ROSCADO
Threading
Taraudage

MACHOS MÁQUINA MÉTRICA 194
Metric Machine Taps
Tarauds machine métrique

SETS MACHOS 232
Tap Sets
Jeux de tarauds

MACHOS MÁQUINA MÉTRICA ISO 239
ISO Metric Machine Taps
Tarauds machine métrique ISO

MACHOS MANO MÉTRICA 242
Metric Hand Taps
Tarauds à main métrique

MACHOS UNC 250
UNC Taps
Tarauds UNC

MACHOS UNF 255
UNF Taps
Tarauds UNF

MACHOS UNEF-UN-NPT 259
UNEF-UN-NPT Taps
Tarauds UNEF-UN-NPT

MACHOS BSW (Whitworth) BSP (GAS)-BSPT (RC)-PG 262
BSW (Whitworth)- BSP (GAS) BSPT (RC)-PG Taps
Tarauds BSW (Whitworth)-BSP (GAZ) BSPT (RC)-PG

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REPARADORES ROSCAS 289
Thread Repairs
Filets rapportes

panas
info@panas.sk
038/7496764
www.panas.sk

TABLA USO ROSCADO
Threading Use Table - Tableau usage Taraudage

MACHOS
Taps /Tarauds*

***Punta** / **Point** / Pointe **M3-M6: Macho** / Male*
***Punta** / **Point** / Pointe **>M6: Hembra** / Female*

● **Uso Recomendado** / **Recommended Use** / Utilisation conseillée
○ **Uso Alternativo** / **Alternative Use** / Option d´emploi

Sets pags. 232-237

Ref.		Pag.	Rosca Thread Filet	Uso Use Usage	DIN	Material	Recubr. Coating Revêt.	P					M	K		S	N							F	H
								P.1	P.2	P.3	P.4	P.5		K.1	K.2		N.1	N.2	N.3	N.4	N.5	N.6	N.7		
3130 3230	Form: B 3,5-5h Tol: 6H	194	M	Máquina Machine	371 376	PMX	HARD			●	●					●							●		○
3170 3270	Form: C 2-3h Tol: 6H	195	M	Máquina Machine	371 376	PMX	HARD			●	●					●							●		○
3143	Form: B 3,5-5h Tol: 6H	196	M	Máquina Machine	371	HSSE-V			●			○	○	●	●						●				
3243	Form: B 3,5-5h Tol: 6H	196	M	Máquina Machine	376	HSSE-V			●			○	○	●	●						●				
3153	Form: C 2-3h Tol: 6H	197	M	Máquina Machine	371	HSSE-V			●			○	○	●	●						●				
3253	Form: C 2-3h Tol: 6H	197	M	Máquina Machine	376	HSSE-V			●			○	○	●	●						●				
3125 3225	Form: B 3,5-5h Tol: 6H	198	M	Máquina Machine	371 376	PMX	HARD		●			●	●				●	●							
3165 3265	Form: C 2-3h Tol: 6H	199	M	Máquina Machine	371 376	PMX	HARD		●			●	●				●	●							
3149 3249	Form: B 3,5-5h Tol: 6H	200	M	Máquina Machine	371 376	HSSE 5% Co	TIN					●	●				●	●							
3159 3259	Form: C 2-3h Tol: 6H	201	M	Máquina Machine	371 376	HSSE 5% Co	TIN					●	●				●	●							
3176 3276	Form: C 2-3h Tol: 6HX	202	M	Máquina Machine	371 376	HSSE 5% Co								●	●										
3172 3272	Form: B 3,5-5h Tol: 6H	203	M	Máquina Machine	371 376	HSSE 5% Co													●						
3175 3275	Form: C 2-3h Tol: 6H	204	M	Máquina Machine	371 376	HSSE 5% Co													●						
3174 3274	Form: B 3,5-5h Tol: 6H	205	M	Máquina Machine	371 376	HSSE 5% Co		●	○			○	○				○	○	●	●	●	○			

TABLA USO ROSCADO

Threading Use Table - Tableau usage Taraudage

Ref.		Pag.	Rosca Thread Filet	Uso Use Usage	DIN	Material	Recubr. Coating Revêt.	P					M	K		S	N							F	H
								P.1	P.2	P.3	P.4	P.5		K.1	K.2		N.1	N.2	N.3	N.4	N.5	N.6	N.7		
3171	**Form:** C 2-3h **Tol:** 6HX	207	M	Máquina Machine	371 / 376	PMX	TIALN-TIN	●	●	●		●	●				●	●	●	●	●				
3162	**Form:** C 2-3h **Tol:** 6HX	207	M	Máquina Machine	2174	PMX	TIN	●	●	●		●	●				●	●	●	●	●				
3173	**Form:** E 1,5-2h **Tol:** 6HX	208	M	Máquina Machine	371 / 376	PMX	TICN	●	●	●		●	●				●	●	●	●	●				
3163	**Form:** C 2-3h **Tol:** 6HX	208	M	Máquina Machine	2174	HSSE 5% Co	TICN	●									●	●	●	●					
3164	**Form:** C 2-3h **Tol:** 6HX	209	M	Máquina Machine	2174	HSSE 8% Co	TICN	●	●	●	●	●	●				●	●	●	●	●				
3120 3220	**Form:** B 3,5-5h **Tol:** 6H	210	M	Máquina Machine	371 376	HSSE-V	TIN	●	●			●	●	●	●		●	●		●	●	●			
3160 3260	**Form:** C 2-3h **Tol:** 6H	211	M	Máquina Machine	371 376	HSSE-V	TIN	●	●			●	●	●	●		●	●		●	●	●			
3151 3251	**Form:** C 2-3h **Tol:** 6H	212	M	Máquina Machine	371 376	HSSE 5% Co		●											●						
3129	**Form:** B 3,5-6h **Tol:** 6HX	213	M	Máquina Machine	371 / 376	PMX	HARD	●	●	●	●	●	●	●	●		●	●	●	●	●				
3169	**Form:** C 2-3h **Tol:** 6HX	213	M	Máquina Machine	371 / 376	PMX	HARD	●	●	●	●	●	●	●	●		●	●	●	●	●				
3100 3200	**Form:** B 3,5-5h **Tol:** 6H	214 215	M/MF	Máquina Machine	371 376 / 374	HSSE 5% Co		●						●			○		●	●					
3110 3210	**Form:** C 2-3h **Tol:** 6H	217 218	M/MF	Máquina Machine	371 376 / 374	HSSE 5% Co		●						●			●				●				
3140 3240	**Form:** C 2-3h **Tol:** 6H	220	M	Máquina Machine	371 376	HSSE 5% Co											●								
3600	**Form:** A 6-8h **Tol:** 6H	221	M	Máquina Machine	371	HSSE 5% Co		●																	
3150 3250	**Form:** C 2-3h **Tol:** 6H	222 223	M/MF	Máquina Machine	371 376	HSSE 5% Co		●						●			○		●	●					
3166	**Form:** B 3,5-5h **Tol:** 6H	224	M/MF	Máquina Machine	371	HSSE 5% Co		●									○		●	●					
3167	**Form:** C 2-3h **Tol:** 6H	224	M/MF	Máquina Machine	371	HSSE 5% Co		●									○		●	●					

TABLA USO ROSCADO
Threading Use Table - Tableau usage Taraudage

MACHOS
Taps /Tarauds*

***Punta** / **Point** / Pointe **M3-M6: Macho** / **Male**
***Punta** / **Point** / Pointe **>M6: Hembra** / Female

● **Uso Recomendado** / **Recommended Use** / Utilisation conseillée
○ **Uso Alternativo** / **Alternative Use** / Option d´emploi

Sets pags. 232-237

Ref.		Pag.	Rosca Thread Filet	Uso Use Usage	DIN	Material	Recubr. Coating Revêt.	P					M	K		S	N							F	H
								P.1	P.2	P.3	P.4	P.5		K.1	K.2		N.1	N.2	N.3	N.4	N.5	N.6	N.7		
3101 L 3201 L	Form: B 3,5-5h Tol: 6H	225	M	Máquina Machine	371 / 376 / 374	HSSE 5% Co		●						●			○		●	●					
3161 L 3261 L	Form: C 2-3h Tol: 6H	226	M	Máquina Machine	371 / 376 / 374	HSSE 5% Co		●						●			○		●	●					
3105 3205	Form: B 3,5-5h Tol: 6G	227	M	Máquina Machine	371 / 376	HSSE 5% Co		●						●			○		●	●					
3155 3255	Form: C 2-3h Tol: 6G	228	M	Máquina Machine	371 / 376	HSSE 5% Co		●						●			○		●	●					
3185	Form: 18h Tol: 6H	229	M	Máquina Machine	357	HSS		●									●	●	●						
3119 3217	Form: B 4-5h Tol: 6H	239	M	Máquina Machine	ISO 529	HSSE 5% Co		●						●			○		●	●					
3109 3207	Form: B 4-5h Tol: 6H	240	M (ISO)	Máquina Machine	ISO 529	HSS		●						●			○		●	●					
3157	Form: C 1-2h Tol: 6H	241	M (ISO)	Máquina Machine	ISO 529	HSS		●						●			○		●	●					
3247	Form: C 1-2h Tol: 6H	241	M (ISO)	Máquina Machine	ISO 529	HSS		●						●					●	●					
3036	Form: C 2-3h Tol: 6H	242	M	Mano Hand Main	352 / 2181	HSSE 5% Co						●	●	○	○										
3037	Form: C 2-3h Tol: 6H	242	M	Mano Hand Main	352 / 2181	HSSE 5% Co						●	●	○	○										

MACHOS
Taps /Tarauds*

***Punta** / **Point** / Pointe **M3-M6: Macho** / Male*
***Punta** / **Point** / Pointe **>M6: Hembra** / Female*

● **Uso Recomendado** / **Recommended Use** / Utilisation conseillée
○ **Uso Alternativo** / **Alternative Use** / Option d´emploi

Sets pags. 232-237

Ref.		Pag.	Rosca Thread Filet	Uso Use Usage	DIN	Material	Recubr. Coating Revêt.	P P.1 <850 N/mm²	P P.2 <1000 N/mm²	P P.3 1000-1300 N/mm²	P P.4 ANTIDESGASTE Wear-Resistant Anti-Usure	P P.5 MARTENSÍTICO Martensitic Martensitique	M INOX AUSTENÍTICO Austenitic Stainless Steel - Aciers inox austénitique	K K.1 <700 N/mm² FUNDICIÓN Cast Iron Fonte	K K.2 700-1000 N/mm²	S ALEACIONES TERMORRESISTENTES Heat-Resistant Alloys - Alliages thermorésistants	N N.1 VIRUTA CORTA Short Chip - Copeaux courts Cu - BRONCE LATÓN Copper Bronze Brass Cuivre Bronze Laiton	N N.2 VIRUTA LARGA Long Chip - Copeaux longs	N N.3 NO ALEADO Unalloyed - Sans alliage ALUMINIO - MAGNESIO Aluminium - Magnesium	N N.4 < 10% Si	N N.5 > 10% Si	N N.6 TERMOPLÁSTICOS Thermoplastics - Thermoplastiques	N N.7 DUROPLÁSTICOS Hard Plastics - Plastiques durs	F Composites de Fibras Fiber Composites Composites en fibre	H 45-70 HRC
3030		243	M	Mano Hand Main	352	HSS		●						●	●		●		●	●	○				
3031 ↰	Form: C 2-3h Tol: 6H				352																				
3040	Form: C 2-3h / D 5h / A 8h Tol: 6H	244	M	Mano Hand Main	ISO 529	HSS		●						●	●		○	○	●	●	●				
3020		245	MF	Mano Hand Main	2181	HSS		●						●	●		●		●	●	○				
3021 ↰	Form: C 2-3h Tol: 6H	246			2181																				
3010	Form: C 2-3h Tol: 6H	247	M/MF	Mano Hand Main	352 / 2181	HSS		●						●	●		●		●	●	○				
3023	Form: 4-6h Tol: 6H	249	M	Mano Hand Main	352	HSS		●						●	●		●	●	●	●	●				
3144	Form: C 2-3h Tol: 2B	250	UNC	Máquina Machine	371	PMX	HARD		●			●	●	○	○		●	●	●	●	○				
3104	Form: C 2-3h Tol: 2B	250	UNC	Máquina Machine	371	PMX	HARD		●			●	●	○	○		●	●	●	●	○				
3134		251	UNC	Máquina Machine	371	HSSE 5% Co		●						●			●	●	●	●	○				
3234	Form: B 3,5-5h Tol: 2B				376																				
3114		252	UNC	Máquina Machine	371	HSSE 5% Co		●						●			●	●	●	●	○				
3214	Form: C 2-3h Tol: 2B				376																				
3154		253	UNC	Máquina Machine	371	HSSE 5% Co		●						●			●	●	●	●	○				
3254	Form: C 2-3h Tol: 2B				376																				

TABLA USO ROSCADO
Threading Use Table - Tableau usage Taraudage

MACHOS
Taps /Tarauds*

***Punta** / **Point** / Pointe **M3-M6: Macho** / **Male**
***Punta** / **Point** / Pointe **>M6: Hembra** / Female

● **Uso Recomendado** / **Recommended Use** / Utilisation conseillée
○ **Uso Alternativo** / **Alternative Use** / Option d´emploi

Sets pags. 232-237

Ref.		Pag.	Rosca Thread Filet	Uso Use Usage	DIN	Material	Recubr. Coating Revêt.	P					M	K		S	N							F	H
								P.1	P.2	P.3	P.4	P.5		K.1	K.2		N.1	N.2	N.3	N.4	N.5	N.6	N.7		
3034	**Form:** C 2-3h **Tol:** 2B	254	UNC	Mano Hand Main	352	HSS		●						●	●		●	●	●	●	○				
3127	**Form:** B 3,5-5h **Tol:** 2B	255	UNF	Máquina Machine	374	PMX	HARD		●		●	●		○	○		●	●	●	●	○				
3124	**Form:** C 2-3h **Tol:** 2B	255	UNF	Máquina Machine	374	PMX	HARD		●		●	●		○	○		●	●	●	●	○				
3204	**Form:** B 3,5-5h **Tol:** 2B	256	UNF	Máquina Machine	374	HSSE 5% Co		●						●	●		●	●	●	●	○				
3224	**Form:** C 2-3h **Tol:** 2B	256	UNF	Máquina Machine	374	HSSE 5% Co		●						●	●		●	●	●	●	○				
3244	**Form:** C 2-3h **Tol:** 2B	257	UNF	Máquina Machine	374	HSSE 5% Co		●						●	●		●	●	●	●	○				
3024	**Form:** C 2-3h **Tol:** 2B	258	UNF	Mano Hand Main	2181	HSS		●						●	●		●	●	●	●	○				
3025	**Form:** C 2-3h **Tol:** 2B	259	UNEF	Mano Hand Main	2181	HSS		●						●	●		●	●	●	●	○				
3209	**Form:** C 2-3h **Tol:** 2B	260	UN	Máquina Machine	374	HSSE 5% Co		●						●	●		●	●	●	●	○				
3107	**Form:** C 2-3h	261	NPT	Máquina Machine	374	HSSE 5% Co		●						●	●		●	●	●	●	○				
3017	**Form:** 1,5-2h	261	NPT	Mano Hand Main	2181	HSS		●						●	●		●	●	●	●	○				

MACHOS
Taps /Tarauds*

***Punta** / **Point** / Pointe **M3-M6: Macho** / **Male**
***Punta** / **Point** / Pointe **>M6: Hembra** / **Female**

● **Uso Recomendado** / **Recommended Use** / Utilisation conseillée
○ **Uso Alternativo** / **Alternative Use** / Option d´emploi

Ref.		Pag.	Rosca Thread Filet	Uso Use Usage	DIN	Material	Recubr. Coating Revêt.	P					M	K		S	N							F	H
								P.1	P.2	P.3	P.4	P.5		K.1	K.2		N.1	N.2	N.3	N.4	N.5	N.6	N.7		
3102 3202	Form: B 3,5-5h	262	BSW (Whitworth)	Máquina Machine	371 376	HSSE 5% Co		●						●	●		●	●	●	●	○				
3112 3212	Form: C 2-3h	263	BSW (Whitworth)	Máquina Machine	371 376	HSSE 5% Co		●						●	●		●	●	●	●	○				
3152 3252	Form: C 2-3h	264	BSW (Whitworth)	Máquina Machine	371 376	HSSE 5% Co		●						●	●		●	●	●	●	○				
3032 3012	Form: C 2-3h Tol: 6H	265 266	BSW (Whitworth)	Mano Hand Main	352	HSS		●						●	●		●	●	●	●	○				
3126	Form: B 3,5-5h Tol: 6H	267	BSPP (Gas)	Máquina Machine	5156	HSSE 5% Co	TIN					●	●												
3136	Form: C 2-3h Tol: 6H	267	BSPP (Gas)	Máquina Machine	5156	HSSE 5% Co	TIN					●	●												
3106	Form: B 3,5-5h	268	BSPP (Gas)	Máquina Machine	5156	HSSE 5% Co		●						●	●		●	●	●	●	○				
3116	Form: C 2-3h	268	BSPP (Gas)	Máquina Machine	5156	HSSE 5% Co		●						●	●		●	●	●	●	○				
3156	Form: C 2-3h Tol: 6H	269	BSPP (Gas)	Máquina Machine	5156	HSSE 5% Co		●						●	●		●	●	●	●	○				
3026 3016	Form: C 2-3h	270	BSPP (Gas)	Mano Hand Main	5157	HSS		●						●	●		●	●	●	●	○				
3019	Form: C 2-3h	272	BSPT (RC)	Mano Hand Main	5157	HSS		●						●	●		●	●	●	●	○				
3011	Form: C 2-3h Tol: 6H	272	PG	Mano Hand Main	40432	HSS		●						●	●		●	●	●	●	○				

P: <850 N/mm² | < 1000 N/mm² | 1000-1300 N/mm² | ANTIDESGASTE Wear-Resistant Anti-Usure | MARTENSÍTICO Martensitic Martensitique
M: INOX AUSTENÍTICO Austenitic Stainless Steel - Aciers inox austénitique
K: < 700 N/mm² | 700-1000 N/mm² — FUNDICIÓN Cast Iron Fonte
S: ALEACIONES TERMORRESISTENTES Heat-Resistant Alloys - Alliages thermorésistants
N: VIRUTA CORTA Short Chip - Copeaux courts | VIRUTA LARGA Long Chip - Copeaux longs | NO ALEADO Unalloyed - Sans alliage | < 10% Si | > 10% Si | TERMOPLÁSTICOS Thermoplastics - Thermoplastiques | DUROPLÁSTICOS Hard Plastics - Plastiques durs | Cu - BRONCE LATÓN Copper Bronze Brass Cuivre Bronze Laiton | ALUMINIO - MAGNESIO Aluminium - Magnesium
F: Composites de Fibras Fiber Composites Composites en fibre
H: 45-70 HRC

TABLA USO ROSCADO
Threading Use Table - Tableau usage Taraudage

Sets pags. 292-293

Ref.		Pag.	Rosca Thread Filet	Uso Use Usage	DIN	Material	Recubr. Coating Revêt.	P					M	K		S	N							F	H
								P.1	P.2	P.3	P.4	P.5		K.1	K.2		N.1	N.2	N.3	N.4	N.5	N.6	N.7		
3540		273	M	Máquina Machine	223	HSS		●	○				○				●	●	●			●			
3536		274	M/MF	Mano Hand Main	22568	HSSE 5% Co		●	○			●	●				●	●	●			●			
3500		275	M/MF	Mano Hand Main	223	HSS		●	○				○				●	●	●			●			
3501 ↰		276	M	Mano Hand Main	223	HSS		●	○				○				●	●	●			●			
3510		277	M	Mano Hand Main	ISO 529	HSS		●	○				○				●	●	●			●			
3534		277	UNC	Mano Hand Main	223	HSS		●	○				○				●	●	●			●			
3504		278	UNF	Mano Hand Main	223	HSS		●	○				○				●	●	●			●			
3505		278	UNEF	Mano Hand Main	22568	HSS		●	○				○				●	●	●			●			
3507		279	NPT	Mano Hand Main	223 B	HSS		●	○				○				●	●	●			●			
3502		279	BSW (Whitworth)	Mano Hand Main	223	HSS		●	○				○				●	●	●			●			
3546		280	BSPP (Gas)	Mano Hand Main	24231	HSSE 5% Co		●	○			●	●				●	●	●			●			
3506		280	BSPP (Gas)	Mano Hand Main	24231	HSS		●	○				○				●	●	●			●			
3519		281	BSPT (RC)	Mano Hand Main	24231	HSS		●	○				○				●	●	●			●			
3509		281	PG	Mano Hand Main	40434	HSS		●	○				○				●	●	●			●			

ACCESORIOS ROSCADO - Threading Accesories - Accesoires de taraudage

GIRA-MACHOS
Tap Wrench
Porte-taraud

Pag. 282

GIRA-MACHOS CRIQUÉ
Tap Wrench
Porte-taraud

Pag. 283

GALGA
Pitch Gauge
Jauge

Pag. 283

ALARGADOR MACHOS MÁQUINA
Machine Tap Extension
Rallonge tarauds machine

Pag. 284

ALARGADOR MACHOS MANO
Hand Tap Extension
Rallonge tarauds à main

Pag. 284

PORTA-MACHOS COMPENSACIÓN RADIAL/AXIAL
Radial/Axial Compensation Tap Holder
Porte-tarauds compensation rayon / axe

Pag. 285

ADAPTADOR PORTA-MACHOS CON EMBRAGUE
Tap Holder Adapter with Safety Clutch
Adaptateur porte-tarauds avec embrayage

Pag. 285

PORTA-COJINETES
Die Holder
Porte filières

Pag. 286

PORTA-COJINETES ISO 529
ISO 529 Die Holder
Porte filières ISO 529

Pag. 286

EXTRACTOR TORNILLOS
Screw Extractor
Extracteur vis

Pag. 287

INSERTO REPARACIÓN ROSCAS
Thread Repair Insert
Filet rapportés

Pag. 289

MACHO PARA INSERTO REPARACIÓN ROSCAS
Thread Repair Insert Tap
Taraud filet rapportés

Pag. 290

INSERTADOR
Fitting Tool
Appareil de pose

Pag. 291

ROMPE ARRASTRES
Pin-Breaker
Rupteur

Pag. 291

DIÁMETROS DE TALADRADO Y EJES PREVIOS AL ROSCADO

Drilling & Axis Diameters Before Threading

Diametres Taraudage et axes Pré-Taraudage

M			
M	P	Ø	Ø
1	0,25	0,75	0,97
1,1	0,25	0,85	1,07
1,2	0,25	0,95	1,17
1,4	0,30	1,10	1,36
1,6	0,35	1,25	1,54
1,7	0,35	1,30	1,64
1,8	0,35	1,45	1,74
2	0,40	1,60	1,93
2,2	0,45	1,75	2,13
2,3	0,40	1,90	2,23
2,5	0,45	2,05	2,43
2,6	0,45	2,10	2,53
3	0,50	2,50	2,92
3,5	0,60	2,90	3,41
4	0,70	3,30	3,91
4,5	0,75	3,70	4,41
5	0,80	4,20	4,90
6	1,00	5,00	5,88
7	1,00	6,00	6,88
8	1,25	6,80	7,87
9	1,25	7,80	8,87
10	1,50	8,50	9,85
11	1,50	9,50	10,85
12	1,75	10,20	11,83
14	2,00	12,00	13,82
16	2,00	14,00	15,82
18	2,50	15,50	17,79
20	2,50	17,50	19,79
22	2,50	19,50	21,79
24	3,00	21,00	23,77
27	3,00	24,00	26,77
30	3,50	26,50	29,73
33	3,50	29,50	32,73
36	4,00	32,00	35,70
39	4,00	35,00	38,70
42	4,50	37,50	41,69
45	4,50	40,50	44,69
48	5,00	43,00	47,66
52	5,00	47,00	51,66
56	5,50	50,50	55,56
60	5,50	54,50	59,56
64	6,00	58,00	63,52
68	6,00	62,00	67,52

MF			
MF	P	Ø	Ø
2,5	0,35	2,15	2,44
3	0,35	2,65	2,94
3,5	0,35	3,15	3,44
4	0,35	3,65	3,94
4	0,50	3,50	3,93
4,5	0,50	4,00	4,43
5	0,50	4,50	4,93
5,5	0,50	5,00	5,43
6	0,50	5,50	5,93
6	0,75	5,20	5,90
7	0,75	6,20	6,90
8	0,50	7,50	7,93
8	0,75	7,20	7,90
8	1,00	7,00	7,88
9	0,75	8,20	8,90
9	1,00	8,00	8,88
10	0,50	9,50	9,93
10	0,75	9,20	9,90
10	1,00	9,00	9,88
10	1,25	8,80	9,86
11	0,75	10,20	10,90
11	1,00	10,00	10,88
12	0,75	11,25	11,90
12	1,00	11,00	11,88
12	1,25	10,80	11,86
12	1,50	10,50	11,85
13	1,00	12,00	12,88
13	1,50	11,50	12,85
13	1,75	11,25	12,83
14	1,00	13,00	13,88
14	1,25	12,80	13,86
14	1,50	12,50	13,85
15	1,00	14,00	14,88
15	2,00	13,00	14,82
16	1,00	15,00	15,88
16	1,50	14,50	15,85
17	1,00	16,00	16,88
17	1,50	15,50	16,85
18	1,00	17,00	17,88
18	1,50	16,50	17,85
18	2,00	16,00	17,82
20	1,00	19,00	19,88
20	1,50	18,50	19,85
20	2,00	18,00	19,82
22	1,00	21,00	21,88
22	1,50	20,50	21,85
22	2,00	20,00	21,82
24	1,00	23,00	23,88

MF			
MF	P	Ø	Ø
24	1,50	22,50	23,85
24	2,00	22,00	23,82
25	1,00	24,00	24,88
25	1,50	23,50	24,85
25	2,00	23,00	25,82
26	1,00	25,00	25,88
26	1,50	24,50	25,85
27	1,00	26,00	26,88
27	1,50	25,50	26,85
27	2,00	25,00	26,82
28	1,00	27,00	27,88
28	1,50	26,50	27,85
28	2,00	26,00	27,82
30	1,00	29,00	29,88
30	1,50	28,50	29,85
30	2,00	28,00	29,82
30	3,00	27,00	29,77
32	1,50	30,50	31,85
32	2,00	30,00	31,82
33	1,50	31,50	32,85
33	2,00	31,00	32,82
33	3,00	30,00	32,77
34	1,50	32,50	33,85
35	1,50	33,50	34,85
36	1,50	34,50	35,85
36	2,00	34,00	35,82
36	3,00	33,00	35,76
38	1,50	36,50	37,85
39	1,50	37,50	38,85
39	2,00	37,00	38,82
39	3,00	36,00	38,76
40	1,50	38,50	39,85
40	2,00	38,00	39,82
40	3,00	37,00	39,76
42	1,50	40,50	41,85
42	2,00	40,00	41,82
42	3,00	39,00	41,76
45	1,50	43,50	44,85
45	2,00	43,00	44,82
45	3,00	42,00	44,76
48	1,50	46,50	47,85
48	2,00	46,00	47,82
48	3,00	45,00	47,76
50	1,50	48,50	49,85
50	2,00	48,00	49,82
50	3,00	47,00	49,76
52	1,50	50,50	51,85
52	2,00	50,00	51,82
52	3,00	49,00	51,76

LAMINACIÓN Cold Forming - Réfouleur		
M	P	Ø
3	0,50	2,75
4	0,70	3,65
4,5	0,75	4,15
5	0,80	4,60
5	0,90	4,55
6	1,00	5,50
7	1,00	6,50
8	1,25	7,40
10	1,50	9,30
12	1,75	11,20
14	2,00	13,10
16	2,00	15,10
18	2,50	16,90
20	2,50	18,90
22	2,50	20,90
24	3,00	22,65

BSW (Whitworth)			
BSW	HILOS Threads Filets	Ø	Ø
3/32	48	1,80	2,21
1/8	40	2,50	3,00
5/32	32	3,10	3,78
3/16	24	3,60	4,57
7/32	24	4,40	5,36
1/4	20	5,10	6,16
5/16	18	6,50	7,76
3/8	16	7,90	9,30
7/16	14	9,30	10,89
1/2	12	10,50	12,43
9/16	12	12,00	13,92
5/8	11	13,50	15,62
3/4	10	16,50	18,76
7/8	9	19,25	21,89
1	8	22,00	25,08
1 1/8	7	24,75	28,21
1 1/4	7	27,75	31,36
1 3/8	6	30,50	34,51
1 1/2	6	33,50	37,66
1 5/8	5	35,50	40,81
1 3/4	5	39,00	43,96
1 7/8	4,5	41,50	47,11
2	4,5	44,50	50,26
2 1/4	4	50,00	56,56
2 1/2	4	56,00	62,87
2 3/4	3,5	62,00	69,85
3	3,5	68,50	76,20

Ref. 3130

Ref. 3159

Ref. 3171

DIÁMETROS DE TALADRADO Y EJES PREVIOS AL ROSCADO

Drilling & Axis Diameters Before Threading

Diametres Taraudage et axes Pré-Taraudage

UNC			
UNC	HILOS Threads Filets	Ø	Ø
N°1	64	1,50	1,79
N°2	56	1,80	2,12
N°3	48	2,10	2,44
N°4	40	2,30	2,76
N°5	40	2,60	3,09
N°6	32	2,85	3,41
N°8	32	3,50	4,07
N°10	24	3,90	4,71
N°12	24	4,50	5,37
1/4	20	5,20	6,22
5/16	18	6,60	7,80
3/8	16	8,00	9,37
7/16	14	9,40	10,95
1/2	13	10,75	12,52
9/16	12	12,25	14,10
5/8	11	13,50	15,68
3/4	10	16,50	18,84
7/8	9	19,50	22,00
1	8	22,25	25,16
1 1/8	7	25,00	28,31
1 1/4	7	28,25	31,49
1 3/8	6	30,75	34,63
1 1/2	6	34,00	37,81
1 3/4	5	39,50	44,12
2	4,5	45,25	50,45
2 1/4	4,5	51,20	56,80
2 1/2	4	57,25	63,10
2 3/4	4	63,50	69,45
3	4	70,00	75,80

UNF			
UNF	HILOS Threads Filets	Ø	Ø
N°0	80	1,30	1,47
N°1	72	1,60	1,79
N°2	64	1,90	2,12
N°3	56	2,10	2,44
N°4	48	2,40	2,77
N°5	44	2,70	3,10
N°6	40	3,00	3,42
N°8	36	3,50	4,08
N°10	32	4,10	4,73
N°12	28	4,70	5,38
1/4	28	5,50	6,24
5/16	24	6,90	7,82
3/8	24	8,50	9,41
7/16	20	9,90	10,98
1/2	20	11,50	12,56
9/16	18	12,90	14,14
5/8	18	14,50	15,73
3/4	16	17,50	18,89
7/8	14	20,40	22,05
1	12	23,30	25,21
1 1/8	12	26,50	28,38
1 1/4	12	29,50	31,56
1 3/8	12	32,70	34,73
1 1/2	12	36,50	37,91

