPÉZOÏDAL DIN 103


HSS-G
TOL 7H

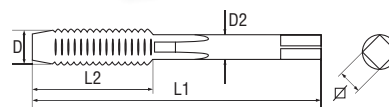
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
Tr 10 x 2	90	34	7	5,5	2R25108	245,69	737,07
Tr 10 x 3	100	40	7	5,5	2R25112	245,69	737,07
Tr 12 x 3	110	40	8	6,2	2R25116	256,37	769,12
Tr 14 x 3	130	45	10	8,0	2R25120	335,72	1.007,17
Tr 14 x 4	130	55	10	8,0	2R25124	335,72	1.007,17
Tr 16 x 4	140	55	11	9,0	2R25128	302,15	906,46
Tr 18 x 4	150	55	12	9,0	2R25132	425,11	1.275,32
Tr 20 x 4	160	55	14	11,0	2R25136	457,81	1.373,42
Tr 22 x 5	175	65	16	12,0	2R25140	582,07	1.746,21
Tr 24 x 5	190	65	18	14,5	2R25144	647,47	1.942,42
Tr 26 x 5	210	70	20	16,0	2R25148	706,33	2.119,00
Tr 28 x 5	220	70	22	18,0	2R25152	771,73	2.315,19
Tr 30 x 6	240	80	22	18,0	2R25156	830,59	2.491,78
Tr 32 x 6	255	80	25	20,0	2R25160	1.007,17	3.021,52

M JUEGO DE MACHOS MÉTRICA COBALTO
COBALT METRIC HAND TAPS
JEUX DE TARAUDS À MAIN COBALT, METRIQUE



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
M 3 x 0,50	40	11	3,5	2,7	2R57326	9,80	29,41
M 4 x 0,70	45	13	4,5	3,4	2R57330	9,80	29,41
M 5 x 0,80	50	16	6,0	4,9	2R57334	9,80	29,41
M 6 x 1,00	50	19	6,0	4,9	2R57338	9,80	29,41
M 8 x 1,25	56	22	6,0	4,9	2R57342	11,06	33,17
M 10 x 1,50	70	24	7,0	5,5	2R57346	14,70	44,09
M 12 x 1,75	75	29	9,0	7,0	2R57350	19,59	58,78
M 14 x 2,00	80	30	11,0	9,0	2R57354	23,90	71,70
M 16 x 2,00	80	32	12,0	9,0	2R57358	31,85	95,54
M 18 x 2,50	95	40	14,0	11,0	2R57362	36,75	110,24
M 20 x 2,50	95	40	16,0	12,0	2R57366	44,09	132,27
M 22 x 2,50	100	40	18,0	14,5	2R57370	56,34	169,02
M 24 x 3,00	110	50	18,0	14,5	2R57374	63,69	191,06
M 27 x 3,00	110	50	20,0	16,0	2R57376	103,57	310,70
M 30 x 3,50	125	56	22,0	18,0	2R57378	143,39	430,18

M JUEGO DE MACHOS MÉTRICA CON PUNTA PILOTO COBALTO
COBALT METRIC HAND TAPS ROUGHER PILOTTED
JEUX DE TARAUDS À MAIN COBALT RECTIFIÉ ETAGÉ

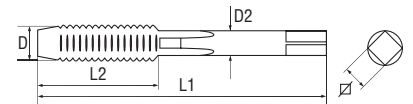


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
M 3 x 0,50	40	11	3,5	2,7	2R57726	19,74	59,23
M 4 x 0,70	45	13	4,5	3,4	2R57730	19,74	59,23
M 5 x 0,80	50	16	6,0	4,9	2R57734	21,17	63,51
M 6 x 1,00	50	19	6,0	4,9	2R57738	21,17	63,51
M 8 x 1,25	56	22	6,0	4,9	2R57742	23,15	69,46
M 10 x 1,50	70	24	7,0	5,5	2R57746	31,04	93,13
M 12 x 1,75	75	29	9,0	7,0	2R57750	42,34	127,01

Mf

JUEGOS DE MACHOS MANO MÉTRICA FINA COBALTO

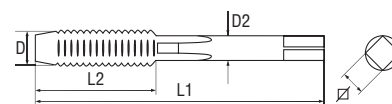
COBALT METRIC FINE HAND TAPS
 JEUX DE TARAUDS À MAIN, METRIQUE FIN



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
M 6 x 0,75	50	14	6,0	4,9	2R56318	19,77	39,55
M 8 x 0,75	50	19	6,0	4,9	2R56324	19,77	39,55
M 8 x 1,00	56	22	6,0	4,9	2R56326	19,77	39,55
M 10 x 1,00	63	20	7,0	5,5	2R56336	21,34	42,68
M 10 x 1,25	70	24	7,0	5,5	2R56338	24,80	49,60
M 12 x 1,00	70	22	9,0	7,0	2R56344	29,83	59,66
M 12 x 1,25	70	22	9,0	7,0	2R56346	29,83	59,66
M 12 x 1,50	70	22	9,0	7,0	2R56348	29,83	59,66
M 14 x 1,25	70	22	11,0	9,0	2R56354	35,49	70,99
M 14 x 1,50	70	22	11,0	9,0	2R56356	31,39	62,78
M 16 x 1,50	70	22	12,0	9,0	2R56366	39,55	79,10
M 18 x 1,50	80	22	14,0	11,0	2R56372	41,43	82,87
M 18 x 2,00	80	22	14,0	11,0	2R56374	54,93	109,86
M 20 x 1,50	80	22	16,0	12,0	2R56384	51,79	103,58
M 20 x 2,00	80	22	16,0	12,0	2R56386	69,06	138,13
M 22 x 1,50	80	22	18,0	14,5	2R56394	64,35	128,70
M 22 x 2,00	80	22	18,0	14,5	2R56396	69,06	138,13
M 24 x 1,50	90	22	18,0	14,5	2R56504	74,22	148,44

G(BSP)

JUEGOS DE MACHOS ROSCA GAS DIN ISO 228 COBALTO
COBALT HAND TAPS PIPE THREAD DIN ISO 228
JEUX DE TARAUDS À MAIN FILETAGE
PAS GAZ DIN ISO 228 COBALT



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
G 1/8 x 28	63	20	7,0	5,5	2R55312	19,77	39,55
G 1/4 x 19	70	22	11,0	9,0	2R55314	23,22	46,45
G 3/8 x 19	70	22	12,0	9,0	2R55316	34,85	69,69
G 1/2 x 14	80	22	16,0	12,0	2R55318	48,02	96,05
G 3/4 x 14	90	22	20,0	16,0	2R55322	65,92	131,84
G 1 x 11	100	25	25,0	20,0	2R55326	106,73	213,46

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

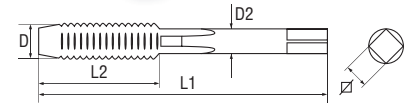
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M

JUEGO DE MACHOS MÉTRICA IZQUIERDAS
 METRIC LEFT HAND TAPS
 JEUX DE TARAUDS À MAIN À GAUCHE, METRIQUE


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
M 3 x 0,50	40	11	3,5	2,7	2R27026	11,92	35,75
M 4 x 0,70	45	13	4,5	3,4	2R27030	11,33	34,00
M 5 x 0,80	50	16	6,0	4,9	2R27034	11,92	35,75
M 6 x 1,00	50	19	6,0	4,9	2R27038	11,92	35,75
M 8 x 1,25	56	22	6,0	4,9	2R27042	13,32	39,97
M 10 x 1,50	70	24	7,0	5,5	2R27046	18,06	54,18
M 12 x 1,75	75	29	9,0	7,0	2R27050	23,64	70,93
M 14 x 2,00	80	30	11,0	9,0	2R27054	28,63	85,89
M 16 x 2,00	80	32	12,0	9,0	2R27058	40,31	120,93
M 18 x 2,50	95	40	14,0	11,0	2R27062	54,23	162,70
M 20 x 2,50	95	40	16,0	12,0	2R27066	57,81	173,43
M 22 x 2,50	100	40	18,0	14,5	2R27070	72,29	216,86
M 24 x 3,00	110	50	18,0	14,5	2R27074	96,38	289,13
M 27 x 3,00	110	50	20,0	16,0	2R27076	121,16	363,48
M 30 x 3,50	125	56	22,0	18,0	2R27078	174,72	524,17
M 33 x 3,50	125	56	25,0	20,0	2R27080	230,67	692,01
M 36 x 4,00	150	63	28,0	22,0	2R27082	289,57	868,70
M 39 x 4,00	150	63	32,0	24,0	2R27084	335,21	1.005,62
M 42 x 4,50	150	63	32,0	24,0	2R27086	402,59	1.207,77
M 45 x 4,50	160	70	36,0	29,0	2R27088	461,78	1.385,35
M 48 x 5,00	180	75	36,0	29,0	2R27090	579,13	1.737,39
M 52 x 5,00	180	75	40,0	32,0	2R27092	648,78	1.946,35

 CONSTRUCCIÓN
 CONSTRUCTION • CONSTRUCTION

 MADERA
 WOOD • BOIS

 METAL
 METAL • METAL

 FRESADO
 MILLING • FRAISAGE

 ROSCADO
 THREADING • FILETAGE

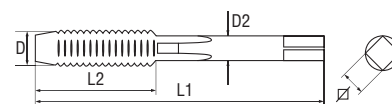
 ACCESORIOS
 ACCESSORIES • ACCESSOIRES

 HEXAGONAL
 HEXAGONAL • HEXAGONAL

 METROLOGÍA
 METROLOGY • MÉTROLOGIE

 DISPLAYS
 DISPLAYS • DISPLAYS

Mf JUEGO DE MACHOS MÉTRICA FINA IZQUIERDAS
FINE METRIC LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, METRIQUE FIN



HSS-G

DIN 2181

TOL

6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
M 6 x 0,75	50	14	6,0	4,9	2R26007	23,36	46,72
M 8 x 0,75	50	19	6,0	4,9	2R26010	28,59	57,17
M 8 x 1,00	56	22	6,0	4,9	2R26011	22,26	44,52
M 10 x 1,00	63	20	7,0	5,5	2R26015	23,47	46,94
M 10 x 1,25	70	24	7,0	5,5	2R26016	26,26	52,52
M 12 x 1,00	70	22	9,0	7,0	2R26020	38,57	77,15
M 12 x 1,25	70	22	9,0	7,0	2R26021	38,57	77,15
M 12 x 1,50	70	22	9,0	7,0	2R26022	34,02	68,04
M 14 x 1,25	70	22	11,0	9,0	2R26027	50,01	100,01
M 14 x 1,50	70	22	11,0	9,0	2R26028	40,00	80,00
M 16 x 1,00	70	22	12,0	9,0	2R26031	65,00	130,00
M 16 x 1,50	70	22	12,0	9,0	2R26033	48,65	97,30
M 18 x 1,50	80	22	14,0	11,0	2R26036	61,91	123,82
M 20 x 1,50	80	22	16,0	12,0	2R26040	81,27	162,54
M 22 x 1,50	80	22	18,0	14,5	2R26045	88,58	177,17
M 24 x 1,50	90	22	18,0	14,5	2R26050	118,00	235,99
M 24 x 2,00	90	22	18,0	14,5	2R26051	128,58	257,17
M 30 x 1,50	90	22	22,0	18,0	2R26063	201,43	402,86
M 30 x 2,00	90	22	22,0	18,0	2R26064	228,57	457,14

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

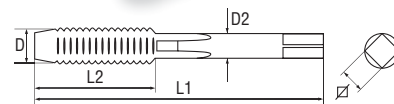
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

UNC

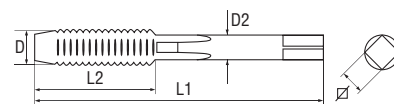
JUEGO DE MACHOS ROSCA UNIFICADA ANSI B 1.1 IZQUIERDAS
 UNC LEFT HAND TAPS
 JEUX DE TARAUDS À MAIN À GAUCHE, UNC



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
UNC Nr. 6 x 32	45	14	4,0	3,0	2R23006	36,93	110,80
UNC Nr. 8 x 32	45	14	4,5	3,4	2R23008	36,93	110,80
UNC Nr. 10 x 24	50	16	6,0	4,9	2R23010	36,93	110,80
UNC Nr. 12 x 24	50	18	6,0	4,9	2R23012	36,93	110,80
UNC 1/4 x 20	50	19	6,0	4,9	2R23014	24,30	72,89
UNC 5/16 x 18	56	22	6,0	4,9	2R23016	28,19	84,58
UNC 3/8 x 16	70	24	7,0	5,5	2R23018	31,11	93,32
UNC 7/16 x 14	70	24	6,2	6,2	2R23020	40,81	122,44
UNC 1/2 x 13	75	29	9,0	7,0	2R23022	48,60	145,80
UNC 9/16 x 12	80	30	11,0	9,0	2R23024	56,36	169,09
UNC 5/8 x 11	80	32	12,0	9,0	2R23026	68,02	204,07
UNC 3/4 x 10	95	40	14,0	11,0	2R23030	100,59	301,76
UNC 7/8 x 9	100	40	18,0	14,5	2R23034	112,25	336,75
UNC 1 x 8	110	50	18,0	14,5	2R23038	173,48	520,45

UNF

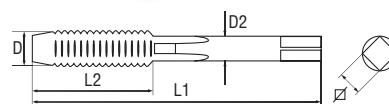
JUEGO DE MACHOS ROSCA FINA UNIFICADA ANSI B 1.1 IZQUIERDAS
 UNF LEFT HAND TAPS
 JEUX DE TARAUDS À MAIN À GAUCHE, UNF



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
Nr. 10 x 32	45	14	6,0	4,9	2R24010	34,28	68,57
UNF 1/4 x 28	50	18	6,0	4,9	2R24014	24,78	49,57
UNF 5/16 x 24	56	22	6,0	4,9	2R24016	26,24	52,48
UNF 3/8 x 24	63	22	7,0	5,5	2R24018	33,54	67,08
UNF 7/16 x 20	63	22	8,0	6,2	2R24020	36,44	72,89
UNF 1/2 x 20	75	24	9,0	7,0	2R24022	42,29	84,58
UNF 9/16 x 18	80	28	11,0	9,0	2R24024	53,49	106,98
UNF 5/8 x 18	80	28	12,0	9,0	2R24026	65,60	131,19
UNF 3/4 x 16	95	32	14,0	11,0	2R24030	84,54	169,09
UNF 7/8 x 14	100	36	18,0	14,5	2R24034	114,80	229,60
UNF 1 x 12	110	40	18,0	14,5	2R24038	160,72	321,44

BSW

JUEGO DE MACHOS WHITWORTH BS 84 IZQUIERDAS
WHITWORTH BS 84 LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, WHITWORTH BS 84



HSS-G

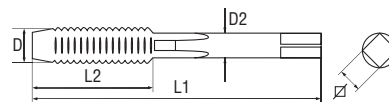
≈DIN 351



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
BSW 1/8 x 40	40	12	3,5	2,7	2R22006	16,78	50,34
BSW 5/32 x 32	45	14	4,5	3,4	2R22008	16,78	50,34
BSW 3/16 x 24	50	18	6,0	4,9	2R22010	16,78	50,34
BSW 1/4 x 20	50	19	6,0	4,9	2R22014	18,62	55,87
BSW 5/16 x 18	56	22	6,0	4,9	2R22016	21,52	64,55
BSW 3/8 x 16	70	24	7,0	5,5	2R22018	25,27	75,80
BSW 7/16 x 14	70	24	8,0	6,2	2R22020	32,66	97,97
BSW 1/2 x 12	75	29	9,0	7,0	2R22022	36,93	110,78
BSW 9/16 x 12	80	30	11,0	9,0	2R22024	51,03	153,10
BSW 5/8 x 11	80	32	12,0	9,0	2R22026	58,16	174,48
BSW 3/4 x 10	95	40	14,0	11,0	2R22030	73,47	220,42
BSW 7/8 x 9	100	40	18,0	14,5	2R22034	91,85	275,54
BSW 1 x 8	110	50	18,0	14,5	2R22038	122,45	367,36

G(BSP)

JUEGO DE MACHOS ROSCA GAS DIN ISO 228 IZQUIERDAS
BSP LEFT HAND TAP SETS
JEUX DE TARAUDS À MAIN À GAUCHE, BSP



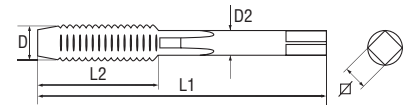
HSS-G

DIN 5157



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.	€/Set
G 1/8 x 28	63	20	7,0	5,5	2R25012	29,94	59,87
G 1/4 x 19	70	22	11,0	9,0	2R25014	40,82	81,64
G 3/8 x 19	70	22	12,0	9,0	2R25016	51,70	103,40
G 1/2 x 14	80	22	16,0	12,0	2R25018	73,47	146,94
G 5/8 x 14	80	22	18,0	14,5	2R25020	102,05	204,10
G 3/4 x 14	90	22	20,0	16,0	2R25022	116,62	233,24
G 1 x 11	100	25	25,0	20,0	2R25026	193,29	386,58
G 1.1/8 x 11	125	40	28,0	22,0	2R25030	255,63	511,27
G 1.1/4 x 11	125	40	32,0	24,0	2R25034	306,21	612,43
G 1.3/8 x 11	140	40	36,0	29,0	2R25038	367,35	734,71
G 1.1/2 x 11	140	40	36,0	29,0	2R25042	420,93	841,86
G 1.3/4 x 11	140	40	40,0	32,0	2R25050	734,71	1.469,41
G 2 x 11	160	40	45,0	35,0	2R25054	803,59	1.607,18

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13



PUNTA EN ESPIRAL (PASANTE) • SPIRAL POINT (THROUGH) • POINTE SPIRALE (INTERNE)



HSS-CO 5%

DIN 352

FORM B

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	40	11	3,5	2,7	3R61526	10,39
M 4 x 0,70	45	13	4,5	3,4	3R61530	10,39
M 5 x 0,80	48	16	6,0	4,9	3R61534	10,39
M 6 x 1,00	50	19	6,0	4,9	3R61538	10,39
M 8 x 1,25	56	22	6,0	4,9	3R61542	12,34
M 10 x 1,50	70	24	7,0	5,5	3R61546	15,58
M 12 x 1,75	75	29	9,0	7,0	3R61550	20,12
M 14 x 2,00	80	30	11,0	9,0	3R61554	25,33
M 16 x 2,00	80	32	12,0	9,0	3R61558	30,82
M 18 x 2,50	95	40	14,0	11,0	3R61562	40,54
M 20 x 2,50	95	40	16,0	12,0	3R61566	47,05
M 22 x 2,50	100	40	18,0	14,5	3R61570	58,40
M 24 x 3,00	110	50	18,0	14,5	3R61574	68,14

HELICOIDAL 35° (CIEGO) • 35° SPIRAL FLUTE (BLIND) • HÉLICOÏDAL (AVEUGLE)



HSS-CO 5%

DIN 352

FORM C/35°

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	40	11	3,5	2,7	3R61726	12,66
M 4 x 0,70	45	13	4,5	3,4	3R61730	12,66
M 5 x 0,80	48	16	6,0	4,9	3R61734	12,66
M 6 x 1,00	50	19	6,0	4,9	3R61738	12,66
M 8 x 1,25	56	22	6,0	4,9	3R61742	14,58
M 10 x 1,50	70	24	7,0	5,5	3R61746	18,49
M 12 x 1,75	75	29	9,0	7,0	3R61750	23,36

CON DIENTE ALTERNO (PASANTE) • WIHT INTERRUPTED THREADS (THROUGH) • AVEC ALTERNANCE DENT (INTERNE)



HSS-CO 5%

DIN 352

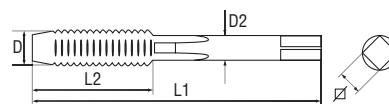
FORM B-AZ

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	40	11	3,5	2,7	3R61926	15,88
M 4 x 0,70	45	13	4,5	3,4	3R61930	15,88
M 5 x 0,80	48	16	6,0	4,9	3R61934	15,88
M 6 x 1,00	50	19	6,0	4,9	3R61938	15,88
M 8 x 1,25	56	22	6,0	4,9	3R61942	17,19
M 10 x 1,50	70	24	7,0	5,5	3R61946	21,09
M 12 x 1,75	75	29	9,0	7,0	3R61950	24,66

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13



FORMA B • FORM B • FORME B



HSS-G

ISO 529

FORM B

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 2,0 x 0,40	41,0	8,0	2,50	2,00	3R80516	13,72
M 2,5 x 0,45	44,5	9,5	2,80	2,24	3R80522	13,72
M 2,6 x 0,45	44,5	9,5	2,90	2,24	3R80524	13,72
M 3,0 x 0,50	48,0	11,0	3,15	2,50	3R80526	8,08
M 3,5 x 0,60	50,0	13,0	3,55	2,80	3R80528	8,58
M 4,0 x 0,70	53,0	13,0	4,00	3,15	3R80530	8,08
M 5,0 x 0,80	58,0	16,0	5,00	4,00	3R80534	8,82
M 6,0 x 1,00	66,0	19,0	6,30	5,00	3R80538	9,07
M 8,0 x 1,25	72,0	22,0	8,00	6,30	3R80542	11,52
M 10,0 x 1,50	80,0	24,0	10,00	8,00	3R80546	14,21
M 12,0 x 1,75	89,0	29,0	9,00	7,10	3R80550	20,10
M 14,0 x 2,00	95,0	30,0	11,20	9,00	3R80554	22,78
M 16,0 x 2,00	102,0	32,0	12,50	10,00	3R80558	28,18
M 18,0 x 2,50	110,0	37,0	14,00	11,20	3R80562	40,42
M 20,0 x 2,50	112,0	37,0	14,00	11,20	3R80566	45,33
M 22,0 x 2,50	118,0	38,0	16,00	12,50	3R80570	53,91
M 24,0 x 3,00	130,0	45,0	18,00	14,00	3R80574	61,26
M 27,0 x 3,00	135,0	45,0	20,00	16,00	3R80576	85,75
M 30,0 x 3,50	138,0	48,0	20,00	16,00	3R80578	112,72

CON DIENTE ALTERNO (PASANTE)
WIHT INTERRUPTED THREADS (THROUGH)
AVEC ALTERNANCE DENT (INTERNE)



HSS-G

ISO 529

FORM B-AZ

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	48,0	11,0	3,15	2,50	3R80926	12,24
M 4 x 0,70	53,0	13,0	4,00	3,15	3R80930	11,90
M 5 x 0,80	58,0	16,0	5,00	4,00	3R80934	12,75
M 6 x 1,00	66,0	19,0	6,30	5,00	3R80938	12,75
M 7 x 1,00	66,0	19,0	7,10	5,60	3R80940	15,42
M 8 x 1,25	72,0	22,0	8,00	6,30	3R80942	13,47
M 10 x 1,50	80,0	24,0	10,00	8,00	3R80946	16,86
M 12 x 1,75	89,0	29,0	9,00	7,10	3R80950	21,33
M 14 x 2,00	95,0	30,0	11,20	9,00	3R80954	29,16
M 16 x 2,00	102,0	32,0	12,50	10,00	3R80958	32,58
M 18 x 2,50	110,0	37,0	14,00	11,20	3R80962	49,00
M 20 x 2,50	112,0	37,0	14,00	11,20	3R80966	56,35
M 22 x 2,50	118,0	38,0	16,00	12,50	3R80970	63,67
M 24 x 3,00	130,0	45,0	18,00	14,00	3R80974	71,05

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

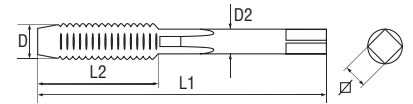
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13

FORMA C/35° RPS • FORM C/35° RPS



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 2,5 x 0,45	44,5	9,5	2,80	2,24	3R80722	17,65
M 2,6 x 0,45	44,5	9,5	2,90	2,24	3R80724	17,65
M 3,0 x 0,50	48,0	11,0	3,15	2,50	3R80726	10,53
M 4,0 x 0,70	53,0	13,0	4,00	3,15	3R80730	10,53
M 5,0 x 0,80	58,0	16,0	5,00	4,00	3R80734	10,53
M 6,0 x 1,00	66,0	19,0	6,30	5,00	3R80738	10,77
M 8,0 x 1,25	72,0	22,0	8,00	6,30	3R80742	12,75
M 10,0 x 1,50	80,0	24,0	10,00	8,00	3R80746	16,42
M 12,0 x 1,75	89,0	29,0	9,00	7,10	3R80750	21,33
M 14,0 x 2,00	95,0	30,0	11,20	9,00	3R80754	29,16
M 16,0 x 2,00	102,0	32,0	12,50	10,00	3R80758	32,58
M 18,0 x 2,50	110,0	37,0	14,00	11,20	3R80762	49,00
M 20,0 x 2,50	112,0	37,0	14,00	11,20	3R80766	56,35
M 22,0 x 2,50	118,0	38,0	16,00	12,00	3R80770	63,70
M 24,0 x 3,00	130,0	45,0	18,00	14,00	3R80774	71,05
M 27,0 x 3,00	135,0	45,0	20,00	16,00	3R80776	102,91
M 30,0 x 3,50	138,0	48,0	20,00	16,00	3R80778	134,77

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

Mf MÉTRICA FINA ISO ROSCA DIN 13
METRIC FINE ISO THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13

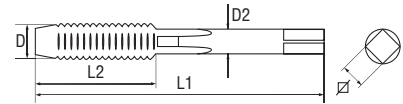


HSS-G

DIN 2181

FORM
D

TOL
6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 6 x 0,75	50	14	6,0	4,9	3R66318	15,11
M 8 x 0,75	50	19	6,0	4,9	3R66324	15,11
M 8 x 1,00	56	22	6,0	4,9	3R66326	15,11
M 9 x 0,75	56	19	7,0	5,5	3R66328	16,88
M 9 x 1,00	63	20	7,0	5,5	3R66330	16,88
M 10 x 0,75	63	20	7,0	5,5	3R66332	16,88
M 10 x 1,00	63	20	7,0	5,5	3R66336	15,11
M 10 x 1,25	70	24	7,0	5,5	3R66338	16,89
M 12 x 1,00	70	22	9,0	7,0	3R66344	21,87
M 12 x 1,25	70	22	9,0	7,0	3R66346	21,87
M 12 x 1,50	70	22	9,0	7,0	3R66348	20,25
M 13 x 1,00	70	22	11,0	9,0	3R66350	33,75
M 13 x 1,50	70	22	11,0	9,0	3R66351	33,75
M 14 x 1,00	70	22	11,0	9,0	3R66353	33,75
M 14 x 1,25	70	22	11,0	9,0	3R66354	25,41
M 14 x 1,50	70	22	11,0	9,0	3R66356	21,87
M 15 x 1,50	70	22	12,0	9,0	3R66360	37,30
M 16 x 1,50	70	22	12,0	9,0	3R66366	27,00
M 18 x 1,00	80	22	14,0	11,0	3R66370	40,51
M 18 x 1,50	80	22	14,0	11,0	3R66372	30,53
M 20 x 1,50	80	22	16,0	12,0	3R66384	37,29
M 20 x 2,00	80	22	16,0	12,0	3R66386	50,79
M 22 x 1,50	80	22	18,0	14,5	3R66394	47,58
M 22 x 2,00	80	22	18,0	14,5	3R66396	50,79
M 24 x 1,50	90	22	18,0	14,5	3R66504	51,42
M 24 x 2,00	90	22	18,0	14,5	3R66506	67,50
M 25 x 1,50	90	22	18,0	14,5	3R66508	101,25
M 26 x 1,50	90	22	18,0	14,5	3R66512	95,52
M 27 x 1,50	90	22	20,0	16,0	3R66517	95,52
M 28 x 1,50	90	22	20,0	16,0	3R66522	115,23
M 30 x 1,50	90	22	22,0	18,0	3R66530	127,38
M 30 x 2,00	90	22	22,0	18,0	3R66532	127,37
M 32 x 1,50	90	22	22,0	18,0	3R66536	127,38

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

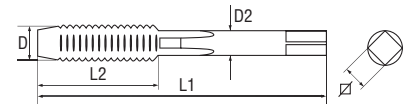
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BSW

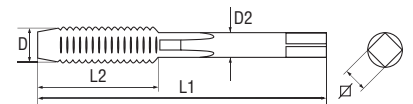
WHITWORTH BS 84
 WHITWORTH THREAD BS 84
 FILETAGE WHITWORTH BS 84


HSS-G
DIN 351
≈DIN 352
FORM D


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
1/8 x 40	40	12	3,5	2,7	3R62306	10,93
3/16 x 24	50	18	6,0	4,9	3R62310	10,93
1/4 x 20	50	19	6,0	4,9	3R62314	10,93
5/16 x 18	56	22	6,0	4,9	3R62316	11,89
3/8 x 16	70	24	7,0	5,5	3R62318	13,51
7/16 x 14	70	24	8,0	6,2	3R62320	16,89
1/2 x 12	75	29	9,0	7,0	3R62322	20,25
9/16 x 12	80	30	11,0	9,0	3R62324	26,35
5/8 x 11	80	32	12,0	9,0	3R62326	29,88
3/4 x 10	95	40	14,0	11,0	3R62330	39,86
7/8 x 9	100	40	18,0	14,5	3R62334	49,20
1 x 8	110	50	18,0	14,5	3R62338	59,15

G(BSP)

GAS DIN ISO 228
 BSP PIPE THREAD DIN ISO 228
 FILETAGE PAS GAZ DIN ISO 228


HSS-G
DIN 5157
FORM D


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
G 1/8 x 28	63	20	7	5,5	3R65312	14,46
G 1/4 x 19	70	22	11	9,0	3R65314	16,07
G 3/8 x 19	70	22	12	9,0	3R65316	23,78
G 1/2 x 14	80	22	16	12,0	3R65318	30,54
G 3/4 x 14	90	22	20	16,0	3R65322	44,03
G 1 x 11	100	25	25	20,0	3R65326	76,20
G 1.1/4 x 11	125	40	32	24,0	3R65334	126,97
G 1.1/2 x 11	140	40	32	29,0	3R65342	160,72
G 1.3/4 x 11	140	40	40	32,0	3R65350	337,50
G 2 x 11	160	40	45	35,0	3R65354	337,51
G 2.1/4 x 11	160	40	50	39,0	3R65358	804,93
G 2.1/2 x 11	160	40	50	39,0	3R65362	917,15
G 2.3/4 x 11	160	40	50	39,0	3R65366	1.461,34
G 3 x 11	160	40	50	39,0	3R65370	1.700,30
G 3.1/2 x 11	180	45	56	44,0	3R65374	2.658,84
G 4 x 11	180	45	56	44,0	3R65378	3.311,44

UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1 UNC
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1

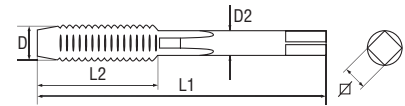


HSS-G

≈DIN 352

FORM
D

TOL
2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
1/4 x 20	50	19	6,0	4,9	3R63314	10,93
5/16 x 18	56	22	6,0	4,9	3R63316	11,89
3/8 x 16	70	24	7,0	5,5	3R63318	13,51
7/16 x 14	70	24	8,0	6,2	3R63320	16,88
1/2 x 13	75	29	9,0	7,0	3R63322	20,25
19/16 x 12	80	30	11,0	9,0	3R63324	26,36
5/8 x 11	80	32	12,0	9,0	3R63326	29,88
3/4 x 10	95	40	14,0	11,0	3R63330	39,86
7/8 x 9	100	40	18,0	14,5	3R63334	49,20
1 x 8	110	50	18,0	14,5	3R63338	59,15

UNF

ROSCA FINA UNIFICADA ANSI B 1.1 UNF
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1

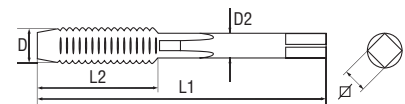


HSS-G

≈DIN 352

FORM
D

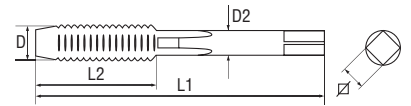
TOL
2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
1/4 x 28	50	18	6,0	4,9	3R64314	10,93
5/16 x 24	56	22	6,0	4,9	3R64316	11,89
3/8 x 24	63	22	7,0	5,5	3R64318	13,51
7/16 x 20	63	22	8,0	6,2	3R64320	16,89
1/2 x 20	75	24	9,0	7,0	3R64322	20,25
19/16 x 18	80	28	11,0	9,0	3R64324	26,36
5/8 x 18	80	28	12,0	9,0	3R64326	29,88
3/4 x 16	95	32	14,0	11,0	3R64330	39,86
7/8 x 14	100	36	18,0	14,5	3R64334	49,20
1 x 12	110	40	18,0	14,5	3R64338	59,15

NPT ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16

NPT AMERICAN TAPERED THREAD, TAPER 1:16
FILETAGE AMERICAIN NPT CONICITÉ 1:16



HSS-G

FORM C



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
NPT 1/16 x 27	65	19	7,0	5,5	3R63510	39,36
NPT 1/8 x 27	65	19	7,0	5,5	3R63512	32,79
NPT 1/4 x 18	70	25	11,0	9,0	3R63514	35,92
NPT 3/8 x 18	75	26	12,0	9,0	3R63516	49,97
NPT 1/2 x 14	80	31	16,0	12,0	3R63518	62,46
NPT 3/4 x 14	100	33	20,0	16,0	3R63522	82,14
NPT 1 x 11.5	110	38	25,0	20,0	3R63526	131,19
NPT 1.1/4 x 11.5	125	41	32,0	24,0	3R63534	196,78
NPT 1.1/2 x 11.5	140	42	36,0	29,0	3R63542	368,56
NPT 2 x 11.5	160	44	36,0	35,0	3R63554	452,89



HSS-G

FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
NPT 1/16 x 27	55	17,5	8,0	6,0	3R98502	49,35
NPT 1/8 x 27	55	19,0	8,0	6,0	3R98506	39,36
NPT 1/4 x 18	62	28,0	11,0	9,0	3R98514	39,36
NPT 3/8 x 18	65	28,0	14,0	11,0	3R98518	59,36
NPT 1/2 x 14	80	35,0	18,0	14,0	3R98522	74,03
NPT 3/4 x 14	85	35,0	23,0	17,0	3R98530	98,70
NPT 1 x 11.5	95	45,0	26,0	21,0	3R98538	158,04
NPT 1.1/4 x 11.5	105	45,0	32,0	26,0	3R98546	279,36
NPT 1.1/2 x 11.5	110	45,0	38,0	29,0	3R98554	393,55
NPT 2 x 11.5	120	50,0	46,0	35,0	3R98570	493,51



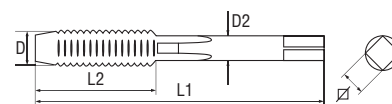
HSS-G

FORM C/35°



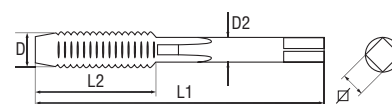
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
NPT 1/16 x 27	55	17,5	6,0	6,0	3R98702	49,35
NPT 1/8 x 27	55	19,0	8,0	6,0	3R98706	39,36
NPT 1/4 x 18	62	28,0	11,0	9,0	3R98714	39,36
NPT 3/8 x 18	65	28,0	14,0	11,0	3R98718	59,36
NPT 1/2 x 14	80	35,0	18,0	14,0	3R98722	74,03
NPT 3/4 x 14	85	35,0	23,0	17,0	3R98730	98,70
NPT 1 x 11.5	95	45,0	26,0	21,0	3R98738	158,04
NPT 1.1/4 x 11.5	105	45,0	32,0	26,0	3R98746	237,36
NPT 1.1/2 x 11.5	110	45,0	38,0	29,0	3R98754	393,55
NPT 2 x 11.5	120	50,0	46,0	35,0	3R98770	493,51

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



D Ø x P (mm)	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
M 3 x 0,50	2,5	36	3R67226	17,49
M 4 x 0,70	3,3	39	3R67230	17,49
M 5 x 0,80	4,2	41	3R67234	17,49
M 6 x 1,00	5,0	44	3R67238	17,49
M 8 x 1,25	6,8	50	3R67242	25,00
M 10 x 1,50	8,5	59	3R67246	29,99

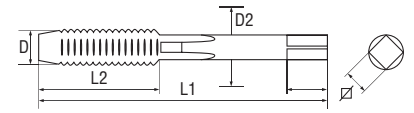
M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



D Ø x P (mm)	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
M 3 x 0,50	2,5	36	3R67210	35,79
M 4 x 0,70	3,3	39	3R67211	35,79
M 5 x 0,80	4,2	41	3R67212	35,79
M 6 x 1,00	5,0	44	3R67213	35,45
M 8 x 1,25	6,8	50	3R67214	48,04
M 10 x 1,50	8,5	59	3R67215	66,26

UNC

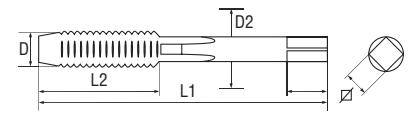
ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
Nr. 4 x 40	2.30	36	3R67280	24,85
Nr. 5 x 40	2.60	36	3R67281	24,85
Nr. 6 x 32	2.85	39	3R67282	24,85
Nr. 8 x 32	3.50	39	3R67283	24,85
Nr. 10 x 24	3.90	41	3R67284	24,85
Nr. 12 x 24	4.50	41	3R67285	24,85
1/4 x 20	5.20	44	3R67286	24,85
5/16 x 18	6.60	50	3R67287	34,78
3/8 x 16	8.00	59	3R67288	41,74

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
Nr. 4 x 48	2.4	36	3R67290	24,85
Nr. 5 x 44	2.7	36	3R67291	24,85
Nr. 6 x 40	3.0	39	3R67292	24,85
Nr. 8 x 36	3.5	39	3R67293	24,85
Nr. 10 x 32	4.1	41	3R67294	24,85
Nr. 12 x 28	4.7	41	3R67295	24,85
1/4 x 28	5.5	44	3R67296	24,85
5/16 x 24	6.9	50	3R67297	34,78
3/8 x 24	8.5	59	3R67298	41,74

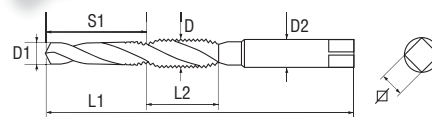
M

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-CO 5%

TOL 6H



D Ø x P (mm)	L1 (mm)	S1 (mm)	L2 (mm)	D1 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	16	11	2.5	3.0	2.4	3R37026	36,49
M 4 x 0,70	63	18	14	3.3	4.0	3.0	3R37030	36,49
M 5 x 0,80	71	20	18	4.2	5.0	3.8	3R37034	36,49
M 6 x 1,00	80	22	22	5.0	6.0	4.9	3R37038	36,49
M 8 x 1,25	95	26	25	6.8	8.0	6.2	3R37042	52,71
M 10 x 1,50	106	30	31	8.5	10.0	8.0	3R37046	60,82
M 12 x 1,75	115	32	35	10.2	12.0	9.0	3R37050	67,58

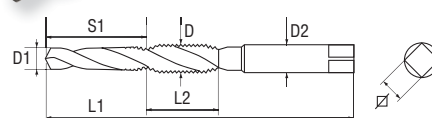
BSW

WHITWORTH BS 84
WHITWORTH BS 84
WHITWORTH BS 84



HSS-CO 5%

TOL 6H



D Ø x P (")	L1 (mm)	S1 (mm)	L2 (mm)	D1 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
1/8 x 40	56	16	11	2.6	3.0	2.4	3R70006	39,20
5/32 x 32	63	18	14	3.2	4.0	3.0	3R70008	39,20
3/16 x 24	71	20	18	3.7	5.0	3.8	3R70010	39,20
1/4 x 20	80	22	22	5.1	6.0	4.9	3R70014	44,22
5/16 x 18	95	26	25	6.5	8.0	6.2	3R70016	50,11
3/8 x 16	106	30	31	7.9	10.0	8.0	3R70018	54,54
1/2 x 12	115	32	35	10.5	12.0	9.0	3R70022	64,85

TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS PARA MACHOS MÁQUINA

MACHINE TAPS APPLICATION GUIDE AND RECOMMENDED CUTTING SPEED

TABLE D'APPLICATIONS ET VITESSE DE COUPE RECOMMANDÉ POUR TARAUDS MACHINE



HSS-CO 5%

HSS-CO 5%

HSS-CO 5%

HSS-CO 5%

TIN

VAP

TOL 6H

TOL 6H

TOL 6H

TOL 6H

FORM B

FORM C

FORM C/35°

FORM B

FORM C/35°

FORM B

FORM C/35°

FORM C/15°

MATERIAL / MATERIAL / MATIÈRE		Resistencia Resistance Resistance N/mm	Pág. 279	Pág. 278	Pág. 286	Pág. 280	Pág. 283	Pág. 280	Pág. 283	Pág. 281
ACEROS STEELS ACIERS	Decoletaje Machining • Décolletage	<500	5 - 15	5 - 15	5 - 15	20 - 30	20 - 30	20 - 30	20 - 30	5 - 15
	Carbono <0,4% <0,4% Carbon • Carbon <0,4%	<850	12 - 18	12 - 18	12 - 18	15 - 20	15 - 20	15 - 25	15 - 25	12 - 18
	Acero para herramientas Steel for tools • Acier pour outils	<1.200								
	Templado - Revenido Tempered - Quenched • Trempé - Revenu	<1.400								
ACEROS INOXIDABLES STAINLESS STEEL ACIER INOXYDABLE	Austeníticos Cr-Ni Cr-Ni Austenitics • Cr-Ni austenitique	<850								
	Martensíticos Cr-Mo Cr-Mo Martensitics • Cr-Mo martensitique	<1.200								
FUNDICIÓN CAST IRON FONTE	Fundición gris Grey cast iron • Fonte grise	<700	10 - 15	10 - 15	10 - 15					
	Fundición dura Hard cast iron • Fonte dur	<1.000								
ALUMINIO ALUMINIUM A LUMINIUM	Puro Pure • Pure	<350								
	Si < 10%	<600	10 - 15		10 - 15	10 - 20	10 - 20	20 - 30	20 - 30	
	Si > 10%	<600	10 - 15		10 - 15			20 - 30	20 - 30	
COBRE COPPER CUIVRE	Zamak Zamak • Zamak	<600								
	Bronce Bronze • Bronze	<350								
	Cobre viruta larga Long chip copper • Cuivre coupage long	<700	15 - 20		15 - 20	15 - 20	15 - 20			
	Cobre viruta corta Short chip copper • Cuivre coupage court	<700								
	Latón duro Hard Brass • Laiton dur	<700	10 - 15		10 - 15	20 - 30	20 - 30			
Latón tenaz Tough Brass • Laiton tenace	<700	10 - 15		10 - 15	10 - 15	10 - 15				
TITANIO TITANIUM TITANE	Puro Pure • Pure	<700								
	Aleaciones de Titanio Titanium alloys • Alliages de titane	<1.200								
SINTÉTICOS PLASTICS PLASTIQUES	Termoplásticos Thermoplastics • Thermoplastique	-	10 - 15		10 - 15	10 - 20	10 - 20			
	Duroplásticos Hard-plastics • Duroplastique	-								

20 - 25

Macho recomendado por SESATOOLS y velocidad de corte
SESA TOOLS recommendation and cutting speed
Foret recommandé par SESA TOOLS et vitesse de coupage

20 - 25

Buen rendimiento y velocidad de corte (RPM)
Good performance and speed of the cut (RPM)
Bon rendement et vitesse de coup recommandée (RPM)



HSS-CO 5%

PM

HL

HSS-E-V3

TIN

HSS-CO 5%

PM

FUTURA

HSS-CO 5%

ALUSPEED

HSS-CO 5%

TIN

TOL
6H

TOL
6H

TOL
6H

TOL
6H

TOL
6H

TOL
6H

TOL
6HX

FORM
B-AZ

FORM
B

FORM
C/35°

FORM
B

FORM
C/35°

FORM
B

FORM
C/39°

FORM
B

FORM
C/35°

FORM
C/15°

FORM
B

FORM
C/45°

LAMINACIÓN
FORMING TAPS
À REFOULER

Pág. 284	Pág. 316	Pág. 316	Pág. 317	Pág. 317	Pág. 318	Pág. 318	Pág. 323	Pág. 323	Pág. 323	Pág. 324	Pág. 324	Pág. 325	Pág. 326
	8 - 10	8 - 10										12 - 25	12 - 25
	8 - 10	8 - 10	8 - 10	8 - 10								15 - 25	15 - 25
	6 - 8	6 - 8	4 - 6	4 - 6									
							3 - 8	3 - 8	3 - 8				
	8 - 14	8 - 14	6 - 10	6 - 10	5 - 10	5 - 10						15 - 25	15 - 25
	6 - 10	6 - 10	4 - 7	4 - 7								10 - 20	10 - 20
			8 - 12	8 - 12									
			7 - 10	7 - 10									
										15 - 35	15 - 35		
10 - 15			12 - 20	12 - 20						15 - 35	15 - 35		
10 - 15			12 - 20	12 - 20						15 - 30	15 - 30		
10 - 15										15 - 30	15 - 30		
												15 - 35	15 - 35
	10 - 15	10 - 15	12 - 20	12 - 20								10 - 20	10 - 20
	10 - 15	10 - 15											
			2 - 8	2 - 8	2 - 5	2 - 5							
							3 - 8	3 - 8	3 - 8			10 - 20	10 - 20
							10 - 15	10 - 15	10 - 15				

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

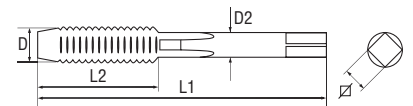
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M

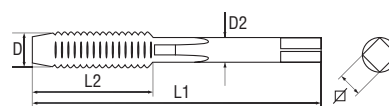
MÉTRICA ISO-ROSCA DIN 13
 METRIC ISO-THREAD DIN 13
 MÉTRIQUE DIN-13

HSS-CO 5%
DIN 371
FORM C
TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 2,0 x 0,40	45	8	2,8	2,1	3R37416	14,12
M 2,3 x 0,40	45	9	2,8	2,1	3R37418	14,12
M 2,5 x 0,45	50	9	2,8	2,1	3R37422	14,12
M 2,6 x 0,45	50	9	2,8	2,1	3R37424	14,12
M 3,0 x 0,50	56	11	3,5	2,7	3R37426	10,97
M 3,5 x 0,60	56	13	4,0	3,0	3R37428	13,00
M 4,0 x 0,70	63	13	4,5	3,4	3R37430	11,17
M 5,0 x 0,80	70	16	6,0	4,9	3R37434	11,31
M 6,0 x 1,00	80	19	6,0	4,9	3R37438	11,67
M 7,0 x 1,00	80	19	7,0	5,5	3R37440	15,88
M 8,0 x 1,25	90	22	8,0	6,2	3R37442	14,42
M 10,0 x 1,50	100	24	10,0	8,0	3R37446	16,50


HSS-CO 5%
DIN 376
FORM C
TOL 6H


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	2,2	-	3R38426	11,26
M 4 x 0,70	63	13	2,8	2,1	3R38430	11,45
M 5 x 0,80	70	16	3,5	2,7	3R38434	11,60
M 6 x 1,00	80	19	4,5	3,4	3R38438	11,97
M 8 x 1,25	90	22	6,0	4,9	3R38442	14,80
M 10 x 1,50	100	24	7,0	5,5	3R38446	16,92
M 12 x 1,75	110	29	9,0	7,0	3R38450	20,17
M 14 x 2,00	110	30	11,0	9,0	3R38454	26,94
M 16 x 2,00	110	32	12,0	9,0	3R38458	31,13
M 18 x 2,50	125	34	14,0	11,0	3R38462	41,08
M 20 x 2,50	140	34	16,0	12,0	3R38466	56,06
M 22 x 2,50	140	34	18,0	14,5	3R38470	64,29
M 24 x 3,00	160	38	18,0	14,5	3R38474	71,33
M 27 x 3,00	160	38	20,0	16,0	3R38476	110,44
M 30 x 3,50	180	45	22,0	18,0	3R38478	118,11
M 33 x 3,50	180	50	25,0	20,0	3R38480	159,68
M 36 x 4,00	200	56	28,0	22,0	3R38482	250,33
M 39 x 4,00	200	60	32,0	24,0	3R38484	322,65
M 42 x 4,50	200	60	32,0	24,0	3R38486	368,61
M 45 x 4,50	220	65	36,0	29,0	3R38488	418,13
M 48 x 5,00	250	70	36,0	29,0	3R38490	456,63
M 52 x 5,00	250	70	40,0	32,0	3R38492	564,48

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-CO 5%

DIN 371



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 2,0 x 0,40	45	8	2,8	2,1	3R37516	15,35
M 2,5 x 0,45	50	9	2,8	2,1	3R37522	15,81
M 3,0 x 0,50	56	11	3,5	2,7	3R37526	11,52
M 3,5 x 0,60	56	13	4,0	3,0	3R37528	12,89
M 4,0 x 0,70	63	13	4,5	3,4	3R37530	11,48
M 5,0 x 0,80	70	16	6,0	4,9	3R37534	11,93
M 6,0 x 1,00	80	19	6,0	4,9	3R37538	12,50
M 7,0 x 1,00	80	19	7,0	5,5	3R37540	16,77
M 8,0 x 1,25	90	22	8,0	6,2	3R37542	14,45
M 10,0 x 1,50	100	24	10,0	8,0	3R37546	17,37



HSS-CO 5%

DIN 376



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	2,2	-	3R38526	12,13
M 4 x 0,70	63	13	2,8	2,1	3R38530	12,09
M 5 x 0,80	70	16	3,5	2,7	3R38534	12,57
M 6 x 1,00	80	19	4,5	3,4	3R38538	13,17
M 8 x 1,25	90	22	6,0	4,9	3R38542	15,21
M 10 x 1,50	100	24	7,0	5,5	3R38546	18,30
M 12 x 1,75	110	29	9,0	7,0	3R38550	23,27
M 14 x 2,00	110	30	11,0	9,0	3R38554	30,01
M 16 x 2,00	110	32	12,0	9,0	3R38558	35,34
M 18 x 2,50	125	34	14,0	11,0	3R38562	50,06
M 20 x 2,50	140	34	16,0	12,0	3R38566	58,82
M 22 x 2,50	140	34	18,0	14,5	3R38570	67,17
M 24 x 3,00	160	38	18,0	14,5	3R38574	77,26
M 27 x 3,00	160	38	20,0	16,0	3R38576	118,28
M 30 x 3,50	180	45	22,0	18,0	3R38578	126,95
M 33 x 3,50	180	50	25,0	20,0	3R38580	170,07
M 36 x 4,00	200	56	28,0	22,0	3R38582	279,68
M 39 x 4,00	200	60	32,0	24,0	3R38584	360,78
M 42 x 4,50	200	60	32,0	24,0	3R38586	413,07
M 45 x 4,50	220	65	36,0	29,0	3R38588	469,24
M 48 x 5,00	250	70	36,0	29,0	3R38590	515,39
M 52 x 5,00	250	70	40,0	32,0	3R38592	627,97

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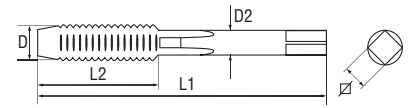
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M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-CO 5%

TIN

DIN 371

FORM B

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R31526	20,92
M 4 x 0,70	63	13	4,5	3,4	3R31530	20,92
M 5 x 0,80	70	16	6,0	4,9	3R31534	21,46
M 6 x 1,00	80	19	6,0	4,9	3R31538	24,66
M 8 x 1,25	90	22	8,0	6,2	3R31542	28,17
M 10 x 1,50	100	24	10,0	8,0	3R31546	34,50
M 12 x 1,75*	110	29	9,0	7,0	3R31550	42,77

* Machos en DIN 376



HSS-CO 5%

VAP

DIN 371

FORM B

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R31570	13,85
M 4 x 0,70	63	13	4,5	3,4	3R31571	13,85
M 5 x 0,80	70	16	6,0	4,9	3R31572	14,70
M 6 x 1,00	80	19	6,0	4,9	3R31573	14,70
M 8 x 1,25	90	22	8,0	6,2	3R31574	18,33
M 10 x 1,50	100	24	10,0	8,0	3R31575	23,01



HSS-CO 5%

VAP

DIN 376

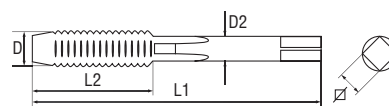
FORM B

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 12 x 1,75	110	29	9,0	7,0	3R31576	28,29
M 14 x 2,00	110	30	11,0	9,0	3R31577	37,58
M 16 x 2,00	110	32	12,0	9,0	3R31578	41,92
M 18 x 2,50	125	34	14,0	11,0	3R31579	59,90
M 20 x 2,50	140	34	16,0	12,0	3R31580	80,87

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-CO 5%

DIN 371



TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3,0 x 0,50	56	11	3,5	2,7	3R37626	14,74
M 3,5 x 0,60	56	13	4,0	3,0	3R37628	16,59
M 4,0 x 0,70	63	13	4,5	3,4	3R37630	14,74
M 5,0 x 0,80	70	16	6,0	4,9	3R37634	15,29
M 6,0 x 1,00	80	19	6,0	4,9	3R37638	15,46
M 7,0 x 1,00	80	19	7,0	5,5	3R37640	21,48
M 8,0 x 1,25	90	22	8,0	6,2	3R37642	18,65
M 10,0 x 1,50	100	24	10,0	8,0	3R37646	23,03



HSS-CO 5%

DIN 376



TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	2,2	-	3R38626	15,41
M 4 x 0,70	63	13	2,8	2,1	3R38630	15,41
M 5 x 0,80	70	16	3,5	2,7	3R38634	16,00
M 6 x 1,00	80	19	4,5	3,4	3R38638	16,17
M 8 x 1,25	90	22	6,0	4,9	3R38642	19,49
M 10 x 1,50	100	24	7,0	5,5	3R38646	23,03
M 12 x 1,75	110	29	9,0	7,0	3R38650	28,76
M 14 x 2,00	110	30	11,0	9,0	3R38654	36,09
M 16 x 2,00	110	32	12,0	11,0	3R38658	42,68
M 18 x 2,50	125	34	14,0	11,0	3R38662	58,36
M 20 x 2,50	140	34	16,0	12,0	3R38666	77,48
M 22 x 2,50	140	34	18,0	14,5	3R38670	89,08
M 24 x 3,00	160	38	18,0	14,5	3R38674	94,88

CONSTRUCCIÓN
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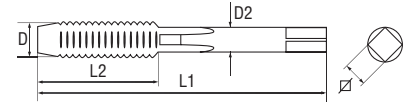
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METROLOGÍA
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DISPLAYS
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M

MÉTRICA ISO-ROSCA DIN 13
 METRIC ISO-THREAD DIN 13
 MÉTRIQUE DIN-13

HSS-CO 5%
DIN 371

TOL 6H

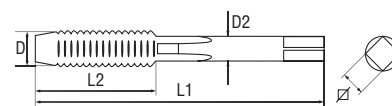

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 2,0 x 0,40	45	6	2,8	2,1	3R37716	17,91
M 2,5 x 0,45	50	6	2,8	2,1	3R37722	18,45
M 3,0 x 0,50	56	6	3,5	2,7	3R37726	13,76
M 3,5 x 0,60	56	13	4,0	3,0	3R37728	16,13
M 4,0 x 0,70	63	7	4,5	3,4	3R37730	13,76
M 5,0 x 0,80	70	8	6,0	4,9	3R37734	14,44
M 6,0 x 1,00	80	10	6,0	4,9	3R37738	14,44
M 7,0 x 1,00	80	19	7,0	5,5	3R37740	19,26
M 8,0 x 1,25	90	14	8,0	6,2	3R37742	17,47
M 10,0 x 1,50	100	16	10,0	8,0	3R37746	20,41


HSS-CO 5%
DIN 376

TOL 6H


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	2,2	-	3R38726	14,42
M 4 x 0,70	63	7	2,8	2,1	3R38730	14,42
M 5 x 0,80	70	8	3,5	2,7	3R38734	15,14
M 6 x 1,00	80	10	4,5	3,4	3R38738	15,14
M 8 x 1,25	90	14	6,0	4,9	3R38742	18,33
M 10 x 1,50	100	16	7,0	5,5	3R38746	21,41
M 12 x 1,75	110	18	9,0	7,0	3R38750	25,79
M 14 x 2,00	110	20	11,0	9,0	3R38754	33,48
M 16 x 2,00	110	22	12,0	9,0	3R38758	40,64
M 18 x 2,50	125	25	14,0	11,0	3R38762	54,96
M 20 x 2,50	140	25	16,0	12,0	3R38766	68,86
M 22 x 2,50	140	27	18,0	14,5	3R38770	79,05
M 24 x 3,00	160	30	18,0	14,5	3R38774	85,59
M 27 x 3,00	160	30	20,0	16,0	3R38776	137,76
M 30 x 3,50	180	35	22,0	18,0	3R38778	144,34
M 33 x 3,50	180	35	25,0	20,0	3R38780	198,76
M 36 x 4,00	200	40	28,0	22,0	3R38782	327,93
M 39 x 4,00	200	40	32,0	24,0	3R38784	498,40
M 42 x 4,50	200	45	32,0	24,0	3R38786	576,28
M 45 x 4,50	220	45	36,0	29,0	3R38788	654,15
M 48 x 5,00	250	50	36,0	29,0	3R38790	716,45
M 52 x 5,00	250	50	40,0	32,0	3R38792	872,20

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-CO 5%

TIN

DIN 371

FORM C/35°

TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R31726	22,33
M 4 x 0,70	63	7	4,5	3,4	3R31730	22,33
M 5 x 0,80	70	8	6,0	4,9	3R31734	23,59
M 6 x 1,00	80	10	6,0	4,9	3R31738	26,42
M 8 x 1,25	90	14	8,0	6,2	3R31742	31,71
M 10 x 1,50	100	16	10,0	8,0	3R31746	39,36
M 12 x 1,75*	110	18	7,0	7,0	3R31750	47,78

* Machos en DIN376 / Taps on DIN376 / Tarauds en DIN376



HSS-CO 5%

VAP

DIN 371

FORM C/35°

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R31770	17,00
M 4 x 0,70	63	7	4,5	3,4	3R31771	17,00
M 5 x 0,80	70	8	4,5	4,9	3R31772	18,54
M 6 x 1,00	80	10	6,0	4,9	3R31773	18,54
M 8 x 1,25	90	14	6,0	6,2	3R31774	22,14
M 10 x 1,50	100	16	10,0	8,0	3R31775	27,29



HSS-CO 5%

VAP

DIN 376

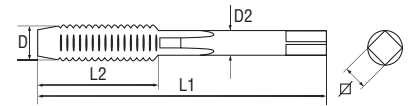
FORM C/35°

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 12 x 1,75	110	18	9,0	7,0	3R31776	32,96
M 14 x 2,00	110	20	11,0	9,0	3R31777	43,75
M 16 x 2,00	110	22	12,0	9,0	3R31778	49,07
M 18 x 2,50	125	25	14,0	11,0	3R31779	70,00
M 20 x 2,50	140	25	16,0	12,0	3R31780	94,67

M

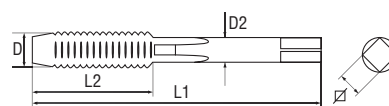
MÉTRICA ISO-ROSCA DIN 13
 METRIC ISO-THREAD DIN 13
 MÉTRIQUE DIN-13


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R37926	20,72
M 4 x 0,70	63	13	4,5	3,4	3R37930	20,72
M 5 x 0,80	70	16	6,0	4,9	3R37934	21,20
M 6 x 1,00	80	19	6,0	4,9	3R37938	21,62
M 8 x 1,25	90	22	8,0	6,2	3R37942	26,24
M 10 x 1,50	100	24	10,0	8,0	3R37946	30,04



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	2,2	-	3R38926	20,72
M 4 x 0,70	63	13	2,8	2,1	3R38930	20,72
M 5 x 0,80	70	16	3,5	2,7	3R38934	21,20
M 6 x 1,00	80	19	4,5	3,4	3R38938	21,62
M 8 x 1,25	90	22	6,0	4,9	3R38942	26,24
M 10 x 1,50	100	24	7,0	5,5	3R38946	30,04
M 12 x 1,75	110	29	9,0	7,0	3R38950	36,19
M 14 x 2,00	110	30	11,0	9,0	3R38954	45,63
M 16 x 2,00	110	32	12,0	9,0	3R38958	51,37
M 18 x 2,50	125	34	14,0	11,0	3R38962	68,74
M 20 x 2,50	140	34	16,0	12,0	3R38966	91,54
M 22 x 2,50	140	34	18,0	14,5	3R38970	105,54
M 24 x 3,00	160	38	18,0	14,5	3R38974	111,59

M MÉTRICA ISO-ROSCA DIN 13 EXTRA-LARGOS
METRIC ISO-THREAD DIN 13 EXTRALONG
MÉTRIQUE DIN-13 EXTRALONG



100 mm



HSS-CO 5%

≈DIN 371



TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0.50	100	11	3,5	2,7	3R32010	21,94
M 4 x 0.70	100	13	4,5	3,4	3R32011	21,94
M 5 x 0.80	100	16	6,0	4,9	3R32012	22,68
M 6 x 1.00	100	19	6,0	4,9	3R32013	22,68
M 8 x 1.25	100	22	8,0	6,2	3R32014	25,91

120 mm



HSS-CO 5%

≈DIN 371



TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 4 x 0.70	120	13	4,5	3,4	3R32021	22,68
M 5 x 0.80	120	16	6,0	4,9	3R32022	24,81
M 6 x 1.00	120	19	6,0	4,9	3R32023	24,81
M 8 x 1.25	120	22	8,0	6,2	3R32024	28,77
M 10 x 1.50	120	24	10,0	8,0	3R32025	32,74
M 12 x 1.75	120	29	12,0	9,0	3R32026	37,06

150 mm



HSS-CO 5%

≈DIN 371



TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 4 x 0.70	150	13	4,5	3,4	3R32031	23,75
M 5 x 0.80	150	16	6,0	4,9	3R32032	27,00
M 6 x 1.00	150	19	6,0	4,9	3R32033	32,74
M 8 x 1.25	150	22	8,0	6,2	3R32034	32,74
M 10 x 1.50	150	24	10,0	8,0	3R32035	39,94
M 12 x 1.75	150	29	12,0	9,0	3R32036	44,62

150 mm



HSS-CO 5%

≈DIN 376



TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 4 x 0.7	150	13	2.8	2,1	3R32071	23,75
M 5 x 0.8	150	16	3.5	2,7	3R32072	27,00
M 6 x 1.0	150	19	4.5	3,4	3R32073	32,74
M 8 x 1.25	150	22	6.0	4,9	3R32074	32,74
M 10 x 1.5	150	24	7.0	5,5	3R32075	39,94
M 12 x 1.75	150	29	9.0	7,0	3R32076	44,62

CONSTRUCCIÓN
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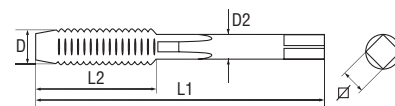
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M

MÉTRICA ISO-ROSCA DIN 13 EXTRA-LARGOS
 METRIC ISO-THREAD DIN 13 EXTRALONG
 MÉTRIQUE DIN-13 EXTRALONG

100 mm

HSS-CO 5%

≈DIN 371

 FORM
C/35°

 TOL
6H


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	100	6	3,5	2,7	3R32040	25,91
M 4 x 0,70	100	7	4,5	3,4	3R32041	25,91
M 5 x 0,80	100	8	6,0	4,9	3R32042	27,71
M 6 x 1,00	100	10	6,0	4,9	3R32043	27,71
M 8 x 1,25	100	14	8,0	6,2	3R32044	30,59

120 mm

HSS-CO 5%

≈DIN 371

 FORM
C/35°

 TOL
6H


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 4 x 0,70	120	7	4,5	3,4	3R32051	27,00
M 5 x 0,80	120	8	6,0	4,9	3R32052	29,88
M 6 x 1,00	120	10	6,0	4,9	3R32053	29,88
M 8 x 1,25	120	14	8,0	6,2	3R32054	33,84
M 10 x 1,50	120	16	10,0	8,0	3R32055	38,86
M 12 x 1,75	120	18	12,0	9,0	3R32056	39,94

150 mm

HSS-CO 5%

≈DIN 371

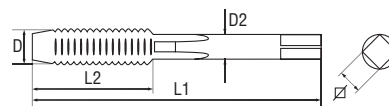
 FORM
C/35°

 TOL
6H


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 4 x 0,70	150	7	4,5	3,4	3R32061	27,71
M 5 x 0,80	150	8	6,0	4,9	3R32062	32,02
M 6 x 1,00	150	10	6,0	4,9	3R32063	32,02
M 8 x 1,25	150	14	8,0	6,2	3R32064	37,77
M 10 x 1,50	150	16	10,0	8,0	3R32065	45,71
M 12 x 1,75	150	18	12,0	9,0	3R32066	47,86