BSP (GAS)			
Gas	HILOS Threads Filets	Ø	Ø
1/8	28	8,80	9,62
1/4	19	11,80	13,03
3/8	19	15,25	16,53
1/2	14	19,00	20,81
5/8	14	21,00	22,77
3/4	14	24,50	26,30
7/8	14	28,25	30,06
1	11	30,75	33,07
1 1/8	11	35,50	37,71
1 1/4	11	39,50	41,73
1 3/8	11	42,00	44,14
1 1/2	11	45,20	47,62
1 3/4	11	51,40	53,56
2	11	57,20	59,43
2 1/4	11	63,30	65,48
2 3/8	11	67,00	69,15
2 1/2	11	72,80	74,94
2 3/4	11	79,10	81,27
3	11	85,50	87,57

BSPT (RC)			
BSPT	HILOS Threads Filets	Ø	
1/16	28	6,30	
1/8	28	8,30	
1/4	19	11,00	
3/8	19	14,50	
1/2	14	18,10	
3/4	14	23,50	
1	11	29,60	
1 1/4	11	38,10	
1 1/2	11	44,00	
2	11	55,60	

UNEF			
UNEF	HILOS Threads Filets	Ø	Ø
N°12	32	4,70	5,39
1/4	32	5,55	6,25
5/16	32	7,15	7,84
3/8	32	8,70	9,42
7/16	28	10,20	11,00
1/2	28	11,80	12,59
9/16	24	13,20	14,18
5/8	24	14,80	15,75
3/4	20	17,80	18,91
7/8	20	20,95	22,09
1	20	24,10	25,26
1 1/8	18	27,15	28,40
1 1/4	18	30,35	31,59
1 3/8	18	33,60	34,76
1 1/2	18	36,70	37,94

PG			
PG	HILOS Threads Filets	Ø	Ø
07	20	11,40	12,40
09	18	14,00	15,10
11	18	17,25	18,50
13,5	18	19,00	20,30
16	18	21,25	22,40
21	16	26,75	28,15
29	16	35,50	36,85
36	16	45,50	46,85
42	16	52,50	53,85
48	16	58,00	59,15

NPT			
NPT	HILOS Threads Filets	Ø	Ø
1/16	27	6,20	7,58
1/8	27	8,50	9,93
1/4	18	11,00	13,18
3/8	18	14,50	16,60
1/2	14	17,80	20,63
3/4	14	23,00	25,95
1	11,5	29,00	32,51
1 1/4	11,5	37,50	41,23
1 1/2	11,5	44,00	47,30
2	11,5	56,00	59,31

Ref. 3153 Ref. 3100 Ref. 3174

EQUIVALENCIA ROSCAS MM
Threading Equivalence mm
Equivalence Taraudage mm

W / UNC / UNF / UNEF	mm
3/32	2,381
1/8	3,175
5/32	3,969
3/16	4,762
7/32	5,556
1/4	6,350
9/32	7,144
5/16	7,938
3/8	9,525
7/16	11,112
1/2	12,700
9/16	14,288
5/8	15,875
3/4	19,050
7/8	22,225
1	25,400
1 1/8	28,575
1 1/4	31,750
1 3/8	34,925
1 1/2	38,100
1 5/8	41,275
1 3/4	44,450
1 7/8	47,625
2	50,800

BSP (GAS) / BSPT (RC)	mm
1/8	9,728
1/4	13,157
3/8	16,662
1/2	20,955
5/8	22,911
3/4	26,441
7/8	30,201
1	33,249
1 1/8	37,897
1 1/4	41,910
1 3/8	44,323
1 1/2	47,803
1 5/8	51,988
1 3/4	53,746
2	59,614
2 1/4	65,710
2 3/8	69,390
2 1/2	75,184
2 3/4	81,534
3	87,844

PG	mm
07	12,500
09	15,200
11	18,600
13,5	20,400
16	22,500
21	28,300
29	37,000
36	47,000
42	54,000
48	59,300

NPT	mm
1/8	10,287
1/4	13,716
3/8	17,145
1/2	21,336
3/4	23,670
1	33,401
1 1/4	42,164
1 1/2	48,260
2	60,325
2 1/2	73,025
3	88,900

ROTURA DE MACHOS

La rotura de un macho, en un porcentaje muy elevado, se produce en la zona más frágil del mismo. Por ejemplo, en el caso de machos DIN 371 con mango reforzado, se da en la terminación de la zona de roscado, con más posibilidades en los casos de roscado rígido con un macho para agujeros ciegos, a la salida del mismo.

Para evitar en un porcentaje elevado el riesgo de rotura, hay que tener en cuenta algunas recomendaciones:

- **Ejecutar el taladrado previo con una broca en buenas condiciones.**
- **Utilizar el macho adecuado para cada material a trabajar.**
- **Usar un porta-machos flotante Ref. 3193 con compensación radial y axial, que alinea el eje del macho respecto al eje del orificio a roscar.**
- **Usar lubricante apropiado (ver gama lubricantes pag 555)**

BROKEN TAPS

Breaking a tap, in a high percentage, happens in its most fragile side. For example, when using reinforced shank DIN 371 taps, this happens in the end of the threading area, most probably in rigid threading cases with a tap for blind holes, when turning it out.

In order to avoid this breaking risk, have in mind some recommendations:

- **Make the previous drilling with a drill bit in good conditions.**
- **Use the proper tap for each working material**
- **Use a Ref. 3193 Floating Tap Holder with radial & axial compensation, that aligns the tap axis to the hole-to-thread axis.**
- **Use an appropriate lubricant (see range of lubricants on page 555)**

RUPTURE DE TARAUDS

La rupture d´un taraud dans la plupart des cas se produit dans la zone la plus fragile de l´outil. Par example, dans le cas de tarauds DIN 371 avec queue renforcée, se produit dans la fin de la partie filetée, avec plus de possibilités de casse dans les filetages rigides avec tarauds pour trous borgnes a la sortie du même.

Pour éviter un haut pourcentage de casse, il faut respecter les conseils suivants:

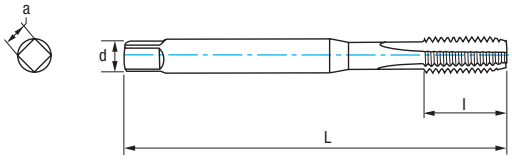
- Pré-taraudage avec un foret en bonnes conditions.
- Employer un taraud approprié pour chaque matériel à usiner.
- Employer un porte-tarauds flottant Ref. 3193 avec compensation rayon et axiale qui aligne l´axe du taraud par rapport à l´axe du trou à tarauder.
- Utilisez un lubrifiant approprié (voir gamme de lubrifiants à la page 555)

ROSCAS Y PASOS
Threads and Pitches
Filetages et pas

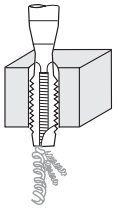
Diam.	UNC 60º	UNF 60º	UNEF 60º	UN 60º						UNS 60º						NPT 60º	W 55º	BF 55º	BSP (Gas) 55º	BSB BRASS 55º
Nº 0		80																		
Nº 1	64	72																		
Nº 2	56	64																		
Nº 3	48	56																		
Nº 4	40	48																		
Nº 5	40	44																		
Nº 6	32	40																		
Nº 8	32	36																		
Nº 10	24	32								28	36	40	48	56						
Nº 12	24	28	32							36	40	48	56							
1/16																27	60		28	
3/32																	48			
1/8																27	40		28	
5/32																	32			
3/16																	24	32		
7/32																	24	28		
1/4	20	28	32							24	27	26	40	48	56	18	20	26	19	26
9/32																	20	26		
5/16	18	24	32	20	28					27	36	40	48				18	22		26
3/8	16	24	32	20	28					18	27	36	40			18	16	20	19	26
7/16	14	20	28	16	32					18	24	27					14	18		26
1/2	13	20	28	16	32					12	14	18	24	27		14	12	16	14	26
9/16	12	18	24	16	20	28	32			14	27						12	16		26
5/8	11	18	24	12	16	20	28	32		14	27					14	11	14	14	26
11/16			24	12	16	20	28	32									11	14		
3/4	10	16	20	12	28	32				14	18	24	27			14	10	12	14	26
13/16			20	12	16	28	32										10	12		
7/8	9	14	20	12	16	28	32			10	18	24	27				9	11	14	26
15/16			20	16	28	32														
1"	8	12	20	16	28	16		28		10	14	18	24	27		11,5	8	10	11	26
1 1/16			18	8	16	20	28													
1 1/8	7	12	18	8	16	20	28			10	14	24					7	9	11	26
1 3/16			18	8	16	20	28													
1 1/4	7	12	18	8	16	20	28			10	14	24				11,5	7	9	11	26
1 5/16			18	8	16	20	28													
1 3/8	6	12	18	6	8	12	16	20	28	10	14	24					6	8	11	26
1 7/16			18	8	16	20	28													
1 1/2	6	12	18	6	8	16	20			10	14	24				11,5	6	8	11	26
1 9/16			18	6	8	12	16	20												
1 5/8			18	6	8	12	16	20		10	14	24					5	8	11	26
1 11/16			18	6	8	12	16	20												
1 3/4	5			6	8	12	16	20		10	14	24					5	7	11	26
1 13/16				6	8	12	16	20												
1 7/8				6	8	12	16	20		10	14	24					4,5			26
1 15/16				6	8	12	16	20												
2"	26	4,5		6	8	12	16	20		10	14	24				11,5	4,5	7	11	26

Ref. 3130

MACHO RECTO MÁQUINA MÉTRICA MATERIALES DUROS M. REFORZADO
Reinforced Shank Hard Materials Metric Machine Straight Tap
Taraud droit machine métrique matériaux durs queue renforcée



PMX | HARD | DIN 371 | B 3,5-5h | Tol. 6H | GUN | α 2-4° | 60°



≤ 2D

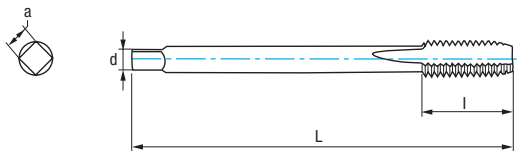
M	P	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
M3	**0,50**	56	11	3,50	2,70	3	15354	
M4	**0,70**	63	13	4,50	3,40	3	15355	
M5	**0,80**	70	16	6,00	4,90	3	15357	
M6	**1,00**	80	19	6,00	4,90	3	15360	
M8	**1,25**	90	22	8,00	6,20	3	15361	
M10	**1,50**	100	24	10,00	8,00	3	15363	

Material		Vc (m/min)
Grupo	Sub.	HARD
P	P.3	4-8
	P.4	3-5
S		10-15
N	N.7	20-30

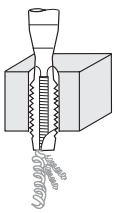
Avance **f** = **P** (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
$r.p.m. = \frac{Vc \times 1.000}{\pi \times ø}$

Ref. 3230

MACHO RECTO MÁQUINA MÉTRICA MATERIALES DUROS
Hard Materials Metric Machine Straight Tap
Taraud droit machine métrique matériaux durs



PMX | HARD | DIN 376 | B 3,5-5h | Tol. 6H | GUN | α 2-4° | 60°



≤ 2D

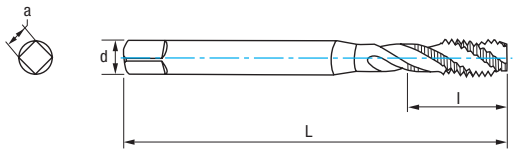
M	P	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
M12	**1,75**	110	29	9,00	7	3	16394	
M14	**2,00**	110	30	11,00	9	3	16395	
M16	**2,00**	110	32	12,00	9	3	16396	
M18	**2,50**	125	34	14,00	11	3	13216	
M20	**2,50**	140	34	16,00	12	3	13217	

Material		Vc (m/min)
Grupo	Sub.	HARD
P	P.3	4-8
	P.4	3-5
S		10-15
N	N.7	20-30

Avance **f** = **P** (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
$r.p.m. = \frac{Vc \times 1.000}{\pi \times ø}$

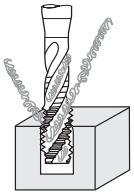
Ref. 3170

MACHO HELICOIDAL MÁQUINA MÉTRICA MATERIALES DUROS M. REFORZADO
Reinforced Shank Hard Materials Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique matériaux durs queue renforcée



PMX | HARD | DIN 371 | C 2-3h | Tol. 6H | 15° | α 4° ± 1 | 60°

Material		Vc (m/min)
Grupo	Sub.	HARD
P	P.3	4-8
	P.4	3-5
S		10-15
N	N.7	20-30



≤ 2D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
M3	0,50	56	11	3,50	2,70	3	15366	
M4	0,70	63	13	4,50	3,40	3	15367	
M5	0,80	70	16	6,00	4,90	3	15369	
M6	1,00	80	19	6,00	4,90	3	15372	
M8	1,25	90	22	8,00	6,20	3	15373	
M10	1,50	100	24	10,00	8,00	3	15375	

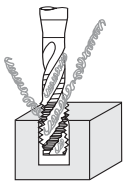
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Ref. 3270

MACHO HELICOIDAL MÁQUINA MÉTRICA MATERIALES DUROS
Hard Materials Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique matériaux durs

PMX | HARD | DIN 376 | C 2-3h | Tol. 6H | 15° | α 4° ± 1 | 60°

Material		Vc (m/min)
Grupo	Sub.	HARD
P	P.3	4-8
	P.4	3-5
S		10-15
N	N.7	20-30



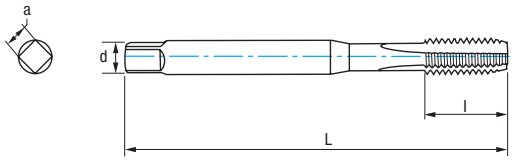
< 2D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
M12	1,75	110	18	9,00	7,00	3	16399	
M14	2,00	110	20	11,00	9,00	3	16400	
M16	2,00	110	20	12,00	9,00	4	16401	
M18	2,50	125	25	14,00	11,00	4	13218	
M20	2,50	140	25	16,00	12,00	4	13219	

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Ref. 3143

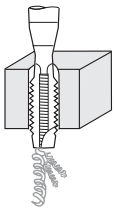
MACHO RECTO MÁQUINA MÉTRICA MATERIALES ALEADOS M. REFORZADO
Reinforced Shank Alloy Materials Metric Machine Straight Tap
Taraud droit machine métrique matériaux alliages queue renforcée



HSSE V	DIN 371	B 3,5-5h	GUN		Tol. 6H	α 10-12°	60°

Material		Vc (m/min)
Grupo	Sub.	HSSE-V
P	P.2	6-8
M		8-12
K	K.2	7-10
N	N.5	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$



M	P	L mm	l mm	d mm	a mm	Z	N° Art. HSSE-V	€
M3	0,50	56	11	3,50	2,70	3	69532	
M4	0,70	63	13	4,50	3,40	3	69534	
M5	0,80	70	16	6,00	4,90	3	69535	
M6	1,00	80	17	6,00	4,90	3	69537	
M8	1,25	90	20	8,00	6,20	3	69538	
M10	1,50	100	24	10,00	8,00	3	15672	

Set
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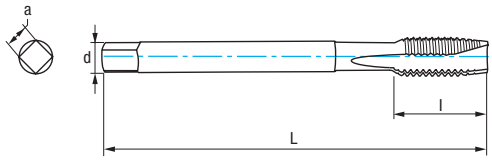
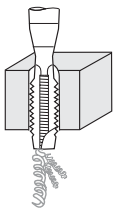
Ref. 3243



HSSE V	DIN 376	B 3,5-5h	GUN		Tol. 6H	α 10-12°	60°

Material		Vc (m/min)
Grupo	Sub.	HSSE-V
P	P.2	6-8
M		8-12
K	K.2	7-10
N	N.5	14-20

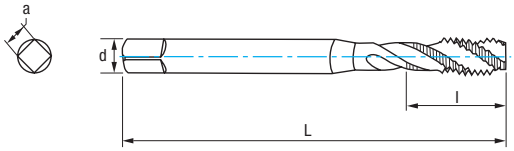
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$



M	P	L mm	l mm	d mm	a mm	Z	N° Art. HSSE-V	€
M8	1,25	90	20	6,00	4,90	3	69876	
M10	1,50	100	22	7,00	5,50	3	69877	
M12	1,75	110	24	9,00	7,00	3	69879	
M14	2,00	110	26	11,00	9,00	3	69880	
M16	2,00	110	27	12,00	9,00	3	69882	
M18	2,50	125	30	14,00	11,00	4	69883	
M20	2,50	140	32	16,00	12,00	4	69885	

Ref. 3153

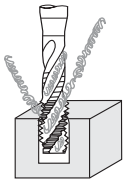
MACHO HELICOIDAL MÁQUINA MÉTRICA MATERIALES ALEADOS M. REFORZADO
Reinforced Shank Alloy Materials Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique matériaux alliages queue renforcée



HSSE V	DIN 371	C 2-3h	40°	Tol. 6H	α 6° ± 1	60°

Material		Vc (m/min)
Grupo	Sub.	HSSE-V
P	P.2	6-8
M		8-12
K	K.2	7-10
N	N.5	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$


< 2D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. HSSE-V	€
M3	0,50	56	5	3,50	2,70	3	69412	
M4	0,70	63	7	4,50	3,40	3	69414	
M5	0,80	70	8	6,00	4,90	3	69415	
M6	1,00	80	10	6,00	4,90	3	69483	
M8	1,25	90	13	8,00	6,20	3	69484	
M10	1,50	100	15	10,00	8,00	3	69519	

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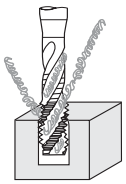
Ref. 3253

MACHO HELICOIDAL MÁQUINA MÉTRICA MATERIALES ALEADOS
Alloy Materials Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique matériaux alliages

HSSE V	DIN 376	C 2-3h	40°	Tol. 6H	α 6° ± 1	60°

Material		Vc (m/min)
Grupo	Sub.	HSSE-V
P	P.2	6-8
M		8-12
K	K.2	7-10
N	N.5	14-20

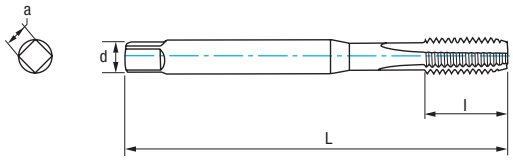
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$


< 2D

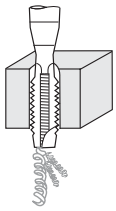
M	P	L mm	l mm	d mm	a mm	Z	N° Art. HSSE-V	€
M8	1,25	90	13	6	4,90	3	69864	
M10	1,50	100	15	7	5,50	3	69865	
M12	1,75	110	18	9	7,00	3	69867	
M14	2,00	110	20	11	9,00	4	69868	
M16	2,00	110	20	12	9,00	4	69870	
M18	2,50	125	25	14	11,00	4	69871	
M20	2,50	140	25	16	12,00	4	69873	

Ref. 3125

MACHO RECTO MÁQUINA MÉTRICA INOX GRAN RENDIMIENTO M. REFORZADO
Reinforced Shank High Performance Stainless Metric Machine Straight Tap
Taraud droit machine métrique inox haut rendement queue renforcée



PMX | HARD | DIN 371 | B 3,5-5h | GUN | Tol. 6H | α 10-12° | **A.R.I.*** Alto Rendimiento Intensivo **I.H.P.*** Intensive High Performance H.P.I.* Haute Performance Intensif | 60°



INOX
Heavy Duty
ACEITES DE CORTE
Cutting Oils
Huiles de coupe
Pág. 557

Material		Vc (m/min) *
Grupo	Sub.	HARD
P	P.2	6-8
	P.5	6-10
M		8-14
N	N.1	10-15
	N.2	12-20

* Posible Uso en Seco: Vc -50 %
* Possible Dry-Use: Vc -50%
* Emploi possible à sec: Vc -50 %

Avance **f** = **P** (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

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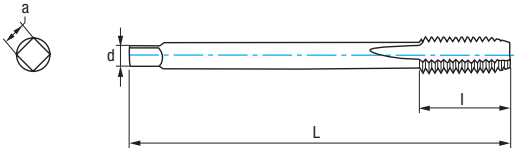
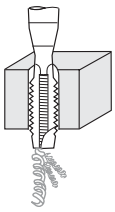
M	P	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
M2	**0,40**	45	9	2,80	2,10	3	69746	
M3	**0,50**	56	11	3,50	2,70	3	28059	
M4	**0,70**	63	13	4,50	3,40	3	28060	
M5	**0,80**	70	16	6,00	4,90	3	28062	
M6	**1,00**	80	17	6,00	4,90	3	28063	
M8	**1,25**	90	20	8,00	6,20	3	28064	
M10	**1,50**	100	24	10,00	8,00	3	28065	

Ref. 3225

MACHO RECTO MÁQUINA MÉTRICA/ MÉTRICA FINA INOX GRAN RENDIMIENTO
High Performance Stainless Metric / Metric Fine Machine Straight Tap
Taraud droit machine métrique / métrique pas fin inox haut rendement



PMX | HARD | M DIN 376 | MF DIN 374 | B 3,5-5h | GUN | Tol. 6H | α 10-12° | **A.R.I.*** Alto Rendimiento Intensivo **I.H.P.*** Intensive High Performance H.P.I.* Haute Performance Intensif | 60°



Material		Vc (m/min) *
Grupo	Sub.	HARD
P	P.2	6-8
	P.5	6-10
M		8-14
N	N.1	10-15
	N.2	12-20

* Posible Uso en Seco: Vc -50 %
* Possible Dry-Use: Vc -50%
* Emploi possible à sec: Vc -50 %

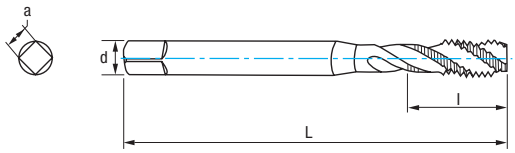
Avance **f** = **P** (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

M/MF	P	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
MF8	1,00	90	18	6	4,90	3	70265	
MF10	1,00	90	20	7	5,50	3	70268	
MF10	1,25	100	20	7	5,50	3	70270	
MF12	1,00	100	21	9	7,00	3	70198	
MF12	1,25	100	21	9	7,00	3	70200	
MF12	1,50	100	21	9	7,00	3	70202	
M12	**1,75**	110	29	9	7,00	3	28073	
MF14	1,25	100	21	11	9,00	3	70203	
MF14	1,50	100	21	11	9,00	3	70204	
M14	**2,00**	110	25	11	9,00	3	38383	
MF16	1,50	100	21	12	9,00	3	70205	
M16	**2,00**	110	25	12	9,00	3	38384	

M/MF	P	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
MF18	1,50	110	24	14	11,00	3	70211	
M18	**2,50**	125	30	14	11,00	3	38385	
MF20	1,50	125	24	16	12,00	3	70214	
M20	**2,50**	140	30	16	12,00	3	38386	
MF22	1,50	125	24	18	14,50	3	70217	
M22	**2,50**	140	30	18	14,50	3	69633	
MF24	1,50	140	26	18	14,50	4	70220	
M24	**3,00**	160	36	18	14,50	4	69635	
M27	**3,00**	160	30	20	16,00	4	69636	
MF30	1,50	150	28	22	18,00	4	70221	
M30	**3,50**	180	40	22	18,00	4	69638	

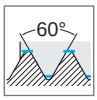
Ref. 3165

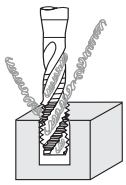
MACHO HELICOIDAL MÁQUINA MÉTRICA INOX GRAN RENDIMIENTO M. REFORZADO
Reinforced Shank High Performance Stainless Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique inox haut rendement queue renforcée



PMX | HARD | DIN 371 | C 2-3h | 35° | Tol. 6H | α 12° ± 2

A.R.I.* Alto Rendimiento Intensivo
I.H.P.* Intensive High Performance
H.P.I.* Haute Performance Intensif





Material		Vc (m/min) *
Grupo	Sub.	HARD
P	P.2	6-8
	P.5	6-10
M		8-14
N	N.1	10-15
	N.2	12-20

* **Posible Uso en Seco: Vc -50 %**
* **Possible Dry-Use: Vc -50%**
* **Emploi possible à sec: Vc -50 %**

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Set pag. 232

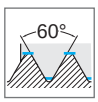
M	P	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
M2	**0,40**	45	9	2,80	2,10	3	69745	
M2,5	**0,45**	50	7,5	2,80	2,10	2	81703	
M3	**0,50**	56	9	3,50	2,70	3	28066	
M4	**0,70**	63	12	4,50	3,40	3	28068	
M5	**0,80**	70	13	6,00	4,90	3	28069	
M6	**1,00**	80	15	6,00	4,90	3	28070	
M8	**1,25**	90	18	8,00	6,20	3	28071	
M10	**1,50**	100	20	10,00	8,00	3	28072	

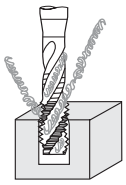
Ref. 3265

MACHO HELICOIDAL MÁQUINA MÉTRICA/ MÉTRICA FINA INOX GRAN RENDIMIENTO
High Performance Stainless Metric / Metric Fine Machine Spiral Tap
Taraud hélicoïdal machine métrique / métrique pas fin inox haut rendement

PMX | HARD | M DIN 376 | MF DIN 374 | C 2-3h | 35° | Tol. 6H | α 12° ± 2

A.R.I.* Alto Rendimiento Intensivo
I.H.P.* Intensive High Performance
H.P.I.* Haute Performance Intensif





Material		Vc (m/min) *
Grupo	Sub.	HARD
P	P.2	6-8
	P.5	6-10
M		8-14
N	N.1	10-15
	N.2	12-20

* **Posible Uso en Seco: Vc -50 %**
* **Possible Dry-Use: Vc -50%**
* **Emploi possible à sec: Vc -50 %**

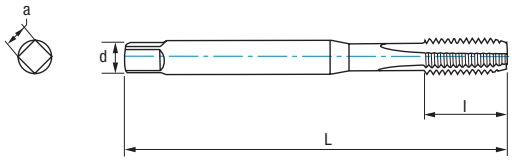
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

M/MF	P	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
MF8	1,00	90	13	6	4,90	3	70271	
MF10	1,00	90	12	7	5,50	3	70273	
MF10	1,25	100	15	7	5,50	3	70274	
MF12	1,00	100	14	9	7,00	3	69661	
MF12	1,25	100	14	9	7,00	3	69664	
MF12	1,50	100	14	9	7,00	3	69668	
M12	**1,75**	110	18	9	7,00	3	28074	
MF14	1,25	100	16	11	9,00	3	69670	
MF14	1,50	100	16	11	9,00	3	69671	
M14	**2,00**	110	20	11	9,00	3	38379	
MF16	1,50	100	16	12	9,00	4	69673	
M16	**2,00**	110	20	12	9,00	4	38380	

M/MF	P	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
MF18	1,50	110	20	14	11,00	4	69675	
M18	**2,50**	125	25	14	11,00	4	38381	
MF20	1,50	125	20	16	12,00	4	69676	
M20	**2,50**	140	25	16	12,00	4	38382	
MF22	1,50	125	20	18	14,50	4	69678	
M22	**2,50**	140	25	18	14,50	4	69621	
MF24	1,50	140	22	18	14,50	4	69681	
M24	**3,00**	160	30	18	14,50	4	69172	
M27	**3,00**	160	30	20	16,00	4	69622	
MF30	1,50	150	26	22	18,00	3	69683	
M30	**3,50**	180	35	22	18,00	4	69623	

Ref. 3149

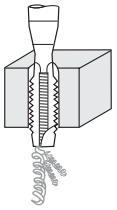
MACHO RECTO MÁQUINA MÉTRICA INOX MANGO REFORZADO
Reinforced Shank Stainless Metric Machine Straight Tap
Taraud droit machine métrique inox queue renforcée



HSSE 5% Co	TIN	DIN 371	B 3,5-5h	GUN		Tol. 6H	α 10-12°	60°

Material		Vc (m/min)
Grupo	Sub.	TIN
P	P.5	5-8
M		8-12
N	N.1	8-12
	N.2	12-20

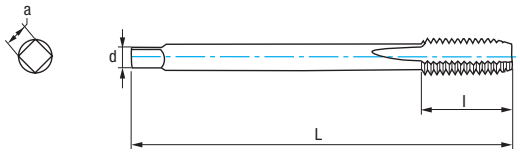
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$



M	P	L mm	l mm	d mm	a mm	Z	N° Art. TIN	€
M2	**0,40**	45	8	2,80	2,10	3	81347	
M2,5	**0,45**	50	9	2,80	2,10	3	81348	
M3	**0,50**	56	11	3,50	2,70	3	21834	
M4	**0,70**	63	13	4,50	3,40	3	21835	
M5	**0,80**	70	16	6,00	4,90	3	21836	
M6	**1,00**	80	17	6,00	4,90	3	21837	
M8	**1,25**	90	20	8,00	6,20	3	21838	
M10	**1,50**	100	24	10,00	8,00	3	21839	

Ref. 3249

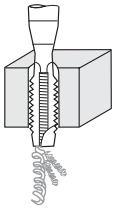
MACHO RECTO MÁQUINA MÉTRICA/ MÉTRICA FINA INOX
Stainless Metric / Metric Fine Machine Straight Tap
Taraud droit machine métrique / métrique pas fin inox



HSSE 5% Co	TIN	M DIN 376	MF DIN 374	B 3,5-5h	GUN		Tol. 6H	α 10-12°	60°

Material		Vc (m/min)
Grupo	Sub.	TIN
P	P.5	5-8
M		8-12
N	N.1	8-12
	N.2	12-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

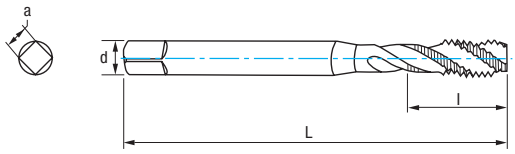


M/MF	P	L mm	l mm	d mm	a mm	Z	N° Art. TIN	€
MF6	0,75	80	15	4,5	3,40	3	81396	
MF8	1,00	90	18	6	4,90	3	81397	
M8	**1,25**	90	20	6	4,90	3	21840	
MF10	1,00	90	20	7	5,50	3	81398	
M10	**1,50**	100	22	7	5,50	3	21841	
MF12	1,00	100	21	9	7,00	3	81399	
MF12	1,50	100	21	9	7,00	3	81400	
M12	**1,75**	110	24	9	7,00	3	21843	
MF14	1,50	100	21	11	9,00	3	81401	
M14	**2,00**	110	26	11	9,00	3	21844	
MF16	1,50	100	21	12	9,00	3	81402	
M16	**2,00**	110	27	12	9,00	3	21846	
MF18	1,50	110	24	14	11,00	3	81403	
M18	**2,50**	125	30	14	11,00	3	21847	
MF20	1,50	125	24	16	12,00	3	81405	
M20	**2,50**	140	32	16	12,00	3	21848	
M22	**2,50**	140	34	18	14,50	3	16268	
M24	**3,00**	160	36	18	14,50	4	16269	
M27	**3,00**	160	36	20	16,00	4	81351	
M30	**3,50**	180	40	22	18,00	4	81352	
M33	**3,50**	180	42	25	20,00	4	81353	
M36	**4,00**	200	50	28	22,00	4	81354	

INOX
Heavy Duty
ACEITES DE CORTE
Cutting Oils
Huiles de coupe
Pág. 557

Ref. 3159

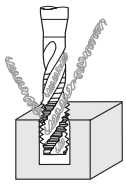
MACHO HELICOIDAL MÁQUINA MÉTRICA INOX M. REFORZADO
Reinforced Shank Stainless Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique inox queue renforcée



HSSE 5% Co | TIN | DIN 371 | C 2-3h | 35° | Tol. 6H | α 10-12° | 60°

Material		Vc (m/min)
Grupo	Sub.	TIN
P	P.5	5-8
M		8-12
N	N.1	8-12
	N.2	12-20

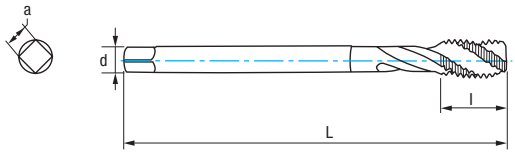
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$


< 2D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. TIN	€
M2	0,40	45	6	2,80	2,10	3	81349	
M2,5	0,45	50	7,5	2,80	2,10	3	81350	
M3	0,50	56	5	3,50	2,70	3	21849	
M4	0,70	63	7	4,50	3,40	3	21850	
M5	0,80	70	8	6,00	4,90	3	21851	
M6	1,00	80	10	6,00	4,90	3	21852	
M8	1,25	90	13	8,00	6,20	3	21853	
M10	1,50	100	15	10,00	8,00	3	21854	

Ref. 3259

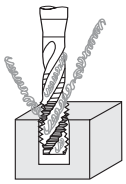
MACHO HELICOIDAL MÁQUINA MÉTRICA INOX
Stainless Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique inox



HSSE 5% Co | TIN | DIN 376 | C 2-3h | 35° | Tol. 6H | α 10-12° | 60°

Material		Vc (m/min)
Grupo	Sub.	TIN
P	P.5	5-8
M		8-12
N	N.1	8-12
	N.2	12-20

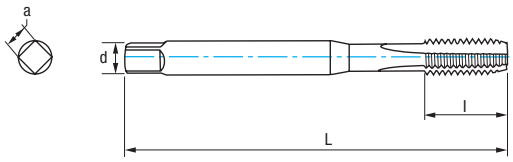
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$


< 2D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. TIN	€
M8	1,25	90	13	6,00	4,90	3	21855	
M10	1,50	100	15	7,00	5,50	3	21856	
M12	1,75	110	18	9,00	7,00	3	21857	
M14	2,00	110	20	11,00	9,00	3	21858	
M16	2,00	110	20	12,00	9,00	3	21859	
M18	2,50	125	25	14,00	11,00	3	21860	
M20	2,50	140	25	16,00	12,00	3	21861	
M22	2,50	140	25	18,00	14,50	3	16270	
M24	3,00	160	30	18,00	14,50	4	16271	

Ref. 3176

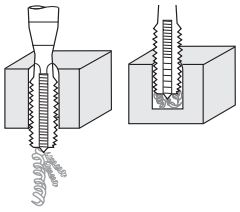
MACHO RECTO MÁQUINA MÉTRICA FUNDICIÓN M. REFORZADO
Reinforced Shank Cast Iron Metric Machine Straight Tap
Taraud droit machine métrique fonte queue renforcée



HSSE 5% Co | **TICN** | DIN 371 | C 2-3h | Tol. 6HX | α 1-3° | 60°

Material		Vc (m/min)
Grupo	Sub.	TICN
K	K.1	15-20
	K.2	10-15

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

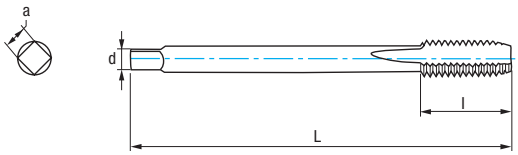


≤ 1,5D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. TICN	€
M3	**0,50**	56	10	3,50	2,70	3	19680	
M4	**0,70**	63	12	4,50	3,40	3	19681	
M5	**0,80**	70	14	6,00	4,90	3	19682	
M6	**1,00**	80	16	6,00	4,90	4	19683	
M8	**1,25**	90	18	8,00	6,20	4	19685	
M10	**1,50**	100	20	10,00	8,00	4	19686	

Ref. 3276

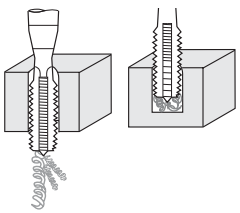
MACHO RECTO MÁQUINA MÉTRICA FUNDICIÓN
Cast Iron Metric Machine Straight Tap
Taraud droit machine métrique fonte



HSSE 5% Co | **TICN** | DIN 376 | C 2-3h | Tol. 6HX | α 1-3° | 60°

Material		Vc (m/min)
Grupo	Sub.	TICN
K	K.1	15-20
	K.2	10-15

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

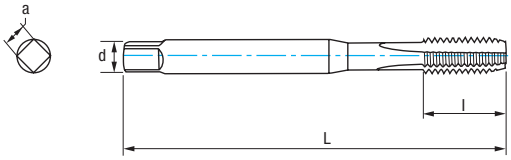


≤ 1,5D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. TICN	€
M6	**1,00**	80	16	4,50	3,40	4	19687	
M8	**1,25**	90	18	6,00	4,90	4	19688	
M10	**1,50**	100	20	7,00	5,50	4	19690	
M12	**1,75**	110	22	9,00	7,00	4	19691	
M14	**2,00**	110	25	11,00	9,00	4	19694	
M16	**2,00**	110	28	12,00	9,00	4	19696	
M18	**2,50**	125	32	14,00	11,00	4	19697	
M20	**2,50**	140	32	16,00	12,00	4	19698	

Ref. 3172

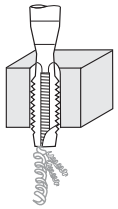
MACHO RECTO MÁQUINA MÉTRICA ALUMINIO M. REFORZADO
Reinforced Shank Aluminium Metric Machine Straight Tap
Taraud droit machine métrique aluminium queue renforcée



HSSE 5%Co	DIN 371	B 3,5-5h	GUN		Tol. 6H	α 10-12°	60°

Material		Vc (m/min)
Grupo	Sub.	5% Co
N	N.3	15-35

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

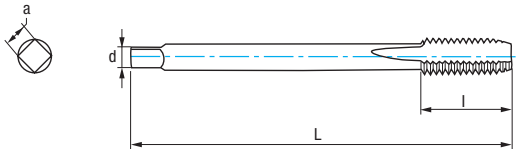


≤ 2D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	**0,50**	56	11	3,50	2,70	3	14557	
M4	**0,70**	63	13	4,50	3,40	3	14574	
M5	**0,80**	70	16	6,00	4,90	3	14745	
M6	**1,00**	80	19	6,00	4,90	3	14725	
M8	**1,25**	90	22	8,00	6,20	3	14746	
M10	**1,50**	100	24	10,00	8,00	3	14737	

Ref. 3272

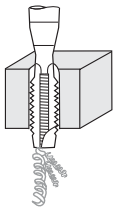
MACHO RECTO MÁQUINA MÉTRICA ALUMINIO
Aluminium Metric Machine Straight Tap
Taraud droit machine métrique aluminium



HSSE 5%Co	DIN 376	B 3,5-5h	GUN		Tol. 6H	α 10-12°	60°

Material		Vc (m/min)
Grupo	Sub.	5% Co
N	N.3	15-35

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

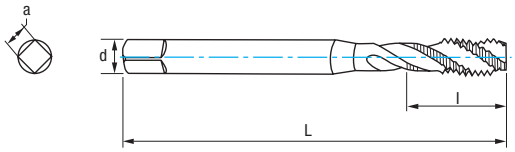


≤ 2D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M12	**1,75**	110	29	9,00	7,00	3	14751	
M14	**2,00**	110	30	11,00	9,00	3	14761	
M16	**2,00**	110	32	12,00	9,00	3	14764	
M18	**2,50**	125	30	14,00	11,00	4	14767	
M20	**2,50**	140	32	16,00	12,00	4	14773	

Ref. 3175

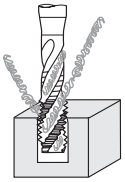
MACHO HELICOIDAL MÁQUINA MÉTRICA ALUMINIO M. REFORZADO
Reinforced Shank Aluminium Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique aluminium queue renforcée



HSSE 5%Co	DIN 371	C 2-3h	45°	Tol. 6H	α 16° ± 2	60°

Material		Vc (m/min)
Grupo	Sub.	5% Co
N	N.3	15-35

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$



< 2D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	**0,50**	56	11	3,50	2,70	2	14565	
M4	**0,70**	63	13	4,50	3,40	2	14577	
M5	**0,80**	70	16	6,00	4,90	2	14724	
M6	**1,00**	80	19	6,00	4,90	2	14730	
M8	**1,25**	90	22	8,00	6,20	2	14733	
M10	**1,50**	100	24	10,00	8,00	2	14739	

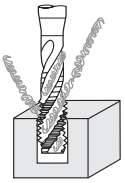
Ref. 3275

MACHO HELICOIDAL MÁQUINA MÉTRICA ALUMINIO
Aluminium Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique aluminium

HSSE 5%Co	DIN 376	C 2-3h	45°	Tol. 6H	α 16° ± 2	60°

Material		Vc (m/min)
Grupo	Sub.	5% Co
N	N.3	15-35

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

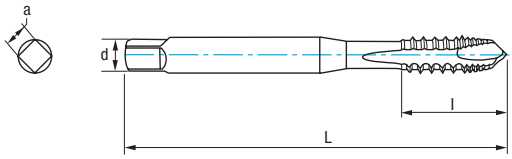


< 2D

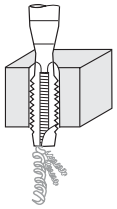
M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M12	**1,75**	110	29	9,00	7,00	2	14755	
M14	**2,00**	110	30	11,00	9,00	3	14763	
M16	**2,00**	110	32	12,00	9,00	3	14766	
M18	**2,50**	125	30	14,00	11,00	3	14769	
M20	**2,50**	140	32	16,00	12,00	3	14775	

Ref. 3174

MACHO RECTO MÁQUINA MÉTRICA ALUMINIO M. REFORZADO DENTADO ALTERNO
Interrupted Thread Reinforced Shank Aluminium Metric Machine Straight Tap
Taraud droit machine métrique aluminium queue renforcée denture alternée



HSSE 5%Co	DIN 371	B 3,5-5h	GUN		Tol. 6H	α 17-20°	60°



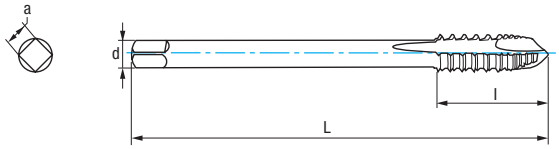
M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	0,50	56	11	3,50	2,70	3	69390	
M4	0,70	63	13	4,50	3,40	3	69393	
M5	0,80	70	16	6,00	4,90	3	69394	
M6	1,00	80	19	6,00	4,90	3	69396	
M8	1,25	90	22	8,00	6,20	3	69397	
M10	1,50	100	24	10,00	8,00	3	69399	

Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	20-25
	P.2	8-18
	P.5	8-10
M		8-10
N	N.1	10-25
	N.2	10-25
	N.3	12-25
	N.4	12-25
	N.5	15-20
	N.6	20-25

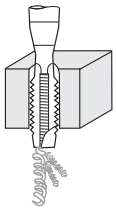
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Ref. 3274

MACHO RECTO MÁQUINA MÉTRICA ALUMINIO DENTADO ALTERNO
Interrupted Thread Aluminium Metric Machine Straight Tap
Taraud droit machine métrique aluminium denture alternée



HSSE 5%Co	DIN 376	B 3,5-5h	GUN		Tol. 6H	α 17-20°	60°



M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M5	0,80	70	16	3,50	2,70	3	69853	
M6	1,00	80	19	4,50	3,40	3	69855	
M8	1,25	90	22	6,00	4,90	3	69856	
M10	1,50	100	24	7,00	5,50	3	69858	
M12	1,75	110	29	9,00	7,00	3	69859	
M14	2,00	110	30	11,00	9,00	3	69861	
M16	2,00	110	32	12,00	9,00	3	69862	

Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	20-25
	P.2	8-18
	P.5	8-10
M		8-10
N	N.1	10-25
	N.2	10-25
	N.3	12-25
	N.4	12-25
	N.5	15-20
	N.6	20-25

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

MACHOS DE LAMINACIÓN
Forming Taps
Tarauds à réfouler

- **No generan viruta.**
- **Vida útil muy superior a machos estándar de corte.**
- **La rosca formada es más resistente dado que el material se comprime en la superficie.**

- **No chips.**
- **Longer life than normal cutting taps.**
- **Formed threads are stronger because the material is compressed at the surface of it.**

- Sans production de copeaux.
- Durée de vie plus longue que les tarauds de coupe standard.
- Le filetage formé est plus solide car le matériel est comprimé en surface.

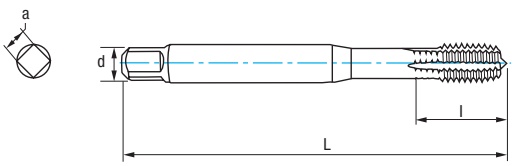
Ref. 3171

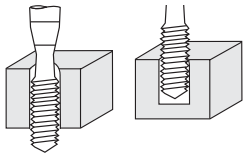
Ref. 3171

MACHO MÁQUINA LAMINACIÓN ALTO RENDIMIENTO
High Performance Cold Forming Machine Tap
Taraud machine réfouleur haut rendement

ALTO RENDIMIENTO
High Performance
Haut rendement

PMX | TIALN-TIN | DIN 371 < M10 | DIN 376 ≥ M10 | C 2-3h | | Tol. 6HX | 60°





≤ 1,5D

Video

Material		Vc (m/min)
Grupo	Sub.	TIALN-TIN
P	P.1	10-30
	P.2	10-30
	P.3	8-15
	P.5	10-25
M		10-25
N	N.1	20-40
	N.2	20-40
	N.3	20-40
	N.4	20-40
	N.5	20-40

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

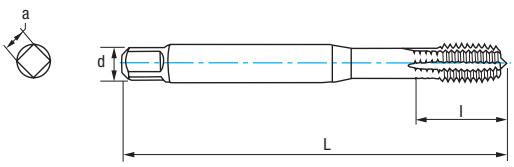
M	P	L mm	l mm	d mm	a mm	N° Art. TIALN-TIN	€
M2	**0,40**	45	8	2,80	2,10	78359	
M2,5	**0,45**	50	9	2,80	2,10	78360	
M3	**0,50**	56	10	3,50	2,70	67347	
MF4	0,50	63	7	4,50	3,40	78373	
M4	**0,70**	63	7	4,50	3,40	67348	
MF5	0,50	70	8	6,00	4,90	78374	
M5	**0,80**	70	8	6,00	4,90	67356	
MF6	0,50	80	10	6,00	4,90	78375	
MF6	0,75	80	10	6,00	4,90	78376	
M6	**1,00**	80	10	6,00	4,90	67362	
MF8	1,00	90	13	8,00	6,20	67054	
M8	**1,25**	90	13	8,00	6,20	65902	
MF10	1,00	90	10	7,00	5,50	78378	
MF10	1,25	100	15	7,00	5,50	67055	

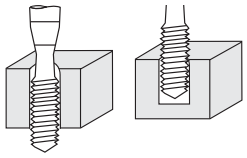
M	P	L mm	l mm	d mm	a mm	N° Art. TIALN-TIN	€
M10	**1,50**	100	15	7,00	5,50	67369	
MF12	1,00	100	10	9,00	7,00	78380	
MF12	1,25	100	15	9,00	7,00	67056	
MF12	1,50	100	15	9,00	7,00	78382	
M12	**1,75**	110	18	9,00	7,00	68955	
MF14	1,50	100	15	9,00	7,00	67057	
M14	**2,00**	110	20	11,00	9,00	68956	
MF16	1,50	100	15	12,00	9,00	67058	
M16	**2,00**	110	20	12,00	9,00	68958	
M18	**2,50**	125	32	14,00	11,00	78371	
MF20	1,50	125	17	16,00	12,00	83550	
M20	**2,50**	140	32	16,00	12,00	78372	
MF22	1,50	125	17	18,00	14,50	83551	
M22	**2,50**	140	25	18,00	14,50	83552	

Ref. 3162

MACHO MÁQUINA MÉTRICA LAMINACIÓN
Cold Forming Metric Machine Tap
Taraud machine métrique réfouleur

PMX | TIN | DIN 2174 | C 2-3h | | Tol. 6HX | 60°





≤ 1,5D

Material		Vc (m/min)
Grupo	Sub.	TIN
P	P.1	10-30
	P.2	10-30
	P.3	8-15
	P.5	10-20
M		10-20
N	N.1	20-40
	N.2	20-40
	N.3	20-50
	N.4	20-50
	N.5	20-50

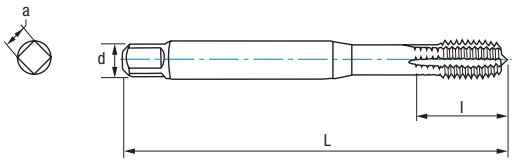
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

M/MF	P	L mm	l mm	d mm	a mm	N° Art. TIN	€
M3	**0,50**	56	9	3,50	2,70	69345	
M4	**0,70**	63	12	4,50	3,40	69346	
M5	**0,80**	70	13	6,00	4,90	69348	
M6	**1,00**	80	15	6,00	4,90	69349	
MF8	1,00	90	22	8,00	6,20	69644	
M8	**1,25**	90	22	8,00	6,20	69351	
MF10	1,25	100	24	10,00	8,00	69645	

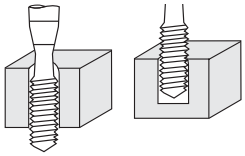
M/MF	P	L mm	l mm	d mm	a mm	N° Art. TIN	€
M10	**1,50**	100	24	10,00	8,00	69352	
MF12	1,25	100	22	9,00	7,00	69648	
M12	**1,75**	110	28	9,00	7,00	69353	
MF14	1,50	100	22	11,00	9,00	69650	
M14	**2,00**	110	25	11,00	9,00	69354	
MF16	1,50	100	22	12,00	9,00	69658	
M16	**2,00**	110	25	12,00	9,00	69355	

Ref. 3173

MACHO MÉTRICA LAMINACIÓN MAT.S DUROS PUNTA PLANA
Flat Tip Hard Materials Cold Forming Metric Machine Tap
Taraud machine métrique réfouleur matériaux durs pointe plat



PMX | TICN | DIN 371 < M10 | DIN 376 ≥ M10 | E 1,5-2h | Tol. 6HX | 60°



ALTO RENDIMIENTO
High Performance
Haut rendement

Material		Vc (m/min)
Grupo	Sub.	TICN
P	P.1	10-30
	P.2	10-30
	P.3	8-15
	P.5	10-25
M		10-25
N	N.1	20-40
	N.2	20-40
	N.3	20-40
	N.4	20-40
	N.5	20-40

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Entrada ultra-corta para agujeros ciegos con rosca hasta el fondo, por ejemplo en paredes delgadas.

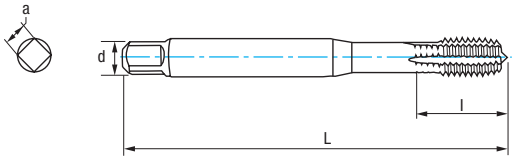
Ultra-short chamfer for blind holes with threads tapped to bottom, for instance in thin wall work pieces.

Entrée ultra-courte pour trous borgnes avec filetage jusqu'au fond, par exemple pour des parois fines.

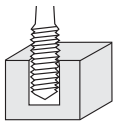
M	P	L mm	l mm	d mm	a mm	N° Art. TICN	€
M3	0,50	56	10	3,50	2,70	76109	
M4	0,70	63	7	4,50	3,40	75992	
M5	0,80	70	8	6,00	4,90	76110	
M6	1,00	80	10	6,00	4,90	76111	
M8	1,25	90	13	8,00	6,20	76116	
M10	1,50	100	15	10,00	8,00	76117	

Ref. 3163

MACHO MÉTRICA LAMINACIÓN MANGO REFORZADO
Reinforced Shank Cold Forming Metric Machine Tap
Taraud machine métrique réfouleur queue renforcée



HSSE 5% Co | TICN | DIN 2174 | C 2-3h | Tol. 6HX | 60°



Materiales con un Coeficiente de Alargamiento de 12-14%
12-14% Lengthening Coefficient Materials
Matériaux avec coéfficient de rallonge 12-14%

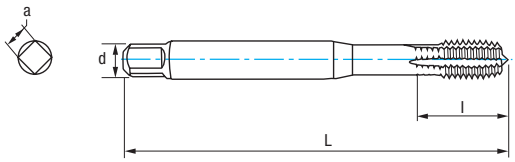
Material		Vc (m/min)
Grupo	Sub.	TICN
N	N.1	15-30
	N.2	15-30
	N.3	15-35
	N.4	15-30

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

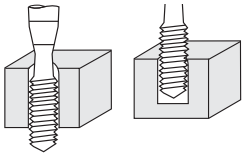
M	P	L mm	l mm	d mm	a mm	N° Art. TICN	€
M3	0,50	56	10	3,50	2,70	21818	
M3,5	0,60	56	11	4,00	3,00	21819	
M4	0,70	63	12	4,50	3,40	21820	
M5	0,80	70	14	6,00	4,90	21821	
M6	1,00	80	16	6,00	4,90	21822	
M8	1,25	90	18	8,00	6,20	21823	
M10	1,50	100	20	10,00	8,00	21824	
M12	1,75	110	22	9,00	7,00	21825	

Ref. 3164

MACHO MÁQUINA MÉTRICA LAMINACIÓN REFRIGERACIÓN INTERIOR
Internal Cooling Cold Forming Metric Machine Tap
Taraud machine métrique réfouleur lubrification interne



HSSE 8%Co | TICN | DIN 2174 | C 2-3h | Tol. 6HX | 60°



≤ 1,5D

M	P	L mm	l mm	d mm	a mm	N° Art. TICN	€
M6	**1,00**	80	10	6,00	4,90	69356	
M8	**1,25**	90	12	8,00	6,20	69357	
M10	**1,50**	100	15	10,00	8,00	69358	
M12	**1,75**	110	17	9,00	7,00	69360	
M14	**2,00**	110	20	11,00	9,00	69361	
M16	**2,00**	110	20	12,00	9,00	69363	

Material		Vc (m/min)
Grupo	Sub.	TICN
P	P.1	20-30
	P.2	20-30
	P.3	20-30
	P.4	8-15
N	N.1	15-22
	N.2	15-22
	N.3	20-40
	N.4	20-40
	N.5	20-40

Avance f = **P (Paso - Pitch - Pas)**

Vf (mm/min.) = **r.p.m. x f**

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

Ref. 3164 bajo demanda / upon request / sur demande

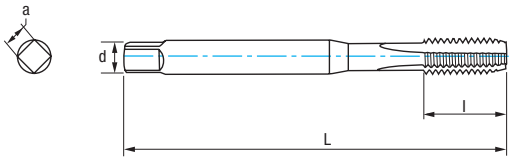
ACEITES DE CORTE Y REFRIGERANTES
Cutting Oils & Water Soluble Fluids
Huiles de coupe et lubrifiants

Pag. 555

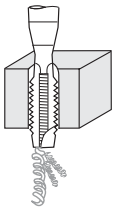
UNI Universal | INOX Heavy Duty | ALU Non Ferrous | STD Standard | TOP Top Line

Ref. 3120

MACHO RECTO MÁQUINA MÉTRICA MULTIFUNCIÓN M. REFORZADO
Reinforced Shank Multipurpose Metric Machine Straight Tap
Taraud droit machine métrique multifonction queue renforcée



HSSE V | TIN | DIN 371 | B 3,5-5h | GUN | Tol. 6H | α 10 - 12° | 60°



≤ 2D

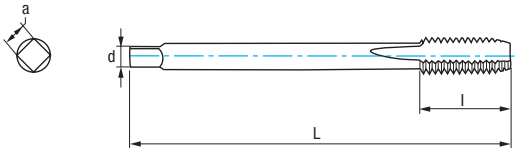
M	P	L mm	l mm	d mm	a mm	z	N° Art. TIN	€
M3	**0,50**	56	11	3,50	2,70	3	28046	
M4	**0,70**	63	13	4,50	3,40	3	28047	
M5	**0,80**	70	16	6,00	4,90	3	28048	
M6	**1,00**	80	17	6,00	4,90	3	28049	
M8	**1,25**	90	20	8,00	6,20	3	28050	
M10	**1,50**	100	24	10,00	8,00	3	28051	

Material		Vc (m/min)
Grupo	Sub.	TIN
P	P.1	10-12
	P.2	4-6
	P.5	4-7
M		6-10
K	K.1	8-12
	K.2	7-10
N	N.1	8-12
	N.2	12-20
	N.4	12-20
	N.5	12-20
	N.6	10-15

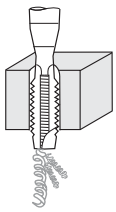
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Ref. 3220

MACHO RECTO MÁQUINA MÉTRICA MULTIFUNCIÓN
Multipurpose Metric Machine Straight Tap
Taraud droit machine métrique multifonction



HSSE V | TIN | DIN 376 | B 3,5-5h | GUN | Tol. 6H | α 10 - 12° | 60°



≤ 2D

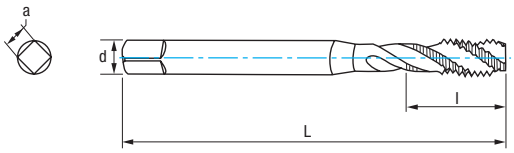
M	P	L mm	l mm	d mm	a mm	z	N° Art. TIN	€
M12	**1,75**	110	24	9,00	7,00	3	28075	
M14	**2,00**	110	26	11,00	9,00	3	28077	
M16	**2,00**	110	27	12,00	9,00	3	28079	
M18	**2,50**	125	30	14,00	11,00	4	28081	
M20	**2,50**	140	32	16,00	12,00	4	28083	

Material		Vc (m/min)
Grupo	Sub.	TIN
P	P.1	10-12
	P.2	4-6
	P.5	4-7
M		6-10
K	K.1	8-12
	K.2	7-10
N	N.1	8-12
	N.2	12-20
	N.4	12-20
	N.5	12-20
	N.6	10-15

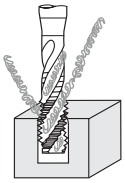
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Ref. 3160

MACHO HELICOIDAL MÁQUINA MÉTRICA MULTIFUNCIÓN M. REFORZADO
Reinforced Shank Multipurpose Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique multifonction queue renforcée



HSSE V	TIN	DIN 371	C 2-3h	35°	Tol. 6H	α 6° ± 2	60°



< 2D

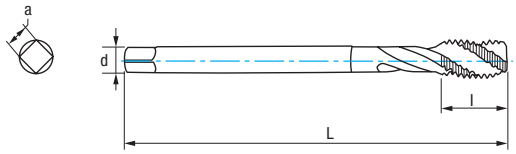
M	P	L mm	l mm	d mm	a mm	Z	N° Art. TIN	€
M3	0,50	56	11	3,50	2,70	3	28052	
M4	0,70	63	13	4,50	3,40	3	28053	
M5	0,80	70	16	6,00	4,90	3	28054	
M6	1,00	80	17	6,00	4,90	3	28055	
M8	1,25	90	20	8,00	6,20	3	28056	
M10	1,50	100	24	10,00	8,00	3	28057	

Material		Vc (m/min)
Grupo	Sub.	TIN
P	P.1	10-12
	P.2	4-6
	P.5	4-7
M		6-10
K	K.1	8-12
	K.2	7-10
N	N.1	8-12
	N.2	12-20
	N.4	12-20
	N.5	12-20
	N.6	10-15

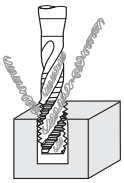
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Ref. 3260

MACHO HELICOIDAL MÁQUINA MÉTRICA MULTIFUNCIÓN
Multipurpose Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique multifonction



HSSE V	TIN	DIN 376	C 2-3h	35°	Tol. 6H	α 6° ± 2	60°



< 2D

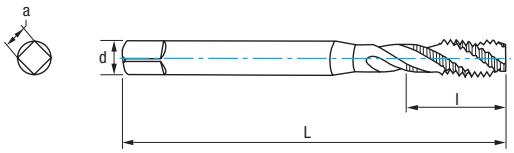
M	P	L mm	l mm	d mm	a mm	Z	N° Art. TIN	€
M12	1,75	110	24	9,00	7,00	3	28076	
M14	2,00	110	26	11,00	9,00	3	28078	
M16	2,00	110	27	12,00	9,00	4	28080	
M18	2,50	125	30	14,00	11,00	4	28082	
M20	2,50	140	32	16,00	12,00	4	28084	

Material		Vc (m/min)
Grupo	Sub.	TIN
P	P.1	10-12
	P.2	4-6
	P.5	4-7
M		6-10
K	K.1	8-12
	K.2	7-10
N	N.1	8-12
	N.2	12-20
	N.4	12-20
	N.5	12-20
	N.6	10-15

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Ref. 3151

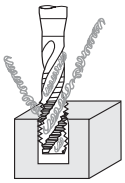
MACHO HELICOIDAL MÁQUINA MÉTRICA M. REFORZADO VAPORIZADO
Vaporized Reinforced Shank Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique queue renforcée vaporisée



HSSE 5%Co	DIN 371	C 2-3h	Tol. 6H	35°	α 10° ± 2	Rompe Virutas Chip Breaker Brise copeaux	60°

Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.3	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$



< 2D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	0,50	56	11	3,50	2,70	3	14779	
M4	0,70	63	13	4,50	3,40	3	14782	
M5	0,80	70	16	6,00	4,90	3	14785	
M6	1,00	80	19	6,00	4,90	3	14788	
M8	1,25	90	22	8,00	6,20	3	14790	
M10	1,50	100	24	10,00	8,00	3	14791	

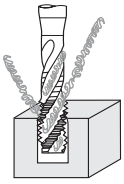
Ref. 3251

MACHO HELICOIDAL MÁQUINA MÉTRICA VAPORIZADO
Vaporized Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique vaporisée

HSSE 5%Co	DIN 376	C 2-3h	Tol. 6H	35°	α 10° ± 2	Rompe Virutas Chip Breaker Brise copeaux	60°

Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.3	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

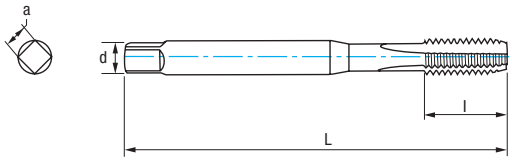


< 2D

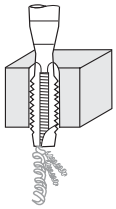
M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M12	1,75	110	29	9,00	7,00	3	14793	
M14	2,00	110	30	11,00	9,00	3	14797	
M16	2,00	110	32	12,00	9,00	3	14802	
M18	2,50	125	30	14,00	11,00	4	14803	
M20	2,50	140	32	16,00	12,00	4	14806	

Ref. 3129

MACHO RECTO MÁQUINA MÉTRICA REFRIGERACIÓN INTERIOR
Internal Cooling Metric Machine Straight Tap
Taraud droit machine métrique lubrification interne



PMX | HARD | DIN 371/376 | B 3,5-6h | Tol. 6HX | 60°



≤ 2D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
M6	1,00	80	19	6,00	4,90	3	70087	
M8	1,25	90	22	8,00	6,20	3	70089	
M10	1,50	100	24	10,00	8,00	3	70094	
M12	1,75	110	28	9,00	7,00	3	70101	
M16	2,00	110	32	12,00	9,00	4	70163	

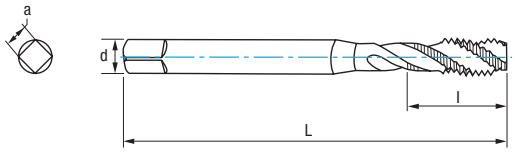
Ref. 3129 bajo demanda / **upon request** / sur demande

Material		Vc (m/min)
Grupo	Sub.	HARD
P	P.1	22-26
	P.2	22-26
	P.3	18-22
	P.4	18-22
	P.5	12-15
M		12-15
K	K.1	18-22
	K.2	15-18
N	N.1	10-12
	N.2	10-12
	N.3	18-22
	N.4	15-18
	N.5	15-18

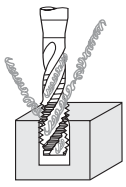
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Ref. 3169

MACHO HELICOIDAL MÁQUINA MÉTRICA REFRIGERACIÓN INTERIOR
Internal Cooling Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique lubrification interne



PMX | HARD | DIN 371/376 | C 2-3h | 50° | Tol. 6HX | 60°



< 2D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
M6	1,00	80	19	6,00	4,90	3	70173	
M8	1,25	90	22	8,00	6,20	3	70175	
M10	1,50	100	24	10,00	8,00	3	70178	
M12	1,75	110	28	9,00	7,00	3	70182	
M16	2,00	110	32	12,00	9,00	4	70195	

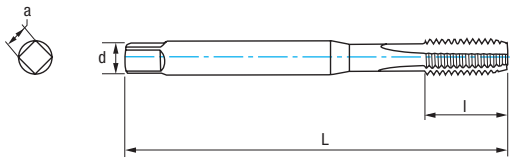
Ref. 3169 bajo demanda / **upon request** / sur demande

Material		Vc (m/min)
Grupo	Sub.	HARD
P	P.1	18-22
	P.2	18-22
	P.3	10-12
	P.4	10-12
	P.5	10-12
M		10-12
K	K.1	15-18
	K.2	12-16
N	N.1	10-12
	N.2	10-12
	N.3	15-18
	N.4	12-16
	N.5	12-16

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Ref. 3100

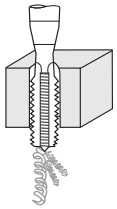
MACHO RECTO MÁQUINA MÉTRICA MANGO REFORZADO
Reinforced Shank Metric Machine Straight Tap
Taraud droit machine métrique queue renforcée



HSSE 5%Co	DIN 371	B 3,5-5h	GUN	Tol. 6H	α 10 -12°	60°

Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$



≤ 2D

M	P	L mm	l mm	d mm	a mm	z	N° Art. 5% Co	€
M2	0,40	45	9	2,80	2,10	3	62771	
M2,5	0,45	50	9	2,80	2,10	3	76724	
M2,6	0,45	50	9	2,80	2,10	3	76725	
M3	0,50	56	11	3,50	2,70	3	62774	
M3,5	0,60	56	13	4,00	3,00	3	62777	
M4	0,70	63	13	4,50	3,40	3	62780	
M4,5	0,75	70	16	6,00	4,90	3	76728	
M5	0,80	70	16	6,00	4,90	3	62783	
M6	1,00	80	19	6,00	4,90	3	62789	
M7	1,00	80	19	7,00	5,50	3	76733	
M8	1,25	90	22	8,00	6,20	3	62795	
M9	1,25	90	18	9,00	7,00	3	62798	
M10	1,50	100	24	10,00	8,00	3	62807	

Set
pag. 235

New! PASTA DE CORTE - Cutting Paste - Pâte de coupe

Pasta con propiedades lubricantes extremas. La pasta se asienta en las aristas de corte y se licua durante la operación de corte.

Ideal para todas las operaciones como roscado, taladrado y fresado de materiales difíciles de cortar como acero inoxidable, acero Cr-Ni, titanio, acero al manganeso, etc.

Paste with extreme lubricating properties. The paste settles on the cutting edges and liquefies during the cutting operation.

Ideal for all operations such as the threading, drilling and milling of difficult-to-cut materials such as stainless steel, Cr-Ni steel, titanium, manganese steel, etc.

Pâte aux propriétés lubrifiantes extrêmes. La pâte se dépose sur les bords de coupe et se liquéfie pendant l'opération de coupe.

Idéale pour toutes les opérations telles que le taraudage, le perçage et le fraisage de matériaux difficiles à couper comme l'acier inoxydable, l'acier Cr-Ni, le titane, l'acier au manganèse, etc.

Cont.	250ml
Nº Art.	53954
€	15,75

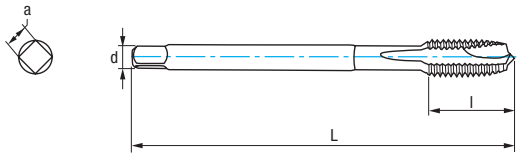
Cont.	750ml
Nº Art.	53956
€	26,24

Sumerja la herramienta de corte en la pasta para obtener resultados optimizados
Dip the cutting tool into the paste for optimised results
Trempez l'outil de coupe dans la pâte pour des résultats optimisés

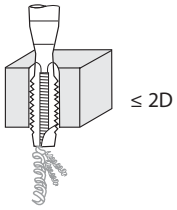
Gama completa en la pagina 555
Complete range on page 555
Gamme complète à la page 555

Ref. 3200

MACHO RECTO MÁQUINA MÉTRICA/ MÉTRICA FINA
Metric / Metric Fine Machine Straight Tap
Taraud droit machine métrique / métrique pas fin



HSSE 5%Co	M DIN 376	MF DIN 374	B 3,5-5h	GUN	Tol. 6H	α 10 -12°	60°



Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

M/MF	P	L mm	l mm	d mm	a mm	z	N° Art. 5% Co	€
M3	**0,50**	56	11	2,20			70090	
M4	**0,70**	63	13	2,80	2,10	3	70092	
M5	**0,80**	70	16	3,50	2,70	3	70093	
M6	**1,00**	80	19	4,50	3,40	3	70095	
M7	**1,00**	80	19	5,50	4,30	3	70224	
MF8	0,75	80	19	6,00	4,90	3	70267	
MF8	1,00	90	22	6,00	4,90	3	70248	
M8	**1,25**	90	22	6,00	4,90	3	70096	
MF10	1,00	90	20	7,00	5,50	3	70249	
MF10	1,25	100	24	7,00	5,50	3	70251	
M10	**1,50**	100	24	7,00	5,40	3	70098	
M11	**1,50**	100	24	8,00	6,20	3	70225	
MF12	1,00	100	22	9,00	7,00	3	70252	
MF12	1,25	100	22	9,00	7,00	3	70254	
MF12	1,50	100	22	9,00	7,00	3	70255	
M12	**1,75**	110	29	9,00	7,00	3	70183	
MF14	1,00	100	22	11,00	9,00	3	70281	
MF14	1,25	100	22	11,00	9,00	3	70257	
MF14	1,50	100	22	11,00	9,00	3	70258	
M14	**2,00**	110	30	11,00	9,00	3	70185	
MF15	1,50	100	22	12,00	9,00	3	70282	
MF16	1,50	100	22	12,00	9,00	3	70260	
M16	**2,00**	110	32	12,00	9,00	3	70186	
MF18	1,00	110	25	14,00	11,00	3	70284	
MF18	1,50	110	25	14,00	11,00	3	70261	
MF18	2,00	125	34	14,00	11,00	3	70285	
M18	**2,50**	125	34	14,00	11,00	3	75215	
MF20	1,00	125	25	16,00	12,00	3	70287	
MF20	1,50	125	25	16,00	12,00	3	70263	
MF20	2,00	140	34	16,00	12,00	3	70288	
M20	**2,50**	140	34	16,00	12,00	3	70189	
MF22	1,50	125	25	18,00	14,50	3	75216	
MF22	2,00	140	34	18,00	14,50	3	70290	
M22	**2,50**	140	34	18,00	14,50	3	70212	
MF24	1,50	140	28	18,00	14,50	4	70264	
MF24	2,00	140	28	18,00	14,50	4	70291	
M24	**3,00**	160	38	18,00	14,50	4	70213	
MF26	1,50	140	28	18,00	14,50	4	70293	

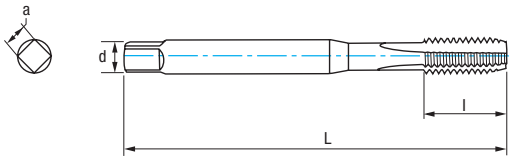
Ref. 3200

MACHO RECTO MÁQUINA MÉTRICA/ MÉTRICA FINA
Metric / Metric Fine Machine Straight Tap
Taraud droit machine métrique / métrique pas fin

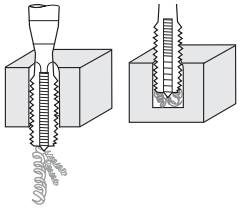
M/MF	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
MF27	2,00	140	28	20,00	16,00	4	70294	
M27	**3,00**	160	38	20,00	16,00	4	70215	
MF28	1,50	140	28	20,00	16,00	4	70296	
MF30	1,50	150	28	22,00	18,00	4	70266	
M30	**3,50**	180	45	22,00	18,00	4	70216	
MF32	1,50	150	28	22,00	18,00	4	70297	
MF33	1,50	160	30	25,00	20,00	4	70299	
MF33	2,00	160	30	25,00	20,00	4	70300	
M33	**3,50**	180	50	25,00	20,00	4	70218	
MF35	1,50	170	30	28,00	22,00	4	70302	
MF36	**1,50**	170	30	28,00	22,00	4	81355	
MF36	2,00	170	30	28,00	22,00	4	81356	
MF36	3,00	200	42	28,00	22,00	4	81357	
M36	**4,00**	200	56	28,00	22,00	4	70219	
MF39	1,50	170	30	32,00	24,00	4	81358	
MF39	2,00	170	30	32,00	24,00	4	81359	
MF39	3,00	200	42	32,00	24,00	4	81360	
M39	**4,00**	200	50	32,00	24,00	4	81361	
MF42	1,50	170	30	32,00	24,00	4	81362	
MF42	2,00	170	30	32,00	24,00	4	81363	
MF42	3,00	200	50	32,00	24,00	4	81364	
M42	**4,50**	200	56	32,00	24,00	4	14886	
MF45	1,50	180	32	36,00	29,00	6	70303	
M45	**4,50**	220	56	36,00	29,00	6	81365	
M48	**5,00**	250	63	36,00	29,00	6	81366	
M52	**5,00**	250	63	40,00	32,00	6	81367	
M56	**5,50**	250	65	40,00	32,00	6	81368	
M60	**5,50**	280	75	45,00	35,00	6	81369	

Ref. 3110

MACHO RECTO MÁQUINA MÉTRICA MANGO REFORZADO
Reinforced Shank Metric Machine Straight Tap
Taraud droit machine métrique queue renforcée



HSSE 5%Co	DIN 371	C 2-3h	Tol. 6H	α 10° ± 2	60°



≤ 1,5D

Material		Vc (m/min)
Grupo	Sub.	5%Co
K	K.1	15-20
N	N.1	5-8
	N.5	12-15

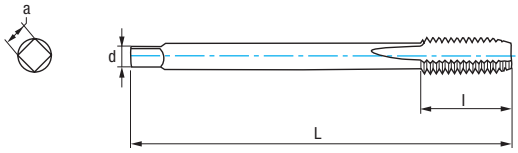
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

M	P	L mm	l mm	d mm	a mm	z	N° Art. 5% Co	€
M2	**0,40**	45	9	2,80	2,10	3	62945	
M2,5	**0,45**	50	9	2,80	2,10	3	77131	
M3	**0,50**	56	11	3,50	2,70	3	62948	
M3,5	**0,60**	56	13	4,00	3,00	3	62951	
M4	**0,70**	63	13	4,50	3,40	3	62954	
M4,5	**0,75**	70	16	6,00	4,90	3	77138	
M5	**0,80**	70	16	6,00	4,90	3	62957	
M6	**1,00**	80	19	6,00	4,90	3	62960	
M7	**1,00**	80	19	7,00	5,50	3	62963	
M8	**1,25**	90	22	8,00	6,20	3	62969	
M10	**1,50**	100	24	10,00	8,00	3	62984	

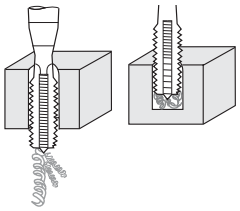
Set
pag. 234

Ref. 3210

MACHO RECTO MÁQUINA MÉTRICA / MÉTRICA FINA
Metric / Metric Fine Machine Straight Tap
Taraud droit machine métrique / métrique pas fin



HSSE 5%Co	M	M DIN 376	MF DIN 374	C 2-3h	Tol. 6H	α 10° ± 2	60°



≤ 1,5D

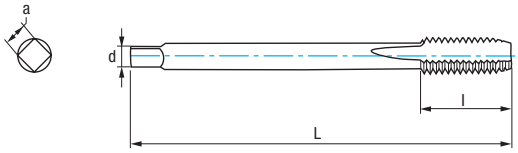
Material		Vc (m/min)
Grupo	Sub.	5%Co
K	K.1	15-20
N	N.1	5-8
	N.5	12-15

Avance f = **P (Paso - Pitch - Pas)**
Vf (mm/min.) = **r.p.m. x f**
r.p.m. = $\frac{\text{Vc x 1.000}}{\pi \text{ x ø}}$

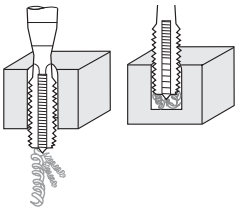
M/MF	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	**0,50**	56	11	2,20		3	69993	
MF4	0,50	63	10	2,80	2,10	3	70365	
M4	**0,70**	63	13	2,80	2,10	3	69850	
MF5	0,50	70	12	3,50	2,70	3	70366	
M5	**0,80**	70	16	3,50	2,70	3	69994	
MF6	0,50	80	14	4,50	3,40	3	74951	
MF6	0,75	80	14	4,50	3,40	3	70368	
M6	**1,00**	80	19	4,50	3,40	3	69996	
M7	**1,00**	80	19	5,50	4,30	3	70144	
MF8	0,50	80	13	6,00	4,90	3	70369	
MF8	0,75	80	19	6,00	4,90	3	70305	
MF8	1,00	90	22	6,00	4,90	3	70306	
M8	**1,25**	90	22	6,00	4,90	3	69997	
MF9	1,00	90	22	7,00	5,50	3	70371	
MF10	0,75	90	20	7,00	5,50	3	70372	
MF10	1,00	90	20	7,00	5,50	3	70308	
MF10	1,25	100	24	7,00	5,50	3	70309	
M10	**1,50**	100	24	7,00	5,50	3	69999	
MF11	1,00	90	20	8,00	6,20	3	70374	
MF12	1,00	100	22	9,00	7,00	3	70312	
MF12	1,25	100	22	9,00	7,00	3	70314	
MF12	1,50	100	22	9,00	7,00	3	70315	
M12	**1,75**	110	29	9,00	7,00	3	70117	
MF14	1,00	100	22	11,00	9,00	3	70317	
MF14	1,25	100	22	11,00	9,00	3	70318	
MF14	1,50	100	22	11,00	9,00	3	70320	
M14	**2,00**	110	30	11,00	9,00	3	70119	
MF15	1,00	100	22	12,00	9,00	3	70378	
MF16	1,00	100	22	12,00	9,00	3	70380	
MF16	1,50	100	22	12,00	9,00	3	70323	
M16	**2,00**	110	32	12,00	9,00	3	70120	
MF18	1,00	110	25	14,00	11,00	3	70326	
MF18	1,50	110	25	14,00	11,00	3	70327	
MF18	2,00	125	34	14,00	11,00	3	70329	
M18	**2,50**	125	34	14,00	11,00	3	70122	

Ref. 3210

MACHO RECTO MÁQUINA MÉTRICA / MÉTRICA FINA
Metric / Metric Fine Machine Straight Tap
Taraud droit machine métrique / métrique pas fin



HSSE 5%Co	M	M DIN 376	MF DIN 374	C 2-3h	Tol. 6H	α 10° ± 2	60°



≤ 1,5D

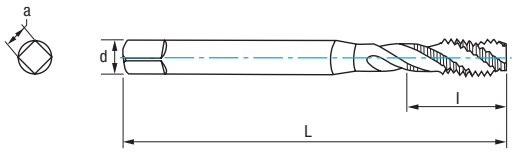
Material		Vc (m/min)
Grupo	Sub.	5%Co
K	K.1	15-20
N	N.1	5-8
	N.5	12-15

Avance **f** = **P** (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

M/MF	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
MF20	**1,00**	125	25	16,00	12,00	3	70330	
MF20	1,50	125	25	16,00	12,00	3	70332	
MF20	2,00	140	34	16,00	12,00	3	70333	
M20	**2,50**	140	34	16,00	12,00	3	70123	
MF22	1,00	125	25	18,00	14,50	3	70381	
MF22	1,50	125	25	18,00	14,50	3	75023	
MF22	2,00	140	34	18,00	14,50	3	70335	
M22	**2,50**	140	34	18,00	14,50	3	70146	
MF24	1,00	140	28	18,00	14,50	4	70383	
MF24	1,50	140	28	18,00	14,50	4	70336	
MF24	2,00	140	28	18,00	14,50	4	70338	
M24	**3,00**	160	38	18,00	14,50	4	70147	
MF25	1,50	140	28	18,00	14,50	4	70384	
MF26	1,50	140	28	18,00	14,50	4	70339	
MF27	1,50	140	28	20,00	16,00	4	70386	
MF27	2,00	140	28	20,00	16,00	4	70341	
M27	**3,00**	160	38	20,00	16,00	4	70149	
MF28	1,50	140	28	20,00	16,00	4	70342	
MF30	1,00	150	28	22,00	18,00	4	70387	
MF30	1,50	150	28	22,00	18,00	4	70344	
MF30	2,00	150	28	22,00	18,00	4	70389	
M30	**3,50**	180	45	22,00	18,00	4	70150	
MF32	1,50	150	28	22,00	18,00	4	70345	
MF33	1,50	160	30	25,00	20,00	4	70347	
MF33	2,00	160	30	25,00	20,00	4	70348	
M33	**3,50**	180	50	25,00	20,00	4	70152	
MF35	1,50	170	30	28,00	22,00	4	70350	
M36	**4,00**	200	56	28,00	22,00	4	70153	
MF42	1,50	170	30	32,00	24,00	6	70390	
MF45	1,50	180	32	36,00	29,00	6	70351	
MF48	2,00	190	32	36,00	29,00	6	75037	
MF50	1,50	190	32	36,00	29,00	6	70393	

Ref. 3140

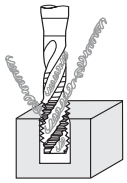
MACHO HELICOIDAL MÁQUINA MÉTRICA COBRE/BRONCE M. REFORZADO
Reinforced Shank Copper/Bronze Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique cuivre/bronze queue renforcée



HSSE 5% Co	DIN 371	C 2-3h	15°	Tol. 6H	α 10° ± 2	60°

Material		Vc (m/min)
Grupo	Sub.	5% Co
N	N.1	10-15

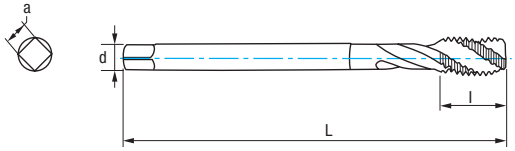
Avance **f** = **P** (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$


< 2D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	**0,50**	56	5	3,50	2,70	3	69543	
M3,5	**0,60**	56	6	4,00	3,00	3	69411	
M4	**0,70**	63	7	4,50	3,40	3	69544	
M5	**0,80**	70	8	6,00	4,90	3	69546	
M6	**1,00**	80	10	6,00	4,90	3	69547	
M7	**1,00**	80	10	7,00	5,50	3	69520	
M8	**1,25**	90	13	8,00	6,20	3	69549	
M10	**1,50**	100	15	10,00	8,00	3	69550	

Ref. 3240

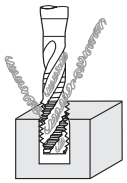
MACHO HELICOIDAL MÁQUINA MÉTRICA COBRE/BRONCE
Copper/Bronze Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique cuivre/bronze



HSSE 5% Co	DIN 376	C 2-3h	15°	Tol. 6H	α 10° ± 2	60°

Material		Vc (m/min)
Grupo	Sub.	5% Co
N	N.1	10-15

Avance **f** = **P** (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$


< 2D

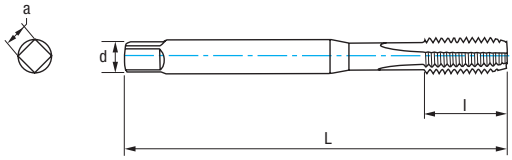
M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	**0,50**	56	5	2,20		3	69573	
M4	**0,70**	63	7	2,80	2,10	3	69574	
M5	**0,80**	70	8	3,50	2,70	3	69576	
M6	**1,00**	80	10	4,50	3,40	3	69577	
M8	**1,25**	90	13	6,00	4,90	3	69579	
M10	**1,50**	100	15	7,00	5,50	3	69844	
M12	**1,75**	110	18	9,00	7,00	3	69846	
M14	**2,00**	110	20	11,00	9,00	3	69847	
M16	**2,00**	110	20	12,00	9,00	3	69400	
M18	**2,50**	125	25	14,00	11,00	4	16267	
M20	**2,50**	140	25	16,00	12,00	4	40153	

Ref. 3600

MACHO RECTO MÁQUINA MÉTRICA MANGO REFORZADO FORMA A

A Form Reinforced Shank Metric Machine Straight Tap

Taraud droit machine métrique queue renforcée form A



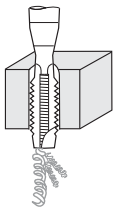
HSSE 5%Co	M	DIN 371	A 6-8h	Tol. 6H		α 10° ± 2	60°

Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	10-14

Avance f = P (Paso - Pitch - Pas)

Vf (mm/min.) = r.p.m. x f

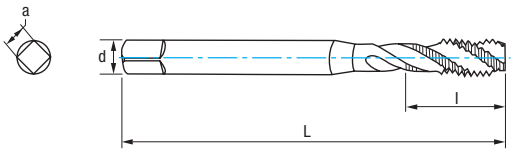
$$r.p.m. = \frac{Vc \times 1.000}{\pi \times \varnothing}$$



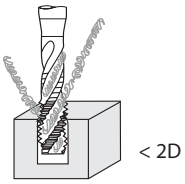
M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	**0,50**	56	11	3,50	2,70	3	76567	
M4	**0,70**	63	13	4,50	3,40	3	76573	
M5	**0,80**	70	16	6,00	4,90	3	76580	
M6	**1,00**	80	19	6,00	4,90	3	76586	
M8	**1,25**	90	22	8,00	6,20	3	76594	
M10	**1,50**	100	24	10,00	8,00	3	76602	

Ref. 3150

MACHO HELICOIDAL MÁQUINA MÉTRICA M. REFORZADO
Reinforced Shank Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique queue renforcée



HSSE 5%Co	DIN 371	C 2-3h	35°	Tol. 6H	α 10° ± 2	60°



Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
$r.p.m. = \frac{Vc \times 1.000}{\pi \times ø}$

M	P	L mm	l mm	d mm	a mm	z	N° Art. 5% Co	€
M3	**0,50**	56	5	3,50	2,70	3	63050	
M3,5	**0,60**	56	6	4,00	3,00	3	63053	
M4	**0,70**	63	7	4,50	3,40	3	63056	
M5	**0,80**	70	8	6,00	4,90	3	63059	
M6	**1,00**	80	10	6,00	4,90	3	63062	
M7	**1,00**	80	10	7,00	5,50	3	63065	
M8	**1,25**	90	13	8,00	6,20	3	63071	
M9	**1,25**	90	13	9,00	7,00	3	67882	
M10	**1,50**	100	15	10,00	8,00	3	63083	

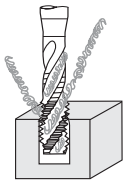
Set
pag. 236

Ref. 3250

MACHO HELICOIDAL MÁQUINA MÉTRICA / MÉTRICA FINA
Metric / Metric Fine Machine Spiral Tap
Taraud hélicoïdal machine métrique / métrique pas fin

HSSE 5%Co	M DIN 376	MF DIN 374	C 2-3h	35°	Tol. 6H	α 10° ± 2	60°

Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

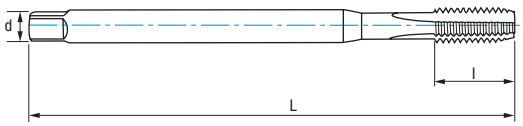

< 2D

Avance **f** = **P** (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

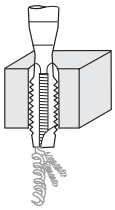
	M/MF	P	L mm	l mm	d mm	a mm	z	N° Art. 5% Co	€
	M3	**0,50**	56	5	2,20		3	70063	
	M4	**0,70**	63	7	2,80	2,10	3	70065	
	M5	**0,80**	70	8	3,50	2,70	3	70066	
	M6	**1,00**	80	10	4,50	3,40	3	70068	
	MF8	1,00	90	13	6,00	4,90	3	70228	
	M8	**1,25**	90	13	6,00	4,90	3	70069	
	MF10	1,00	90	12	7,00	5,50	3	70230	
	MF10	1,25	100	15	7,00	5,50	3	70231	
	M10	**1,50**	100	15	7,00	5,50	3	70071	
	MF12	1,00	100	14	9,00	7,00	3	70233	
	MF12	1,25	100	14	9,00	7,00	3	70234	
	MF12	1,50	100	14	9,00	7,00	3	70236	
	M12	**1,75**	110	18	9,00	7,00	3	70161	
	MF14	1,25	100	16	11,00	9,00	3	70237	
	MF14	1,50	100	16	11,00	9,00	3	70239	
	M14	**2,00**	110	20	11,00	9,00	3	70162	
	MF16	1,50	100	16	12,00	9,00	3	70240	
	M16	**2,00**	110	20	12,00	9,00	4	70164	
	MF18	1,50	110	20	14,00	11,00	4	70242	
	M18	**2,50**	125	25	14,00	11,00	4	75057	
	MF20	1,50	125	20	16,00	12,00	4	70243	
	M20	**2,50**	140	25	16,00	12,00	4	70167	
	MF22	1,50	125	20	18,00	14,50	4	75192	
	M22	**2,50**	140	25	18,00	14,50	4	70206	
	MF24	1,50	140	22	18,00	14,50	4	70245	
	MF24	2,00	140	28	18,00	14,50	4	24326	
	M24	**3,00**	160	30	18,00	14,50	4	70207	
New!	MF27	2,00	140	28	20,00	16,00	4	71566	
	M27	**3,00**	160	30	20,00	16,00	4	70209	
	MF30	1,50	150	28	22,00	18,00	4	70246	
	M30	**3,50**	180	35	22,00	18,00	4	70210	

Ref. 3166

MACHO RECTO LARGO MÁQUINA MÉTRICA MANGO REFORZADO
Reinforced Shank Metric Machine Long Straight Tap
Taraud droit long machine métrique queue renforcée



HSSE 5%Co	DIN 371	B 3,5-5h	GUN	Tol. 6H	α 10 -12°	60°



≤ 2D

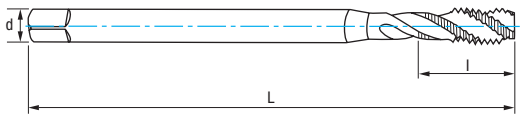
M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	**0,50**	100	11	3,50	2,70	3	69381	
M4	**0,70**	100	13	4,50	3,40	3	69382	
M5	**0,80**	120	16	6,00	4,90	3	69383	
M6	**1,00**	120	19	6,00	4,90	3	69384	
M8	**1,25**	150	22	8,00	6,20	3	69385	
M10	**1,50**	150	24	10,00	8,00	3	69387	
M12	**1,75**	150	29	12,00	9,00	3	69388	

Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

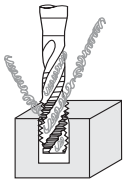
Avance f = **P** (Paso - Pitch - Pas)
Vf (mm/min.) = **r.p.m. x f**
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Ref. 3167

MACHO HELICOIDAL LARGO MÁQUINA MÉTRICA MANGO REFORZADO
Reinforced Shank Metric Machine Long Spiral Tap
Taraud hélicoïdal long machine métrique queue renforcée