M MÉTRICA ISO-ROSCA DIN 13 SOBREDIMENSIONADO

METRIC ISO-THREAD DIN 13 OVERSIZED
MÉTRIQUE DIN-13 SURDIMENSIONNÉ



HSS-CO 5%

DIN 371

DIN 376

FORM B

TOL 6G



DIN 371

DIN 376

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 2,5 x 0,45	50	9	2,8	2,1	3R32522	18,07
M 3,0 x 0,50	56	5	3,5	2,7	3R32526	18,65
M 4,0 x 0,70	63	7	4,5	3,4	3R32530	18,65
M 5,0 x 0,80	70	8	6,0	4,9	3R32534	19,68
M 6,0 x 1,00	80	10	6,0	4,9	3R32538	19,68
M 8,0 x 1,25	90	13	8,0	6,2	3R32542	24,09
M 10,0 x 1,50	100	15	10,0	8,0	3R32546	27,12
M 12,0 x 1,75*	110	18	90,0	7,0	3R32550	33,45
M 14,0 x 2,00*	110	20	11,0	9,0	3R32554	47,86
M 16,0 x 2,00*	110	20	12,0	9,0	3R32558	54,34
M 18,0 x 2,50*	125	34	14,0	11,0	3R32562	74,82
M 20,0 x 2,50*	140	34	16,0	12,0	3R32566	99,46



HSS-CO 5%

DIN 371

DIN 376

FORM B

TOL 7G



DIN 371

DIN 376

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R32503	19,58
M 4 x 0,70	63	13	4,5	3,4	3R32504	19,58
M 5 x 0,80	70	16	6,0	4,9	3R32505	20,76
M 6 x 1,00	80	19	6,0	4,9	3R32506	20,76
M 8 x 1,25	90	22	6,0	6,2	3R32508	26,10
M 10 x 1,50	100	24	10,0	8,0	3R32510	31,14
M 12 x 1,75*	110	29	9,0	7,0	3R32512	38,07



HSS-CO 5%

DIN 371

DIN 376

FORM B

TOL 6H +0,1mm



DIN 371

DIN 376

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R32583	19,58
M 4 x 0,70	63	13	4,5	3,4	3R32584	19,58
M 5 x 0,80	70	16	6,0	4,9	3R32585	20,76
M 6 x 1,00	80	19	6,0	4,9	3R32586	20,76
M 8 x 1,25	90	22	8,0	6,2	3R32588	26,10
M 10 x 1,50	100	24	10,0	8,0	3R32590	31,14
M 12 x 1,75*	110	29	9,0	7,0	3R32592	38,07

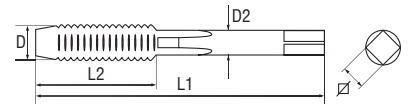
* Machos en DIN376 / Taps on DIN376 / Tarauds en DIN376

Sobredimensión: 0.02 - 0.04 mm / Oversize 0.02 - 0.04 mm / Surcotage 0.02 - 0.04 mm

Materiales tratados superficialmente (galvanizados, cromados...) / For pre plate material for galvanising / Pour matériaux présentant une couche de galvanisation

M MÉTRICA ISO-ROSCA DIN 13 SOBREDIMENSIONADO

METRIC ISO-THREAD DIN 13 OVERSIZED
 MÉTRIQUE DIN-13 SURDIMENSIONNÉ


HSS-CO 5%
DIN 371
DIN 376
FORM C/35°
TOL 6G


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3,0 x 0,50	56	6	3,5	2,7	3R32726	23,75
M 4,0 x 0,70	63	7	4,5	3,4	3R32730	23,75
M 5,0 x 0,80	70	8	6,0	4,9	3R32734	24,81
M 6,0 x 1,00	80	10	6,0	4,9	3R32738	24,81
M 8,0 x 1,25	90	14	8,0	6,2	3R32742	28,83
M 10,0 x 1,50	100	16	10,0	8,0	3R32746	33,25
M 12,0 x 1,75*	110	18	9,0	7,0	3R32750	34,25
M 14,0 x 2,00*	110	20	11,0	9,0	3R32754	49,54
M 16,0 x 2,00*	110	22	12,0	9,0	3R32758	52,23
M 18,0 x 2,50*	125	25	14,0	11,0	3R32762	77,32
M 20,0 x 2,50*	140	25	16,0	12,0	3R32766	103,11


HSS-CO 5%
DIN 371
DIN 376
FORM C/35°
TOL 7G


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R32703	25,18
M 4 x 0,70	63	7	4,5	3,4	3R32704	25,18
M 5 x 0,80	70	8	6,0	4,9	3R32705	27,06
M 6 x 1,00	80	10	6,0	4,9	3R32706	27,05
M 8 x 1,25	90	14	8,0	6,2	3R32708	32,62
M 10 x 1,50	100	16	10,0	8,0	3R32710	38,56
M 12 x 1,75*	110	18	9,0	7,0	3R32712	41,53


HSS-CO 5%
DIN 371
DIN 376
FORM C/35°
TOL 6H +0,1mm


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R32783	25,18
M 4 x 0,70	63	7	4,5	3,4	3R32784	25,18
M 5 x 0,80	70	8	6,0	4,9	3R32785	27,06
M 6 x 1,00	80	10	6,0	4,9	3R32786	27,05
M 8 x 1,25	90	14	8,0	6,2	3R32788	32,62
M 10 x 1,50	100	16	10,0	8,0	3R32790	38,56
M 12 x 1,75*	110	18	9,0	7,0	3R32792	41,53

* Machos en DIN376 / Taps on DIN376 / Tarauds en DIN376

Sobredimensión: 0.02 - 0.04 mm / Oversize 0.02 - 0.04 mm / Surcotage 0.02 - 0.04 mm

Materiales tratados superficialmente (galvanizados, cromados...) / For pre plate material for galvanising / Pour matériaux présentant une couche de galvanisation

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

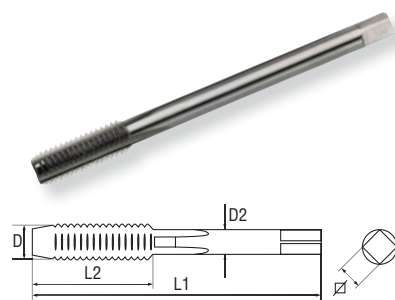


HSS-CO 5%

DIN 374

FORM C

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 4 x 0,35	63	10	2,8	2,1	3R39402	22,73
M 5 x 0,50	70	12	3,5	2,7	3R39404	21,38
M 6 x 0,75	80	14	4,5	3,4	3R39407	19,99
M 8 x 0,75	80	19	6,0	4,9	3R39410	20,08
M 8 x 1,00	90	22	6,0	4,9	3R39411	19,40
M 10 x 1,00	90	20	7,0	5,5	3R39415	22,09
M 10 x 1,25	100	24	7,0	5,5	3R39416	22,09
M 12 x 1,00	100	22	9,0	7,0	3R39420	29,45
M 12 x 1,25	100	22	9,0	7,0	3R39421	29,45
M 12 x 1,50	100	22	9,0	7,0	3R39422	29,45
M 14 x 1,00	100	22	11,0	9,0	3R39426	38,15
M 14 x 1,25	100	22	11,0	9,0	3R39427	36,14
M 14 x 1,50	100	22	11,0	9,0	3R39428	36,14
M 16 x 1,00	100	22	12,0	9,0	3R39431	48,86
M 16 x 1,50	100	22	12,0	9,0	3R39433	41,49
M 18 x 1,00	110	25	14,0	11,0	3R39434	61,57
M 18 x 1,50	110	25	14,0	11,0	3R39436	48,19
M 18 x 2,00	125	34	14,0	11,0	3R39437	57,23
M 20 x 1,00	125	25	16,0	12,0	3R39438	71,03
M 20 x 1,25	125	25	16,0	12,0	3R39439	71,03
M 20 x 1,50	125	25	16,0	12,0	3R39440	54,46
M 20 x 2,00	140	34	16,0	12,0	3R39441	63,91
M 22 x 1,00	125	25	18,0	14,5	3R39443	82,73
M 22 x 1,50	125	25	18,0	14,5	3R39445	68,96
M 22 x 2,00	140	34	18,0	14,5	3R39446	82,73
M 24 x 1,00	140	28	18,0	14,5	3R39448	90,89
M 24 x 1,50	140	28	18,0	14,5	3R39450	82,73
M 24 x 2,00	140	28	18,0	14,5	3R39451	93,77
M 25 x 1,00	140	28	18,0	14,5	3R39452	102,27
M 26 x 1,50	140	28	18,0	14,5	3R39454	99,29
M 27 x 1,50	140	28	20,0	16,0	3R39456	108,92
M 27 x 2,00	140	28	20,0	16,0	3R39457	112,20
M 28 x 1,50	140	28	20,0	16,0	3R39459	108,92
M 30 x 1,50	150	28	22,0	16,0	3R39463	115,83
M 30 x 2,00	150	28	22,0	18,0	3R39464	137,75
M 32 x 1,50	150	28	22,0	18,0	3R39466	144,79
M 32 x 2,00	150	28	22,0	18,0	3R39467	170,42
M 33 x 2,00	160	28	25,0	20,0	3R39468	184,63
M 35 x 1,50	170	30	28,0	22,0	3R39472	184,63
M 36 x 1,50	170	30	28,0	22,0	3R39473	185,96
M 36 x 2,00	170	30	28,0	22,0	3R39474	227,24
M 38 x 1,50	170	30	28,0	22,0	3R39476	197,42
M 40 x 1,50	170	30	32,0	24,0	3R39480	248,20
M 42 x 1,50	170	30	32,0	24,0	3R39483	263,37
M 45 x 1,50	180	32	36,0	29,0	3R39486	316,46
M 48 x 1,50	190	32	36,0	29,0	3R39489	343,49
M 50 x 1,50	190	32	36,0	29,0	3R39494	399,02
M 52 x 1,50	190	32	40,0	32,0	3R39497	435,57

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

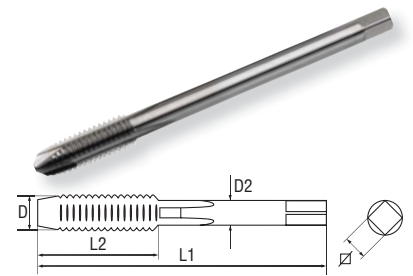
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METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

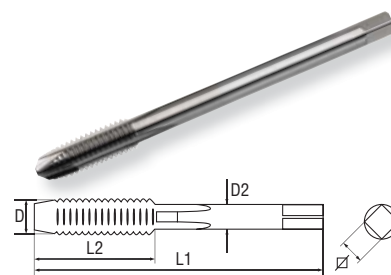
Mf

MÉTRICA FINA ISO-ROSCA DIN 13
 METRIC FINE ISO-THREAD DIN 13
 MÉTRIQUE FIN ISO DIN-13


HSS-CO 5%
DIN 374
FORM B
TOL 6H


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,35	56	9	2,2	-	3R39501	26,29
M 4 x 0,35	63	10	2,8	2,1	3R39502	26,29
M 4 x 0,50	63	10	2,8	2,1	3R39503	23,32
M 5 x 0,50	70	12	3,5	2,7	3R39504	23,32
M 5 x 0,75	70	12	3,5	2,7	3R39505	21,90
M 6 x 0,50	80	14	4,5	3,4	3R39506	26,29
M 6 x 0,75	80	14	4,5	3,4	3R39507	20,80
M 7 x 0,75	80	14	5,5	4,3	3R39508	25,28
M 8 x 0,50	80	19	6,0	4,9	3R39509	26,29
M 8 x 0,75	80	19	6,0	4,9	3R39510	24,02
M 8 x 1,00	90	22	6,0	4,9	3R39511	20,80
M 9 x 0,75	80	19	7,0	5,5	3R39512	26,29
M 9 x 1,00	90	22	7,0	5,5	3R39513	27,74
M 10 x 0,75	90	20	7,0	5,5	3R39514	33,05
M 10 x 1,00	90	20	7,0	5,5	3R39515	24,57
M 10 x 1,25	100	24	7,0	5,5	3R39516	26,68
M 11 x 1,00	90	20	8,0	6,2	3R39517	35,81
M 11 x 1,25	90	22	8,0	6,2	3R39518	37,91
M 12 x 0,75	100	22	9,0	7,0	3R39519	40,57
M 12 x 1,00	100	22	9,0	7,0	3R39520	32,90
M 12 x 1,25	100	22	9,0	7,0	3R39521	32,90
M 12 x 1,50	100	22	9,0	7,0	3R39522	33,70
M 13 x 1,00	100	22	11,0	9,0	3R39523	54,76
M 13 x 1,50	100	22	11,0	9,0	3R39524	54,76
M 14 x 0,75	100	22	11,0	9,0	3R39525	58,59
M 14 x 1,00	100	22	11,0	9,0	3R39526	44,95
M 14 x 1,25	100	22	11,0	9,0	3R39527	42,79
M 14 x 1,50	100	22	11,0	9,0	3R39528	42,79
M 15 x 1,00	100	22	12,0	9,0	3R39529	58,98
M 15 x 1,50	100	22	12,0	9,0	3R39530	56,79
M 16 x 1,00	100	22	12,0	9,0	3R39531	54,76
M 16 x 1,25	100	22	12,0	9,0	3R39532	60,76
M 16 x 1,50	100	22	12,0	9,0	3R39533	47,75
M 18 x 1,00	110	25	14,0	11,0	3R39534	62,64
M 18 x 1,25	110	25	14,0	11,0	3R39535	72,13
M 18 x 1,50	110	25	14,0	11,0	3R39536	57,86
M 18 x 2,00	125	34	14,0	11,0	3R39537	63,90
M 20 x 1,00	125	25	16,0	12,0	3R39538	84,27
M 20 x 1,25	125	25	16,0	12,0	3R39539	90,18
M 20 x 1,50	125	25	16,0	12,0	3R39540	63,83
M 20 x 2,00	140	34	16,0	12,0	3R39541	73,75
M 21 x 1,50	125	25	16,0	12,0	3R39542	90,18
M 22 x 1,00	125	25	18,0	14,5	3R39543	91,30
M 22 x 1,25	125	25	18,0	14,5	3R39544	105,18
M 22 x 1,50	125	25	18,0	14,5	3R39545	78,00
M 22 x 2,00	140	34	18,0	14,5	3R39546	91,30
M 23 x 1,50	125	25	18,0	14,5	3R39547	120,22
M 24 x 1,00	140	28	18,0	14,5	3R39548	111,66
M 24 x 1,25	140	28	18,0	14,5	3R39549	120,22
M 24 x 1,50	140	28	18,0	14,5	3R39550	91,30
M 24 x 2,00	140	28	18,0	14,5	3R39551	103,93
M 25 x 1,00	140	28	18,0	14,5	3R39552	120,22

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 25 x 1,5	140	28	18,0	14,5	3R39553	120,22
M 26 x 1,0	140	28	18,0	14,5	3R3955X	120,22
M 26 x 1,5	140	28	18,0	14,5	3R39554	105,34
M 26 x 2,0	140	28	18,0	14,5	3R39555	120,22
M 27 x 1,0	140	28	20,0	16,0	3R39500	150,27
M 27 x 1,5	140	28	20,0	16,0	3R39556	120,78
M 27 x 2,0	140	28	20,0	16,0	3R39557	135,25
M 28 x 1,0	140	28	20,0	16,0	3R39558	150,27
M 28 x 1,5	140	28	20,0	16,0	3R39559	122,98
M 28 x 2,0	140	28	20,0	16,0	3R39560	135,42
M 29 x 1,5	150	28	22,0	18,0	3R39561	172,82
M 30 x 1,0	150	28	22,0	18,0	3R39562	162,21
M 30 x 1,5	150	28	22,0	18,0	3R39563	132,99
M 30 x 2,0	150	28	22,0	18,0	3R39564	154,49
M 30 x 2,5	180	45	22,0	18,0	3R3956X	172,82
M 30 x 3,0	180	45	22,0	18,0	3R39565	172,82
M 32 x 1,5	150	28	22,0	18,0	3R39566	164,45
M 32 x 2,0	150	28	22,0	18,0	3R39567	225,41
M 32 x 3,0	180	50	22,0	18,0	3R39592	225,41
M 33 x 1,5	160	30	25,0	20,0	3R39593	175,55
M 33 x 2,0	160	30	25,0	20,0	3R39568	225,41
M 33 x 3,0	180	50	25,0	20,0	3R39569	225,41
M 34 x 1,5	170	30	28,0	22,0	3R39570	196,63
M 34 x 2,0	170	30	28,0	22,0	3R39571	210,39
M 35 x 1,5	170	30	28,0	22,0	3R39572	210,66
M 36 x 1,5	170	30	28,0	22,0	3R39573	210,66
M 36 x 2,0	170	30	28,0	22,0	3R39574	266,83
M 36 x 3,0	200	56	28,0	22,0	3R39575	301,95
M 38 x 1,5	170	30	28,0	22,0	3R39576	217,70
M 39 x 1,5	170	30	32,0	24,0	3R39577	308,06
M 39 x 2,0	170	30	32,0	24,0	3R39578	308,06
M 39 x 3,0	200	60	32,0	24,0	3R39579	308,01
M 40 x 1,5	170	30	32,0	24,0	3R39580	280,89
M 40 x 2,0	170	30	32,0	24,0	3R39581	360,65
M 40 x 3,0	200	60	32,0	24,0	3R39582	351,12
M 42 x 1,5	170	30	32,0	24,0	3R39583	294,93
M 42 x 2,0	170	30	32,0	24,0	3R39584	420,78
M 42 x 3,0	200	60	32,0	24,0	3R39585	407,29
M 45 x 1,5	180	32	36,0	29,0	3R39586	351,12
M 45 x 2,0	180	32	36,0	29,0	3R39587	420,78
M 45 x 3,0	200	50	36,0	29,0	3R39588	450,82
M 48 x 1,5	190	32	36,0	36,0	3R39589	503,43
M 48 x 2,0	190	32	36,0	29,0	3R39590	503,43
M 48 x 3,0	225	50	36,0	36,0	3R39591	503,43
M 50 x 1,5	190	32	36,0	29,0	3R39594	583,07
M 50 x 2,0	190	32	36,0	36,0	3R39595	583,07
M 50 x 3,0	225	50	36,0	29,0	3R39596	583,07
M 52 x 1,5	190	32	40,0	32,0	3R39597	643,17
M 52 x 2,0	190	32	40,0	32,0	3R39598	643,17
M 52 x 3,0	225	50	40,0	32,0	3R39599	643,17
M 63 x 1,5	275	50	50,0	39,0	3R3959X	1.061,23

CONSTRUCCIÓN
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MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

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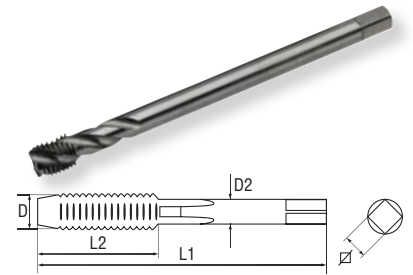
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METROLOGÍA
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DISPLAYS
DISPLAYS • DISPLAYS

Mf

MÉTRICA FINA ISO-ROSCA DIN 13
 METRIC FINE ISO-THREAD DIN 13
 MÉTRIQUE FIN ISO DIN-13


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,35	56	5	2,2	-	3R39701	31,73
M 4 x 0,35	63	5	2,8	2,1	3R39702	31,73
M 4 x 0,50	63	5	2,8	2,1	3R39703	27,12
M 5 x 0,50	70	5	3,5	2,7	3R39704	27,59
M 5 x 0,75	70	8	3,5	2,7	3R39705	27,59
M 6 x 0,50	80	5	4,5	3,4	3R39706	31,73
M 6 x 0,75	80	8	4,5	3,4	3R39707	24,73
M 7 x 0,75	80	8	5,5	4,3	3R39708	31,73
M 8 x 0,50	80	8	6,0	4,9	3R39709	31,73
M 8 x 0,75	80	8	6,0	4,9	3R39710	31,73
M 8 x 1,00	90	10	6,0	4,9	3R39711	24,57
M 9 x 0,75	80	10	7,0	5,5	3R39712	32,47
M 9 x 1,00	90	10	7,0	5,5	3R39713	31,61
M 10 x 0,75	90	10	7,0	5,5	3R39714	32,58
M 10 x 1,00	90	10	7,0	5,5	3R39715	28,16
M 10 x 1,25	100	16	7,0	5,5	3R39716	31,18
M 11 x 1,00	90	11	8,0	6,2	3R39717	54,97
M 11 x 1,25	90	14	8,0	6,2	3R39718	54,97
M 12 x 0,75	100	10	9,0	7,0	3R39719	54,97
M 12 x 1,00	100	11	9,0	7,0	3R39720	39,32
M 12 x 1,25	100	15	9,0	7,0	3R39721	37,91
M 12 x 1,50	100	15	9,0	7,0	3R39722	36,19
M 13 x 1,00	100	11	11,0	9,0	3R39723	57,81
M 13 x 1,50	100	15	11,0	9,0	3R39724	57,81
M 14 x 0,75	100	10	11,0	9,0	3R39725	57,81
M 14 x 1,00	100	11	11,0	9,0	3R39726	54,94
M 14 x 1,25	100	15	11,0	9,0	3R39727	49,82
M 14 x 1,50	100	15	11,0	9,0	3R39728	44,14
M 15 x 1,00	100	12	12,0	9,0	3R39729	79,85
M 15 x 1,50	100	15	12,0	9,0	3R39730	79,85
M 16 x 1,00	100	12	12,0	9,0	3R39731	79,85
M 16 x 1,25	100	15	12,0	9,0	3R39732	79,85
M 16 x 1,50	100	15	12,0	9,0	3R39733	58,99
M 18 x 1,00	110	13	14,0	11,0	3R39734	85,09
M 18 x 1,25	110	15	14,0	11,0	3R39735	85,09
M 18 x 1,50	110	17	14,0	11,0	3R39736	67,04
M 18 x 2,00	125	20	14,0	11,0	3R39737	85,09
M 20 x 1,00	125	14	16,0	12,0	3R39738	103,15
M 20 x 1,25	125	17	16,0	12,0	3R39739	103,15
M 20 x 1,50	125	17	16,0	12,0	3R39740	71,51
M 20 x 2,00	140	20	16,0	12,0	3R39741	103,15
M 21 x 1,50	125	17	16,0	12,0	3R39742	103,15
M 22 x 1,00	125	14	18,0	14,5	3R39743	118,95
M 22 x 1,25	125	17	18,0	14,5	3R39744	118,95
M 22 x 1,50	125	17	18,0	14,5	3R39745	87,00
M 22 x 2,00	140	20	18,0	14,5	3R39746	126,38
M 23 x 1,50	125	17	18,0	14,5	3R39747	140,15
M 24 x 1,00	140	15	18,0	14,5	3R39748	140,15
M 24 x 1,25	140	17	18,0	14,5	3R39749	140,15
M 24 x 1,50	140	20	18,0	14,5	3R39750	104,38
M 24 x 2,00	140	20	18,0	14,5	3R39751	133,43
M 25 x 1,00	140	15	18,0	14,5	3R39752	140,15

Mf

MÉTRICA FINA ISO-ROSCA DIN 13
METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

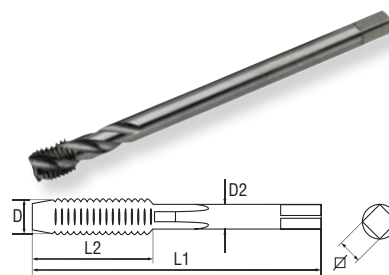


HSS-CO 5%

DIN 374



TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 25 x 1,5	140	20	18,0	14,5	3R39753	140,15
M 26 x 1,0	140	15	18,0	14,5	3R3975X	140,15
M 26 x 1,5	140	20	18,0	14,5	3R39754	147,52
M 26 x 2,0	140	20	18,0	14,5	3R39755	147,52
M 27 x 1,0	140	15	20,0	16,0	3R39700	164,71
M 27 x 1,5	140	20	20,0	16,0	3R39756	176,48
M 27 x 2,0	140	20	20,0	16,0	3R39757	176,48
M 28 x 1,0	140	15	20,0	16,0	3R39758	176,48
M 28 x 1,5	140	20	20,0	16,0	3R39759	176,48
M 28 x 2,0	140	20	20,0	16,0	3R39760	176,48
M 29 x 1,5	150	22	22,0	18,0	3R39761	191,30
M 30 x 1,0	150	17	22,0	18,0	3R39762	191,30
M 30 x 1,5	150	22	22,0	18,0	3R39763	158,92
M 30 x 2,0	150	22	22,0	18,0	3R39764	198,65
M 30 x 2,5	180	27	22,0	18,0	3R3976X	198,65
M 30 x 3,0	180	30	22,0	18,0	3R39765	198,65
M 32 x 1,5	150	22	22,0	18,0	3R39766	235,22
M 32 x 2,0	150	22	22,0	18,0	3R39767	235,22
M 32 x 3,0	180	30	22,0	18,0	3R39792	235,22
M 33 x 1,5	160	24	25,0	20,0	3R39793	235,22
M 33 x 2,0	160	24	25,0	20,0	3R39768	235,22
M 33 x 3,0	180	30	25,0	20,0	3R39769	235,22
M 34 x 1,5	170	24	28,0	22,0	3R39770	238,16
M 34 x 2,0	170	24	28,0	22,0	3R39771	238,16
M 35 x 1,5	170	24	28,0	22,0	3R39772	238,16
M 36 x 1,5	170	24	28,0	22,0	3R39773	300,85
M 36 x 2,0	170	24	28,0	22,0	3R39774	300,85
M 36 x 3,0	200	30	28,0	22,0	3R39775	300,85
M 38 x 1,5	170	24	28,0	22,0	3R39776	317,39
M 39 x 1,5	170	25	32,0	24,0	3R39777	317,39
M 39 x 2,0	170	25	32,0	24,0	3R39778	317,39
M 39 x 3,0	200	30	32,0	24,0	3R39779	317,39
M 40 x 1,5	170	25	32,0	24,0	3R39780	351,10
M 40 x 2,0	170	25	32,0	24,0	3R39781	351,10
M 40 x 3,0	200	30	32,0	24,0	3R39782	351,10
M 42 x 1,5	170	25	32,0	24,0	3R39783	394,75
M 42 x 2,0	170	25	32,0	24,0	3R39784	394,75
M 42 x 3,0	200	30	32,0	24,0	3R39785	394,75
M 45 x 1,5	180	27	36,0	29,0	3R39786	462,16
M 45 x 2,0	180	27	36,0	29,0	3R39787	462,16
M 45 x 3,0	200	30	36,0	29,0	3R39788	462,16
M 48 x 1,5	190	27	36,0	29,0	3R39789	550,53
M 48 x 2,0	190	27	36,0	29,0	3R39790	550,53
M 48 x 3,0	225	33	36,0	29,0	3R39791	550,53
M 50 x 1,5	190	27	36,0	29,0	3R39794	637,61
M 50 x 2,0	190	27	36,0	29,0	3R39795	637,61
M 50 x 3,0	225	33	36,0	29,0	3R39796	637,61
M 52 x 1,5	190	27	40,0	32,0	3R39797	702,21
M 52 x 2,0	190	27	40,0	32,0	3R39798	702,21
M 52 x 3,0	225	33	40,0	32,0	3R39799	702,21
M 63 x 1,5	275	40	50,0	39,0	3R3979X	1.129,42

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

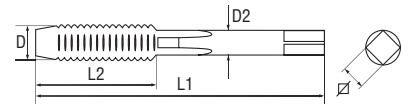
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BSW

WHITWORTH BS 84
 WHITWORTH BS 84
 FILETAGE WHITWORTH BS 84


HSS-CO 5%

≈DIN 371

FORM B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
BSW 1/8 x 40	56	11	3,5	2,7	3R70506	18,25
BSW 5/32 x 32	63	13	4,5	3,4	3R70508	18,25
BSW 3/16 x 24	70	15	6,0	4,9	3R70510	18,25
BSW 1/4 x 20	80	17	7,0	5,5	3R70514	20,51
BSW 5/16 x 18	90	20	8,0	6,2	3R70516	24,36
BSW 3/8 x 16	100	22	9,0	7,0	3R70518	26,97
BSW 7/16 x 14	100	22	11,0	9,0	3R70520	34,01
BSW 1/2 x 12	110	25	12,0	9,0	3R70522	34,01


HSS-CO 5%

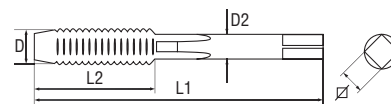
≈DIN 376

FORM B


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
BSW 1/4 x 20	80	17	4,5	3,4	3R71514	20,51
BSW 5/16 x 18	90	20	6,0	4,9	3R71516	24,36
BSW 3/8 x 16	100	22	7,0	5,5	3R71518	26,97
BSW 7/16 x 14	100	22	8,0	6,2	3R71520	34,01
BSW 1/2 x 12	110	25	9,0	7,0	3R71522	34,01
BSW 9/16 x 12	110	26	11,0	9,0	3R71524	47,27
BSW 5/8 x 11	110	27	12,0	9,0	3R71526	47,27
BSW 3/4 x 10	125	30	14,0	11,0	3R71530	91,63
BSW 7/8 x 9	140	32	18,0	14,5	3R71534	110,81
BSW 1 x 8	160	36	20,0	16,0	3R71538	125,73
BSW 1.1/8 x 7	180	40	22,0	18,0	3R71542	175,81
BSW 1.1/4 x 7	180	40	22,0	18,0	3R71546	179,07
BSW 1.3/8 x 6	200	50	28,0	22,0	3R71550	366,53
BSW 1.1/2 x 6	200	50	32,0	24,0	3R71554	366,53

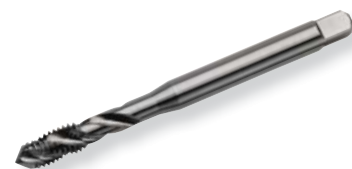
BSW

WHITWORTH BS 84
WHITWORTH BS 84
FILETAGE WHITWORTH BS 84



HSS-CO 5%

≈DIN 371



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
BSW 1/8 x 40	56	7	3,5	2,7	3R70706	20,80
BSW 5/32 x 32	63	7	4,5	3,4	3R70708	20,80
BSW 3/16 x 24	70	10	6,0	4,9	3R70710	20,80
BSW 1/4 x 20	80	13	7,0	5,5	3R70714	23,87
BSW 5/16 x 18	90	14	8,0	6,2	3R70716	27,48
BSW 3/8 x 16	100	16	9,0	7,0	3R70718	30,94
BSW 7/16 x 14	100	17	11,0	9,0	3R70720	40,63
BSW 1/2 x 12	110	20	12,0	9,0	3R70722	39,45



HSS-CO 5%

≈DIN 376



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
BSW 1/4 x 20	80	13	4,5	3,4	3R71714	22,80
BSW 5/16 x 18	90	14	6,0	4,9	3R71716	28,56
BSW 3/8 x 16	100	16	7,0	5,5	3R71718	31,33
BSW 7/16 x 14	100	17	8,0	6,2	3R71720	38,69
BSW 1/2 x 12	110	20	9,0	7,0	3R71722	39,45
BSW 9/16 x 12	110	20	11,0	9,0	3R71724	56,90
BSW 5/8 x 11	110	22	12,0	9,0	3R71726	56,90
BSW 3/4 x 10	125	25	14,0	11,0	3R71730	113,37
BSW 7/8 x 9	140	27	18,0	14,5	3R71734	138,51
BSW 1 x 8	160	30	20,0	16,0	3R71738	155,56
BSW 1.1/4 x 7	180	35	22,0	18,0	3R71746	198,18
BSW 1.3/8 x 6	200	40	28,0	22,0	3R71750	433,97
BSW 1.1/2 x 6	200	40	32,0	24,0	3R71754	433,97

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

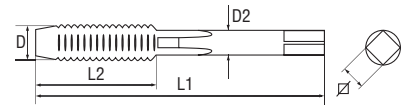
METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1

UNIFIED COARSE THREAD ANSI B 1.1
 FILETAGE UNIFIED GROSSE ANSI B 1.1


HSS-CO 5%

≈DIN 371

FORM B
TOL 2B

	D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNC Nr.	4 x 40	50	10	3,5	2,7	3R74504	24,96
UNC Nr.	5 x 40	56	11	3,5	2,7	3R74505	24,96
UNC Nr.	6 x 32	56	12	4,0	3,0	3R74506	22,88
UNC Nr.	8 x 32	63	13	4,5	3,4	3R74508	22,88
UNC Nr.	10 x 24	70	15	6,0	4,9	3R74510	24,96
UNC Nr.	12 x 24	70	16	6,0	4,9	3R74512	24,96
UNC	1/4 x 20	80	17	7,0	5,5	3R74514	22,88
UNC	5/16 x 18	90	20	8,0	6,2	3R74516	25,74
UNC	3/8 x 16	100	22	9,0	7,2	3R74518	30,04


HSS-CO 5%

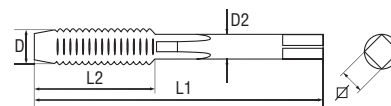
≈DIN 376

FORM B
TOL 2B


	D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNC Nr.	4 x 40	50	10	1,8	-	3R75504	24,96
UNC Nr.	5 x 40	56	11	2,2	1,8	3R75505	24,96
UNC Nr.	6 x 32	56	12	2,5	2,1	3R75506	22,88
UNC Nr.	8 x 32	63	13	2,8	2,1	3R75508	22,88
UNC Nr.	10 x 24	70	15	3,5	2,7	3R75510	24,96
UNC Nr.	12 x 24	70	16	3,5	2,7	3R75512	24,96
UNC	1/4 x 20	80	17	4,5	3,4	3R75514	22,88
UNC	5/16 x 18	90	20	6,0	4,9	3R75516	25,74
UNC	3/8 x 16	100	22	7,0	5,5	3R75518	30,04
UNC	7/16 x 14	100	22	8,0	6,2	3R75520	37,75
UNC	1/2 x 13	110	25	9,0	7,0	3R75522	40,91
UNC	9/16 x 12	110	26	11,0	9,0	3R75524	58,01
UNC	5/8 x 11	110	27	12,0	9,0	3R75526	58,01
UNC	3/4 x 10	125	30	14,0	11,0	3R75530	91,63
UNC	7/8 x 9	140	32	18,0	14,5	3R75534	110,81
UNC	1 x 8	160	36	20,0	16,0	3R75538	139,92
UNC	1.1/4 x 7	180	40	22,0	18,0	3R75546	198,22
UNC	1.1/2 x 6	200	50	32,0	24,0	3R75554	410,25
UNC	1.3/4 x 5	220	65	36,0	29,0	3R75562	689,44
UNC	2 x 4.1/2	250	70	40,0	32,0	3R75570	1.007,13

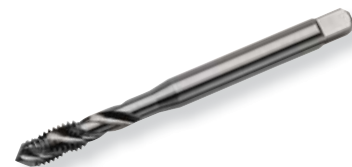
UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
ILETAGE UNIFIED GROSSE ANSI B 1.1



HSS-CO 5%

≈DIN 371



	D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNC Nr.	4 x 40	50	6	3,5	2,7	3R74704	30,04
UNC Nr.	5 x 40	56	7	3,5	2,7	3R74705	30,04
UNC Nr.	6 x 32	56	7	3,5	3,0	3R74706	30,04
UNC Nr.	8 x 32	63	8	4,5	3,4	3R74708	30,04
UNC Nr.	10 x 24	70	10	6,0	4,9	3R74710	30,04
UNC Nr.	12 x 24	70	10	6,0	4,9	3R74712	29,05
UNC	1/4 x 20	80	13	7,0	5,5	3R74714	27,02
UNC	5/16 x 18	90	14	8,0	6,2	3R74716	30,63
UNC	3/8 x 16	100	16	9,0	7,0	3R74718	33,89



HSS-CO 5%

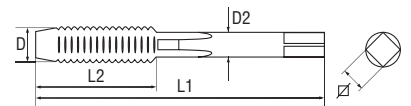
≈DIN 376



	D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNC	4 x 40	50	6	1,8	-	3R75704	30,04
UNC Nr.	5 x 40	56	7	2,2	1,8	3R75705	30,04
UNC Nr.	6 x 32	56	7	2,5	2,1	3R75706	30,04
UNC Nr.	8 x 32	63	8	2,8	2,1	3R75708	30,04
UNC Nr.	10 x 24	70	10	3,5	2,7	3R75710	30,04
UNC Nr.	12 x 24	70	10	3,5	2,7	3R75712	29,05
UNC	1/4 x 20	80	13	4,5	3,4	3R75714	27,02
UNC	5/16 x 18	90	14	6,0	4,9	3R75716	30,63
UNC	3/8 x 16	100	16	7,0	5,5	3R75718	33,89
UNC	7/16 x 14	100	17	8,0	6,2	3R75720	47,90
UNC	1/2 x 13	110	20	9,0	7,0	3R75722	50,96
UNC	9/16 x 12	110	20	11,0	9,0	3R75724	70,70
UNC	5/8 x 11	110	22	12,0	9,0	3R75726	68,63
UNC	3/4 x 10	125	25	14,0	11,0	3R75730	113,37
UNC	7/8 x 9	140	27	18,0	14,5	3R75734	142,24
UNC	1 x 8	160	30	20,0	16,0	3R75738	179,64
UNC	1.1/4 x 7	180	35	22,0	18,0	3R75746	255,97
UNC	1.1/2 x 6	200	40	32,0	24,0	3R75754	471,33
UNC	1.3/4 x 5	220	45	36,0	29,0	3R75762	689,44
UNC	2 x 4.1/2	250	50	40,0	32,0	3R75770	1.007,13

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
 UNIFIED FINE THREAD ANSI B 1.1
 FILETAGE UNIFIED À PAS FINE ANSI B 1.1


HSS-CO 5%

≈DIN 371

FORM B
TOL 2B


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNF Nr. 4 x 48	50	10	3,5	2,7	3R76504	24,96
UNF Nr. 5 x 44	56	11	3,5	2,7	3R76505	24,96
UNF Nr. 6 x 40	56	12	4,0	3,0	3R76506	24,96
UNF Nr. 8 x 36	63	13	4,5	3,4	3R76508	24,96
UNF Nr. 10 x 32	70	15	6,0	4,9	3R76510	24,96
UNF Nr. 12 x 28	70	16	6,0	4,9	3R76512	24,96
UNF 1/4 x 28	80	17	7,0	5,5	3R76514	22,10
UNF 5/16 x 24	90	17	8,0	6,2	3R76516	25,74
UNF 3/8 x 24	100	18	9,0	7,0	3R76518	28,90


HSS-CO 5%

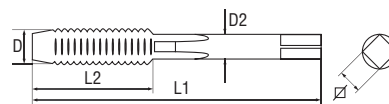
≈DIN 376

FORM B
TOL 2B


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNF 7/16 x 20	100	22	8,0	6,2	3R77520	37,53
UNF 1/2 x 20	100	22	9,0	7,0	3R77522	39,06
UNF 9/16 x 18	100	22	11,0	9,0	3R77524	48,62
UNF 5/8 x 18	100	22	12,0	9,0	3R77526	54,04
UNF 3/4 x 16	110	25	14,0	11,0	3R77530	91,63
UNF 7/8 x 14	140	26	18,0	14,5	3R77534	110,81
UNF 1 x 14	150	28	20,0	16,0	3R77540	117,24
UNF 1 x 12	150	28	20,0	16,0	3R77538	132,12
UNF 1.1/4 x 12	150	30	22,0	18,0	3R77546	180,18
UNF 1.1/2 x 12	170	33	32,0	24,0	3R77554	375,39

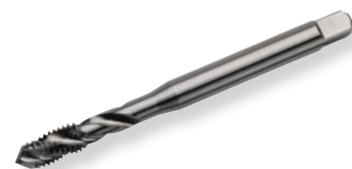
UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ À PAS FINE ANSI B 1.1



HSS-CO 5%

≈DIN 371



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNF Nr. 4 x 48	50	6	3,5	2,7	3R76704	31,37
UNF Nr. 5 x 44	56	7	3,5	2,7	3R76705	31,37
UNF Nr. 6 x 40	56	7	4,0	3,0	3R76706	31,37
UNF Nr. 8 x 36	63	8	4,5	3,4	3R76708	31,37
UNF Nr. 10 x 32	70	10	6,0	4,9	3R76710	31,37
UNF Nr. 12 x 28	70	10	6,0	4,9	3R76712	31,37
UNF 1/4 x 28	80	10	7,0	5,5	3R76714	24,80
UNF 5/16 x 24	90	10	8,0	6,2	3R76716	28,90
UNF 3/8 x 24	100	10	9,0	7,0	3R76718	33,23



HSS-CO 5%

≈DIN 376



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNF 7/16 x 20	100	13	8,0	6,2	3R77720	43,54
UNF 1/2 x 20	100	13	9,0	7,0	3R77722	43,54
UNF 9/16 x 18	100	15	11,0	9,0	3R77724	56,90
UNF 5/8 x 18	100	15	12,0	9,0	3R77726	60,66
UNF 3/4 x 16	110	17	14,0	11,0	3R77730	113,37
UNF 7/8 x 14	140	17	18,0	14,5	3R77734	138,51
UNF 1 x 14	150	20	20,0	16,0	3R77740	172,24
UNF 1 x 12	150	20	20,0	16,0	3R77738	155,56
UNF 1.1/4 x 12	150	22	22,0	18,0	3R77746	217,71
UNF 1.1/2 x 12	170	25	32,0	24,0	3R77754	432,59

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

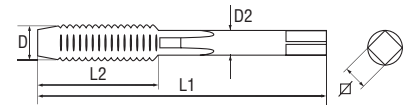
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

UN

ROSCA FINA UNIFICADA ANSI B 1.1
 UNIFIED FINE THREAD ANSI B 1.1
 FILETAGE UNIFIÉ ANSI B 1.1



8-UN



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UN 1.1/16 x 8	138	48	20,0	16,0	3R83101	162,05
UN 1.1/8 x 8	138	48	20,0	16,0	3R83102	162,04
UN 1.3/16 x 8	151	51	22,4	18,0	3R83103	190,65
UN 1.1/4 x 8	151	51	22,4	18,0	3R83104	190,64
UN 1.5/16 x 8	162	57	25,0	20,0	3R83105	238,30
UN 1.3/8 x 8	162	57	25,0	20,0	3R83106	238,30
UN 1.1/2 x 8	170	60	28,0	22,4	3R83107	311,38
UN 1.5/8 x 8	170	60	28,0	22,4	3R83108	365,40
UN 1.3/4 x 8	187	67	31,5	25,0	3R83109	419,42
UN 1.7/8 x 8	187	67	31,5	25,0	3R83110	651,37
UN 2 x 8	200	70	35,5	28,0	3R83111	651,37
UN 2.1/8 x 8	200	70	35,5	28,0	3R83112	1.290,03
UN 2.1/4 x 8	221	76	40,0	31,5	3R83113	1.290,03
UN 2.1/2 x 8	224	79	40,0	31,5	3R83115	1.874,67
UN 2.3/4 x 8	234	79	45,0	35,5	3R83116	2.065,31
UN 3 x 8	258	83	50,0	40,0	3R83117	2.287,74
UN 3.1/4 x 8	261	86	50,0	40,0	3R83118	2.287,74
UN 3.1/2 x 8	261	86	50,0	40,0	3R83119	2.700,80
UN 3.3/4 x 8	279	89	56,0	45,0	3R83120	3.113,86
UN 4 x 8	279	89	56,0	45,0	3R83121	3.113,86

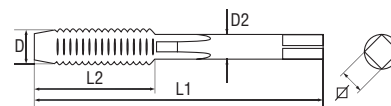
12-UN



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UN 1.5/8 x 12	170	60	28,0	22,4	3R83301	365,40
UN 1.3/4 x 12	187	67	31,5	25,0	3R83302	419,42
UN 1.7/8 x 12	187	67	31,5	25,0	3R83303	651,37
UN 2 x 12	200	70	35,5	28,0	3R83304	651,37
UN 2.1/8 x 12	200	70	35,5	28,0	3R83305	1.290,03
UN 2.1/4 x 12	221	76	40,0	31,5	3R83306	1.290,03
UN 2.1/2 x 12	224	79	40,0	31,5	3R83308	1.874,67
UN 2.3/4 x 12	234	79	45,0	35,5	3R83309	2.065,31
UN 3 x 12	258	83	50,0	40,0	3R83310	2.287,74
UN 3.1/4 x 12	261	86	50,0	40,0	3R83311	2.287,74
UN 3.1/2 x 12	261	86	50,0	40,0	3R83312	2.700,80
UN 3.3/4 x 12	279	89	56,0	45,0	3R83313	3.113,86
UN 4 x 12	279	89	56,0	45,0	3R83314	3.113,86

UN ROSCA FINA UNIFICADA ANSI B 1.1

UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ ANSI B 1.1



8-UN



HSS-CO 5%

ISO 529

FORM C/35°

TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UN 1.1/16 x 8	138	48	20,0	16,0	3R83151	203,35
UN 1.1/8 x 8	138	48	20,0	16,0	3R83152	203,36
UN 1.3/16 x 8	151	51	22,4	18,0	3R83153	238,30
UN 1.1/4 x 8	151	51	22,4	18,0	3R83154	238,30
UN 1.5/16 x 8	162	57	25,0	20,0	3R83155	298,68
UN 1.3/8 x 8	162	57	25,0	20,0	3R83156	298,68
UN 1.1/2 x 8	170	60	28,0	22,4	3R83157	426,77
UN 1.5/8 x 8	170	60	28,0	22,4	3R83158	457,55
UN 1.3/4 x 8	187	67	31,5	25,0	3R83159	524,27
UN 1.7/8 x 8	187	67	31,5	25,0	3R83160	813,42
UN 2 x 8	200	70	35,5	28,0	3R83161	813,42
UN 2.1/8 x 8	200	70	35,5	28,0	3R83162	1.612,54
UN 2.1/4 x 8	221	76	40,0	31,5	3R83163	1.612,54
UN 2.1/2 x 8	224	79	40,0	31,5	3R83165	2.343,34
UN 2.3/4 x 8	234	79	45,0	35,5	3R83166	2.580,05
UN 3 x 8	258	83	50,0	40,0	3R83167	2.859,68
UN 3.1/4 x 8	261	86	50,0	40,0	3R83168	2.859,67
UN 3.1/2 x 8	261	86	50,0	40,0	3R83169	3.368,04
UN 3.3/4 x 8	279	89	56,0	45,0	3R83170	3.892,33
UN 4 x 8	279	89	56,0	45,0	3R83171	3.892,30

12-UN



HSS-CO 5%

ISO 529

FORM C/35°

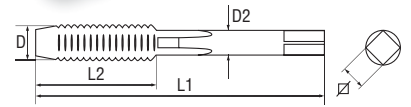
TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UN 1.5/8 x 12	170	60	28,0	22,4	3R83351	457,55
UN 1.3/4 x 12	187	67	31,5	25,0	3R83352	524,27
UN 1.7/8 x 12	187	67	31,5	25,0	3R83353	813,42
UN 2 x 12	200	70	35,5	28,0	3R83354	813,42
UN 2.1/8 x 12	200	70	35,5	28,0	3R83355	1.612,54
UN 2.1/4 x 12	221	76	40,0	31,5	3R83356	1.612,54
UN 2.1/2 x 12	224	79	40,0	31,5	3R83358	2.343,34
UN 2.3/4 x 12	234	79	45,0	35,5	3R83359	2.580,05
UN 3 x 12	258	83	50,0	40,0	3R83360	2.859,68
UN 3.1/4 x 12	261	86	50,0	40,0	3R83361	2.859,68
UN 3.1/2 x 12	261	86	50,0	40,0	3R83362	3.368,04
UN 3.3/4 x 12	279	89	56,0	45,0	3R83363	3.892,33
UN 4 x 12	279	89	56,0	45,0	3R83364	3.892,33

UNEF

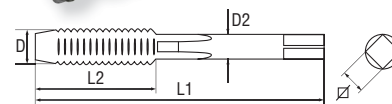
ROSCA EXTRA FINA UNIFICADA ANSI B 1.1
 UNIFIED EXTRA FINE THREAD ANSI B 1.1
 FILETAGE UNIFIÉ PAS EXTRA FIN ANSI B 1.1



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNEF Nr. 12 x 32	62	17	5,6	4,5	3R83320	22,88
UNEF 1/4 x 32	66	19	6,3	5,0	3R83321	20,66
UNEF 5/16 x 32	72	22	8,0	6,3	3R83322	26,06
UNEF 3/8 x 32	80	24	10,0	8,0	3R83323	29,23
UNEF 7/16 x 28	85	25	8,0	6,3	3R83324	34,90
UNEF 1/2 x 28	89	29	9,0	7,1	3R83325	34,63
UNEF 9/16 x 24	95	30	11,2	9,0	3R83326	52,12
UNEF 5/8 x 24	102	32	12,5	10,0	3R83327	52,12
UNEF 11/16 x 24	112	37	14,0	11,2	3R83328	98,50
UNEF 3/4 x 20	112	37	14,0	11,2	3R83329	98,50
UNEF 13/16 x 20	118	38	16,0	12,5	3R83330	120,74
UNEF 7/8 x 20	118	38	16,0	12,5	3R83331	120,74
UNEF 15/16 x 20	130	45	18,0	14,0	3R83332	138,22
UNEF 1" x 20	130	45	18,0	14,0	3R83333	138,22
UNEF 1.1/16 x 18	138	48	20,0	16,0	3R83334	162,05
UNEF 1.1/8 x 18	138	48	20,0	16,0	3R83335	162,05
UNEF 1.3/16 x 18	151	51	22,4	18,0	3R83336	190,65
UNEF 1.1/4 x 18	151	51	22,4	18,0	3R83337	190,65
UNEF 1.5/16 x 18	162	57	25,0	20,0	3R83338	238,30
UNEF 1.3/8 x 18	162	57	25,0	20,0	3R83339	280,30
UNEF 1.7/16 x 18	170	60	28,0	22,4	3R83340	311,39
UNEF 1.1/2 x 18	170	60	28,0	22,4	3R83341	311,39
UNEF 1.9/16 x 18	170	60	28,0	22,4	3R83342	365,40
UNEF 1.5/8 x 18	170	60	28,0	22,4	3R83343	365,40
UNEF 1.11/16 x 18	187	67	31,5	25,0	3R83344	419,42
UNEF 1.3/4 x 18	187	67	31,5	25,0	3R83345	419,42
UNEF 2 x 18	200	70	35,5	28,0	3R83346	651,37

UNEF

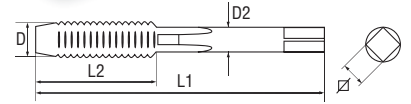
ROSCA EXTRA FINA UNIFICADA ANSI B 1.1
UNIFIED EXTRA FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS EXTRA FIN ANSI B 1.1



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNEF Nr. 12 x 32	62	17	5,6	4,5	3R83370	28,59
UNEF 1/4 x 32	66	19	6,3	5,0	3R83371	25,74
UNEF 5/16 x 32	72	22	8,0	6,3	3R83372	32,41
UNEF 3/8 x 32	80	24	10,0	8,0	3R83373	36,54
UNEF 7/16 x 28	85	25	8,0	6,3	3R83374	43,21
UNEF 1/2 x 28	89	29	9,0	7,1	3R83375	43,21
UNEF 9/16 x 24	95	30	11,2	9,0	3R83376	65,14
UNEF 5/8 x 24	102	32	12,5	10,0	3R83377	65,14
UNEF 11/16 x 24	112	37	14,0	11,2	3R83378	123,91
UNEF 3/4 x 20	112	37	14,0	11,2	3R83379	123,91
UNEF 13/16 x 20	118	38	16,0	12,5	3R83380	150,93
UNEF 7/8 x 20	118	38	16,0	12,5	3R83381	150,93
UNEF 15/16 x 20	130	45	18,0	14,0	3R83382	172,85
UNEF 1 x 20	130	45	18,0	14,0	3R83383	172,85

UNS

ROSCA UNIFICADA ANSI B 1.1
UNIFIED THREAD ANSI B 1.1
FILETAGE UNIFIÉ ANSI B 1.1



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid. €
UNS 1/4 x 24	66	19	6,3	5,0	3R83201	20,66
UNS 1/4 x 36	66	19	6,3	5,0	3R83202	20,65
UNS 1/4 x 40	66	19	6,3	5,0	3R83203	20,66
UNS 3/8 x 27	80	24	10,0	8,0	3R83204	29,23
UNS 7/16 x 24	85	25	8,0	6,3	3R83205	34,63
UNS 1/2 x 24	89	29	9,0	7,1	3R83206	34,63
UNS 5/8 x 27	102	32	12,5	10,0	3R83207	52,11
UNS 3/4 x 24	112	37	14,0	11,2	3R83208	98,50
UNS 7/8 x 18	118	38	16,0	12,5	3R83209	120,74
UNS 1 x 14	130	45	18,0	14,0	3R83210	138,22

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

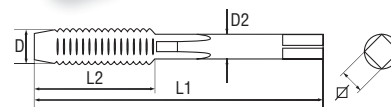
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

UN ROSCA UNIFICADA ANSI B 1.1

UNIFIED THREAD ANSI B 1.1
FILETAGE UNIFIÉ ANSI B 1.1



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UN 5/16 x 28	72	22	8,0	6,3	3R83221	26,06
UN 3/8 x 20	80	24	10,0	8,0	3R83222	29,23
UN 3/8 x 28	80	24	10,0	8,0	3R83223	29,23
UN 7/16 x 32	85	25	8,0	6,3	3R83224	34,63
UN 1/2 x 32	89	29	9,0	7,1	3R83225	34,63
UN 9/16 x 20	95	30	11,2	9,0	3R83226	52,11
UN 9/16 x 28	95	30	11,2	9,0	3R83227	52,11
UN 9/16 x 32	95	30	11,2	9,0	3R83228	52,11
UN 5/8 x 20	102	32	12,5	10,0	3R83229	52,11
UN 5/8 x 28	102	32	12,5	10,0	3R83230	52,11
UN 11/16 x 20	112	37	14,0	11,2	3R83231	98,50
UN 11/16 x 16	112	37	14,0	11,2	3R83232	98,50
UN 1 x 32	130	45	18,0	14,0	3R83233	138,22

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

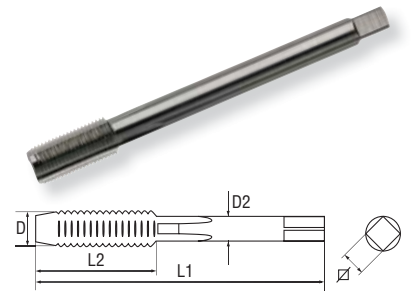
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

G(BSP)

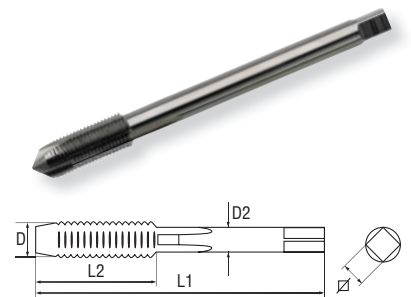
ROSCA GAS DIN ISO 228
 PIPE THREAD ISO 228
 FILETAGE PAS GAZ DIN ISO 228


HSS-CO 5%
DIN 5156
FORM C


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R78412	28,69
G 1/4 x 19	100	22	11,0	9,0	3R78414	37,53
G 3/8 x 19	100	22	12,0	9,0	3R78416	47,63
G 1/2 x 14	125	25	12,0	12,0	3R78418	61,48
G 5/8 x 14	125	25	18,0	14,5	3R78420	75,02
G 3/4 x 14	140	28	20,0	16,0	3R78422	94,21
G 7/8 x 14	150	28	22,0	18,0	3R78424	126,66
G 1 x 11	160	30	25,0	20,0	3R78426	142,63
G 1.1/8 x 11	170	30	28,0	22,0	3R78430	222,95
G 1.1/4 x 11	170	30	32,0	24,0	3R78434	262,08
G 1.3/8 x 11	180	32	36,0	29,0	3R78438	327,50
G 1.1/2 x 11	190	32	36,0	29,0	3R78442	417,61
G 1.3/4 x 11	190	32	40,0	32,0	3R78450	496,66
G 2 x 11	220	40	45,0	35,0	3R78454	540,52

G(BSP)

ROSCA GAS DIN ISO 228
 PIPE THREAD ISO 228
 FILETAGE PAS GAZ DIN ISO 228


HSS-CO 5%
DIN 5156
FORM B


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R78512	32,90
G 1/4 x 19	100	22	11,0	9,0	3R78514	43,75
G 3/8 x 19	100	22	12,0	9,0	3R78516	52,91
G 1/2 x 14	125	22	16,0	12,0	3R78518	66,19
G 5/8 x 14	125	25	18,0	14,5	3R78520	84,37
G 3/4 x 14	140	28	20,0	16,0	3R78522	104,38
G 7/8 x 14	150	28	22,0	18,0	3R78524	141,57
G 1 x 11	160	30	25,0	20,0	3R78526	157,65
G 1.1/8 x 11	170	30	28,0	22,0	3R78530	254,74
G 1.1/4 x 11	170	30	32,0	24,0	3R78534	293,13
G 1.3/8 x 11	180	32	36,0	29,0	3R78538	375,39
G 1.1/2 x 11	190	32	36,0	29,0	3R78542	525,52
G 1.3/4 x 11	190	32	40,0	32,0	3R78550	550,53
G 2 x 11	220	40	45,0	35,0	3R78554	550,53

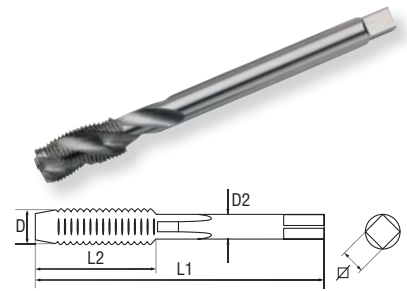
G(BSP)

ROSCA GAS DIN ISO 228
PIPE THREAD ISO 228
FILETAGE PAS GAZ DIN ISO 228



HSS-CO 5%

DIN 5156



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R78712	34,55
G 1/4 x 19	100	22	11,0	9,0	3R78714	48,06
G 3/8 x 19	100	22	12,0	9,0	3R78716	60,05
G 1/2 x 14	125	25	18,0	12,0	3R78718	75,09
G 5/8 x 14	125	25	18,0	14,5	3R78720	93,69
G 3/4 x 14	140	28	20,0	16,0	3R78722	118,69
G 7/8 x 14	150	28	22,0	18,0	3R78724	158,36
G 1 x 11	160	30	25,0	20,0	3R78726	185,89
G 1.1/8 x 11	170	30	28,0	22,0	3R78730	279,87
G 1.1/4 x 11	170	30	32,0	24,0	3R78734	336,05
G 1.3/8 x 11	180	32	36,0	29,0	3R78738	443,53
G 1.1/2 x 11	190	32	36,0	29,0	3R78742	593,44
G 1.3/4 x 11	190	32	40,0	32,0	3R78750	713,21
G 2 x 11	220	40	45,0	35,0	3R78754	713,21

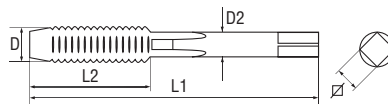
Rc(BSPT)

ROSCA INGLESA PARA TUBO, CONICIDAD 1:16
TAPERED PIPE THREAD, TAPER 1:16
FILETAGE PAS GAZ CONIQUE, CONICITÉ 1:16



HSS-CO 5%

DIN 5156



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
Rc 1/8 x 28	90	20	7,0	5,5	3R73404	46,66
Rc 1/4 x 19	100	22	11,0	9,0	3R73406	58,73
Rc 3/8 x 19	100	22	12,0	9,0	3R73408	73,08
Rc 1/2 x 14	125	28	16,0	12,0	3R73410	102,77
Rc 3/4 x 14	140	28	20,0	16,0	3R73412	151,70
Rc 1 x 11	160	38	25,0	20,0	3R73414	218,59

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

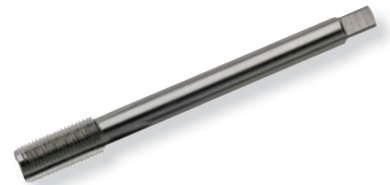
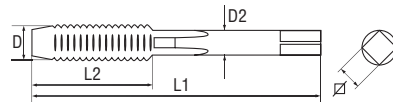
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

NPT

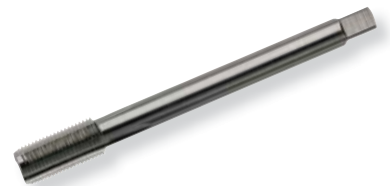
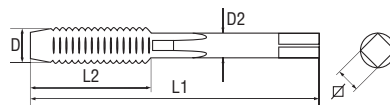
ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16
 TAPERED PIPE THREAD, TAPER 1:16
 FILETAGE NPT CONICITÉ 1:16



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
NPT 1/16 x 27	90	20	6,0	4,9	3R73432	49,82
NPT 1/8 x 27	90	20	7,0	5,5	3R73434	38,93
NPT 1/4 x 18	100	22	11,0	9,0	3R73436	49,01
NPT 3/8 x 18	100	22	12,0	9,0	3R73438	61,00
NPT 1/2 x 14	125	28	16,0	12,0	3R73440	85,76
NPT 3/4 x 14	140	28	20,0	16,0	3R73442	126,60
NPT 1 x 11.5	160	38	25,0	20,0	3R73444	182,41

VG

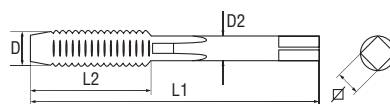
PARA ROSCAS DE VÁLVULAS DE NEUMÁTICO DIN 7756
 FOR TIRE VALVES THREADS DIN 7756
 POUR LES VALVES DES PNEUMATIQUES DIN 7756



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
VG 5 X 36	70	12	6,00	4,90	3R30501	138,51
VG 5,2 X 24	80	17	6,00	4,90	3R30502	138,51
VG 6 X 32	80	14	6,00	5,50	3R30503	154,50
VG 8 X 32	80	16	7,00	6,20	3R30504	157,69
VG 10 X 28	90	18	8,00	6,20	3R30505	170,48
VG 12 X 26	100	22	8,00	7,00	3R30506	191,79

BSC

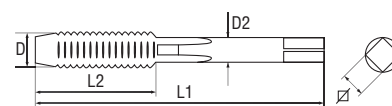
PARA EJES DE PEDALIER
 FOR BOTTOM BRACKET
 POUR PÉDALIER VÉLO



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
BSC 1/4" X 26	56	14	7	4,9	3R30507	276,14
BSC 5/16" X 26	63	16	6	4,9	3R30508	291,92
BSC 3/8" X 26	63	16	7	5,5	3R30509	305,73
BSC 9/16" X 20 R	70	22	11,00	9,00	3R30510	183,04
BSC 9/16" X 20 L	70	22	11,00	9,00	3R30511	205,92
BSC 1" X 24	70	22	11,00	11,00	3R30512	*

* Consultar precio y disponibilidad / Request price and availability / Consulter le prix et la disponibilité

M MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



HSS-CO 5%

DIN 371



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R33426	22,29
M 4 x 0,70	63	13	4,5	3,4	3R33430	22,68
M 5 x 0,80	70	16	6,0	4,9	3R33434	22,99
M 6 x 1,00	80	19	6,0	4,9	3R33438	23,96
M 8 x 1,25	90	22	8,0	6,2	3R33442	29,30
M 10 x 1,50	100	24	10,0	8,0	3R33446	33,51



HSS-CO 5%

DIN 376



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 12 x 1,75	110	29	9,0	7,0	3R34450	41,40
M 14 x 2,00	110	30	11,0	9,0	3R34454	55,31
M 16 x 2,00	110	32	12,0	9,0	3R34458	63,90
M 18 x 2,50	125	34	14,0	11,0	3R34462	94,81
M 20 x 2,50	140	34	16,0	12,0	3R34466	115,11
M 22 x 2,50	140	34	18,0	14,5	3R34470	132,01
M 24 x 3,00	160	38	18,0	14,5	3R34474	146,45

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

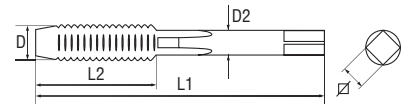
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M

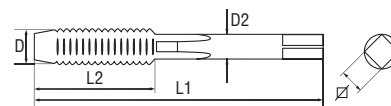
MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
 METRIC ISO-THREAD DIN 13, LEFT HAND
 MÉTRIQUE DIN-13, GAUCHE

HSS-CO 5%
DIN 371
FORM B
TOL 6H


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R33526	24,10
M 4 x 0,70	63	13	4,5	3,4	3R33530	24,01
M 5 x 0,80	70	16	6,0	4,9	3R33534	24,96
M 6 x 1,00	80	19	6,0	4,9	3R33538	26,15
M 7 x 1,00	80	19	7,0	5,5	3R33540	34,07
M 8 x 1,25	90	22	8,0	6,2	3R33542	30,23
M 10 x 1,50	100	24	10,0	8,0	3R33546	36,35


HSS-CO 5%
DIN 376
FORM B
TOL 6H

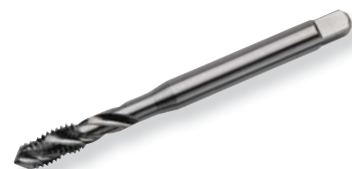

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	2,2	-	3R34526	24,99
M 4 x 0,70	63	13	2,8	2,1	3R34530	24,90
M 5 x 0,80	70	16	3,5	2,7	3R34534	25,89
M 6 x 1,00	80	19	4,5	3,4	3R34538	27,12
M 8 x 1,25	90	22	6,0	4,9	3R34542	31,35
M 10 x 1,50	100	24	7,0	5,5	3R34546	37,70
M 12 x 1,75	110	29	9,0	7,0	3R34550	47,95
M 14 x 2,00	110	30	11,0	9,0	3R34554	61,81
M 16 x 2,00	110	32	12,0	9,0	3R34558	72,80
M 18 x 2,50	125	34	14,0	11,0	3R34562	103,12
M 20 x 2,50	140	34	16,0	12,0	3R34566	121,17
M 22 x 2,50	140	34	18,0	14,5	3R34570	138,36
M 24 x 3,00	160	38	18,0	14,5	3R34574	159,17
M 27 x 3,00	160	38	20,0	16,0	3R34576	236,57
M 30 x 3,50	180	45	22,0	18,0	3R34578	253,90
M 33 x 3,50	180	50	25,0	20,0	3R34580	340,13
M 36 x 4,00	200	56	28,0	22,0	3R34582	559,37
M 39 x 4,00	200	60	32,0	24,0	3R34584	721,56
M 42 x 4,50	200	60	32,0	24,0	3R34586	826,12
M 45 x 4,50	220	65	36,0	29,0	3R34588	938,49
M 48 x 5,00	250	70	36,0	29,0	3R34590	1.030,77
M 52 x 5,00	250	70	40,0	32,0	3R34592	1.255,94

M MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



HSS-CO 5%

DIN 371



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R33726	28,33
M 4 x 0,70	63	7	4,5	3,4	3R33730	28,33
M 5 x 0,80	70	8	6,0	4,9	3R33734	29,75
M 6 x 1,00	80	10	6,0	4,9	3R33738	29,75
M 8 x 1,25	90	14	8,0	6,2	3R33742	35,99
M 10 x 1,50	100	16	10,0	8,0	3R33746	42,06



HSS-CO 5%

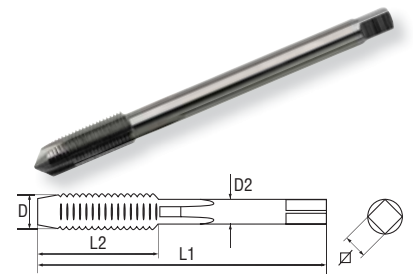
DIN 376



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	2,2	-	3R34726	29,38
M 4 x 0,70	63	7	2,8	2,1	3R34730	29,38
M 5 x 0,80	70	8	3,5	2,7	3R34734	30,85
M 6 x 1,00	80	10	4,5	3,4	3R34738	30,85
M 8 x 1,25	90	14	6,0	4,9	3R34742	37,32
M 10 x 1,50	100	16	7,0	5,5	3R34746	43,62
M 12 x 1,75	110	18	9,0	7,0	3R34750	55,08
M 14 x 2,00	110	20	11,0	9,0	3R34754	71,52
M 16 x 2,00	110	22	12,0	9,0	3R34758	86,81
M 18 x 2,50	125	25	14,0	11,0	3R34762	117,42
M 20 x 2,50	140	25	16,0	12,0	3R34766	144,42
M 22 x 2,50	140	27	18,0	14,5	3R34770	165,81
M 24 x 3,00	160	30	18,0	14,5	3R34774	179,53
M 27 x 3,00	160	30	20,0	16,0	3R34776	280,53
M 30 x 3,50	180	35	22,0	18,0	3R34778	293,94
M 33 x 3,50	180	35	25,0	20,0	3R34780	404,74
M 36 x 4,00	200	40	28,0	22,0	3R34782	667,77
M 39 x 4,00	200	40	32,0	24,0	3R34784	726,06
M 42 x 4,50	200	45	32,0	24,0	3R34786	1.173,50
M 45 x 4,50	220	45	36,0	29,0	3R34788	1.332,08
M 48 x 5,00	250	50	36,0	29,0	3R34790	1.458,95
M 52 x 5,00	250	50	40,0	32,0	3R34792	1.776,12

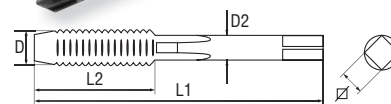
Mf

MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
 METRIC ISO-THREAD DIN 13, LEFT HAND
 MÉTRIQUE DIN-13, GAUCHE



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,35	56	9	2,2	-	3R34801	55,83
M 4 x 0,35	63	10	2,8	2,1	3R34802	55,83
M 4 x 0,50	63	10	2,8	2,1	3R34803	55,83
M 5 x 0,50	70	12	3,5	2,7	3R34804	55,83
M 5 x 0,75	70	12	3,5	2,7	3R34805	55,83
M 6 x 0,50	80	14	4,5	3,4	3R34806	55,83
M 6 x 0,75	80	14	4,5	3,4	3R34807	55,83
M 7 x 0,75	80	14	5,5	4,3	3R34808	55,83
M 8 x 0,50	80	19	6,0	4,9	3R34809	55,83
M 8 x 0,75	80	19	6,0	4,9	3R34810	55,83
M 8 x 1,00	90	22	6,0	4,9	3R34811	55,83
M 9 x 0,75	80	19	7,0	5,5	3R34812	55,83
M 9 x 1,00	90	22	7,0	5,5	3R34813	58,57
M 10 x 0,75	90	20	7,0	5,5	3R34814	69,76
M 10 x 1,00	90	20	7,0	5,5	3R34815	62,22
M 10 x 1,25	100	24	7,0	5,5	3R34816	62,22
M 11 x 1,00	90	20	8,0	6,2	3R34817	86,94
M 11 x 1,25	90	22	8,0	6,2	3R34818	86,94
M 12 x 0,75	100	22	9,0	7,0	3R34819	86,94
M 12 x 1,00	100	22	9,0	7,0	3R34820	86,94
M 12 x 1,25	100	22	9,0	7,0	3R34821	86,94
M 12 x 1,50	100	22	9,0	7,0	3R34822	86,94
M 13 x 1,00	100	22	11,0	9,0	3R34823	115,61
M 13 x 1,50	100	22	11,0	9,0	3R34824	115,61
M 14 x 0,75	100	22	11,0	9,0	3R34825	123,69
M 14 x 1,00	100	22	11,0	9,0	3R34826	105,70
M 14 x 1,25	100	22	11,0	9,0	3R34827	105,70
M 14 x 1,50	100	22	11,0	9,0	3R34828	105,70
M 15 x 1,00	100	22	12,0	9,0	3R34829	124,52
M 15 x 1,50	100	22	12,0	9,0	3R34830	122,53
M 16 x 1,00	100	22	12,0	9,0	3R34831	122,53
M 16 x 1,25	100	22	12,0	9,0	3R34832	128,36
M 16 x 1,50	100	22	12,0	9,0	3R34833	122,53
M 18 x 1,00	110	25	14,0	11,0	3R34834	147,04
M 18 x 1,25	110	25	14,0	11,0	3R34835	152,26
M 18 x 1,50	110	25	14,0	11,0	3R34836	147,04
M 18 x 2,00	125	34	14,0	11,0	3R34837	147,04
M 20 x 1,00	125	25	16,0	12,0	3R34838	177,88
M 20 x 1,25	125	25	16,0	12,0	3R34839	190,34
M 20 x 1,50	125	25	16,0	12,0	3R34840	161,95
M 20 x 2,00	140	34	16,0	12,0	3R34841	161,95
M 21 x 1,50	125	25	16,0	12,0	3R34842	190,34
M 22 x 1,00	125	25	18,0	14,5	3R34843	202,44
M 22 x 1,25	125	25	18,0	14,5	3R34844	222,02
M 22 x 1,50	125	25	18,0	14,5	3R34845	202,44
M 22 x 2,00	140	34	18,0	14,5	3R34846	202,44
M 23 x 1,50	125	25	18,0	14,5	3R34847	253,75
M 24 x 1,00	140	28	18,0	14,5	3R34848	235,70
M 24 x 1,25	140	28	18,0	14,5	3R34849	253,75
M 24 x 1,50	140	28	18,0	14,5	3R34850	234,41
M 24 x 2,00	140	28	18,0	14,5	3R34851	234,41

Mf MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 25 x 1,0	140	28	18,0	14,5	3R34852	253,75
M 25 x 1,5	140	28	18,0	14,5	3R34853	253,75
M 26 x 1,0	140	28	18,0	14,5	3R3485X	253,75
M 26 x 1,5	140	28	18,0	14,5	3R34854	234,41
M 26 x 2,0	140	28	18,0	14,5	3R34855	253,75
M 27 x 1,0	140	28	20,0	16,0	3R34800	317,21
M 27 x 1,5	140	28	20,0	16,0	3R34856	296,21
M 27 x 2,0	140	28	20,0	16,0	3R34857	296,21
M 28 x 1,0	140	28	20,0	16,0	3R34858	317,21
M 28 x 1,5	140	28	20,0	16,0	3R34859	296,21
M 28 x 2,0	140	28	20,0	16,0	3R34860	296,21
M 29 x 1,5	150	28	22,0	18,0	3R34861	364,79
M 30 x 1,0	150	28	22,0	18,0	3R34862	342,41
M 30 x 1,5	150	28	22,0	18,0	3R34863	337,76
M 30 x 2,0	150	28	22,0	18,0	3R34864	337,76
M 30 x 2,5	180	45	22,0	18,0	3R3486X	364,79
M 30 x 3,0	180	45	22,0	18,0	3R34865	364,79
M 32 x 1,5	150	28	22,0	18,0	3R34866	417,67
M 32 x 2,0	150	28	22,0	18,0	3R34867	475,80
M 32 x 3,0	180	50	22,0	18,0	3R34892	475,80
M 33 x 1,5	160	30	25,0	20,0	3R34893	417,67
M 33 x 2,0	160	30	25,0	20,0	3R34868	475,80
M 33 x 3,0	180	50	25,0	20,0	3R34869	475,80
M 34 x 1,5	170	30	28,0	22,0	3R34870	442,54
M 34 x 2,0	170	30	28,0	22,0	3R34871	442,54
M 35 x 1,5	170	30	28,0	22,0	3R34872	444,68
M 36 x 1,5	170	30	28,0	22,0	3R34873	555,23
M 36 x 2,0	170	30	28,0	22,0	3R34874	563,26
M 36 x 3,0	200	56	28,0	22,0	3R34875	637,37
M 38 x 1,5	170	30	28,0	22,0	3R34876	588,20
M 39 x 1,5	170	30	32,0	24,0	3R34877	607,73
M 39 x 2,0	170	30	32,0	24,0	3R34878	607,73
M 39 x 3,0	200	60	32,0	24,0	3R34879	607,73
M 40 x 1,5	170	30	32,0	24,0	3R34880	640,44
M 40 x 2,0	170	30	32,0	24,0	3R34881	711,48
M 40 x 3,0	200	60	32,0	24,0	3R34882	741,13
M 42 x 1,5	170	30	32,0	24,0	3R34883	714,65
M 42 x 2,0	170	30	32,0	24,0	3R34884	830,05
M 42 x 3,0	200	60	32,0	24,0	3R34885	859,72
M 45 x 1,5	180	32	36,0	29,0	3R34886	846,58
M 45 x 2,0	180	32	36,0	29,0	3R34887	846,58
M 45 x 3,0	200	50	36,0	29,0	3R34888	889,34
M 48 x 1,5	190	32	36,0	29,0	3R34889	1.017,00
M 48 x 2,0	190	32	36,0	29,0	3R34890	1.017,00
M 48 x 3,0	225	50	36,0	29,0	3R34891	1.017,00
M 50 x 1,5	190	32	36,0	29,0	3R34894	1.179,17
M 50 x 2,0	190	32	36,0	29,0	3R34895	1.179,17
M 50 x 3,0	225	50	36,0	29,0	3R34896	1.179,17
M 52 x 1,5	190	32	40,0	32,0	3R34897	1.300,12
M 52 x 2,0	190	32	40,0	32,0	3R34898	1.300,12
M 52 x 3,0	225	50	40,0	32,0	3R34899	1.342,52

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

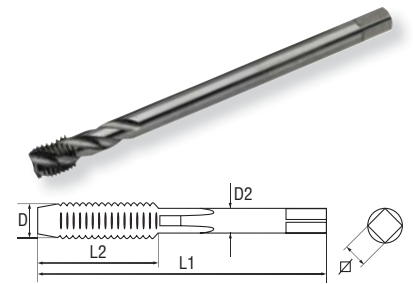
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

Mf

MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
 METRIC ISO-THREAD DIN 13, LEFT HAND
 MÉTRIQUE DIN-13, GAUCHE



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,35	56	5	2,2	-	3R34901	65,23
M 4 x 0,35	63	5	2,8	2,1	3R34902	65,23
M 4 x 0,50	63	5	2,8	2,1	3R34903	62,22
M 5 x 0,50	70	5	3,5	2,7	3R34904	62,22
M 5 x 0,75	70	8	3,5	2,7	3R34905	62,22
M 6 x 0,50	80	5	4,5	3,4	3R34906	65,23
M 6 x 0,75	80	8	4,5	3,4	3R34907	62,22
M 7 x 0,75	80	8	5,5	4,3	3R34908	65,23
M 8 x 0,50	80	8	6,0	4,9	3R34909	65,24
M 8 x 0,75	80	8	6,0	4,9	3R34910	65,23
M 8 x 1,00	90	10	6,0	4,9	3R34911	62,22
M 9 x 0,75	80	10	7,0	5,5	3R34912	66,75
M 9 x 1,00	90	10	7,0	5,5	3R34913	64,97
M 10 x 0,75	90	10	7,0	5,5	3R34914	75,22
M 10 x 1,00	90	10	7,0	5,5	3R34915	75,22
M 10 x 1,25	100	16	7,0	5,5	3R34916	75,22
M 11 x 1,00	90	11	8,0	6,2	3R34917	113,00
M 11 x 1,25	90	14	8,0	6,2	3R34918	113,00
M 12 x 0,75	100	10	9,0	7,0	3R34919	113,00
M 12 x 1,00	100	11	9,0	7,0	3R34920	96,32
M 12 x 1,25	100	15	9,0	7,0	3R34921	96,32
M 12 x 1,50	100	15	9,0	7,0	3R34922	96,32
M 13 x 1,00	100	11	11,0	9,0	3R34923	118,86
M 13 x 1,50	100	15	11,0	9,0	3R34924	118,86
M 14 x 0,75	100	10	11,0	9,0	3R34925	118,86
M 14 x 1,00	100	11	11,0	9,0	3R34926	117,63
M 14 x 1,25	100	15	11,0	9,0	3R34927	117,63
M 14 x 1,50	100	15	11,0	9,0	3R34928	117,63
M 15 x 1,50	100	15	12,0	9,0	3R34930	164,14
M 16 x 1,00	100	12	12,0	9,0	3R34931	178,73
M 16 x 1,25	100	15	12,0	9,0	3R34932	164,14
M 16 x 1,50	100	15	12,0	9,0	3R34933	134,89
M 18 x 1,00	110	13	14,0	11,0	3R34934	174,90
M 18 x 1,25	110	15	14,0	11,0	3R34935	174,90
M 18 x 1,50	110	17	14,0	11,0	3R34936	167,28
M 18 x 2,00	125	20	14,0	11,0	3R34937	174,90
M 20 x 1,00	125	14	16,0	12,0	3R34938	212,05
M 20 x 1,25	125	17	16,0	12,0	3R34939	212,05
M 20 x 1,50	125	17	16,0	12,0	3R34940	186,67
M 20 x 2,00	140	20	16,0	12,0	3R34941	212,05
M 22 x 1,00	125	14	18,0	14,5	3R34943	244,54
M 22 x 1,25	125	17	18,0	14,5	3R34944	244,54
M 22 x 1,50	125	17	18,0	14,5	3R34945	223,75
M 22 x 2,00	140	20	18,0	14,5	3R34946	259,79
M 24 x 1,00	140	15	18,0	14,5	3R34948	288,11
M 24 x 1,25	140	17	18,0	14,5	3R34949	274,29
M 24 x 1,50	140	20	18,0	14,5	3R34950	268,50
M 24 x 2,00	140	20	18,0	14,5	3R34951	274,28
M 26 x 1,50	140	20	18,0	14,5	3R34954	303,28
M 26 x 2,00	140	20	18,0	14,5	3R34955	303,28
M 27 x 2,00	140	20	20,0	16,0	3R34957	362,79
M 28 x 1,50	140	20	20,0	16,0	3R34959	362,80

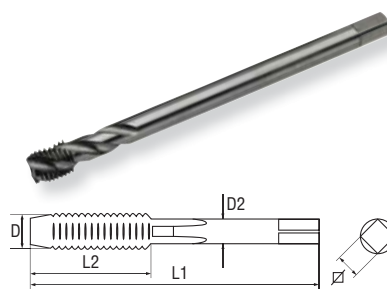
Mf

MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



HSS-CO 5%

DIN 374



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 28 x 2,00	140	20	20,0	16,0	3R34960	362,80
M 30 x 1,00	150	17	22,0	18,0	3R34962	393,26
M 30 x 1,50	150	22	22,0	18,0	3R34963	370,79
M 30 x 2,00	150	22	22,0	18,0	3R34964	408,37
M 30 x 2,50	180	27	22,0	18,0	3R3496X	408,37
M 30 x 3,00	180	30	22,0	18,0	3R34965	408,37
M 32 x 2,00	150	22	22,0	18,0	3R34967	483,55
M 33 x 2,00	160	24	25,0	20,0	3R34968	483,55
M 34 x 1,50	170	24	28,0	22,0	3R34970	489,61
M 34 x 2,00	170	24	28,0	22,0	3R34971	489,61
M 36 x 1,50	170	24	28,0	22,0	3R34973	618,47
M 36 x 2,00	170	24	28,0	22,0	3R34974	618,47
M 36 x 3,00	200	30	28,0	22,0	3R34975	618,47
M 38 x 1,50	170	24	28,0	22,0	3R34976	652,46
M 39 x 2,00	170	25	32,0	24,0	3R34978	652,46
M 40 x 1,50	170	25	32,0	24,0	3R34980	721,78
M 40 x 2,00	170	25	32,0	24,0	3R34981	721,78
M 40 x 3,00	200	30	32,0	24,0	3R34982	721,32
M 42 x 2,00	170	25	32,0	24,0	3R34984	811,51
M 45 x 1,50	180	27	36,0	29,0	3R34986	950,08
M 45 x 2,00	180	27	36,0	29,0	3R34987	950,08
M 45 x 3,00	200	30	36,0	29,0	3R34988	950,08
M 48 x 2,00	190	27	36,0	29,0	3R34990	1.131,75
M 50 x 1,50	190	27	36,0	29,0	3R34994	1.310,76
M 50 x 2,00	190	27	36,0	29,0	3R34995	1.310,76
M 50 x 3,00	225	33	36,0	29,0	3R34996	1.310,76
M 52 x 1,50	190	27	40,0	32,0	3R34997	1.443,57
M 52 x 2,00	190	27	40,0	32,0	3R34998	1.443,57
M 52 x 3,00	225	33	40,0	32,0	3R34999	1.443,57

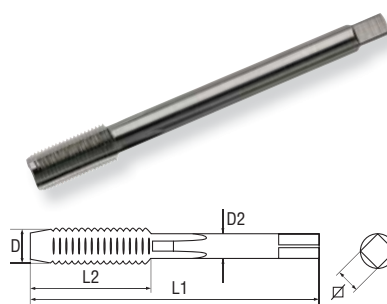
G(BSP)

ROSCA GAS DIN ISO 228, IZQUIERDAS
PIPE THREAD DIN ISO 228, LEFT HAND
FILETAGE PAS GAZ DIN ISO 228, GAUCHE



HSS-CO 5%

DIN 5156



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R78202	57,23
G 1/4 x 19	100	22	11,0	9,0	3R78203	71,48
G 3/8 x 19	100	22	12,0	9,0	3R78204	94,37
G 1/2 x 14	125	25	16,0	12,0	3R78205	122,96
G 5/8 x 14	125	25	18,0	14,5	3R78206	145,85
G 3/4 x 14	140	28	20,0	16,0	3R78207	185,91
G 1 x 11	160	30	25,0	20,0	3R78208	271,69

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

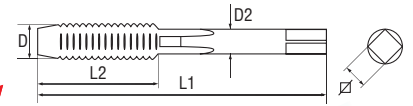
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M MÉTRICA ISO-ROSCA DIN 13 BANDA VERDE PM

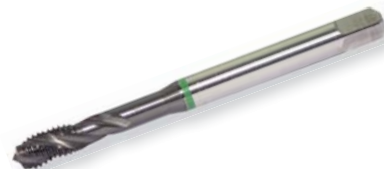
METRIC ISO-THREAD DIN 13 GREEN RING PM
MÉTRIQUE DIN-13 BANDE VERT PM



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	9	3,5	2,7	3R30226	31,18
M 4,0 x 0,70	63	12	4,5	3,4	3R30230	31,85
M 5,0 x 0,80	70	13	6	4,9	3R30234	33,62
M 6,0 x 1,00	80	15	6	4,9	3R30238	33,62
M 8,0 x 1,25	90	18	8	6,2	3R30242	38,93
M 10,0 x 1,50	100	20	10	8	3R30246	46,60



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	23	9	7	3R30250	59,32
M 14,0 x 2,00	110	25	11	9	3R30254	74,77
M 16,0 x 2,00	110	25	12	9	3R30258	78,14
M 18,0 x 2,50	125	30	14	11	3R30262	117,29
M 20,0 x 2,50	140	30	16	12	3R30266	121,00
NEW M 22,0 x 2,50	140	30	18	14,5	3R30270	174,69
NEW M 24,0 x 3,00	160	36	18	14,5	3R30274	175,32
NEW M 27,0 x 3,00	160	36	20	16	3R30276	235,11
NEW M 30,0 x 3,50	180	40	22	18	3R30282	284,59



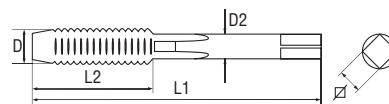
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,50	2,70	3R30126	35,73
M 4,0 x 0,70	63	7	4,50	3,40	3R30130	35,73
M 5,0 x 0,80	70	8	6,00	4,90	3R30134	36,65
M 6,0 x 1,00	80	10	6,00	4,90	3R30138	38,09
M 8,0 x 1,25	90	13	8,00	6,20	3R30142	44,41
M 10,0 x 1,50	100	15	10,00	8,00	3R30146	52,41



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	18	9,00	7,00	3R30150	67,75
M 14,0 x 2,00	110	20	11,00	9,00	3R30154	84,09
M 16,0 x 2,00	110	20	12,00	9,00	3R30158	92,46
M 18,0 x 2,50	125	25	14,00	11,00	3R30162	133,81
M 20,0 x 2,50	140	25	16,00	12,00	3R30166	138,36

*Para otras medidas consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



BANDA VERDE - MULTIMATERIAL
GREEN RING - MULTIMATERIAL • BANDE VERT - MULTIMATERIEL



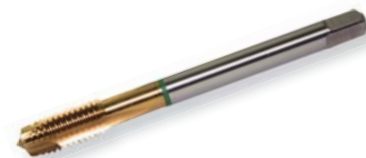
ACERO 800-1100 N/mm² INOX AL CU F LT **HSS-E-V3** DIN 371 FORM B TOL 6H TIN



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€
M 3,0 x 0,50	56	9	3,5	2,7	3R30426	21,74
M 4,0 x 0,70	63	12	4,5	3,4	3R30430	21,99
M 5,0 x 0,80	70	13	6	4,9	3R30434	22,75
M 6,0 x 1,00	80	15	6	4,9	3R30438	22,92
M 8,0 x 1,25	90	18	8	6,2	3R30442	26,46
M 10,0 x 1,50	100	20	10	8	3R30446	31,09



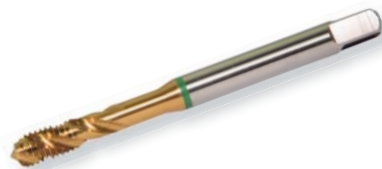
ACERO 800-1100 N/mm² INOX AL CU F LT **HSS-E-V3** DIN 376 FORM B TOL 6H TIN



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€
M 12,0 x 1,75	110	23	9	7	3R30450	39,43
M 14,0 x 2,00	110	25	11	9	3R30454	51,48
M 16,0 x 2,00	110	25	12	11	3R30458	56,88
M 18,0 x 2,50	125	30	14	11	3R30462	81,23
M 20,0 x 2,50	140	30	16	12	3R30466	83,92



ACERO 800-1100 N/mm² INOX AL CU F LT **HSS-E-V3** DIN 371 FORM C/35° TOL 6H TIN



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,5	2,7	3R30326	23,51
M 4,0 x 0,70	63	7	4,5	3,4	3R30330	23,51
M 5,0 x 0,80	70	8	6	4,9	3R30334	24,01
M 6,0 x 1,00	80	10	6	4,9	3R30338	25,19
M 8,0 x 1,25	90	13	8	6,2	3R30342	29,15
M 10,0 x 1,50	100	15	10	8	3R30346	34,29



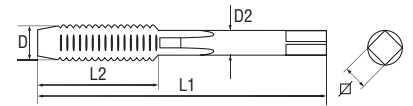
ACERO 800-1100 N/mm² INOX AL CU F LT **HSS-E-V3** DIN 376 FORM C/35° TOL 6H TIN



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€
M 12,0 x 1,75	110	18	9	7	3R30350	44,83
M 14,0 x 2,00	110	20	11	9	3R30354	56,03
M 16,0 x 2,00	110	20	12	9	3R30358	61,59
M 18,0 x 2,50	125	25	14	11	3R30362	88,81
M 20,0 x 2,50	140	25	16	12	3R30366	91,59

*Para otras medidas consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



BANDA BLANCA WHITE RING • BANDE BLANC

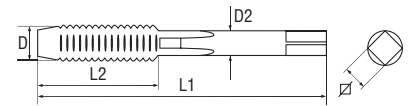


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R35226	19,04
M 4 x 0,70	63	13	4,5	3,4	3R35230	19,04
M 5 x 0,80	70	16	6,0	4,9	3R35234	20,41
M 6 x 1,00	80	19	6,0	4,9	3R35238	21,09
M 8 x 1,25	90	22	8,0	6,2	3R35242	23,80
M 10 x 1,50	100	24	10,0	8,0	3R35246	28,57



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x 1,75	110	29	9,0	7,0	3R35250	36,74
M 14 x 2,00	110	30	11,0	9,0	3R35254	50,34
M 16 x 2,00	110	32	12,0	9,0	3R35258	57,14
M 18 x 2,50	125	34	14,0	11,0	3R35262	87,07
M 20 x 2,50	140	34	16,0	12,0	3R35266	97,78

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



BANDA BLANCA WHITE RING • BANDE BLANC



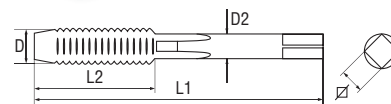
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R36226	24,06
M 4 x 0,70	63	7	4,5	3,4	3R36230	24,06
M 5 x 0,80	70	8	6,0	4,9	3R36234	25,36
M 6 x 1,00	80	10	6,0	4,9	3R36238	25,36
M 8 x 1,25	90	14	8,0	6,2	3R36242	29,52
M 10 x 1,50	100	16	10,0	8,0	3R36246	34,77



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x 1,75	110	18	9,0	7,0	3R36250	43,10
M 14 x 2,00	110	20	11,0	9,0	3R36254	56,05
M 16 x 2,00	110	22	12,0	9,0	3R36258	66,60
M 18 x 2,50	125	25	14,0	11,0	3R36262	88,42
M 20 x 2,50	140	25	16,0	12,0	3R36266	119,75

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

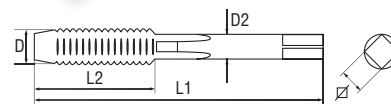
BANDA BLANCA WHITE RING • BANDE BLANC



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 5 x 0,50	70	12	3,5	2,7	3R35903	43,69
M 6 x 0,75	80	14	4,5	3,4	3R35904	43,69
M 8 x 0,75	80	19	6,0	4,9	3R35906	43,69
M 8 x 1,00	90	22	6,0	4,9	3R35907	43,69
M 10 x 1,00	90	20	7,0	5,5	3R35909	50,97
M 10 x 1,25	100	24	7,0	5,5	3R35910	50,97
M 12 x 1,25	100	22	9,0	5,5	3R35913	69,90
M 12 x 1,50	100	22	9,0	7,0	3R35914	69,90
M 14 x 1,50	100	22	11,0	9,0	3R35917	87,38
M 16 x 1,50	100	22	12,0	9,0	3R35921	100,49
M 18 x 1,50	110	25	14,0	11,0	3R35925	122,33
M 20 x 1,50	125	25	16,0	12,0	3R35929	135,44

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

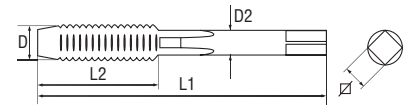
BANDA BLANCA WHITE RING • BANDE BLANC



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 5 x 0,50	70	5	3,5	2,7	3R36903	49,52
M 6 x 0,75	80	8	4,5	3,4	3R36904	49,52
M 8 x 0,75	80	8	6,0	4,9	3R36906	49,52
M 8 x 1,00	90	10	6,0	4,9	3R36907	49,52
M 10 x 1,00	90	10	7,0	5,5	3R36909	59,71
M 10 x 1,25	100	16	7,0	5,5	3R36910	58,84
M 12 x 1,25	100	15	9,0	7,0	3R36913	75,73
M 12 x 1,50	100	15	9,0	7,0	3R36914	75,73
M 14 x 1,50	100	15	11,0	9,0	3R36917	93,21
M 16 x 1,50	100	15	12,0	9,0	3R36921	107,76
M 18 x 1,50	110	17	14,0	11,0	3R36925	133,98
M 20 x 1,50	125	17	16,0	12,0	3R36929	148,55

UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



BANDA BLANCA *WHITE RING* • *BANDE BLANC*



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNC 1/4 x 20	80	17	7,0	5,5	3R35945	32,03
UNC 5/16 x 18	90	20	8,0	6,2	3R35946	40,79
UNC 3/8 x 16	100	22	9,0	7,0	3R35947	46,61

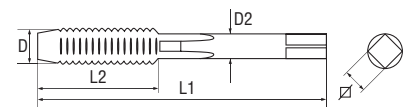


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNC 7/16 x 14	100	22	8,0	6,2	3R35948	55,34
UNC 1/2 x 13	110	25	9,0	7,0	3R35949	55,34



UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



BANDA BLANCA *WHITE RING* • *BANDE BLANC*



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNC 1/4 x 20	80	17	7,0	5,5	3R36945	39,90
UNC 5/16 x 18	90	20	8,0	6,2	3R36946	48,06
UNC 3/8 x 16	100	22	9,0	7,0	3R36947	53,02

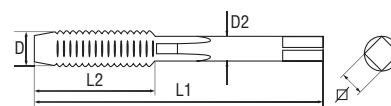


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNC 7/16 x 14	100	22	8,0	6,2	3R36948	67,00
UNC 1/2 x 13	110	25	9,0	7,0	3R36949	67,00



UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



BANDA BLANCA *WHITE RING • BANDE BLANC*



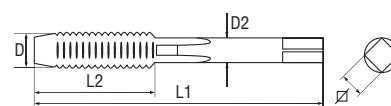
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNF 1/4 x 2 8	80	17	7,0	5,5	3R35965	32,03
UNF 5/16 x 24	90	17	8,0	6,2	3R35966	40,79
UNF 3/8 x 24	100	18	9,0	7,0	3R35967	46,61



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNF 7/16 x 20	100	22	8,0	6,2	3R35968	55,34
UNF 1/2 x 20	100	22	9,0	7,0	3R35969	55,34

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



BANDA BLANCA *WHITE RING • BANDE BLANC*



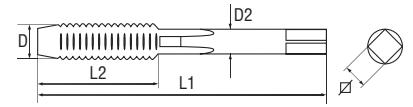
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNF 1/4 x 28	80	10	7,0	5,5	3R36965	39,90
UNF 5/16 x 24	90	10	8,0	6,2	3R36966	48,07
UNF 3/8 x 24	100	10	9,0	7,0	3R36967	53,01



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNF 7/16 x 20	100	13	8,0	6,2	3R36968	67,00
UNF 1/2 x 20	100	13	9,0	7,0	3R36969	67,00

G(BSP)

ROSCA GAS DIN ISO 228
PIPE THREAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228



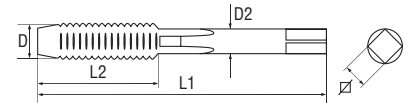
BANDA BLANCA *WHITE RING* • *BANDE BLANC*



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R35992	52,43
G 1/4 x 19	100	22	11,0	9,0	3R35993	64,08
G 3/8 x 19	100	22	12,0	9,0	3R35994	75,73
G 1/2 x 14	125	25	16,0	12,0	3R35995	110,69

G(BSP)

ROSCA GAS DIN ISO 228
PIPE THREAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228

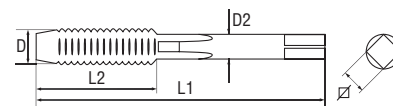


BANDA BLANCA *WHITE RING* • *BANDE BLANC*



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R36992	58,26
G 1/4 x 19	100	22	11,0	9,0	3R36993	72,82
G 3/8 x 19	100	22	12,0	9,0	3R36994	91,75
G 1/2 x 14	125	25	16,0	12,0	3R36995	128,16

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



BANDA NEGRA PM - PARA MATERIALES DUROS

BLACK RING PM - FOR HARD MATERIALS • BANDE NOIR PM - POUR MATÉRIAUX DURS



PM **DIN 371** **FORM B** **TOL 6H** **FUTURA**



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,5	2,7	3R35126	30,84
M 4,0 x 0,70	63	7	4,5	3,4	3R35130	31,60
M 5,0 x 0,80	70	8	6	4,9	3R35134	33,28
M 6,0 x 1,00	80	10	6	4,9	3R35138	33,28
M 8,0 x 1,25	90	13	8	6,2	3R35142	38,51
M 10,0 x 1,50	100	15	10	8	3R35146	46,01



PM **DIN 376** **FORM B** **TOL 6H** **FUTURA**



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 X 1,75	110	23	9	7	3R35150	58,73



PM **DIN 371** **FORM C/40°** **TOL 6H** **FUTURA**



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,5	2,7	3R36126	35,22
M 4,0 x 0,70	63	7	4,5	3,4	3R36130	35,22
M 5,0 x 0,80	70	8	6	4,9	3R36134	35,98
M 6,0 x 1,00	80	10	6	4,9	3R36138	37,58
M 8,0 x 1,25	90	13	8	6,2	3R36142	43,73
M 10,0 x 1,50	100	15	10	8	3R36146	51,74



PM **DIN 376** **FORM C/40°** **TOL 6H** **FUTURA**



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 X 1,75	110	18	9	7	3R36150	63,28



PM **DIN 371** **FORM C/15°** **TOL 6H** **FUTURA**



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 5,0 x 0,80	70	8	6	4,9	3R35154	35,98
M 6,0 x 1,00	80	10	6	4,9	3R35158	37,58
M 8,0 x 1,25	90	13	8	6,2	3R35162	43,73
M 10,0 x 1,50	100	15	10	8	3R35166	51,74

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

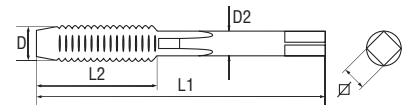
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

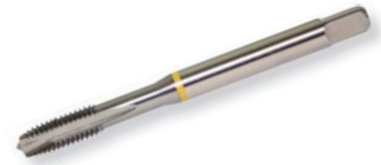


BANDA AMARILLA - PARA ALUMINIO
YELLOW RING - FOR ALUMINIUM • BANDE JAUNE - POUR L'ALUMINIUM



AL HSS-CO 5% DIN 371 FORM B TOL 6H ALUSPEED

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€
M 3,0 x 0,50	56	9	3,5	2,7	3R35426	27,05
M 4,0 x 0,70	63	12	4,5	3,4	3R35430	27,30
M 5,0 x 0,80	70	13	6	4,9	3R35434	28,14
M 6,0 x 1,00	80	15	6	4,9	3R35438	28,14
M 8,0 x 1,25	90	18	8	6,2	3R35442	33,03
M 10,0 x 1,50	100	20	10	8	3R35446	38,59



AL HSS-CO 5% DIN 376 FORM B TOL 6H ALUSPEED

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€
M 12,0 x 1,75	110	23	9	7	3R35450	48,96
M 14,0 x 2,00	110	25	11	9	3R35454	63,95
M 16,0 x 2,00	110	25	12	11	3R35458	70,78
M 18,0 x 2,50	125	30	14	11	3R35462	101,11
M 20,0 x 2,50	140	30	16	12	3R35466	104,48



AL HSS-CO 5% DIN 371 FORM C/45° TOL 6H ALUSPEED

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,5	2,7	3R36426	29,07
M 4,0 x 0,70	63	7	4,5	3,4	3R36430	29,07
M 5,0 x 0,80	70	8	6	4,9	3R36434	29,83
M 6,0 x 1,00	80	10	6	4,9	3R36438	31,18
M 8,0 x 1,25	90	13	8	6,2	3R36442	36,15
M 10,0 x 1,50	100	15	10	8	3R36446	42,47

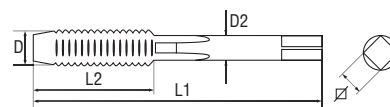


AL HSS-CO 5% DIN 376 FORM C/45° TOL 6H ALUSPEED

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€
M 12,0 x 1,75	110	18	9	7	3R36450	55,78
M 14,0 x 2,00	110	20	11	9	3R36454	69,51
M 16,0 x 2,00	110	20	12	11	3R36458	76,68
M 18,0 x 2,50	125	25	14	11	3R36462	110,13
M 20,0 x 2,50	140	25	16	12	3R36466	113,92



M MÉTRICA ISO-ROSCA DIN 13
 METRIC ISO-THREAD DIN 13
 MÉTRIQUE DIN-13



HSS-CO 5% **TIN** **DIN 2174** **TOL 6HX** **TOL IS02X**

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€
M 3,0 x 0,50	56	11	3,5	2,7	3R35530	28,56
M 4,0 x 0,70	63	13	4,5	3,4	3R35532	31,16
M 5,0 x 0,80	70	16	6	4,9	3R35533	33,23
M 6,0 x 1,00	80	19	6	4,9	3R35534	34,53
M 8,0 x 1,25	90	22	8	6,2	3R35535	42,08
M 10,0 x 1,50	100	24	10	8	3R35536	51,17

HSS-CO 5% **TIN** **DIN 2174** **TOL 6HX** **TOL IS02X**



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€
M 12,0 x 1,75	110	28	9	7	3R35537	66,70

DIÁMETRO BROCA PREVIA / RECOMMENDED TAPPING DRILL SIZES / DIAMÈTRES PRÉALABLES AU FILETAGE

Ø M3	Ø M4	Ø M5	Ø M6	Ø M8	Ø M10	Ø M12	Ø M14	Ø M16
2,80	3,70	4,65	5,55	7,45	9,30	11,20	13,00	15,10

CONSTRUCCIÓN
 CONSTRUCTION • CONSTRUCTION

MADERA
 WOOD • BOIS

METAL
 METAL • MÉTAL

FRESADO
 MILLING • FRAISAGE

ROSCADO
 THREADING • FILETAGE

ACCESORIOS
 ACCESSORIES • ACCESSOIRES

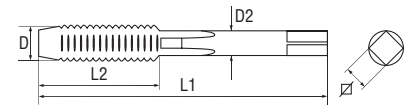
HEXAGONAL
 HEXAGONAL • HEXAGONAL

METROLOGÍA
 METROLOGY • MÉTROLOGIE

DISPLAYS
 DISPLAYS • DISPLAYS

M MÉTRICA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



CON RANURAS PARA LUBRICACIÓN WITH OIL GROOVE • AVEC RANURE GRAISSAGE

HSS-CO 5% TIN DIN 2174 TOL 6HX TOL ISO2X



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€
M 3,0 x 0,50	56	11	3,5	2,7	3R35630	31,16
M 4,0 x 0,70	63	13	4,5	3,4	3R35632	34,02
M 5,0 x 0,80	70	16	6	4,9	3R35633	36,61
M 6,0 x 1,00	80	19	6	4,9	3R35634	37,92
M 8,0 x 1,25	90	22	8	6,2	3R35635	45,97
M 10,0 x 1,50	100	24	10	8	3R35636	55,32

HSS-CO 5% TIN DIN 2174 TOL 6HX TOL ISO2X

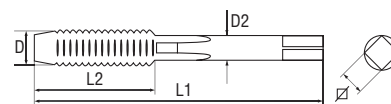


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€
M 12,0 x 1,75	110	28	9	7	3R35637	70,61

DIÁMETRO BROCA PREVIA / RECOMMENDED TAPPING DRILL SIZES / DIAMÈTRES PRÉALABLES AU FILETAGE

Ø M3	Ø M4	Ø M5	Ø M6	Ø M8	Ø M10	Ø M12	Ø M14	Ø M16
2,80	3,70	4,65	5,55	7,45	9,30	11,20	13,00	15,10

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-CO 5%

DIN 357

TOL 6H

TOL ISO2



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3 x 0,50	70	22	2,2	-	3R37126	30,99
M 4 x 0,70	90	25	2,8	2,1	3R37130	30,99
M 5 x 0,80	100	28	3,5	2,7	3R37134	32,54
M 6 x 1,00	110	32	4,5	3,4	3R37138	32,54
M 8 x 1,25	125	40	6,0	4,9	3R37142	35,97
M 10 x 1,50	140	45	7,0	5,5	3R37146	48,19



HSS-CO 5%

DIN 357

TOL 6H

TOL ISO2



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 12 x 1,75	180	50	9,0	7,0	3R37150	65,06
M 14 x 2,00	200	56	11,0	9,0	3R37154	81,22
M 16 x 2,00	200	63	12,0	9,0	3R37158	99,84
M 18 x 2,50	220	63	14,0	11,0	3R37162	111,70
M 20 x 2,50	250	70	16,0	12,0	3R37166	130,14
M 22 x 2,50	280	80	18,0	14,5	3R37170	151,10
M 24 x 3,00	280	80	18,0	14,5	3R37174	178,27

Materiales tratados superficialmente (galvanizados, cromados...) / For pre plate material for galvanising / Pour matériaux présentant une couche de galvanisation

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

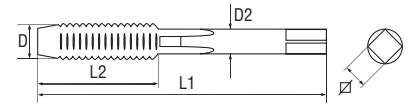
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

Tr

PUNTA PILOTO, TRAPEZOIDAL DIN 13
PILOTED, TRAPEZOIDAL THREAD DIN103
POUR FILETAGE TRAPÉZOIDAL DIN 103



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
Tr 10 x 2	110	63	7	5,5	3R79108	486,34
Tr 10 x 3	125	75	7	5,5	3R79112	486,34
Tr 12 x 3	165	111	8	6,2	3R79116	418,19
Tr 14 x 3	140	85	10	8,0	3R79120	446,60
Tr 14 x 4	170	112	10	8,0	3R79124	446,60
Tr 16 x 4	180	116	11	9,0	3R79128	485,65
Tr 18 x 4	190	120	12	9,0	3R79132	499,86
Tr 20 x 4	200	124	14	11,0	3R79136	519,47
Tr 22 x 4	210	130	16	12,0	3R79139	674,51
Tr 22 x 5	235	155	16	12,0	3R79140	674,51
Tr 24 x 5	245	160	18	14,5	3R79144	775,80
Tr 26 x 5	255	165	20	16,0	3R79148	809,40
Tr 28 x 5	265	170	22	18,0	3R79152	902,61
Tr 30 x 6	290	185	22	18,0	3R79156	1.057,63
Tr 32 x 6	300	191	25	20,0	3R79160	1.291,91
Tr 36 x 6	310	200	28	22,0	3R79164	1.322,79

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

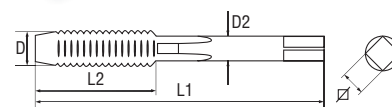
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

Tr PUNTA PILOTO, TRAPEZOIDAL DIN 13, IZQUIERDAS
PILOTED, TRAPEZOIDAL THREAD DIN103, LEFT HAND
POUR FILETAGE TRAPÉZOÏDAL DIN 103 À GAUCHE



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
Tr 10 x 2	110	63	7	5,5	3R79108-L	713,78
Tr 10 x 3	125	75	7	5,5	3R79112-L	713,78
Tr 12 x 3	165	111	8	6,2	3R79116-L	613,35
Tr 14 x 3	140	85	10	8,0	3R79120-L	652,27
Tr 14 x 4	170	112	10	8,0	3R79124-L	652,27
Tr 16 x 4	180	116	11	9,0	3R79128-L	712,29
Tr 18 x 4	190	120	12	9,0	3R79132-L	737,14
Tr 20 x 4	200	124	14	11,0	3R79136-L	763,14
Tr 22 x 5	235	155	16	12,0	3R79140-L	990,79
Tr 24 x 5	245	160	18	14,5	3R79144-L	1.134,98
Tr 26 x 5	255	165	20	16,0	3R79148-L	1.187,16
Tr 28 x 5	265	170	22	18,0	3R79152-L	1.321,52
Tr 30 x 6	290	185	22	18,0	3R79156-L	1.551,76
Tr 32 x 6	300	191	25	20,0	3R79160-L	1.893,75
Tr 36 x 6	310	200	28	22,0	3R79164-L	1.940,56

Consultar disponibilidad / Request availability / Consulter la disponibilité

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M

MÉTRICA ISO-ROSCA DIN 13
 MÉTRIC ISO-THREAD DIN 13
 MÉTRIQUE DIN-13

HSS-G
DIN 223
TOL 6g


D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 1,0 x 0,25	16 x 5	4R27402	45,45
M 1,1 x 0,25	16 x 5	4R27404	45,45
M 1,2 x 0,25	16 x 5	4R27406	41,56
M 1,4 x 0,30	16 x 5	4R27408	41,56
M 1,6 x 0,35	16 x 5	4R27410	38,95
M 1,7 x 0,35	16 x 5	4R27412	38,96
M 1,8 x 0,35	16 x 5	4R27414	38,95
M 2,0 x 0,40	16 x 5	4R27416	28,57
M 2,2 x 0,45	16 x 5	4R27418	32,45
M 2,3 x 0,40	16 x 5	4R27420	32,45
M 2,5 x 0,45	16 x 5	4R27422	32,45
M 2,6 x 0,45	16 x 5	4R27424	32,45
M 3,0 x 0,50	20 x 5	4R27426	22,07
M 3,5 x 0,60	20 x 5	4R27428	22,07
M 4,0 x 0,70	20 x 5	4R27430	22,07
M 4,5 x 0,75	20 x 7	4R27432	22,07
M 5,0 x 0,80	20 x 7	4R27434	22,07
M 5,5 x 0,90	20 x 7	4R27436	22,07
M 6,0 x 1,00	20 x 7	4R27438	22,07
M 7,0 x 1,00	25 x 9	4R27440	22,07
M 8,0 x 1,25	25 x 9	4R27442	22,07
M 9,0 x 1,25	25 x 9	4R27444	22,07
M 10,0 x 1,50	30 x 11	4R27446	25,98

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 11 x 1,50	30 x 11	4R27448	25,98
M 12 x 1,75	38 x 14	4R27450	29,86
M 14 x 2,00	38 x 14	4R27454	29,86
M 15 x 2,00	38 x 14	4R27456	50,91
M 16 x 2,00	45 x 18	4R27458	43,05
M 18 x 2,50	45 x 18	4R27462	43,05
M 19 x 2,50	45 x 18	4R27464	43,05
M 20 x 2,50	45 x 18	4R27466	43,05
M 22 x 2,50	55 x 22	4R27470	74,97
M 24 x 3,00	55 x 22	4R27474	74,97
M 27 x 3,00	65 x 25	4R27476	108,04
M 30 x 3,50	65 x 25	4R27478	108,04
M 33 x 3,50	65 x 25	4R27480	108,04
M 36 x 4,00	65 x 25	4R27482	108,04
M 39 x 4,00	75 x 30	4R27484	168,79
M 42 x 4,50	75 x 30	4R27486	168,79
M 45 x 4,50	90 x 36	4R27488	279,17
M 48 x 5,00	90 x 36	4R27490	279,17
M 52 x 5,00	90 x 36	4R27492	279,17
M 56 x 5,50	105 x 36	4R27494	598,48
M 60 x 5,50	105 x 36	4R27496	598,49
M 64 x 6,00	120 x 36	4R27498	782,62
M 68 x 6,00	120 x 36	4R27499	782,62

DIN 223 = DIN EN 22568

M MÉTRICA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

DIÁMETRO EXTERIORES ESPECIALES

EXTERNAL ESPECIFIC DIAMETRES • DIMÈTRES EXTÉRIEURES SPÉCIALES



HSS-G

TOL
6g

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 3 x 0,5	25 x 9	4R27826	22,47
M 4 x 0,7	25 x 9	4R27830	22,47
M 5 x 0,8	25 x 9	4R27834	22,47

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 6 x 1,0	25 x 9	4R27838	22,47
M 10 x 1,50	25 x 9	4R27846	22,47
M 12 x 1,75	25 x 9	4R27850	22,47



HSS-G

TOL
6g



D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 3 x 0,50	25,4	4R27926	22,47
M 4 x 0,70	25,4	4R27930	22,47
M 5 x 0,80	25,4	4R27934	22,47
M 6 x 1,00	25,4	4R27938	22,47
M 8 x 1,25	25,4	4R27942	22,47
M 10 x 1,50	25,4	4R27946	22,47

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 12 x 1,75	25,4	4R27950	22,47
M 14 x 2,00	38,1	4R27954	36,36
M 16 x 2,00	38,1	4R27958	36,36
M 18 x 2,50	38,1	4R27962	36,36
M 20 x 2,50	38,1	4R27966	36,36

TOLERANCIA 6e SPECIAL TOLERANCE • TOLERANCE SPÉCIALE



HSS-G

DIN 223

TOL
6e

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 3 x 0,50	20 x 5	4R27503	24,28
M 4 x 0,70	20 x 5	4R27505	24,28
M 5 x 0,80	20 x 7	4R27507	24,28
M 6 x 1,00	20 x 7	4R27509	24,28
M 8 x 1,25	25 x 9	4R27511	24,28
M 10 x 1,50	30 x 11	4R27513	28,58

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 12 x 1,75	38 x 14	4R27515	35,83
M 14 x 2,00	38 x 14	4R27516	44,80
M 16 x 2,00	45 x 18	4R27517	76,38
M 18 x 2,50	45 x 18	4R27518	76,38
M 20 x 2,50	45 x 18	4R27519	76,38

DIN 223 = DIN EN 22568

Mf

MÉTRICA FINA ISO-ROSCA DIN 13
 METRIC ISO-THREAD DIN 13
 MÉTRIQUE FIN ISO DIN-13



D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 2,5 x 0,35	16 x 5	4R26404	33,38
M 2,6 x 0,35	16 x 5	4R26405	33,38
M 3,0 x 0,35	20 x 5	4R26408	30,41
M 3,5 x 0,35	20 x 5	4R26409	30,41
M 4,0 x 0,35	20 x 5	4R26410	30,41
M 4,0 x 0,50	20 x 5	4R26412	30,41
M 4,5 x 0,50	20 x 5	4R26413	30,41
M 5,0 x 0,50	20 x 5	4R26414	30,41
M 5,0 x 0,75	20 x 7	4R26416	30,41
M 5,5 x 0,50	20 x 5	4R26415	30,42
M 6,0 x 0,50	20 x 5	4R26417	30,41
M 6,0 x 0,75	20 x 7	4R26418	30,41
M 7,0 x 0,50	25 x 9	4R26419	30,41
M 7,0 x 0,75	25 x 9	4R26420	25,45
M 8,0 x 0,50	25 x 9	4R26422	30,41
M 8,0 x 0,75	25 x 9	4R26424	25,45
M 8,0 x 1,00	25 x 9	4R26426	25,45
M 9,0 x 0,50	25 x 9	4R26427	34,13
M 9,0 x 0,75	25 x 9	4R26428	34,13
M 9,0 x 1,00	25 x 9	4R26430	28,67
M 10,0 x 0,50	30 x 11	4R26431	35,50
M 10,0 x 0,75	30 x 11	4R26432	35,50
M 10,0 x 1,00	30 x 11	4R26436	34,38
M 10,0 x 1,25	30 x 11	4R26438	34,38
M 11,0 x 1,00	30 x 11	4R26440	42,31
M 11,0 x 1,25	30 x 11	4R26442	42,31
M 12,0 x 0,50	38 x 10	4R26445	42,32
M 12,0 x 0,75	38 x 10	4R26443	42,31
M 12,0 x 1,00	38 x 10	4R26444	43,70
M 12,0 x 1,25	38 x 10	4R26446	43,70
M 12,0 x 1,50	38 x 10	4R26448	42,31
M 13,0 x 0,50	38 x 10	4R26447	58,76
M 13,0 x 0,75	38 x 10	4R26449	58,75
M 13,0 x 1,00	38 x 10	4R26450	47,01
M 13,0 x 1,50	38 x 10	4R26451	47,01
M 14,0 x 0,50	38 x 10	4R26455	73,46
M 14,0 x 0,75	38 x 10	4R26452	73,46
M 14,0 x 1,00	38 x 10	4R26453	42,31
M 14,0 x 1,25	38 x 10	4R26454	42,31
M 14,0 x 1,50	38 x 10	4R26456	42,31
M 15,0 x 0,75	38 x 10	4R26457	76,39
M 15,0 x 1,00	38 x 10	4R26458	58,32
M 15,0 x 1,50	38 x 10	4R26460	58,32
M 16,0 x 0,50	45 x 14	4R26461	74,78
M 16,0 x 0,75	45 x 14	4R26463	74,78
M 16,0 x 1,00	45 x 14	4R26462	58,32
M 16,0 x 1,25	45 x 14	4R26464	58,32
M 16,0 x 1,50	45 x 14	4R26466	52,88
M 17,0 x 1,00	45 x 14	4R26468	92,14
M 17,0 x 1,50	45 x 14	4R26469	92,14

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 18 x 0,50	45 x 14	4R26467	92,14
M 18 x 0,75	45 x 14	4R26473	92,14
M 18 x 1,00	45 x 14	4R26470	52,88
M 18 x 1,25	45 x 14	4R26471	52,88
M 18 x 1,50	45 x 14	4R26472	54,14
M 18 x 2,00	45 x 14	4R26474	59,49
M 19 x 1,00	45 x 14	4R26475	92,14
M 19 x 1,50	45 x 14	4R26476	62,96
M 20 x 0,50	45 x 14	4R26477	92,14
M 20 x 0,75	45 x 14	4R26479	92,14
M 20 x 1,00	45 x 14	4R26478	59,49
M 20 x 1,25	45 x 14	4R26480	66,11
M 20 x 1,50	45 x 14	4R26484	54,14
M 20 x 2,00	45 x 14	4R26486	66,11
M 21 x 1,00	45 x 14	4R26487	94,37
M 21 x 1,50	45 x 14	4R26488	94,37
M 22 x 0,50	55 x 16	4R26489	132,07
M 22 x 0,75	55 x 16	4R26491	132,07
M 22 x 1,00	55 x 16	4R26490	92,54
M 22 x 1,25	55 x 16	4R26492	100,46
M 22 x 1,50	55 x 16	4R26494	102,01
M 22 x 2,00	55 x 16	4R26496	120,23
M 23 x 1,00	55 x 16	4R26497	132,07
M 23 x 1,50	55 x 16	4R26498	100,46
M 24 x 0,50	55 x 16	4R26601	132,07
M 24 x 0,75	55 x 16	4R26603	132,07
M 24 x 1,00	55 x 16	4R26600	92,54
M 24 x 1,25	55 x 16	4R26602	100,46
M 24 x 1,50	55 x 16	4R26604	92,54
M 24 x 2,00	55 x 16	4R26606	92,54
M 25 x 1,00	55 x 16	4R26607	112,37
M 25 x 1,50	55 x 16	4R26608	112,37
M 26 x 1,00	55 x 16	4R26610	112,37
M 26 x 1,50	55 x 16	4R26612	112,37
M 26 x 2,00	55 x 16	4R26614	112,37
M 27 x 1,00	65 x 18	4R26616	124,85
M 27 x 1,50	65 x 18	4R26617	124,85
M 27 x 2,00	65 x 18	4R26618	124,85
M 28 x 1,00	65 x 18	4R26620	124,85
M 28 x 1,50	65 x 18	4R26622	124,85
M 28 x 2,00	65 x 18	4R26624	124,85
M 29 x 1,50	65 x 18	4R26626	132,21
M 30 x 1,00	65 x 18	4R26628	132,21
M 30 x 1,50	65 x 18	4R26630	122,56
M 30 x 2,00	65 x 18	4R26632	132,21
M 30 x 2,50	65 x 18	4R26633	132,21
M 30 x 3,00	65 x 25	4R26634	132,21
M 32 x 1,00	65 x 18	4R26639	202,70
M 32 x 1,50	65 x 18	4R26636	122,56
M 32 x 2,00	65 x 18	4R26635	132,21

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



HSS-G

DIN 223

TOL 6g



D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 32 x 3,0	65 x 25	4R26637	132,21
M 33 x 1,5	65 x 18	4R26638	122,56
M 33 x 2,0	65 x 18	4R26640	132,21
M 33 x 3,0	65 x 25	4R26642	132,21
M 34 x 1,0	65 x 18	4R26643	202,70
M 34 x 1,5	65 x 18	4R26644	129,37
M 34 x 2,0	65 x 18	4R26646	139,55
M 35 x 1,0	65 x 18	4R26647	202,70
M 35 x 1,5	65 x 18	4R26648	129,37
M 35 x 2,0	65 x 18	4R26649	202,70
M 36 x 1,0	65 x 18	4R26651	202,70
M 36 x 1,5	65 x 18	4R26650	130,62
M 36 x 2,0	65 x 18	4R26652	130,62
M 36 x 3,0	65 x 25	4R26654	137,61
M 37 x 1,5	65 x 18	4R26653	324,98
M 38 x 1,0	75 x 20	4R26655	324,98
M 38 x 1,5	75 x 20	4R26656	208,63
M 38 x 2,0	75 x 20	4R26657	208,64
M 38 x 3,0	75 x 30	4R26659	324,98
M 39 x 1,5	75 x 20	4R26658	199,32
M 39 x 2,0	75 x 20	4R26660	199,32
M 39 x 3,0	75 x 30	4R26662	199,32
M 40 x 1,0	75 x 20	4R26663	199,32
M 40 x 1,5	75 x 20	4R26664	199,32
M 40 x 2,0	75 x 20	4R26666	199,32
M 40 x 3,0	75 x 30	4R26668	199,32
M 42 x 1,0	75 x 20	4R26669	199,32
M 42 x 1,5	75 x 20	4R26670	199,32
M 42 x 2,0	75 x 20	4R26672	199,32
M 42 x 3,0	75x30	4R26674	199,32
M 44 x 1,5	90 x 22	4R26671	442,86
M 44 x 2,0	90 x 22	4R26673	442,86
M 45 x 1,0	90 x 22	4R26675	442,86
M 45 x 1,5	90 x 22	4R26676	327,84
M 45 x 2,0	90 x 22	4R26678	327,84
M 45 x 3,0	90 x 22	4R26680	327,84
M 46 x 1,5	90 x 22	4R26681	442,86
M 48 x 1,0	90 x 22	4R26683	442,86
M 48 x 1,5	90 x 22	4R26682	327,84
M 48 x 2,0	90 x 22	4R26684	327,84
M 48 x 3,0	90 x 36	4R26686	327,84
M 50 x 1,5	90 x 22	4R26688	327,84
M 50 x 2,0	90 x 22	4R26690	327,84
M 50 x 3,0	90 x 36	4R26692	327,84
M 52 x 1,5	90 x 22	4R26694	327,84
M 52 x 2,0	90 x 22	4R26696	327,84
M 52 x 3,0	90 x 36	4R26698	327,84
M 54 x 1,0	105 x 22	4R28267	646,01
M 54 x 1,5	105 x 22	4R28150	646,01
M 54 x 2,0	105 x 22	4R28151	646,01

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 54 x 3,0	105 x 36	4R28152	646,01
M 54 x 4,0	105 x 36	4R28153	646,01
M 55 x 1,5	105 x 22	4R28154	646,01
M 55 x 2,0	105 x 22	4R28155	646,01
M 55 x 3,0	105 x 36	4R28156	646,01
M 55 x 4,0	105 x 36	4R28157	646,01
M 56 x 1,0	105 x 22	4R28268	646,01
M 56 x 1,5	105 x 22	4R28158	646,01
M 56 x 2,0	105 x 22	4R28159	646,01
M 56 x 3,0	105 x 36	4R28160	646,01
M 56 x 4,0	105 x 36	4R28161	646,01
M 58 x 1,0	105 x 22	4R28269	646,01
M 58 x 1,5	105 x 22	4R28162	646,01
M 58 x 2,0	105 x 22	4R28163	646,01
M 58 x 3,0	105 x 36	4R28164	646,01
M 58 x 4,0	105 x 36	4R28165	646,01
M 60 x 1,5	105 x 22	4R28166	646,01
M 60 x 2,0	105 x 22	4R28167	646,01
M 60 x 3,0	105 x 36	4R28168	646,01
M 60 x 4,0	105 x 36	4R28169	646,01
M 62 x 1,5	105 x 22	4R28170	646,01
M 62 x 2,0	105 x 22	4R28171	646,01
M 62 x 3,0	105 x 36	4R28172	646,01
M 62 x 4,0	105 x 36	4R28173	646,01
M 63 x 1,5	105 x 22	4R28174	646,01
M 64 x 1,5	120 x 22	4R28175	730,29
M 64 x 2,0	120 x 22	4R28176	730,29
M 64 x 3,0	120 x 36	4R28177	730,29
M 64 x 4,0	120 x 36	4R28178	730,29
M 65 x 1,5	120 x 22	4R28179	730,29
M 65 x 2,0	120 x 22	4R28180	730,29
M 65 x 3,0	120 x 36	4R28181	730,29
M 65 x 4,0	120 x 36	4R28182	730,29
M 68 x 1,5	120 x 22	4R28183	730,29
M 68 x 2,0	120 x 22	4R28184	730,29
M 68 x 3,0	120 x 36	4R28185	730,29
M 68 x 4,0	120 x 36	4R28186	730,29
M 70 x 1,5	120 x 22	4R28187	730,29
M 70 x 2,0	120 x 22	4R28188	730,29
M 70 x 3,0	120 x 36	4R28189	730,29
M 70 x 4,0	120 x 36	4R28190	730,29
M 72 x 1,5	120 x 22	4R28191	730,29
M 72 x 2,0	120 x 22	4R28192	730,29
M 72 x 3,0	120 x 36	4R28193	730,29
M 72 x 4,0	120 x 36	4R28194	730,29
M 74 x 1,5	120 x 22	4R28195	730,29
M 74 x 2,0	120 x 22	4R28196	730,29
M 74 x 3,0	120 x 36	4R28197	730,29
M 74 x 4,0	120 x 36	4R28198	730,29
M 75 x 1,5	120 x 22	4R28199	730,29

Mf

MÉTRICA FINA ISO-ROSCA DIN 13
 METRIC ISO-THREAD DIN 13
 MÉTRIQUE FIN ISO DIN-13



D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 75 x 2,0	120 x 22	4R28200	730,29
M 75 x 3,0	120 x 36	4R28201	730,29
M 75 x 4,0	120 x 36	4R28202	730,29
M 76 x 1,5	120 x 22	4R28203	730,29
M 76 x 2,0	120 x 22	4R28204	730,29
M 76 x 3,0	120 x 36	4R28205	730,29
M 76 x 4,0	120 x 36	4R28206	730,29
M 78 x 1,5	120 x 22	4R28207	730,29
M 78 x 2,0	120 x 22	4R28208	730,29
M 78 x 3,0	120 x 36	4R28209	730,29
M 78 x 4,0	120 x 36	4R28210	730,29
M 80 x 1,5	120 x 22	4R28211	730,29
M 80 x 2,0	120 x 22	4R28212	730,29
M 80 x 3,0	120 x 36	4R28213	730,29
M 80 x 4,0	120 x 36	4R28214	730,29
M 82 x 1,5	130 x 25	4R28215	926,88
M 82 x 2,0	130 x 25	4R28216	926,88
M 82 x 3,0	130 x 36	4R28217	926,88
M 82 x 4,0	130 x 36	4R28218	926,88
M 84 x 1,5	130 x 25	4R28219	926,88
M 84 x 2,0	130 x 25	4R28220	926,88
M 84 x 3,0	130 x 36	4R28221	926,88
M 84 x 4,0	130 x 36	4R28222	926,88
M 85 x 1,5	130 x 25	4R28223	926,88
M 85 x 2,0	130 x 25	4R28224	926,88
M 85 x 3,0	130 x 36	4R28225	926,88
M 85 x 4,0	130 x 36	4R28226	926,88
M 86 x 1,5	140 x 22	4R28227	1.157,22
M 86 x 2,0	140 x 22	4R28228	1.157,22
M 86 x 3,0	140 x 22	4R28229	1.157,22
M 86 x 4,0	140 x 22	4R28230	1.157,22
M 88 x 1,5	140 x 22	4R28231	1.157,22
M 88 x 2,0	140 x 22	4R28232	1.157,22
M 88 x 3,0	140 x 22	4R28233	1.157,22

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 88 x 4,0	140 x 22	4R28234	1.157,22
M 90 x 1,5	140 x 22	4R28235	1.157,22
M 90 x 2,0	140 x 22	4R28236	1.157,22
M 90 x 3,0	140 x 22	4R28237	1.157,22
M 90 x 4,0	140 x 22	4R28238	1.157,22
M 92 x 1,5	140 x 22	4R28239	1.157,22
M 92 x 2,0	140 x 22	4R28240	1.157,22
M 92 x 3,0	140 x 22	4R28241	1.157,22
M 92 x 4,0	140 x 22	4R28242	1.157,22
M 95 x 1,5	140 x 22	4R28243	1.157,22
M 95 x 2,0	140 x 22	4R28244	1.157,22
M 95 x 3,0	140 x 22	4R28245	1.157,22
M 95 x 4,0	140 x 22	4R28246	1.157,22
M 96 x 1,5	140 x 22	4R28247	1.157,22
M 96 x 2,0	140 x 22	4R28248	1.157,22
M 96 x 3,0	140 x 22	4R28249	1.157,22
M 96 x 4,0	140 x 22	4R28250	1.157,22
M 98 x 1,5	150 x 25	4R28251	1.390,35
M 98 x 2,0	150 x 25	4R28252	1.390,35
M 98 x 3,0	150 x 25	4R28253	1.390,35
M 98 x 4,0	150 x 25	4R28254	1.390,35
M 100 x 1,5	150 x 25	4R28255	1.390,35
M 100 x 2,0	150 x 25	4R28256	1.390,35
M 100 x 3,0	150 x 25	4R28257	1.390,35
M 100 x 4,0	150 x 25	4R28258	1.390,35
M 105 x 1,5	150 x 25	4R28259	1.390,35
M 105 x 2,0	150 x 25	4R28260	1.390,35
M 105 x 3,0	150 x 25	4R28261	1.390,35
M 105 x 4,0	150 x 25	4R28262	1.390,35
M 110 x 1,5	160 x 25	4R28263	1.516,71
M 110 x 2,0	160 x 25	4R28264	1.516,71
M 110 x 3,0	160 x 25	4R28265	1.516,71
M 110 x 4,0	160 x 25	4R28266	1.516,71

DIN 223 = DIN EN 22568

BSW

ROSCA WITHWORTH BS 84
WITHWORTH THREAD BS 84
FILETAGE WHITWORTH BS 84



HSS-G

DIN 223



D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
BSW 1/16 x 60	16 x 5	4R22402	33,05
BSW 3/32 x 48	16 x 5	4R22404	38,35
BSW 1/8 x 40	20 x 5	4R22406	33,05
BSW 5/32 x 32	20 x 5	4R22408	33,05
BSW 3/16 x 24	20 x 7	4R22410	33,05
BSW 7/32 x 24	20 x 7	4R22412	33,05
BSW 1/4 x 20	20 x 7	4R22414	33,93
BSW 5/16 x 18	25 x 9	4R22416	33,93
BSW 3/8 x 16	30 x 11	4R22418	33,93
BSW 7/16 x 14	30 x 11	4R22420	33,93
BSW 1/2 x 12	38 x 14	4R22422	40,72
BSW 9/16 x 12	38 x 14	4R22424	47,52
BSW 5/8 x 11	45 x 18	4R22426	54,29
BSW 3/4 x 10	45 x 18	4R22430	54,29
BSW 7/8 x 9	55 x 22	4R22434	81,45

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
BSW 1 x 8	55 x 22	4R22438	81,45
BSW 1.1/8 x 7	65 x 25	4R22442	135,76
BSW 1.1/4 x 7	65 x 25	4R22446	135,76
BSW 1.3/8 x 6	65 x 25	4R22450	135,76
BSW 1.1/2 x 6	65 x 25	4R22452	135,76
BSW 1.1/2 x 6	75 x 30	4R22454	214,49
BSW 1.5/8 x 5	75 x 30	4R22458	217,19
BSW 1.3/4 x 5	90 x 36	4R22462	312,22
BSW 1.7/8 x 4.1/2	90 x 36	4R22466	325,79
BSW 2 x 4.1/2	90 x 36	4R22470	325,79
BSW 2.1/4 x 4	105 x 36	4R22472	1.055,73
BSW 2.1/2 x 4	105 x 36	4R22474	1.055,73
BSW 2.3/4 x 3.1/2	120 x 36	4R22476	1.297,04
BSW 3 x 3.1/2	120 x 36	4R22478	1.297,04

DIN 223 = DIN EN 22568

BSF

ROSCA BRITÁNICA STANDARD FINA BS 84
 BRITISH STANDARD FINE THREAD BS 84
 FILETAGE BRITANIQUE BSF, BS 84


HSS-G
DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
BSF 3/16 x 32	20 x 7	4R22810	36,00
BSF 1/4 x 26	20 x 7	4R22814	36,00
BSF 5/16 x 22	25 x 9	4R22816	36,00
BSF 3/8 x 20	30 x 11	4R22818	39,28
BSF 7/16 x 18	30 x 11	4R22820	36,00
BSF 1/2 x 16	38 x 10	4R22822	54,01

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
BSF 9/16 x 16	38 x 10	4R22824	57,30
BSF 5/8 x 14	45 x 14	4R22826	82,07
BSF 3/4 x 12	45 x 14	4R22830	82,07
BSF 7/8 x 11	55 x 22	4R22834	101,50
BSF 1" x 10	55 x 20	4R22838	101,50

DIN 223 = DIN EN 22568

BA

ROSCA BA, BS 93
 BA THREAD BS93
 FILÉTAGE BA, BS 93


HSS-G
BS1127


D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
BA 0	20.6 x 6.35	4R89000	29,38
BA 1	20.6 x 6.35	4R89001	29,38
BA 2	20.6 x 6.35	4R89002	29,38
BA 3	20.6 x 6.35	4R89003	29,38

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
BA 4	20.6 x 6.35	4R89004	29,38
BA 5	20.6 x 6.35	4R89005	29,38
BA 6	20.6 x 6.35	4R89006	29,38

UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1.
UNIFIED COARSE THREAD, ANSI B.1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



HSS-G

DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
Nr. 1 x 64	16 x 5	4R23401	40,99
Nr. 2 x 56	16 x 5	4R23402	40,99
Nr. 3 x 48	16 x 5	4R23403	40,99
Nr. 4 x 40	20 x 5	4R23404	29,87
Nr. 5 x 40	20 x 5	4R23405	29,88
Nr. 6 x 32	20 x 7	4R23406	29,88
Nr. 8 x 32	20 x 7	4R23408	29,88
Nr. 10 x 24	20 x 7	4R23410	29,88
Nr. 12 x 24	20 x 7	4R23412	29,88
Nr. 1/4 x 20	20 x 7	4R23414	29,88
Nr. 5/16 x 18	25 x 9	4R23416	29,88
Nr. 3/8 x 16	30 x 11	4R23418	29,88
Nr. 7/16 x 14	30 x 11	4R23420	36,35
Nr. 1/2 x 13	38 x 14	4R23422	36,35

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
9/16 x 12	38 x 14	4R23424	44,15
5/8 x 11	45 x 18	4R23426	58,43
3/4 x 10	45 x 18	4R23430	58,43
7/8 x 9	55 x 22	4R23434	84,41
1 x 8	55 x 22	4R23438	84,41
1.1/8 x 7	65 x 25	4R23442	129,85
1.1/4 x 7	65 x 25	4R23446	129,85
1.3/8 x 6	65 x 25	4R23450	129,85
1.1/2 x 6	65 x 25	4R23452	129,85
1.1/2 x 6	75 x 30	4R23454	259,69
1.5/8 x 5	75 x 30	4R23458	259,69
1.3/4 x 5	90 x 36	4R23462	389,54
1.7/8 x 4.1/2	90 x 36	4R23466	389,54
2 x 4.1/2	90 x 36	4R23470	389,54

DIN 223 = DIN EN 22568

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

UNF

ROSCA FINA UNIFICADA ANSI B.1.1
 UNIFIED FINE THREAD, ANSI B.1.1
 FILETAGE UNIFIÉ À PAS FINE ANSI B 1.1


HSS-G
DIN 223

	D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
Nr.	0 x 80	16 x 5	4R24400	41,74
Nr.	1 x 72	16 x 5	4R24401	41,74
Nr.	2 x 64	16 x 5	4R24402	41,74
Nr.	3 x 56	16 x 5	4R24403	50,48
Nr.	4 x 48	20 x 5	4R24404	30,41
Nr.	5 x 44	20 x 5	4R24405	30,41
Nr.	6 x 40	20 x 5	4R24406	30,41
Nr.	8 x 36	20 x 7	4R24408	30,41
Nr.	10 x 32	20 x 7	4R24410	30,41
Nr.	12 x 28	20 x 7	4R24412	30,41
Nr.	1/4 x 28	20 x 7	4R24414	30,41
Nr.	5/16 x 24	25 x 9	4R24416	31,23
Nr.	3/8 x 24	30 x 11	4R24418	31,23

	D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
	7/16 x 20	30 x 11	4R24420	33,93
	1/2 x 20	38 x 10	4R24422	40,72
	9/16 x 18	38 x 10	4R24424	47,52
	5/8 x 18	45 x 14	4R24426	61,08
	3/4 x 16	45 x 14	4R24430	61,08
	7/8 x 14	55 x 16	4R24434	81,45
	1 x 12	55 x 16	4R24438	81,45
	1 x 14	55 x 16	4R24440	81,45
	1.1/8 x 12	65 x 18	4R24442	135,76
	1.1/4 x 12	65 x 18	4R24446	135,76
	1.3/8 x 12	65 x 18	4R24450	135,76
	1.1/2 x 12	65 x 18	4R24452	135,76
	1.1/2 x 12	75 x 20	4R24454	217,19

DIN 223 = DIN EN 22568

UNEF

ROSCA GRUESA UNIFICADA ANSI B 1.1.
UNIFIED COARSE THREAD, ANSI B.1.1
FILETAGE UNIFIÉ PAS FIN ANSI B 1.1



HSS-G

DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
UNEF Nr. 12 x 32	20 x 7	4R24612	36,72
UNEF 1/4 x 32	20 x 7	4R24614	36,72
UNEF 5/16 x 32	25 x 9	4R24615	46,74
UNEF 3/8 x 32	30 x 11	4R24616	53,41
UNEF 7/16 x 28	30 x 11	4R24620	53,41
UNEF 1/2 x 28	38 x 10	4R24621	80,13
UNEF 9/16 x 24	25 x 9	4R24625	80,13
UNEF 5/8 x 24	30 x 11	4R24626	126,86
UNEF 11/16 x 24	25 x 9	4R24627	126,86
UNEF 3/4 x 20	30 x 11	4R24633	126,86
UNEF 13/16 x 20	55 x 16	4R24634	150,22

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
UNEF 7/8 x 20	55 x 16	4R24635	150,22
UNEF 15/16 x 20	55 x 16	4R24636	150,22
UNEF 1 x 20	55 x 16	4R24637	150,22
UNEF 1.1/16 x 18	65 x 18	4R24645	240,36
UNEF 1.1/8 x 18	65 x 18	4R24646	240,36
UNEF 1.3/16 x 18	65 x 18	4R24647	240,36
UNEF 1.1/4 x 18	65 x 18	4R24648	240,36
UNEF 1.5/16 x 18	65 x 18	4R24649	240,36
UNEF 1.3/8 x 18	65 x 18	4R24650	240,36
UNEF 1.7/16 x 18	75 x 20	4R24651	300,45
UNEF 1.1/2 x 18	75 x 20	4R24652	300,45

DIN 223 = DIN EN 22568

G(BSP)

ROSCA FINA UNIFICADA ANSI B.1.1
 UNIFIED FINE THREAD, ANSI B.1.1
 FILETAGE PAS GAZ DIN ISO 228



D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
G 1/8 x 28	30 x 11	4R25412	39,65
G 1/4 x 19	38 x 10	4R25414	37,02
G 3/8 x 19	45 x 14	4R25416	52,88
G 1/2 x 14	45 x 14	4R25418	52,88
G 5/8 x 14	55 x 16	4R25420	79,33
G 3/4 x 14	55 x 16	4R25422	86,37
G 7/8 x 14	65 x 18	4R25424	119,27
G 1 x 11	65 x 18	4R25426	119,27
G 1.1/8 x 11	75 x 20	4R25430	162,88
G 1.1/4 x 11	75 x 20	4R25434	162,88
G 1.3/8 x 11	90 x 22	4R25438	251,74

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
G 1.1/2 x 11	90 x 22	4R25442	251,74
G 1.5/8 x 11	90 x 22	4R25446	265,22
G 1.3/4 x 11	105 x 22	4R25450	442,48
G 2 x 11	90 x 22	4R25452	288,63
G 2 x 11	105 x 22	4R25454	458,84
G 2.1/4 x 11	120 x 22	4R25458	975,05
G 2.1/2 x 11	120 x 22	4R25462	975,05
G 2.3/4 x 11	120 x 22	4R25466	975,05
G 3 x 11	130 x 25	4R25470	1.072,54
G 3.1/2 x 11	150 x 25	4R25474	1.727,21
G 4 x 11	160 x 25	4R25478	2.228,65

DIN 223 = DIN EN 22568

R(BSPT)

ROSCA INGLESA PARA TUBO, CONICIDAD 1:16
 TAPERED PIPE THREAD, TAPER 1:16
 FILETAGE PAS GAZ CONIQUE, CONICITÉ 1:16



D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
PT 1/8 x 28	38 x 11	4R97006	46,19
PT 1/4 x 19	38 x 16	4R97014	46,19
PT 3/8 x 19	50 x 18	4R97020	94,94
PT 1/2 x 14	50 x 22	4R97022	94,94

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
PT 3/4 x 14	50 x 24	4R97030	94,94
PT 1 x 11	63 x 28	4R97040	158,38
PT 1.1/4 x 11	75 x 32	4R97048	213,81

PG

ROSCA PARA TUBOS BLINDADOS DIN 40 430
 ARMOURED TUBE THREAD DIN 40 430
 FILETAGE ÉLECTRIQUE DIN 40 430



D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
PG 7 x 20	38 x 10	4R25807	70,94
PG 9 x 18	45 x 14	4R25809	86,57
PG 11 x 18	45 x 14	4R25811	88,05
PG 13.5 x 18	45 x 14	4R25813	88,05
PG 16 x 18	55 x 16	4R25816	102,51

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
PG 21 x 16	65 x 18	4R25821	158,67
PG 29 x 16	65 x 18	4R25829	158,67
PG 36 x 16	90 x 22	4R25836	347,27
PG 42 x 16	105 x 22	4R25842	402,60
PG 48 x 16	105 x 22	4R25848	443,54

NPT

ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16
AMERICAN TAPERED PIPE THREAD, TAPER 1:16
FILETAGE NPT CONICITÉ 1:16



HSS-G

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
NPT 1/16 x 27	25 x 9	4R23610	77,07
NPT 1/8 x 27	30 x 11	4R23612	83,24
NPT 1/4 x 18	38 x 14	4R23614	87,50
NPT 3/8 x 18	45 x 14	4R23616	113,46
NPT 1/2 x 14	45 x 18	4R23618	113,46
NPT 5/8 x 14	55 x 22	4R23620	204,62

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
NPT 3/4 x 14	55 x 22	4R23622	154,15
NPT 7/8 x 14	65 x 25	4R23624	299,51
NPT 1 x 11.5	65 x 25	4R23626	211,25
NPT 1.1/4 x 11.5	75 x 26	4R23634	292,12
NPT 1.1/2 x 11.5	90 x 27	4R23642	428,66
NPT 2 x 11.5	105 x 28	4R23654	567,24

DIN 223 = DIN EN 22568

VG

PARA ROSCAS DE VÁLVULAS DE NEUMÁTICO
FOR TIRE VALVES THREADS
POUR LES VALVES DES PNEUMATIQUES



HSS-G



D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
VG 5 X 36	20 x 7	4R21501	275,37
VG 5,2 X 24	20 x 7	4R21502	295,04
VG 6 X 32	20 x 7	4R21503	313,93

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
VG 8 X 32	25 x 9	4R21504	314,71
VG 10 X 28	30 x 11	4R21505	354,05
VG 12 X 26	30 x 11	4R21506	432,74

BSC

PARA EJES DE PEDALIER
FOR BOTTOM BRACKET
POUR PÉDALIER VÉLO



HSS-G



D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
BSC 1/4" X 26	20,6 X 6,35	4R21507	*
BSC 5/16" X 26	25,4 X 9,5	4R21508	*
BSC 3/8" X 26	25,4 X 9,5	4R21509	*

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
BSC 9/16" X 20 R	38,1 X 12,7	4R21510	*
BSC 9/16" X 20 L	38,1 X 12,7	4R21511	*
BSC 1" X 24	55 X 16	4R21512	*

* Consultar precio y disponibilidad / Request price and availability / Consulter le prix et la disponibilité

NPTF

ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16
 AMERICAN TAPERED PIPE THREAD, TAPER 1:16
 FILETAGE NPT CONICITÉ 1:16


HSS-G


D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
NPTF 1/8 x 27	50 x 11	4R98072	96,06
NPTF 1/4 x 18	50 x 14	4R98074	96,06
NPTF 3/8 x 18	50 x 14	4R98076	96,06

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
NPTF 1/2 x 14	50 x 18	4R98078	96,06
NPTF 3/4 x 14	50 x 22	4R98080	96,06
NPTF 1 x 11.5	50 x 25	4R98082	96,06

DIN 223 = DIN EN 22568

M

MÉTRICA ISO-ROSCA DIN 13
 METRIC ISO-THREAD DIN 13
 MÉTRIQUE DIN-13


HSS-CO 5%
DIN 223
TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 3 x 0,50	20 x 5	4R57426	30,55
M 4 x 0,70	20 x 5	4R57430	30,55
M 5 x 0,80	20 x 7	4R57434	30,55
M 6 x 1,00	20 x 7	4R57438	30,55
M 8 x 1,25	25 x 9	4R57442	34,96
M 10 x 1,50	30 x 11	4R57446	46,75
M 12 x 1,75	38 x 14	4R57450	55,75
M 14 x 2,00	38 x 14	4R57454	55,75

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 16 x 2,0	45 x 18	4R57458	97,84
M 18 x 2,5	45 x 18	4R57462	97,84
M 20 x 2,5	45 x 18	4R57466	97,84
M 22 x 2,5	55 x 22	4R57470	153,59
M 24 x 3,0	55 x 22	4R57474	153,59
M 27 x 3,0	65 x 25	4R57476	224,07
M 30 x 3,5	65 x 25	4R57478	224,07

DIN 223 = DIN EN 22568

Mf

MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 6 x 0,75	20 x 7	4R56418	39,72
M 8 x 0,75	25 x 9	4R56424	33,25
M 8 x 1,00	25 x 9	4R56426	33,25
M 10 x 1,00	30 x 11	4R56436	45,33
M 10 x 1,25	30 x 11	4R56438	45,33
M 12 x 1,00	38 x 10	4R56444	55,58
M 12 x 1,25	38 x 10	4R56446	55,58
M 12 x 1,50	38 x 10	4R56448	55,58
M 14 x 1,25	38 x 10	4R56454	55,58

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 14 x 1,5	38 x 10	4R56456	55,58
M 16 x 1,5	45 x 14	4R56466	81,22
M 18 x 1,5	45 x 14	4R56472	81,68
M 18 x 2,0	45 x 14	4R56474	84,90
M 20 x 1,5	45 x 14	4R56484	81,22
M 20 x 2,0	45 x 14	4R56486	94,11
M 22 x 1,5	55 x 16	4R56494	156,99
M 24 x 1,5	55 x 16	4R56604	156,99

DIN 223 = DIN EN 22568

G(BSP)

ROSCA GAS DIN ISO 228
PIPE TRHEAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228



D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
G 1/8 x 28	30 x 11	4R55412	63,62
G 1/4 x 19	38 x 10	4R55414	59,38
G 3/8 x 19	45 x 14	4R55416	84,81

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
G 1/2 x 14	45 x 14	4R55418	84,81
G 3/4 x 14	55 x 16	4R55422	132,58
G 1 x 11	65 x 18	4R55426	182,32

DIN 5158 = DIN EN 24231

M

MÉTRICA ISO-ROSCA DIN 13 IZQUIERDAS
METRIC ISO THREAD DIN 13 LEFT HAND
MÉTRIQUE DIN-13 À GAUCHE

HSS-G
DIN 223
TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 2 x 0,40	16 x 5	4R27216	57,14
M 3 x 0,50	20 x 5	4R27226	44,15
M 4 x 0,70	20 x 5	4R27230	44,15
M 5 x 0,80	20 x 7	4R27234	44,15
M 6 x 1,00	20 x 7	4R27238	44,15
M 8 x 1,25	25 x 9	4R27242	45,28
M 10 x 1,50	30 x 11	4R27246	51,97
M 12 x 1,75	38 x 14	4R27250	59,73
M 14 x 2,00	38 x 14	4R27254	59,73
M 16 x 2,00	45 x 18	4R27258	101,82
M 18 x 2,50	45 x 18	4R27262	101,82
M 20 x 2,50	45 x 18	4R27266	101,82

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 22 x 2,5	55 x 22	4R27270	149,95
M 24 x 3,0	55 x 22	4R27274	149,95
M 27 x 3,0	65 x 25	4R27276	216,08
M 30 x 3,5	65 x 25	4R27278	216,08
M 33 x 3,5	65 x 25	4R27280	216,08
M 36 x 4,0	65 x 25	4R27282	216,08
M 39 x 4,0	75 x 30	4R27284	337,60
M 42 x 4,5	75 x 30	4R27286	337,60
M 45 x 4,5	90 x 36	4R27288	558,35
M 48 x 5,0	90 x 36	4R27290	558,35
M 52 x 5,0	90 x 36	4R27292	558,35

DIN 223 = DIN EN 22568

Mf

MÉTRICA FINA ISO ROSCA DIN 13 IZQUIERDAS
METRIC FINE ISO THREAD DIN 13 LEFT HAND
MÉTRIQUE FIN ISO DIN-13 À GAUCHE



HSS-G

DIN 223

TOL
6g

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 6 x 0,75	20 x 7	4R26207	59,75
M 8 x 0,75	25 x 9	4R26210	49,99
M 8 x 1,00	25 x 9	4R26211	49,99
M 10 x 1,00	30 x 11	4R26215	67,55
M 10 x 1,25	30 x 11	4R26216	67,55
M 12 x 1,00	38 x 10	4R26220	85,85
M 12 x 1,25	38 x 10	4R26221	85,85
M 12 x 1,50	38 x 10	4R26222	85,86
M 14 x 1,25	38 x 10	4R26227	85,86

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 14 x 1,5	38 x 10	4R26228	85,86
M 16 x 1,0	45 x 14	4R26231	106,37
M 16 x 1,5	45 x 14	4R26233	106,37
M 18 x 1,5	45 x 14	4R26236	106,36
M 20 x 1,5	45 x 14	4R26240	106,36
M 22 x 1,5	55 x 16	4R26245	181,80
M 24 x 1,5	55 x 16	4R26250	181,79
M 24 x 2,0	55 x 16	4R26251	181,80
M 30 x 2,0	65 x 18	4R26264	259,69

DIN 223 = DIN EN 22568

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BSW

ROSCA WITHWORTH BS 84 IZQUIERDAS
 WITHWORTH THREAD BS 84 LEFT HAND
 FILETAGE WHITWORTH BS 84 A GAUCHE


HSS-G
DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
1/8 x 40	20 x 5	4R22206	64,93
5/32 x 32	20 x 5	4R22208	64,93
3/16 x 24	20 x 7	4R22210	64,93
1/4 x 20	20 x 7	4R22214	64,93
5/16 x 18	25 x 9	4R22216	64,93
3/8 x 16	30 x 11	4R22218	64,93
7/16 x 14	30 x 11	4R22220	64,93

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
1/2 x 12	38 x 14	4R22222	79,33
9/16 x 12	38 x 14	4R22224	90,89
5/8 x 11	45 x 18	4R22226	103,89
3/4 x 10	45 x 18	4R22230	103,89
7/8 x 9	55 x 22	4R22234	158,65
1 x 8	55 x 22	4R22238	158,65

DIN 223 = DIN EN 22568

UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1. IZQUIERDAS
 UNIFIED COARSE THREAD, ANSI B.1.1 LEFT HAND
 FILETAGE UNIFIED GROSSE ANSI B 1.1 A GAUCHE


HSS-G
DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
UNC Nr. 6 x 32	20 x 7	4R23206	64,62
UNC Nr. 8 x 32	20 x 7	4R23208	64,62
UNC Nr. 10 x 32	20 x 7	4R23210	64,62
UNC 1/4 x 20	20 x 7	4R23214	64,62
UNC 5/16 x 18	25 x 9	4R23216	64,62
UNC 3/8 x 16	30 x 11	4R23218	64,62
UNC 7/16 x 14	38 x 14	4R23220	78,64

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
UNC 1/2 x 13	38 x 14	4R23222	78,64
UNC 9/16 x 12	38 x 14	4R23224	95,49
UNC 5/8 x 11	45 x 18	4R23226	126,39
UNC 3/4 x 10	45 x 18	4R23230	126,39
UNC 7/8 x 9	55 x 22	4R23234	182,59
UNC 1 x 8	55 x 22	4R23238	182,59

DIN 223 = DIN EN 22568

UNF

ROSCA FINA UNIFICADA ANSI B.1.1 IZQUIERDAS
UNIFIED FINE THREAD, ANSI B.1.1 LEFT HAND
FILETAGE UNIFIED GROSSE ANSI B 1.1 A GAUCHE



HSS-G

DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
UNF Nr. 10 x 32	20 x 7	4R24210	64,62
UNF 1/4 x 28	20 x 7	4R24214	64,62
UNF 5/16 x 24	25 x 9	4R24216	64,62
UNF 3/8 x 24	30 x 11	4R24218	64,62
UNF 7/16 x 20	30 x 11	4R24220	70,22
UNF 1/2 x 20	38 x 10	4R24222	84,26

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
UNF 9/16 x 18	38 x 10	4R24224	98,33
UNF 5/8 x 18	45 x 14	4R24226	126,39
UNF 3/4 x 16	45 x 14	4R24230	126,39
UNF 7/8 x 14	55 x 16	4R24234	168,54
UNF 1 x 12	55 x 16	4R24238	168,54

DIN 223 = DIN EN 22568

G(BSP)

ROSCA GAS DIN ISO 228 IZQUIERDAS
PIPE TRHEAD DIN ISO 228 LEFT HAND
FILETAGE PAS GAZ DIN ISO 228 A GAUCHE



HSS-G

DIN 5158

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
G 1/8 x 28	30 x 11	4R25212	84,27
G 1/4 x 19	38 x 10	4R25214	96,82
G 3/8 x 19	45 x 14	4R25216	112,36
G 1/2 x 14	45 x 14	4R25218	112,36
G 5/8 x 14	55 x 16	4R25220	168,53
G 3/4 x 14	55 x 16	4R25222	174,15
G 7/8 x 14	65 x 18	4R25224	253,40
G 1 x 11	65 x 18	4R25226	253,40

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
G 1.1/8 x 11	75 x 20	4R25230	346,05
G 1.1/4 x 11	75 x 20	4R25234	346,05
G 1.3/8 x 11	90 x 22	4R25238	534,83
G 1.1/2 x 11	90 x 22	4R25242	534,83
G 1.5/8 x 11	90 x 22	4R25246	534,83
G 1.3/4 x 11	105 x 22	4R25250	809,92
G 2 x 11	105 x 22	4R25254	839,86

DIN 5158 = DIN EN 24231

M MÉTRICA ISO-ROSCA DIN 13
 METRIC ISO-THREAD DIN 13
 MÉTRIQUE DIN-13



HSS-G

DIN 382

TOL
6g

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 3,0 x 0,50	19 x 5	4R27126	28,79
M 3,5 x 0,60	19 x 5	4R27128	28,79
M 4,0 x 0,70	19 x 5	4R27130	28,79
M 5,0 x 0,80	19 x 7	4R27134	28,79
M 6,0 x 1,00	19 x 7	4R27138	28,79
M 7,0 x 1,00	22 x 9	4R27140	30,90
M 8,0 x 1,25	22 x 9	4R27142	30,90
M 9,0 x 1,25	22 x 9	4R27144	30,90
M 10,0 x 1,50	27 x 11	4R27146	36,86
M 11,0 x 1,50	27 x 11	4R27148	36,86
M 12,0 x 1,75	36 x 14	4R27150	50,91
M 14,0 x 2,00	36 x 14	4R27154	50,91
M 16,0 x 2,00	41 x 18	4R27158	71,97
M 18,0 x 2,50	41 x 18	4R27162	71,97
M 20,0 x 2,50	41 x 18	4R27166	71,97

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 22 x 2,5	50 x 22	4R27170	120,55
M 24 x 3,0	50 x 22	4R27174	141,50
M 27 x 3,0	60 x 25	4R27176	220,93
M 30 x 3,5	60 x 25	4R27178	220,93
M 33 x 3,5	60 x 25	4R27180	220,93
M 36 x 4,0	60 x 25	4R27182	220,93
M 39 x 4,0	70 x 30	4R27184	360,91
M 42 x 4,5	70 x 30	4R27186	360,91
M 45 x 4,5	85 x 36	4R27188	508,26
M 48 x 5,0	85 x 36	4R27190	508,26
M 52 x 5,0	85 x 36	4R27192	508,26
M 56 x 5,5	100 x 36	4R27194	889,50
M 60 x 5,5	100 x 36	4R27196	889,50
M 64 x 6,0	100 x 36	4R27198	889,50
M 68 x 6,0	115 x 36	4R27199	1.153,68

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



HSS-G

DIN 382

TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 3 x 0,35	19 x 5	4R26108	55,47
M 4 x 0,35	19 x 5	4R26110	55,47
M 4 x 0,50	19 x 5	4R26112	55,47
M 5 x 0,50	19 x 5	4R26114	55,47
M 5 x 0,75	19 x 7	4R26116	55,47
M 6 x 0,50	19 x 5	4R26117	55,47
M 6 x 0,75	19 x 7	4R26118	55,47
M 7 x 0,75	22 x 9	4R26120	58,98
M 8 x 0,50	22 x 9	4R26122	58,98
M 8 x 0,75	22 x 9	4R26124	58,98
M 8 x 1,00	22 x 9	4R26126	58,98
M 9 x 0,75	22 x 9	4R26128	58,98
M 9 x 1,00	22 x 9	4R26130	58,98
M 10 x 0,75	27 x 11	4R26132	58,98
M 10 x 1,00	27 x 11	4R26136	58,98
M 10 x 1,25	27 x 11	4R26138	58,98
M 11 x 1,00	27 x 11	4R26140	81,45
M 11 x 1,25	27 x 11	4R26142	81,45
M 12 x 0,75	36 x 10	4R26143	81,45
M 12 x 1,00	36 x 10	4R26144	81,45
M 12 x 1,25	36 x 10	4R26146	81,45
M 12 x 1,50	36 x 10	4R26148	81,45
M 13 x 1,00	36 x 10	4R26150	92,34
M 13 x 1,50	36 x 10	4R26151	92,34
M 14 x 0,75	36 x 10	4R26152	92,34
M 14 x 1,00	36 x 10	4R26153	92,34
M 14 x 1,25	36 x 10	4R26154	92,34
M 14 x 1,50	36 x 10	4R26156	92,34
M 15 x 1,00	36 x 10	4R26158	110,94
M 15 x 1,50	36 x 10	4R26160	110,94
M 16 x 1,00	41 x 14	4R26162	113,61
M 16 x 1,25	41 x 14	4R26164	113,61
M 16 x 1,50	41 x 14	4R26166	113,61
M 18 x 1,00	41 x 14	4R26170	120,42
M 18 x 1,25	41 x 14	4R26171	120,42
M 18 x 1,50	41 x 14	4R26172	120,42
M 18 x 2,00	41 x 14	4R26174	120,42
M 20 x 1,00	41 x 14	4R26178	120,42
M 20 x 1,25	41 x 14	4R26180	120,42
M 20 x 1,50	41 x 14	4R26184	120,42
M 20 x 2,00	41 x 14	4R26186	120,42
M 21 x 1,50	41 x 14	4R26188	174,86
M 22 x 1,00	50 x 16	4R26190	174,86
M 22 x 1,25	50 x 16	4R26192	174,86
M 22 x 1,50	50 x 16	4R26194	174,86
M 22 x 2,00	50 x 16	4R26196	174,86
M 23 x 1,50	50 x 16	4R26198	174,86
M 24 x 1,00	50 x 16	4R26700	173,69
M 24 x 1,25	50 x 16	4R26702	173,69
M 24 x 1,50	50 x 16	4R26704	173,69
M 24 x 2,00	50 x 16	4R26706	173,69

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 25 x 1,0	50 x 16	4R26707	250,99
M 25 x 1,5	50 x 16	4R26708	250,99
M 26 x 1,0	50 x 16	4R26710	250,99
M 26 x 1,5	50 x 16	4R26712	250,99
M 26 x 2,0	50 x 16	4R26714	250,99
M 27 x 1,0	60 x 18	4R26717	261,01
M 27 x 1,5	60 x 18	4R26716	261,01
M 27 x 2,0	60 x 18	4R26718	261,01
M 28 x 1,0	60 x 18	4R26720	261,01
M 28 x 1,5	60 x 18	4R26722	261,01
M 28 x 2,0	60 x 18	4R26724	261,01
M 29 x 1,5	60 x 18	4R26726	261,01
M 30 x 1,0	60 x 18	4R26728	261,01
M 30 x 1,5	60 x 18	4R26730	261,01
M 30 x 2,0	60 x 18	4R26732	261,01
M 30 x 3,0	60 x 25	4R26734	261,01
M 32 x 1,5	60 x 18	4R26736	261,01
M 32 x 2,0	60 x 18	4R26735	261,01
M 32 x 3,0	60 x 25	4R26737	261,01
M 33 x 1,5	60 x 18	4R26738	261,01
M 33 x 2,0	60 x 18	4R26740	261,01
M 33 x 3,0	60 x 25	4R26742	261,01
M 34 x 1,5	60 x 18	4R26744	261,01
M 34 x 2,0	60 x 18	4R26746	261,01
M 35 x 1,5	60 x 18	4R26748	261,01
M 36 x 1,5	60 x 18	4R26750	261,01
M 36 x 2,0	60 x 18	4R26752	261,01
M 36 x 3,0	60 x 25	4R26754	261,01
M 38 x 1,5	70 x 20	4R26756	434,49
M 39 x 1,5	70 x 20	4R26758	434,49
M 39 x 2,0	70 x 20	4R26760	434,49
M 39 x 3,0	70 x 30	4R26762	434,49
M 40 x 1,5	70 x 20	4R26764	434,49
M 40 x 2,0	70 x 20	4R26766	434,49
M 40 x 3,0	70 x 30	4R26768	434,49
M 42 x 1,5	70 x 20	4R26770	434,49
M 42 x 2,0	70 x 20	4R26772	434,49
M 42 x 3,0	70 x 30	4R26774	434,49
M 45 x 1,5	85 x 22	4R26776	635,15
M 45 x 2,0	85 x 22	4R26778	635,15
M 45 x 3,0	85 x 36	4R26780	635,15
M 48 x 1,5	85 x 22	4R26782	635,15
M 48 x 2,0	85 x 22	4R26784	635,15
M 48 x 3,0	85 x 36	4R26786	635,15
M 50 x 1,5	85 x 22	4R26788	635,15
M 50 x 2,0	85 x 22	4R26790	635,15
M 50 x 3,0	85 x 36	4R26792	635,15
M 52 x 1,5	85 x 22	4R26794	635,15
M 52 x 2,0	85 x 22	4R26796	635,15
M 52 x 3,0	85 x 36	4R26798	635,15

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BSW

ROSCA WITHWORTH BS 84
 WITHWORTH THREAD BS 84
 FILETAGE WHITWORTH BS 84


HSS-G
DIN 382

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
BSW 1/8 x 40	19 x 5	4R22106	36,86
BSW 3/16 x 24	19 x 7	4R22110	36,86
BSW 1/4 x 20	19 x 7	4R22114	36,86
BSW 5/16 x 18	22 x 9	4R22116	38,62
BSW 3/8 x 16	27 x 11	4R22118	45,80
BSW 7/16 x 14	27 x 11	4R22120	45,80
BSW 1/2 x 12	36 x 14	4R22122	55,47
BSW 9/16 x 12	36 x 14	4R22124	55,47
BSW 5/8 x 11	41 x 18	4R22126	77,23
BSW 3/4 x 10	41 x 18	4R22130	77,23
BSW 7/8 x 9	50 x 22	4R22134	157,16

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
BSW 1" x 8	50 x 22	4R22138	157,16
BSW 1.1/8 x 7	60 x 25	4R22142	240,77
BSW 1.1/4 x 7	60 x 25	4R22146	240,77
BSW 1.3/8 x 6	60 x 25	4R22150	240,77
BSW 1.1/2 x 6	70 x 30	4R22154	284,05
BSW 2 x 4.1/2	85 x 36	4R22170	351,12
BSW 2.1/4 x 4	100 x 22	4R22172	1.305,58
BSW 2.1/2 x 4	115 x 22	4R22174	1.305,58
BSW 2.3/4 x 3.1/2	115 x 36	4R22176	1.623,60
BSW 3 x 3.1/2	115 x 36	4R22178	1.623,60

BSF

ROSCA BRITÁNICA STANDARD FINA BS 84
 BRITISH STANDARD FINE THREAD BS 84
 FILETAGE BRITANIQUE BSF, BS 84


HSS-G
DIN 382

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
BSF 3/16 x 32	19 x 7	4R22510	41,21
BSF 1/4 x 26	19 x 7	4R22514	41,21
BSF 5/16 x 22	22 x 9	4R22516	45,67
BSF 3/8 x 20	27 x 11	4R22518	55,83
BSF 7/16 x 18	27 x 11	4R22520	55,83
BSF 1/2 x 16	36 x 10	4R22522	87,56

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
BSF 9/16 x 16	36 x 10	4R22524	87,56
BSF 5/8 x 14	41 x 14	4R22526	133,75
BSF 3/4 x 12	41 x 14	4R22530	133,75
BSF 7/8 x 11	50 x 16	4R22534	157,16
BSF 1 x 10	50 x 16	4R22538	157,16

G(BSP)

ROSCA GAS DIN ISO 228
PIPE TRHEAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228



HSS-G

DIN 382

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
G 1/8 x 28	27 x 11	4R25512	51,62
G 1/4 x 19	36 x 10	4R25514	68,94
G 3/8 x 19	41 x 14	4R25516	88,81
G 1/2 x 14	41 x 14	4R25518	88,81
G 5/8 x 14	50 x 16	4R25520	150,38
G 3/4 x 14	50 x 16	4R25522	150,38
G 7/8 x 14	60 x 18	4R25524	200,50
G 1 x 11	60 x 18	4R25526	200,50

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
G 1.1/8 x 11	70 x 20	4R25530	297,44
G 1.1/4 x 11	70 x 20	4R25534	297,44
G 1.3/8 x 11	85 x 22	4R25538	489,32
G 1.1/2 x 11	85 x 22	4R25542	489,32
G 1.5/8 x 11	85 x 22	4R25546	489,32
G 1.3/4 x 11	100 x 22	4R25550	735,21
G 2 x 11	100 x 22	4R25554	735,21

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
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METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

ESTUCHE MACHOS MANO
HAND TAPS SET • COFFRET TARAUDS Á MAIN



3RH352 - 3RC352



3RB352 - 3RB529

Calidad / Quality	Machos / Taps	Brocas / Drill Bits	Giramachos / Tap Wrenche	Cod.	€/Unid.
HSS-G Machos Mano Hand Taps	M 3 - 4 - 5 - 6 - 8 - 10 - 12	-	-	3RH352	150,45
HSS-CO 5% Machos Mano Hand Taps	M 3 - 4 - 5 - 6 - 8 - 10 - 12	-	-	3RC352	253,66
HSS-G Macho Nº 3 Tap Nº 3	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	Nº 1.1/2	3RB352	73,78
HSS-CO 5% DIN 352/B	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	Nº 1.1/2	3RB529	108,97

ESTUCHES MACHOS MÁQUINA
MACHINE TAPS SETS • COFFRETS TARAUDS MACHINE



3RM001



3RM002



3RM003



3RM004

Calidad / Quality	Machos / Taps	Cod.	€/Unid.
HSS-CO 5% FORM B	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM001	113,05
HSS-CO 5% FORM C/35°	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM002	120,06

Calidad / Quality	Machos / Taps	Cod.	€/Unid.
TIN FORM B	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM003	193,40
TIN FORM C/35°	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM004	213,53

ESTUCHES MACHOS MÁQUINA CON BROCA
MACHINE TAPS AND DRILL BITS SETS
COFFRETS TARAUDS MACHINE ET FORETS MÉTAUX



3RM011



3RM012

Calidad / Quality	Machos / Taps	Brocas / Drill Bits	Giramachos / Tap Wrenche	Cod.	€/Unid.
HSS-CO 5% FORM B	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	-	3RM011	122,57
HSS-CO 5% FORM C/35°	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	-	3RM012	137,59

ESTUCHES MACHOS MÁQUINA DE BANDA
COLORED RING MACHINE TAPS SETS
COFFRETS TARAUDS MACHINE BANDE COLORÉE



3RM021



3RM022



3RM023



3RM024



3RM025



3RM026

Calidad / Quality	Banda/Ring	Machos/Taps	Cod.	€/Unid.	Calidad / Quality	Banda/Ring	Machos/Taps	Cod.	€/Unid.
PM HL FORM B		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM021	275,11	HSS-E-V3 TIN FORM C/35° MULTIUSOS		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM024	204,50
PM HL FORM C/35°		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM022	310,75	HSS-CO 5% FORM B		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM025	168,70
HSS-E-V3 TIN FORM B MULTIUSOS		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM023	186,39	HSS-CO 5% FORM C/40°		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM026	206,22

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M

MÉTRICA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13


HSS-G

Machos Mano y Cojinetes <i>Hand Taps and Dies</i>	Giramachos <i>Tap Holder</i>	Volvedor <i>Tap Wrenche (mm)</i>	Giramachos con Criquet <i>Tap Holder with Ratchet</i>	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 - 12 14 - 16 - 18 - 20 - 22 - 24	Nº 1 + 4	20 x 5 - 20 x 7 - 25 x 9 - 30 x 11 38 x 14 - 45 x 18 - 55 x 22	-	3R48006	1.397,97
M 5 - 6 - 8 - 10 - 12 - 14 - 16 18 - 20 - 22 - 24 - 27 - 30	Nº 1 + Nº 3 + 5	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 45 x 18 - 55 x 22 - 65 x 25	-	3R48007	2.308,55

3R49101P

HSS-G


Machos Mano y Cojinetes <i>Hand Taps and Dies</i>	Brocas <i>Drill Bits (mm)</i>	Giramachos <i>Tap Holder</i>	Volvedor <i>Tap Wrenche (mm)</i>	Giramachos con Criquet <i>Tap Holder with Ratchet</i>	Cod.	€/Unid.
M 3-4-5-6-8-10-12	2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	N.º 1	3R49101	357,18
M 3-4-5-6-8-10-12	2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	-	3R49101P	327,70
M 3-4-5-6-8-10-12	-	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	-	3R49107	324,08
M 3-4-5-6-8-10-12	2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	-	3R49111	345,19

HSS-CO 5%

Machos Mano y Cojinetes <i>Hand Taps and Dies</i>	Brocas <i>Drill Bits (mm)</i>	Giramachos <i>Tap Holder</i>	Volvedor <i>Tap Wrenche (mm)</i>	Giramachos con Criquet <i>Tap Holder with Ratchet</i>	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 - 12	2,5 - 3,3 - 4,2 - 5,0 6,8 - 8,5 - 10,2	Nº 1 + Nº 2	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14	Nº 1	3R49151	558,83

HSS-G

IZQUIERDAS

Machos Mano y Cojinetes <i>Hand Taps and Dies</i>	Brocas <i>Drill Bits (mm)</i>	Giramachos <i>Tap Holder</i>	Volvedor <i>Tap Wrenche (mm)</i>	Giramachos con Criquet <i>Tap Holder with Ratchet</i>	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 - 12	2,5 - 3,3 - 4,2 - 5,0 6,8 - 8,5 - 10,2	Nº 1 + Nº 2	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14	Nº 1	3R49171	636,64

M CONJUNTO M3 – M12, Ref. 3R12
M3 – M12 SET, REF. 3R12
COFFRET M3 – M12, REF. 3R12



HSS-G

Machos Mano y Cojinetes Hand Taps and Dies	Giramachos Tap Holder	Volvedor Tap Wrenche (mm)	Giramachos con Criquet Tap Holder with Ratchet	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 - 12	Nº 1	25 x 9	Nº 1	3R49501	221,35

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-G

Machos Mano y Cojinetes Hand Taps and Dies	Giramachos Tap Holder	Volvedor Tap Wrenche (mm)	Giramachos con Criquet Tap Holder with Ratchet	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	Nº 1 - Nº 2	3R49201	745,95
M 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	Nº 1 + Nº 2	3R49301	722,76

HSS-CO 5%

Machos Mano y Cojinetes Hand Taps and Dies	Giramachos Tap Holder	Volvedor Tap Wrenche (mm)	Giramachos con Criquet Tap Holder with Ratchet	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	-	3R49251	1.207,00

HSS-G



IZQUIERDAS

Machos Mano y Cojinetes Hand Taps and Dies	Giramachos Tap Holder	Volvedor Tap Wrenche (mm)	Giramachos con Criquet Tap Holder with Ratchet	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	-	3R49271	1.639,80

M

MÉTRICA ISO-529 FORMA B
METRIC ISO-529 B FORM
MÉTRIQUE ISO-529 FORME B



HSS-G

Machos Mano y Cojinetes / Hand Taps and Dies	Brocas / Drill Bits (mm)	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10	2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5	3R80501	162,93

Mf

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-G

Machos Mano y Cojinetes Hand Taps and Dies	Giramachos Tap Holder	Volvedor Tap Wrenche (mm)	Giramachos con Crique Tap Holder with Ratchet	Cod.	€/Unid.
Mf 3 x 0,35 - 4 x 0,5 - 5 x 0,5 - 6 x 0,75 8 x 0,75 - 8 x 1,0 - 10 x 1,0 - 12 x 1,5	Nº 1 + Nº 2	20 x 5 - 25 x 9 - 30 x 11 - 38 x 10	Nº 1	3R48010	644,20
Mf 6 x 0,75 - 8 x 0,75 - 8 x 1,0 - 10 x 1,0 12 x 1,0 - 12 x 1,5 - 14 x 1,25 - 14 x 1,5 16 x 1,5 - 18 x 1,5 - 20 x 1,5	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14	-	3R48011	1.087,58
Mf 6 x 0,75 - 8 x 0,75 - 8 x 1,0 - 10 x 1,0 12 x 1,0 - 12 x 1,5 - 14 x 1,25 - 14 x 1,5 16 x 1,5 - 18 x 1,5 - 20 x 1,5 - 22 x 1,5 - 24 x 1,5	Nº 1 + Nº 4	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14 - 55 x 16	-	3R48012	1.472,85

G(BSP)

ROSCA GAS DIN ISO 228
PIPE THREAD ISO 228
FILETAGE PAS GAZ DIN ISO 228



HSS-G

Machos Mano y Cojinetes Hand Taps and Dies	Giramachos Tap Holder	Volvedor Tap Wrenche (mm)	Giramachos con Criquet Tap Holder with Ratchet	Cod.	€/Unid.
G 1/8 - 1/4 - 3/8 - 1/2 - 3/4 - 1"	Nº 1 + Nº 3 + Nº 5	30 x 11 - 38 x 10 - 45 x 14 - 55 x 16 - 65 x 18	-	3R48020	1.189,85
G 1/8 - 1/4 - 3/8 - 1/2 - 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 3 + Nº 5	31 x 11 - 38 x 10 - 45 x 14 - 55 x 16 - 65 x 18	-	3R48021	1.603,98
G 1/4 - 3/8 - 1/2 - 3/4 - 1" - 1 1/4 - 1 1/2"	Nº 2 + Nº 4 + Nº 7	38 x 10 - 45 x 14 - 65 x 18 - 75 x 20 - 90 x 22	-	3R48022	3.175,55

NPT

ROSCA INGLESA PARA TUBO, CONOCIDAD 1:16
TAPERED PIPE THREAD, TAPER 1:16
FILETAGE NPT CONICITÉ 1:16

HSS-G

Machos Mano y Cojinetes Hand Taps and Dies	Giramachos Tap Holder	Volvedor Tap Wrenche (mm)	Giramachos con Criquet Tap Holder with Ratchet	Cod.	€/Unid.
NPT 1/8 - 1/4 - 3/8 - 1/2 - 3/4 - 1"	Nº 1 + Nº 3 + Nº 5	31 x 11 - 38 x 14 - 45 x 18 55 x 22 - 65 x 25	-	3R48025	1.592,16
NPT 1/8 - 1/4 - 3/8 - 1/2 - 3/4 - 1" 1 1/4 - 1 1/2 - 2"	Nº 2 + Nº 4 + Nº 7	30 x 11 - 38 x 14 - 45 x 18 - 55 x 22 65 x 25 - 75 x 30 - 90 x 36 - 105 x 36	-	3R48027	5.277,06

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BSW

ROSCA WHITWORTH BS 84
WITHWORTH THREAD BS 84
WHITWORTH BS 84



HSS-G

Machos Mano y Cojinetes Hand Taps and Dies	Giramachos Tap Holder	Volvedor Tap Wrenche (mm)	Giramachos con Criquet Tap Holder with Ratchet	Cod.	€/Unid.
BSW 1/8 - 3/16 - 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 5 - 20 x 7 - 25 x 9 - 30 x 11 - 38 x 14	Nº 1	3R48030	654,28
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14	Nº 1	3R48031	535,68
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 - 45 x 18	-	3R48032	968,03
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 4	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 45 x 18 - 55 x 22	-	3R48034	1.411,90
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 3/4 - 7/8 - 1" - 1" 1/8 - 1" 1/4 - 1" 3/8 - 1" 1/2	Nº 1 + Nº 3 + Nº 5	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 45 x 18 - 55 x 22 - 65 x 25	-	3R48035	3.373,52

BSF

ROSCA BRITÁNICA STANDARD FINA BS 84
BRITISH STANDARD FINE THREAD BS 84
BRITISH STANDARD FINE THREAD BS 84

HSS-G

Machos Mano y Cojinetes Hand Taps and Dies	Giramachos Tap Holder	Volvedor Tap Wrenche (mm)	Giramachos con Criquet Tap Holder with Ratchet	Cod.	€/Unid.
BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 7 - 25 x 9 - 30 x 11 - 38 x 10	Nº 1	3R48041	555,24
BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	21 x 7 - 25 x 9 - 30 x 11 - 38 x 10 - 45 x 14	-	3R48042	961,31
BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 4	22 x 7 - 25 x 9 - 30 x 11 - 38 x 10 - 45 x 14 - 55 x 16	-	3R48044	1.588,77

BSW/BSF

HSS-G

Machos Mano y Cojinetes Hand Taps and Dies	Giramachos Tap Holder	Volvedor Tap Wrenche (mm)	Giramachos con Criquet Tap Holder with Ratchet	Cod.	€/Unid.
BSW/BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 - 45 x 18	-	3R48046	1.798,25

UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



HSS-G

Machos Mano y Cojinetes <i>Hand Taps and Dies</i>	Giramachos <i>Tap Holder</i>	Volvedor <i>Tap Wrenche (mm)</i>	Giramachos con Criquet <i>Tap Holder with Ratchet</i>	Cod.	€/Unid.
UNC 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 70 - 25 x 9 - 30 x 11 - 38 x 14	Nº 1	3R48050	586,42
UNC 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 70 - 25 x 9 - 30 x 11 38 x 14 - 45 x 18	-	3R48051	1.027,61

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1

HSS-G

Machos Mano y Cojinetes <i>Hand Taps and Dies</i>	Giramachos <i>Tap Holder</i>	Volvedor <i>Tap Wrenche (mm)</i>	Giramachos con Criquet <i>Tap Holder with Ratchet</i>	Cod.	€/Unid.
UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 7 - 25 x 9 - 30 x 11 - 38 x 10	Nº 1	3R48060	496,69
UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14	-	3R48061	865,33
UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 4	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14 - 55 x 16	-	3R48063	1.234,88

UNC/UNF

HSS-G

Machos Mano y Cojinetes <i>Hand Taps and Dies</i>	Giramachos <i>Tap Holder</i>	Volvedor <i>Tap Wrenche (mm)</i>	Giramachos con Criquet <i>Tap Holder with Ratchet</i>	Cod.	€/Unid.
UNC/UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 - 45 x 18	-	3R48066	1.798,24

M/Mf

MALETIN AUTOMOCION REF.6000
THREADING SET REF.6000 FOR AUTOMOTIVE
ENSEMBLE FILETTAGE POUR GARAGE REF.6000

Basic




Cod.	€/Unid.
6000FIAT	511,43

Contenido / Contains / Contenu

Machos Mano -2 machos- y Cojinetes / Hand Taps -2 taps- and Dies							
METRICA DIN352 / METRIC DIN352			METRICA FINA DIN2181 / FINE METRIC DIN2181				
2 x 0,40	7 x 1,00	12 x 1,75	6 x 0,75	9 x 1,00	11 x 1,00	12 x 1,50	16 x 1,50
3 x 0,50	8 x 1,25	14 x 2,00	7 x 0,75	10 x 0,75	11 x 1,25	14 x 1,00	18 x 1,50
4 x 0,70	9 x 1,25	16 x 2,00	8 x 0,75	10 x 1,00	12 x 0,75	14 x 1,25	
5 x 0,80	10 x 1,50		8 x 1,00	10 x 1,25	12 x 1,00	14 x 1,50	
6 x 1,00	11 x 1,50		9 x 0,75	11 x 0,75	12 x 1,25	16 x 1,00	
Volvedor / Tap Wrenche (mm)							
25,4 - 38,1							
Giramachos / Tap Holder							
Nº 1 + Nº 3 + Nº 1 en forma de T / Nº 1 + Nº 3 + Nº 1 in form T							
TOTAL 110 pcs							

M TAMPÓN DE ROSCA PARA MÉTRICA ISO-ROSCA DIN 13
THREAD PLUG GAUGE FOR METRIC ISO-THREAD DIN 13
JAUGE DE FILETAGE POUR MÉTRIQUE ISO-FILETAGE DIN 13

NEW



DIN ISO
1502

TOL
6H



D Ø x P (mm)	PASA - NO PASA GO - NO GO	Uds. Pcs.	€/Unid.
M 3 x 0.5	5R17326	1	155,60
M 3.5 x 0.6	5R17328	1	148,19
M 4 x 0.7	5R17330	1	143,96
M 4.5 x 0.75	5R17332	1	171,47
M 5 x 0.8	5R17334	1	142,90
M 5.5 x 0.9	5R17336	1	171,47
M 6 x 1.0	5R17338	1	142,90
M 7 x 1.0	5R17340	1	142,90
M 8 x 1.25	5R17342	1	141,84

D Ø x P (mm)	PASA - NO PASA GO - NO GO	Uds. Pcs.	€/Unid.
M 9 x 1.25	5R17344	1	148,19
M 10 x 1.5	5R17346	1	148,19
M 11 x 1.5	5R17348	1	154,54
M 12 x 1.75	5R17350	1	154,54
M 14 x 2.0	5R17354	1	160,89
M 16 x 2.0	5R17358	1	169,35
M 18 x 2.5	5R17362	1	182,05
M 20 x 2.5	5R17366	1	192,64

Para otras medidas consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

Plazo: 6-7 días laborables / 6-7 business day / 6 jours ouvrables

M ANILLO DE ROSCA PARA MÉTRICA ISO-ROSCA DIN 13
RING PLUG GAUGE FOR METRIC ISO-THREAD DIN 13
JAUGE À ANNEAU POUR MÉTRIQUE ISO-FILETAGE DIN 13

NEW



DIN ISO
1502

TOL
6g



D Ø x P (mm)	PASA GO	NO PASA NO GO	Uds. Pcs.	€/Unid.
M 3 x 0.5	5R17426P	5R17426N	1	139,01
M 3.5 x 0.6	5R17428P	5R17428N	1	143,25
M 4 x 0.7	5R17430P	5R17430N	1	130,55
M 4.5 x 0.75	5R17432P	5R17432N	1	155,94
M 5 x 0.8	5R17434P	5R17434N	1	130,55
M 5.5 x 0.9	5R17436P	5R17436N	1	155,94
M 6 x 1.0	5R17438P	5R17438N	1	130,55
M 7 x 1.0	5R17440P	5R17440N	1	134,78
M 8 x 1.25	5R17442P	5R17442N	1	134,78

D Ø x P (mm)	PASA GO	NO PASA NO GO	Uds. Pcs.	€/Unid.
M 9 x 1.25	5R17444P	5R17444N	1	151,71
M 10 x 1.5	5R17446P	5R17446N	1	151,71
M 11 x 1.5	5R17448P	5R17448N	1	151,71
M 12 x 1.75	5R17450P	5R17450N	1	160,18
M 14 x 2.0	5R17454P	5R17454N	1	170,76
M 16 x 2.0	5R17458P	5R17458N	1	170,76
M 18 x 2.5	5R17462P	5R17462N	1	197,22
M 20 x 2.5	5R17466P	5R17466N	1	197,22

Para otras medidas consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

Plazo: 6-7 días laborables / 6-7 business day / 6 jours ouvrables

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

DISPLAYS
DISPLAYS • DISPLAYS

METROLOGÍA
METROLOGY • MÉTROLOGIE

HEXAGONAL
HEXAGONAL • HEXAGONAL

ACCESORIOS
ACCESSORIES • ACCESSOIRES

ROSCADO
THREADING • FILETAGE

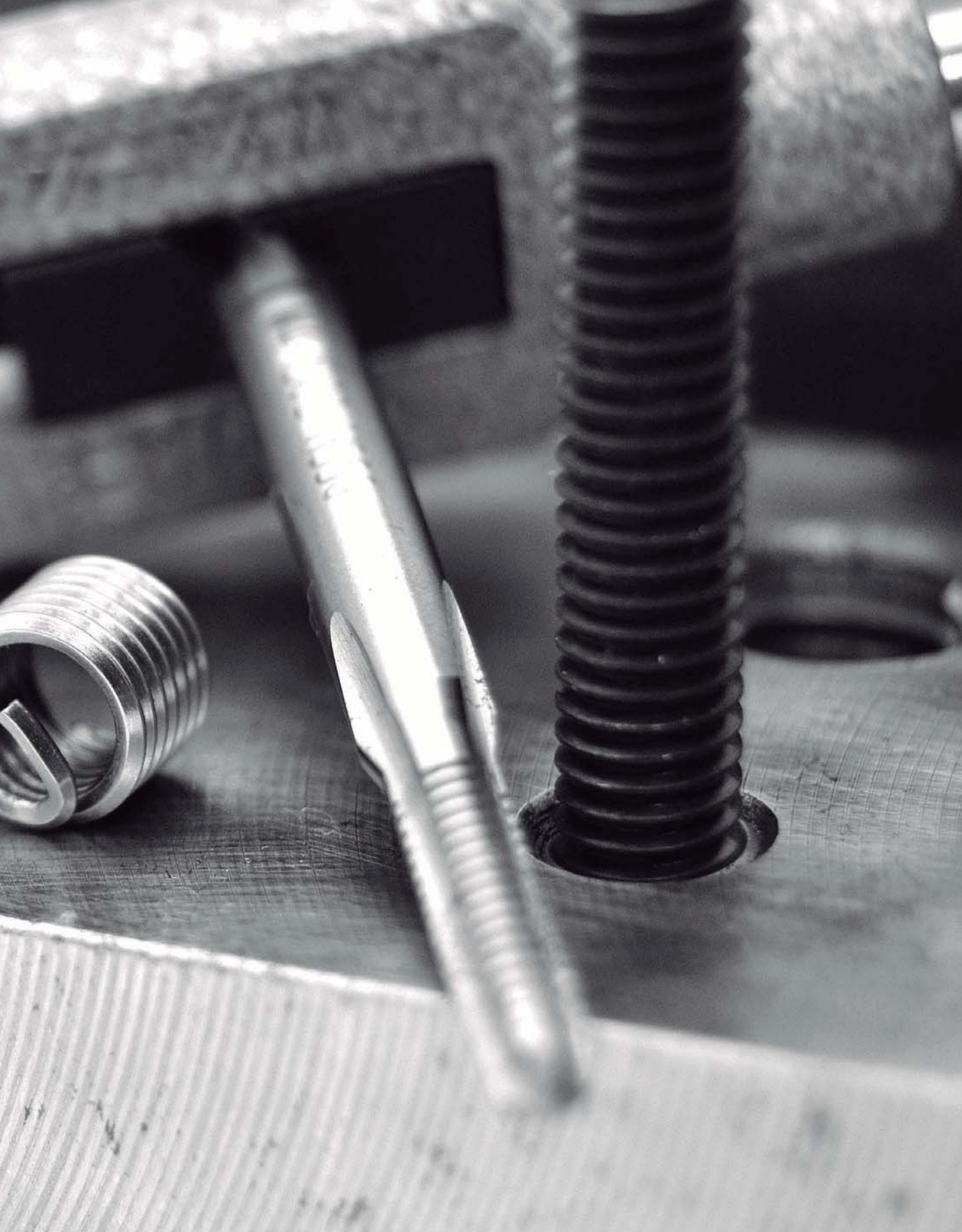
FRESADO
MILLING • FRAISAGE

METAL
METAL • MÉTAL

MADERA
WOOD • BOIS

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION





CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS



MODO DE USO

OPERATING INSTRUCTIONS • INSTRUCTIONS D'UTILISATION



TALADRADO
DRILLING
PÉRÇAGE



COMPROBACIÓN
CHECK
VÉRIFICATION



ROSCADO
THREADING
TARAUDEGE



INSTALACIÓN DEL INSERTO
INSERT INSTALLATION
INSTALLATION DU FILET



ELIMINACIÓN DEL ARRASTRE
TANG REMOVAL
CASSER LA LANGUETTE DE MONTAGE

INFORMACIÓN TÉCNICA PARA INSTALACIÓN DE INSERTOS DIN 8140

TECHNICAL DATA SHEET FOR THE INSTALLATION OF WIRE THREAD INSERTS DIN8140
INFORMATION TECHNIQUE POUR L'INSTALLATION DES FILETS RAPPORTÉS DIN 8140

D Ø X P (mm)	TALARADO / DRILLING / PRÉÇAGE						ROSCADO / THREADING / FILETAGE			
	C	LONGITUD (S) / LENGTH (S) / LONGUEUR (S)					B	A		
		mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø		3,0 x Ø	mm	mín.
M / MF										
M 2,0 x 0,40	2,10	3,80	4,80	5,80	6,80	7,80	2,52	2,09	2,18	
M 2,5 x 0,45	2,60	4,53	5,77	7,02	8,27	9,52	3,08	2,60	2,70	
M 3,0 x 0,50	3,20	5,25	6,75	8,25	9,75	11,25	3,65	3,11	3,22	
M 3,5 x 0,60	3,70	6,20	7,95	9,70	11,45	13,20	4,28	3,63	3,76	
M 4,0 x 0,70	4,20	7,15	9,15	11,15	13,15	15,15	4,91	4,15	4,29	
M 5,0 x 0,80	5,20	8,60	11,10	13,60	16,10	18,60	6,04	5,17	5,33	
M 6,0 x 1,00	6,30	10,50	13,50	16,50	19,50	22,50	7,30	6,22	6,41	
M 7,0 x 1,00	7,30	11,50	15,00	18,50	22,00	25,52	8,30	7,22	7,41	
M 8,0 x 1,25	8,30	13,63	17,62	21,62	25,62	29,62	9,62	8,27	8,48	
M 8,0 x 1,00	8,30	12,50	16,50	20,50	24,50	28,50	9,30	8,22	8,41	
M 9,0 x 1,25	9,30	14,63	19,12	23,62	28,13	32,62	10,62	9,27	9,48	
M 10,0 x 1,50	10,40	13,50	21,75	26,75	31,75	36,75	11,95	10,32	10,56	
M 10,0 x 1,25	10,30	15,63	20,62	25,62	30,62	35,62	11,62	10,27	10,48	
M 10,0 x 1,00	10,30	14,50	19,50	24,50	29,50	34,50	11,30	10,22	10,41	
M 11,0 x 1,50	11,40	17,75	23,25	28,75	34,25	39,75	12,95	11,33	11,56	
M 12,0 x 1,75	12,40	19,87	25,87	31,87	37,87	43,87	14,27	12,38	12,64	
M 12,0 x 1,50	12,40	18,75	24,75	30,75	36,75	42,75	14,10	12,32	12,56	
M 12,0 x 1,25	12,30	17,62	23,62	29,62	35,62	41,62	13,62	12,27	12,48	
M 12,0 x 1,00	12,30	16,50	22,50	28,50	34,50	40,50	13,30	12,22	12,41	
M 14,0 x 2,00	14,50	23,00	30,00	37,00	44,00	51,00	16,60	14,43	14,73	
M 14,0 x 1,50	14,40	20,75	27,75	34,75	41,75	48,75	15,95	14,35	14,56	
M 14,0 x 1,25	14,40	19,62	26,62	33,62	40,62	47,62	15,62	14,27	14,48	
M 14,0 x 1,00	14,30	18,50	25,50	32,50	39,50	46,50	15,30	14,22	14,41	
M 16,0 x 2,00	16,50	25,00	33,00	41,00	49,00	57,00	18,60	16,43	16,73	
M 16,0 x 1,50	16,40	22,75	30,75	38,75	46,75	54,75	17,95	16,32	16,56	
M 18,0 x 2,50	18,60	29,25	38,25	47,25	56,25	65,25	21,25	18,54	18,90	
M 18,0 x 2,00	18,50	27,00	36,00	45,00	54,00	63,00	20,60	18,43	18,73	
M 18,0 x 1,50	18,50	24,75	33,75	42,75	51,75	60,75	19,95	18,32	18,56	
M 20,0 x 2,50	20,60	31,25	41,25	51,25	61,25	71,25	23,25	20,54	20,90	
M 20,0 x 2,00	20,50	29,00	39,00	49,00	59,00	69,00	22,60	20,43	20,73	
M 20,0 x 1,50	20,50	26,75	36,75	46,75	56,75	66,75	21,95	20,32	20,56	
M 22,0 x 2,50	22,60	33,25	44,25	55,25	66,25	77,25	25,25	22,54	22,90	
M 22,0 x 2,00	22,50	31,00	42,00	53,00	64,00	75,00	24,60	22,43	22,73	
M 22,0 x 1,50	22,50	28,75	39,75	50,75	61,75	72,75	23,95	22,32	22,56	
M 24,0 x 3,00	24,75	37,50	49,50	61,50	73,50	85,50	27,90	24,65	25,05	
M 24,0 x 2,00	24,50	33,00	45,00	57,00	69,00	81,00	26,60	24,43	24,73	
M 24,0 x 1,50	24,50	30,75	42,75	54,75	66,75	78,75	26,02	24,33	24,56	