HSSE 5%Co	DIN 371	C 2-3h	35°	Tol. 6H	α 10° ± 2	60°



< 2D

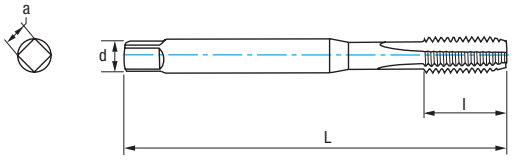
M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	**0,50**	100	6	3,50	2,70	3	69389	
M4	**0,70**	100	7	4,50	3,40	3	69392	
M5	**0,80**	120	8	6,00	4,90	3	69395	
M6	**1,00**	120	10	6,00	4,90	3	69398	
M8	**1,25**	150	14	8,00	6,20	3	69401	
M10	**1,50**	150	16	10,00	8,00	3	69404	
M12	**1,75**	150	18	12,00	9,00	3	69407	

Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

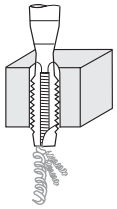
Avance f = **P** (Paso - Pitch - Pas)
Vf (mm/min.) = **r.p.m. x f**
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Ref. 3101

MACHO RECTO MÁQUINA MÉTRICA CORTE IZQUIERDA M. REFORZADO
Reinforced Shank Left Cutting Metric Machine Straight Tap
Taraud droit machine métrique coupe à gauche queue renforcée



HSSE 5%Co	DIN 371	B 3,5-5h	GUN	Tol. 6H	α 10 - 12°	L	60°



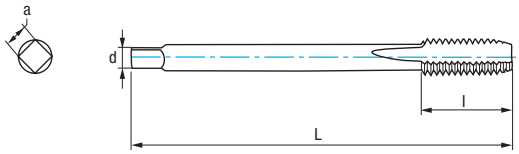
M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M2	0,40	45	9	2,80	2,10	3	59469	
M3	0,50	56	11	3,50	2,70	3	59470	
M4	0,70	63	13	4,50	3,40	3	59471	
M5	0,80	70	16	6,00	4,90	3	59472	
M6	1,00	80	19	6,00	4,90	3	59473	
M7	1,00	80	19	7,00	5,50	3	59474	
M8	1,25	90	22	8,00	6,20	3	59475	
M10	1,50	100	24	10,00	8,00	3	59476	

Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

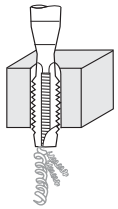
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Ref. 3201

MACHO RECTO MÁQUINA MÉTRICA CORTE IZQUIERDA
Left Cutting Metric Machine Straight Tap
Taraud droit machine métrique coupe à gauche



HSSE 5%Co	DIN 376	B 3,5-5h	GUN	Tol. 6H	α 10 -12°	L	60°



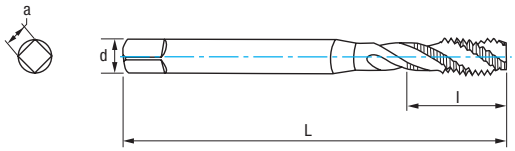
M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	0,50	56	11	2,20			59840	
M4	0,70	63	13	2,80	2,10	3	20077	
M5	0,80	70	16	3,50	2,70	3	20078	
M6	1,00	80	19	4,50	3,40	3	20079	
M7	1,00	80	19	5,50	4,30	3	59843	
M8	1,25	90	22	6,00	4,90	3	10767	
M10	1,50	100	24	7,00	5,50	3	59844	
M11	1,50	100	24	8,00	6,20	3	59845	
M12	1,75	110	29	9,00	7,00	3	29501	
M14	2,00	110	30	11,00	9,00	3	59846	
M16	2,00	110	32	12,00	9,00	3	59847	

Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

Ref. 3161

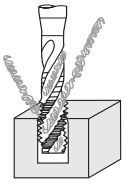
MACHO HELICOIDAL MÁQUINA MÉTRICA CORTE IZQUIERDA M. REFORZADO
Reinforced Shank Left Cutting Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique coupe à gauche queue renforcée



HSSE 5%Co | DIN 371 | C 2-3h | 35° | Tol. 6H | α 10° ± 2 | L | 60°

Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

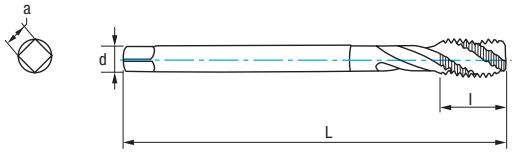


< 2D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	0,50	56	5	3,50	2,70	3	59477	
M4	0,70	63	7	4,50	3,40	3	59478	
M5	0,80	70	8	6,00	4,90	3	59479	
M6	1,00	80	10	6,00	4,90	3	59480	
M7	1,00	80	10	7,00	5,50	3	59481	
M8	1,25	90	13	8,00	6,20	3	59482	
M10	1,50	100	15	10,00	8,00	3	59483	

Ref. 3261

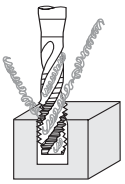
MACHO HELICOIDAL MÁQUINA MÉTRICA CORTE IZQUIERDA
Left Cutting Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique coupe à gauche



HSSE 5%Co | DIN 376 | C 2-3h | 35° | Tol. 6H | α 10° ± 2 | L | 60°

Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

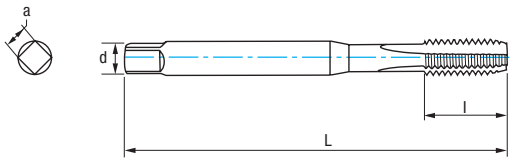


< 2D

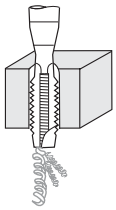
M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	0,50	56	5	2,20			59848	
M4	0,70	63	7	2,80	2,10	3	59849	
M5	0,80	70	8	3,50	2,70	3	59850	
M6	1,00	80	10	4,50	3,40	3	59851	
M8	1,25	90	13	6,00	4,90	3	59852	
M10	1,50	100	15	7,00	5,50	3	59853	
M12	1,75	110	18	9,00	7,00	3	59854	
M14	2,00	110	20	11,00	9,00	3	59855	
M16	2,00	110	20	12,00	9,00	3	59856	

Ref. 3105

MACHO RECTO MÁQUINA MÉTRICA MANGO REFORZADO 6G
6G Reinforced Shank Metric Machine Straight Tap
Taraud droit machine métrique queue renforcée 6G



HSSE 5%Co | DIN 371 | B 3,5-5h | GUN | Tol. 6G | α 10 - 12° | 60°



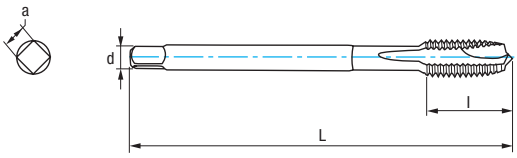
Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

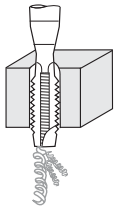
M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	0,50	56	11	3,50	2,70	3	38319	
M4	0,70	63	13	4,50	3,40	3	38320	
M5	0,80	70	16	6,00	4,90	3	38321	
M6	1,00	80	19	6,00	4,90	3	38322	
M8	1,25	90	22	8,00	6,20	3	38323	
M10	1,50	100	24	10,00	8,00	3	38324	

Ref. 3205

MACHO RECTO MÁQUINA MÉTRICA TOLERANCIA 6G
6G Tolerance Metric Machine Straight Tap
Taraud droit machine métrique tolérance 6G



HSSE 5%Co | DIN 376 | B 3,5-5h | Tol. 6G | GUN | α 10 - 12° | 60°



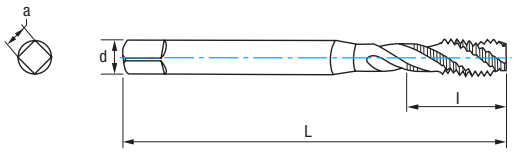
Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

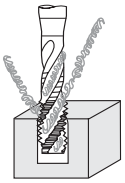
M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M12	1,75	110	29	9,00	7,00	3	38325	
M14	2,00	110	30	11,00	9,00	3	38326	
M16	2,00	110	32	12,00	9,00	3	38327	
M18	2,50	125	34	14,00	11,00	3	38328	
M20	2,50	140	34	16,00	12,00	3	38329	

Ref. 3155

MACHO HELICOIDAL MÁQUINA MÉTRICA M. REFORZADO TOLERANCIA 6G
6G Tolerance Reinforced Shank Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique queue renforcée tolérance 6G



HSSE 5%Co | DIN 371 | C 2-3h | Tol. 6G | 35° | α 10° ± 2 | 60°



< 2D

Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

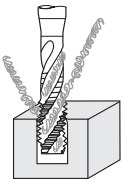
Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	0,50	56	5	3,50	2,70	3	38330	
M4	0,70	63	7	4,50	3,40	3	38331	
M5	0,80	70	8	6,00	4,90	3	38332	
M6	1,00	80	10	6,00	4,90	3	38333	
M8	1,25	90	13	8,00	6,20	3	38334	
M10	1,50	100	15	10,00	8,00	3	38335	

Ref. 3255

MACHO HELICOIDAL MÁQUINA MÉTRICA TOLERANCIA 6G
6G Tolerance Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique tolérance 6G

HSSE 5%Co | DIN 376 | C 2-3h | Tol. 6G | 35° | α 10° ± 2 | 60°



< 2D

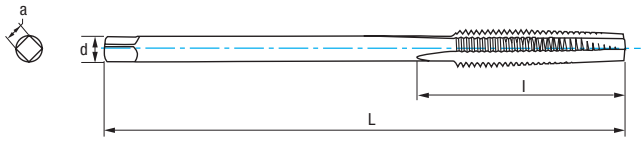
Material		Vc (m/min)
Grupo	Sub.	5% Co
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M12	1,75	110	18	9,00	7,00	3	38336	
M14	2,00	110	20	11,00	9,00	3	38337	
M16	2,00	110	20	12,00	9,00	4	38338	
M18	2,50	125	25	14,00	11,00	4	38339	
M20	2,50	140	25	16,00	12,00	4	38340	

Ref. 3185

MACHO MÁQUINA TUERCAS
Nut Tap
Taraud machine filières pour écrous

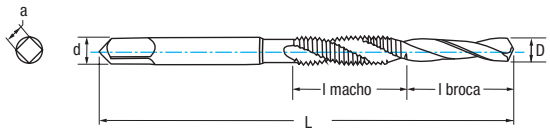


HSS | DIN 357 | 18h | Tol. 6H | **Otras Tol. bajo demanda** **Other Tol. upon request** Autres tol. sur demande

M	P	L mm	l mm	a mm	z	N° Art. HSS	€
M3	0,50	70	22		3	16332	
M4	0,70	90	25	2,10	3	16333	
M5	0,80	100	28	2,70	3	16334	
M6	1,00	110	32	3,50	3	16335	
M7	1,00	110	36	4,30	3	16336	
M8	1,25	125	40	4,90	3	16337	
M10	1,50	140	45	5,50	3	16338	
M12	1,75	180	50	7,00	3	16339	
M14	2,00	200	56	9,00	3	16340	
M16	2,00	200	63	9,00	3	16342	
M18	2,50	220	63	11,00	3	59877	
M20	2,50	250	70	12,00	3	16343	
M22	2,50	280	80	14,50	3	59878	
M24	3,00	280	80	14,50	3	59879	

Ref. 3099

BROCA-MACHO
Tap Drill
Foret taraudeur



HSSE 5%Co | Tol. 6H | **Broca-Macho** **Tap Drill** Foret taraudeur

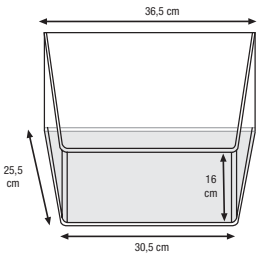
M	P	D Broca Drill Foret mm	L mm	l Broca Drill Foret mm	l Macho Tap Taraud mm	d mm	a mm	N° Art. 5% Co	€
M3	0,50	2,50	56	16,00	11,00	3,00	2,40	63294	
M4	0,70	3,30	63	18,00	14,00	4,00	3,00	63297	
M5	0,80	4,20	71	20,00	18,00	5,00	3,80	63300	
M6	1,00	5,00	80	22,00	22,00	6,00	4,90	63303	
M8	1,25	6,80	95	26,00	25,00	8,00	6,20	63306	
M10	1,50	8,50	106	30,00	31,00	10,00	8,00	63309	
M12	1,75	10,20	115	32,00	35,00	12,00	9,00	63312	

Ref. 4995

EXPOSITOR MACHOS MÉTRICOS MÁQUINA
Machine Metric Tap Exhibitor
Présentoir tarauds métriques machine

66 Pcs

N° Art.	€
70077	



Contenido:

Ref.	Mat.		M	Uds.
3130-3230	HARD	**Materiales duros** Hard Materials Matériaux durs	4x0,70 5x0,80 6x1,00 8x1,25 10x1,50 12x1,75	1
3170-3270				1
3143-3243	HSSE-V	**Materiales aleados** Alloy Materials Matériaux alliages		1
3153-3253				1
3125-3225	HARD	**INOX Alto Rendimiento** High Performance Stainless Inox Haut rendement		1
3165-3265				1
3149-3249	TIN	**INOX** Stainless Steel Inoxydable		1
3159-3259				1
3172-3272	5% Co	**Aluminio** Aluminium		1
3100-3200	5% Co	**Uso general** General Purpose Utilisation générale		1
3150-3250				1

Apilable/ Stackable/ Empilable

SETS MACHOS

Tap Sets

Jeux de tarauds

Sets 3125

MACHO RECTO MÁQUINA MÉTRICA INOX GRAN RENDIMIENTO M. REFORZADO
Reinforced Shank High Performance Stainless Metric Machine Straight Tap
Taraud droit machine métrique inox haut rendement queue renforcée

Ref. 3125 + 1016 TIALSIN

10 Pcs

Cont.	N° Art. TIALSIN	€
Machos / Taps / Tarauds **DIN 371: M4-M5-M6-M8-M10** **Brocas / Drill Bits /** Forets **1016 TIALSIN: 3,3-4,2-5,0-6,8-8,5**	32669	

Ref. 3125 + 1020 HSSE

10 Pcs

Cont.	N° Art. 5% Co	€
Machos / Taps / Tarauds **DIN 371: M4-M5-M6-M8-M10** **Brocas / Drill Bits /** Forets **1020 HSSE: 3,3-4,2-5,0-6,8-8,5**	32674	

Sets 3165

MACHO HELICOIDAL MÁQUINA MÉTRICA INOX GRAN RENDIMIENTO M. REFORZADO
Reinforced Shank High Performance Stainless Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique inox haut rendement queue renforcée

Ref. 3165 + 1016 TIALSIN

10 Pcs

Cont.	N° Art. TIALSIN	€
Machos / Taps / Tarauds **DIN 371: M4-M5-M6-M8-M10** **Brocas / Drill Bits /** Forets **1016 TIALSIN: 3,3-4,2-5,0-6,8-8,5**	32675	

Ref. 3165 + 1020 HSSE

10 Pcs

Cont.	N° Art. 5% Co	€
Machos / Taps / Tarauds **DIN 371: M4-M5-M6-M8-M10** **Brocas / Drill Bits /** Forets **1020 HSSE: 3,3-4,2-5,0-6,8-8,5**	32670	

Sets
3143-3153

MACHO MÁQUINA MÉTRICA MATERIALES ALEADOS M. REFORZADO
Reinforced Shank Alloy Materials Metric Machine Tap
Taraud machine métrique matériaux alliages queue renforcée

Ref. 3143 + 1016 HSSE

MACHO RECTO
Straight Tap / Taraud Droit

10 Pcs

Cont.	N° Art. 5% Co	€
Machos / Taps / Tarauds **DIN 371: M4-M5-M6-M8-M10** **Brocas / Drill Bits /** Forets **1016 HSSE: 3,3-4,2-5,0-6,8-8,5**	82434	

Ref. 3153 + 1016 HSSE

MACHO HELICOIDAL
Spiral Tap / Taraud Helicoïdal

10 Pcs

Cont.	N° Art. 5% Co	€
Machos / Taps / Tarauds **DIN 371: M4-M5-M6-M8-M10** **Brocas / Drill Bits /** Forets **1016 HSSE: 3,3-4,2-5,0-6,8-8,5**	10555	

Sets 3110

MACHO RECTO MÁQUINA MÉTRICA MANGO REFORZADO
Reinforced Shank Metric Machine Straight Tap
Taraud droit machine métrique queue renforcée

Ref. 3110

7 Pcs

Cont.	N° Art. 5% Co	€
Machos / Taps / Tarauds **DIN 371: M3-M4-M5-M6-M8-M10 + DIN 376: M12**	43351	

Ref. 3110 + 1010 HSS

14 Pcs

Cont.	N° Art. HSS	€
Machos / Taps / Tarauds **DIN 371: M3-M4-M5-M6-M8-M10 + DIN 376: M12** **Brocas / Drill Bits /** Forets **HSS: 2,5-3,3-4,2-5,0-6,8-8,5-10,2**	43357	

Ref. 3110 + 1016 HSSE

14 Pcs

Cont.	N° Art. 5% Co	€
Machos / Taps / Tarauds **DIN 371: M3-M4-M5-M6-M8-M10 + DIN 376: M12** **Brocas / Drill Bits /** Forets **HSSE: 2,5-3,3-4,2-5,0-6,8-8,5-10,2**	16198	

Sets 3100

MACHO RECTO MÁQUINA MÉTRICA MANGO REFORZADO
Reinforced Shank Metric Machine Straight Tap
Taraud droit machine métrique queue renforcée

Ref. 3100

7 Pcs

Cont.	N° Art. 5% Co	€
Machos **Taps /** Tarauds **DIN 371: M3-M4-M5-M6-M8-M10 + DIN 376: M12**	43348	

Ref. 3100 + 1010 HSS

14 Pcs

Cont.	N° Art. HSS	€
Machos **Taps /** Tarauds **DIN 371: M3-M4-M5-M6-M8-M10 + DIN 376: M12**	43354	
Brocas **Drill Bits /** Forets **HSS:** 2,5-3,3-4,2-5,0-6,8-8,5-10,2		

Ref. 3100 + 1016 HSSE

14 Pcs

Cont.	N° Art. 5% Co	€
Machos **Taps /** Tarauds **DIN 371: M3-M4-M5-M6-M8-M10 + DIN 376: M12**	21801	
Brocas **Drill Bits /** Forets **HSSE:** 2,5-3,3-4,2-5,0-6,8-8,5-10,2		

25 Pcs

Cont.	N° Art. 5% Co	€
Machos / Taps / Tarauds **DIN 371: M4-M5-M6-M8-M10** (5 pcs x M)	38998	

Sets 3200

MACHO RECTO MÁQUINA MÉTRICA
Metric Machine Straight Tap
Taraud droit machine métrique

25 Pcs

Cont.	N° Art. 5% Co	€
Machos / Taps / Tarauds **DIN 376: M4-M5-M6-M8-M10** (5 pcs x M)	39000	

Sets 3150

MACHO HELICOIDAL MÁQUINA MÉTRICA M. REFORZADO
Reinforced Shank Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique queue renforcée

Ref. 3150

7 Pcs

Cont.	N° Art. 5% Co	€
Machos **Taps /** Tarauds **DIN 371: M3-M4-M5-M6-M8-M10 + DIN 376: M12**	43353	

Ref. 3150 + 1010 HSS

14 Pcs

Cont.	N° Art. HSS	€
Machos **Taps /** Tarauds **DIN 371: M3-M4-M5-M6-M8-M10 + DIN 376: M12**	43359	
Brocas **Drill Bits /** Forets **HSS:** 2,5-3,3-4,2-5,0-6,8-8,5-10,2		

Ref. 3150 + 1016 HSSE

14 Pcs

Cont.	N° Art. 5% Co	€
Machos **Taps /** Tarauds **DIN 371: M3-M4-M5-M6-M8-M10 + DIN 376: M12**	21802	
Brocas **Drill Bits /** Forets **HSSE:** 2,5-3,3-4,2-5,0-6,8-8,5-10,2		

25 Pcs

Cont.	N° Art. 5% Co	€
Machos / Taps / Tarauds **DIN 371: M4-M5-M6-M8-M10** (5 pcs x M)	38999	

Sets 3250

MACHO HELICOIDAL MÁQUINA MÉTRICA
Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique

25 Pcs

Cont.	N° Art. 5% Co	€
Machos / Taps / Tarauds **DIN 376: M4-M5-M6-M8-M10** (5 pcs x M)	39001	

Ref. 3405

JUEGO MACHOS MANO MÉTRICA
Metric Hand Tap Set
Jeu de tarauds à main métrique

29 Pcs

Cont.		N° Art. HSS	€
Juegos Machos / **Tap Sets** / Jeux Tarauds	**M3-M4-M5-M6-M8-M10-M12**		
Brocas / **Drill Bits** / Forets mm	2,5-3,3-4,2-5,0-6,8-8,5-10,2	69624	
Gira-Machos / **Tap-Wrench** / Porte-Tarauds	**M1-M12**		

Ref. 3404

JUEGO MACHOS MANO PERFIL ROSCA COMPLETA
Whole Thread Profile Hand Tap Set
Jeu de tarauds à main profil filetage complet

15 Pcs

Cont.		N° Art. HSS	€
Machos / **Taps** / Tarauds	**M3-M4-M5-M6-M8-M10-M12**		
Brocas / **Drill Bits** / Forets mm	2,5-3,3-4,2-5,0-6,8-8,5-10,2	68214	
Gira-Machos / **Tap-Wrench** / Porte-Tarauds	**M1-M12**		

Ref. 3406

JUEGO MACHOS / COJINETES MANO MÉTRICA
Metric Hand Tap & Die Set
Jeu de tarauds et filières à main métrique

33 Pcs

Mod. 0 - Cont.	
Juegos Machos **Tap Sets** / Jeux Tarauds	**M3-M4-M5-M6-M8-M10-M12**
Gira-Machos **Tap-Wrench** / Porte-Tarauds	**M1-M12**
Gira-Machos **Tap-Wrench** / Porte-Tarauds	Criqué **M3-M10** Ratchet
Cojinetes **Dies** / Filières	**M3-M4-M5-M6-M8-M10-M12**
Porta-Cojinetes **Die Holder** / Porte-Filières	25x9
Galga **Gauge** / Gabarit	1 pc
Destornillador **Screwdriver** / Tournevis	1 pc

New! ISO

N° Art. HSS	€
70527	

N° Art. HSS	€
18959	

55 Pcs

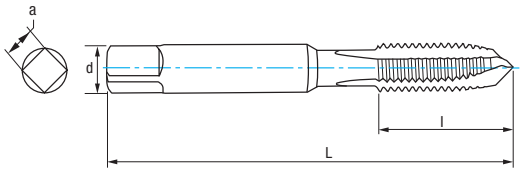
Mod. 1 - Cont.		N° Art. HSS	€
Juegos Machos **Tap Sets** / Jeux Tarauds	**M3-M4-M5-M6-M8-M10-M12-M14-M16-M18-M20**	38404	
Gira-Machos **Tap-Wrench** / Porte-Tarauds	**M1-M12, M5-M20**		
Gira-Machos **Tap-Wrench** / Porte-Tarauds	Criqué **M3-M10 + M5-M12** Ratchet		
Cojinetes **Dies** / Filières	**M3-M4-M5-M6-M8-M10-M12-M14-M16-M18-M20**		
Porta-Cojinetes **Die Holder** / Porte-Filières	20x5, 20x7, 25x9, 30x11, 38x14, 45x18		
Galga **Gauge** / Gabarit	1 pc		
Destornillador **Screwdriver** / Tournevis	1 pc		

45 Pcs

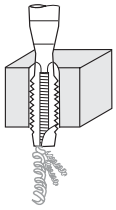
Mod. 2 - Cont.		N° Art. HSS	€
Juegos Machos **Tap Sets** / Jeux Tarauds	**M3-M4-M5-M6-M8-M10-M12**	38981	
Gira-Machos **Tap-Wrench** / Porte-Tarauds	**M1-M10, M4-M12**		
Gira-Machos **Tap-Wrench** / Porte-Tarauds	Criqué **M3-M10** Ratchet		
Cojinetes **Dies** / Filières	**M3-M4-M5-M6-M8-M10-M12**		
Porta-Cojinetes **Die Holder** / Porte-Filières	20x5, 20x7, 25x9, 30x11, 38x14		
Galga **Gauge** / Gabarit	1 pc		
Destornillador **Screwdriver** / Tournevis	1 pc		
Brocas **Drill Bits** / Forets mm	2,5-3,3-4,2-5,0-6,8-8,5-10,2		

Ref. 3119

MACHO RECTO MÁQUINA MÉTRICA ISO MANGO REFORZADO
Reinforced Shank ISO Standard Metric Machine Straight Tap
Taraud droit machine métrique norme ISO queue renforcée



HSSE 5%Co	ISO 529	B 4-5h	Tol. 6H	GUN	α 10-12°	60°



≤ 2D

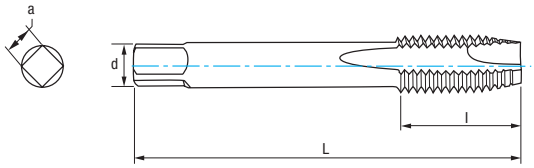
Material		Vc (m/min)
Grupo	Sub.	HSS
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

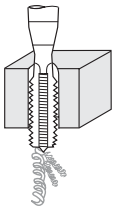
M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M3	0,50	48	11	3,15	2,50	3	69558	
M4	0,70	53	13	4,00	3,15	3	69567	
M5	0,80	58	16	5,00	4,00	3	69575	
M6	1,00	66	19	6,30	5,00	3	69582	
M8	1,25	72	22	8,00	6,30	3	69586	
M10	1,50	80	24	10,00	8,00	3	69588	

Ref. 3217

MACHO RECTO MÁQUINA MÉTRICA NORMA ISO
ISO Standard Metric Machine Straight Tap
Taraud droit machine métrique norme ISO



HSSE 5%Co	ISO 529	B 4-5h	Tol. 6H	GUN	α 10-12°	60°



≤ 1,5D

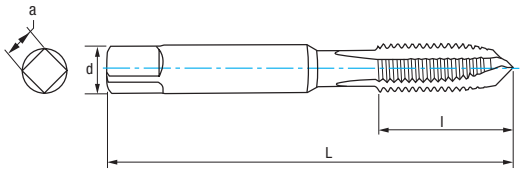
Material		Vc (m/min)
Grupo	Sub.	HSS
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

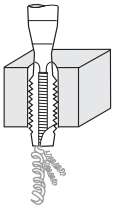
M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M12	1,75	89	29	9,00	7,10	3	69607	
M14	2,00	95	30	11,20	9,00	3	69608	
M16	2,00	102	32	12,50	10,00	3	69610	
M18	2,50	112	37	14,00	11,20	3	69611	
M20	2,50	112	37	14,00	11,20	3	69613	
M22	2,50	118	38	16,00	12,50	3	69614	
M24	3,00	130	45	18,00	14,00	3	69616	
M27	3,00	135	45	20,00	16,00	3	69617	
M30	3,50	138	48	20,00	16,00	3	69619	

Ref. 3109

MACHO RECTO MÁQUINA MÉTRICA ISO MANGO REFORZADO
Reinforced Shank ISO Standard Metric Machine Straight Tap
Taraud droit machine métrique norme ISO queue renforcée



HSS	ISO 529	B 4-5h	Tol. 6H	GUN	α 10-12°	60°



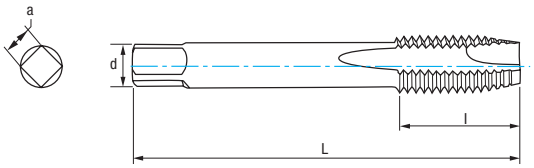
Material		Vc (m/min)
Grupo	Sub.	HSS
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

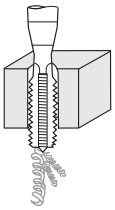
M	P	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
M3	**0,50**	48	11	3,15	2,50	3	38180	
M4	**0,70**	53	13	4,00	3,15	3	38182	
M5	**0,80**	58	16	5,00	4,00	3	38373	
M6	**1,00**	66	19	6,30	5,00	3	38185	
M8	**1,25**	72	22	8,00	6,30	3	38187	
M10	**1,50**	80	24	10,00	8,00	3	38188	

Ref. 3207

MACHO RECTO MÁQUINA MÉTRICA NORMA ISO
ISO Standard Metric Machine Straight Tap
Taraud droit machine métrique norme ISO



HSS	ISO 529	B 4-5h	Tol. 6H	GUN	α 10-12°	60°



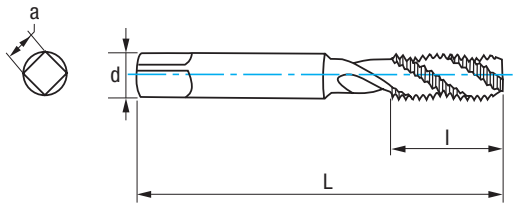
Material		Vc (m/min)
Grupo	Sub.	HSS
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

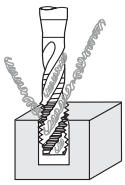
M	P	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
M12	**1,75**	89	29	9,00	7,10	3	38189	
M14	**2,00**	95	30	11,20	9,00	3	38190	
M16	**2,00**	102	32	12,50	10,00	3	38191	
M18	**2,50**	112	37	14,00	11,20	3	38192	
M20	**2,50**	112	37	14,00	11,20	3	38193	
M22	**2,50**	118	38	16,00	12,50	3	38194	
M24	**3,00**	130	45	18,00	14,00	3	38195	
M27	**3,00**	135	45	20,00	16,00	3	38196	
M30	**3,50**	138	48	20,00	16,00	3	38197	

Ref. 3157

MACHO HELICOIDAL MÁQUINA MÉTRICA ISO M. REFORZADO
Reinforced Shank ISO Standard Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique norme ISO queue renforcée



HSS | ISO 529 | C 2-3h | Tol. 6H | 35° | α 12-14º | 60°



< 2D

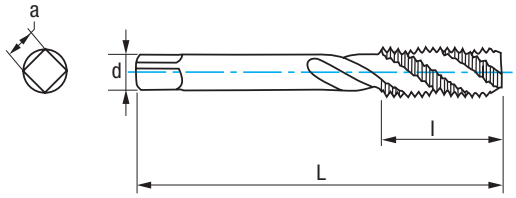
Material		Vc (m/min)
Grupo	Sub.	HSS
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

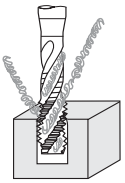
M	P	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
M3	**0,50**	48	11	3,15	2,50	3	38198	
M4	**0,70**	53	13	4,00	3,15	3	38201	
M5	**0,80**	58	16	5,00	4,00	3	38206	
M6	**1,00**	66	19	6,30	5,00	3	38209	
M8	**1,25**	72	22	8,00	6,30	3	38214	
M10	**1,50**	80	24	10,00	8,00	3	38216	

Ref. 3247

MACHO HELICOIDAL MÁQUINA MÉTRICA NORMA ISO
ISO Standard Metric Machine Spiral Tap
Taraud hélicoïdal machine métrique norme ISO



HSS | ISO 529 | C 2-3h | Tol. 6H | 35° | α 12-14º | 60°



< 2D

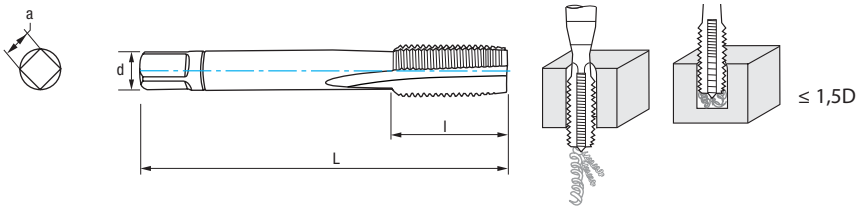
Material		Vc (m/min)
Grupo	Sub.	HSS
P	P.1	6-10
N	N.1	5-8
	N.3	15-35
	N.4	14-20

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

M	P	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
M12	**1,75**	89	29	9,00	7,10	3	38226	
M14	**2,00**	95	30	11,20	9,00	3	38228	
M16	**2,00**	102	32	12,50	10,00	3	38229	

Ref. 3036

JUEGO MACHOS MANO MÉTRICA/ MÉTRICA FINA COBALTO INOX
STAINLESS Cobalt Metric / Metric Fine Hand Tap Set
Jeu de tarauds à main métrique / métrique pas fin cobalt INOX



HSSE 5%Co	M DIN 352	MF DIN 2181	C 2-3h	Tol. 6H	Vaporizado Vaporized Vaporisée

α 6 - 8°	60°	N°1 Desbaste Roughing Ébauche	N°2 Semidesbaste Semiroughing Semi-Ébauche	N°3 Acabado Finishing Finition	N°1-N°2 Con guía Guided Avec Guide	Grupo Group-Groupe P	Subgrup. P.5	Grupo Group-Groupe M	Grupo Group-Groupe K

M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
M2	**0,40**	36	8	2,80	2,10	3	69229	
M3	**0,50**	40	11	3,50	2,70	3	16404	
M4	**0,70**	45	13	4,50	3,40	3	16405	
M5	**0,80**	50	16	6,00	4,90	3	16406	
MF6	0,75	56	14	6,00	4,90	3	82254	
M6	**1,00**	56	19	6,00	4,90	3	16407	
MF8	1,00	63	18	6,00	4,90	3	82255	
M8	**1,25**	63	22	6,00	4,90	3	16408	
MF10	1,00	63	18	7,00	5,50	3	82256	
M10	**1,50**	70	24	7,00	5,50	3	16409	

M	P	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
MF12	1,00	70	18	9,00	7,00	3	82257	
MF12	1,50	70	22	9,00	7,00	3	82258	
M12	**1,75**	75	29	9,00	7,00	3	16410	
MF14	1,50	70	22	11,00	9,00	4	82259	
M14	**2,00**	80	30	11,00	9,00	4	16411	
MF16	1,50	70	22	12,00	9,00	4	82290	
M16	**2,00**	80	32	12,00	9,00	4	16412	
MF18	1,50	80	22	14,00	11,00	4	82260	
M18	**2,50**	95	40	14,00	11,00	4	16413	
MF20	1,50	80	22	16,00	12,00	4	82261	
M20	**2,50**	95	40	16,00	12,00	4	16414	

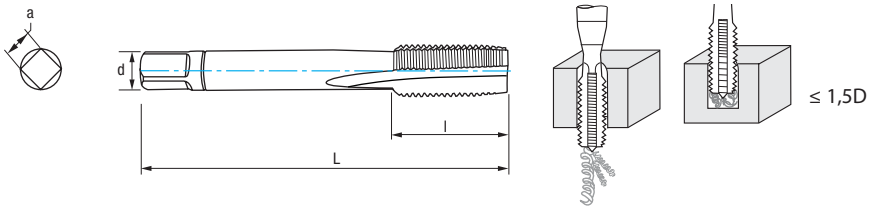
Ref. 3037

MACHO ÚNICO MÉTRICA/ MÉTRICA FINA COBALTO INOX
STAINLESS Cobalt Metric / Metric Fine Hand Single Tap
Taraud à main unique métrique / métrique pas fin cobalt INOX

M	P	L mm	l mm	d mm	a mm	Z	Nº 3 Acabado Finishing Finition N° Art. 5% Co	Nº 1 Desbaste Roughing Ébauche N° Art. 5% Co	Nº 2 Semidesbaste Semiroughing Semi-Ébauche N° Art. 5% Co	€
M2	**0,40**	36	8	2,80	2,10	3	83127	83125	83126	
M3	**0,50**	40	11	3,50	2,70	3	74981	74979	74980	
M4	**0,70**	45	13	4,50	3,40	3	75010	74982	74983	
M5	**0,80**	50	16	6,00	4,90	3	74986	74984	74985	
MF6	0,75	56	14	6,00	4,90	3	82264	82262	82263	
M6	**1,00**	56	19	6,00	4,90	3	74990	74988	74989	
MF8	1,00	63	18	6,00	4,90	3	82267	82265	82266	
M8	**1,25**	63	22	6,00	4,90	3	74993	74991	74992	
MF10	1,00	63	18	7,00	5,50	3	82270	82268	82269	
M10	**1,50**	70	24	7,00	5,50	3	74998	74994	74997	
MF12	1,00	70	18	9,00	7,00	3	82273	82271	82272	
MF12	1,50	70	22	9,00	7,00	3	82276	82274	82275	
M12	**1,75**	75	29	9,00	7,00	3	75003	74999	75000	
MF14	1,50	70	22	11,00	9,00	4	82279	82277	82278	
M14	**2,00**	80	30	11,00	9,00	4	75006	75004	75005	
MF16	1,50	70	22	12,00	9,00	4	82283	82280	82282	
M16	**2,00**	80	32	12,00	9,00	4	74974	72865	72864	
MF18	1,50	80	22	14,00	11,00	4	82286	82284	82285	
M18	**2,50**	95	40	14,00	11,00	4	75009	75007	75008	
MF20	1,50	80	22	16,00	12,00	4	82289	82287	82288	
M20	**2,50**	95	40	16,00	12,00	4	59960	74131	74977	

Ref. 3030

JUEGO MACHOS MANO MÉTRICA
Metric Hand Tap Set
Jeu de tarauds à main métrique



HSS | DIN 352 | C 2-3h | Tol. 6H | α 10° ± 2 | 60°

N°1 Desbaste Roughing Ébauche | **N°2 Semidesbaste** Semiroughing Semi-Ébauche | **N°3 Acabado** Finishing - Finition **(Ref. 3010)**

Grupo Group-Groupe	Subgrup.	Grupo Group-Groupe	Grupo Group-Groupe	Subgrup.
P	P.1	K	N	N.1 - N.3 N.4 - N.5

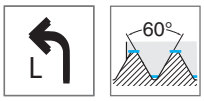
M	P	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
M2	0,40	36	8	2,80	2,10	3	62531	
M2,5	0,45	40	9	2,80	2,10	3	62534	
M3	0,50	40	11	3,50	2,70	3	62537	
M3,5	0,60	45	13	4,00	3,00	3	62540	
M4	0,70	45	13	4,50	3,40	3	62543	
M4	0,75	45	14	4,50	3,40	3	76377	
M4,5	0,75	50	16	6,00	4,90	3	62546	
M5	0,80	50	16	6,00	4,90	3	62549	
M6	1,00	56	19	6,00	4,90	3	62552	
M7	1,00	56	19	6,00	4,90	3	62555	
M8	1,25	56	22	6,00	4,90	4	62561	
M9	1,25	63	22	7,00	5,50	4	62567	
M10	1,50	70	24	7,00	5,50	4	62573	
M11	1,50	70	24	8,00	6,20	4	62576	
M12	1,75	75	28	9,00	7,00	4	62579	
M13	1,75	75	28	9,00	7,00	4	62582	
M14	2,00	80	30	11,00	9,00	4	62585	

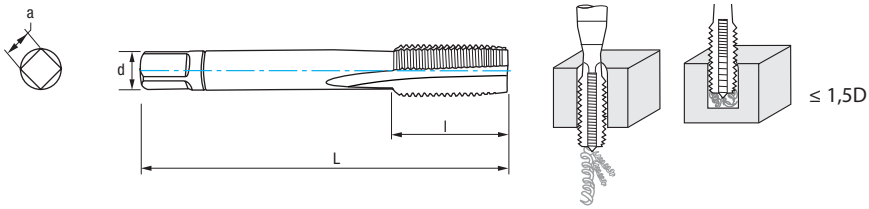
M	P	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
M15	2,00	80	32	12,00	9,00	4	62588	
M16	2,00	80	32	12,00	9,00	4	62591	
M18	2,50	95	34	14,00	11,00	4	62594	
M20	2,50	95	34	16,00	12,00	4	62597	
M22	2,50	100	34	18,00	14,50	4	62603	
M24	3,00	110	38	18,00	14,50	4	62606	
M27	3,00	110	38	20,00	16,00	4	62609	
M30	3,50	125	45	22,00	18,00	4	62612	
M33	3,50	125	50	25,00	20,00	4	62615	
M36	4,00	150	56	28,00	22,00	4	62618	
M39	4,00	150	60	32,00	24,00	4	62621	
M42	4,50	150	60	32,00	24,00	4	62624	
M45	4,50	160	65	36,00	29,00	6	73760	
M48	5,00	180	70	36,00	29,00	6	62627	
M52	5,00	180	70	40,00	32,00	6	76382	
M56	5,50	180	70	40,00	32,00	6	76383	
M60	5,50	200	85	45,00	35,00	6	76384	

Macho único Ref. 3010 disponible en pag. 247 / Single Tap Ref. 3010 available in page 247 / Taraud unique Ref. 3010 disponible pag. 247

Ref. 3031

JUEGO MACHOS MANO MÉTRICA CORTE IZQUIERDA
Left Cutting Metric Hand Tap Set
Jeu de tarauds à main métrique coupe à gauche



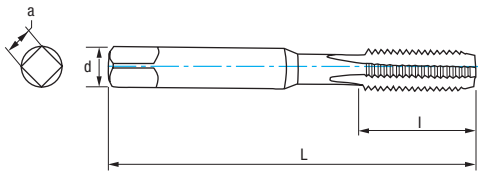


M	P	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
M3	0,50	40	11	3,50	2,70	3	23302	
M3,5	0,60	45	13	4,00	3,00	3	23303	
M4	0,70	45	13	4,50	3,40	3	23304	
M4,5	0,75	50	16	6,00	4,90	3	23305	
M5	0,80	50	16	6,00	4,90	3	23306	
M6	1,00	50	19	6,00	4,90	3	23307	
M7	1,00	50	19	6,00	4,90	3	23308	
M8	1,25	56	22	6,00	4,90	4	23309	

M	P	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
M9	1,25	63	22	7,00	5,50	4	23310	
M10	1,50	70	24	7,00	5,50	4	23311	
M11	1,50	70	24	8,00	6,20	4	23312	
M12	1,75	75	29	9,00	7,00	4	23313	
M14	2,00	80	30	11,00	9,00	4	23314	
M16	2,00	80	32	12,00	9,00	4	23315	
M18	2,50	95	40	14,00	11,00	4	23316	
M20	2,50	95	40	16,00	12,00	4	23317	

Ref. 3040

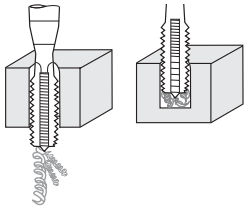
JUEGO MACHOS MANO MÉTRICA NORMA ISO
ISO Standard Metric Hand Tap Set
Jeu de tarauds à main métrique norme ISO



HSS	ISO 529	Tol. 6H	A 8h	D 5h	C 2-3h	α 10° ± 2	60°

Grupo Group-Groupe	Subgrup.
P	P.1

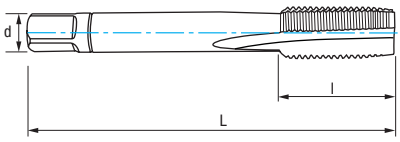
Grupo Group-Groupe	Grupo Group-Groupe	Subgrup.
K	N	N.1 - N.2 N.3 - N.4 - N.5

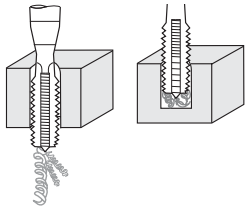


M	P	L mm	l mm	d mm	a mm	Z	Nº Art. HSS	€
M2	**0,40**	41	8	2,50	2,00	3	83527	
M3	**0,50**	48	11	3,15	2,50	3	68870	
M4	**0,70**	53	13	4,00	3,15	3	68871	
M5	**0,80**	58	16	5,00	4,00	3	68872	
M6	**1,00**	66	19	6,30	5,00	3	68873	
M8	**1,25**	72	22	8,00	6,30	4	68874	
M10	**1,50**	80	24	10,00	8,00	4	68875	
M12	**1,75**	89	29	9,00	7,10	4	68876	
M14	**2,00**	95	30	11,20	9,00	4	68877	
M16	**2,00**	102	32	12,50	10,00	4	68878	

Ref. 3020

JUEGO MACHOS MANO MÉTRICA FINA
Metric Fine Hand Tap Set
Jeu de tarauds à main métrique pas fin





HSS	DIN 2181	C 2-3h	Tol. 6H		α 10° ± 2	60°	**N°1 Desbaste Roughing** Ébauche	**N°3 Acabado Finishing** - Finition **(Ref. 3010)**

Grupo Group-Groupe	Subgrup.	Grupo Group-Groupe	Grupo Group-Groupe	Subgrup.
P	**P.1**	**K**	**N**	**N.1 - N.3 N.4 - N.5**

MF	P	L mm	l mm	d mm	a mm	z	N° Art. HSS	€
MF4	**0,50**	45	10	4,50	3,40	3	62336	
MF5	**0,50**	50	12	6,00	4,90	3	62342	
MF5	**0,75**	50	12	6,00	4,90	3	62345	
MF6	**0,50**	50	14	6,00	4,90	3	62351	
MF6	**0,75**	50	14	6,00	4,90	3	62354	
MF7	**0,75**	50	14	6,00	4,90	3	62360	
MF8	**0,50**	50	19	6,00	4,90	4	62366	
MF8	**0,75**	50	19	6,00	4,90	4	62369	
MF8	**1,00**	56	20	6,00	4,90	4	62372	
MF9	**1,00**	63	20	7,00	5,50	4	75090	
MF10	**0,50**	63	20	7,00	5,50	4	21727	
MF10	**0,75**	63	20	7,00	5,50	4	76309	
MF10	**1,00**	63	20	7,00	5,50	4	62378	
MF10	**1,25**	70	24	7,00	5,50	4	62381	
MF11	**0,75**	63	20	8,00	6,20	4	16118	
MF11	**1,00**	63	20	8,00	6,20	4	76311	
MF11	**1,25**	63	20	8,00	6,20	4	75298	
MF12	**0,75**	70	22	9,00	7,00	4	76312	
MF12	**1,00**	70	20	9,00	7,00	4	62387	
MF12	**1,25**	70	22	9,00	7,00	4	62390	
MF12	**1,50**	70	22	9,00	7,00	4	62393	
MF13	**0,75**	70	22	11,00	9,00	4	56832	
MF13	**1,00**	70	20	11,00	9,00	4	76314	
MF13	**1,25**	70	22	11,00	9,00	4	76315	
MF13	**1,50**	70	22	11,00	9,00	4	62399	
MF14	**0,75**	70	22	11,00	9,00	4	56833	
MF14	**1,00**	70	20	11,00	9,00	4	62402	
MF14	**1,25**	70	20	11,00	9,00	4	62405	
MF14	**1,50**	70	20	11,00	9,00	4	62408	
MF14	**1,75**	70	30	11,00	9,00	4	10875	
MF15	**1,00**	70	20	12,00	9,00	4	76318	
MF15	**1,25**	70	22	12,00	9,00	4	76319	
MF15	**1,50**	70	20	12,00	9,00	4	75299	
MF16	**1,00**	70	20	12,00	9,00	4	62414	
MF16	**1,25**	70	20	12,00	9,00	4	76320	
MF16	**1,50**	70	20	12,00	9,00	4	62417	
MF17	**1,00**	70	22	12,00	9,00	4	76321	
MF17	**1,25**	70	22	12,00	9,00	4	56834	
MF17	**1,50**	70	22	12,00	9,00	4	62420	
MF18	**1,00**	80	22	14,00	11,00	4	62423	
MF18	**1,25**	80	22	14,00	11,00	4	76323	
MF18	**1,50**	80	22	14,00	11,00	4	62426	

MF	P	L mm	l mm	d mm	a mm	z	N° Art. HSS	€
MF18	**2,00**	80	22	14,00	11,00	4	62429	
MF19	**1,00**	80	22	14,00	11,00	4	10831	
MF19	**1,25**	80	22	14,00	11,00	4	56835	
MF19	**1,50**	80	22	14,00	11,00	4	76326	
MF19	**2,00**	80	22	14,00	11,00	4	56837	
MF20	**1,00**	80	22	16,00	12,00	4	76327	
MF20	**1,25**	80	22	16,00	12,00	4	74816	
MF20	**1,50**	80	22	16,00	12,00	4	62435	
MF20	**2,00**	80	22	16,00	12,00	4	62438	
MF21	**1,00**	80	22	16,00	12,00	4	56838	
MF21	**1,25**	80	22	16,00	12,00	4	56840	
MF21	**1,50**	80	22	16,00	12,00	4	75300	
MF22	**1,00**	80	22	18,00	14,50	4	76330	
MF22	**1,25**	80	22	18,00	14,50	4	74601	
MF22	**1,50**	80	22	18,00	14,50	4	62441	
MF22	**2,00**	80	22	18,00	14,50	4	62444	
MF23	**1,00**	80	22	18,00	14,50	4	56841	
MF23	**1,50**	80	22	18,00	14,50	4	56842	
MF24	**1,00**	90	22	18,00	14,50	4	76333	
MF24	**1,25**	90	22	18,00	14,50	4	62447	
MF24	**1,50**	90	22	18,00	14,50	4	62450	
MF24	**2,00**	90	22	18,00	14,50	4	62453	
MF25	**1,00**	90	22	18,00	14,50	4	76334	
MF25	**1,25**	90	22	18,00	14,50	4	56843	
MF25	**1,50**	90	22	18,00	14,50	4	75301	
MF25	**2,00**	90	22	18,00	14,50	4	56844	
MF26	**1,00**	90	22	18,00	14,50	4	56846	
MF26	**1,50**	90	22	18,00	14,50	4	75302	
MF26	**2,00**	90	22	18,00	14,50	4	56847	
MF27	**1,00**	90	22	20,00	16,00	4	76338	
MF27	**1,50**	90	22	20,00	16,00	4	76339	
MF27	**2,00**	90	22	20,00	16,00	4	75303	
MF28	**1,00**	90	22	20,00	16,00	4	76340	
MF28	**1,50**	90	22	20,00	16,00	4	76341	
MF30	**1,00**	90	22	22,00	18,00	4	76342	
MF30	**1,50**	90	22	22,00	18,00	4	76343	
MF30	**2,00**	90	22	22,00	18,00	4	75304	
New! MF30	**3,00**	90	22	22,00	18,00	4	14421	
MF32	**1,50**	90	22	22,00	18,00	4	76345	
MF33	**1,50**	100	25	25,00	20,00	4	76348	
MF33	**2,00**	100	25	25,00	20,00	4	75305	
MF34	**1,50**	100	25	28,00	22,00	4	76349	

Ref. 3020

JUEGO MACHOS MANO MÉTRICA FINA
Metric Fine Hand Tap Set
Jeu de tarauds à main métrique pas fin

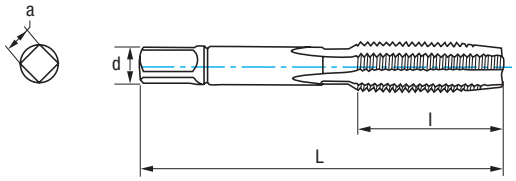
Cont.

MF	P	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
MF35	**1,50**	100	25	28,00	22,00	4	76350	
MF36	**1,50**	100	25	28,00	22,00	4	76351	
MF36	**2,00**	125	33	28,00	22,00	4	76140	
MF36	**3,00**	125	33	28,00	22,00	4	76352	
MF38	**1,50**	100	25	28,00	22,00	4	76353	
MF38	**2,00**	125	40	28,00	22,00	4	75306	
MF39	**1,50**	110	25	32,00	24,00	4	76354	
MF39	**2,00**	125	33	32,00	24,00	4	76355	
MF39	**3,00**	125	33	32,00	24,00	4	76356	
MF40	**1,50**	110	25	32,00	24,00	6	76357	
MF40	**2,00**	110	25	32,00	24,00	6	76358	
MF40	**3,00**	125	40	32,00	24,00	6	76359	

MF	P	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
MF42	**2,00**	125	33	32,00	24,00	6	76361	
MF42	**3,00**	125	33	32,00	24,00	6	76362	
MF45	**1,50**	110	25	36,00	29,00	6	76363	
MF45	**2,00**	125	33	36,00	29,00	6	76364	
MF45	**3,00**	125	33	36,00	29,00	6	76365	
MF48	**1,50**	140	33	36,00	29,00	6	76366	
MF48	**2,00**	140	33	36,00	29,00	6	76367	
MF48	**3,00**	140	33	36,00	29,00	6	76368	
MF50	**1,50**	140	40	36,00	29,00	6	76369	
MF52	**1,50**	140	40	40,00	32,00	6	76370	
MF52	**2,00**	140	40	40,00	32,00	6	77643	
MF52	**3,00**	140	40	40,00	32,00	6	76372	

Ref. 3021

JUEGO MACHOS MANO MÉTRICA FINA CORTE IZQUIERDA
Left Cutting Metric Fine Hand Tap Set
Jeu de tarauds à main métrique pas fin coupe à gauche



HSS | DIN 2181 | C 2-3h | Tol. 6H | α 10° ± 2 | **N°1 Desbaste** Roughing Ébauche | **N°3 Acabado** Finishing - Finition | 60° | L

Grupo Group-Groupe	Subgrup.
P	**P.1**

Grupo Group-Groupe	Subgrup.
K	

Grupo Group-Groupe	Subgrup.
N	**N.1 - N.3 N.4 - N.5**

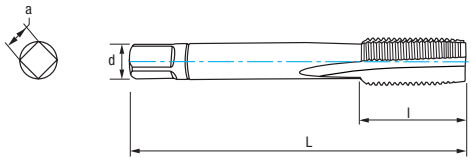
MF	P	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
MF8	**1,00**	56	22	6,00	4,90	4	18877	
MF10	**1,00**	63	20	7,00	5,50	4	22028	
MF10	**1,25**	70	24	7,00	5,50	4	21874	
MF12	**1,25**	70	22	9,00	7,00	4	34029	
MF12	**1,50**	70	22	9,00	7,00	4	34030	
MF14	**1,25**	70	22	11,00	9,00	4	38318	
MF14	**1,50**	70	22	11,00	9,00	4	10531	
MF16	**1,50**	70	22	12,00	9,00	4	13143	
MF20	**1,50**	80	22	16,00	12,00	4	19101	

Ref. 3020

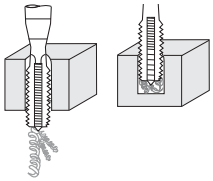
Ref. 3021

Ref. 3010

MACHO ÚNICO MANO MÉTRICA/ MÉTRICA FINA
Metric / Metric Fine Hand Single Tap
Taraud à main unique métrique / métrique pas fin



HSS	M DIN 352 (Ref. 3030)	MF DIN 2181 (Ref. 3020)	C 2-3h	Tol. 6H		α 10° ± 2	60°



Grupo Group-Groupe	Subgrup.	Grupo Group-Groupe	Grupo Group-Groupe	Subgrup.
P	P.1	K	N	N.1 - N.3 N.4 - N.5

							Nº3 Acabado Finishing Finition (M Ref. 3030 / MF Ref. 3020)		Nº 1 Desbaste M Roughing Ébauche (Ref. 3030)		Nº 2 Semidesbaste M Semiroughing Semi-ébauche (Ref. 3030)	
M/MF	**P**	**L mm**	**l mm**	**d mm**	**a mm**	**Z**	**N° Art. HSS**	**€**	**N° Art. HSS**	**€**	**N° Art. HSS**	**€**
M2	**0,40**	36	8	2,80	2,10	3	76385		22710		33368	
M2	**0,45**	41	8	2,50	2,00	3	16451					
M2,5	**0,45**	40	9	2,80	2,10	3	76387					
M3	**0,50**	40	11	3,50	2,70	3	76389		11158		12723	
M3,5	**0,60**	45	13	4,00	3,00	3	76391		66186		20538	
MF4	0,50	45	10	4,50	3,40	3	76393					
M4	**0,70**	45	13	4,50	3,40	3	76394		18943		11263	
M4,5	**0,75**	50	16	6,00	4,90	3	76397		66187		66192	
MF5	0,50	50	12	6,00	4,90	3	59484					
MF5	0,75	50	12	6,00	4,90	3	59485					
M5	**0,80**	50	16	6,00	4,90	3	76400		11262		26620	
MF6	0,50	50	14	6,00	4,90	3	59486					
MF6	0,75	50	14	6,00	4,90	3	76405					
M6	**1,00**	50	19	6,00	4,90	3	75383		10630		10833	
MF7	0,75	50	14	6,00	4,90	3	46217					
M7	**1,00**	50	19	6,00	4,90	3	76408		66201		32812	
MF8	0,50	50	19	6,00	4,90	4	59487					
MF8	0,75	50	19	6,00	4,90	4	59488					
MF8	1,00	56	20	6,00	4,90	4	76411					
M8	**1,25**	56	22	6,00	4,90	4	75449		10938		26629	
MF9	1,00	63	20	7,00	5,50	4	34577					
M9	**1,25**	63	22	7,00	5,50	4	76414		66208		20543	
MF10	0,50	63	20	7,00	5,50	4	59489					
MF10	0,75	63	20	7,00	5,50	4	59490					
MF10	1,00	63	20	7,00	5,50	4	76417					
MF10	1,25	70	24	7,00	5,50	4	76418					
M10	**1,50**	70	24	7,00	5,50	4	74995		11148		15086	
MF11	0,75	63	20	8,00	6,20	4	59491					
MF11	1,00	63	20	8,00	6,20	4	59492					
MF11	1,25	63	22	8,00	6,20	4	59493					
M11	**1,50**	70	24	8,00	6,20	4	76422		25211		21282	
MF12	0,75	70	22	9,00	7,00	4	59494					
MF12	1,00	70	20	9,00	7,00	4	22221					
MF12	1,25	70	22	9,00	7,00	4	76425					
MF12	1,50	70	22	9,00	7,00	4	76426					
M12	**1,75**	75	29	9,00	7,00	4	74996		10834		28407	
MF13	0,75	70	22	11,00	9,00	4	59495					
MF13	1,00	70	20	11,00	9,00	4	59496					
MF13	1,25	70	22	11,00	9,00	4	59497					
MF13	1,50	70	22	11,00	9,00	4	59498					
MF14	0,75	70	22	11,00	9,00	4	59499					
MF14	1,00	70	20	11,00	9,00	4	76433					
MF14	1,25	70	20	11,00	9,00	4	45040					
MF14	1,50	70	20	11,00	9,00	4	76435					
MF14	1,75	70	30	11,00	9,00	4	59500					
M14	**2,00**	80	30	11,00	9,00	4	76436		11772		20529	
MF15	1,00	70	20	12,00	9,00	4	59501					
MF15	1,25	70	22	12,00	9,00	4	59503					
MF15	1,50	70	20	12,00	9,00	4	76439					
MF16	1,00	70	22	12,00	9,00	4	59504					
MF16	1,25	70	22	12,00	9,00	4	59505					
MF16	1,50	70	20	12,00	9,00	4	76443					
M16	**2,00**	80	32	12,00	9,00	4	76444		17461		16312	
MF17	1,00	70	22	12,00	9,00	4	59506					
MF17	1,25	70	22	12,00	9,00	4	59507					

MF Nº1
bajo demanda
upon request
sur demande

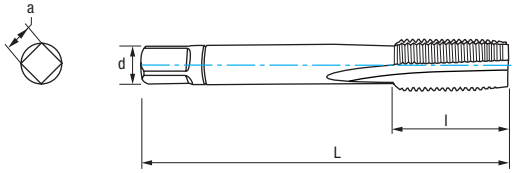
Cont.