- C** Diámetro de broca previa / Recommended drill diameter / Pérçage avant trou
- S** Longitud de taladrado / Drilling Length / Longueur pérçage
- B** Ø mayor de rosca / Maximum diameter of thread / Diametre maximum du filet
- A** Ø menor de rosca / Minimum diameter of thread / Diametre minimum du filet
- Q** Longitud nominal / Nominal Length / Longueur nominale
- d1** exterior del casquillo / External Ø of wire insert / Diametre extérieur di filet rapporté
- W** N° de hilos / N° of coils / Nombre de spires

INFORMACIÓN TÉCNICA INSERTOS DE ROSCADO

WIRE THREAD INSERTS TECHNICAL INFORMATION

INFORMATION TECHNIQUE FILETS RAPPORTÉS



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

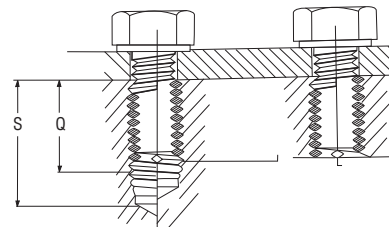
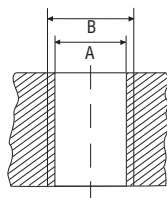
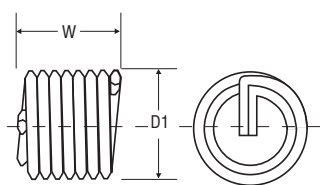
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
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METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

ROSCADO / THREADING / FILETAGE					INSERTO / INSERTS / FILETS RAPPORTÉS							
LONGITUD ÚTIL (Q) / LENGTH (Q) / LONGEUR (Q)					D1		Nº DE HILOS (W) / Nº OF COILS (W) / LONGEUR (W)					
1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	
2,00	3,00	4,00	5,00	6,00	2,60	2,80	2,90	4,90	6,90	8,90	10,90	
2,50	3,75	5,00	6,25	7,50	3,20	3,70	3,50	5,90	8,10	10,50	12,90	
3,00	4,50	6,00	7,50	9,00	3,80	4,35	3,90	6,30	8,70	11,10	13,50	
3,50	5,25	7,00	8,75	10,50	4,55	4,75	3,70	6,30	8,70	11,20	13,30	
4,00	6,00	8,00	10,00	12,00	5,05	5,60	3,70	6,10	8,40	10,90	13,20	
5,00	7,50	10,00	12,50	15,00	6,25	6,80	4,30	6,90	9,70	12,30	14,80	
6,00	9,00	12,00	15,00	18,00	7,40	7,95	4,20	6,90	9,60	12,30	14,60	
7,00	10,50	14,00	17,50	21,00	8,65	9,20	5,30	8,20	11,10	14,30	17,40	
8,00	12,00	16,00	20,00	24,00	9,80	10,35	4,70	7,40	10,60	13,50	16,40	
8,00	12,00	16,00	20,00	24,00	9,70	10,25	6,10	9,50	12,90	16,50	19,90	
9,00	13,50	18,00	22,50	27,00	10,85	11,10	5,30	8,60	11,90	15,30	18,10	
10,00	15,00	20,00	25,00	30,00	11,95	12,50	5,00	8,10	11,20	14,20	17,20	
10,00	15,00	20,00	25,00	30,00	12,10	12,65	6,00	9,70	13,10	16,90	20,10	
10,00	15,00	20,00	25,00	30,00	12,10	12,50	7,60	12,10	16,30	20,70	25,00	
11,00	16,50	22,00	27,50	33,00	13,10	13,50	5,60	9,00	12,30	15,70	19,10	
12,00	18,00	24,00	30,00	36,00	14,30	15,00	5,20	8,40	11,70	14,70	18,00	
12,00	18,00	24,00	30,00	36,00	14,25	14,95	6,20	9,80	13,50	17,10	20,80	
12,00	18,00	24,00	30,00	36,00	14,30	15,00	7,40	11,60	15,90	20,00	24,30	
12,00	18,00	24,00	30,00	36,00	14,40	14,80	9,30	14,50	19,50	24,80	30,00	
14,00	21,00	28,00	35,00	42,00	16,65	17,35	5,60	8,80	12,00	15,20	18,40	
14,00	21,00	28,00	35,00	42,00	15,96	16,64	7,40	11,70	15,70	19,90	24,10	
14,00	21,00	28,00	35,00	42,00	15,74	16,00	8,40	12,55	18,20	23,10	28,00	
14,00	21,00	28,00	35,00	42,00	15,35	15,65	11,20	19,05	12,20	29,20	35,20	
16,00	24,00	32,00	40,00	48,00	18,90	19,60	6,50	10,10	13,80	17,50	21,10	
16,00	24,00	32,00	40,00	48,00	18,10	18,40	8,70	13,60	18,10	22,90	27,60	
18,00	27,00	36,00	45,00	54,00	21,30	22,00	5,60	9,00	12,30	15,70	19,00	
18,00	27,00	36,00	45,00	54,00	20,80	21,45	7,10	11,40	15,20	19,20	23,20	
18,00	27,00	36,00	45,00	54,00	20,15	20,80	9,50	15,10	20,20	25,50	30,80	
20,00	30,00	40,00	50,00	60,00	23,55	24,40	6,30	10,00	13,70	17,40	21,10	
20,00	30,00	40,00	50,00	60,00	22,80	23,45	8,00	12,60	16,80	21,20	25,60	
20,00	30,00	40,00	50,00	60,00	22,20	22,80	10,70	17,10	22,40	28,30	34,20	
22,00	33,00	44,00	55,00	66,00	25,90	26,90	6,90	10,90	15,00	19,10	23,10	
22,00	33,00	44,00	55,00	66,00	24,85	25,50	8,70	14,20	18,50	23,40	28,30	
22,00	33,00	44,00	55,00	66,00	24,20	24,60	11,70	18,35	24,50	30,90	37,30	
24,00	36,00	48,00	60,00	72,00	28,00	29,00	6,20	10,00	14,00	17,90	21,90	
24,00	36,00	48,00	60,00	72,00	26,85	27,50	9,60	15,50	20,20	25,10	30,00	
24,00	36,00	48,00	60,00	72,00	26,20	26,80	12,90	20,00	26,70	33,60	40,50	



INFORMACIÓN TÉCNICA PARA INSTALACIÓN DE INSERTOS DIN 8140
TECHNICAL DATA SHEET FOR THE INSTALLATION OF WIRE THREAD INSERTS DIN8140
INFORMATION TECHNIQUE POUR L'INSTALLATION DES FILETS RAPPORTÉS DIN 8140

D Ø x P (")	TALARADO / DRILLING / PREÇAGE						ROSCADO / THREADING / FILETAGE		
	C	LONGITUD (S) / LENGTH (S) / LONGEUR (S)					B	A	
UNC	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
Nr. 2 x 56	2,40	4,80	5,90	7,00	8,10	9,20	2,84	2,29	2,44
Nr. 4 x 40	3,00	6,30	7,70	9,20	10,60	12,10	3,67	3,00	3,10
Nr. 5 x 40	3,40	6,60	8,20	9,80	11,10	13,00	4,00	3,33	3,48
Nr. 6 x 32	3,70	7,70	9,50	11,20	13,20	14,70	4,54	3,68	3,81
Nr. 8 x 32	4,40	8,40	10,50	12,50	14,70	16,80	5,11	4,34	4,45
Nr. 10 x 24	5,10	5,20	12,30	14,70	17,20	19,50	6,20	5,05	5,21
Nr. 12 x 24	5,70	5,80	13,30	16,10	18,80	21,60	6,86	5,72	5,84
1/4 x 20	6,70	6,70	15,70	18,90	22,10	25,40	8,00	6,63	6,86
5/16 x 18	8,30	8,30	19,20	23,20	27,10	31,00	9,77	8,26	8,48
3/8 x 16	9,90	9,90	21,60	26,40	31,10	35,80	11,59	9,88	10,11
7/16 x 14	11,60	11,60	25,00	30,50	36,10	41,60	13,47	11,51	11,76
1/2 x 13	13,00	13,00	28,40	34,70	41,10	47,40	15,23	13,13	13,39
9/16 x 12	14,80	14,80	30,80	37,90	45,00	52,20	17,04	14,76	15,01
5/8 x 11	16,50	16,50	35,00	43,00	50,90	58,90	18,87	16,38	16,66
3/4 x 10	19,75	19,75	39,80	49,30	58,80	68,50	22,35	19,61	19,89
7/8 x 9	23,00	23,00	46,40	57,60	68,70	79,70	25,89	22,83	23,16
1 x 8	26,25	26,25	51,20	63,90	76,60	89,30	29,52	26,09	26,47
1.1/8 x 7	29,50	29,50	58,10	72,40	86,70	101,00	33,29	29,36	29,74
1.1/4 x 7	33,00	33,00	62,80	78,70	94,70	110,60	36,46	32,54	32,92
1.3/8 x 6	36,00	36,00	69,20	86,70	104,50	121,50	40,42	35,84	36,35
1.1/2 x 6	39,50	39,50	74,00	93,00	112,50	131,10	43,60	39,01	39,52

UNF	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
Nr. 4 x 40	3,00	5,600	6,655	8,500	9,900	11,200	3,53	2,972	3,048
Nr. 6 x 32	3,70	5,900	8,103	10,400	12,200	13,900	4,33	3,658	3,759
Nr. 8 x 36	4,40	8,000	9,423	12,100	14,300	16,400	5,08	4,318	4,420
Nr. 10 x 32	5,10	9,000	10,820	13,800	16,300	18,600	5,86	5,004	5,105
1/4 x 28	6,60	11,500	13,614	17,800	21,000	24,300	7,53	6,553	6,706
5/16 x 24	8,20	13,000	16,662	21,000	24,900	28,800	9,31	8,179	8,331
3/8 x 24	9,80	14,600	19,050	24,200	28,900	33,600	10,90	9,754	9,906
7/16 x 20	11,50	17,300	22,377	28,400	34,000	39,500	12,76	11,405	11,582
1/2 x 20	13,00	18,900	24,765	31,600	38,000	44,300	14,35	12,979	13,157
9/16 x 18	14,80	21,600	27,762	35,900	43,000	50,200	16,12	14,605	14,783
5/8 x 18	16,25	23,200	30,150	39,100	47,000	55,000	17,70	16,180	16,358
3/4 x 16	19,50	26,400	35,712	45,400	55,000	64,600	21,11	19,406	19,583
7/8 x 14	22,75	30,500	41,504	52,800	63,900	74,900	24,58	22,606	22,835
1 x 12	26,00	34,700	47,625	60,100	72,800	85,500	28,15	25,857	26,111
1.1/8 x 12	29,00	37,900	52,375	66,500	80,800	95,100	31,33	29,032	29,312
1.1/4 x 12	32,50	41,100	57,150	72,800	88,800	104,700	34,50	32,207	32,487
1.3/8 x 12	35,50	44,200	61,925	79,200	96,550	114,000	37,68	35,382	35,662
1.1/2 x 12	38,50	47,400	66,675	85,500	104,550	123,600	40,85	38,557	38,837

- C** Diámetro de broca previa / Recommended drill diameter / Perçage avant trou
- S** Longitud de taladrado / Drilling Length / Longueur perçage
- B** Ø mayor de rosca / Maximum diameter of thread / Diametre maximum du filet
- A** Ø menor de rosca / Minimum diameter of thread / Diametre minimum du filet
- Q** Longitud nominal / Nominal Length / Longueur nominale
- d1** exterior del casquillo / External Ø of wire insert / Diametre extérieur di filet rapporté
- W** N° de hilos / N° of coils / Nombre de spires

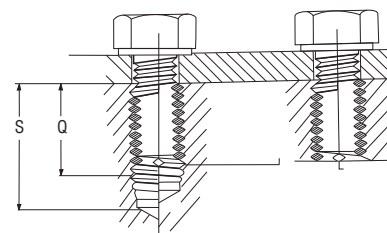
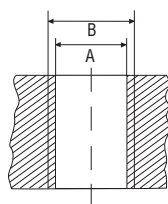
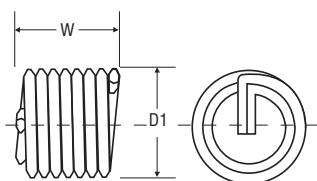
INFORMACIÓN TÉCNICA INSERTOS DE ROSCADO

WIRE THREAD INSERTS TECHNICAL INFORMATION
INFORMATION TECHNIQUE FILETS RAPPORTÉS



ROSCADO / THREADING / FILETAGE					INSERTO / INSERTS / FILETS RAPPORTÉS							
LONGITUD ÚTIL (Q) / LENGTH (Q) / LONGEUR (Q)					D1		Nº DE HILOS (W) / Nº OF COILS (W) / LONGEUR (W)					
1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	
2,20	3,30	4,40	5,50	6,60	2,69	2,90	3,00	5,25	7,40	9,60	11,80	
2,90	4,27	5,80	7,20	8,70	3,66	4,04	2,80	4,70	6,80	8,80	10,80	
3,20	4,80	6,40	7,90	9,60	3,99	4,39	3,30	5,50	7,80	10,00	10,30	
3,50	5,26	7,00	8,80	10,50	4,52	4,90	2,80	4,70	6,70	8,70	10,70	
4,20	6,25	8,40	10,50	12,60	5,21	5,59	3,50	6,00	8,30	10,70	13,10	
4,80	7,24	9,60	12,10	14,40	6,20	6,58	2,90	5,00	7,10	9,20	11,30	
5,50	8,23	11,00	13,70	16,50	6,86	7,24	3,50	5,90	8,30	10,70	13,10	
6,40	9,53	12,70	15,90	19,20	7,87	8,38	3,40	5,70	8,00	10,30	12,60	
7,90	11,91	15,90	19,80	23,70	9,65	10,16	4,00	6,60	9,30	11,90	14,50	
9,50	14,27	19,10	23,80	28,50	11,48	11,99	4,40	7,20	10,10	12,90	15,70	
11,10	16,66	22,20	27,80	33,30	13,36	14,00	4,50	7,40	10,30	13,10	15,90	
12,70	19,05	25,40	31,80	38,10	15,16	15,80	4,80	7,90	10,90	13,90	16,90	
14,30	21,44	28,60	35,70	42,90	16,99	17,63	5,10	8,30	11,50	14,70	17,90	
15,90	23,80	31,80	39,70	47,70	18,85	19,48	5,30	9,30	11,80	15,00	18,20	
19,10	28,58	38,10	47,60	57,30	22,38	23,01	5,90	9,40	13,00	16,60	20,20	
22,20	33,32	44,50	55,60	66,60	25,78	26,16	6,30	10,10	13,70	17,40	21,10	
25,40	38,10	50,80	63,50	76,20	29,34	29,72	6,40	10,30	14,00	17,80	21,60	
28,60	42,85	57,20	71,50	85,80	33,71	34,11	6,30	9,90	13,80	17,60	21,40	
31,80	47,63	63,50	79,50	95,40	37,01	37,39	7,10	11,25	15,40	19,60	23,70	
34,90	52,37	69,90	87,25	104,70	40,89	41,40	6,60	10,50	14,40	18,30	22,30	
38,10	57,15	76,20	95,25	114,30	44,09	44,60	7,40	11,50	15,90	20,10	24,30	

1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
2,800	4,267	5,700	7,100	8,400	3,734	4,115	3,400	5,60	7,900	10,300	27,700
3,500	5,258	7,000	8,800	10,500	4,394	4,902	3,600	6,00	8,400	10,800	13,200
4,200	6,248	8,300	10,500	12,600	5,182	5,690	4,000	6,60	9,100	11,700	14,300
4,800	7,239	9,600	12,100	14,400	5,994	6,502	4,100	6,80	9,500	12,100	14,700
6,400	9,525	12,700	15,900	19,200	7,772	8,280	5,000	8,10	11,300	14,400	17,500
7,900	11,913	15,900	19,800	23,700	9,652	10,160	5,500	8,90	12,200	15,600	19,000
9,500	14,275	19,100	23,800	28,500	11,379	11,887	6,900	10,90	14,900	19,000	23,100
11,100	16,662	22,200	27,800	33,300	13,310	13,945	6,600	10,60	14,500	18,400	22,300
12,700	19,050	25,400	31,800	38,100	15,037	15,672	7,800	12,30	16,800	21,300	25,800
14,300	21,438	28,600	35,700	42,900	16,916	17,551	7,900	12,50	17,100	21,600	26,200
15,900	23,800	31,800	39,700	47,700	18,618	19,253	8,900	14,10	19,100	24,300	29,500
19,100	28,575	38,100	47,700	57,300	22,250	22,885	9,700	15,10	20,600	26,000	31,400
22,200	33,325	44,500	55,600	66,600	24,765	25,019	9,900	16,20	21,000	26,600	32,200
25,400	38,100	50,800	63,500	76,200	28,194	28,575	9,700	15,70	20,600	26,100	31,400
28,600	42,850	57,200	71,500	85,800	31,750	32,106	10,100	17,50	24,400	31,500	38,600
31,800	47,625	63,500	79,500	95,400	35,001	35,408	12,400	19,60	26,100	33,000	39,900
34,900	52,375	69,900	87,250	104,700	38,202	38,608	13,800	21,60	28,900	36,400	43,900
38,100	57,150	76,200	95,250	114,300	41,402	41,808	15,200	23,75	31,600	39,800	48,000



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FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
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DISPLAYS
DISPLAYS • DISPLAYS

INFORMACIÓN TÉCNICA PARA INSTALACIÓN DE INSERTOS DIN 8140
TECHNICAL DATA SHEET FOR THE INSTALLATION OF WIRE THREAD INSERTS DIN8140
INFORMATION TECHNIQUE POUR L'INSTALLATION DES FILETS RAPPORTÉS DIN 8140

D Ø x P (")	TALARADO / DRILLING / PREÇAGE						ROSCADO / THREADING / FILETAGE		
	C	LONGITUD (S) / LENGTH (S) / LONGEUR (S)					B	A	
BSW	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
1/8 x 40	3,40	6,600	8,204	9,800	11,100	13,000	3,93	3,277	3,429
3/16 x 24	5,10	9,900	12,192	14,700	17,000	19,500	6,01	4,978	5,105
1/4 x 20	6,70	12,600	15,240	18,900	26,100	25,400	7,80	6,629	6,782
5/16 x 18	8,30	15,200	18,237	23,200	27,100	31,000	9,60	8,331	8,484
3/8 x 16	9,90	16,800	21,438	26,400	31,100	35,800	11,40	9,906	10,109
7/16 x 14	11,60	19,400	24,816	30,500	36,100	41,600	13,20	11,506	11,760
1/2 x 12	13,00	22,000	28,575	34,700	41,100	47,400	15,20	13,081	13,335
9/16 x 12	14,80	23,600	30,963	37,900	45,000	52,200	16,80	14,681	14,935
5/8 x 11	16,70	27,100	34,214	43,000	50,900	58,900	18,60	16,586	16,840
3/4 x 10	20,00	30,300	40,005	49,300	58,800	68,500	22,00	19,837	20,091
7/8 x 9	23,00	35,300	46,025	57,600	68,700	79,700	25,50	23,012	23,266
1 x 8	26,50	38,500	52,375	63,900	76,600	89,300	29,10	26,187	26,518

BSF	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
3/16 x 32	5,00	8,331	11,303	13,081	15,469	17,856	5,71	4,877	5,029
1/4 x 26	6,60	10,744	13,919	17,094	20,269	23,444	7,50	6,528	6,706
5/16 x 22	8,30	13,132	17,094	21,057	25,044	29,007	9,30	8,204	8,382
3/8 x 20	9,90	15,240	19,990	24,765	29,515	34,290	11,00	9,779	9,957
7/16 x 18	11,60	17,450	23,012	28,550	34,112	39,675	12,80	11,430	11,633
1/2 x 16	13,00	19,837	26,187	32,537	38,887	45,237	14,60	13,030	13,259
9/16 x 16	14,80	21,438	28,575	35,712	42,850	50,013	16,20	14,656	14,884
5/8 x 14	16,40	24,028	31,979	39,903	47,854	55,778	18,00	16,256	16,485
3/4 x 12	19,50	28,575	38,100	47,625	57,150	66,675	21,50	19,431	19,685
7/8 x 11	22,70	32,614	43,739	54,839	65,938	77,064	24,90	22,606	22,860
1 x 10	26,50	36,830	49,530	62,230	74,930	87,630	28,40	26,187	26,518

BSP	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
1/8 x 28	10,00	7,264	8,640	10,439	11,100	13,614	10,82	9,900	10,160
1/4 x 19	13,60	12,370	15,540	18,720	21,895	25,070	14,74	13,460	13,720
3/8 x 19	17,10	15,545	20,290	25,070	29,820	34,595	18,25	17,000	17,270
1/2 x 14	21,50	20,853	27,200	33,553	39,903	46,253	23,09	21,330	21,600
5/8 x 14	23,40	24,028	31,950	39,903	47,828	55,778	25,05	23,240	23,550
3/4 x 14	27,00	27,203	36,720	46,253	55,778	65,303	28,59	26,750	27,070
7/8 x 14	30,60	30,378	41,500	52,603	63,729	74,828	32,35	30,480	30,810
1 x 11	33,70	35,789	49,490	61,189	73,889	86,589	35,96	33,530	33,900

- C** Diámetro de broca previa / Recommended drill diameter / Perçage avant trou
- S** Longitud de taladrado / Drilling Length / Longueur perçage
- B** Ø mayor de rosca / Maximum diameter of thread / Diametre maximum du filet
- A** Ø menor de rosca / Minimum diameter of thread / Diametre minimum du filet
- Q** Longitud nominal / Nominal Length / Longueur nominale
- d1** exterior del casquillo / External Ø of wire insert / Diametre extérieur di filet rapporté
- W** N° de hilos / N° of coils / Nombre de spires

RESISTENCIA DE LOS INSERTOS ROSCADOS
RESISTENCES OF WIRE TRHEAD INSERTS • RÉSISTENCES DES FILETS RAPPORTÉS

MATERIAL MATERIAL / MATÉRIEL	TEMP. MÁXIMA MAX. TEMPERATURE / TEMPERATURE MAX.	RESISTENCIA MÍNIMA A LA TRACCIÓN MIN. TENSILE STRENGTH / RÉSISTENCE MIN. À LA TRACTION
X10 Cr Ni 18-8	425° C (peak) / 315° C (cont.)	1400 N/mm ²

INFORMACIÓN TÉCNICA INSERTOS DE ROSCADO

WIRE THREAD INSERTS TECHNICAL INFORMATION

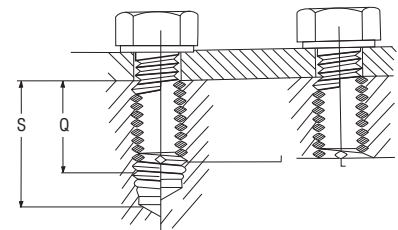
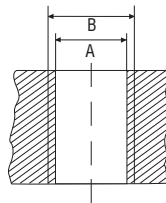
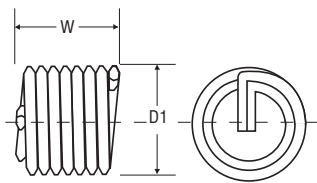
INFORMATION TECHNIQUE FILETS RAPPORTÉS



ROSCADO / THREADING / FILETAGE					INSERTO / INSERTS / FILETS RAPPORTÉS							
LONGITUD ÚTIL (Q) / LENGTH (Q) / LONGEUR (Q)					D1		Nº DE HILOS (W) / Nº OF COILS (W) / LONGEUR (W)					
1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	
3,200	4,801	6,400	7,900	9,600	3,988	4,394	3,400	7,90	7,900	10,300	12,500	
4,800	7,112	9,600	11,900	14,400	6,096	6,502	2,900	5,10	7,200	9,300	11,500	
6,400	9,525	12,700	15,900	19,200	7,899	8,407	3,400	5,90	8,100	10,500	12,900	
7,900	11,913	15,900	19,800	23,700	9,703	10,185	4,100	6,70	9,400	12,000	14,600	
9,500	14,275	19,100	23,800	28,500	11,506	11,989	4,500	7,30	10,200	13,000	15,800	
11,100	16,662	22,200	27,800	33,300	13,487	13,995	4,600	7,50	10,400	13,300	16,200	
12,700	19,050	25,400	31,800	38,100	15,392	16,002	4,400	7,30	10,100	13,000	15,900	
14,300	21,438	28,600	35,700	42,900	16,993	17,628	5,200	8,40	11,600	14,800	18,000	
15,900	23,800	31,800	39,700	47,700	18,898	19,482	5,400	8,70	11,900	15,300	18,700	
19,100	28,575	38,100	47,600	57,300	22,403	22,987	6,000	9,70	13,200	16,800	20,400	
22,200	33,325	44,500	55,600	66,600	26,010	26,695	6,400	10,10	13,900	17,700	21,400	
25,400	38,100	50,800	63,500	76,200	27,686	30,404	6,500	10,30	14,100	17,900	21,700	

1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
4,750	7,112	9,525	11,913	14,275	5,994	6,401	4,100	6,80	9,400	12,100	-
6,350	9,525	12,700	15,875	19,050	7,899	8,407	4,600	7,60	10,400	13,400	-
7,925	11,913	15,875	19,837	23,800	9,804	10,312	5,000	8,10	11,200	14,300	-
9,525	14,275	19,050	23,800	28,575	11,608	12,090	5,600	9,00	12,400	15,800	-
11,100	16,662	22,225	27,788	33,325	13,589	14,097	5,900	9,50	13,100	16,600	-
12,700	19,050	25,400	31,750	38,100	15,494	16,002	6,100	9,70	13,300	16,900	-
14,275	21,438	28,575	35,712	42,850	17,196	17,780	7,000	11,10	15,100	19,300	-
15,875	23,800	31,750	39,675	47,625	19,101	19,685	6,800	10,80	14,800	18,700	-
19,050	28,575	38,100	47,625	57,150	22,911	23,495	7,000	11,10	15,200	19,300	-
22,225	33,325	44,450	55,550	66,675	26,492	27,305	7,600	11,90	16,400	20,800	-
25,400	38,100	50,800	63,500	76,200	30,201	30,988	7,900	12,50	17,100	21,600	-

1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
3,175	4,760	6,350	7,925	9,525	11,100	11,400	1,90	3,80	5,10	6,70	-
6,350	9,500	12,700	15,875	19,050	15,050	15,350	3,10	5,50	7,40	9,60	-
9,525	14,300	19,050	23,800	28,575	18,550	18,850	5,30	8,75	11,80	15,00	-
12,700	19,100	25,400	31,750	38,100	23,400	23,700	5,20	8,60	11,60	14,80	-
15,875	23,800	31,750	39,675	47,625	25,350	25,650	6,80	11,00	14,80	18,80	-
19,050	28,600	38,100	47,625	57,150	28,900	29,200	8,40	13,50	18,10	22,90	-
22,225	33,300	44,450	55,550	66,675	32,750	33,150	10,00	15,80	21,30	-	-
25,400	38,100	50,800	63,500	76,200	36,400	36,800	8,90	14,10	19,00	-	-



CONSTRUCCIÓN
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FRESADO
MILLING • FRAISAGE

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HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

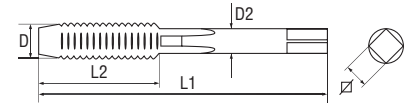
DISPLAYS
DISPLAYS • DISPLAYS

M MACHOS STI (INTERMEDIO)

STI TAPS (SECOND LEAD)
TARAUDS STI

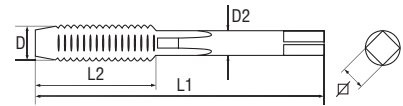


HSS-G **FORM D** **TOL ISO1 4H**



D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 2,00 x 0,40	2,5	44,5	9,5	2,8	2,24	1C03001	17,15
M 2,50 x 0,45	3,1	48,0	11,0	3,15	2,50	1C03003	17,15
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03005	14,75
M 3,50 x 0,60	4,3	53,0	13,0	4,5	3,55	1C03006	14,96
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03007	14,75
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03008	14,75
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,30	1C03009	14,75
M 7,00 x 1,00	8,3	72,0	22,0	9,0	7,10	1C03010	18,64
M 8,00 x 1,25	9,6	80,0	24,0	10,0	8,00	1C03011	18,38
M 8,00 x 1,00	9,3	80,0	24,0	10,0	8,00	1C03012	18,64
M 9,00 x 1,25	10,6	85,0	25,0	8,0	6,30	1C03013	22,85
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03015	22,52
M 10,00 x 1,25	11,6	85,0	25,0	8,0	6,30	1C03016	22,85
M 10,00 x 1,00	11,3	85,0	25,0	8,0	6,30	1C03017	22,85
M 11,00 x 1,50	12,9	89,0	29,0	9,0	7,10	1C03018	25,85
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03020	25,49
M 12,00 x 1,50	14,0	95,0	30,0	11,2	9,00	1C03021	31,58
M 12,00 x 1,25	13,6	95,0	30,0	11,2	9,00	1C03022	31,58
M 12,00 x 1,00	13,3	95,0	30,0	11,2	9,00	1C03023	31,58
M 14,00 x 2,00	16,6	102,0	32,0	12,5	10,00	1C03027	35,39
M 14,00 x 1,50	16,0	102,0	32,0	12,5	10,00	1C03028	35,39
M 14,00 x 1,25	15,6	102,0	32,0	12,5	10,00	1C03029	35,39
M 14,00 x 1,00	15,3	102,0	32,0	12,5	10,00	1C03030	35,39
M 16,00 x 2,00	18,6	112,0	37,0	14,0	11,20	1C03033	42,37
M 16,00 x 1,50	18,0	104,0	29,0	14,0	11,20	1C03034	42,98
M 18,00 x 2,50	21,3	118,0	38,0	16,0	12,50	1C03035	54,43
M 18,00 x 2,00	20,6	104,0	29,0	14,0	11,20	1C03036	54,43
M 18,00 x 1,50	20,0	104,0	29,0	14,0	11,20	1C03037	54,43
M 20,00 x 2,50	23,3	118,0	38,0	16,0	12,50	1C03038	59,86
M 20,00 x 2,00	22,6	113,0	33,0	16,0	12,50	1C03039	59,86
M 20,00 x 1,50	22,0	113,0	33,0	16,0	12,50	1C03040	59,86
M 22,00 x 2,50	25,3	130,0	45,0	18,0	14,00	1C03041	68,85
M 22,00 x 2,00	24,6	120,0	35,0	18,0	14,00	1C03042	68,85
M 22,00 x 1,50	24,0	120,0	35,0	18,0	14,00	1C03043	68,85
M 24,00 x 3,00	27,9	138,0	48,0	20,0	16,00	1C03044	87,07
M 24,00 x 2,00	26,6	127,0	37,0	20,0	16,00	1C03045	87,07
M 24,00 x 1,50	26,0	120,0	35,0	18,0	14,00	1C03046	87,07

M MACHOS STI, JUEGO 2 PIEZAS
STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÈCES



HSS-G **FORM D** **TOL ISO1 4H**

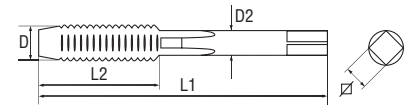
D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 26,00 x 1,50	28,0	127,0	37,0	20,0	16,00	1C03049	255,02
M 27,00 x 3,00	30,9	151,0	51,0	22,4	18,00	1C03050	255,02
M 27,00 x 2,00	29,6	127,0	37,0	20,0	16,00	1C03051	255,01
M 27,00 x 1,50	29,0	127,0	37,0	20,0	16,00	1C03052	255,02
M 28,00 x 1,50	30,0	127,0	37,0	20,0	16,00	1C03053	255,01
M 30,00 x 3,50	34,6	162,0	57,0	25,0	20,00	1C03054	339,19
M 30,00 x 2,00	32,6	137,0	37,0	22,4	18,00	1C03055	339,19
M 30,00 x 1,50	32,0	137,0	37,0	22,4	18,00	1C03056	339,19
M 33,00 x 3,50	37,6	162,0	57,0	25,0	20,00	1C03057	339,19
M 33,00 x 2,00	35,6	144,0	37,0	25,0	20,00	1C03058	339,19
M 36,00 x 4,00	41,2	170,0	60,0	28,0	22,40	1C03060	376,34
M 36,00 x 3,00	39,9	170,0	60,0	28,0	22,40	1C03061	376,34
M 36,00 x 2,00	38,6	150,0	39,0	28,0	22,40	1C03062	376,34
M 36,00 x 1,50	38,0	150,0	39,0	28,0	22,40	1C03063	376,34

UNC

MACHOS STI (INTERMEDIO)
STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G FORM D TOL 3B



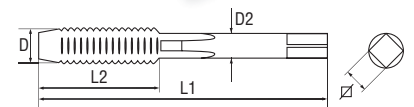
	D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNC/NC								
Nr.	2 x 56	2,8	48,0	10,0	3,15	2,50	1C03100	23,77
Nr.	4 x 40	3,7	53,0	13,0	4,00	3,15	1C03101	23,77
Nr.	5 x 40	4,0	53,0	13,0	4,00	3,15	1C03102	23,77
Nr.	6 x 32	4,5	58,0	16,0	5,00	4,00	1C03103	23,77
Nr.	8 x 32	5,2	62,0	17,0	5,60	4,50	1C03104	23,77
Nr.	10 x 24	6,2	66,0	19,0	6,30	5,00	1C03105	23,77
Nr.	12 x 24	6,9	66,0	19,0	7,10	5,60	1C03106	23,77
	1/4 x 20	8,0	72,0	22,0	8,00	6,30	1C03107	15,56
	5/16 x 18	9,8	80,0	24,0	10,00	8,00	1C03108	17,13
	3/8 x 16	11,6	85,0	25,0	8,00	6,30	1C03109	17,84
	7/16 x 14	13,5	95,0	30,0	11,20	9,00	1C03110	23,76
	1/2 x 13	15,2	102,0	32,0	12,50	10,00	1C03111	26,89
	9/16 x 12	17,0	112,0	37,0	14,00	11,20	1C03112	44,70
	5/8 x 11	18,9	112,0	37,0	14,00	11,20	1C03113	55,19
	3/4 x 10	22,4	118,0	38,0	16,00	12,50	1C03114	67,07
	7/8 x 9	25,9	130,0	45,0	18,00	14,00	1C03115	78,26
	1 x 8	29,5	138,0	48,0	20,00	16,00	1C03116	78,26

UNC

MACHOS STI, JUEGO 2 PIEZAS
STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÈCES



HSS-G FORM D TOL 3B



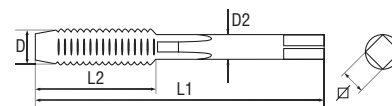
	D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNC/NC								
	1.1/8 x 7	33,3	151,0	51,0	22,4	18,00	1C03117	237,01
	1.1/4 x 7	36,5	162,0	57,0	25,0	20,00	1C03118	284,37
	1.3/8 x 6	40,4	170,0	60,0	28,0	22,40	1C03119	355,48
	1.1/2 x 6	43,6	187,0	67,0	31,5	25,00	1C03120	460,74

UNF

MACHOS STI (INTERMEDIO)
STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G **FORM D** **TOL 3B**



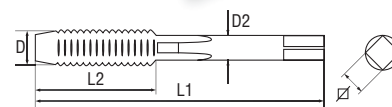
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNF/NF							
Nr. 4 x 48	3,5	53,0	13,0	4,0	3,15	1C03151	23,77
Nr. 6 x 40	4,3	53,0	13,0	4,5	3,55	1C03152	23,77
Nr. 8 x 36	5,1	62,0	17,0	5,6	4,50	1C03153	23,77
Nr. 10 x 32	5,9	66,0	19,0	6,3	5,00	1C03154	23,77
1/4 x 28	7,5	69,0	19,0	8,0	6,30	1C03155	15,56
5/16 x 24	9,3	76,0	20,0	10,0	8,00	1C03156	17,13
3/8 x 24	10,9	82,0	22,0	8,0	6,30	1C03157	17,84
7/16 x 20	12,8	84,0	24,0	9,0	7,10	1C03158	23,76
1/2 x 20	14,4	90,0	25,0	11,2	9,00	1C03159	24,42
9/16 x 18	16,1	104,0	29,0	12,5	10,00	1C03160	44,70
5/8 x 18	17,7	104,0	29,0	14,0	11,20	1C03161	55,19
3/4 x 16	21,1	104,0	29,0	14,0	11,20	1C03162	67,07
7/8 x 14	24,6	120,0	35,0	18,0	14,00	1C03163	77,83
1 x 12	28,2	127,0	37,0	20,0	16,00	1C03164	77,83
1 x 14	27,8	127,0	37,0	20,0	16,00	1C03165	77,83

UNF

MACHOS STI, JUEGO 2 PIEZAS
STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÈCES



HSS-G **FORM D** **TOL 3B**



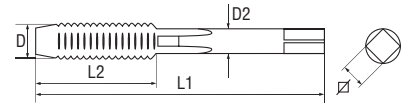
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
UNF/NF							
1.1/8 x 12	31,3	137,0	37,0	22,4	18,00	1C03166	237,01
1.1/4 x 12	34,5	144,0	39,0	25,0	20,00	1C03167	284,37
1.3/8 x 12	37,7	150,0	39,0	28,0	22,40	1C03168	355,48
1.1/2 x 12	40,9	150,0	39,0	28,0	22,40	1C03169	460,74

G(BSP) MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G **FORM D** **TOL ISO1 4H**



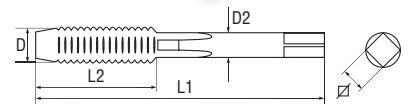
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
1/8 x 28	10,8	59,0	15,0	8,00	6,30	1C03301	20,95
1/4 x 19	14,7	67,0	19,0	11,20	9,00	1C03302	23,76
3/8 x 19	18,3	75,0	21,0	14,00	11,20	1C03303	31,26
1/2 x 14	23,1	87,0	26,0	16,00	12,50	1C03304	50,66
5/8 x 14	25,0	91,0	26,0	18,00	14,00	1C03305	74,44
3/4 x 14	28,6	96,0	28,0	20,00	16,00	1C03306	74,44
1 x 11	36,0	109,0	33,0	25,00	20,00	1C03307	116,32

G(BSP) MACHOS STI, JUEGO 2 PIEZAS

STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÉCES



HSS-G **FORM D** **TOL ISO1 4H**



D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
1/8 x 28	10,0	59,0	15,0	8,0	6,30	1C03311	37,01
1/4 x 19	14,7	67,0	19,0	11,2	9,00	1C03312	42,01
3/8 x 19	18,3	75,0	21,0	14,0	11,20	1C03313	55,25
1/2 x 14	23,1	87,0	26,0	16,0	12,50	1C03314	89,50
5/8 x 14	25,1	91,0	26,0	18,0	14,00	1C03315	131,49
3/4 x 14	28,6	96,0	28,0	20,0	16,00	1C03316	131,49
7/8 x 14	32,4	102,0	29,0	22,4	18,00	1C03318	205,48
1 x 11	36,0	109,0	33,0	25,0	20,00	1C03317	205,48

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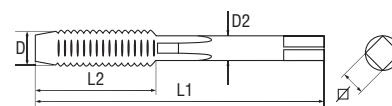
HEXAGONAL
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DISPLAYS
DISPLAYS • DISPLAYS

BSW

MACHOS STI (INTERMEDIO)
STI-TAPS (SECOND LEAD)
TARAUDS STI

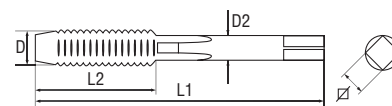


HSS-G **FORM D** **TOL ISO1 4H**

D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
1/8 x 40	3,9	53,0	13,0	4,0	3,15	1C03201	15,56
3/16 x 24	6,0	56,0	19,0	6,3	5,00	1C03202	15,56
1/4 x 20	7,8	72,0	22,0	8,0	6,30	1C03203	15,56
5/16 x 18	9,6	80,0	24,0	10,0	8,00	1C03204	17,13
3/8 x 16	11,4	85,0	25,0	8,0	6,30	1C03205	17,84
7/16 x 14	13,2	95,0	30,0	11,2	9,00	1C03206	23,76
1/2 x 12	15,2	102,0	32,0	12,5	10,00	1C03207	26,89
9/16 x 12	16,8	102,0	32,0	12,5	10,00	1C03208	44,70
5/8 x 11	18,6	112,0	37,0	14,0	11,20	1C03209	55,19
11/16 x 11	20,2	112,0	37,0	14,0	11,20	1C03210	67,07
3/4 x 10	22,0	118,0	38,0	16,0	12,50	1C03211	67,07
7/8 x 9	25,5	130,0	45,0	18,0	14,00	1C03212	77,84
1 x 8	29,1	138,0	48,0	20,0	16,00	1C03213	77,84

BSF

MACHOS STI (INTERMEDIO)
STI-TAPS (SECOND LEAD)
TARAUDS STI

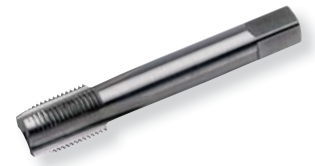


HSS-G **FORM D** **TOL ISO1 4H**

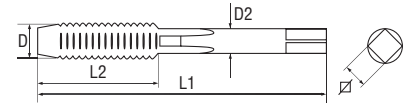
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
3/16 x 32	5,7	66,0	19,0	6,3	5,00	1C03251	15,56
1/4 x 26	7,5	72,0	22,0	8,0	6,30	1C03253	15,56
5/16 x 22	9,3	80,0	24,0	10,0	8,00	1C03255	17,13
3/8 x 20	11,0	85,0	25,0	8,0	6,30	1C03256	17,84
7/16 x 18	12,8	89,0	29,0	9,0	7,10	1C03257	23,77
1/2 x 16	14,6	95,0	30,0	11,2	9,00	1C03258	26,89
9/16 x 16	16,2	102,0	32,0	12,5	10,00	1C03259	44,70
5/8 x 14	18,0	112,0	37,0	14,0	11,20	1C03260	55,19
11/16 x 14	19,6	112,0	37,0	14,0	11,20	1C03261	67,07
3/4 x 12	21,5	118,0	38,0	16,0	12,50	1C03262	67,07
7/8 x 11	24,9	130,0	45,0	18,0	14,00	1C03264	77,84
1 x 10	28,4	138,0	48,0	20,0	16,00	1C03265	77,84

BA MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G **FORM D** **TOL ISO1 4H**



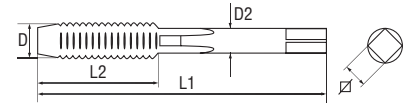
D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
BA 0	7,1	66,0	19,0	7,10	5,60	1C03321	15,56
BA 2	5,6	66,0	19,0	6,30	5,00	1C03323	15,56
BA 4	4,4	53,0	13,0	4,50	3,55	1C03325	15,56
BA 6	3,4	50,0	13,0	3,55	2,80	1C03327	15,56

BS. Brass MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



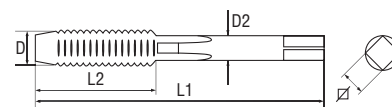
HSS-G **FORM D** **TOL ISO1 4H**



D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
1/4 x 26	7,5	69,0	19,0	8,00	6,30	1C03341	15,56
5/16 x 26	9,1	76,0	20,0	10,00	8,00	1C03342	17,13
3/8 x 26	10,7	82,0	22,0	8,00	6,30	1C03343	17,84
7/16 x 26	12,3	84,0	24,0	9,00	7,10	1C03344	23,77
1/2 x 26	13,9	90,0	25,0	11,20	9,00	1C03345	26,89

Consultar precio y plazo para kit / Request price and availability for kit / Consulter de prix et le disponibilité pour kit

M MACHOS MÁQUINA STI (PASANTE)
STI MACHINE TAPS (SPIRAL POINT)
TARAUDS MACHINE STI ENTRÉE GUN



HSS-CO 5%

FORM
B

TOL ISO1
4H

D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03505	17,58
M 3,50 x 0,60	4,3	53,0	13,0	4,5	3,55	1C03506	17,58
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03507	17,58
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03508	17,58
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,40	1C03509	17,58
M 7,00 x 1,00	8,3	72,0	22,0	9,0	7,10	1C03510	22,03
M 8,00 x 1,25	9,5	80,0	24,0	10,0	8,00	1C03511	22,03
M 8,00 x 1,00	9,3	80,0	24,0	10,0	8,00	1C03512	22,03
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03515	26,51
M 10,00 x 1,00	11,3	85,0	25,0	8,0	6,30	1C03517	26,51
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03520	35,14
M 12,00 x 1,50	14,0	95,0	30,0	11,2	9,00	1C03521	36,30
M 12,00 x 1,25	13,6	95,0	30,0	11,2	9,00	1C03522	36,30
M 14,00 x 2,00	16,6	102,0	32,0	12,5	10,00	1C03527	48,55
M 14,00 x 1,50	16,0	102,0	32,0	12,5	10,00	1C03528	48,55
M 14,00 x 1,25	15,6	102,0	32,0	12,5	10,00	1C03529	48,55
M 16,00 x 2,00	18,6	112,0	37,0	14,0	11,20	1C03533	51,31

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HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
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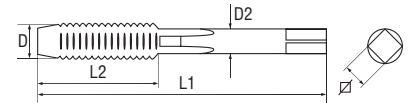
DISPLAYS
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M MACHOS MÁQUINA STI (CIEGO)

STI MACHINE TAPS (SPIRAL FLUTE)
TARAUDS MACHINE STI HÉLICOIDAL



HSS-CO 5% **FORM C/35°** **TOL ISO1 4H**



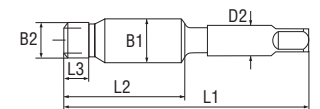
D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03705	17,58
M 3,50 x 0,60	4,3	53,0	13,0	4,5	3,55	1C03706	17,58
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03707	17,58
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03708	17,58
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,40	1C03709	17,58
M 7,00 x 1,00	8,3	72,0	22,0	9,0	7,10	1C03710	22,03
M 8,00 x 1,25	9,5	80,0	24,0	10,0	8,00	1C03711	22,03
M 8,00 x 1,00	9,3	80,0	24,0	10,0	8,00	1C03712	22,03
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03715	26,51
M 10,00 x 1,00	11,3	85,0	25,0	8,0	6,30	1C03717	26,51
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03720	35,14
M 12,00 x 1,50	14,0	95,0	30,0	11,2	9,00	1C03721	36,30
M 12,00 x 1,25	13,6	95,0	30,0	11,2	9,00	1C03722	36,29
M 14,00 x 2,00	16,6	102,0	32,0	12,5	10,00	1C03727	48,55
M 14,00 x 1,50	16,0	102,0	32,0	12,5	10,00	1C03728	48,55
M 14,00 x 1,25	15,6	102,0	32,0	12,5	10,00	1C03729	48,55
M 16,00 x 2,00	18,6	112,0	37,0	14,0	11,20	1C03733	51,31

M MACHOS STI "SPARK PLUG" CON PUNTA PILOTO

STI-SPARK PLUG TAPS WITH PILOT NOSE
TARAUDS STI ÉTAGÉS

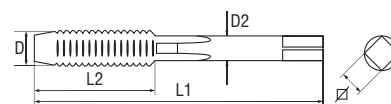


HSS-G **TOL ISO1 4H**



D Ø x P (mm)	B1 (mm)	B2 (mm)	L3 (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 6,00 x 1,00	7,3	6	7	28	70	8	6,3	1C03630	28,57
M 8,00 x 1,25	9,6	8	9	32	75	8	6,3	1C03631	28,57
M 10,00 x 1,50	11,9	10	9	37	80	9	7,1	1C03632	35,90
M 10,00 x 1,00	11,3	10	8	30	74	8	6,3	1C03633	35,90
M 12,00 x 1,25	13,6	12	9	32	75	9	7,1	1C03634	51,70
M 14,00 x 1,25	15,6	14	10	45	90	12	9,2	1C03635	57,83
M 18,00 x 1,50	20,0	18	10	47	116	16	12,5	1C03636	86,01

M MACHOS STI POR LAMINACIÓN
STI-FLUTELESS TAPS
TARAUDS STI À REFOULER



HSS-CO 5%

TOL ISO1
4H

D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	∅ (mm)	Cod.	€/Unid.
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03605	26,89
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03607	29,16
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03608	29,16
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,40	1C03609	33,41
M 8,00 x 1,25	9,5	80,0	24,0	10,0	8,00	1C03611	40,18
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03615	47,55
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03620	67,07

DIÁMETRO BROCA PREVIA / RECOMMENDED TAPPING DRILL SIZES / DIAMÈTRES PRÉALABLES AU FILETAGE

Ø M3	Ø M4	Ø M5	Ø M6	Ø M8	Ø M10	Ø M12
3,40	4,60	5,60	6,80	9,00	11,20	13,40

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HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M y Mf

INSERTOS ROSCADOS DE ACERO INOXIDABLE
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140

TOL ISO2
6H



D Ø x P (mm)	Uds. / Pcs.	1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
		Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
M 2,0 x 0,40	100	2C07202	1,05	2C07302	1,29	2C07402	1,58	2C07502	1,78	2C07602	2,23
M 2,2 x 0,45	100	2C07203	1,05	2C07303	1,29	2C07403	1,58	2C07503	1,78	2C07603	2,23
M 2,5 x 0,45	100	2C07204	0,32	2C07304	0,31	2C07404	0,36	2C07504	0,42	2C07604	0,51
M 3,0 x 0,50	100	2C07205	0,32	2C07305	0,31	2C07405	0,36	2C07505	0,42	2C07605	0,51
M 3,5 x 0,60	100	2C07206	0,36	2C07306	0,36	2C07406	0,41	2C07506	0,47	2C07606	0,56
M 4,0 x 0,70	100	2C07207	0,32	2C07307	0,31	2C07407	0,36	2C07507	0,42	2C07607	0,47
M 5,0 x 0,80	100	2C07208	0,36	2C07308	0,28	2C07408	0,41	2C07508	0,50	2C07608	0,59
M 6,0 x 1,00	100	2C07209	0,38	2C07309	0,30	2C07409	0,47	2C07509	0,56	2C07609	0,69
M 7,0 x 1,00	100	2C07210	0,42	2C07310	0,48	2C07410	0,56	2C07510	0,68	2C07610	0,80
M 8,0 x 1,25	100	2C07211	0,41	2C07311	0,39	2C07411	0,56	2C07511	0,68	2C07611	0,80
M 8,0 x 1,00	100	2C07212	0,47	2C07312	0,45	2C07412	0,60	2C07512	0,71	2C07612	0,87
M 9,0 x 1,25	100	2C07213	0,56	2C07313	0,72	2C07413	0,77	2C07513	0,82	2C07613	0,98
M 10,0 x 1,50	100	2C07215	0,51	2C07315	0,53	2C07415	0,65	2C07515	0,78	2C07615	0,95
M 10,0 x 1,25	100	2C07216	0,51	2C07316	0,53	2C07416	0,65	2C07516	0,78	2C07616	0,95
M 10,0 x 1,00	100	2C07217	0,51	2C07317	0,53	2C07417	0,65	2C07517	0,78	2C07617	0,95
M 11,0 x 1,50	100	2C07219	0,86	2C07319	0,90	2C07419	0,96	2C07519	1,25	2C07619	1,40
M 12,0 x 1,75	100	2C07221	0,77	2C07321	0,82	2C07421	0,98	2C07521	1,16	2C07621	1,40
M 12,0 x 1,50	100	2C07222	0,77	2C07322	0,82	2C07422	0,98	2C07522	1,16	2C07622	1,40
M 12,0 x 1,25	100	2C07223	0,77	2C07323	0,82	2C07423	0,98	2C07523	1,16	2C07623	1,40
M 12,0 x 1,00	100	2C07224	0,77	2C07324	0,82	2C07424	0,98	2C07524	1,16	2C07624	1,40
M 14,0 x 2,00	50	2C07225	1,07	2C07325	1,16	2C07425	1,27	2C07525	1,54	2C07625	1,87
M 14,0 x 1,50	50	2C07226	1,07	2C07326	1,16	2C07426	1,27	2C07526	1,54	2C07626	1,87
M 14,0 x 1,25	50	2C07227	1,07	2C07327	1,16	2C07427	1,27	2C07527	1,54	2C07627	1,87
M 14,0 x 1,00	50	2C07231	1,30	2C07331	1,16	2C07431	1,54	2C07531	1,87	2C07631	2,23
M 16,0 x 2,00	50	2C07234	1,45	2C07334	1,44	2C07434	1,87	2C07534	2,05	2C07634	2,84
M 16,0 x 1,50	50	2C07235	1,45	2C07335	1,44	2C07435	1,87	2C07535	2,05	2C07635	2,23
M 18,0 x 2,50	25	2C07236	2,11	2C07336	2,33	2C07436	3,35	2C07536	3,80	2C07636	4,45
M 18,0 x 2,00	25	2C07237	2,11	2C07337	2,33	2C07437	3,35	2C07537	3,80	2C07637	4,45
M 18,0 x 1,50	25	2C07238	2,11	2C07338	2,33	2C07438	3,35	2C07538	3,80	2C07638	4,45
M 20,0 x 2,50	25	2C07239	2,46	2C07339	2,95	2C07439	4,01	2C07539	4,45	2C07639	5,13
M 20,0 x 2,00	25	2C07240	2,46	2C07340	2,95	2C07440	4,01	2C07540	4,45	2C07640	5,13
M 20,0 x 1,50	25	2C07241	2,46	2C07341	2,95	2C07441	4,01	2C07541	4,45	2C07641	5,13
M 22,0 x 2,50	10	2C07242	2,67	2C07342	3,16	2C07442	4,24	2C07542	4,90	2C07642	5,58
M 22,0 x 2,00	10	2C07243	2,67	2C07343	3,16	2C07443	4,24	2C07543	4,90	2C07643	5,58
M 22,0 x 1,50	10	2C07244	2,67	2C07344	3,16	2C07444	4,24	2C07544	4,90	2C07644	5,58
M 24,0 x 3,00	10	2C07245	3,35	2C07345	3,37	2C07445	4,45	2C07545	5,34	2C07645	6,24
M 24,0 x 2,00	10	2C07246	3,35	2C07346	3,37	2C07446	4,45	2C07546	5,34	2C07646	6,24
M 24,0 x 1,50	10	2C07247	3,35	2C07347	3,37	2C07447	4,45	2C07547	5,34	2C07647	6,24
M 26,0 x 1,50	5	-	-	2C07349	5,48	-	-	-	-	-	-
M 27,0 x 3,00	5	-	-	2C07350	5,48	-	-	-	-	-	-
M 27,0 x 2,00	5	-	-	2C07351	5,48	-	-	-	-	-	-
M 27,0 x 1,50	5	-	-	2C07352	5,48	-	-	-	-	-	-
M 28,0 x 1,50	5	-	-	2C07353	5,48	-	-	-	-	-	-
M 30,0 x 3,50	5	-	-	2C07354	6,32	-	-	-	-	-	-
M 30,0 x 2,00	5	-	-	2C07355	6,32	-	-	-	-	-	-
M 30,0 x 1,50	5	-	-	2C07356	6,32	-	-	-	-	-	-
M 33,0 x 3,50	5	-	-	2C07357	8,00	-	-	-	-	-	-
M 33,0 x 2,00	5	-	-	2C07358	8,00	-	-	-	-	-	-
M 36,0 x 4,00	5	-	-	2C07360	8,00	-	-	-	-	-	-
M 36,0 x 3,00	5	-	-	2C07361	8,00	-	-	-	-	-	-
M 36,0 x 2,00	5	-	-	2C07362	8,00	-	-	-	-	-	-
M 36,0 x 1,50	5	-	-	2C07363	8,00	-	-	-	-	-	-

Mf INSERTOS ROSCADOS PARA LAS ROSCAS DE LAS BUJÍAS

STAINLESS STEEL WIRE THREAD INSERTS FOR SPARK PLUG
FILETS RAPPORTÉS INOX POUR BOUGIES

DIN 8140 TOL ISO2 6H



D Ø x P (mm)	Uds. / Pcs.	8,40		12,40		16,40	
		Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
M 14 x 1,25	50	2C07128	1,16	2C07228	1,16	2C07328	1,16

M INSERTOS ROSCADOS AUTOFRENANTES DE ACERO INOXIDABLE

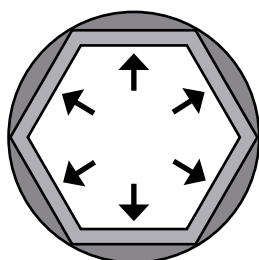
SCREW LOCKING STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX INDESSERRABLES

DIN 8140 TOL ISO2 6H



D Ø x P (mm)	Uds. / Pcs.	1,0 x DØ		1,5 x DØ		2,0 x DØ	
		Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
M 3 x 0,50	100	2C05205	0,38	2C05305	0,39	2C05405	0,42
M 4 x 0,70	100	2C05207	0,38	2C05307	0,39	2C05407	0,42
M 5 x 0,80	100	2C05208	0,42	2C05308	0,42	2C05408	0,50
M 6 x 1,00	100	2C05209	0,47	2C05309	0,48	2C05409	0,56
M 8 x 1,25	100	2C05211	0,50	2C05311	0,53	2C05411	0,68
M 10 x 1,50	100	2C05215	0,62	2C05315	0,63	2C05415	0,78
M 12 x 1,75	100	2C05221	0,91	2C05321	0,99	2C05421	1,18
M 14 x 2,00	50	2C05225	1,30	2C05325	1,39	2C05425	1,54
M 16 x 2,00	50	2C05234	1,75	2C05334	1,74	2C05434	2,25

Consultar precio y plazo para largos de 2,5xD y 3,0xD
Request prices and availability for length of 2,5xD and 3,0xD
Consulter de prix et le disponibilité pour longueur 2,5xD et 3,0xD



- Insertos con sistema de frenado interno
Wire thread inserts with a locking internal system
Filets rapportés avec système interne autofreinage.
- Indicados en mecanismos con altas vibraciones o impactos
Suited to high impact and vibrations systems
Indiqués pour mécanismes avec grandes vibrations et impacts
- Se recomienda su utilización con tornillería lubricada o con recubrimientos
Recommended for using with oil lubricated bolts
Utilisation recommandé avec boulons lubrifiés

UNC INSERTOS ROSCADOS DE ACERO INOXIDABLE

STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 TOL 2B



			1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
D Ø x P (")	Uds. / Pcs.		Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
Nr. 2 x 56	100		2C08200	1,05	2C08300	1,16	2C08400	1,58	2C08500	1,78	2C08600	2,23
Nr. 4 x 40	100		2C08201	0,41	2C08301	0,36	2C08401	0,41	2C08501	0,47	2C08601	0,56
Nr. 5 x 40	100		2C08202	0,42	2C08302	0,42	2C08402	0,47	2C08502	0,56	2C08602	0,68
Nr. 6 x 32	100		2C08203	0,32	2C08303	0,33	2C08403	0,38	2C08503	0,42	2C08603	0,50
Nr. 8 x 32	100		2C08204	0,32	2C08304	0,33	2C08404	0,38	2C08504	0,42	2C08604	0,50
Nr. 10 x 24	100		2C08205	0,41	2C08305	0,39	2C08405	0,45	2C08505	0,53	2C08605	0,65
Nr. 12 x 24	100		2C08206	0,42	2C08306	0,45	2C08406	0,51	2C08506	0,63	2C08606	0,76
1/4 x 20	100		2C08207	0,42	2C08307	0,45	2C08407	0,51	2C08507	0,62	2C08607	0,77
5/16 x 18	100		2C08208	0,56	2C08308	0,63	2C08408	0,71	2C08508	0,63	2C08608	1,04
3/8 x 16	100		2C08209	0,87	2C08309	0,82	2C08409	1,14	2C08509	1,30	2C08609	1,54
7/16 x 14	100		2C08210	0,95	2C08310	1,09	2C08410	1,31	2C08510	1,57	2C08610	1,93
1/2 x 13	100		2C08211	1,04	2C08311	1,09	2C08411	1,31	2C08511	1,57	2C08611	1,93
9/16 x 12	50		2C08212	3,35	2C08312	4,22	2C08412	5,73	2C08512	6,55	2C08612	7,91
5/8 x 11	50		2C08214	3,03	2C08314	3,84	2C08414	5,04	2C08514	6,03	2C08614	7,19
3/4 x 10	25		2C08216	3,53	2C08316	4,53	2C08416	5,98	2C08516	7,09	2C08616	8,49
7/8 x 9	10		2C08218	4,69	2C08318	6,64	2C08418	8,91	2C08518	10,54	2C08618	12,80
1 x 8	10		2C08219	6,42	2C08319	6,69	2C08419	9,31	2C08519	11,14	2C08619	12,58
1.1/8 x 7	5		-	-	2C08320	10,81	-	-	-	-	-	-
1.1/4 x 7	5		-	-	2C08321	11,37	-	-	-	-	-	-
1.3/8 x 6	5		-	-	2C08322	18,30	-	-	-	-	-	-
1.1/2 x 6	5		-	-	2C08323	22,95	-	-	-	-	-	-

UNF

INSERTOS ROSCADOS DE ACERO INOXIDABLE
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 TOL 2B



D Ø x P (")	Uds. / Pcs.	1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
		Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
Nr. 4 x 48	100	2C08290	0,94	2C08390	1,02	2C08490	1,42	2C08590	1,58	2C08690	2,01
Nr. 6 x 40	100	2C08291	0,94	2C08391	1,02	2C08491	1,42	2C08591	1,58	2C08691	2,01
Nr. 8 x 36	100	2C08292	0,94	2C08392	1,02	2C08492	1,42	2C08592	1,58	2C08692	2,01
Nr. 10 x 32	100	2C08293	0,41	2C08393	0,40	2C08493	0,51	2C08593	0,63	2C08693	0,76
1/4 x 28	100	2C08225	0,41	2C08325	0,40	2C08425	0,51	2C08525	0,63	2C08625	0,76
5/16 x 24	100	2C08226	0,56	2C08326	0,57	2C08426	0,71	2C08526	0,86	2C08626	1,04
3/8 x 24	100	2C08227	0,82	2C08327	0,82	2C08427	1,05	2C08527	1,27	2C08627	1,54
7/16 x 20	100	2C08228	1,04	2C08328	1,09	2C08428	1,31	2C08528	1,57	2C08628	1,93
1/2 x 20	100	2C08229	1,04	2C08329	1,09	2C08429	1,31	2C08529	1,57	2C08629	1,93
9/16 x 18	50	2C08230	2,44	2C08330	2,30	2C08430	2,92	2C08530	3,56	2C08630	4,09
5/8 x 18	50	2C08231	2,44	2C08331	2,30	2C08431	2,92	2C08531	3,56	2C08631	4,09
3/4 x 16	25	2C08233	4,01	2C08333	5,28	2C08433	6,73	2C08533	8,16	2C08633	9,78
7/8 x 14	10	2C08235	5,43	2C08335	7,58	2C08435	10,21	2C08535	11,73	2C08635	14,06
1 x 12	10	2C08237	5,43	2C08337	7,58	2C08437	10,21	2C08537	11,73	2C08637	14,06
1.1/8 x 12	5	-	-	2C08396	10,60	-	-	-	-	-	-
1.1/4 x 12	5	-	-	2C08397	11,64	-	-	-	-	-	-
1.3/8 x 12	5	-	-	2C08398	12,88	-	-	-	-	-	-
1.1/2 x 12	5	-	-	2C08399	14,96	-	-	-	-	-	-

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BSW

INSERTOS ROSCADOS DE ACERO INOXIDABLE
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 TOL ISO2 6H



D Ø x P (")	Uds. / Pcs.	1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
		Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
1/8 x 40	100	2C08241	1,23	2C08341	1,35	2C08441	2,23	2C08541	2,52	2C08641	2,70
3/16 x 24	100	2C08242	1,22	2C08342	1,35	2C08442	2,23	2C08542	2,53	2C08642	2,70
1/4 x 20	100	2C08243	0,53	2C08343	0,56	2C08443	0,68	2C08543	0,89	2C08643	0,96
5/16 x 18	100	2C08244	0,62	2C08344	0,68	2C08444	0,78	2C08544	0,95	2C08644	1,14
3/8 x 16	100	2C08245	1,09	2C08345	1,12	2C08445	1,39	2C08545	1,62	2C08645	1,96
7/16 x 14	100	2C08246	1,34	2C08346	1,39	2C08446	1,69	2C08546	2,01	2C08646	2,46
1/2 x 12	100	2C08247	1,77	2C08347	1,88	2C08447	2,00	2C08547	2,22	2C08647	2,27
9/16 x 12	50	2C08248	3,35	2C08348	4,43	2C08448	5,50	2C08548	6,56	2C08648	8,02
5/8 x 11	50	2C08249	3,35	2C08349	4,43	2C08449	5,50	2C08549	6,56	2C08649	8,02
3/4 x 10	25	2C08251	4,33	2C08351	5,28	2C08451	6,80	2C08551	8,16	2C08651	9,78
7/8 x 9	10	2C08253	5,58	2C08353	7,38	2C08453	9,74	2C08553	11,73	2C08653	14,06
1 x 8	10	2C08255	6,02	2C08355	8,43	2C08455	9,74	2C08555	11,73	2C08655	14,06

G(BSP) INSERTOS ROSCADOS DE ACERO INOXIDABLE

WIRE THREAD INSERTS "FREE RUNNING" STAINLESS STEEL
FILETS RAPPORTÉS INOX

DIN 8140 TOL ISO2
6H



D Ø x P (")	Uds. / Pcs.	1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
		Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
1/8 x 28	50	-	-	2C08380	0,85	-	-	-	-	-	-
1/4 x 19	50	-	-	2C08381	1,27	-	-	-	-	-	-
3/8 x 19	50	-	-	2C08382	1,48	-	-	-	-	-	-
1/2 x 14	50	-	-	2C08383	1,90	-	-	-	-	-	-
5/8 x 14	5	-	-	2C08384	4,74	-	-	-	-	-	-
3/4 x 14	5	-	-	2C08385	4,74	-	-	-	-	-	-
7/8 x 14	5	-	-	2C08386	14,55	-	-	-	-	-	-
1 x 11	5	-	-	2C08387	14,55	-	-	-	-	-	-

BSF INSERTOS ROSCADOS "FACIL INSERCIÓN", INOXIDABLE

WIRE THREAD INSERTS "FREE RUNNING" STAINLESS STEEL
FILETS RAPPORTÉS INOX

DIN 8140 TOL ISO2
6H



D Ø x P (")	Uds. / Pcs.	1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
		Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
3/16 x 32	100	2C08262	0,77	2C08362	0,80	2C08462	0,86	2C08562	1,00	2C08662	1,10
1/4 x 26	100	2C08263	0,94	2C08363	1,05	2C08463	1,11	2C08563	1,22	2C08663	1,33
5/16 x 22	100	2C08265	1,05	2C08365	1,16	2C08465	1,22	2C08565	1,33	2C08665	1,94
3/8 x 20	100	2C08266	1,39	2C08366	1,55	2C08466	1,61	2C08566	1,77	2C08666	2,53
7/16 x 18	100	2C08267	2,38	2C08367	2,66	2C08467	2,77	2C08567	2,53	2C08667	3,03
1/2 x 16	100	2C08268	2,77	2C08368	3,05	2C08468	3,16	2C08568	3,66	2C08668	4,52
9/16 x 16	50	2C08269	3,16	2C08369	3,60	2C08469	3,77	2C08569	5,29	2C08669	6,15
5/8 x 14	50	2C08270	3,66	2C08370	4,21	2C08470	4,38	2C08570	7,95	2C08670	9,21
3/4 x 12	25	2C08272	4,77	2C08372	5,27	2C08472	6,82	2C08572	13,61	2C08672	15,63
7/8 x 11	10	2C08274	4,93	2C08374	5,27	2C08474	6,82	2C08574	18,36	2C08674	21,39
1 x 10	10	2C08276	6,10	2C08376	7,26	2C08476	7,87	2C08576	23,85	2C08676	27,44



HERRAMIENTA PARA INSERTAR CON TOPE AJUSTABLE
INSERTING TOOL WITH LOCKING RING
APPAREIL DE POSE MANUEL



Nº	M - Mf	UNC / UNF / BSW / BSF	Uds. / Pcs.	Cod.	€/Unid.
2	M 2,00 x 0,40	UNC Nr. 2	1	3C08002	15,19
	M 2,20 x 0,45				
3	M 2,50 x 0,45	-	1	3C08003	15,19
4	M 3,00 x 0,50	UNC/UNF Nr. 4	1	3C08004	15,19
5	M 3,50 x 0,60	UNC/UNF Nr. 6	1	3C08005	15,19
6	M 4,00 x 0,70	UNC/UNF Nr. 8	1	3C08006	15,19
7	-	BSW 3/16	1	3C08007	15,19
		UNC Nr.10			
8	M 5,00 x 0,80	UNC/UNF Nr.10	1	3C08008	15,19
		UNC Nr. 12			
9	M 6,00 x 1,00	UNC/UNF 1/4	1	3C08009	15,19
		BSW/BSF 1/4			
10	M 7,00 x 1,00	UNC/BSW 5/16	1	3C08010	17,41
11	M 8,00 x 1,25	UNC/BSF 5/16	1	3C08011	17,41
	M 8,00 x 1,00				
12	M 9,00 x 1,25	UNC 3/8	1	3C08012	18,80
	M 9,00 x 1,00	BSW/BSF 3/8			
13	M 10,00 x 1,50	UNF 3/8	1	3C08013	18,80
	M 10,00 x 1,00				
	M 10,00 x 1,25				
14	M 11,00 x 1,50	UNC/UNF 7/16	1	3C08014	21,82
	M 11,00 x 1,25	BSW/BSF 7/16			
15	M 12,00 x 1,75	UNC/UNF 1/2	1	3C08015	26,26
	M 12,00 x 1,50				
	M 12,00 x 1,25				
	M 12,00 x 1,00				
16	M 14,00 x 2,00	UNC/UNF 9/16	1	3C08016	26,25
	M 14,00 x 1,50	BSW/BSF 9/16			
17	M 14,00 x 1,25	-	1	3C08017	26,25
	M 14,00 x 1,00				
18	M 16,00 x 2,00	UNC/UNF 5/8	1	3C08018	29,00
	M 16,00 x 1,50	BSW/BSF 5/8			
20	M 18,00 x 2,50	UNC 3/4	1	3C08020	29,00
	M 18,00 x 2,00				
	M 18,00 x 1,50	BSW/BSF 3/4			
21	M 20,00 x 2,50	UNF 3/4	1	3C08021	29,00
	M 20,00 x 2,00				
	M 20,00 x 1,50				
22	M 22,00 x 2,50	UNC/UNF 7/8	1	3C08022	36,46
	M 22,00 x 2,00				
	M 22,00 x 1,50	BSW/BSF 7/8			
23	M 24,00 x 3,00	UNC/UNF 1"	1	3C08023	36,46
	M 24,00 x 2,00				
	M 24,00 x 1,50	BSW/BSF 1"			

M HERRAMIENTA PARA INSERTAR A MÁQUINA
MACHINE INSERTING TOOL
APPAREIL DE POSE À MACHINE



D Ø x P (mm)	L1 (mm)		 (")	Uds. / Pcs.	Cod.	€/Unid.
M 3,00 x 0,50	46	6	1/4	1	3C08070	22,41
M 4,00 x 0,70	56	7	1/4	1	3C08071	22,41
M 5,00 x 0,80	62	8	1/4	1	3C08072	22,41
M 6,00 x 1,00	76	10	1/4	1	3C08073	22,41
M 8,00 x 1,25	85	12	1/4	1	3C08074	27,30
M 10,00 x 1,50	96	14	1/4	1	3C08075	30,16
M 12,00 x 1,75	107	16	1/4	1	3C08076	33,34

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL


METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M HERRAMIENTA PARA INSERTAR

INSERTING TOOL
 APPAREIL DE POSE À MACHINE



Ø Nominal Ø x Paso / Ø Nominal Ø x Paso	Uds. / Pcs.		Cod.	€/Unid.
M - Mf				
M 26,00 x 1,50	1	1/2"	3C08024	37,67
M 27,00 x 3,00	1	1/2"	3C08025	37,66
M 27,00 x 2,00	1	1/2"	3C08026	37,67
M 27,00 x 1,50	1	1/2"	3C08027	37,67
M 28,00 x 1,50	1	1/2"	3C08028	37,67
M 30,00 x 3,50	1	1/2"	3C08029	45,20
M 30,00 x 2,00	1	1/2"	3C08030	45,20
M 30,00 x 1,50	1	1/2"	3C08031	45,20
M 33,00 x 3,50	1	1/2"	3C08032	52,74
M 33,00 x 2,00	1	1/2"	3C08033	52,74
M 36,00 x 4,00	1	1/2"	3C08034	52,74
M 36,00 x 3,00	1	1/2"	3C08035	52,74
M 36,00 x 2,00	1	1/2"	3C08036	52,74
M 36,00 x 1,50	1	1/2"	3C08037	52,74
UNC				
1.1/8 x 7	1	1/2"	3C08050	45,20
1.1/4 x 7	1	1/2"	3C08051	45,20
1.3/8 x 6	1	1/2"	3C08052	52,74
1.1/2 x 6	1	1/2"	3C08053	52,74
UNF				
1.1/8 x 7	1	1/2"	3C08060	45,20
1.1/4 x 7	1	1/2"	3C08061	45,20
1.3/8 x 6	1	1/2"	3C08062	52,74
1.1/2 x 6	1	1/2"	3C08063	52,74
G (BSP)				
1/8 x 28	1	1/4"	3C08080	22,61
1/4 x 19	1	1/4"	3C08081	22,61
3/8 x 19	1	1/4"	3C08082	26,37
1/2 x 14	1	1/4"	3C08083	30,13
5/8 x 14	1	1/2"	3C08084	37,67
3/4 x 14	1	1/2"	3C08085	37,67
7/8 x 14	1	1/2"	3C08086	52,74
1" x 11	1	1/2"	3C08087	52,74

HERRAMIENTA ROMPE ARRASTRE

TANG BREAK TOOL
RUPTEUR



Nº	M - Mf	UNC / UNF / BSW / BSF	Uds. / Pcs.	Cod.	€/Unid.
2	M 2,00 x 0,40	UNC Nº 2	1	3C07002	6,48
	M 2,20 x 0,45				
3	M 2,50 x 0,45	-	1	3C07003	6,57
4	M 3,00 x 0,50	UNC/UNF Nº 4	1	3C07004	6,57
5	M 3,50 x 0,60	UNC/UNF Nº 6	1	3C07005	6,57
6	M 4,00 x 0,70	UNC/UNF Nº 8	1	3C07006	6,57
8	M 5,00 x 0,80	UNC/UNF Nº10	1	3C07008	6,57
		UNC Nº12			
9	M 6,00 x 1,00	UNC/UNF 1/4	1	3C07009	6,57
		BSW/BSF 1/4			
11	M 7,00 x 1,00	UNC/UNF 5/16 BSW/BSF 5/16	1	3C07011	7,29
	M 8,00 x 1,00				
	M 8,00 x 1,25				
12	M 9,00 x 1,25	UNC 3/8	1	3C07012	7,29
	M 9,00 x 1,00	BSW/BSF 3/8			
13	M 10,00 x 1,50	UNF 3/8	1	3C07013	8,83
	M 10,00 x 1,00				
	M 10,00 x 1,25				
14	M 11,00 x 1,50	UNC/UNF 7/16	1	3C07014	8,83
	M 11,00 x 1,25	BSW/BSF 7/16			
15	M 12,00 x 1,75	UNC/UNF 1/2 BSW/BSF 1/2	1	3C07015	8,83
	M 12,00 x 1,50				
	M 12,00 x 1,25				
	M 12,00 x 1,00				

HERRAMIENTA EXTRACTORA

EXTRACTING TOOL
EXTRACTEUR



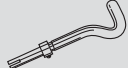
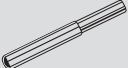



Nº	Métrica / Métrica	Pulgadas / Inches	Uds. / Pcs.	Cod.	€/Unid.
2	M 3 - M 10	3/16 - 3/8	1	3C07052	32,83
3	M 11 - M 24	3/8 - 1	1	3C07053	39,79

M y Mf

KITS REPARADORES DE ROSCA
 THREAD REPAIR KIT
 KITS DE RÉPARATION DE FILETAGE

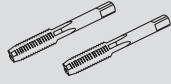




								
					x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
M	2,00 x 0,40	2,1 mm	Nº 2	Nº 2	20	1	4C04001	57,63
M	2,50 x 0,45	2,6 mm	Nº 3	Nº 3	20	1	4C04003	57,63
M	3,00 x 0,50	3,2 mm	Nº 4	Nº 4	20	1	4C04005	55,95
M	3,50 x 0,60	3,7 mm	Nº 5	Nº 5	20	1	4C04006	57,63
M	4,00 x 0,70	4,2 mm	Nº 6	Nº 6	20	1	4C04007	52,24
M	5,00 x 0,80	5,2 mm	Nº 8	Nº 8	20	1	4C04009	54,33
M	6,00 x 1,00	6,3 mm	Nº 9	Nº 9	20	1	4C04010	58,52
M	7,00 x 1,00	7,3 mm	Nº 10	Nº 11	20	1	4C04011	78,71
M	8,00 x 1,25	8,3 mm	Nº 11	Nº 11	20	1	4C04012	74,45
M	8,00 x 1,00	8,3 mm	Nº 11	Nº 11	20	1	4C04013	78,71
M	9,00 x 1,25	9,3 mm	Nº 12	Nº 12	15	1	4C04014	89,91
M	10,00 x 1,50	10,4 mm	Nº 13	Nº 13	15	1	4C04016	79,68
M	10,00 x 1,25	10,3 mm	Nº 13	Nº 13	15	1	4C04017	84,24
M	10,00 x 1,00	10,3 mm	Nº 13	Nº 13	15	1	4C04018	84,24
M	11,00 x 1,50	11,4 mm	Nº 14	Nº 14	10	1	4C04019	97,28
M	12,00 x 1,75	12,4 mm	Nº 15	Nº 15	10	1	4C04021	89,33
M	12,00 x 1,50	12,4 mm	Nº 15	Nº 15	10	1	4C04022	94,45
M	12,00 x 1,25	12,3 mm	Nº 15	Nº 15	10	1	4C04023	94,45
M	12,00 x 1,00	12,3 mm	Nº 15	Nº 15	10	1	4C04024	97,28
M	14,00 x 2,00		Nº 16		10	1	4C04028	100,74
M	14,00 x 1,50		Nº 16		10	1	4C04029	106,52
M	14,00 x 1,25		Nº 17		10	1	4C04030	106,52
M	14,00 x 1,00		Nº 17		10	1	4C04031	109,71
M	16,00 x 2,00		Nº 18		10	1	4C04032	122,11
M	16,00 x 1,50		Nº 18		10	1	4C04033	129,11
M	18,00 x 2,50		Nº 20		5	1	4C04034	157,96
M	18,00 x 2,00		Nº 20		5	1	4C04035	157,96
M	18,00 x 1,50		Nº 20		5	1	4C04036	157,96
M	20,00 x 2,50		Nº 21		5	1	4C04037	170,88
M	20,00 x 2,00		Nº 21		5	1	4C04038	170,88
M	20,00 x 1,50		Nº 21		5	1	4C04039	170,88
M	22,00 x 2,50		Nº 22		5	1	4C04040	196,73
M	22,00 x 2,00		Nº 22		5	1	4C04041	196,73
M	22,00 x 1,50		Nº 22		5	1	4C04042	196,73
M	24,00 x 3,00		Nº 23		5	1	4C04043	226,89
M	24,00 x 2,00		Nº 23		5	1	4C04044	226,89
M	24,00 x 1,50		Nº 23		5	1	4C04045	226,89

M y Mf

KITS REPARADORES DE ROSCA
 THREAD REPAIR KIT
 KITS DE RÉPARATION DE FILETAGE



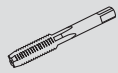
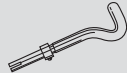



					
		x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
M 26,00 x 1,50	3C08024	10	1	4C04049	482,09
M 27,00 x 3,00	3C08025	10	1	4C04050	482,09
M 27,00 x 2,00	3C08026	10	1	4C04051	482,09
M 27,00 x 1,50	3C08027	10	1	4C04052	482,09
M 28,00 x 1,50	3C08028	10	1	4C04053	549,33
M 30,00 x 3,50	3C08029	10	1	4C04054	574,74
M 30,00 x 2,00	3C08030	10	1	4C04055	574,74
M 30,00 x 1,50	3C08031	10	1	4C04056	574,74
M 33,00 x 3,50	3C08032	10	1	4C04057	600,16
M 33,00 x 2,00	3C08033	10	1	4C04058	600,16
M 36,00 x 4,00	3C08034	10	1	4C04060	652,94
M 36,00 x 3,00	3C08035	10	1	4C04061	652,94
M 36,00 x 2,00	3C08036	10	1	4C04062	652,94
M 36,00 x 1,50	3C08037	10	1	4C04063	652,94
M 39,00 x 4,00	3C08038	10	1	4C04231	932,19
M 39,00 x 3,00	3C08039	10	1	4C04232	813,18
M 40,00 x 3,00	3C08040	10	1	4C04233	932,19
M 42,00 x 4,50	3C08041	10	1	4C04234	1.249,52
M 42,00 x 3,00	3C08042	10	1	4C04235	932,19
M 45,00 x 4,50	3C08043	10	1	4C04236	1.289,19
M 45,00 x 3,00	3C08044	10	1	4C04237	1.170,19
M 48,00 x 5,00	3C08045	10	1	4C04238	1.576,56
M 48,00 x 3,00	3C08046	10	1	4C04239	1.170,19
M 50,00 x 3,00	3C08047	10	1	4C04240	1.249,52
M 52,00 x 5,00	3C08048	10	1	4C04241	1.963,53
M 52,00 x 3,00	3C08049	10	1	4C04242	1.685,87

*Consultar disponibilidad / Request availability / Consulter le disponibilité

KIT PARA LAS ROSCAS DE LAS BUJÍAS

INSERTING TOOL
 KITS DE RÉPARATION DE FILETAGE POUR BOUGIES D'ALLUMAGE



							
M 14 x 1,25	Nº 17	8,40 mm	12,40 mm	16,40 mm	Uds. / Pcs.	Cod.	€/Unid.
		5	5	5	1	4C04096	133,00

MACHOS SPARK-PLUG / STI-SPARK PLUG TAPS / TARAUDS STI ÉTAGÉS

CONSTRUCCIÓN
 CONSTRUCTION • CONSTRUCTION

MADERA
 WOOD • BOIS

METAL
 METAL • MÉTAL

FRESADO
 MILLING • FRAISAGE

ROSCADO
 THREADING • FILETAGE

ACCESORIOS
 ACCESSORIES • ACCESSOIRES

HEXAGONAL
 HEXAGONAL • HEXAGONAL


METROLOGÍA
 METROLOGY • MÉTROLOGIE

DISPLAYS
 DISPLAYS • DISPLAYS

UNC

KITS REPARADORES DE ROSCA
 THREAD REPAIR KIT
 KITS DE RÉPARATION DE FILETAGE




				 x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
Nr. 2 x 56	2,4 mm	Nº 2	Nº 2	20	1	4C04100	80,07
Nr. 4 x 40	3,1 mm	Nº 4	Nº 4	20	1	4C04101	72,64
Nr. 5 x 40	3,4 mm	Nº 4	Nº 4	20	1	4C04106	72,64
Nr. 6 x 32	3,8 mm	Nº 5	Nº 5	20	1	4C04102	72,64
Nr. 8 x 32	4,4 mm	Nº 6	Nº 6	20	1	4C04103	72,64
Nr. 10 x 24	5,2 mm	Nº 7	Nº 6	20	1	4C04104	72,64
Nr. 12 x 24	5,8 mm	Nº 8	Nº 8	20	1	4C04105	72,64
1/4 x 20	6,7 mm	Nº 9	Nº 9	20	1	4C04107	65,45
5/16 x 18	8,3 mm	Nº 10	Nº 10	20	1	4C04108	77,32
3/8 x 16	9,9 mm	Nº 12	Nº 12	15	1	4C04109	82,67
7/16 x 14	11,6 mm	Nº 14	Nº 14	10	1	4C04110	92,79
1/2 x 13	13,0 mm	Nº 15	Nº 15	10	1	4C04111	101,85
9/16 x 12		Nº 16		10	1	4C04112	135,98
5/8 x 11		Nº 18		10	1	4C04113	135,98
3/4 x 10		Nº 20		5	1	4C04114	173,32
7/8 x 9		Nº 22		5	1	4C04115	210,64
1 x 8		Nº 23		4	1	4C04116	200,78

UNC

KITS REPARADORES DE ROSCA
 THREAD REPAIR KIT
 KITS DE RÉPARATION DE FILETAGE

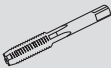

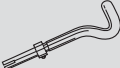




		 x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
1.1/8 x 7	3C08050	10	1	4C04117	526,71
1.1/4 x 7	3C08051	10	1	4C04118	585,97
1.3/8 x 6	3C08052	10	1	4C04119	704,49
1.1/2 x 6	3C08053	10	1	4C04135	820,80

UNF

KITS REPARADORES DE ROSCA
 THREAD REPAIR KIT
 KITS DE RÉPARATION DE FILETAGE






								
					x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
Nr. 4 x 48	3,0 mm	Nº 4	Nº 4	20	1	4C04120	73,35	
Nr. 6 x 40	3,8 mm	Nº 5	Nº 5	20	1	4C04121	73,35	
Nr. 8 x 36	4,4 mm	Nº 6	Nº 6	20	1	4C04122	73,35	
Nr. 10 x 32	5,1 mm	Nº 8	Nº 8	20	1	4C04123	73,35	
1/4 x 28	6,7 mm	Nº 9	Nº 9	20	1	4C04125	66,09	
5/16 x 24	8,3 mm	Nº 11	Nº 11	20	1	4C04126	80,87	
3/8 x 24	9,8 mm	Nº 13	Nº 13	15	1	4C04127	86,46	
7/16 x 20	11,5 mm	Nº 14	Nº 14	10	1	4C04128	97,05	
1/2 x 20	13,0 mm	Nº 15	Nº 15	10	1	4C04129	106,53	
9/16 x 18		Nº 16		10	1	4C04130	142,23	
5/8 x 18		Nº 18		10	1	4C04131	142,23	
3/4 x 16		Nº 21		5	1	4C04132	181,28	
7/8 x 14		Nº 22		5	1	4C04133	220,32	
1 x 12		Nº 23		4	1	4C04134	209,99	

UNF

KITS REPARADORES DE ROSCA
 THREAD REPAIR KIT
 KITS DE RÉPARATION DE FILETAGE



							
			x 1,5D	Uds. / Pcs.	Cod.	€/Unid.	
1.1/8 x 12	3C08060	10	1	4C04136	521,88		
1.1/4 x 12	3C08061	10	1	4C04137	580,60		
1.3/8 x 12	3C08062	10	1	4C04138	698,03		
1.1/2 x 12	3C08063	10	1	4C04139	813,27		

CONSTRUCCIÓN
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METAL
 METAL • MÉTAL

FRESADO
 MILLING • FRAISAGE

ROSCADO
 THREADING • FILETAGE

ACCESORIOS
 ACCESSORIES • ACCESSOIRES

HEXAGONAL
 HEXAGONAL • HEXAGONAL


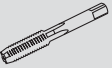

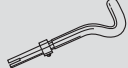
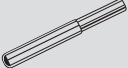
METROLOGÍA
 METROLOGY • MÉTROLOGIE

DISPLAYS
 DISPLAYS • DISPLAYS

BSW

KITS REPARADORES DE ROSCA
 THREAD REPAIR KIT
 KITS DE RÉPARATION DE FILETAGE








				 x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
							
1/8 x 40	3,4 mm	Nº 4	Nº 4	20	1	4C04141	72,64
3/16 x 24	5,0 mm	Nº 8	Nº 8	20	1	4C04142	72,64
1/4 x 20	6,7 mm	Nº 9	Nº 9	20	1	4C04143	65,45
5/16 x 18	8,3 mm	Nº 10	Nº 11	20	1	4C04144	80,07
3/8 x 16	9,9 mm	Nº 12	Nº 12	15	1	4C04145	85,62
7/16 x 14	11,5 mm	Nº 14	Nº 14	10	1	4C04146	96,10
1/2 x 12	13,0 mm	Nº 15	Nº 15	10	1	4C04147	105,49
9/16 x 12		Nº 16		10	1	4C04148	140,84
5/8 x 11		Nº 18		10	1	4C04149	140,84
3/4 x 10		Nº 20		5	1	4C04150	179,51
7/8 x 9		Nº 22		5	1	4C04151	218,16
1 x 8		Nº 23		4	1	4C04152	207,94

BSF

KITS REPARADORES DE ROSCA
 THREAD REPAIR KIT
 KITS DE RÉPARATION DE FILETAGE






				 x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
							
3/16 x 32	5,0 mm	Nº 8	Nº 6	20	1	4C04162	72,64
1/4 x 26	6,6 mm	Nº 9	Nº 9	20	1	4C04163	65,45
5/16 x 22	8,3 mm	Nº 11	Nº 11	20	1	4C04165	80,07
3/8 x 20	9,9 mm	Nº 12	Nº 13	15	1	4C04166	85,62
7/16 x 18	11,5 mm	Nº 14	Nº 14	10	1	4C04167	96,10
1/2 x 16	13,0 mm	Nº 15	Nº 15	10	1	4C04168	105,49
9/16 x 16		Nº 16		10	1	4C04169	140,84
5/8 x 14		Nº 18		10	1	4C04170	140,84
3/4 x 12		Nº 20		5	1	4C04172	179,51
7/8 x 11		Nº 22		5	1	4C04174	218,16
1 x 10		Nº 23		4	1	4C04176	208,08

G(BSP)

KITS REPARADORES DE ROSCA
 THREAD REPAIR KIT
 KITS DE RÉPARATION DE FILETAGE

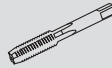

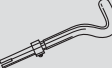
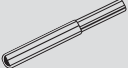



						
		x 1,5D		Uds. / Pcs.	Cod.	€/Unid.
1/8 x 28	3C08080	10		1	4C04190	129,21
1/4 x 19	3C08081	10		1	4C04191	135,96
3/8 x 19	3C08082	10		1	4C04192	150,84
1/2 x 14	3C08083	10		1	4C04193	183,02
5/8 x 14	3C08084	10		1	4C04194	430,39
3/4 x 14	3C08085	10		1	4C04195	430,39
7/8 x 14	3C08086	10		1	4C04196	591,27
1 x 11	3C08087	10		1	4C04197	591,27

M

REPARADOR DE ROSCA CON ANCLAJE DE 1/4"
 1/4" SHANK REPAIR KIT
 KIT DE RÉPARATION DE FILETAGE AVEC QUEU 1/4"



							
				x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
M 4,00 x 0,70	4,2 mm	Nº 6	Nº 6	20	1	4C04307	52,32
M 5,00 x 0,80	5,2 mm	Nº 8	Nº 8	20	1	4C04309	54,41
M 6,00 x 1,00	6,3 mm	Nº 9	Nº 9	20	1	4C04310	58,61
M 8,00 x 1,25	8,3 mm	Nº 11	Nº 11	20	1	4C04312	74,55

Hasta fin de existencias / Until end of stock / Jusqu' à épuisement des stocks

CONSTRUCCIÓN
 CONSTRUCTION • CONSTRUCTION

MADERA
 WOOD • BOIS

METAL
 METAL • MÉTAL

FRESADO
 MILLING • FRAISAGE

ROSCADO
 THREADING • FILETAGE

ACCESORIOS
 ACCESSORIES • ACCESSOIRES

HEXAGONAL
 HEXAGONAL • HEXAGONAL

METROLOGÍA
 METROLOGY • MÉTROLOGIE

DISPLAYS
 DISPLAYS • DISPLAYS

KIT REPARADOR DE ROSCADO PARA TALLER

THREAD REPAIR WORKSHOP KITS
KITS DE RÉPARATION DE FILETAGE POUR ATÉLIERS




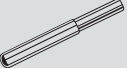



					x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
M5-M 12						1	4C04081	401,68
M	5.00 x 0.80	5,2 mm	Nº 8	Nº 8	25			
M	6.00 x 1.00	6,3 mm	Nº 9	Nº 9	25			
M	8.00 x 1.25	8,3 mm	Nº 11	Nº 11	25			
M	10.00 x 1.50	10,4 mm	Nº 13	Nº 13	25			
M	12.00 x 1.75	12,4 mm	Nº 15	Nº 15	10			
M6-M 14 x 1.25 /NP						1	4C04082	446,20
M	6.00 x 1.00	6,3 mm	Nº 9	Nº 9	25			
M	8.00 x 1.25	8,3 mm	Nº 11	Nº 11	25			
M	10.00 x 1.50	10,4 mm	Nº 13	Nº 13	25			
M	12.00 x 1.75	12,4 mm	Nº 15	Nº 15	10			
M	14.00 x 1.25		Nº 17		10			
M 6 - M 14 x 1.25 / PT (*Machos Plug - Punta Piloto / *Plug Taps - Pilot Nose)						1	4C04083	460,16
M	6.00 x 1.00	6,3 mm	Nº 9	Nº 9	25			
M	8.00 x 1.25	8,3 mm	Nº 11	Nº 11	25			
M	10.00 x 1.50	10,4 mm	Nº 13	Nº 13	25			
M	12.00 x 1.75	12,4 mm	Nº 15	Nº 15	10			
M	14.00 x 1.25*		Nº 17		10			
UNC 1/4 - 1/2"						1	4C04184	501,97
UNC	1/4 x 20	6,7 mm	Nº 9	Nº 9	25			
UNC	5/16 x 18	8,3 mm	Nº 10	Nº 11	25			
UNC	3/8 x 16	9,9 mm	Nº 12	Nº 12	25			
UNC	7/16 x 14	11,6 mm	Nº 14	Nº 14	10			
UNC	1/2 x 13	13,0 mm	Nº 15	Nº 15	10			
UNF 1/4 - 1/2"						1	4C04185	501,97
UNF	1/4 x 28	6,7 mm	Nº 9	Nº 9	25			
UNF	5/16 x 24	8,3 mm	Nº 11	Nº 11	25			
UNF	3/8 x 24	9,8 mm	Nº 13	Nº 13	25			
UNF	7/16 x 20	11,5 mm	Nº 14	Nº 14	10			
UNF	1/2 x 20	13,0 mm	Nº 15	Nº 15	10			
BSW 1/4 - 1/2"						1	4C04186	501,97
BSW	1/4 x 20	6,7 mm	Nº 9	Nº 9	25			
BSW	5/16 x 18	8,3 mm	Nº 10	Nº 11	25			
BSW	3/8 x 16	9,9 mm	Nº 12	Nº 12	25			
BSW	7/16 x 14	11,5 mm	Nº 14	Nº 14	10			
BSW	1/2 x 12	13,0 mm	Nº 15	Nº 15	10			
BSF 1/4 - 1/2"						1	4C04187*	501,97
BSF	1/4 x 26	6,6 mm	Nº 9	Nº 9	25			
BSF	5/16 x 22	8,3 mm	Nº 11	Nº 11	25			
BSF	3/8 x 20	9,9 mm	Nº 12	Nº 12	25			
BSF	7/16 x 18	11,5 mm	Nº 14	Nº 14	10			
BSF	1/2 x 16		Nº 15		10			

*Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks




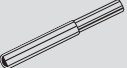

M KIT CON HERRAMIENTAS PARA INSERTAR A MÁQUINA
 THREAD REPAIR KIT WITH MACHINE INSERTING TOOL
 COFFRET RÉPARATION AVEC DES OUTILS À MACHINE



								
	FORM B				x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
M 3,00 x 0,50		3,2 mm	M 3	Nº 4	20	1	4C04070	66,27
M 4,00 x 0,70		4,2 mm	M 4	Nº 6	20	1	4C04071	66,27
M 5,00 x 0,80		5,2 mm	M 5	Nº 8	20	1	4C04072	68,57
M 6,00 x 1,00		6,3 mm	M 6	Nº 9	20	1	4C04073	72,84
M 8,00 x 1,25		8,3 mm	M 7	Nº 11	20	1	4C04074	93,42
M 10,00 x 1,50		10,4 mm	M 8	Nº 13	15	1	4C04075	100,85
M 12,00 x 1,75		12,4 mm	M 9	Nº 15	10	1	4C04076	112,83

M KIT CON HERRAMIENTAS PARA INSERTAR A MÁQUINA
 THREAD REPAIR KIT WITH MACHINE INSERTING TOOL
 COFFRET RÉPARATION AVEC DES OUTILS À MACHINE



								
	FORM B				x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
M5 - M12						1	4C04087	499,82
M 5,00 x 0,80		5,2 mm	M 5	Nº 8	25			
M 6,00 x 1,00		6,3 mm	M 6	Nº 9	25			
M 8,00 x 1,25		8,3 mm	M 8	Nº 11	25			
M 10,00 x 1,50		10,4 mm	M 10	Nº 13	25			
M 12,00 x 1,75		12,4 mm	M 12	Nº 15	10			



ACCESORIOS

ACCESORIES
ACCESSOIRES



PORTABROCAS PERCUSIÓN CIERRE RÁPIDO

PERCUSSIVE DRILL AND FAST LOCK DRILL CHUCK
 PERCEUSES À PERCUSSION EN FERMETURE RAPIDE



V021220

V021221

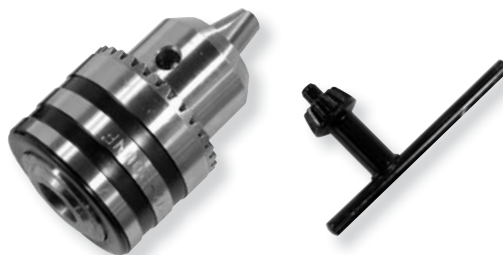
V023824

LONGITUD / LENGHT

Capacidad Range (mm)	Acople / Mount	Ø ext. (mm)	Abierto / Opened (mm)	Cerrado / Closed (mm)	Peso Weight (kg)	Uds. Pcs.	Cod.	€/Unid.
2 - 13	1/2 - 20 UNF	43	62	75	0,250	1	V021220	21,18
2 - 13	1/2 - 20 UNF	43	62	75	0,280	1	V021221	23,84
1,50 - 13	3/8 - 24 UNF	43	62	72	0,290	1	V023824	33,86

PORTABROCAS DE LLAVE

KEY TYPE CHUCK • MANDRIN FERMETURE AVEC CLÉ


LONGITUD / LENGHT

Capacidad Range (mm)	Acople / Mount	Ø ext. (mm)	Abierto / Opened (mm)	Cerrado / Closed (mm)	Peso Weight (kg)	Uds. Pcs.	Cod.	€/Unid.
1,50 - 13	1/2 - 20 UNF	42	57	70	0,34	1	V021520	44,22

LLAVE SINGLE KEY • CLÉ DE RECHANGE

Uds. / Pcs.	Cod.	€/Unid.
1	V031520	7,42



PORTABROCAS ROTACIÓN CON CIERRE RÁPIDO
FAST LOCK DRILL CHUCK
MANDRIN FÉRMÉTURE RAPIDE ET AUTOAJUTABLE



Capacidad Range (mm)	Acople / Mount	Ø ext. (mm)	LONGITUD / LENGHT		Peso Weight (kg)	Uds. Pcs.	Precisión Precision (mm)	Cod.	€/Unid.
			Abierto / Opened (mm)	Cerrado / Closed (mm)					
1 - 13	1/2 - 20 UNF	44	85	95	0,73	1	0,20	V0131220	69,86
1 - 16	B - 16	51	102	115	1,09	1	0,07	V016116	77,23
1 - 16	B - 18	51	102	115	1,08	1	0,07	V018116	77,23
5 - 20	B - 22	57	105	129	1,53	1	0,18	V022520	124,46

PORTAFRESAS CONO MORSE
BUR HOLDER MORSE TAPER • QUEUE CONIQUE



Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
C.M. 2 + accesorios / C.M. 2 + accessories	1	18003	360,40
C.M. 3 + accesorios / C.M. 2 + accessories	1	18025	360,40

Portafresas con entrada para refrigerante para máquinas con base electromagnética SIN AMARRES WELDON. Permite el uso de estas fresas en tornos, fresadoras y taladros.
Tool holders with internal cooling system for electromagnetic drilling machines without WELDON SHANK. It allows the use of WELDON SHANK milling cutters on lathes, milling machines and drill machines. / Porte-fraises à réfrigération interne pour machines à base électromagnétique SANS ANCRAGE WELDON. Pour l'utilisation de fraises à ancrage Weldon sur des tours, fraiseuses ou perceuses.

ADAPTADOR
ADAPTOR • ADAPTATEUR

NEW



Conversión / Conversion	Uds. / Pcs.	Cod.	€/Unid.
De WELDON a FEIN / From WELDON to FEIN / Du WELDON au FEIN	1	193010	74,18

CONSTRUCTION • CONSTRUCTION
MADERA
WOOD • BOIS
METAL
METAL • MÉTAL
FRESADO
MILLING • FRAISAGE
ROSCADO
THREADING • FILETAGE
ACCESORIOS
HEXAGONAL
HEXAGONAL • HEXAGONAL
METROLOGÍA
METROLOGY • MÉTROLOGIE
DISPLAYS
DISPLAYS • DISPLAYS

ESPIGAS TEMPLADAS Y RECTIFICADAS

HARDENED AND GROUND TAPER SHANK ARBORS
ARBRES DE MONTAGE TREMPÉS ET RECTIFIÉS



DIN 228
CONO MORSE

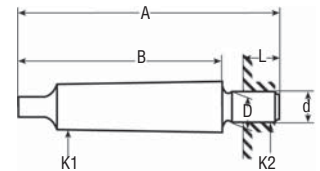
DIN 238
ESPIGA

Cono Morse / Morse Cone	Espiga / Arbor	L (mm)	Peso / Weight (Kg)	Uds. / Pcs.	Cod.	€/Unid.
1	B - 10	86	0,050	1	V2001B10	9,34
1	B - 12	88	0,060	1	V2001B12	9,34
1	B - 16	99	0,090	1	V2001B16	9,34
1	B - 18	107	0,110	1	V2001B18	9,34
2	B - 10	105	0,130	1	V2002B10	10,14
2	B - 12	106	0,140	1	V2002B12	9,96
2	B - 16	112	0,160	1	V2002B16	9,96
2	B - 18	119	0,185	1	V2002B18	9,96
3	B - 12	125	0,280	1	V2003B12	12,98
3	B - 16	130	0,300	1	V2003B16	12,98
3	B - 18	138	0,330	1	V2003B18	12,98
3	B - 22	147	0,390	1	V2003B22	12,98
4	B - 16	156	0,615	1	V2004B16	20,20
4	B - 18	164	0,635	1	V2004B18	20,20
4	B - 22	173	0,700	1	V2004B22	20,20
5	B - 18	200	1,570	1	V2005B18	33,55

Para medidas no tarifadas consultar precio y disponibilidad / Check prices and availability for no tariffed articles / Demandez pour des produits non tarifiqués

DIMENSIONES APROXIMADAS ESPIGAS DE ASIENTO

SLEEVES MEASURES
DIMENSIONS DES DOUILLES DE RÉDUCTION



Cono Morse Morse Cone DIN 228 (K-1)	Cono interior del portabrocas Drill Chuck Internal Cone DIN 228 K-2)	A (mm)	B (mm)	D (mm)	d (mm)	L (mm)
1	B - 10	86	65,5	10,094	9,4	14,5
1	B - 12	88	65,5	12,065	11,1	18,5
1	B - 16	99	65,5	15,733	14,5	24,0
1	B - 18	107	65,5	17,780	16,2	32,0
2	B - 10	105	80	10,094	9,4	14,5
2	B - 12	106	80	12,065	11,1	18,5
2	B - 16	112	80	15,733	14,5	24,0
2	B - 18	119	80	17,780	16,2	32,0
3	B - 12	125	99	12,065	11,1	18,5
3	B - 16	130	99	15,733	14,5	24,0
3	B - 18	138	99	17,780	16,2	32,0
3	B - 22	148	99	21,793	19,8	40,5
4	B - 16	156	124	15,733	14,5	24,0
4	B - 18	164	124	17,780	16,2	32,0
4	B - 22	171	124	21,793	19,8	40,5
5	B - 16	198	156	15,733	14,5	24,0
5	B - 18	198	156	17,780	16,2	32,0

CASQUILLOS REDUCTORES TEMPLADOS Y RECTIFICADOS
HARDENED AND GROUND SLEEVES
DOUILLES DE RÉDUCTION TREMPÉS ET RECTIFIÉS

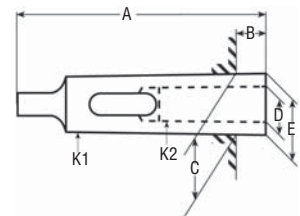
DIN 2185



Exterior / External	Interior / Internal	L (mm)	Peso / Weight (Kg)	Uds. / Pcs.	Cod.	€/Unid.
2	1	92	0,090	1	V1000021	19,29
3	1	99	0,205	1	V1000031	20,68
3	2	112	0,180	1	V1000032	20,68
3*	2	195	0,470	1	V1000L32	41,34
4	1	124	0,500	1	V1000041	24,11
4	2	124	0,430	1	V1000042	24,11
4	3	140	0,385	1	V1000043	24,11
5	1	155	1,400	1	V1000051	58,60
5	2	157	1,340	1	V1000052	58,60
5	3	157	1,150	1	V1000053	67,77
5	4	170	1,010	1	V1000054	73,32
5*	4	300	2,071	1	V1000L54	146,64
6	3	218	3,790	1	V1000063	115,55
6	4	218	3,450	1	V1000064	128,33
6	5	218	3,450	1	V1000065	133,44

* Casquillos serie larga / Long series / Série longue

DIMENSIONES APROXIMADAS CASQUILLOS REDUCTORES
TAPER SHANK ARBOR MEASURES
DIMENSIONS DES ARBRES DE MONTAGE



CONO MORSE / MORSE CONE						
Exterior / External (K-1)	Interior / Internal (K-2)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
2	1	92	17,0	17,780	12,065	18,6
3	1	99	5,0	23,825	12,065	24,1
3	2	112	18,0	23,825	17,780	24,7
4	1	124	6,5	31,267	12,065	31,6
4	2	124	6,5	31,267	17,780	31,6
4	3	140	22,5	31,267	23,825	32,4
5	1	156	6,5	44,399	12,065	44,7
5	2	156	6,5	44,399	17,780	44,7
5	3	156	6,5	44,399	23,825	44,7
5	4	170	21,5	44,399	31,267	45,5
6	2	218	8,0	63,348	17,780	63,8
6	3	218	8,0	63,348	23,825	63,8
6	4	218	8,0	63,348	31,267	63,8
6	5	218	8,0	63,348	44,399	63,8

CASQUILLOS AUMENTADORES TEMPLADOS Y RECTIFICADOS

HARDENED AND GROUNDED EXTENSION SLEEVES
DOUILLES RALLONGÉS TREMPÉS ET RECTIFIÉS



Exterior / External	Interior / Internal	L (mm)	Peso / Weight (Kg)	Uds. / Pcs.	Cod.	€/Unid.
2	3	195	0,69	1	V1L00032	49,62
3	4	239	1,54	1	V1L00043	56,69

CUÑAS PARA CASQUILLOS

EXTRACTION WEDGE • ÉCROUS D'EXTRACTION



DIN 317

Utilidad / Utility	Uds. / Pcs.	Cod.	€/Unid.
Para Conos Morse Nº 1 y Nº 2 / For Morse taper Nº 1 y Nº 2	1	VC31712	8,37
Para Conos Morse Nº 3 / For Morse taper Nº 3	1	VC31703	13,75
Para Conos Morse Nº 4 y Nº 5 / For Morse taper Nº 4 y Nº 5	1	VC31704	17,72

TOPES DE PROFUNDIDAD PARA BROCAS

DEPTH ADJUSTING COLLAR • BUTÉES DE PERÇAGE



Ø (mm)	Gama de medidas / Range (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,5	De 2,0 a 3,5	1	Y10035	3,95
5,0	De 4,0 a 5,0	1	Y10050	4,52
6,5	De 5,5 a 6,5	1	Y10065	5,38
8,0	De 7,0 a 8,0	1	Y10080	5,38
10,0	De 8,5 a 10,0	1	Y10100	5,38
12,0	De 10,5 a 12,0	1	Y10120	5,38

CONVERSOR DE ANCLAJE SDS-MAX A SDS-PLUS

CONVERSION FROM SDS-MAX SHANK TO SDS-PLUS
CONVERTEUR DE SDS-MAX A SDS-PLUS



L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
225	1	1C02250	139,89



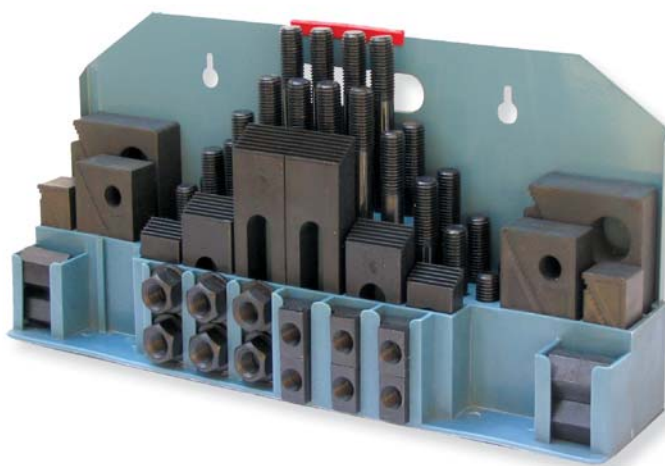
Para taladros con sistema SDS-MAX, HILTI Y-Groove y Licencia Bosch.
Drills with SDS-MAX, HILTI Y-Groove and Bosch License system
Perceuse avec système SDS-MAX, HILTI Y-Groove et Bosch Licence.


ELEMENTOS DE UNIÓN Y ÚTILES DE SUJECCIÓN
ADAPTERS • ADAPTATEURS



Conversión / System	Uds. / Pcs.	Cod.	€/Unid.
SDS-PLUS a 1/2" - 20 H (M6 Izq.) / From SDS-PLUS to Thread 1/2" - 20 tpi (M6 LH)	1	V945212	14,17
SDS-PLUS a 3/8" - 24 H (M4 Izq.) / From SDS-PLUS to Thread 3/8" - 24 tpi (M4 LH)	1	V945024	14,17
TORNILLO REPUESTO M6 Izq. / Replacement Screw M6 LH	1	V945406	1,69
TORNILLO REPUESTO M4 Izq. / Replacement Screw M4 LH	1	V945404	1,69
SDS-plus a hexag. 1/4" / From SDS-PLUS to 1/4"	1	264 000 001	27,79
HEXAGONAL 1/4" a 3/8" - 24 H / From HEXAGONAL 1/4" to thread 3/8" - 24tpi	1	V945138	5,67
Rosca 3/8" - 24 H / Thread 3/8" 24 tpi	1	V930001	2,12
Rosca 3/8" - 24 H a 1/2" - 20 H / From Thread 3/8" 24 tpi to Thread 1/2" 20 tpi	1	V931021	4,72
Rosca 1/2" - 20 H a 3/8" - 24 H / From Thread 1/2 - 20 tpi to 3/8 - 24 tpi	1	V931121	8,10
Rosca 5/8" - 16 H a 1/2" - 20 H / Thread 5/8" - 16tpi to 1/2" - 20 tpi	1	V935816	4,72

ÚTILES DE SUJECCIÓN CONJUNTO DE 52 PIEZAS
CLAMPING TOOLS - 52 PCS. KIT • OUTILS DE FIXATION - 52 PCS.



Ref.	Rosca / Thread		Uds. / Pcs.	Cod.	€/Unid.
RH. M - 10	M 10	12,00 mm	1	V40RHM10	191,37
RH. M - 12	M 12	14,00 mm	1	V40RHM12	198,45
RH. M - 14	M 14	16,00 mm	1	V40RHM14	211,21
RH. M - 16	M 16	18,00 mm	1	V40RHM16	240,97

Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks

MARCADOR INDUSTRIAL INDELEBLE TEXPEN
STEEL TIP PAINT MARQUER • MARQUEUR MÉTAL PERMANENT

Contenido / Content	Uds. / Pcs.	Cod.	Color	€/Unid.
26 ml	12	K38011		9,87
26 ml	12	K38021		9,87
26 ml	12	K38031		9,87
26 ml	12	K38041		9,87
26 ml	12	K38051		9,87

DYKEM









Marcador industrial indeleble / *Industrial permanent marker / Marqueur permanent industriel*
 Válido para superficies rugosas y grasientas / *Useful for rough surfaces / Utilisable sur surfaces rugueuses ou grasses*
 Tubo rígido de fácil manejo / *Rigid tube for a easy use / Tube rigide pour une manipulation aisée*
 Resistente a caídas y golpes / *Strong to falls / Robuste, anti-chocs*



Hasta fin de existencias / *Until end of stock / Jusqu'à épuisement des stocks*

MARCADOR CELULOSA INDELEBLE BRITE-MARK
VALVE ACTION PAINT MARQUER • MARQUEUR PERMANENT

Contenido / Content	Uds. / Pcs.	Cod.	Color	€/Unid.
26 ml	12	K37011		8,74
26 ml	12	K37021		8,74
26 ml	12	K37031		8,74
26 ml	12	K37041		8,74
26 ml	12	K37051		8,74
26 ml	12	K37061		8,74

DYKEM



Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks

ACEITE DE CORTE Y ROSCADO
CUTTING AND TAPPING FLUID
FLUIDE POUR FILETAGE ET DE COUP

Contenido / Content	Uds.	Cod	€/Unid.
400 ml	1	1AC4000	19,10

Metales duros y blandos. Alto poder refrigerante y anticorrosivo.
Suitable for hard and soft metals. High refrigerating and anti-corrosion capacity.
Métaux doux et durs. Haut pouvoir anticorrosion.



CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

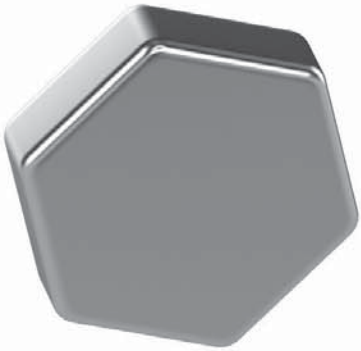
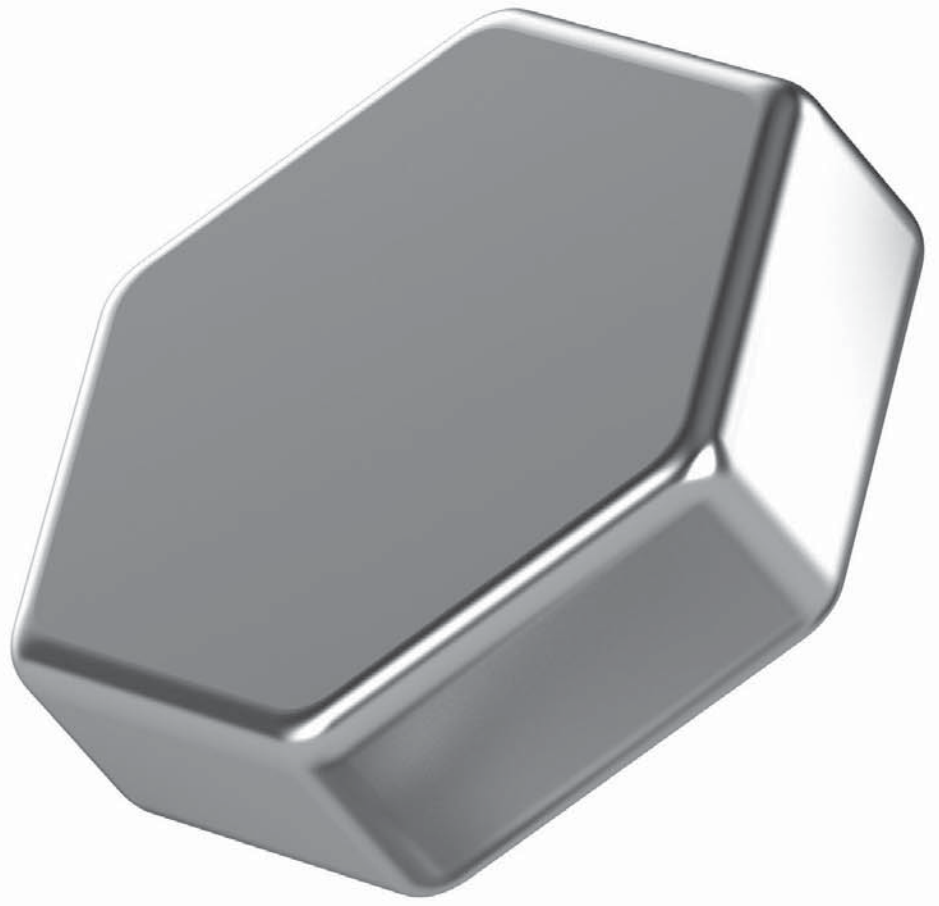
ROSCADO
THREADING • FILETAGE

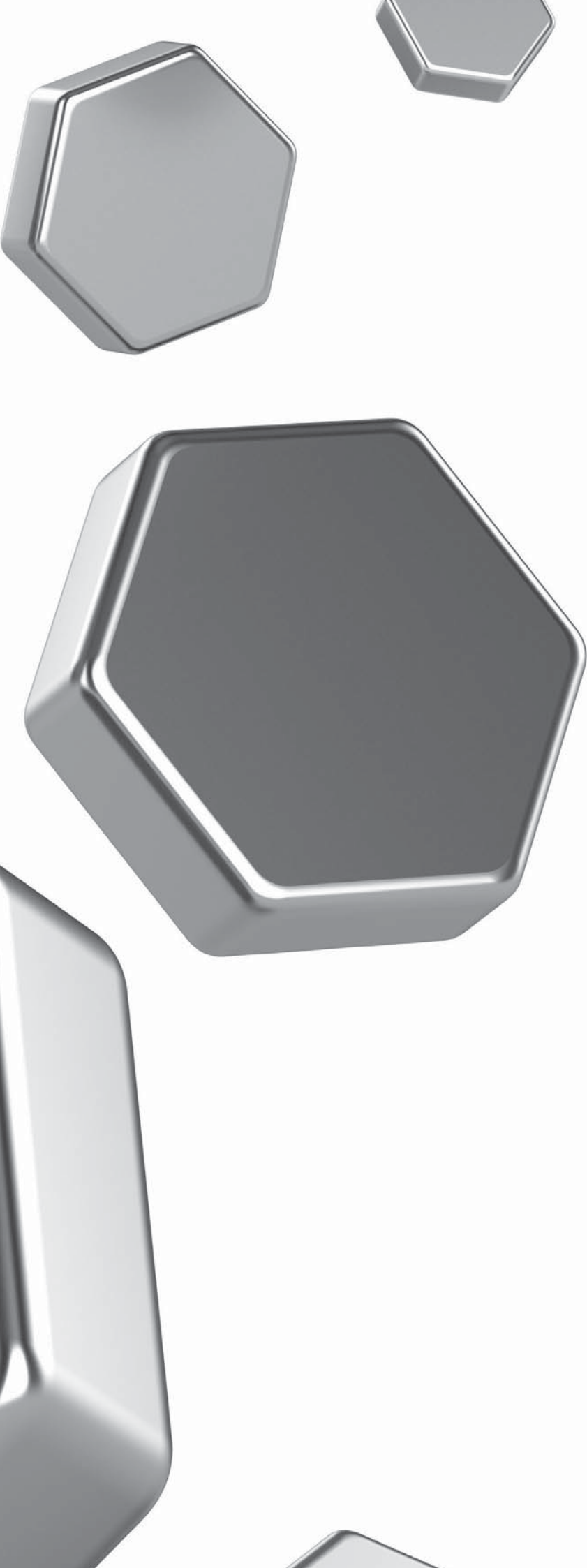
ACCESORIOS

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS





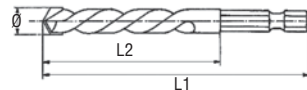
HEXAGONAL

HEXAGONAL



JX PORCELANATO

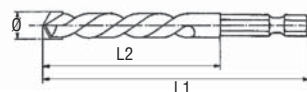
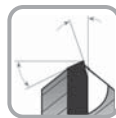
JX PORCELAIN • JX GRÈS CÉRAMIQUE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4	95	50	1	1102010495	8,30
5	95	50	1	1102010595	9,43
6	100	55	1	1102016100	10,57

MULTIUSOS

MULTIPURPOSE • MULTI USAGE

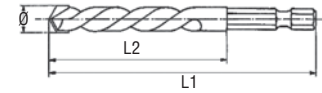


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4	85	35	1	1HX0040	6,33
5	90	40	1	1HX0050	6,68
6	100	50	1	1HX0060	7,23

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8	120	65	1	1HX0080	8,28
10	120	65	1	1HX0100	11,82
12	140	85	1	1HX0120	15,86

BROCA 3 PUNTAS PARA MADERA HSS

HSS 3 POINT WOOD DRILL BIT
 FORET A BOIS 3 POINTES HSS

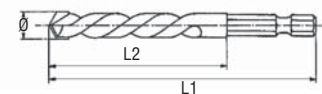


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3	82	33	1	120106003	4,07
4	96	43	1	120106004	4,20
5	106	52	1	120106005	4,26

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6	113	57	1	120106006	4,26
8	117	75	1	120106008	4,47
10	133	87	1	120106010	4,91

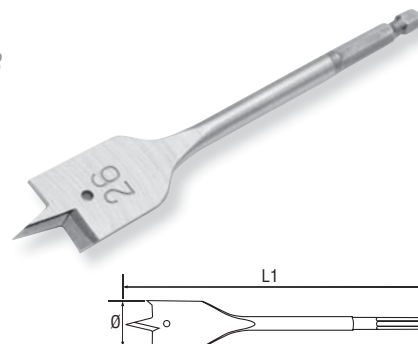
BROCA 3 PUNTAS PARA MADERA HSS-G SERIE CORTA

HSS-G 3 POINT WOOD DRILL BIT SHORT SERIES
 FORET A BOIS 3 POINTE HSS-G SERIE COURTE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3	39	22	1	3R67630	6,83
4	43	26	1	3R67640	6,83
5	48	31	1	3R67650	6,83

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6	49	33	1	3R67660	7,66
8	50	37	1	3R67680	8,58
10	53	40	1	3R67698	10,36

BROCA PALA TIPO B *FLAT DRILL BIT TYPE B • MÉCHE PLATE TIPE B*


Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
6,00	157	6,5	1	103006	1,88
8,00	157	6,5	1	103008	1,88
10,00	157	6,5	1	103010	1,99
12,00	157	6,5	1	103012	2,39
14,00	157	6,5	1	103014	2,65
15,00	157	6,5	1	103015	2,65
16,00	157	6,5	1	103016	2,69
17,00	157	6,5	1	103017	2,81
18,00	157	6,5	1	103018	2,85
19,00	157	6,5	1	103019	2,93
20,00	157	6,5	1	103020	3,10
22,00	157	6,5	1	103022	3,62

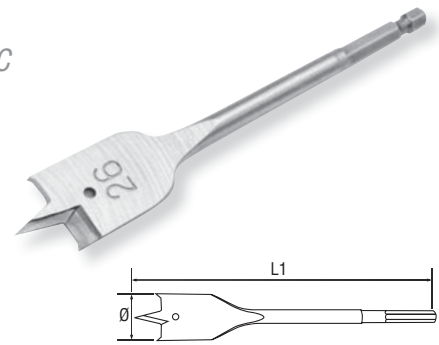
Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
24,00	157	6,5	1	103024	3,97
25,00	157	6,5	1	103025	4,13
26,00	157	6,5	1	103026	4,39
28,00	157	6,5	1	103028	4,74
30,00	157	6,5	1	103030	4,94
32,00	157	6,5	1	103032	5,07
33,00	157	6,5	1	103033	5,51
34,00	157	6,5	1	103034	5,71
35,00	157	6,5	1	103035	6,46
36,00	157	6,5	1	103036	6,54
38,00	157	6,5	1	103038	6,89
40,00	157	6,5	1	103040	7,23

ESTUCHE BROCAS PALA TIPO B
FLAT DRILL BIT SET TYPE B • COFFRET MÉCHE PLATE TIPE B

Ref.	Medidas / Sizes	Tipo / Type	€/Unid.
PB13	6-8-10-12-13-14-16-18-19-20-22-24-25	B	36,44



BROCA PALA TIPO C *FLAT DRILL BIT TYPE C • MÉCHE PLATE TYPE C*



Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
6,00	152	6,5	1	103C06	2,15
8,00	152	6,5	1	103C08	2,15
9,00	152	6,5	1	103C09*	2,23
10,00	152	6,5	1	103C10	2,39
11,00	152	6,5	1	103C11	2,58
12,00	152	6,5	1	103C12	2,72
13,00	152	6,5	1	103C13	2,77
14,00	152	6,5	1	103C14	2,91
15,00	152	6,5	1	103C15	3,12
16,00	152	6,5	1	103C16	3,17
18,00	152	6,5	1	103C18	3,25
19,00	152	6,5	1	103C19	3,35
20,00	152	6,5	1	103C20	3,47
22,00	152	6,5	1	103C22	3,71

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
23,00	152	6,5	1	103C23	4,01
24,00	152	6,5	1	103C24	4,18
25,00	152	6,5	1	103C25	4,61
26,00	152	6,5	1	103C26	4,77
28,00	152	6,5	1	103C28	5,27
30,00	152	6,5	1	103C30	5,57
32,00	152	6,5	1	103C32	5,82
33,00	152	6,5	1	103C33	6,05
34,00	152	6,5	1	103C34	6,27
35,00	152	6,5	1	103C35	6,58
36,00	152	6,5	1	103C36	6,94
38,00	152	6,5	1	103C38	7,31
40,00	152	6,5	1	103C40	7,59

*Hasta fin de existencias / *Until end of stock / *Jusqu'à épuisement des stocks

ESTUCHE BROCAS PALA TIPO C
FLAT DRILL BIT SET TYPE C • COFFRET MÉCHE PLATE TYPE C

Ref.	Medidas / Sizes	Tipo / Type	€/Unid.
PC13	6-8-10-12-13-14-16-18-19-20-22-24-25	C	40,83



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

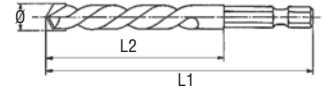
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

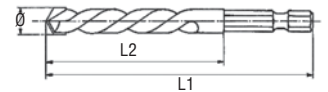
BROCA METAL HSS-G
 HSS-G METAL DRILL BIT • FORETS METAL HSS-G



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3	62	35	1	130132003	4,80
4	75	50	1	130132004	5,28
5	85	60	1	130132005	5,49

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6	94	68	1	130132006	5,92
8	117	90	1	130132008	6,45

BROCA METAL HSS-G SERIE CORTA
 HSS-G METAL DRILL BIT SHORT SERIES
 FORETS METAL HSS-G SÉRIE COURTE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,0	32	7	1	3R67110	7,21
1,5	32	10	1	3R67115	7,21
2,0	34	12	1	3R67120	7,21
2,5	36	14	1	3R67125	7,21
3,0	38	16	1	3R67130	7,21
3,3	40	18	1	3R67133	7,21
3,5	40	18	1	3R67135	7,21
4,0	44	20	1	3R67140	7,21
4,2	45	20	1	3R67142	7,21
4,5	46	24	1	3R67145	7,21
5,0	50	26	1	3R67150	7,21
5,5	50	26	1	3R67155	7,88

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,0	50	26	1	3R67160	7,88
6,5	50	30	1	3R67165	7,88
6,8	50	30	1	3R67168	7,88
7,0	50	30	1	3R67170	7,88
7,5	51	32	1	3R67175	9,19
8,0	51	32	1	3R67180	9,19
8,5	53	33	1	3R67185	9,19
9,0	53	33	1	3R67190	11,03
9,5	54	38	1	3R67195	11,03
10,0	54	38	1	3R67198	11,03
10,2	54	38	1	3R67199	11,03

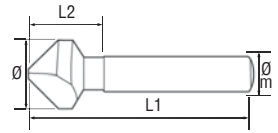
ESTUCHE DE BROCAS
 DRILL BITS SET
 COFFRET FORETS



Medidas / Sizes		
De 1,0 a 10,0 x 0,5 mm		
Uds. / Pcs.	Cod.	€/Unid.
19	3R67100	110,88

CONSTRUCCIÓN
 CONSTRUCTION • CONSTRUCTION
 MADERA
 WOOD • BOIS
 METAL
 METAL • METAL
 FRESCADO
 MILLING • FRAISAGE
 ROSCADO
 THREADING • FILETAGE
 ACCESORIOS
 ACCESSORIES • ACCESSOIRES
 HEXAGONAL
 HEXAGONAL • HEXAGONAL
 METROLOGÍA
 METROLOGY • MÉTROLOGIE
 DISPLAYS
 DISPLAYS • DISPLAYS

AVELLANADORES 90°
COUNTERSINK HSS 90° • CHANFRENEUR HSS 90°



HSS-G



90°

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,3	31	2,0 a 5,7	1	3R67306	18,58
8,3	31	2,5 a 7,6	1	3R67308	18,58
10,4	34	3,0 a 9,7	1	3R67310	20,01

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,4	35	3,2 a 12,0	1	3R67312	21,06
16,5	40	3,6 a 16,0	1	3R67316	23,64
20,5	41	4,0 a 20,0	1	3R67320	26,78

CJTO. AVELLANADORES
C/ADAPTADOR Y MANGO
COUNTERSINK SET
COFFRET CHANFREINEURS



Medidas / Sizes

6,3, 8,3, 10,4, 12,4,
16,5, 20,5 mm

Uds. / Pcs.	Cod.	€/Unid.
8	3R67423	87,54

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M MACHO CON ANCLAJE DE 1/4"
1/4" SHANK TAPS
TARAUDS MÉCHE 1/4"



HSS-G

DIN 13



Ø (mm)	L1	L2	Uds. / Pcs.	Cod.	€/Unid.
M 3,00 x 0,50	33,0	11	1	3R67026	7,07
M 3,50 x 0,60	33,5	10	1	3R67028	10,81
M 4,00 x 0,70	35,0	12	1	3R67030	7,07
M 4,50 x 0,75	35,0	12	1	3R67032	10,81
M 5,00 x 0,80	36,0	15	1	3R67034	9,15
M 5,50 x 0,90	35,0	15	1	3R67036	12,17
M 6,00 x 1,00	39,0	18	1	3R67038	9,15
M 7,00 x 1,00	37,5	16	1	3R67040	12,17
M 8,00 x 1,25	40,0	19	1	3R67042	13,53
M 9,00 x 1,25	40,5	18	1	3R67044	20,29
M 10,00 x 1,50	41,0	21	1	3R67046	15,70

ESTUCHE MACHOS MANGO HEXAGONAL HSS-G
HSS-G HEXAGON SHANK TAPS SET
COFFRET DE TARAUDS HEXAGONALES HSS-G



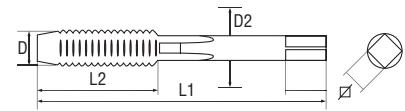
Medidas / Sizes

M 3, 4, 5, 6, 8, 10 mm

Uds. / Pcs.	Cod.	€/Unid.
7	3R67010	63,09

Métrica Dimensions	M 3	M 4	M 5	M 6	M 8	M 10
Ø Broca previa Core hole dia	2,5 mm	3,3 mm	4,2 mm	5,0 mm	6,8 mm	8,5 mm
Nº de revoluciones RPM	Regulación más baja (0 – 450 revoluciones/min.) Lowest setting (0 - 450 RPM)					
Par de giro Torque	Regulación máxima Maximum setting					

M MACHOS COMBINADOS HSS-G
HSS-G COMBINED TAPS
TARAUDS COMBINÉS HSS-G



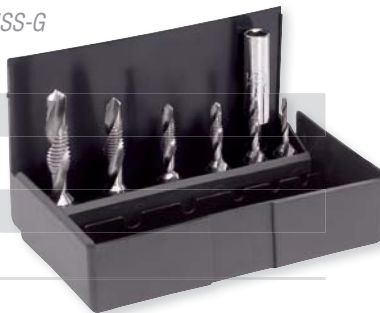
Macho / Tap Ø (mm)	Broca / Drill Bit Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs,	Cod,	€/Unid.
M 3,00 x 0,50	2,5	36	18	1	3R67226	17,49
M 4,00 x 0,70	3,3	39	23	1	3R67230	17,49
M 5,00 x 0,80	4,2	41	25	1	3R67234	17,49
M 6,00 x 1,00	5,0	44	27	1	3R67238	17,49
M 8,00 x 1,25	6,8	50	35	1	3R67242	25,00
M 10,00 x 1,50	8,5	59	42	1	3R67246	29,99

ESTUCHE MACHOS COMBINADOS HSS-G
HSS-G COMBINED TAPS SET
COFFRET TARAUDS COMBINÉS HSS-G

Medidas / Sizes

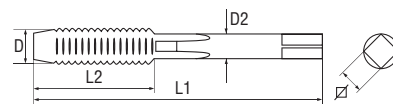
M 3, 4, 5, 6, 8, 10 (mm).