M/MF	P	L mm	l mm	d mm	a mm	Z	Nº Art. HSS	€	Nº Art. HSS	€	Nº Art. HSS	€
							Nº3 Acabado Finishing Finition (M Ref. 3030 / MF Ref. 3020)		Nº 1 Desbaste M Roughing Ébauche (Ref. 3030)		Nº 2 Semidesbaste M Semiroughing Semi-Ébauche (Ref. 3030)	
MF17	1,50	70	22	12,00	9,00	4	59562					
MF18	1,00	80	22	14,00	11,00	4	59508					
MF18	1,25	80	22	14,00	11,00	4	59509					
MF18	1,50	80	22	14,00	11,00	4	45039					
MF18	2,00	80	22	14,00	11,00	4	59510					
M18	**2,50**	95	40	14,00	11,00	4	76452		11916		66249	
MF19	1,25	80	22	14,00	11,00	4	59511					
MF19	1,50	80	22	14,00	11,00	4	59512					
MF19	2,00	80	22	14,00	11,00	4	59513					
MF20	1,00	80	22	16,00	12,00	4	59514					
MF20	1,25	80	22	16,00	12,00	4	59515					
MF20	1,50	80	22	16,00	12,00	4	76476					
MF20	2,00	80	22	16,00	12,00	4	59516					
M20	**2,50**	95	40	16,00	12,00	4	76478		11917		17261	
MF21	1,00	80	22	16,00	12,00	4	59517					
MF21	1,25	80	22	16,00	12,00	4	59518					
MF21	1,50	80	22	16,00	12,00	4	59519					
MF22	1,00	80	22	18,00	14,50	4	59521					
MF22	1,25	80	22	18,00	14,50	4	59522					
MF22	1,50	80	22	18,00	14,50	4	76484					
MF22	2,00	80	22	18,00	14,50	4	76485					
M22	**2,50**	100	40	18,00	14,50	4	76486		65789		15241	
MF23	1,00	80	22	18,00	14,50	4	59523					
MF23	1,50	80	22	18,00	14,50	4	59524					
MF24	1,25	90	22	18,00	14,50	4	59525					
MF24	2,00	90	22	18,00	14,50	4	59526					
M24	**3,00**	110	50	18,00	14,50	4	76493		58475		12505	
MF25	1,00	90	22	18,00	14,50	4	59527					
MF25	1,25	90	22	18,00	14,50	4	59528					
MF25	2,00	90	22	18,00	14,50	4	59561					
MF26	1,00	90	22	18,00	14,50	4	59529					
MF26	1,50	90	22	18,00	14,50	4	59530					
MF26	2,00	90	22	18,00	14,50	4	59531					
MF27	1,00	90	22	20,00	16,00	4	59532					
MF27	1,50	90	22	20,00	16,00	4	59533					
M27	**3,00**	110	50	20,00	16,00	4	76505		10836		66294	
MF28	1,00	90	22	20,00	16,00	4	59534					
MF28	1,50	90	22	20,00	16,00	4	59535					
MF30	1,00	90	22	22,00	18,00	4	16388					
MF30	1,50	90	22	22,00	18,00	4	59536					
M30	**3,50**	125	56	22,00	18,00	4	76512		26582		13046	
MF33	1,50	100	25	25,00	20,00	4	59537					
MF33	2,00	100	25	25,00	20,00	4	59538					
M33	**3,50**	125	56	25,00	20,00	4	76519		66307		66308	
MF34	1,50	100	25	28,00	22,00	4	59539					
MF35	1,50	100	25	28,00	22,00	4	59540					
MF36	1,50	100	25	28,00	22,00	4	59541					
MF36	3,00	125	40	28,00	22,00	4	59542					
M36	**4,00**	150	63	28,00	22,00	4	76525		66317		38036	
MF38	1,50	100	25	28,00	22,00	4	59543					
MF38	2,00	125	40	28,00	22,00	4	59544					
MF39	1,50	110	25	32,00	24,00	4	59545					
MF39	2,00	125	40	32,00	24,00	4	59546					
MF39	3,00	125	40	28,00	22,00	4	59547					
M39	**4,00**	150	63	32,00	24,00	4	76531		66328		66329	
MF40	1,50	110	25	32,00	24,00	4	59548					
MF40	2,00	125	40	32,00	24,00	4	59549					
MF40	3,00	125	40	32,00	24,00	4	59550					
MF42	1,50	110	25	32,00	24,00	4	14781					
MF42	2,00	125	40	32,00	24,00	4	59551					
MF42	3,00	125	40	32,00	24,00	4	59552					
M42	**4,50**	150	63	32,00	24,00	4	76538		66342		61071	
MF45	1,50	110	25	36,00	29,00	6	16389					
MF45	2,00	125	40	36,00	29,00	6	59553					
MF45	3,00	125	40	36,00	29,00	6	59554					
M45	**4,50**	160	70	36,00	29,00	6	76542		32663		32664	
MF48	1,50	140	40	36,00	29,00	6	16390					
MF48	2,00	140	40	36,00	29,00	6	59555					
MF48	3,00	140	40	36,00	29,00	6	59556					
M48	**5,00**	180	75	36,00	29,00	6	76546		66355		66356	
MF50	1,50	140	40	36,00	29,00	6	59557					
MF52	1,50	140	40	40,00	32,00	6	59558					
MF52	2,00	140	40	40,00	32,00	6	59559					
MF52	3,00	140	40	40,00	32,00	6	59560					
M52	**5,00**	180	75	40,00	32,00	6	76551		66367		66368	

MF Nº1
bajo demanda
upon request
sur demande

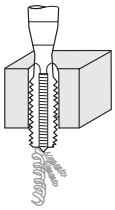
Ref. 3023

MACHO MANO PERFIL ROSCA COMPLETA
Whole Thread Profile Hand Tap
Taraud à main profil filetage complet



HSS | DIN 352 | Tol. 6H | α 10° ± 2 | 4-6h | 60°

Grupo Group-Groupe	Subgrup.	Grupo Group-Groupe	Grupo Group-Groupe	Subgrup.
P	P.1	K	N	N.1 - N.3 N.4 - N.5



≤ 2D

M	P	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
M3	**0,50**	40	11	3,50	2,70	3	46263	
M4	**0,70**	45	13	4,50	3,40	3	46264	
M5	**0,80**	50	16	6,00	4,90	3	46265	
M6	**1,00**	50	19	6,00	4,90	3	46266	
M8	**1,25**	56	22	6,00	4,90	4	46267	
M10	**1,50**	70	24	7,00	5,50	4	46268	
M12	**1,75**	75	29	9,00	7,00	4	46269	
M16	**2,00**	80	32	12,00	9,00	4	46270	
M20	**2,50**	95	40	16,00	12,00	4	46271	

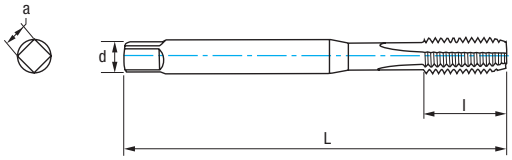
Macho único que finaliza la rosca completa en agujeros pasantes. Espesor material <1,5 mm. Viruta media/larga.

Single tap for whole thread finishing in through holes. Material thickness <1,5 mm. Medium/long chip removal.

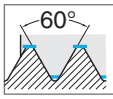
Guidage et filetage complet sur trous débouchants. Épaisseur materiel <1,5 mm. Copeaux moyens/longs.

Ref. 3144

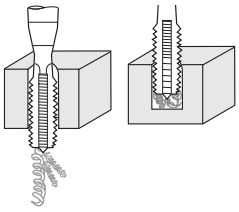
MACHO RECTO MÁQUINA UNC
UNC Machine Straight Tap
Taraud droit machine UNC



PMX | HARD | DIN 371 | C 2-3h | Tol. 2B | α 10 -14°



Estándar americano para rosca gruesa
U.S standard for coarse thread
Norme américaine pour le filetage grossier



< 2D

Material		Vc (m/min) *
Grupo	Sub.	HARD
P	P.2	6-8
	P.5	6-10
M		8-14
N	N.1	10-15
	N.2	12-20

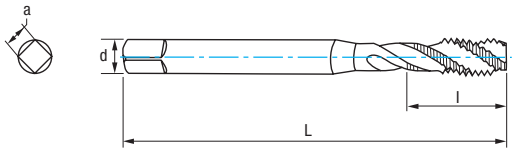
*** Posible Uso en Seco: Vc -50 %**
*** Possible Dry-Use: Vc -50%**
* Emploi possible à sec: Vc -50 %

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

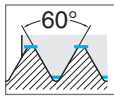
UNC	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
UNC Nº10	**24**	70	13	6,00	4,90	3	71378	
UNC 1/4	**20**	80	15	7,00	5,50	3	71372	
UNC 5/16	**18**	90	18	8,00	6,20	3	71376	
UNC 3/8	**16**	90	20	9,00	7,00	3	71374	

Ref. 3104

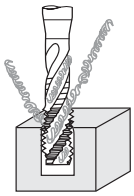
MACHO HELICOIDAL MÁQUINA UNC
UNC Machine Spiral Tap
Taraud hélicoïdal machine UNC



PMX | HARD | DIN 371 | C 2-3h | Tol. 2B | 35° | α 10 -14°



Estándar americano para rosca gruesa
U.S standard for coarse thread
Norme américaine pour le filetage grossier



≤ 2D

Material		Vc (m/min) *
Grupo	Sub.	HARD
P	P.2	6-8
	P.5	6-10
M		8-14
N	N.1	10-15
	N.2	12-20

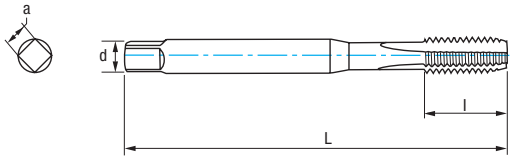
*** Posible Uso en Seco: Vc -50 %**
*** Possible Dry-Use: Vc -50%**
* Emploi possible à sec: Vc -50 %

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

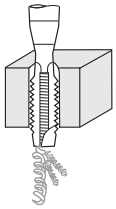
UNC	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
UNC Nº10	**24**	70	8	6,00	4,90	3	69500	
UNC 1/4	**20**	80	10	7,00	5,50	3	69502	
UNC 5/16	**18**	90	13	8,00	6,20	3	69503	
UNC 3/8	**16**	90	15	9,00	7,00	3	69505	

Ref. 3134

MACHO RECTO MÁQUINA UNC MANGO REFORZADO
Reinforced Shank UNC Machine Straight Tap
Taraud droit machine UNC queue renforcée



HSSE 5%Co	DIN 371	B 3,5-5h	Tol. 2B	GUN	α 10 -14°	60° Estándar americano para rosca gruesa / U.S standard for coarse thread / Norme américaine pour le filetage grossier



≤ 2D

UNC	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
UNC N°5	40	56	9	3,50	2,70	3	75627	
UNC N°6	32	56	11	4,00	3,00	3	75628	
UNC N°8	32	63	12	4,50	3,40	3	75629	
UNC N°10	24	70	13	6,00	4,90	3	75630	
UNC N°12	24	80	15	6,00	4,90	3	75631	
UNC 1/4	20	80	15	7,00	5,50	3	75527	
UNC 5/16	18	90	18	8,00	6,20	3	75531	
UNC 3/8	16	90	20	9,00	7,00	3	75529	

Material Grupo	Material Sub.	Vc (m/min) 5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance f = P (Paso - Pitch - Pas)

$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

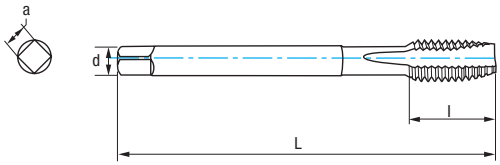
Vf (mm/min.) = r.p.m. x f

$$r.p.m. = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

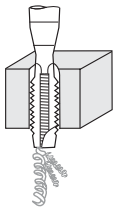
Ref. 3134 bajo demanda / upon request / sur demande

Ref. 3234

MACHO RECTO MÁQUINA UNC
UNC Machine Straight Tap
Taraud droit machine UNC



HSSE 5%Co	DIN 376	B 3,5-5h	Tol. 2B	GUN	α 10 -14°	60° Estándar americano para rosca gruesa / U.S standard for coarse thread / Norme américaine pour le filetage grossier



≤ 2D

UNC	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
UNC 7/16	14	100	20	8,00	6,20	3	70521	
UNC 1/2	13	110	23	9,00	7,00	3	70512	
UNC 9/16	12	110	25	11,00	9,00	3	70522	
UNC 5/8	11	110	25	12,00	9,00	3	70516	
UNC 3/4	10	125	30	14,00	11,00	3	70513	
UNC 7/8	9	140	30	18,00	14,50	3	70519	
UNC 1"	8	160	36	18,00	14,50	3	70524	

Material Grupo	Material Sub.	Vc (m/min) 5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance f = P (Paso - Pitch - Pas)

$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

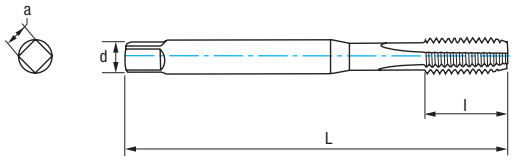
Vf (mm/min.) = r.p.m. x f

$$r.p.m. = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

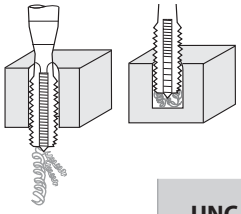
Ref. 3234 bajo demanda / upon request / sur demande

Ref. 3114

MACHO RECTO MÁQUINA UNC MANGO REFORZADO
Reinforced Shank UNC Machine Straight Tap
Taraud droit machine UNC queue renforcée



HSSE 5%Co	DIN 371	C 2-3h	Tol. 2B		α 10° ± 2	60° Estándar americano para rosca gruesa / U.S standard for coarse thread / Norme américaine pour le filetage grossier



≤ 1,5D

UNC	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
UNC N°5	40	56	11	3,50	2,70	3	75615	
UNC N°6	32	56	13	4,00	3,00	3	75616	
UNC N°8	32	63	13	4,50	3,40	3	75617	
UNC N°10	24	70	16	6,00	4,90	3	75618	
UNC N°12	24	80	17	6,00	4,90	3	75619	
UNC 1/4	20	80	19	7,00	5,50	3	75507	
UNC 5/16	18	90	22	8,00	6,20	3	16693	
UNC 3/8	16	90	22	9,00	7,00	3	75509	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance f = P (Paso - Pitch - Pas)

$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

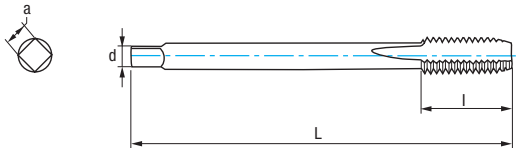
Vf (mm/min.) = r.p.m. x f

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

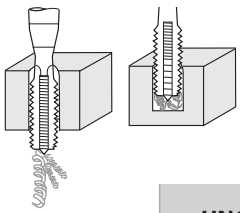
Ref. 3114 bajo demanda / upon request / sur demande

Ref. 3214

MACHO RECTO MÁQUINA UNC
UNC Machine Straight Tap
Taraud droit machine UNC



HSSE 5%Co	DIN 376	C 2-3h	Tol. 2B		α 10° ± 2	60° Estándar americano para rosca gruesa / U.S standard for coarse thread / Norme américaine pour le filetage grossier



≤ 1,5D

UNC	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
UNC 7/16	14	100	24	8,00	6,20	3	70485	
UNC 1/2	13	110	29	9,00	7,00	3	70486	
UNC 9/16	12	110	30	11,00	9,00	3	70488	
UNC 5/8	11	110	32	12,00	9,00	3	70489	
UNC 3/4	10	125	34	14,00	11,00	3	70491	
UNC 7/8	9	140	34	18,00	14,50	3	70492	
UNC 1"	8	160	38	18,00	14,50	3	70494	
UNC 1"1/8	7	180	45	22,00	18,00	4	75339	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance f = P (Paso - Pitch - Pas)

$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

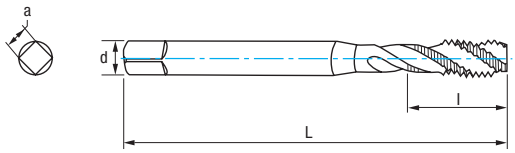
Vf (mm/min.) = r.p.m. x f

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

Ref. 3214 bajo demanda / upon request / sur demande

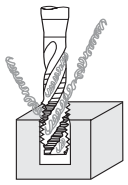
Ref. 3154

MACHO HELICOIDAL MÁQUINA UNC MANGO REFORZADO
Reinforced Shank UNC Machine Spiral Tap
Taraud hélicoïdal machine UNC queue renforcée



HSSE 5%Co	DIN 371	C 2-3h	Tol. 2B	35°	α 10° ± 2	60°

Estándar americano para rosca gruesa
U.S standard for coarse thread
Norme américaine pour le filetage grossier



< 2D

UNC	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
UNC N°5	40	56	5	3,50	2,70	3	10621	
UNC N°6	32	56	7	4,00	3,00	3	75634	
UNC N°8	32	63	7	4,50	3,40	3	59071	
UNC N°10	24	70	8	6,00	4,90	3	75636	
UNC N°12	24	80	10	6,00	4,90	3	10624	
UNC 1/4	20	80	10	7,00	5,20	3	75537	
UNC 5/16	18	90	13	8,00	6,20	3	75541	
UNC 3/8	16	90	15	9,00	7,00	3	75539	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance f = P (Paso - Pitch - Pas)

$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

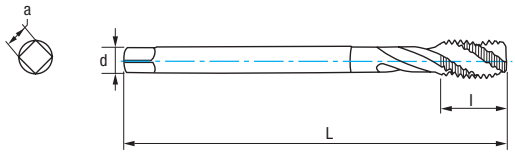
Vf (mm/min.) = r.p.m. x f

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

Ref. 3154 bajo demanda / upon request / sur demande

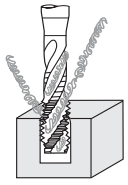
Ref. 3254

MACHO HELICOIDAL MÁQUINA UNC
UNC Machine Spiral Tap
Taraud hélicoïdal machine UNC



HSSE 5%Co	DIN 376	C 2-3h	Tol. 2B	35°	α 10° ± 2	60°

Estándar americano para rosca gruesa
U.S standard for coarse thread
Norme américaine pour le filetage grossier



< 2D

UNC	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
UNC 7/16	14	100	18	8,00	6,20	3	70507	
UNC 1/2	13	110	20	9,00	7,00	3	70495	
UNC 9/16	12	110	20	11,00	9,00	3	70509	
UNC 5/8	11	110	20	12,00	9,00	3	70500	
UNC 3/4	10	125	25	14,00	11,00	4	70497	
UNC 7/8	9							
UNC 1"	8	160	30	18,00	14,50	4	70510	
UNC 1"1/8	7	180	35	22,00	18,00	4	10627	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance f = P (Paso - Pitch - Pas)

$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

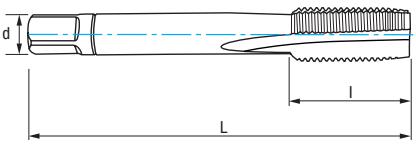
Vf (mm/min.) = r.p.m. x f

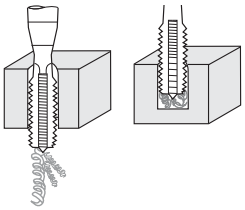
$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

Ref. 3254 bajo demanda / upon request / sur demande

Ref. 3034

JUEGO MACHOS MANO UNC
UNC Hand Tap Set
Jeu de tarauds à main UNC



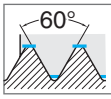


HSS	DIN 352	C 2-3h	DIN 352		Tol. 2B	α 10° ± 2	**N°1 Desbaste** Roughing Ébauche	**N°2 Semidesbaste** Semiroughing Semi-Ébauche	**N°3 Acabado** Finishing - Finition **(Ref. 3004)**

Grupo Group-Groupe	Subgrup.
P	**P.1**

Grupo Group-Groupe	Subgrup.
K	

Grupo Group-Groupe	Subgrup.
N	**N.1 - N.3** **N.4 - N.5**



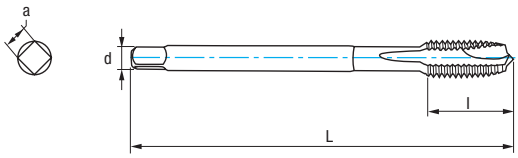
Estándar americano para rosca gruesa
U.S standard for coarse thread
Norme américaine pour le filetage grossier

UNC	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
UNC N°4	**40**	40	12	3,50	2,70	3	75595	
UNC N°5	**40**	40	12	3,50	2,70	3	75594	
UNC N°6	**32**	45	14	4,00	3,00	3	75596	
UNC N°8	**32**	45	14	4,50	3,40	3	75597	
UNC N°10	**24**	50	16	6,00	4,90	3	75598	
UNC N°12	**24**	50	18	6,00	4,90	3	75599	
UNC 1/4	**20**	56	19	6,00	4,90	3	62732	
UNC 5/16	**18**	56	22	6,00	4,90	3	62744	
UNC 3/8	**16**	63	24	7,00	5,50	3	62738	
UNC 7/16	**14**	70	24	8,00	6,20	3	62750	
UNC 1/2	**13**	75	29	9,00	7,00	3	75115	
UNC 9/16	**12**	80	30	11,00	9,00	4	62753	
UNC 5/8	**11**	80	32	12,00	9,00	4	62741	
UNC 3/4	**10**	95	40	14,00	11,00	4	62735	
UNC 7/8	**9**	100	40	18,00	14,50	4	62747	
UNC 1"	**8**	110	50	18,00	14,50	4	62756	

Macho único Ref. 3004 bajo demanda
Single Tap Ref. 3004 upon request
Taraud Ref. 3004 sur demande

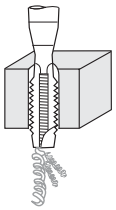
Ref. 3127

MACHO RECTO MÁQUINA UNF
UNF Machine Straight Tap
Taraud droit machine UNF



PMX | HARD | DIN 374 | B 3,5-5h | Tol. 2B | GUN | α 10° ± 2 | 60°

Estándar americano para rosca fina
U.S. standard for fine thread
Norme américaine pour le filetage fin



Material		Vc (m/min) *
Grupo	Sub.	HARD
P	P.2	6-8
	P.5	6-10
M		8-14
N	N.1	10-15
	N.2	12-20

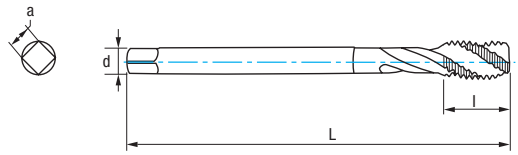
*** Posible Uso en Seco: Vc -50 %**
*** Possible Dry-Use: Vc -50%**
* Emploi possible à sec: Vc -50 %

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

UNF	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
UNF Nº10	**32**	70	13	3,50	2,70	3	71386	
UNF 1/4	**28**	80	15	4,50	3,40	3	71380	
UNF 5/16	**24**	90	18	6,00	4,90	3	71384	
UNF 3/8	**24**	90	20	7,00	5,50	3	71382	

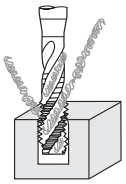
Ref. 3124

MACHO HELICOIDAL MÁQUINA UNF
UNF Machine Spiral Tap
Taraud hélicoïdal machine UNF



PMX | HARD | DIN 374 | C 2-3h | Tol. 2B | 35° | α 10° ± 2 | 60°

Estándar americano para rosca fina
U.S. standard for fine thread
Norme américaine pour le filetage fin



Material		Vc (m/min) *
Grupo	Sub.	HARD
P	P.2	6-8
	P.5	6-10
M		8-14
N	N.1	10-15
	N.2	12-20

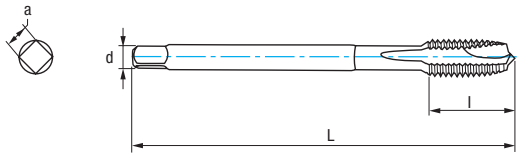
*** Posible Uso en Seco: Vc -50 %**
*** Possible Dry-Use: Vc -50%**
* Emploi possible à sec: Vc -50 %

Avance f = P (Paso - Pitch - Pas)
Vf (mm/min.) = r.p.m. x f
r.p.m. = $\frac{Vc \times 1.000}{\pi \times ø}$

UNF	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. HARD	€
UNF Nº10	**32**	70	8	3,50	2,70	3	69506	
UNF 1/4	**28**	80	10	4,50	3,40	3	69508	
UNF 5/16	**24**	90	13	6,00	4,90	3	69509	
UNF 3/8	**24**	90	15	7,00	5,50	3	69511	

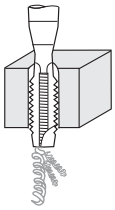
Ref. 3204

MACHO RECTO MÁQUINA UNF
UNF Machine Straight Tap
Taraud droit machine UNF



HSSE 5%Co	DIN 374	B 3,5-5h	Tol. 2B	GUN	α 10 -14°	60°

Estándar americano para rosca fina
U.S. standard for fine thread
Norme américaine pour le filetage fin



< 2D

UNF	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
UNF Nº5	44	56	9	2,20		3	59868	
UNF Nº6	40	56	11	2,50	2,10	3	59869	
UNF Nº8	36	63	12	2,80	2,10	3	59870	
UNF Nº10	32	70	13	3,50	2,70	3	59073	
UNF Nº12	28	80	15	4,00	3,00	3	59871	
UNF 1/4	28	80	15	4,50	3,40	3	75744	
UNF 5/16	24	90	18	6,00	4,90	3	75751	
UNF 3/8	24	90	20	7,00	5,50	3	62933	
UNF 7/16	20	100	20	8,00	6,20	3	70461	
UNF 1/2	20	100	22	9,00	7,00	3	70465	
UNF 9/16	18	100	22	11,00	9,00	3	70467	
UNF 5/8	18	100	22	12,00	9,00	3	70468	
UNF 3/4	16	100	25	14,00	11,00	3	70470	
UNF 7/8	14	125	24	18,00	14,50	3	59872	
UNF 1"	12	140	26	18,00	14,50	3	59873	
UNF 1"1/8	12	150	28	22,00	18,00	4	59874	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance **f** = **P** (Paso - Pitch - Pas)

$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

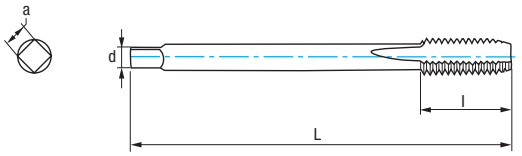
Vf (mm/min.) = r.p.m. x f

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times ø}$$

Ref. 3204
bajo demanda
upon request
sur demande

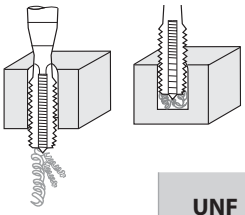
Ref. 3224

MACHO RECTO MÁQUINA UNF
UNF Machine Straight Tap
Taraud droit machine UNF



HSSE 5%Co	DIN 374	C 2-3h	Tol. 2B		α 10° ± 2	60°

Estándar americano para rosca fina
U.S. standard for fine thread
Norme américaine pour le filetage fin



≤ 1,5D

UNF	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
UNF 5/16	24	90	22	6,00	4,90	3	22576	
UNF 3/8	24	90	20	7,00	5,50	3	20655	
UNF 7/16	20	100	20	8,00	6,20	3	22578	
UNF 1/2	20	100	22	9,00	7,00	3	22579	
UNF 9/16	18	100	22	11,00	9,00	3	70543	
UNF 5/8	18	100	22	12,00	9,00	3	70537	
UNF 3/4	16	110	25	14,00	11,00	3	70534	
UNF 7/8	14	125	25	18,00	14,50	3	70540	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance **f** = **P** (Paso - Pitch - Pas)

$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

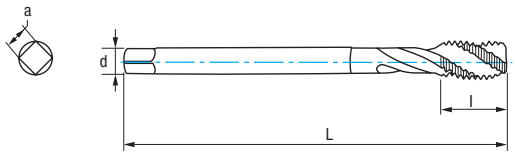
Vf (mm/min.) = r.p.m. x f

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times ø}$$

Ref. 3224 bajo demanda / upon request / sur demande

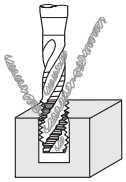
Ref. 3244

MACHO HELICOIDAL MÁQUINA UNF
UNF Machine Spiral Tap
Taraud hélicoïdal machine UNF



HSSE 5%Co	DIN 374	C 2-3h	Tol. 2B	35°	α 10° ± 2	60°

Estándar americano para rosca fina
U.S. standard for fine thread
Norme américaine pour le filetage fin


< 2D

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance f = **P** (Paso - Pitch - Pas)

$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

Vf (mm/min.) = r.p.m. x f

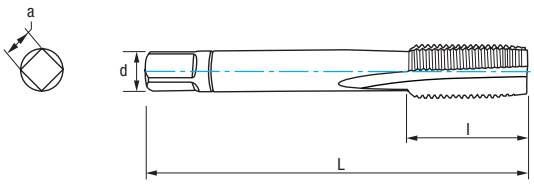
$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

UNF	Hilos Threads Filets	L mm	l mm	d mm	a mm	z	N° Art. 5% Co	€
UNF Nº5	44	56	5	2,20		3	10633	
UNF Nº6	40	56	7	2,50	2,10	3	10641	
UNF Nº8	36	63	7	2,80	2,10	3	10642	
UNF Nº10	32	70	8	3,50	2,70	3	10645	
UNF Nº12	28	80	10	4,00	3,00	3	10648	
UNF 5/16	24	90	12	6,00	4,90	3	70459	
UNF 3/8	24	90	13	7,00	5,50	3	70471	
UNF 7/16	20	100	15	8,00	6,20	3	70479	
UNF 1/2	20	100	16	9,00	7,00	3	70474	
UNF 9/16	18	100	17	11,00	9,00	3	70480	
UNF 5/8	18	100	19	12,00	9,00	3	70477	
UNF 3/4	16	110	21	14,00	11,00	4	70476	
UNF 7/8	14	125	23	18,00	14,50	4	70473	
UNF 1"	12	140	22	18,00	14,50	4	10651	
UNF 1"1/8	12	150	25	22,00	18,00	4	10654	

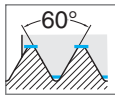
Ref. 3244 bajo demanda / upon request / sur demande

Ref. 3024

JUEGO MACHOS MANO UNF
UNF Hand Tap Set
Jeu de tarauds à main UNF

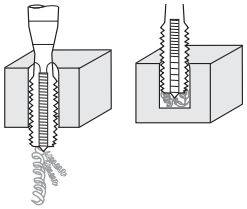


HSS | DIN 2181 | C 2-3h | Tol. 2B | α 10° ± 2



Estándar americano para rosca fina
U.S. standard for fine thread
Norme américaine pour le filetage fin

N°1 Desbaste Roughing Ébauche	N°3 Acabado Finishing - Finition (Ref. 3014)	Grupo Group-Groupe	Subgrup.	Grupo Group-Groupe	Grupo Group-Groupe	Subgrup.
		P	P.1	K	N	N.1 - N.3 N.4 - N.5



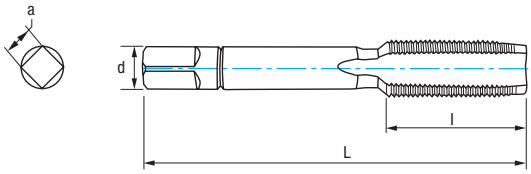
≤ 1,5D

UNF	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
UNF N°5	**44**	40	9	3,50	2,70	3	75601	
UNF N°6	**40**	45	10	4,00	3,00	3	75602	
UNF N°8	**36**	45	10	4,50	3,40	3	75603	
UNF N°10	**32**	50	12	6,00	4,90	3	75604	
UNF N°12	**28**	50	12	6,00	4,90	3	75605	
UNF 1/4	**28**	50	14	6,00	4,90	3	62462	
UNF 5/16	**24**	56	22	6,00	4,90	3	62477	
UNF 3/8	**24**	63	20	7,00	5,50	3	62471	
UNF 7/16	**20**	63	20	8,00	6,20	3	62483	
UNF 1/2	**20**	70	22	9,00	7,00	3	62459	
UNF 9/16	**18**	70	22	11,00	9,00	4	62486	
UNF 5/8	**18**	70	22	12,00	9,00	4	62474	
UNF 3/4	**16**	80	22	14,00	11,00	4	62465	
UNF 7/8	**14**	80	22	18,00	14,50	4	62480	
UNF 1"	**12**	80	22	18,00	14,50	4	62489	
UNF 1"1/4	**12**	90	22	22,00	18,00	4	76158	