Uds. / Pcs.	Cod.	€/Unid.
7	3R67200	130,10



M

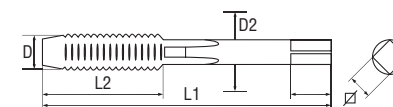
MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



D Ø x P (mm)	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
M 3 x 0,50	2,5	36	3R67210	35,79
M 4 x 0,70	3,3	39	3R67211	35,79
M 5 x 0,80	4,2	41	3R67212	35,79
M 6 x 1,00	5,0	44	3R67213	35,79
M 8 x 1,25	6,8	50	3R67214	48,04
M 10 x 1,50	8,5	59	3R67215	66,26

UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1

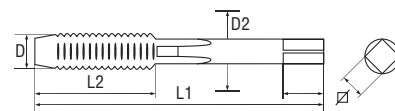


D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
Nr. 4 x 40	2.30	36	3R67280	24,85
Nr. 5 x 40	2.60	36	3R67281	24,85
Nr. 6 x 32	2.85	39	3R67282	24,85
Nr. 8 x 32	3.50	39	3R67283	24,85
Nr. 10 x 24	3.90	41	3R67284	24,85
Nr. 12 x 24	4.50	41	3R67285	24,85
1/4 x 20	5.20	44	3R67286	24,85
5/16 x 18	6.60	50	3R67287	34,78
3/8 x 16	8.00	59	3R67288	41,74

UNF ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



HSS-G



D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
Nr. 4 x 48	2.4	36	3R67290	24,85
Nr. 5 x 44	2.7	36	3R67291	24,85
Nr. 6 x 40	3.0	39	3R67292	24,85
Nr. 8 x 36	3.5	39	3R67293	24,85
Nr. 10 x 32	4.1	41	3R67294	24,85
Nr. 12 x 28	4.7	41	3R67295	24,85
1/4 x 28	5.5	44	3R67296	24,85
5/16 x 24	6.9	50	3R67297	34,78
3/8 x 24	8.5	59	3R67298	41,74

M REPARADOR DE ROSCA CON ANCLAJE DE 1/4"
1/4" SHANK REPAIR KIT
KIT DE RÉPARATION DE FILETAGE AVEC QUEU 1/4"



				x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
M 4,00 x 0,70	4,2 mm	Nº 6	Nº 6	20	1	4C04307	52,32
M 5,00 x 0,80	5,2 mm	Nº 8	Nº 8	20	1	4C04309	54,41
M 6,00 x 1,00	6,3 mm	Nº 9	Nº 9	20	1	4C04310	58,61
M 8,00 x 1,25	8,3 mm	Nº 11	Nº 11	20	1	4C04312	74,55

Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

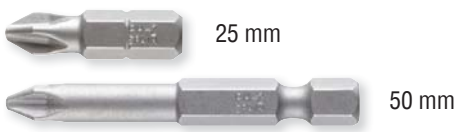
PH EXTRA



Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PH - 1 x 25	EXTRA	100	NMOPH1	88,93
PH - 2 x 25	EXTRA	100	NMOPH2	88,93
PH - 3 x 25	EXTRA	100	NMOPH3	88,93
PH - 4 x 32	EXTRA	50	NMOPH4	176,42

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PH - 1 x 50	EXTRA	50	NNOPH1	94,49
PH - 2 x 50	EXTRA	50	NNOPH2	94,49
PH - 3 x 50	EXTRA	50	NNOPH3	94,49

PH EXTRA



NEW

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PH - 0 x 25	EXTRA	10	NMCPH0	15,31
PH - 1 x 25	EXTRA	10	NMCPH1	11,19
PH - 2 x 25	EXTRA	10	NMCPH2	11,19
PH - 3 x 25	EXTRA	10	NMCPH3	11,19
PH - 4 x 32	EXTRA	10	NMCPH4	37,77

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PH - 1 x 50	EXTRA	5	NNCPH1	11,69
PH - 2 x 50	EXTRA	5	NNCPH2	11,69
PH - 3 x 50	EXTRA	5	NNCPH3	11,69

PH TIN



Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PH - 1 x 25	TIN - CVD	100	NM1PH1	276,05
PH - 2 x 25	TIN - CVD	100	NM1PH2	276,05
PH - 3 x 25	TIN - CVD	100	NM1PH3	276,05

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PH - 1 x 50	TIN - CVD	50	NN1PH1	226,03
PH - 2 x 50	TIN - CVD	50	NN1PH2	226,03
PH - 3 x 50	TIN - CVD	50	NN1PH3	226,03

PH TIN



Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PH - 1 x 25	TIN - CVD	10	NMTPH1	29,90
PH - 2 x 25	TIN - CVD	10	NMTPH2	29,90
PH - 3 x 25	TIN - CVD	10	NMTPH3	29,90

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PH - 1 x 50	TIN - CVD	5	NNTPH1	24,41
PH - 2 x 50	TIN - CVD	5	NNTPH2	24,41
PH - 3 x 50	TIN - CVD	5	NNTPH3	24,41

HEX EXTRA



Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
HEX 2,0 x 25	EXTRA	50	NSOH20	73,69
HEX 2,5 x 25	EXTRA	50	NSOH25	73,69
HEX 3,0 x 25	EXTRA	100	NSOH30	147,36
HEX 4,0 x 25	EXTRA	100	NSOH40	147,36
HEX 5,0 x 25	EXTRA	100	NSOH50	147,36
HEX 6,0 x 25	EXTRA	100	NSOH60	147,36

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
HEX 2,0 x 50	EXTRA	25	NTOH20	75,25
HEX 2,5 x 50	EXTRA	25	NTOH25	75,25
HEX 3,0 x 50	EXTRA	50	NTOH30	150,48
HEX 4,0 x 50	EXTRA	50	NTOH40	150,48
HEX 5,0 x 50	EXTRA	50	NTOH50	150,48
HEX 6,0 x 50	EXTRA	50	NTOH60	150,48

HEX EXTRA

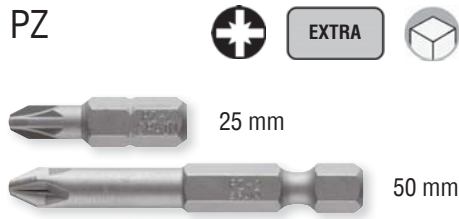


Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
HEX 2,0 x 25	EXTRA	10	NSCH20	17,23
HEX 2,5 x 25	EXTRA	10	NSCH25	17,23
HEX 3,0 x 25	EXTRA	10	NSCH30	17,23
HEX 4,0 x 25	EXTRA	10	NSCH40	17,23
HEX 5,0 x 25	EXTRA	10	NSCH50	17,23
HEX 6,0 x 25	EXTRA	10	NSCH60	17,23

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
HEX 2,0 x 50	EXTRA	5	NTCH20	17,66
HEX 2,5 x 50	EXTRA	5	NTCH25	17,66
HEX 3,0 x 50	EXTRA	5	NTCH30	17,66
HEX 4,0 x 50	EXTRA	5	NTCH40	17,66
HEX 5,0 x 50	EXTRA	5	NTCH50	17,66
HEX 6,0 x 50	EXTRA	5	NTCH60	17,66

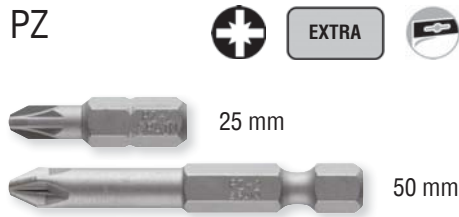
PUNTAS DE ATORNILLAR 1/4"

1/4" SCREWDRIVER BITS • ÉMBOUS 1/4"



Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 25	EXTRA	100	NPOPZ1	88,93
PZ - 2 x 25	EXTRA	100	NPOPZ2	88,93
PZ - 3 x 25	EXTRA	100	NPOPZ3	88,93
PZ - 4 x 32	EXTRA	50	NPOPZ4	176,41

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 50	EXTRA	50	NQOPZ1	94,49
PZ - 2 x 50	EXTRA	50	NQOPZ2	94,49
PZ - 3 x 50	EXTRA	50	NQOPZ3	94,49



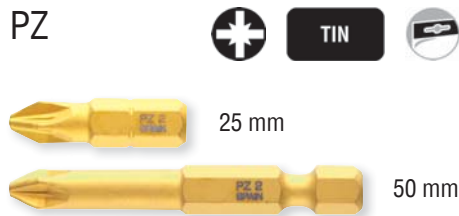
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 25	EXTRA	10	NPCPZ1	11,19
PZ - 2 x 25	EXTRA	10	NPCPZ2	11,19
PZ - 3 x 25	EXTRA	10	NPCPZ3	11,19
PZ - 4 x 32	EXTRA	10	NPCPZ4	37,77

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 50	EXTRA	5	NQCPZ1	11,69
PZ - 2 x 50	EXTRA	5	NQCPZ2	11,69
PZ - 3 x 50	EXTRA	5	NQCPZ3	11,69



Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 25	TIN - CVD	100	NP1PZ1	276,05
PZ - 2 x 25	TIN - CVD	100	NP1PZ2	276,05
PZ - 3 x 25	TIN - CVD	100	NP1PZ3	276,05

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 50	TIN - CVD	50	NQT1Z1	226,03
PZ - 2 x 50	TIN - CVD	50	NQT1Z2	226,03
PZ - 3 x 50	TIN - CVD	50	NQT1Z3	226,03



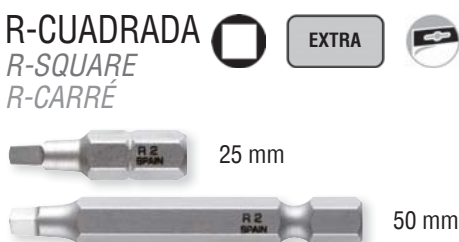
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 25	TIN - CVD	10	NPTPZ1	29,90
PZ - 2 x 25	TIN - CVD	10	NPTPZ2	29,90
PZ - 3 x 25	TIN - CVD	10	NPTPZ3	29,90

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 50	TIN - CVD	5	NQTPZ1	24,86
PZ - 2 x 50	TIN - CVD	5	NQTPZ2	24,86
PZ - 3 x 50	TIN - CVD	5	NQTPZ3	24,86



Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
R - 1 x 25	EXTRA	50	NU00R1	79,91
R - 2 x 25	EXTRA	50	NU00R2	79,91
R - 3 x 25	EXTRA	50	NU00R3	79,91

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
R - 1 x 50	EXTRA	25	NV00R1	105,33
R - 2 x 50	EXTRA	25	NV00R2	105,33
R - 3 x 50	EXTRA	25	NV00R3	105,33



Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
R - 1 x 25	EXTRA	10	NUOCR1	10,58
R - 2 x 25	EXTRA	10	NUOCR2	10,58
R - 3 x 25	EXTRA	10	NUOCR3	10,58

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
R - 1 x 50	EXTRA	5	NVOCR1	23,66
R - 2 x 50	EXTRA	5	NVOCR2	23,66
R - 3 x 50	EXTRA	5	NVOCR3	23,66

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

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METAL • MÉTAL

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HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

TORX



Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T - 6 x 25	EXTRA	50	NJOT06	109,30
T - 7 x 25	EXTRA	50	NJOT07	109,30
T - 8 x 25	EXTRA	50	NJOT08	109,30
T - 9 x 25	EXTRA	50	NJOT09	109,30
T - 10 x 25	EXTRA	100	NJOT10	183,42
T - 15 x 25	EXTRA	100	NJOT15	183,42
T - 20 x 25	EXTRA	100	NJOT20	183,42
T - 25 x 25	EXTRA	100	NJOT25	183,42
T - 27 x 25	EXTRA	100	NJOT27	183,42
T - 30 x 25	EXTRA	100	NJOT30	183,42
T - 40 x 25	EXTRA	100	NJOT40	183,42
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T - 10 x 50	EXTRA	50	NKOT10	280,80
T - 15 x 50	EXTRA	50	NKOT15	280,80
T - 20 x 50	EXTRA	50	NKOT20	280,80
T - 25 x 50	EXTRA	50	NKOT25	280,80
T - 27 x 50	EXTRA	50	NKOT27	280,80
T - 30 x 50	EXTRA	50	NKOT30	280,80
T - 40 x 50	EXTRA	50	NKOT40	280,80

TORX



Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T - 6 x 25	EXTRA	10	NJCT06	24,59
T - 7 x 25	EXTRA	10	NJCT07	24,59
T - 8 x 25	EXTRA	10	NJCT08	24,59
T - 9 x 25	EXTRA	10	NJCT09	24,59
T - 10 x 25	EXTRA	10	NJCT10	20,49
T - 15 x 25	EXTRA	10	NJCT15	20,49
T - 20 x 25	EXTRA	10	NJCT20	20,49
T - 25 x 25	EXTRA	10	NJCT25	20,49
T - 27 x 25	EXTRA	10	NJCT27	20,49
T - 30 x 25	EXTRA	10	NJCT30	20,49
T - 40 x 25	EXTRA	10	NJCT40	20,49
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T - 10 x 50	EXTRA	5	NKCT10	31,13
T - 15 x 50	EXTRA	5	NKCT15	31,13
T - 20 x 50	EXTRA	5	NKCT20	31,13
T - 25 x 50	EXTRA	5	NKCT25	31,13
T - 27 x 50	EXTRA	5	NKCT27	31,13
T - 30 x 50	EXTRA	5	NKCT30	31,13
T - 40 x 50	EXTRA	5	NKCT40	31,13

TORX



Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T - 10 x 25	TIN - CVD	100	NJ1T10	366,26
T - 15 x 25	TIN - CVD	100	NJ1T15	366,26
T - 20 x 25	TIN - CVD	100	NJ1T20	366,26
T - 25 x 25	TIN - CVD	100	NJ1T25	366,26
T - 27 x 25	TIN - CVD	100	NJ1T27	366,26
T - 30 x 25	TIN - CVD	100	NJ1T30	366,26
T - 40 x 25	TIN - CVD	100	NJ1T40	366,26

TORX



Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T - 10 x 25	TIN - CVD	10	NJTT10	39,44
T - 15 x 25	TIN - CVD	10	NJTT15	39,44
T - 20 x 25	TIN - CVD	10	NJTT20	39,44
T - 25 x 25	TIN - CVD	10	NJTT25	39,44
T - 27 x 25	TIN - CVD	10	NJTT27	39,44
T - 30 x 25	TIN - CVD	10	NJTT30	39,44
T - 40 x 25	TIN - CVD	10	NJTT40	39,44

PUNTAS DE ATORNILLAR 1/4"

1/4" SCREWDRIVER BITS • ÉMBOUS 1/4"



TORX INVIOLEBLE

TORX TAMPER
TORX PERCÉ BAGUÉ



EXTRA



25 mm

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T x - 10 x 25	EXTRA	50	NLOT10	183,22
T x - 15 x 25	EXTRA	50	NLOT15	183,22
T x - 20 x 25	EXTRA	50	NLOT20	183,22
T x - 25 x 25	EXTRA	50	NLOT25	183,22
T x - 27 x 25	EXTRA	50	NLOT27	183,22
T x - 30 x 25	EXTRA	50	NLOT30	183,22
T x - 40 x 25	EXTRA	50	NLOT40	183,22

TORX INVIOLEBLE

TORX TAMPER
TORX PERCÉ BAGUÉ



EXTRA



25 mm

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T x - 10 x 25	EXTRA	10	NLCT10	37,15
T x - 15 x 25	EXTRA	10	NLCT15	37,15
T x - 20 x 25	EXTRA	10	NLCT20	37,15
T x - 25 x 25	EXTRA	10	NLCT25	37,15
T x - 27 x 25	EXTRA	10	NLCT27	37,15
T x - 30 x 25	EXTRA	10	NLCT30	37,15
T x - 40 x 25	EXTRA	10	NLCT40	37,15

PLANA

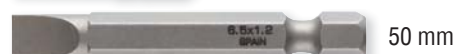
SLOTTED
PLAT



EXTRA



25 mm



50 mm

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PLANA 3,0 x 0,5 x 25	EXTRA	50	NH3005	73,69
PLANA 4,0 x 0,5 x 25	EXTRA	100	NH4005	147,36
PLANA 4,5 x 0,6 x 25	EXTRA	100	NH4506	147,36
PLANA 5,5 x 0,8 x 25	EXTRA	100	NH5508	147,36
PLANA 5,5 x 1,0 x 25	EXTRA	100	NH5510	147,36
PLANA 6,5 x 1,2 x 25	EXTRA	100	NH6512	147,36
PLANA 8,0 x 1,2 x 25	EXTRA	50	NH8012	286,42
PLANA 8,0 x 1,6 x 25	EXTRA	50	NH8016	286,42

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PLANA 3,0 x 0,5 x 50	EXTRA	25	NI3005	86,15
PLANA 4,0 x 0,5 x 50	EXTRA	50	NI4005	172,26
PLANA 4,5 x 0,6 x 50	EXTRA	50	NI4506	172,26
PLANA 5,5 x 0,8 x 50	EXTRA	50	NI5508	172,26
PLANA 5,5 x 1,0 x 50	EXTRA	50	NI5510	172,26
PLANA 6,5 x 1,2 x 50	EXTRA	50	NI6512	172,26
PLANA 8,0 x 1,2 x 50	EXTRA	25	NI8012	148,92
PLANA 8,0 x 1,6 x 50	EXTRA	25	NI8016	148,92

PLANA

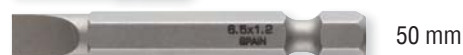
SLOTTED
PLAT



EXTRA



25 mm



50 mm

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PLANA 3,0 x 0,5 x 25	EXTRA	10	NHC3005	17,23
PLANA 4,0 x 0,5 x 25	EXTRA	10	NHC4005	17,23
PLANA 4,5 x 0,6 x 25	EXTRA	10	NHC4506	17,23
PLANA 5,5 x 0,8 x 25	EXTRA	10	NHC5508	17,23
PLANA 5,5 x 1,0 x 25	EXTRA	10	NHC5510	17,23
PLANA 6,5 x 1,2 x 25	EXTRA	10	NHC6512	17,23
PLANA 8,0 x 1,2 x 25	EXTRA	10	NHC8012	59,77
PLANA 8,0 x 1,6 x 25	EXTRA	10	NHC8016	59,77

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PLANA 3,0 x 0,5 x 50	EXTRA	5	NIC3005	19,73
PLANA 4,0 x 0,5 x 50	EXTRA	5	NIC4005	19,73
PLANA 4,5 x 0,6 x 50	EXTRA	5	NIC4506	19,73
PLANA 5,5 x 0,8 x 50	EXTRA	5	NIC5508	19,73
PLANA 5,5 x 1,0 x 50	EXTRA	5	NIC5510	19,73
PLANA 6,5 x 1,2 x 50	EXTRA	5	NIC6512	19,73
PLANA 8,0 x 1,2 x 50	EXTRA	5	NIC8012	32,39
PLANA 8,0 x 1,6 x 50	EXTRA	5	NIC8016	32,39

Otras puntas, CONSULTAR. / For measurements not listed, request. / Pour des mesures non cotées consulter.

EXPENDEDOR DE PUNTAS
SCREWDRIVER BITS BOX • CAISSE ÉMBOUTS



Descripción / Description	Uds. / Pcs.	Cod.	€/Unid.
Composición Puntas 25 mm / Bits 25 mm / Embouts 25 mm	325	NX0017	418,01
Composición Puntas 50 mm / Bits 50 mm / Embouts 50 mm	150	NX0018	440,93

Contenido / Contains / Contenu

EXPENDEDOR DE PUNTAS 25 mm / SCREWDRIVER BITS BOX 25 mm / CAISSE ÉMBOUTS 25 mm

Puntas / Bits	Uds. / Pcs.	Puntas / Bits	Uds. / Pcs.
PLANA / SLOTTED / PLAT 4,5 x 0,6 x 25	20	HEX 3,0 x 25	10
PLANA / SLOTTED / PLAT 5,5 x 0,8 x 25	50	HEX 4,0 x 25	10
PLANA / SLOTTED / PLAT 6,5 x 1,2 x 25	20	HEX 5,0 x 25	10
TORX-10 x 25	10	PZ-1 x 25	20
TORX-15 x 25	10	PZ-2 x 25	50
TORX-20 x 25	10	PZ-3 x 25	10
TORX-25 x 25	10	ADAPTADOR MAGNETICO / MAGNETIC HOLDER ADAPTATEUR MAGNETIQUE 10 x 60	5
PH-1 x 25	20		
PH-2 x 25	50		
PH-3 x 25	10		

EXPENDEDOR DE PUNTAS 50 mm / SCREWDRIVER BITS BOX 50 mm / CAISSE ÉMBOUTS 50 mm

Puntas / Bits	Uds. / Pcs.	Puntas / Bits	Uds. / Pcs.
PLANA / SLOTTED / PLAT 4,5 x 0,6 x 50	10	HEX 3,0 x 50	5
PLANA / SLOTTED / PLAT 5,5 x 0,8 x 50	20	HEX 4,0 x 50	5
PLANA / SLOTTED / PLAT 6,5 x 1,2 x 50	10	HEX 5,0 x 50	5
TORX-10 x 50	5	PZ-1 x 50	10
TORX-15 x 50	5	PZ-2 x 50	20
TORX-20 x 50	5	PZ-3 x 50	10
TORX-25 x 50	5	ADAPTADOR MAGNETICO / MAGNETIC HOLDER ADAPTATEUR MAGNETIQUE 10 x 60	5
PH-1 x 50	5		
PH-2 x 50	20		
PH-3 x 50	5		

PUNTAS DE ATORNILLAR 1/4"

1/4" SCREWDRIVER BITS • ÉMBOUTS 1/4"



JUEGOS DE PUNTAS

SCREWDRIVER BIT SETS • COFFRET ÉMBOUT

Basic



Descripción / Description	Uds. / Pcs.	Cod.	€/Unid.
Juego Puntas y Adaptador EXTRA Screwdriver Bit Sets & Adapter EXTRA / Coffret Émbout et Adaptateur EXTRA	32	NX0019	30,95

Contenido / Contains / Contenu

Puntas / Bits
PH-1, PH-2, PH-2, PH-3
PZ-1, PZ-2, PZ-2, PZ-3
PLANA / SLOTTED / PLAT 3-4-5-6
HEX-3, HEX-4, HEX-5, HEX-6

Puntas / Bits
TORX-10, TORX-15, TORX-20, TORX-25, TORX-27, TORX-30, TORX-40
TX.INV.-10, TX.INV.-15, TX.INV.-20, TX.INV.-25, TX.INV.-27, TX.INV.-30, TX.INV.-40
ADAPTADOR MAGNETICO MAGNETIC HOLDER / ADAPTATEUR MAGNETIQUE
ADAPTADOR PORTA VASOS NUT DRIVER SOCKETS / ADAPTATEUR Á BILLE

JUEGOS DE PUNTAS

SCREWDRIVER BIT SETS • COFFRET ÉMBOUT



EXTRA

Descripción / Description	Uds. / Pcs.	Cod.	€/Unid.
Juego Puntas y Adaptador EXTRA Screwdriver Bit Sets & Adapter EXTRA / Coffret Émbout et Adaptateur EXTRA	32	NX0020	60,54



Contenido / Contains / Contenu

Puntas / Bits
PH-1, PH-2, PH-3 x 2
PZ-1, PZ-2, PZ-3 x 2
HEX-2, HEX-2,5, HEX-3, HEX-4, HEX-5, HEX-6

Puntas / Bits
PLANA ^o / SLOTTED / PLAT 3 - 4 - 4,5 - 5,5 - 6,5 - 8
TORX-10, TORX-15, TORX-20, TORX-25, TORX-27, TORX-30
ADAPTADOR MAGNETICO 10x60 MAGNETIC HOLDER 10x60 / ADAPTATEUR MAGNETIQUE 10x60

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

ESTUCHES PUNTAS CON MANGO SILICONA
BITS SET WITH HANDLE • COFFRET ÉMBOUS AVEC MANCHE



Descripción / Description	Uds. / Pcs.	Cod.	€/Unid.
Juego de Puntas PH - 1 x 25, Mango 1/4", Adaptador Rápido 1/4" <i>PH - 1 x 25 Scerwdriver Set with Quick Holder</i> <i>Coffret Émbouts PH - 1 x 25 Avec Adaptateur Rapide</i>	52	NPH150	125,15
Juego de Puntas PH - 2 x 25, Mango 1/4", Adaptador Rápido 1/4" <i>PH - 2 x 25 Scerwdriver Set with Quick Holder</i> <i>Coffret Émbouts Ph - 2 x 25 Avec Adaptateur Rapide</i>	52	NPH250	125,15
Juego de Puntas PZ - 1 x 5, Mango 1/4", Adaptador Rápido 1/4" <i>PZ - 1 x 5 Scerwdriver Set with Quick Holder</i> <i>Coffret Émbouts PZ - 1 x 5 Avec Adaptateur Rapide</i>	52	NPZ150	125,15
Juego de Puntas PZ - 2 x 25, Mango 1/4", Adaptador Rápido 1/4" <i>PZ - 2 x 25 Scerwdriver Set with Quick Holder</i> <i>Coffret Émbouts PZ - 2 x 25 Avec Adaptateur Rapide</i>	52	NPZ250	125,15

JUEGOS DE BROCAS 1/4"
1/4" DRILL BIT SET • COFFRET FORET 1/4"



Descripción / Description	Uds. / Pcs.	Cod.	€/Unid.
Construcción + Madera Extracorta + Adaptador Magnético <i>Masonry + Wood Extrashort + Magnetic Holder</i> <i>Béton + Bois Extracourte + Adpatateur Magnétique</i>	12	6JG001	88,84
Construcción + Metal Extracorta + Adaptador Magnético <i>Masonry + Metal Extrashort + Magnetic Holder</i> <i>Béton + Metal Extracourte + Adpatateur Magnétique</i>	12	6JG002	88,84
Madera + Madera Extracorta + Adaptador Magnético <i>Wood + Wood Extrashort + Magnetic Holder</i> <i>Bois + Bois Extracourte + Adpatateur Magnétique</i>	12	6JG003	88,84
Madera + Metal Extracorta + Adaptador Magnético <i>Wood + Metal Extrashort + Magnetic Holder</i> <i>Bois + Metal Extracourte + Adpatateur Magnétique</i>	12	6JG004	88,84
Metal + Metal Extracorta + Adaptador Magnético <i>Metal + Metal Extrashort + Magnetic Holder</i> <i>Metal + Metal Extracourte + Adpatateur Magnétique</i>	12	6JG005	88,84
Metal + Madera Extracorta + Adaptador Magnético <i>Metal + Wood Extra Short + Magnetic Holder</i> <i>Metal + Bois Extracourte + Adpatateur Magnétique</i>	12	6JG006	88,84

Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks

Diámetros / Diameters / Diametres	
SERIE NORMAL / NORMAL SERIES / SÉRIE NORMALE	4, 5, 6, 8, 10 mm
SERIE EXTRACORTA / EXTRASHORT SERIES / SÉRIE EXTRACOURTE	3, 4, 5, 6, 8, 10 mm

ADAPTADOR
ADAPTER • ADAPTATEUR



ADAPTADOR MAGNETICO 1/4"
DE 10 x 60 mm
MAGNETIC HOLDER 10 x 60 mm
ADAPTATEUR MAGNETIQUE
10 x 60 mm

Uds. / Pcs.	Cod.	€/Unid.
1	NZAD10	5,93



ADAPTADOR MAGNETICO 1/4"
DE 10 x 100 mm
MAGNETIC HOLDER 10 x 100 mm
ADAPTATEUR MAGNETIQUE
10 x 100 mm

Uds. / Pcs.	Cod.	€/Unid.
1	NZAD100	13,57



ADAPTADOR 1/4" CAMBIO RÁPIDO
QUICK GRIP HOLDER
ADAPTATEUR RAPIDE

Uds. / Pcs.	Cod.	€/Unid.
1	NZAD14	18,76



MANGO SILICONA GRIP
HEXAGONAL 1/4"
SILICONE SHANK HOLDER
MANCHE DE SILICONE

Uds. / Pcs.	Cod.	€/Unid.
1	NZBD14	20,39

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS





METROLOGÍA

METROLOGY
MÉTROLOGIE



RELOJ COMPARADOR ANALÓGICO

DIAL INDICATOR • COMPARETEUR



MEDICIÓN / MEASUREMENT							
Ref.	Modelo / Model	Esfera / Oval (Ø mm)	Capacidad / Range	Resolución Resolution (mm)	Uds. Pcs.	Cod.	€/Unid.
851	ANALÓGICO	55	0 - 10 mm / 0 - 0,5"	0,01	1	XD0511	50,77

RELOJ COMPARADOR DIGITAL

ELECTRONIC DIAL INDICATOR
COMPARETEUR AFFICHAGE DIGITAL



MEDICIÓN / MEASUREMENT							
Ref.	Modelo / Model	Esfera / Oval (Ø mm)	Capacidad / Range	Resolución Resolution (mm)	Uds. Pcs.	Cod.	€/Unid.
852	DIGITAL	55	0 - 10 mm / 0 - 0,5"	0,01	1	XD0512	106,47

BASE MAGNÉTICA

MAGNETIC BASE • SUPPORT MAGNETIQUE

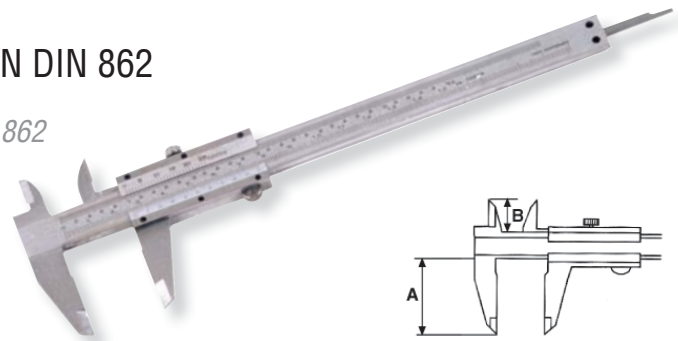


Ref.	Soporte / Base (mm)	Torreta Vertical Height of Column (mm)	Torreta Articulada Articulated Arm (mm)	Cod.	€/Unid.
801	50 x 55 x 66	180 x 12	150 x 10	XD0510	56,35

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

CALIBRE INOX CON TORNILLO DE FIJACIÓN DIN 862

INOX CALIPER WITH LOCKING SCREW DIN 862
PIED À COULISSE INOX AVEC VIS DE BLOCCAGE DIN 862



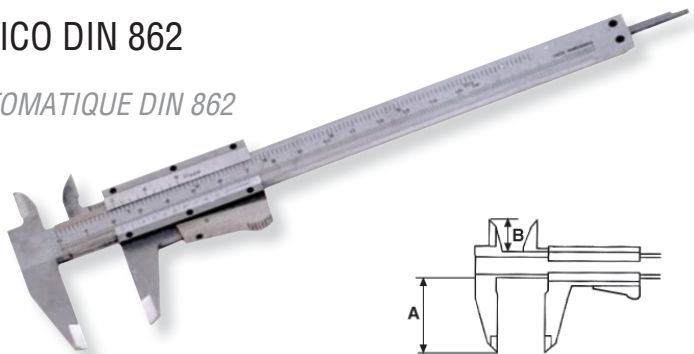
DIN 862

MEDICIÓN / MEASUREMENT

Ref.	A - B (mm)	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.	€/Unid.
103	40 - 20	0 - 150	0,05	MATE	ABS-PLASTIC	X10150	31,48
103-L	46 - 23	0 - 200	0,05	MATE	ABS-PLASTIC	X10150L	48,15
104	40 - 20	0 - 150	0,05	MATE	CUERO	X10415	35,39

CALIBRE INOX CON PULSADOR AUTOMÁTICO DIN 862

INOX CALIPER WITH LOCKING DEVICE DIN 862
PIED À COULISSE INOX AVEC VIS DE BLOCCAGE AUTOMATIQUE DIN 862



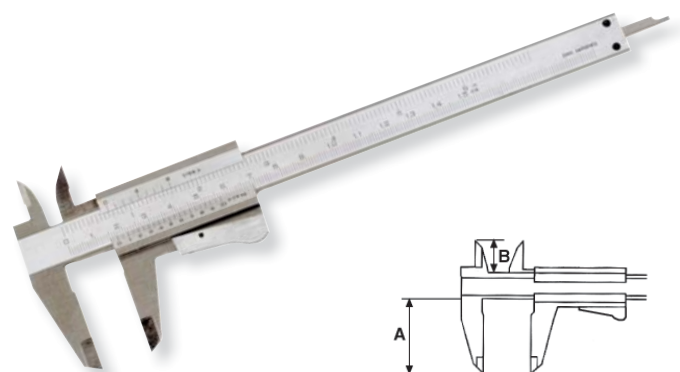
DIN 862

MEDICIÓN / MEASUREMENT

Ref.	A - B (mm)	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.	€/Unid.
105	40 - 20	0 - 150	0,05	MATE	ABS-PLASTIC	X20515	35,17
106	40 - 20	0 - 150	0,05	MATE	CUERO	X20150	35,17

CALIBRE INOX MONOBLOCK DIN 862

INOX MONOBLOCK CALIPER DIN 862
PIED À COULISSE INOX MONOBLOCK DIN 862



DIN 862

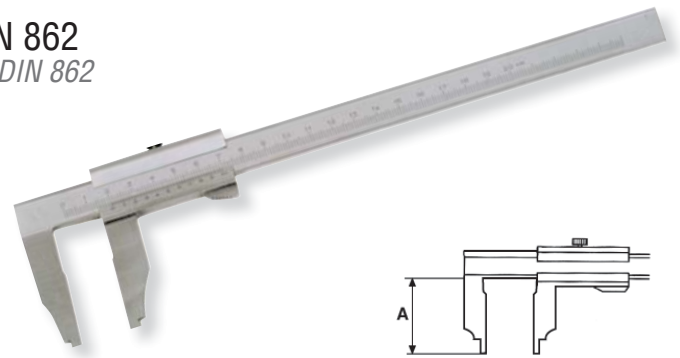
MEDICIÓN / MEASUREMENT

Ref.	A - B (mm)	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.	€/Unid.
107	40 - 20	0 - 150	0,05	MATE	CUERO	X30715	53,44
107-B	40 - 20	0 - 150	0,05	MATE	ABS-PLASTIC	X3071B	53,44

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

CALIBRE TORNERO INOX MONOBLOCK DIN 862

INOX MONOBLOCK CALIPER WITH LOCKING SCREW DIN 862
 PIÈD À COULISSE DE TOURNEUR INOX DIN 862



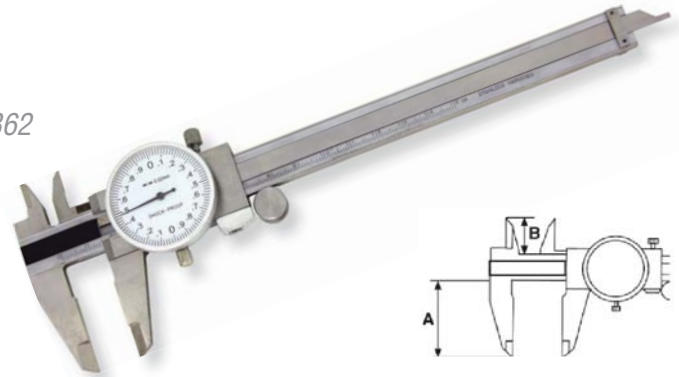
DIN 862

MEDICIÓN / MEASUREMENT

Ref.	A - B (mm)	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.	€/Unid.
110-B	59	0 - 200	0,02	MATE	ABS-PLASTIC	X5102B	115,07

CALIBRE INOX CON RELOJ DIN 862

DIAL INOX CALIPER DIN 862
 PIÈD À COULISSE INOX AVEC COMPARETEUR DIN 862



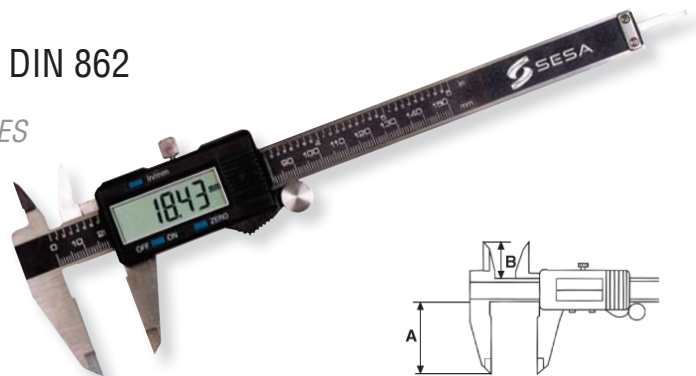
DIN 862

MEDICIÓN / MEASUREMENT

Ref.	A - B (mm)	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.	€/Unid.
111	40 - 20	0 - 150	0,02	MATE	ABS-PLASTIC	X61115	64,46
111-X	58 - 20	0 - 300	0,02	MATE	ABS-PLASTIC	X61115X	170,69

CALIBRE DIGITAL INOX - MM / PULGADAS DIN 862

DIGITAL INOX CALIPER DIN 862 MM / INCHES
 PIÈD À COULISSE INOX DIGITAL DIN 862 MM / POUÇES



DIN 862

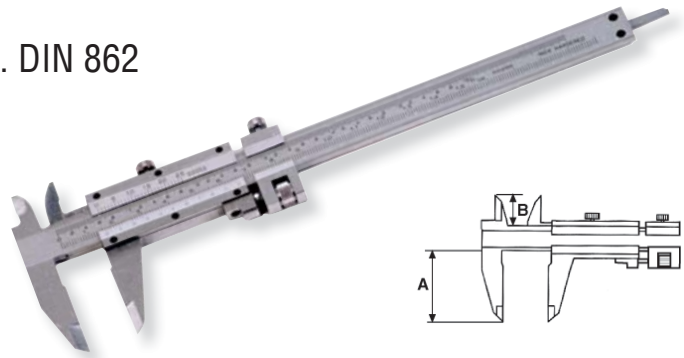
MEDICIÓN / MEASUREMENT

Ref.	A - B (mm)	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.	€/Unid.
112-G	40 - 20	0 - 150	0,01	MATE	ABS-PLASTIC	X71215G	87,12
112-L	46 - 23	0 - 200	0,01	MATE	ABS-PLASTIC	X71215L	91,67
112-X	46 - 23	0 - 300	0,01	MATE	ABS-PLASTIC	X71215X	169,87

Se ofrece servicio de certificado de calibración, para más información consultar precios.
 Calibration certificate service is offered, for more information consult prices.
 Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

CALIBRE INOX CON TORNILLO DE APROX. DIN 862

INOX CALIPER WITH FINE ADJUSTMENT DIN 862
PIED À COULISSE INOX AVEC VIS DE BLOCKAGE



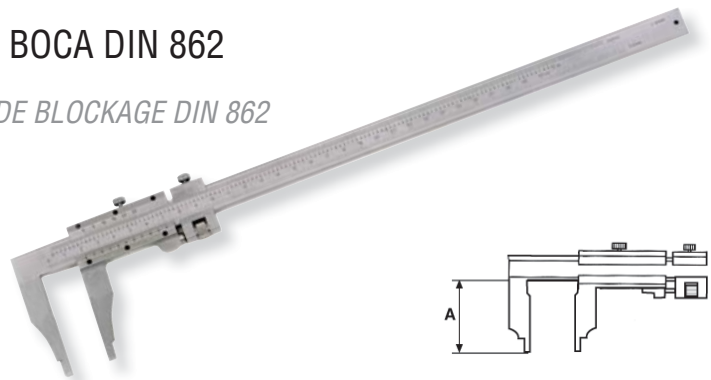
DIN 862

MEDICIÓN / MEASUREMENT

Ref.	A - B (mm)	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.	€/Unid.
109-C	40 - 20	0 - 150	0,02	MATE	ABS-PLASTIC	X40920C	40,85
109	46 - 26	0 - 200	0,02	MATE	ABS-PLASTIC	X40920	51,24
116	55 - 26,5	0 - 300	0,02	MATE	ABS-PLASTIC	X10300	96,20
116-A	130 - 45	0 - 1.000	0,02	MATE	MADERA	X01000A	767,48

CALIBRE CON TORNILLO DE APROX. - 1 BOCA DIN 862

INOX CALIPER WITH LOCKING SCREW DIN 862
PIED À COULISSE DE TOURNEUR INOX AVEC VIS DE BLOCKAGE DIN 862



DIN 862

MEDICIÓN / MEASUREMENT

Ref.	A - B (mm)	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.	€/Unid.
117-N	126	0 - 800	0,02	MATE	MADERA	X00800	554,25
118	150	0 - 1.000	0,02	MATE	MADERA	X01000	946,30

Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks

CALIBRE CALIBRE INOX PROFUNDIDAD DIN 862

INOX DEPTH GAUGE DIN 862
JAUGES DE PROFONDEUR INOX DIN 862



DIN 862

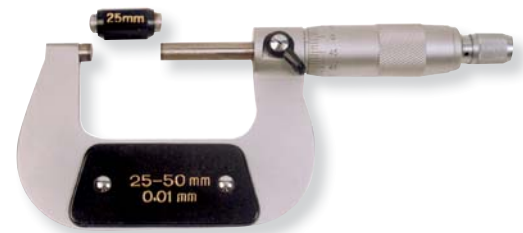
MEDICIÓN / MEASUREMENT

Ref.	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.	€/Unid.
113	0 - 200	0,02	MATE	MADERA	X81320	48,84

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

MICRÓMETRO INOX PARA EXTERIORES DIN 863

INOX OUTSIDE MICROMETERS
 MICROMÈTRES POUR EXTERIEURES


DIN 863
MEDICIÓN / MEASUREMENT

Ref.	Anillo / Ring (mm)	Contacto Contact	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.	€/Unid.
201	6,5	WIDIA	0 - 25	0,01	MATE	ABS-PLASTIC	X91025	44,12
202	6,5	WIDIA	25 - 50	0,01	MATE	ABS-PLASTIC	X92050	49,65
203	6,5	WIDIA	50 - 75	0,01	MATE	ABS-PLASTIC	X93075	60,98
204	6,5	WIDIA	75 - 100	0,01	MATE	ABS-PLASTIC	X94100	70,54
205	6,5	WIDIA	100 - 125	0,01	MATE	ABS-PLASTIC	X94125	116,55
206	6,5	WIDIA	125 - 150	0,01	MATE	ABS-PLASTIC	X94150	176,04

MICRÓMETRO INOX DIGITAL PARA EXTERIORES DIN 863

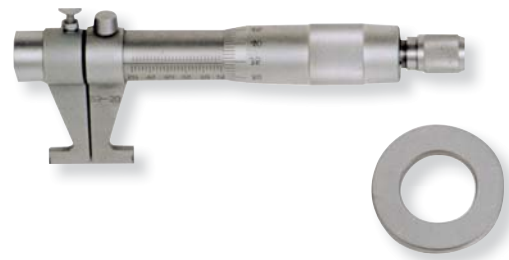
ELECTRONIC OUTSIDE MICROMETERS
 MICROMÈTRES EXTERIEURES DIGITALES


DIN 863
MEDICIÓN / MEASUREMENT

Ref.	Anillo / Ring (mm)	Contacto Contact	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.	€/Unid.
301	6,5	WIDIA	0 - 25	0,001	MATE	ABS-PLASTIC	XA1025	230,87

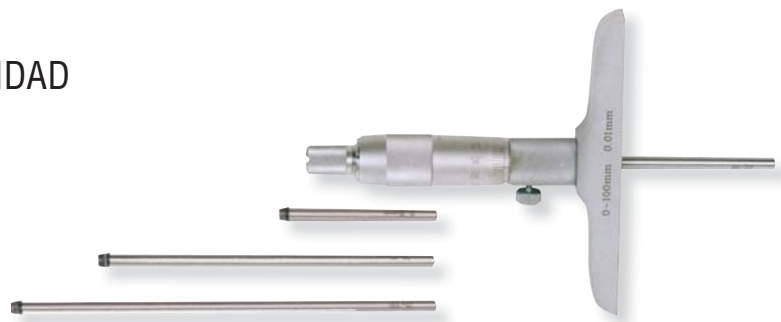
Se ofrece servicio de certificado de calibración, para más información consultar precios.
 Calibration certificate service is offered, for more information consult prices.
 Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

MICRÓMETRO INOX PARA INTERIORES
INTERNAL INOX MICROMETERS
ALÉSOMETRES



MEDICIÓN / MEASUREMENT									
Ref.	Anillo / Ring (mm)	Contacto Contact	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.	€/Unid.	
401	17	WIDIA	5 - 30	0,01	MATE	MADERA	XB1530	118,78	
402	17	WIDIA	25 - 50	0,01	MATE	MADERA	XB2255	127,66	

MICRÓMETRO INOX DE PROFUNDIDAD
INOX DEPTH MICROMETERS
MICROMÈTRES DE PROFONDEUR



MEDICIÓN / MEASUREMENT							
Ref.	Varillas Reading Rod	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.	€/Unid.
501	INTERCAMBIABLES	0 - 100	0,01	MATE	MADERA	XC1100	135,78

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

KIT RELOJ ANALÓGICO + BASE MAGNÉTICA
 SET WITH MAGNETIC BASE AND DIAL INDICATOR
 COFFRET AVEC COMPAREUR ET SUPPORT MAGNETIQUE


Ref.	Composición / Composition	Uds. Pcs.	Rango Medición Measurement Range	Resolución Resolution (mm)	Estuche Pack	Cod.	€/Unid.
212	Reloj comparador analógico / Dial Indicator	1	0 - 10 mm.	0,01/0,0005"	Plástico / Plastic	X97150	176,02
	Base magnética / Magnetic base	1	-	-			

CONJUNTO DE MEDICIÓN DIGITAL PARA TORNERO
 TURNER DIGITAL MEASURING SET
 COFFRET MÉSURE DIGITAL POUR TOURNEUR


Ref.	Composición / Composition	Uds. Pcs.	Rango Medición Measurement Range	Resolución Resolution (mm)	Estuche Pack	Cod.	€/Unid.
213	Calibre digital electrónico / Inox Digital caliper	1	0 - 150 mm.	0,01/0,0005"	Plástico / Plastic	X98150	255,06
	Reloj comparador digital / Digital Dial Indicator	1	0 - 10 mm.	0,01/0,0005"			
	Base magnética / Magnetic base	1	-	-			

Se ofrece servicio de certificado de calibración, para más información consultar precios.
 Calibration certificate service is offered, for more information consult prices.
 Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

CONJUNTO DE MEDICION DIGITAL
DIGITAL MEASURING SET
COFFRET MESURE DIGITAL



Ref.	Composición / Composition	Uds. Pcs.	Rango Medición Measurement Range	Resolución Resolution (mm)	Estuche Pack	Cod.	€/Unid.
214	Calibre digital electrónico 112-G / <i>Inox Digital caliper</i>	1	0 - 150 mm.	0,01/0,0005"	Plástico / Plastic	X99100	209,48
	Micrómetro electrónico / <i>Outside Micrometer</i>	1	0 - 25 mm.	0,01/0,0005"			
	Pilas / <i>Batteries</i>	2					

CONJUNTO DE MICRÓMETROS INOX EXTERIORES
INOX OUTSIDE MICROMETERS SET
COFFRET MICROMÈTRES EXTERIEURES INOX



MEDICIÓN / MEASUREMENT

Ref.	Uds. / Pcs.	Rango Medición / Measurement Range	Resolución / Resolution (mm)	Estuche / Pack	Cod.	€/Unid.
210	4	0 - 100 mm.	0,01	Madera / Wood	X95100	191,53
211	6	0 - 150 mm.	0,01	Madera / Wood	X96150	342,78

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

GALGAS DE ROSCA COMBINADAS, MÉTRICA Y WHITHWORTH

METRIC AND WHITWORTH SCREW PITCH GAUGES
CALIBRES DE FILETAGE PUR MÉTRIQUE ET WHITWORTH



Ref.	Láminas / Blades	Uds. / Pcs.	Cod.	€/Unid.
1102	52	1	NB1102	18,53
1103	58	1	NB1103	23,95

GALGAS DE ROSCA COMBINADAS, CÓNCAVAS Y CONVEXAS

CONCAVE AND CONVEX RADIUS GAUGE SETS
JAUGES À RAYONS CONCAVES ET CONVEXES



Ref.	Láminas / Blades	Gama / Range	Uds. / Pcs.	Cod.	€/Unid.
1203	34	R 1,0 - 7,0	1	NB1203	41,79
1202	32	R 7,5 - 15,0	1	NB1202	39,34
1201	30	R 15,5 - 25,0	1	NB1201	34,63

GALGAS DE ESPESORES, LONGITUD 100mm

THICKNESS GAUGE SETS, LENGTH 100mm
JAUGES D'ÉPAISSEUR, LONGEUR 100mm



Ref.	Láminas / Blades	Gama / Range	Uds. / Pcs.	Cod.	€/Unid.
1001	13	0,05 - 1,00	1	NB1001	7,38
1002	20	0,05 - 1,00	1	NB1002	9,06

ESCUADRAS DE ZINC
 SQUARES OF ZINC
 EQUERRES DU ZINC



Ref.	Dimensiones / Size (mm)	Tipo / Type	Sección / Section (mm)	Uds. / Pcs.	Cod.	€/Unid.
901	100 x 70	Lisa / Without base	15 x 5	1	NA0901	12,02
950	100 x 70	Tacón / With base	15 x 5	1	NA0950	19,65
902	150 x 100	Lisa / Without base	20 x 5	1	NA0902	12,75
951	150 x 100	Tacón / With base	20 x 5	1	NA0951	23,25
903	200 x 130	Lisa / Without base	20 x 5	1	NA0903	19,52
952	200 x 130	Tacón / With base	20 x 5	1	NA0952	28,55
904	300 x 175	Lisa / Without base	25 x 5	1	NA0904	20,80
953	300 x 175	Tacón / With base	25 x 5	1	NA0953	40,31
905	400 x 230	Lisa / Without base	30 x 5	1	NA0905	26,36
954	400 x 230	Tacón / With base	30 x 5	1	NA0954	48,09
906	500 x 280	Lisa / Without base	30 x 5	1	NA0906	30,41
955	500 x 280	Tacón / With base	30 x 5	1	NA0955	69,85

TRANSPORTADORES DE ÁNGULOS 0 - 180°
 ANGLE PROTRACTORS
 RAPPORTEURS



Ref.	Ø mm.	L. Caña (mm)	Uds. / Pcs.	Cod.	€/Unid.
975	80	120	1	NA0975	43,03
976	120	150	1	NA0976	45,08
977	150	200	1	NA0977	54,12
978	200	300	1	NA0978	85,79

Se ofrece servicio de certificado de calibración, para más información consultar precios.
 Calibration certificate service is offered, for more information consult prices.
 Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

COMPASES CIRCULARES DE ACERO FORJADO

ROUGH STEEL DIVIDERS WITH QUADRANT
COMPAS ACIER FORGE AVEC ARC DE CERCLE



Ref.	L (mm)	Uds. / Pcs.	Patas / Legs	Cod.	€/Unid.
601	150	1	Cuadradas / Square	NC0601	24,91
602	200	1	Cuadradas / Square	NC0602	27,62
603	250	1	Cuadradas / Square	NC0603	37,46
604	300	1	Cuadradas / Square	NC0604	44,48

COMPASES INTERIORES DE ACERO FORJADO

ROUGH STEEL INSIDE CALIPERS
COMPAS D'INTERIEUR



Ref.	L (mm)	Uds. / Pcs.	Patas / Legs	Cod.	€/Unid.
701	150	1	Planas / Flat	NC0701	13,56
702	200	1	Planas / Flat	NC0702	17,92
703	250	1	Planas / Flat	NC0703	22,38
704	300	1	Planas / Flat	NC0704	26,95

COMPASES - ACERO FORJADO Y PUNTAS TRATADAS

SPRING CALIPERS - FORGED STEEL AND TREATED POINTS

COMPASSES - ACIER FORGÉ ET POINTES TRAITÉS



COMPASES EXTERIORES DE ACERO FORJADO

ROUGH STEEL OUTSIDE CALIPERS

COMPAS D'ÉXTERIEUR



Ref.	L (mm)	Uds. / Pcs.	Patas / Legs	Cod.	€/Unid.
801	150	1	Planas / Flat	NC0801	13,87
802	200	1	Planas / Flat	NC0802	17,92
803	250	1	Planas / Flat	NC0803	22,67
804	300	1	Planas / Flat	NC0804	26,83

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS



SESA

SESA

SESA

SESA

SESA

SESA

SESA

BROCA METAL
HSS-G
DIN-338
Ø 12.00 mm
1461200

BROCA METAL
HSS-G
DIN-338
Ø 12.50 mm
1461250

BROCA METAL
HSS-G
DIN-338
Ø 13.00 mm
1461300

SESA
PORCELANATO 8
JR TYPE
Max 950 RPM
H₂O
X

SESA
PORCELANATO 8
JR TYPE
Max 950 RPM
H₂O
X

SESA
PORCELANATO 6
JR TYPE
Max 950 RPM
H₂O
X

SESA
PORCELANATO 6
JR TYPE
Max 950 RPM
H₂O
X

SESA

SESA

SESA

BROCA METAL
HSS-G
DIN-338
Ø 8.50 mm
1460850

BROCA METAL
HSS-G
DIN-338
Ø 9.00 mm
1460900

BROCA METAL
HSS-G
DIN-338
Ø 9.50 mm
1460950

SESA
ACERO RÁPIDO
CRT-19
BROCAS
DIN-338 HSS-G
[M2]
[Alto rendimiento]
Ø 1 x 10 x 0.5 mm
Art. 1615018T

SESA
ACERO RÁPIDO
CRT-19
BROCAS
DIN-338 HSS-G
[M2]
[Alto rendimiento]
Ø 1 x 10 x 0.5 mm
Art. 1615018T

SESA
ACERO RÁPIDO
CRT-19
BROCAS
DIN-338 HSS-G
[M2]
[Alto rendimiento]
Ø 1 x 10 x 0.5 mm
Art. 1615018T

SESA

SESA

SESA

SESA

SESA
ACERO RÁPIDO
CRT-19
BROCAS
DIN-338 HSS-G
[M2]
[Alto rendimiento]
Ø 1 x 10 x 0.5 mm
Art. 1615018T

SESA
ACERO RÁPIDO
CRT-19
BROCAS
DIN-338 HSS-G
[M2]
[Alto rendimiento]
Ø 1 x 10 x 0.5 mm
Art. 1615018T

SESA

SESA

SESA

SESA

BROCA METAL
HSS-G
DIN-338
Ø 5.50 mm
1460550

BROCA METAL
HSS-G
DIN-338
Ø 6.00 mm
1460600

SESA
PORCELANATO 4
JR TYPE
Max 950 RPM
H₂O
X

SESA
PORCELANATO 4
JR TYPE
Max 950 RPM
H₂O
X

SESA
PORCELANATO 4
JR TYPE
Max 950 RPM
H₂O
X

SESA
PORCELANATO 4
JR TYPE
Max 950 RPM
H₂O
X

SESA

SESA

LTO

LTO

ESTUCHES DE BROCA



DISPLAYS

DISPLAYS



MINI EXPOSITOR
MINI DISPLAY
MINI ÉXPOSITEUR

Expositor MINI
1.830 x 500 x 430
mm



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

MINI EXPOSITOR *MINI DISPLAY • MINI ÉXPOSITEUR*

COMBINADO *COMBINED • COMBINÉ*

Art.	Ø (mm)	Uds.	€/Unid.
 BROCA DIN 338N HSS-G	3,00	10	
	3,50	10	
	4,00	10	
	4,50	10	
	5,00	10	
	6,00	10	
	8,00	10	
	10,00	5	
	12,00	5	
 BROCA GRANITO	3 X 60	5	
	4 X 75	5	
	5 X 85	10	
	6 X 100	15	
	8 X 120	15	
	10 X 120	10	
	12 X 150	10	
	SESABOX GRANITO	5	
 BROCA JR PORCELANATO	4X85	10	
	5X85	10	
	6X100	15	
	8X125	5	
	10X150	5	
 BROCA ST-2 (SDS-PLUS)	SESABOX JR 4-5-6-6-8	5	
	4X110	5	
	5X110	10	
	6X160	15	
	8X160	10	
	10X160	10	
	12X160	5	
	14x200	5	
 CORONAS BIMETAL M42	16x260	5	
	18x300	5	
	16	3	
	20	3	
	24	3	
	27	3	
	30	3	
	35	3	
	40	3	
	51	2	
60	2		
70	2		
83	2		
A1 14-30	3		
A2T 32-152	3		

Cod. MIN001

2.378.61

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

MINI EXPOSITOR *MINI DISPLAY • MINI ÉXPOSITEUR*

METAL *METAL • MÉTAL*

Art.	Ø (mm)	Uds.	€/Unid.
 <p>BROCA DIN 338N HSS-G</p>	3,00	10	
	3,50	10	
	4,00	10	
	4,50	10	
	5,00	10	
	6,00	10	
	8,00	10	
	10,00	5	
	12,00	5	
 <p>BROCA DIN 338N HSS-G MANGO REDUCIDO</p>	14	2	
	16	2	
	18	2	
	20	2	
	22	2	
	24	2	
	25	2	
	26	2	
 <p>ESTUCHES DE BROCAS</p>	1915314	2	
	194314	2	
	1915333	2	
	194333	2	
	1915015T	2	
	194019T	2	
	1915025T	2	
194025T	2		
 <p>CORONAS BIMETAL M42</p>	16	2	
	20	2	
	24	2	
	27	2	
	30	2	
	35	2	
	40	2	
	51	2	
	60	2	
	70	1	
83	1		
A1 14-30	2		
A2T 32-152	2		
Cod. MIN002			2.478.40

MINI EXPOSITOR *MINI DISPLAY • MINI ÉXPOSITEUR*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

Art.	Ø (mm)	Uds.	€/Unid.
BROCA TORNADO PARED 	3X60	5	
	4X75	5	
	5X85	10	
	6X100	15	
	8X120	10	
	10X120	5	
	12X150	5	
	14X150	3	
BROCA JR PORCELANATO 	4X85	10	
	5X85	10	
	6X100	20	
	8X125	10	
	10X150	5	
SESABOX JR 4-5-6-6-8		5	
BROCA ST-2 (SDS-PLUS) 	4X110	5	
	5X110	10	
	6X110	15	
	8X160	5	
	10X160	5	
	12X160	5	
	14x200	3	
	16x260	4	
18x300	3		
PUNTEROS Y CINCELES 	PUNT 250	2	
	CINCEL 250/20	2	
	CINCEL 250/40	2	
	CINCEL 200/40 AZ.	2	
	ACAN. 240/22	2	
	ACAN. ALAS 250/22	2	
	PUNT 280 (MAX)	2	
	PUNT 400 (MAX)	2	
	CINCEL 280/24 (MAX)	2	
	CINCEL 400/24 (MAX)	2	
	CINCEL 300/80 (MAX)	2	
	ACAN. 300/26 (MAX)	2	
	ACAN. ALAS 380/35 (MAX)	2	
	Cod. MIN003		

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

MINI EXPOSITOR *MINI DISPLAY • MINI ÉXPOSITEUR*
CASH

Art.	Ø (mm)	Uds.	€/Unid.
 BROCA DIN 338N HSS-G	3,00	10	
	3,50	10	
	4,00	10	
	4,50	10	
	5,00	10	
	6,00	10	
	8,00	10	
	10,00	5	
	12,00	5	
 BROCA DIN 338 N HSS-CO	3,00	10	
	3,50	10	
	4,00	10	
	4,50	10	
	5,00	10	
	6,00	10	
	8,00	10	
	10,00	5	
	12,00	5	
 BROCA JR PORCELANATO	4X85	5	
	5X85	10	
	6X100	10	
	8X125	10	
	10X150	5	
	SESABOX JR 4-5-6-6-8	3	
 BROCA MADERA 3 PUNTAS	3,00	5	
	4,00	5	
	5,00	5	
	6,00	5	
	8,00	5	
	10,00	5	
	12,00	5	
 CORONAS BIMETAL M42	16	3	
	20	3	
	24	3	
	27	3	
	30	3	
	35	3	
	40	3	
	51	2	
	60	2	
	70	2	
	83	2	
	A1 14-30	3	
	A2T 32-152	3	

Cod. MIN004

1.868,12

EXPOSITOR SOBREMESA JR PORCELANATO
BASIC DISPLAY JR PORCELANIC
ÉXPOSITEUR BASE TABLE JR CÉRAMIQUE



Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
4,00	85	8	
5,00	85	16	
6,00	100	16	
8,00	125	8	
10,00	150	8	
SET BROCA JR 5 PIEZAS			
SET 5 PIECES		5	
COD. JR061		61	544,85

NOTA: Composición con 6 ganchos / Stand with 6 hooks / Présentoirs avec 6 crochets



Expositor MINI
470 x 190 x 140 mm

EXPOSITOR - DISPENSADOR DE SOBREMESA CERRADO
DISPLAY - CLOSED DESKTOP DISPENSER
ÉXPOSITEUR - DISTRIBUTEUR DE BUREAU FERMÉ

Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
HSS WHITE WHITE	475	EXP01 BW	543,46
HSS-G	475	EXP01 AR	905,42
HSS-CO 5%	475	EXP01 CO	1.510,54
INOX HSS-G INOX PROGRESIVA PROGRESSIVE INOX	475	EXP01 IP	1.586,89
TIN	475	EXP01 TI	1.686,27



Expositor
35 x 30 x 25 mm

Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.
2,00	50	4,00	50	5,50	30	7,00	20	8,50	15	11,00	5
3,00	50	4,50	40	6,00	30	7,50	20	9,00	10	12,00	5
3,50	50	5,00	40	6,50	30	8,00	15	10,00	10	13,00	5

EXPOSITOR - DISPENSADOR COMBINADO DE SOBREMESA CERRADO
DISPLAY - CLOSED COMBINED DESKTOP DISPENSER
ÉXPOSITEUR - DISTRIBUTEUR DE BUREAU COMBINÉ FERMÉ

Composición / Contains / Composition	Uds. / Pcs.	Cod.	€/Unid.
BASIC EXPO HSS + BASIC + MADERA	610	EXP02 BASIC	584,36
STANDARD EXPO HSS-G + GRANITO + MADERA	610	EXP02 STANDARD	915,22
ADVANCE EXPO HSS-CO 5% + TORNADO + MADERA	610	EXP02 ADVANCE	1.560,61



Expositor
35 x 30 x 25 mm

Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.
3,00	50	6,00	40	3,00	50	6,00	30	3,00	50	6,00	30
4,00	50	8,00	20	4,00	50	8,00	15	4,00	50	8,00	15
5,00	50	10,00	10	5,00	40	10,00	10	5,00	40	10,00	10

METAL / METAL / MÉTAL

MADERA / WOOD / BOIS

CONSTRUCCIÓN / CONSTRUCTION / CONSTRUCTION

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BROCA JR PARA PORCELANATO JR DRILL-BIT FOR PORCELANIC • FORET JR POUR CÉRAMIQUE

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

advance
MAXIMO RENDIMIENTO



Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
3,00	85	10	
4,00	85	10	
4,00	85	10	
5,00	85	10	
5,00	100	10	
6,00	100	10	
6,00	100	10	
6,00	100	10	
6,00	100	10	
6,00	100	10	
6,00	100	10	
7,00	125	10	
8,00	125	10	
8,00	125	10	
8,00	125	10	
10,00	150	8	
10,00	150	8	
12,00	150	8	
Cod. HR01JR		174	1.275,75



*Composición con 18 ganchos / Stand with 18 hooks / Présentoirs avec 18 crochets *Detalles del producto en la página 36 / Product information at page 36 / Info sur le produit à la page 36

BASIC BASIC • BASIC

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

Basic



Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
3,00	60	20	
4,00	75	20	
5,00	85	20	
6,00	100	15	
6,00	100	15	
8,00	120	15	
8,00	120	15	
10,00	120	10	
10,00	120	10	
12,00	150	8	
12,00	150	8	
14,00	150	5	
14,00	150	5	
16,00	150	5	
18,00	160	5	
20,00	160	5	
6,00	200	10	
8,00	200	10	
10,00	200	5	
12,00	200	5	
14,00	200	5	
Cod. HR01BA		216	474,55



*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 42 / Product information at page 42 / Info sur le produit à la page 42

GRANITO GRANITO • GRANITO

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION



DIN 8039



Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
3,00	60	20	
4,00	75	20	
5,00	85	20	
6,00	100	15	
6,00	100	15	
8,00	120	15	
8,00	120	15	
10,00	120	10	
10,00	120	10	
12,00	150	8	
12,00	150	8	
14,00	150	5	
14,00	150	5	
16,00	150	5	
18,00	160	5	
20,00	160	5	
6,00	200	10	
8,00	200	10	
10,00	200	5	
12,00	200	5	
14,00	400	5	
Cod. HR01GR		216	977,96



*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 41 / Product information at page 41 / Info sur le produit à la page 41

TORNADO TORNADO • TORNADO

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

advance
MAXIMO RENDIMIENTO



DIN 8039



Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
3,00	60	20	
4,00	75	20	
5,00	85	20	
6,00	100	15	
6,00	100	15	
8,00	120	15	
8,00	120	15	
10,00	120	10	
10,00	120	10	
12,00	150	8	
12,00	150	8	
14,00	150	5	
14,00	150	5	
16,00	150	5	
18,00	160	5	
20,00	160	5	
6,00	200	10	
8,00	200	10	
10,00	200	5	
12,00	200	5	
14,00	200	5	
Cod. HR01TN		216	1.653,84



*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 39 / Product information at page 39 / Info sur le produit à la page 39

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

SDS-PLUS CYCLONE *CYCLONE SDS-PLUS • SDS-PLUS CYCLONE*

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

Basic



DIN 8035



Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
3,00	60	20	
4,00	75	20	
5,00	85	20	
6,00	100	15	
6,00	100	15	
8,00	120	15	
8,00	120	15	
10,00	120	10	
10,00	120	10	
12,00	150	8	
12,00	150	8	
14,00	150	5	
14,00	150	5	
16,00	150	5	
18,00	160	5	
20,00	160	5	
6,00	200	10	
8,00	200	10	
10,00	200	5	
12,00	200	5	
14,00	200	5	
Cod. HR01CY		164	1.149,34



*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 46 / Product information at page 46 / Info sur le produit à la page 46

SDS-PLUS ST-2 *ST-2 SDS-PLUS • SDS-PLUS ST-2*

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION



DIN 8035



Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
4,00	110	8	
5,00	110	8	
6,00	110	8	
8,00	110	8	
10,00	110	8	
6,00	160	8	
6,00	160	8	
8,00	160	8	
8,00	160	8	
10,00	160	8	
12,00	160	8	
14,00	160	5	
16,00	160	5	
18,00	200	5	
8,00	260	5	
10,00	260	5	
12,00	260	5	
14,00	260	5	
16,00	450	4	
18,00	450	4	
20,00	450	4	
Cod. HR01ST		135	1.440,12



*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 45 / Product information at page 45 / Info sur le produit à la page 45

SDS-PLUS HURRICANE HURRICANE SDS-PLUS • SDS-PLUS HURRICANE

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

advance
MAXIMO RENDIMIENTO



Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
5,00	110	8	
6,00	110	8	
8,00	110	8	
10,00	110	8	
6,00	160	8	
6,00	160	8	
6,00	160	8	
8,00	160	8	
8,00	160	8	
10,00	160	8	
12,00	160	8	
14,00	160	8	
8,00	210	5	
10,00	210	5	
12,00	210	5	
14,00	210	5	
12,00	260	5	
14,00	310	5	
16,00	310	4	
18,00	450	4	
20,00	450	4	
Cod. HR01HU		138	2.911,06



*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 44 / Product information at page 44 / Info sur le produit à la page 44

SDS-MAX STORM SDS-MAX STORM • SDS-MAX STORM

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION



Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
12,00	340	2	
14,00	340	2	
16,00	340	2	
18,00	340	2	
20,00	340	2	
22,00	340	2	
24,00	340	2	
14,00	540	2	
16,00	540	2	
18,00	540	2	
20,00	540	2	
22,00	540	2	
25,00	540	2	
30,00	570	2	
Cod. HR01SM		28	2.654,37



*Composición con 14 ganchos / Stand with 14 hooks / Présentoirs avec 14 crochets *Detalles del producto en la página 48 / Product information at page 48 / Info sur le produit à la page 48

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

PUNTEROS Y CINCELES CHISELS AND POINTERS • BURINS ET PICS

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION



Descripción / Description	L (mm)	Uds. / Pcs.	€/Unid.
SDS-PLUS			
Puntero / Point Chisel	250	4	
Puntero / Point Chisel	250	4	
Cinzel / Flat Chisel	250 / 20	3	
Cinzel / Flat Chisel	250 / 20	3	
Cinzel ancho / Spade Chisel	200 / 40	3	
Acanalador / Hollow Chisel	240 / 22	3	
Cinzel azulejo / Tile Chisel	200 / 40	3	
SDS-MAX			
Puntero / Point Chisel	400	3	
Puntero / Point Chisel	400	3	
Cinzel / Flat Chisel	400 / 24	3	
Cinzel / Flat Chisel	400 / 24	3	
Cinzel ancho / Spade Chisel	300 / 80	3	
Acanalador / Hollow Chisel	300 / 26	3	
Cinzel azulejo / Tile Chisel	300 / 50	3	
Cod. HR01CP		44	1.006,29



*Composición con 14 ganchos / Stand with 14 hooks / Présentoirs avec 14 crochets

*Detalles del producto en las páginas 53-54 / Product information at pages 53-54 / Info sur le produit à les pages 53-54

BROCA MADERA 3 PUNTAS
STANDARD BRAD POINT DRILL BIT • FORET 3 POINTES STANDARD

MADERA WOOD • BOIS



Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
3,00	70	20	
4,00	80	20	
5,00	90	20	
6,00	100	20	
7,00	110	15	
8,00	120	15	
9,00	130	10	
10,00	133	10	
11,00	150	10	
12,00	155	10	
13,00	160	8	
14,00	160	8	
15,00	165	8	
6,00	245	20	
7,00	245	15	
8,00	245	15	
9,00	245	10	
10,00	245	10	
11,00	245	10	
12,00	245	10	
13,00	245	8	
14,00	245	8	
15,00	245	8	
Cod. HR02BL		288	692,92



*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 82 / Product information at page 82 / Info sur le produit à la page 82

BROCAS PALA B FLAT DRILL BIT TYPE B • MÉCHE PLATE TIPE B

MADERA WOOD • BOIS



Ø (mm)	Uds. / Pcs.	€/Unid.
6,00	15	
8,00	15	
10,00	15	
12,00	15	
14,00	15	
15,00	15	
16,00	15	
18,00	15	
19,00	15	
20,00	15	
22,00	15	
24,00	15	
25,00	15	
26,00	15	
28,00	15	
30,00	15	
32,00	10	
33,00	10	
34,00	10	
35,00	10	
36,00	10	
38,00	10	
40,00	10	
Cod. HR02PB	310	1.196,29



*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 84 / Product information at page 84 / Info sur le produit à la page 84

BROCAS PALA C FLAT DRILL BIT TYPE C • MÉCHE PLATE TIPE C

MADERA WOOD • BOIS



Ø (mm)	Uds. / Pcs.	€/Unid.
6,00	8	
8,00	8	
10,00	8	
12,00	8	
14,00	8	
15,00	8	
16,00	8	
18,00	8	
19,00	8	
20,00	8	
22,00	8	
24,00	8	
25,00	8	
26,00	8	
28,00	8	
30,00	8	
32,00	8	
33,00	8	
34,00	8	
35,00	8	
36,00	8	
38,00	8	
40,00	8	
Cod. HR02PC	184	826,77



*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 85 / Product information at page 85 / Info sur le produit à la page 85

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

LEWIS LEWIS • LEWIS

MADERA WOOD • BOIS



Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
6,00	200	4	
8,00	200	4	
10,00	200	4	
12,00	200	4	
14,00	200	4	
16,00	200	4	
18,00	200	4	
8,00	300	3	
10,00	300	3	
12,00	300	3	
14,00	300	3	
16,00	300	3	
18,00	300	3	
20,00	300	3	
10,00	450	2	
12,00	450	2	
14,00	450	2	
16,00	450	2	
18,00	450	2	
20,00	450	2	
22,00	450	2	
Cod. HR02LE		63	1888,48



*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 88 / Product information at page 88 / Info sur le produit à la page 88

DIN 338N HSS-G ALTO RENDIMIENTO

DIN 338N HSS-G HIGH PERFORMANCE DRILL BIT • DIN 338N HSS-G GRAND PERFORMANCE

BLISTER RÍGIDO RIGID BLISTER • BLISTER RIGIDE

METAL METAL • MÉTAL



Ø (mm)	Uds. / Pcs.	€/Unid.
1,00	15	
1,50	10	
2,00	15	
2,50	10	
3,00	15	
3,50	10	
4,00	15	
4,50	10	
5,00	15	
5,50	10	
6,00	15	
7,00	5	
8,00	20	
9,00	5	
10,00	10	
11,00	5	
12,00	10	
13,00	5	
Cod. HR03ARB		811,24



*Composición con 18 ganchos / Stand with 18 hooks / Présentoirs avec 18 crochets *Detalles del producto en la página 102 / Product information at page 102 / Info sur le produit à la page 102

DIN 338N HSS-CO *DIN 338N HSS-CO • DIN 338N HSS-E COBALT*

BLISTER RÍGIDO *RIGID BLISTER • BLISTER RIGIDE*

METAL *METAL • MÉTAL*

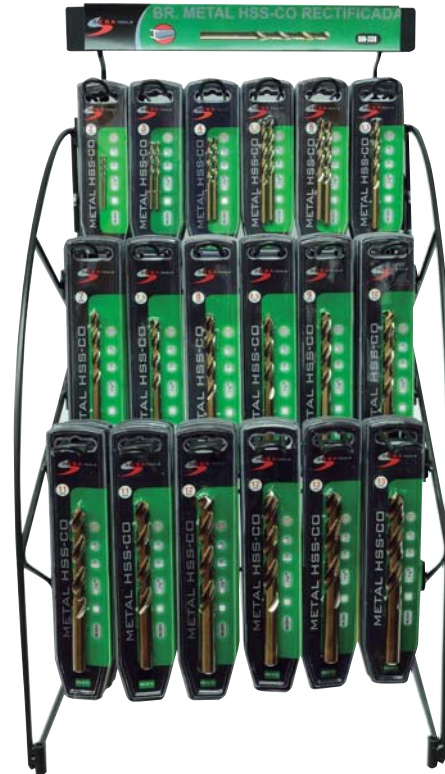


HSS-CO 5%

DIN 338 N



Ø (mm)	Uds. / Pcs.	€/Unid.
1,00	15	
1,50	10	
2,00	15	
2,50	10	
3,00	15	
3,50	10	
4,00	15	
4,50	10	
5,00	15	
5,50	10	
6,00	15	
7,00	5	
8,00	20	
9,00	5	
10,00	10	
11,00	5	
12,00	10	
13,00	5	
Cod. HR03COB		1.308,25



*Composición con 18 ganchos / Stand with 18hooks / Présentoirs avec 18 crochets *Detalles del producto en la página 110 / Product information at page 110 / Info sur le produit á la page 110

BLISTER BLANDO *SOFT BLISTER • BLISTER DOUX*

METAL *METAL • MÉTAL*

Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
HSS-G ALTO RENDIMIENTO <i>HIGH PERFORMANCE</i>	330	HR03AR	711,45
HSS-CO 5%	330	HR03CO	1.238,89
HSS-G	330	HR03IP	1.182,36
HSS-CO 5%	330	HRC3IC	2.191,28
TIN	330	HRC03TI	1.296,62

Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.
1,00	30	4,00	30	7,00	5
1,50	20	4,25	10	8,00	20
2,00	30	4,50	10	9,00	5
2,50	20	5,00	30	10,00	10
3,00	20	5,25	10	11,00	5
3,25	10	5,50	10	12,00	10
3,50	10	6,00	30	13,00	5



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

DIN338N M/RED. HSS-G *DIN 338N HSS-G REDUCED SHANK • DIN338N HSS-G QUEUE RÉDUITE*

METAL METAL • MÉTAL



HSS-G

DIN 338 N



Ø (mm)	Uds. / Pcs.	€/Unid.
13,00	6	
13,50	3	
14,00	6	
14,50	3	
15,00	5	
15,50	2	
16,00	5	
16,50	2	
17,00	4	
17,50	2	
18,00	4	
18,50	2	
19,00	4	
19,50	2	
20,00	4	
20,50	2	
21,00	4	
21,50	2	
22,00	3	
22,50	2	
23,00	3	
23,50	2	
24,00	3	
24,50	2	
25,00	3	
Cod. HRC03MR	80	2.801,85



*Composición con 23 ganchos / Stand with 23 hooks / Présentoirs avec 23 crochets

*Detalles del producto en la página 120

Product information at page 120 / Info sur le produit à la page 120

DIN 338N M/RED. HSS-CO *DIN 338N HSS-CO REDUCED SHANK • DIN 338N HSS-CO QUEUE RÉDUITE*

METAL METAL • MÉTAL



HSS-CO 5%

DIN 338 N



Ø (mm)	Uds. / Pcs.	€/Unid.
12,00	3	
12,00	3	
13,00	3	
13,50	2	
14,00	3	
14,00	3	
15,00	3	
15,50	2	
16,00	3	
16,00	3	
16,00	3	
16,50	2	
17,00	3	
17,50	2	
18,00	3	
18,00	3	
18,50	2	
19,00	3	
19,50	2	
20,00	3	
20,00	3	
Cod. HR03MC	57	2.718,37



*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 121 / Product information at page 121 / Info sur le produit à la page 121

CORONAS BIMETAL M42
BIMETAL HOLE SAWS M42
SCIÉS TRÉPAN BIMETAL M42

METAL METAL • MÉTAL



Ø (mm)	Uds. / Pcs.	€/Unid.
16,00	3	
19,00	3	
20,00	3	
22,00	3	
25,00	3	
27,00	3	
30,00	3	
32,00	2	
33,00	2	
35,00	2	
38,00	2	
44,00	2	
48,00	2	
51,00	2	
Husillo / Arbor A0	3	
Husillo / Arbor A1	3	
Husillo / Arbor A2T	2	
Husillo / Arbor A3T	2	
Cod. HR03CB	45	681,37

*Composición con 18 ganchos / Stand with 18 hooks / Présentoirs avec 18 crochets
*Detalles del producto en la página 161 / Product information at page 161 / Info sur le produit à la page 161



COMBINADO STANDARD
STANDARD COMBINED
STANDARD COMBINÉE

BLISTER RÍGIDO RIGID BLISTER • BLISTER RIGIDE

COMBINADO COMBINED • COMBINÉ

	Ø (mm)	Uds. / Pcs.	€/Unid.
HSS-G METAL METAL METAL	3,00	10	
	4,00	10	
	5,00	15	
	6,00	15	
	8,00	20	
 GRANITO GRANITE	10,00	10	
	3,00	20	
	4,00	20	
	5,00	30	
	6,00	30	
 MADERA WOOD BOIS	8,00	20	
	10,00	10	
	3,00	20	
	4,00	20	
	5,00	30	
	6,00	30	
	8,00	20	
	10,00	10	
Cod. HROSTAND			840,39

*Composición con 18 ganchos / Stand with 18 hooks / Présentoirs avec 18 crochets



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

COMBINADO BROCAS AMARRE 1/4" HEXAGONAL
 COMBINED PRODUCT DISPLAY 1/4" HEXAGONAL SHANK DRILL BITS
 DPRÉSENTATION COMBINÉE FORETS QUEUE 1/4" HEXAGONALE

HEXAGONAL HEXAGONAL • HEXAGONAL


Ø (mm)	Uds. / Pcs.	€/Unid.
METAL M2 / METAL		
3,00	15	
4,00	15	
5,00	15	
6,00	15	
6,00	15	
8,00	10	
MADERA 3P / WOOD		
3,00	15	
4,00	15	
5,00	15	
6,00	15	
6,00	15	
8,00	10	
8,00	10	
CONSTRUCCIÓN JX Y MULTIUSOS/ CONSTRUCTION		
JX		
4,00	10	
5,00	10	
6,00	20	
MULTIUSOS		
4,00	10	
6,00	20	
8,00	15	
10,00	10	
Cod. HR06HX	285	1.788,48



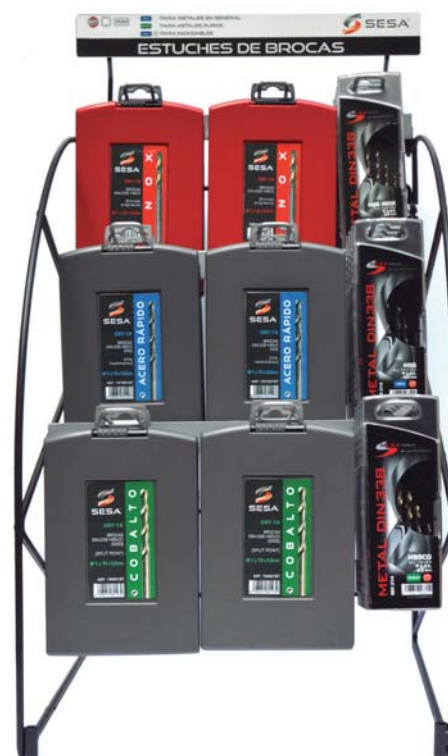
*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets

 *Detalles del producto en las páginas 410-411-414
 Product information at pages 410-411-414 / Info sur le produit à les pages 410-411-414

ESTUCHES SETS • COFFRETS

Descripción / Description	Calidad / Composition	Uds. / Pcs.	€/Unid.
CRT 19 Pcs. 1 - 10 x 0,5 mm.	HSS-G	4	
CRT 19 Pcs. 1 - 10 x 0,5 mm.	HSS-CO 5%	4	
CRT 19 Pcs. 1 - 10 x 0,5 mm.	HSS-G INOX	4	
SESABOX 5 Pcs. 3 - 4 - 5 - 6 - 8 mm	HSS-G	4	
SESABOX 5 Pcs. 3 - 4 - 5 - 6 - 8 mm	HSS-CO 5%	4	
SESABOX 5 Pcs. 3 - 4 - 5 - 6 - 8 mm	HSS-G INOX	4	
Cod. HR03ET		24	1.111,74

*Composición con 9 ganchos / Stand with 9 hooks / Présentoirs avec 9 crochets



ESTUCHES SETS • COFFRETS **NEW**

Descripción / Description	Calidad / Composition	Uds. / Pcs.	€/Unid.
CR 19 pcs. 1-10x0,5mm.	HSS	6	
CR 19 pcs. 1-10x0,5mm.	HSS-CO 5%	6	
SESABOX 5 pcs.	HSS-G	4	
SESABOX 5 pcs.	HSS-CO 5%	8	
Cod. HR04ET		24	895,96

*Composición con 9 ganchos / Stand with 9 hooks / Présentoirs avec 9 crochets



ESTUCHES SESABOX SESABOX SET • COFFRETS SESABOX

Descripción / Description	Uds. / Pcs.	Uds. / Pcs.	€/Unid.
SESABOX 5 Pcs.	HSS-G	4	
SESABOX 5 Pcs.	HSS-CO 5%	4	
SESABOX 5 Pcs.	HSS TIN	4	
SESABOX 5 Pcs.	TORNADO	4	
SESABOX 5 Pcs.	GRANITO	4	
SESABOX 5 Pcs.	JR	4	
SESABOX 8 Pcs.	HSS-G	3	
SESABOX 8 Pcs.	HSS-CO 5%	3	
SESABOX 8 Pcs.	TORNADO	3	
SESABOX 8 Pcs.	GRANITO	3	
SESABOX 8 Pcs.	MADERA 3P STANDARD BRAD POINT	3	
Cod. HR03ES		39	983,56

*Composición con 11 ganchos / Stand with 11 hooks / Présentoirs avec 11 crochets



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • METAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS



DOBLE METRO LINEAL “COMBINADO”

“COMBINED” DOUBLE METRE DISPLAY • PRÉSENTOIRE DOUBLE “COMBINÉ”

Cod.	Expositor / Displays	€/Unid.	Cod.	Expositor / Displays	€/Unid.
HR03AR	DIN 338 HSS M2 / DIN 338 HSS M2	711,45	HR01GR	Granito / Granito	977,96
HR03CO	DIN 338 HSSCO / DIN 338 HSSCO	1.238,89	HR01TN	Tornado / Tornado	1.653,84
HR03IP	DIN 338N HSS-INOX Progresiva / DIN 338N HSS Progressive INOX	1.182,36	HR01HU	SDS-PLUS Hurricane / Hurricane SDS-PLUS	2.911,06
HR03MR	DIN338N M/RED. HSS-G / DIN 338N HSS-G Reduced Shank	2.801,85	HR01ST	SDS-PLUS ST-2 / SDS-PLUS ST-2	1.440,12
HR03CB	Corona Bi-Metal / Bimetal Hole Saw	681,37	HR01SM	SDS-MAX Storm / Storm SDS-MAX	2.654,37
HR03ET	Estuches / Sets	1.111,74	HR01CP	Punteros y Cinceles / Chisels and Pointers	1.006,29
HR03ES	SESABOX / SESABOX	983,56	HR02LE	Lewis / Lewis	1.888,48
HR06HX	Amarre 1/4" Hexagonal / 1/4" Hexagonal Shank Drill Bits	1.788,48	HR02PC	Brocas Pala Tipo C / Flat Drill Bit Type C	826,77
HR01JR	JR para Porcelanato / JR Drill-Bit for Porcelanic	1.275,75	HR02BL	Madera 3 Puntas / Standard Brad Point Drill Bit	692,92
MLCOM					25.827,25

METRO LINEAL “PROFESIONAL”

“PROFESSIONAL” METRE DISPLAY
PRÉSENTOIRE METRE “PROFESSIONNEL”

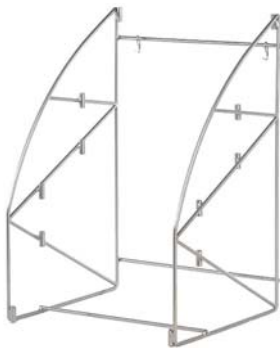
Cod.	Expositor / Displays	€/Unid.
HR03AR	DIN 338 HSS M2 / DIN 338 HSS M2	711,45
HR03CO	DIN 338 HSSCO / DIN 338 HSSCO	1.238,89
HR03CB	Corona Bi-Metal / Bimetal Hole Saw	681,37
HR01TN	Tornado / Tornado	1.653,84
HR01ST	SDS-PLUS ST-2 / SDS-PLUS ST-2	1.440,12
HR01JR	JR para Porcelanato / JR Drill-Bit for Porcelanic	1.275,75
HR03ES	SESABOX / SESABOX	983,56
HR03ET	Estuches / Sets	1.111,74
HR02PB	Brocas Pala Tipo B / Flat Drill Bit Type B	1.196,29
MLPRO		10.292,99

METRO LINEAL “FERRETERÍA”

“IRONMONGERY” METRE DISPLAY
PRÉSENTOIRE METRE “QUINCAILLERIE”

Cod.	Expositor / Displays	€/Unid.
HR03AR	DIN 338 HSS M2 / DIN 338 HSS M2	711,45
HR03CO	DIN 338 HSSCO / DIN 338 HSSCO	1.238,89
HR03CB	Corona Bi-Metal / Bimetal Hole Saw	681,37
HR01BA	Basic / Basic	474,55
HR01CY	SDS-PLUS Cyclone / Cyclone SDS-PLUS	1.084,29
HR01JR	JR para Porcelanato / JR Drill-Bit for Porcelanic	1.275,75
HR03ES	SESABOX / SESABOX	983,56
HR02PC	Brocas Pala Tipo C / Flat Drill Bit Type C	826,77
HR02BL	Madera 3 Puntas / Standard Brad Point Drill Bit	692,92
MLFER		7.969,54

PIECERÍA PIECES • PIÈCES



ESTRUCTURA / STRUCTURE / STRUCTURE

Cod.	€/Unid.
HR0	82,69



CESTA / BASKET / CORBEILLE

Cod.	€/Unid.
HR0CES	33,08



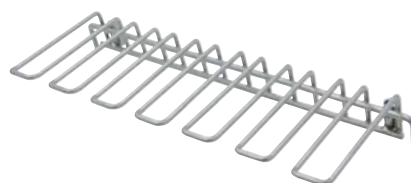
SOPORTE CARÁTULA
LABEL BASE / BASÉ ÉTIQUETTE

Cod.	€/Unid.
HR0CAR	15,21



GANCHO REDONDO
ROUND HOOK / CROCHET ROND

Cod.	€/Unid.
HR0GRD	3,09



TIRA DE GANCHOS
HOOK BAND / BANDE DE CROCHETS

Cod.	Descripción / Description	€/Unid.
HR0T7IN	gancho redondo / round hook	12,35
HR0T6IN	gancho redondo / round hook	12,35
000201007	gancho varilla / rod hook	8,35
000201009	gancho varilla / rod hook	8,35



BASE PARA GANCHO
BASE FOR HOOKS / BASE POUR CROCHETS

Cod.	€/Unid.
HR0BAS	13,13

Hasta fin de existencias / Until end of stock
Jusqu'à épuisement des stocks

Hasta fin de existencias / Until end of stock
Jusqu'à épuisement des stocks

*Para otras composiciones consultar / *For other compositions, request / *Pour d'autres compositions consulter

CONSTRUCCIÓN
 CONSTRUCTION • CONSTRUCTION
 MADERA
 WOOD • BOIS
 METAL
 METAL • MÉTAL
 FRESCADO
 MILLING • FRAISAGE
 ROSCADO
 THREADING • FILÉTAGÉ
 ACCESORIOS
 ACCESSORIES • ACCESSOIRES
 HEXAGONAL
 HEXAGONAL • HEXAGONAL
 METROLOGÍA
 METROLOGY • MÉTROLOGIE
 DISPLAYS
 DISPLAYS • DISPLAYS

EXPOSITOR INDIVIDUAL
 INDIVIDUAL DISPLAY • DISPLAY INDIVIDUEL

METACRILATO
 540 x 370 x 735
 mm

METAL METAL • MÉTAL

Calidad / Quality	Uds. / Pcs.	Cod.	€/Unid.
HSS-G ALTO RENDIMIENTO HIGH PERFORMANCE	1.630	3EM01	3.522,06
HSS-CO 5%	1.630	3EM03	5.987,66
HSS-G	1.630	3EM04	6.097,82
HSS-CO 5%	1.630	3EM05	11.298,80
TIN	1.630	3EM06	6.524,04



Contenido / Contains / Contenu

Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.
1,00	40	4,00	160	6,50	40	10,00	50
1,50	40	4,25	70	7,00	40	10,50	20
2,00	70	4,50	60	7,50	40	11,00	20
2,50	80	5,00	150	8,00	40	11,50	20
3,00	140	5,25	50	8,50	40	12,00	25
3,25	60	5,50	70	9,00	25	12,50	20
3,50	140	6,00	80	9,50	20	13,00	20
TOTAL							1.630

EXPOSITORES ROSCADO MANUAL
 HAND THREADING DISPLAY
 DISPLAY FILETAGE MANUEL

METACRILATO
 390 x 155 x 235
 mm

ROSCADO THREADING • FILÉTAGÉ

HSS-G

Cod.	Descripción / Description	Uds. / Pcs.	€/Unid.
Giramachos con Criqué / Tap Holder with Ratchet / Porte Tarauds			
1R10001	Gr. 1/C	3	
1R10002	Gr. 2/C	2	
Juegos de Machos / Hand Taps / Tarauds À Main			
2R27326	M3 x 0,50	5	
2R27330	M4 x 0,70	5	
2R27334	M5 x 0,80	5	
2R27338	M6 x 1,00	10	
2R27342	M8 x 1,25	5	
2R27346	M10 x 1,50	5	
2R27350	M12 x 1,75	5	
Cojinetes / Round Dies / Filières Rondes			
4R27434	M5 x 0,80 - 20 x 7	3	
4R27438	M6 x 1,00 - 20 x 7	3	
4R27442	M8 x 1,25 - 25 x 9	3	
4R27446	M10 x 1,50 - 30 x 11	3	
4R27450	M12 x 1,75 - 38 x 14	3	
COD. 19RAJV		60	1.313,97



EXPOSITORES ROSCADO MANUAL **NEW**
HAND THREADING DISPLAY
DISPLAY FILETAGE MANUEL

Expositor MINI
470 x 190 x 140
mm

ROSCADO THREADING • FILÉTAGE

HSS-G

DIN 352

DIN 223



Cod.	Descripción / Description	Uds. / Pcs.	€/Unid.
Juegos de Machos / Hand Taps / Tarauds À Main			
2R27326BL	M3 x 0,50	3	
2R27330BL	M4 x 0,70	3	
2R27334BL	M5 x 0,80	3	
2R27338BL	M6 x 1,00	3	
2R27342BL	M8 x 1,25	3	
2R27346BL	M10 x 1,50	3	
2R27350BL	M12 x 1,75	3	
Cojinetes / Round Dies / Filières Rondes			
4R27426BL	M3 x 0,50 - 20 x 5	3	
4R27430BL	M4 x 0,70 - 20 x 5	3	
4R27434BL	M5 x 0,80 - 20 x 7	3	
4R27438BL	M6 x 1,00 - 20 x 7	3	
4R27442BL	M8 x 1,25 - 25 x 9	3	
4R27446BL	M10 x 1,50 - 30 x 11	3	
4R27450BL	M12 x 1,75 - 38 x 14	3	
COD. 19RAJC			1.111,39



EXPOSITORES MACHOS ANCLAJE 1/4"
1/4" SHANK TAPS DISPLAY
PRÉSENTOIR TARAUDS MÉCHE 1/4"

METACRILATO
190 x 190 x 175
mm

ROSCADO THREADING • FILÉTAGE

HSS-G



Descripción / Description	Uds. / Pcs.	€/Unid.
Machos / Taps / Tarauds		
M3	10	
M4	10	
M5	10	
M6	10	
M8	10	
M10	10	
Brocas / Drill Bits / Forets		
2,5 mm.	10	
3,3 mm.	10	
4,2 mm.	10	
5,0 mm.	10	
6,8 mm.	10	
8,5 mm.	10	
Cod. 3R48960	120	1.025,17



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILÉTAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

EXPOSITORES MACHOS MÁQUINA **NEW**
MACHINE TAPS DISPLAY
PRÉSENTOIR TARAUDS MACHINE

Expositor MINI
470 x 190 x 140
mm

ROSCADO *THREADING • FILÉTAGE*

Calidad / Quality				Uds. / Pcs.	Cod.	€/Unid.
	HSS-CO 5%	DIN 371/376	FORM B	35	3R48933	615,111
	HSS-CO 5%	DIN 371/376	FORM C	35	3R48934	577,226
	HSS-CO 5%	DIN 371/376	FORM C/35°	35	3R48935	720,356

Contenido / Contains / Contenu

Medida / Size	DIN	Uds. / Pcs.
M3 x 0,50	371	5
M4 x 0,70	371	5
M5 x 0,80	371	5
M6 x 1,00	371	5
M8 x 1,25	371	5
M10 x 1,50	371	5
M12 x 1,75	376	5



EXPOSITORES MACHOS MÁQUINA
MACHINE TAPS DISPLAY
PRÉSENTOIR TARAUDS MACHINE

METACRILATO
330 x 140 x 180
mm

ROSCADO *THREADING • FILÉTAGE*



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILÉTAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

Calidad / Quality		Mat.	Banda Ring	Nº Filas Rows Nº	€/Unid.	Contenido / Contains / Contenu									
M3	M4	M5	M6	M8	M10	M12	TOTAL								
PM	HL	DIN 371/376	FORM B	INOX		1	429,90	1	1	2	2	2	1	1	10
PM	HL	DIN 371/376	FORM C/35°	INOX		1	381,28	1	1	2	2	2	1	1	10
HSS-E-V3	TIN	DIN 371/376	FORM B	MULTIUSOS		1	258,51	1	1	2	2	2	1	1	10
HSS-E-V3	TIN	DIN 371/376	FORM C/35°	MULTIUSOS		1	282,86	1	1	2	2	2	1	1	10
HSS-CO 5%		DIN 371/376	FORM B	ACERO 800-1100 N/mm²		1	234,00	1	1	2	2	2	1	1	10
HSS-CO 5%		DIN 371/376	FORM C/40°	ACERO 800-1100 N/mm²		1	286,46	1	1	2	2	2	1	1	10
PM	FUTURA	DIN 371/376	FORM B	ACERO 1100-1400 N/mm²		1	377,32	1	1	2	2	2	1	1	10
PM	FUTURA	DIN 371/376	FORM C/40°	ACERO 1100-1400 N/mm²		1	420,03	1	1	2	2	2	1	1	10
PM	ALUSPEED	DIN 371/376	FORM B	AL		1	320,53	1	1	2	2	2	1	1	10
PM	ALUSPEED	DIN 371/376	FORM C/45°	AL		1	350,69	1	1	2	2	2	1	1	10
HSS-CO 5%	TIN	DIN 371/376	FORM B	ACERO 400-800 N/mm²		1	267,68	1	1	2	2	2	1	1	10
HSS-CO 5%	TIN	DIN 371/376	FORM C/35°	ACERO 400-800 N/mm²		1	295,25	1	1	2	2	2	1	1	10
HSS-CO 5%		DIN 371/376	FORM C	ACERO 400-800 N/mm²		2	267,22	2	2	4	4	4	2	2	20
HSS-CO 5%		DIN 371/376	FORM B	ACERO 400-800 N/mm²		3	424,19	3	3	6	6	6	3	3	30
HSS-CO 5%		DIN 371/376	FORM C/35°	ACERO 400-800 N/mm²		3	499,21	3	3	6	6	6	3	3	30
COD. 3R48932				TOTAL FILAS	20	5.095,14	TOTAL PZAS							200	

FILOS DE CORTE / SHARPENED / AFFUTAGE

	PUNTA CONVENCIONAL CONVENTIONAL POINT POINTE UNIVERSEL		PUNTA SPLIT POINT SPLIT POINT AFFUTAGE EN CROIX		GEOMETRÍA RECTA STRAIGHT HEAD GEOMETRY GÉOMÉTRIE DROITE
	PUNTA FILO CORREGIDO LIP CORRECTION LÈVRE CORRIGÉ		PUNTA PLACA DE CARBURO CARBIDE TIPPED POINTE CARBURE		GEOMETRÍA RADIAL RADIAL HEAD GEOMETRY GÉOMÉTRIE RADIALE
	PUNTA CENTRADORA CENTERING POINT POINTE À CENTRER		CORTE AL CENTRO 2 DIENTES CENTER CUTTING 2 FLUTES 2 DENTS ET COUPE AU CENTRE		CORTE AL CENTRO 3 DIENTES CENTER CUTTING 3 FLUTES 3 DENTS ET COUPE AU CENTRE
	CORTE AL CENTRO 4 Ó MÁS DIENTES CENTER CUTTING 4 OR MORE FLUTES 4 DENTS OU PLUS ET COUPE AU CENTRE				

CORTES / CUTS / DENTS

	Nº DE CORTES Nº OF CUTS / Nº DE DENTS. 2Z / 3Z / 4Z / 3Z - 5Z / 4Z - 6Z		DIENTES POR PULGADA TOOTH PER INCH DENT PAR POUCE		DIENTES POR PULGADA TOOTH PER INCH DENT PAR POUCE
	DENTADO DE ACABADO TIPO N N FINISHING FINITION N		DENTADO PARA GRAN DESBASTE TIPO NR NR GRINDING NR DÉGROSSISSAGE		DENTADO PARA DESBASTE FINO TIPO NR-F NR-F FINE GRINDING NR-F DÉGROSSISSEMENT FIN
	DENTADO PARA GRAN DESBASTE EN MATERIALES DUROS COARSE ROUGHING FOR HARD METALS EBAUCHE GROSSIÈRE POUR MATÉRIAUX DURS		DENTADO PARA DESBASTE FINO EN MATERIALES DUROS FINE PITCH ROUGHING FOR HARD MATERIALS EBAUCHE PAS FIN POUR MATÉRIAUX DURS		
	DENTADO DE ACABADO TIPO H PARA MATERIALES DUROS H FINISHING FOR HARD METALS FINITION H POUR MATÉRIAUX DURS				

TIPO ROSCA / THREAD TYPE / TYPE FILETAGE

	FORMA A A FORM FORME A		FORMA D D FORM FORME D		FORMA B-AZ B-AZ FORM FORME B-AZ
	FORMA B B FORM FORME B		FORMA C^º C ^º FORM - FORME C ^º C/15° - C/35° - C/39° - C/40° - C/50°		FORMA COJINETE A DIES FORM A FILIERE FORME A
	FORMA C C FORM FORME C				

ÁNGULOS HÉLICES / HELIX ANGLES / ANGLE D'HÉLICE

	HÉLICE ÁNGULO ° ° HELIX ANGLE ANGLE D'HÉLICE ° 8° / 30° / 35° / 40° / 45°		HÉLICE TIPO "S" "S" TYPE HELIX HÉLICE TIPE "S"
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ANGULOS DE PUNTA / POINT ANGLES / ANGLES POINTES

	ÁNGULO PUNTA ° ° TIP ANGLE ANGLE DE POINTE ° 118° / 120° / 130° / 135° / 140°		ÁNGULO DE ASIENTO Y AVELLANADO / ANGLES / ANGLES 35° 35° / 60° / 90° / 180°
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MANGOS / SHANK TYPES / QUEUES

	SDS MAX SDS MAX SDS MAX		MANGO CILÍNDRICO STRAIGHT SHANK QUEUE CYLINDRIQUE		MANGO CÓNICO MORSE TAPER SHANK QUEUE CONIQUE
	SDS PLUS SDS PLUS SDS PLUS		MANGO HEXAGONAL HEXAGONAL SHANK QUEUE HEXAGONALE		MANGO MÁQUINA NEUMÁTICA PNEUMATIC MACHINE SHANK QUEUE MACHINE PNEUMATIQUE
	SDS TOP SDS TOP SDS TOP		MANGO HEXAGONAL 1/4 HEXAGONAL SHANK 1/4 QUEUE HEXAGONALE 1/4		ANCLAJE WELDON DIN 1835B WELDON SHANK DIN 1835B QUEUE WELDON DIN 1835B
	MANGO 3 PLANOS 3 FLAT SHANK QUEUE 3 PLANS		MANGO REBAJADO REDUCED SHANK QUEUE RÉDUITE		ANCLAJE WELDON 19,00 WELDON SHANK 19,00 QUEUE WELDON 19,00

TOLERANCIAS / TOLERANCES / TOLERANCES

	6H / 7H / 6g / 6e / 2B / ISO2X / 3B / ISO1 - 4H ISO2 - 6H / 6H + 0,1mm / 6HX / 6GX
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SISTEMAS ANCLAJE / ANCHOR SYSTEMS / SYSTÈME ANCRAGE

	SISTEMA 1:8 1:8 SYSTEM SYSTÈME 1:8		SISTEMA M16 M16 SYSTEM SYSTÈME M16		SISTEMA M14 M14 SYSTEM SYSTÈME M14		DIN 138 DIN 138 DIN 138
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OTROS ICONOS / OTHER ICONOGRAPHY / AUTRE ICONOGRAPHIE

	REFRIGERACIÓN COOLING REFROIDISSEMENT		SIN REFRIGERACIÓN NO COOLING SANS RÉFROIDISSEMENT		CORTE IZQUIERDA LEFT HAND COUP À GAUCHE
	PERCUSION PERCUSSION PERCUSSION		SIN PERCUSIÓN NO PERCUSSION NON PERCUSSION		ALTIMA DE SEGMENTO SEGMENT HEIGHT HAUTEUR SEGMENT
	PGM PGM PGM		RPM RPM RPM		

CALIDAD HERRAMIENTA Y RECUBRIMIENTOS / TOOL COMPOSITION AND COATINGS / CALITÉ OUTILS ET RECOUVREMENTS

HSS-G	ACERO RÁPIDO HSS-G (M2) HIGH SPEED STEEL HSS-G (M2) ACIER RAPIDE HSS-G (M2)	FUTURA	FUTURA FUTURA FUTURA	ALUSPEED	ALUSPEED ALUSPEED ALUSPEED
HSS M3	ACERO RÁPIDO HSS (M3) HIGH SPEED STEEL HSS (M3) ACIER RAPIDE HSS (M3)	HSS-CO 8%	ACERO RÁPIDO COBALTO 8% (M42) HIGH SPEED 8% COBALT STEEL (M42) ACIER RAPIDE COBALT 8% (M42)	TIALN	NITRURO DE TIT. ALUMINIO (RECUBRIMIENTO) TITANIUM ALUMINIUM NITRIDE NITRURE DE TITANE ALUMINIUM
HSS	ACERO RÁPIDO HSS HIGH SPEED STEEL HSS ACIER RAPIDE HSS	HSS-R	LAMINADO ROLL FORGED LAMINÉ	TIN	NITRURO DE TITANIO (RECUBRIMIENTO) TITANIUM NITRIDE (COATING) NITRURE DE TITANE (RECOUVREMENT)
HSS-CO 5%	ACERO RÁPIDO COBALTO 5% (M35) HIGH SPEED 5% COBALT STEEL (M35) ACIER RAPIDE COBALT 5% (M35)	MD	METAL DURO - CARBURO DE TUNGSTENO HARD METAL - CARBURE TUNGSTEN METAL DUR - CARBURE TUNGSTÈNE	VAP	VAPORIZADO (TRATAMIENTO) VAPORIZED (TREATMENT) VAPORISÉ (TRAITEMENT)
MDI	METAL DURO INTEGRAL HARD METAL INTEGRAL METAL DUR PLEIN	PM	PULVIMETALÚRGICO POWDER METALURGY MÉTALLURGIE DES POUDRES	HSS-E-V3	ACERO RÁPIDO VANADIO 3% HIGH SPEED STEEL 3% VANADIUM ACIER RAPIDE VANADIUM 3%
ALTiN	NITRURO DE TITANIO ALUMINIO TITANIUM ALUMINIUM NITRIDE NITRURE DE TITANE ALUMINIUM	ALCrN	NITRURO DE CROMO ALUMINIO ALUMINIUM CHROMIUM NITRIDE NITRURE DE CHROME ALUMINIUM	HL	HARD LUBE HARD LUBE HARD LUBE

APLICACIONES CONSTRUCCIÓN / APPLICATIONS CONSTRUCTION / APPLICATIONS CONSTRUCTION

	HORMIGÓN REFORZADO REINFORCED CONCRETE BÉTON ARMÉ		HORMIGÓN CONCRETE BÉTON		HORMIGÓN BLOQUE CONCRETE BLOCK BRIQUE BÉTON
	PIEDRA NATURAL - GRANITO - MÁRMOL NATURAL STONE - GRANITE - MARBLE PIERRE NATURELLE		PIEDRA ARTIFICIAL ARTIFICIAL STONE PIERRE ARTIFICIELLE		CERÁMICA - PORCELANATO - GRES CERAMIC - GRES - HARD TILE CÉRAMIQUE - GRÈS
	VIDRIO GLASS VERRE		LADRILLO BRICK BRIQUE		TEJA TILE TILE
	MAMPOSTERÍA PLYWOOD MAÇONNERIE		MULTIUSOS MULTIPURPOSE MULTIMATÉRIEL		PVC - ACRÍLICO PVC PVC
	MADERA WOOD BOIS		AGLOMERADO SOFTWOOD AGGLOMÉRÉS		CONTRACHAPADO PLYWOOD CONTRAPLAQUÉ

APLICACIONES METAL / METAL APPLICATIONS / APPLICATIONS MÉTAL

	ACERO 400-800 STEEL 400-800 ACIER 400-800		ALUMINIO ALUMINIUM ALUMINIUM		INOX STAINLESS STEEL INOX		TITANIO TITANIUM TITANIUM
	ACERO 800-1100 STEEL 800-1100 ACIER 800-1100		COBRE COPPER CUIVRE		ALEACIONES ESPECIALES SPECIAL ALLOYS ALLIAGES SPÉCIAUX		LATÓN BRASS LAITON
	ACERO 1100-1400 STEEL 1100-1400 ACIER 1100-1400		FUNDICIÓN CAST IRON FONTE		PLÁSTICO PLASTIC PLASTIQUE		

ENVASES / PACKAGINGS / EMBALLAGES

	BLISTER BLISTER BLISTER		COLGADOR CLIP CLIP		PETACA PACK PACK		TUBO CON COLGADOR TUBE WITH HANGER TUBE AVEC CONGATEUR		TUBO SIN COLGADOR TUBE WITHOUT HANGER TUBE SANS CONGATEUR		CAJA SIN COLGADOR BOX WITHOUT HANGER BOÎTE SANS CONGATEUR
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CARACTERÍSTICAS DEL ACERO

CHARACTERISTICS OF STEEL
CARACTERISTIQUES DE L'ACIER

HSS

Acero rápido con buena tenacidad y rendimiento para herramientas de corte.
High Speed Steel with good toughness and good performance for cutting tools.
Acier rapide avec une bonne ténacité et une bonne performance pour les outils de coupe.

HSS-G

Acero rápido de gran rendimiento y buena tenacidad, para el trabajo en materiales hasta 850 N/mm².
Very high performance HSS with good toughness, for milling and cutting of materials up to 850 N/mm².
Acier rapide à haut rendement et bonne ténacité, pour le broyage et le coupe des matériaux jusqu'à 850 N/mm².

HSS M3

Acero rápido de gran rendimiento y alta tenacidad, con alta estabilidad en la arista de corte.
Very high performance and good toughness HSS with high stability at the cutting edge.
Acier rapide à haut rendement et bonne ténacité, avec une grande stabilité à la arête de coupe des outils.

HSS-CO 5%

Acero rápido de gran rendimiento y buena tenacidad, para el fresado de materiales hasta 1200 n/mm².
Very high performance HSS with good toughness, for milling of materials up to 1200 n/mm².
Acier rapide à haut rendement et bonne ténacité, pour le broyage des matériaux jusqu'à 1200 n/mm².

HSS-CO 8%

Acero rápido de excelente rendimiento, buena tenacidad y gran resistencia a la temperatura, para el fresado de materiales de gran dureza.
Extra high performance HSS with good toughness and great temperature resistance. For milling of hard materials.
Acier rapide à excellent rendement, bonne ténacité et haute résistance à la température. Pour l'usinage de matériaux très durs.

HSS-E-V3

Acero rápido de gran rendimiento y buena tenacidad. Especialmente usado en piezas de gran diámetro y fresas de disco.
HSS with high performance and good toughness. Applicable for tools of big diameters and for face milling cutters.
Acier rapide à haut rendement et bonne ténacité, notamment utilisé dans les pièces à grand diamètre et fraises de disque.

PM

Acero rápido pulvi-metalúrgico. Estructura homogénea, gran estabilidad y mayor vida útil de las herramientas. Para trabajar materiales muy duros.
Powder metallurgical HSS, extra high performance. Homogeneous structure, more stability and longer life for tools. For very hard materials.
Acier rapide pulvimétallurgique. Structure homogène, grande stabilité et durée de vie des outils prolongée. Pour l'usinage de matériaux très durs.

MDI

Aleación sinterizada de Carburo de Tungsteno, de gran dureza, estabilidad y resistencia al desgaste, que permite trabajar a velocidades muy altas y en grandes producciones.
Sintered alloy of Tungsten Carbide, with great hardness, excellent stability and resistance to wear, which allows working at very high speeds and in large productions.
Alliage fritté de carbure de tungstène, avec une grande dureté, une excellente stabilité et une résistance à l'usure, ce qui permet de travailler à des vitesses très élevées et dans les grandes productions.

RECUBRIMIENTOS

COATINGS
REVETEMENTS

TIALN

Recubrimiento que aumenta la resistencia, la dureza y la oxidación a altas temperaturas. Permite trabajar a altas velocidades sin refrigerar.
Increases resistance, hardness and high temperature oxidation. It allows high speed without cooling.
Revêtement qui accroît la résistance, la dureté et l'oxydation à des températures élevées. Possibilité de travail à des vitesses élevées sans réfrigérer.

ALTiN

Mayor contenido en Al que el TiAlN. Aumenta ligeramente la dureza respecto a éste.
With more Al than TiAlN. Lightly increases hardness.
Teneur plus importante que celle du "TIALN".

ALCrN

Recubrimiento con excelente resistencia a la tracción en caliente.
Great tensile strength and excellent hot hardness.
Revêtement avec excellente résistance à la traction à chaud.

TiN

Disminuye el coeficiente de fricción, aumenta la vida útil de la herramienta.
More sliding properties and tool life increase.
Diminution du coefficient de frottement, prolongation de la durée de vie utile de l'outil.

HL

Disminuye mucho la fricción. Gran adhesión del recubrimiento en todo tipo de materiales.
Very good sliding properties. Great adhesion to all kind of tools.
Réduction considérable des frottements.

FUTURA

Mejora la dureza, disminuye la fricción y aumenta la resistencia química.
Increases hardness, better sliding properties and chemical resistance.
Amélioration de la dureté, diminution des frottements et accroissement de la résistance chimique.

ALUSPEED

Recubrimiento antiadherente AlSi al 10%. Propiedades auto-lubricantes y muy buena evacuación de viruta debido a su baja fricción.
Better sliding properties. AlSi 10% coating. Low friction coefficient and chip extraction.
Revêtement anti-adhésif "ALSI" à 10 % des propriétés auto-lubrifiantes et très bonne évacuation des copeaux en raison de sa faible friction.

VAP

Recubrimiento PVD, mayor vida útil de la herramienta y mayor productividad con menor coste.
PVD coating: longer tool life and higher productivity at a lower cost.
Revêtement PVD: durée de vie outils prolongée et une meilleure productivité à moindre coût de l'outil.

1º. CONDICIONES DE PAGO

La forma de pago será adecuada a la ley vigente en cada país. En el mercado nacional, según la Ley 15/2010 del 05 de Julio de 2010.

Reposición, mediante cheque o transferencia a los 11 días de fecha factura tendrá un Dto. Adicional del 2%.

2º. VENCIMIENTOS FIJOS

En caso de fechas fijas de pago que rebasen los plazos de pago estipulados, giraremos a la fecha fijada pero inmediatamente anterior, según corresponda, siendo el plazo máximo el límite establecido por la ley vigente de cada país.

3º. SEGURO

Las mercancías viajarán siempre por exclusiva cuenta y riesgo del comprador, siendo a cargo del mismo la prima del seguro que se realice, en los casos en los que el cliente desee asegurarla.

4º. RECLAMACIONES

En discrepancias por diferencias observadas en la recepción del material, se atenderán todas aquellas reclamaciones que se planteen dentro de los 8 días siguientes a la recepción del material, no aceptando ninguna devolución sin previo conocimiento de SESA TOOLS, S.A.

5º. CONDICIONALIDAD

La aceptación de las mercancías sin el rechazo inmediato por parte del comprador, supone la aprobación de estas condiciones generales de venta y su modificación sólo tendrá validez si consta por escrito la conformidad de SESA TOOLS, S.A.

6º. GARANTIAS

Todas las herramientas del programa de ventas están garantizadas contra cualquier defecto de fabricación y materiales, sin responsabilizarse SESA TOOLS, S.A. de la utilización inadecuada de las mismas. En cualquier caso, nuestra responsabilidad estará limitada al valor de la herramienta suministrada. Nos reservamos el derecho de modificar, sin previo aviso, las dimensiones, calidades de acero y en general todas las características técnicas de las herramientas. No será sustituida ninguna herramienta sin el informe previo de nuestro Departamento de Control de Calidad. Para la elaboración de dicho informe será imprescindible remitir debidamente cumplimentada la ficha de devolución del producto correspondiente.

7º. DEVOLUCIONES

No se admitirá ninguna devolución sin comunicación previa del cliente y es necesario el consentimiento de SESA TOOLS, S.A., estipulando como plazo máximo para atenderlas un **periodo de 30 días** desde la recepción de la mercancía por parte del cliente.

Cualquier devolución deberá ser documentada adjuntando el albarán o factura de venta del material afectado. En caso de tratarse de una devolución **por error en el pedido efectuado por el cliente o no venta**, siendo consentida por SESA TOOLS, S.A., se realizará un cargo de un 15% en factura de abono en concepto de gastos de manipulación, reenvasado, etc. Siempre deberán realizarse a portes pagados. **No se aceptarán** devoluciones de herramientas

enviadas a portes debidos por agencias no autorizadas por SESA TOOLS, S.A.

Para la tramitación de una **devolución de un producto en caso de incidencia**, será necesario que se adjunte un formulario con las condiciones de trabajo, que será proporcionado por SESA TOOLS, S.A.

Una vez recibida la herramienta, nuestro departamento de calidad lo verificará y emitirá el informe correspondiente.

8º. PORTES

PENINSULA Y BALEARES

Pedidos inferiores a 150 € NETOS por expedición: Portes debidos o cargados en factura, siempre que se utilicen nuestros medios habituales.

Pedidos superiores a 150 € NETOS: PORTES PAGADOS

CANARIAS, CEUTA Y MELILLA

PAGADOS, exclusivamente en pedidos superiores a 600 € NETOS, por VÍA MARÍTIMA.

Otros envíos por paquete postal express, mensajeros, etc., se cargarán en factura los costos de envío, más los gastos de DESPACHO, si los hubiera.

PORTUGAL

Pedidos inferiores a 150 € NETOS por expedición: Portes debidos o cargados en factura, siempre que se utilicen nuestros medios habituales.

Pedidos superiores a 150 € NETOS: PORTES PAGADOS.

FRANCIA

Pedidos inferiores a 300 €: Portes debidos o cargados en factura

Pedidos superiores a 300 €: PORTES PAGADOS.

9º. IMPORTE MÍNIMO DE PEDIDO

No existe límite mínimo de pedido. A los pedidos inferiores a 50 € se cargará un coste adicional de 4 €.

10º. I.V.A.

Todos los precios están sujetos al Impuesto sobre el Valor Añadido, siendo a cargo del cliente el recargo correspondiente.

11º. RESERVA DE DOMINIO

Nuestras ventas se consideran siempre bajo la condición de "RESERVA DE DOMINIO", según el artículo 1.506 del C.C. hasta que se haya hecho efectivo íntegramente el pago de todo lo adeudado.

12º. JURISDICCIÓN COMPETENTE

Para cualquier discrepancia acerca de la interpretación de estas condiciones, o litigio por razón de incumplimiento por cualquiera de las partes, ambas se someterán al fuero de los Juzgados y Tribunales de San Sebastián, con renuncia al que pudiera corresponderles.

1º. TERMS OF PAYMENT

Payment shall be made in accordance with the laws in force in each country. Payment in Spain shall be governed by Law 15/2010 of 05 July 2010.

Payment by means of a cheque or bank transfer 11 days after the invoice due date shall be subject to an additional charge of 2%.

2º. FIXED MATURITIES

In the case of fixed payment dates exceeding the predefined payment deadlines, we shall bill on the date immediately previous to the set date, as applicable, up to the maximum deadline established under the law in force in each country.

3º. INSURANCE

Goods shall be transported at the sole risk of the purchaser, which shall also be responsible for the respective insurance premium in cases where the customer wishes to take out insurance coverage.

4º. COMPLAINTS

In relation to discrepancies detected on delivery of the goods, only complaints filed within 8 days of receipt of the material will be dealt with, and no returned goods will be accepted without the previous knowledge of SESA TOOLS, S.A.

5º. CONDITIONALITY

The acceptance of goods with no immediate rejection by the purchaser implies the approval of these general conditions of sale and the amendment of the same shall only be valid with the written consent of SESA TOOLS, S.A.

6º. GUARANTEES

All sales program tools are guaranteed against any manufacturing and material defects, and SESA TOOLS, S.A. shall not be held liable for any improper use of the same. Furthermore, our liability shall be limited to the value of the tool supplied. We reserve the right to modify the dimensions, steel quality and overall technical characteristics of the tools. No tool shall be replaced without the submission of a report by our quality control department. This report shall only be issued on receipt of the duly completed product rejection sheet for the item in question.

7º. RETURNS

No return will be accepted without previous communication from the client and the consent of SESA TOOLS, S.A. is required. To attend returns, it's stipulated a maximum term of 30 days from the receipt of the goods by the client.

Any return must be documented attaching the delivery note or invoice of the affected items. In case of a return by customer's mistake placing the order or non-sale, previously being consented by SESA TOOLS, SA shall be subject to a 15% surcharge for handling, repackaging, etc.

Returns should always be done free of freight. SESA TOOLS, S.A. **shall not accept** returned tools with freight charged by not authorized agencies.

For processing of a return of items in **the event of an incident**, it will be necessary to send attached a form with working conditions. This document will be provided by SESA TOOLS, S.A.

Once the tool is received, our quality department will verify it and issue the corresponding report.

8°. FREIGHT

THE MAINLAND AND THE BALEARIC ISLANDS

Orders below €150 net per shipment: Freight paid or billed by invoice whenever using our habitual means.

Orders above €150 net: **FREIGHT INCLUDED.**

THE CANARY ISLANDS, CEUTA AND MELILLA

INCLUDED, exclusively for orders of over € 600 net, by SEA.

Other express delivery services via courier, etc., delivery costs will be billed for by invoice, plus shipment costs, if applicable.

PORTUGAL

Orders below €150 net per shipment: Freight paid or billed by invoice whenever using our habitual means.

Orders above €150 net: **FREIGHT INCLUDED.**

1°. CONDITIONS DE PAIEMENT

Le mode de paiement sera adapté à la loi en vigueur de chaque pays. Sur le marché national, il sera conforme à la Loi 15/2010 du 05 juillet 2010.

Lors du paiement par chèque ou virement dans les 11 jours à partir de la date de facturation vous aurez droit à une remise supplémentaire de 2%.

2°. ECHEANCES FIXES

Dans le cas de dates de règlement fixes qui réduiraient les délais de paiement établis, nous procéderons au virement à la date fixe la plus immédiatement antérieure audit délai correspondant, le délai maximum étant la limite établie par la loi en vigueur dans chaque pays.

3°. ASSURANCE

Les marchandises voyageront toujours à la charge et au risque de l'acheteur, qui devra prendre en charge la prime de l'assurance éventuellement souscrite, si le client souhaite assurer ses marchandises.

4°. RECLAMATIONS

En cas de divergences suite à des non-conformités par rapport à la commande constatées lors de la réception du matériel, nous répondrons à toutes les réclamations présentées dans un délai de 8 jours après la réception du matériel, aucun retour de marchandise ne sera accepté sans que SESA TOOLS, S.A. en soit informée au préalable.

5°. CONDITIONS

L'acceptation des marchandises sans leur refus immédiat de la part de l'acheteur implique l'approbation des présentes conditions générales de vente et toute modification de ces dernières ne sera valide que si elle est approuvée par écrit par SESA TOOLS, S.A.

6°. GARANTIES

Tous les outils de notre programme de ventes sont garantis contre tout défaut de fabrication et de matériels, sans que SESA TOOLS, S.A. puisse être tenue pour responsable d'une utilisation inadéquate de ses produits. Dans tous les cas, notre responsabilité est limitée à la valeur de l'outil fourni. Nous nous réservons le droit de modifier sans préavis les dimensions, les qualités d'acier et en général toutes les caractéristiques techniques des outils. Aucun outil ne sera remplacé sans le rapport préalable de notre Département de Contrôle Qualité. Pour l'élaboration dudit rapport il sera indispensable de remplir comme il se doit la fiche de retour du produit concerné.

7°. RETOUR DE MARCHANDISES

Aucun retour ne sera accepté sans une communication préalable du client et le consentement de SESA TOOLS, S.A. est requis. Il est stipulé un délai maximum de **30 jours** à compter de la réception des marchandises par le client pour y assister.

Tout retour doit être documenté en joignant le bon de livraison ou la facture des articles concernés. Dans le cas d'un retour **par erreur dans la commande du client ou de la non-vente**, préalablement consenti par SESA TOOLS, SA, sera soumis à un supplément de 15% pour la manutention, le reconditionnement, etc.

FRANCE

Orders below € 300 net: Freight paid or billed by invoice.

Orders above € 300 net: **FREIGHT INCLUDED.**

9°. MINIMUM ORDERS

There is no minimum order limit. Orders of less than € 50 shall be subject to an additional cost of 4€.

10°. I.V.A. (VAT)

All prices are subject to value added tax and the customer shall bear the cost of the same.

11°. RESERVATION OF RIGHT OF OWNERSHIP

Our sales are always conducted under the condition of "RIGHT OF OWNERSHIP" in accordance with article 1506 of the Constitution until full payment of all that is owed has been effected.

12°. JURISDICTION

All disputes arising from the interpretation of these terms or litigation due to non-compliance by either party shall be settled by the courts of the city of San Sebastian, with the express waiver of any other.

Les retours doivent toujours être effectués sans fret. SESA TOOLS, S.A. n'acceptera pas de retours d'outils qui arriveraient avec le fret sans payer par l'intermédiaire d'agences non autorisées.

Pour le traitement d'un retour d'articles **en cas d'incident**, il sera nécessaire d'envoyer ci-joint un formulaire avec conditions de travail. Ce document sera fourni par SESA TOOLS, S.A.

Une fois l'outil reçu, notre service qualité le vérifie et émet le rapport correspondant.

8°. FRAIS DE PORT

PENINSULE IBERIQUE ET BALEARES

Pour les commandes inférieures à 150 € NETS par expédition : Port dû ou inclus dans la facture, à condition d'utiliser nos moyens de livraison habituels.

Pour les commandes supérieures à 150 € NETS : **PORT PAYE.**

CANARIES, CEUTA ET MELILLA

PORT PAYE exclusivement pour les commandes supérieures à 600 € NETS, par VOIE MARITIME.

Pour les autres modes d'envoi par colis postal express, messagerie, etc., les frais d'envoi, ainsi que les frais d'EXPEDITION, si existantes, seront inclus dans la facture.

PORTUGAL

Pour les commandes inférieures à 150 € NETS par expédition : Port dû ou inclus dans la facture, à condition d'utiliser nos moyens de livraison habituels.

Pour les commandes supérieures à 150 € NETS : **PORT PAYE.**

FRANCE

Pour les commandes inférieures 300 € : Port dû ou inclus dans la facture

Pour les commandes supérieures à 300 € : **PORT PAYE.**

9°. MONTANT MINIMUM DE LA COMMANDE

Il n'y a pas de limite minimum de commande. Un coût additionnel de 4 € sera appliqué aux commandes inférieures à 50 €.

10°. T.V.A.

Tous les prix sont soumis à la Taxe sur la Valeur Ajoutée, qui sera à la charge du client.

11°. RESERVE DE PROPRIETE

Nos ventes se font toujours sous la condition de "RESERVE DE PROPRIETE", conformément aux dispositions de l'article 1.506 du C.C. jusqu'au recouvrement effectif et intégral du montant dû.

12°. JURISDICTION COMPETENTE

Pour toute divergence concernant l'interprétation des présentes conditions ou tout litige découlant du non-accomplissement de ses obligations par l'une des parties, les deux parties se soumettront à la juridiction des Tribunaux de San Sebastián, en renonçant à tout autre tribunal.



SESA[®]

SESA TOOLS, S.A.

B° Florida, 56 Edif. nº1 y nº12

20120 HERNANI - Gipuzkoa - SPAIN

Tel.: 943 33 02 95 - Fax: 943 33 16 20

www.sesatools.com

mail@sesatools.com  [@sesatools](https://twitter.com/sesatools)