Macho único Ref. 3014 bajo demanda
Single Tap Ref. 3014 upon request
Taraud Ref. 3014 sur demande

Ref. 3025

JUEGO MACHOS MANO UNEF
UNEF Hand Tap Set
Jeu de tarauds à main UNEF



HSS | DIN 2181 | C 2-3h | Tol. 2B | α 10° ± 2

60° **Estándar americano para rosca extra fina**
U.S. standard for extra fine thread
Norme américaine pour le filetage extra fin

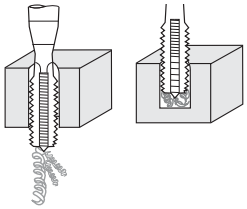
N°1 Desbaste Roughing Ébauche

N°3 Acabado Finishing - Finition **(Ref. 3014)**

Grupo Group-Groupe	Subgrup.
P	**P.1**

Grupo Group-Groupe	Subgrup.
K	

Grupo Group-Groupe	Subgrup.
N	**N.1 - N.3 N.4 - N.5**

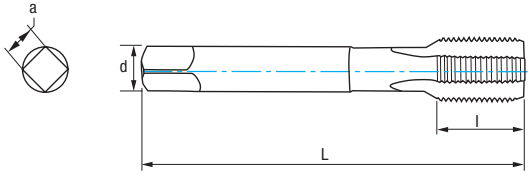


≤ 1,5D

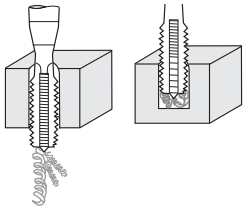
UNEF	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
UNEF 1/4	32	50	18	6	4,90	3	38269	
UNEF 5/16	32	56	22	6	4,90	3	75857	
UNEF 3/8	32	63	22	7	5,50	3	75863	
UNEF 7/16	28	63	22	8	6,20	4	38270	
UNEF 1/2	28	75	24	9	7,00	4	75876	
UNEF 9/16	24	80	28	11	9,00	4	16853	
UNEF 5/8	24	80	28	12	9,00	4	38271	
UNEF 3/4	20	95	32	14	11,00	4	38272	
UNEF 1"	20	110	40	18	14,50	4	38273	

Ref. 3209

MACHO RECTO MÁQUINA UN
UN Machine Straight Tap
Taraud droit machine UN



HSSE 5%Co	DIN 374	C 2-3h	Tol. 2B		α 10° ± 2	60° Estándar americano para rosca de paso fijo U.S. standard for fixed pitch Norme américaine pour le filetage à pas fixe



UN	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
UN 1"1/8	**8**	180	45	22	18,00	4	38311	
UN 1"1/4	**8**	180	45	22	18,00	4	38312	
UN 1"3/8	**8**	200	56	28	22,00	4	38313	
UN 1"1/2	**8**	200	60	32	24,00	5	38314	
UN 1"5/8	**8**	200	60	32	24,00	5	38315	
UN 1"3/4	**8**	200	50	36	29,00	5	38316	
UN 2"	**8**	225	50	40	32,00	5	38317	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance f = **P** (Paso - Pitch - Pas)

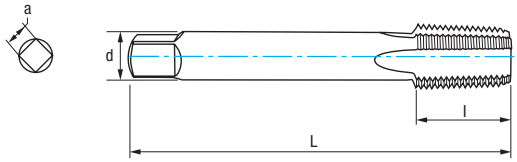
$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

Vf (mm/min.) = **r.p.m. x f**

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

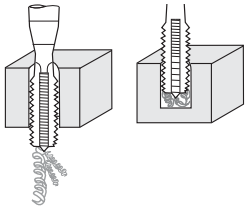
Ref. 3107

MACHO RECTO MÁQUINA NPT
NPT Machine Straight Tap
Taraud droit machine NPT



HSSE 5%Co | DIN 374 | C 2-3h | α 10° ± 2

Estándar americano para tubos y acoples
U.S. standard thread for sealing pipes and fittings
Norme américaine pour les tuyaux et les raccords



≤ 1,5D

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

NPT	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
NPT 1/8	**27,00**	90	20,00	7	5,50	3	77890	
NPT 1/4	**18,00**	100	22,00	11	9,00	3	15165	
NPT 3/8	**18,00**	100	22,00	12	9,00	4	75872	
NPT 1/2	**14,00**	125	28,00	16	12,00	4	15830	
NPT 3/4	**14,00**	140	28,00	20	16,00	4	77892	
NPT 1"	**11,50**	160	38,00	25	20,00	4	17937	
NPT 1"1/2	**11,50**	190	42,00	36	29,00	6	17941	
NPT 2"	**11,50**	220	52,00	45	35,00	6	17946	

Avance f = **P (Paso - Pitch - Pas)**

$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

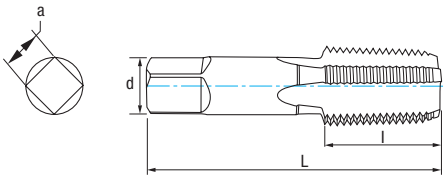
Vf (mm/min.) = **r.p.m. x f**

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

Ref. 3107 bajo demanda / upon request / sur demande

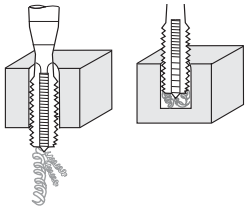
Ref. 3017

MACHO ÚNICO MANO NPT
NPT Hand Single Tap
Taraud à main NPT



HSS | DIN 2181 | 1,5-2h | α 10° ± 2

Estándar americano para tubos y acoples
U.S. standard thread for sealing pipes and fittings
Norme américaine pour les tuyaux et les raccords

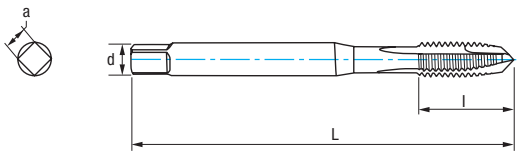


≤ 1,5D

NPT	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
NPT 1/8	**27,00**	65	19	7	5,50	3	62315	
NPT 1/4	**18,00**	70	25	11	9,00	3	62309	
NPT 3/8	**18,00**	75	26	12	9,00	4	62327	
NPT 1/2	**14,00**	80	31	16	12,00	4	62303	
NPT 3/4	**14,00**	100	33	20	16,00	4	62321	
NPT 1"	**11,50**	110	38	25	20,00	4	62330	
NPT 1"1/4	**11,50**	125	41	32	24,00	6	17945	
NPT 1"1/2	**11,50**	140	42	36	29,00	6	17944	
NPT 2"	**11,50**	160	44	36	29,00	6	76063	

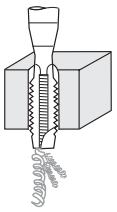
Ref. 3102

MACHO RECTO MÁQUINA BSW (WHITWORTH) MANGO REFORZADO
Reinforced Shank BSW (Whitworth) Machine Straight Tap
Taraud droit machine BSW (Whitworth) queue renforcée



HSSE 5%Co | DIN 371 | B 3,5-5h | GUN | α 10 -12° | 55°

Estándar británico para rosca gruesa
British standard for coarse thread
Norme britannique pour le filetage grossier



≤ 2D

BSW	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
W1/8	40	56	11	3,50	2,70	3	62897	
W5/32	32	63	13	4,50	3,40	3	62915	
W3/16	24	70	15	6,00	4,90	3	62903	
W1/4	20	80	17	7,00	5,50	3	62894	
W5/16	18	90	20	8,00	6,20	3	62912	
W3/8	16	100	22	9,00	7,00	3	73766	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance f = P (Paso - Pitch - Pas)

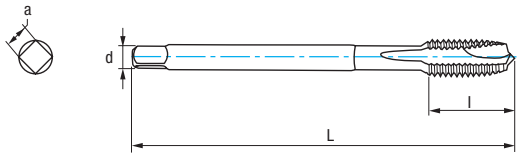
$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

Vf (mm/min.) = r.p.m. x f

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

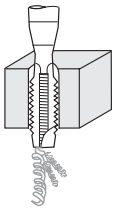
Ref. 3202

MACHO RECTO MÁQUINA BSW (WHITWORTH)
BSW (Whitworth) Machine Straight Tap
Taraud droit machine BSW (Whitworth)



HSSE 5%Co | DIN 376 | B 3,5-5h | GUN | α 10 -12° | 55°

Estándar británico para rosca gruesa
British standard for coarse thread
Norme britannique pour le filetage grossier



≤ 1,5D

BSW	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
W1/4	20	80	17	4,50	3,40	3	59861	
W5/16	18	90	20	6,00	4,90	3	14979	
W3/8	16	100	22	7,00	5,50	3	70420	
W7/16	14	100	22	8,00	6,20	3	70446	
W1/2	12	110	24	9,00	7,00	3	70417	
W9/16	12	110	26	11,00	9,00	3	70447	
W5/8	11	110	27	12,00	9,00	3	70443	
W3/4	10	125	30	14,00	11,00	4	70419	
W7/8	9	140	32	18,00	14,50	4	70444	
W1"	8	160	36	20,00	16,00	4	70449	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance f = P (Paso - Pitch - Pas)

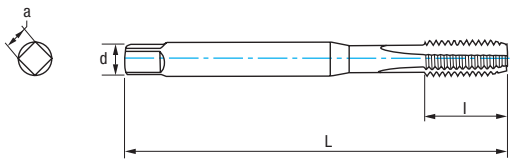
$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

Vf (mm/min.) = r.p.m. x f

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

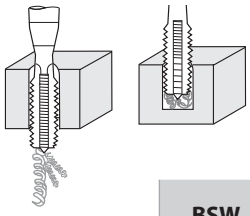
Ref. 3112

MACHO RECTO MÁQUINA BSW (WHITWORTH) MANGO REFORZADO
Reinforced Shank BSW (Whitworth) Machine Straight Tap
Taraud droit machine BSW (Whitworth) queue renforcée



HSSE 5%Co | DIN 371 | C 2-3h | α 10° ± 2 | 55°

Estándar británico para rosca gruesa
British standard for coarse thread
Norme britannique pour le filetage grossier



≤ 1,5D

BSW	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
W3/32	48	50	9	2,80	2,10	3	75415	
W1/8	40	56	11	3,50	2,70	3	75413	
W5/32	32	63	13	4,50	3,40	3	75129	
W3/16	24	70	15	6,00	4,90	3	75414	
W7/32	24	80	16	6,00	4,90	3	75418	
W1/4	20	80	17	7,00	5,50	3	75412	
W5/16	18	90	20	8,00	6,20	3	75458	
W3/8	16	100	22	9,00	7,00	3	75456	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance **f** = **P** (Paso - Pitch - Pas)

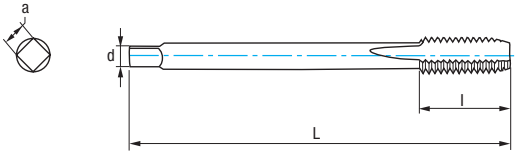
$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

Vf (mm/min.) = r.p.m. x f

$$r.p.m. = \frac{Vc \times 1.000}{\pi \times ø}$$

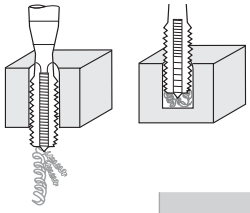
Ref. 3212

MACHO RECTO MÁQUINA BSW (WHITWORTH)
BSW (Whitworth) Machine Straight Tap
Taraud droit machine BSW (Whitworth)



HSSE 5%Co | DIN 376 | C 2-3h | α 10° ± 2 | 55°

Estándar británico para rosca gruesa
British standard for coarse thread
Norme britannique pour le filetage grossier



≤ 1,5D

BSW	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
W3/8	16,00	100	22	7,00	5,50	3	70395	
W7/16	14,00	100	22	8,00	6,20	3	70396	
W1/2	12,00	110	24	9,00	7,00	3	70398	
W9/16	12,00	110	26	11,00	9,00	3	70399	
W5/8	11,00	110	27	12,00	9,00	3	70401	
W3/4	10,00	125	30	14,00	11,00	4	70402	
W7/8	9,00	140	32	18,00	14,50	4	70416	
W1"	8,00	160	36	20,00	16,00	4	70404	
W1"1/8	7,00	180	40	22,00	18,00	4	70450	
W1"1/4	7,00	180	40	22,00	18,00	4	70452	
W1"3/8	6,00	200	50	28,00	22,00	4	70453	
W1"1/2	6,00	200	50	32,00	24,00	4	70455	
W1"5/8	5,00	220	58	36,00	29,00	4	70456	
W1"7/8	4,50	220	58	36,00	29,00	4	70458	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance **f** = **P** (Paso - Pitch - Pas)

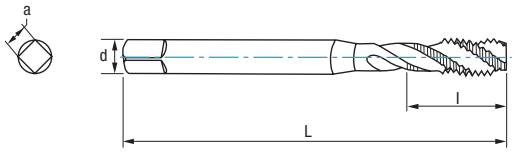
$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

Vf (mm/min.) = r.p.m. x f

$$r.p.m. = \frac{Vc \times 1.000}{\pi \times ø}$$

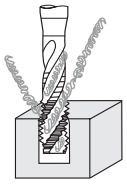
Ref. 3152

MACHO HELICOIDAL MÁQUINA BSW (WHITWORTH) MANGO REFORZADO
Reinforced Shank BSW (Whitworth) Spiral Machine Tap
Taraud helicoidal machine BSW (Whitworth) queue renforcée



HSSE 5%Co	DIN 371	C 2-3h	35°	α 10° ± 2	55°

Estándar británico para rosca gruesa
British standard for coarse thread
Norme britannique pour le filetage grossier


< 2D

BSW	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
W1/8	40	56	5	3,50	2,70	3	63152	
W5/32	32	63	7	4,50	3,40	3	63170	
W3/16	24	70	8	6,00	4,90	3	63161	
W1/4	20	80	10	7,00	5,50	3	63149	
W5/16	18	90	12	8,00	6,20	3	63167	
W3/8	16	100	14	9,00	7,00	3	63158	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance **f** = **P** (Paso - Pitch - Pas)

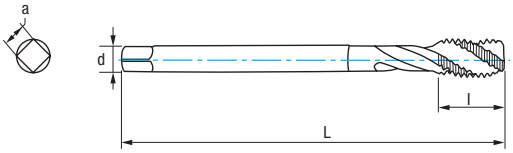
$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

Vf (mm/min.) = r.p.m. x f

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \text{ø}}$$

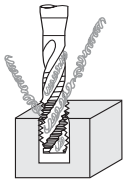
Ref. 3252

MACHO HELICOIDAL MÁQUINA BSW (WHITWORTH)
BSW (Whitworth) Machine Spiral Tap
Taraud helicoidal machine BSW (Whitworth)



HSSE 5%Co	DIN 376	C 2-3h	35°	α 10° ± 2	55°

Estándar británico para rosca gruesa
British standard for coarse thread
Norme britannique pour le filetage grossier


< 2D

BSW	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
W3/16	24	70	8	3,50	2,70	3	59857	
W1/4	20	80	13	4,50	3,40	3	59858	
W5/16	18	90	14	6,00	4,90	3	59859	
W3/8	16	100	16	7,00	5,50	3	70408	
W7/16	14	100	16	8,00	6,20	3	70411	
W1/2	12	110	18	9,00	7,00	3	70405	
W9/16	12	110	20	11,00	9,00	3	70413	
W5/8	11	110	20	12,00	9,00	3	70410	
W3/4	10	125	25	14,00	11,00	4	70407	
W7/8	9	140	27	18,00	14,50	4	10909	
W1"	8	160	30	20,00	16,00	4	70414	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance **f** = **P** (Paso - Pitch - Pas)

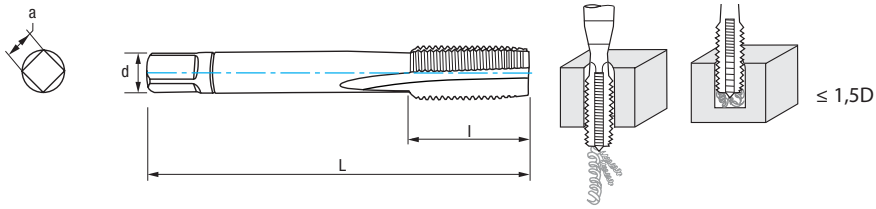
$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

Vf (mm/min.) = r.p.m. x f

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \text{ø}}$$

Ref. 3032

JUEGO MACHOS MANO BSW (WHITWORTH)
BSW (Whitworth) Hand Tap Set
Jeu de tarauds à main BSW (Whitworth)



HSS | DIN 352 | C 2-3h | α 10° ± 2 | 55°

Estándar británico para rosca gruesa
British standard for coarse thread
Norme britannique pour le filetage grossier

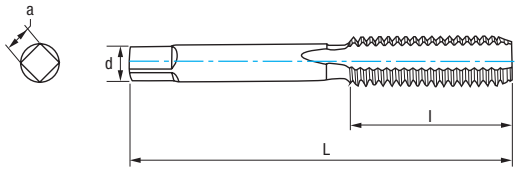
N°1 Desbaste Roughing Ébauche | **N°2 Semidesbaste** Semiroughing Semi-Ébauche | **N°3 Acabado** Finishing - Finition **(Ref. 3012)**

Grupo Group-Groupe	Subgrup.	Grupo Group-Groupe	Grupo Group-Groupe	Subgrup.
P	**P.1**	**K**	**N**	**N.1 - N.3 N.4 - N.5**

BSW	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
W3/32	**48,00**	36	10	2,80	2,10	3	62663	
W1/8	**40,00**	40	12	3,50	2,70	3	62642	
W5/32	**32,00**	45	14	4,50	3,40	3	62675	
W3/16	**24,00**	50	18	6,00	4,90	3	62660	
W7/32	**24,00**	50	18	6,00	4,90	3	62684	
W1/4	**20,00**	50	19	6,00	4,90	3	62633	
W5/16	**18,00**	56	22	6,00	4,90	4	62669	
W3/8	**16,00**	70	24	7,00	5,50	4	62654	
W7/16	**14,00**	70	24	8,00	6,20	4	62681	
W1/2	**12,00**	75	29	9,00	7,00	4	62630	
W9/16	**12,00**	80	30	11,00	9,00	4	62687	
W5/8	**11,00**	80	32	12,00	9,00	4	62666	
W3/4	**10,00**	95	40	14,00	11,00	4	62645	
W7/8	**9,00**	100	40	18,00	14,50	4	62678	
W1"	**8,00**	110	50	18,00	14,50	4	62693	
W1"1/8	**7,00**	132	56	22,00	18,00	4	62702	
W1"1/4	**7,00**	132	56	22,00	18,00	4	62699	
W1"3/8	**6,00**	150	63	28,00	22,00	4	42713	
W1"1/2	**6,00**	150	63	32,00	24,00	4	62696	
W1"5/8	**5,00**	160	70	32,00	24,00	4	59880	
W1"3/4	**5,00**	160	70	36,00	29,00	6	59881	
W1"7/8	**4,50**	190	80	36,00	29,00	6	59882	
W2"	**4,50**	190	80	40,00	32,00	6	59883	

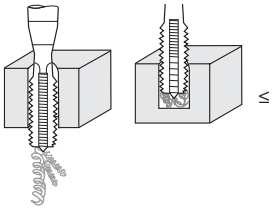
Ref. 3012

MACHO ÚNICO MANO BSW (WHITWORTH)
BSW (Whitworth) Hand Tap
Taraud à main BSW (Whitworth)



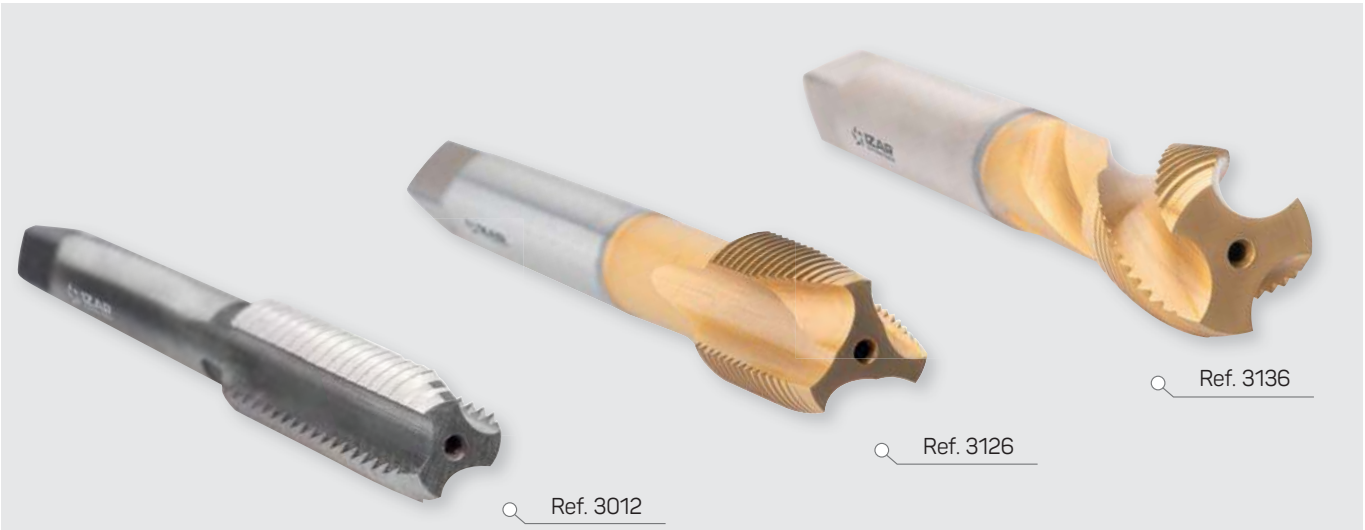
HSS	DIN 352	C 2-3h		α 10° ± 2	N°3 Acabado Finishing Finition	55° Estándar británico para rosca gruesa British standard for coarse thread Norme britannique pour le filetage grossier

Grupo Group-Groupe	Subgrup.	Grupo Group-Groupe	Grupo Group-Groupe	Subgrup.
P	P.1	K	N	N.1 - N.3 N.4 - N.5



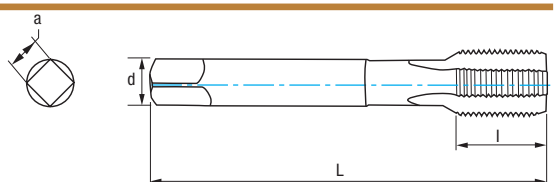
≤ 1,5D

BSW	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
W3/32	**48,00**	40	9	2,80	2,10	3	75404	
W1/8	**40,00**	40	14	3,50	2,70	3	75401	
W5/32	**32,00**	45	17	4,50	3,40	3	75069	
W3/16	**24,00**	50	19	6,00	4,90	3	74825	
W7/32	**24,00**	50	19	6,00	4,90	3	75409	
W1/4	**20,00**	50	20	6,00	4,90	3	75400	
W5/16	**18,00**	56	20	6,00	4,90	4	75406	
W3/8	**16,00**	63	22	7,00	5,50	4	75403	
W7/16	**14,00**	70	22	8,00	6,20	4	75408	
W1/2	**12,00**	75	25	9,00	7,00	4	75399	
W9/16	**12,00**	80	26	11,00	9,00	4	75448	
W5/8	**11,00**	80	27	12,00	9,00	4	75405	
W3/4	**10,00**	95	32	14,00	11,00	4	75402	
W7/8	**9,00**	100	32	18,00	14,50	4	75407	
W1"	**8,00**	110	36	18,00	14,50	4	75410	
W1" 1/8	**7,00**	125	40	22,00	18,00	4	76255	
W1" 1/4	**7,00**	125	40	22,00	18,00	4	76259	
W1" 3/8	**6,00**	150	50	28,00	22,00	4	76264	
W1" 1/2	**6,00**	150	50	32,00	24,00	4	76269	
W1" 5/8	**5,00**	150	56	32,00	24,00	4	76274	
W1" 3/4	**5,00**	160	58	36,00	29,00	4	76280	
W1" 7/8	**4,50**	180	65	36,00	29,00	4	76286	
W2"	**4,50**	180	65	40,00	32,00	4	76291	

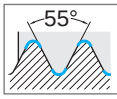


Ref. 3126

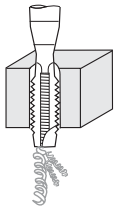
MACHO RECTO MÁQUINA BSP (GAS) INOX MANGO REFORZADO
Reinforced Shank Stainless BSP (Gas) Metric Machine Straight Tap
Taraud droit machine BSP (Gaz) inox queue renforcée



HSSE 5%Co | TIN | DIN 5156 | B 3,5-5h | GUN | Tol. 2B



Rosca británica para tubo paralelo (BSPP-GAS)
British Standard Parallel Pipe (BSPP-GAS)
Filetage britannique pour tuyau parallèle (BSPP-GAS)



≤ 2D

G	Hilos Threads Filets	L mm	l mm	d mm	a mm	z	N° Art. TIN	€
G1/8	28	90	12	7	5,50	3	28636	
G1/4	19	100	16	11	9,00	3	28635	
G3/8	19	100	16	12	9,00	3	28638	
G1/2	14	125	20	16	12,00	3	28634	
G5/8	14	125	20	18	14,50	4	28639	
G3/4	14	140	22	20	16,00	4	28637	
G1"	11	160	30	25	20,00	4	28641	
G1"1/2	11	190	32	36	29,00	6	28642	

Material		Vc (m/min)
Grupo	Sub.	TIN
P	P.5	5-8
M		8-12

Avance f = P (Paso - Pitch - Pas)

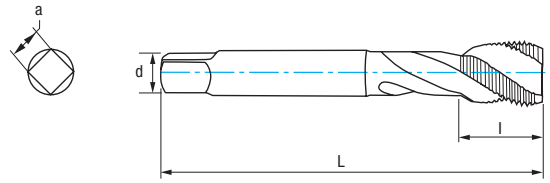
$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

Vf (mm/min.) = r.p.m. x f

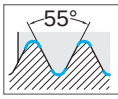
$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

Ref. 3136

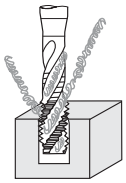
MACHO HELICOIDAL MÁQUINA BSP (GAS) INOX
Stainless BSP (Gas) Metric Machine Spiral Tap
Taraud hélicoïdal machine BSP (Gaz) Inox



HSSE 5%Co | TIN | DIN 5156 | C 2-3h | 35°



Rosca británica para tubo paralelo (BSPP-GAS)
British Standard Parallel Pipe (BSPP-GAS)
Filetage britannique pour tuyau parallèle (BSPP-GAS)



< 1,5D

G	Hilos Threads Filets	L mm	l mm	d mm	a mm	z	N° Art. TIN	€
G1/8	28	90	12	7	5,50	3	28647	
G1/4	19	100	16	11	9,00	3	28646	
G3/8	19	100	16	12	9,00	3	28649	
G1/2	14	125	20	16	12,00	4	28645	
G3/4	14	140	22	20	16,00	4	28648	
G1"	11	160	30	25	20,00	4	28652	

Material		Vc (m/min)
Grupo	Sub.	TIN
P	P.5	5-8
M		8-12

Avance f = P (Paso - Pitch - Pas)

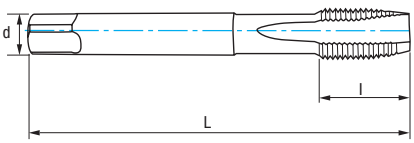
$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

Vf (mm/min.) = r.p.m. x f

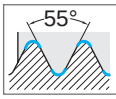
$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

Ref. 3106

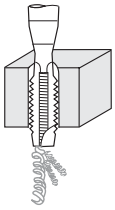
MACHO RECTO MÁQUINA BSP (GAS)
BSP (Gas) Machine Straight Tap
Taraud droit machine BSP (Gaz)



HSSE 5%Co | DIN 5156 | B 3,5-5h | GUN | α 10° ± 2



Rosca británica para tubo paralelo (BSPP-GAS)
British Standard Parallel Pipe (BSPP-GAS)
Filetage britannique pour tuyau parallèle (BSPP-GAS)



≤ 2D

G	Hilos Threads Filets	L mm	l mm	d mm	a mm	z	N° Art. 5% Co	€
G1/8	28	90	20	7	5,50	3	75479	
G1/4	19	100	22	11	9,00	3	62936	
G3/8	19	100	22	12	9,00	3	75481	
G1/2	14	125	25	16	12,00	3	75478	
G5/8	14	125	24	18	14,50	4	75482	
G3/4	14	140	28	20	16,00	4	75480	
G1"	11	160	30	25	20,00	4	75483	
G1"1/2	11	190	32	36	29,00	6	76221	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance f = P (Paso - Pitch - Pas)

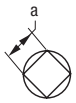
$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

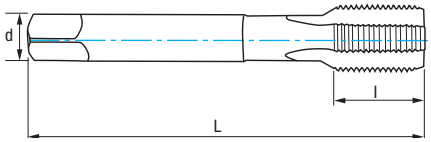
Vf (mm/min.) = r.p.m. x f

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

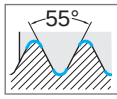
Ref. 3116

MACHO RECTO MÁQUINA BSP (GAS)
BSP (Gas) Machine Straight Tap
Taraud droit machine BSP (Gaz)

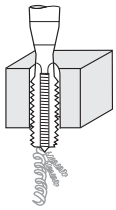


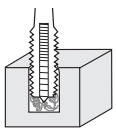


HSSE 5%Co | DIN 5156 | C 2-3h | α 10° ± 2



Rosca británica para tubo paralelo (BSPP-GAS)
British Standard Parallel Pipe (BSPP-GAS)
Filetage britannique pour tuyau parallèle (BSPP-GAS)





≤ 1,5D

G	Hilos Threads Filets	L mm	l mm	d mm	a mm	z	N° Art. 5% Co	€
G1/8	28	90	20	7	5,50	3	75467	
G1/4	19	100	22	11	9,00	3	75466	
G3/8	19	100	22	12	9,00	3	75143	
G1/2	14	125	25	16	12,00	3	75465	
G5/8	14	125	25	18	14,50	4	75469	
G3/4	14	140	28	20	16,00	4	75468	
G7/8	14	150	28	22	18,00	4	77647	
G1"	11	160	30	25	20,00	4	75470	
G1"1/8	11	170	30	28	22,00	4	76197	
G1"1/4	11	170	30	32	24,00	4	76205	
G1"1/2	11	190	32	36	29,00	6	76219	
G1"3/4	11	190	32	40	32,00	6	76227	
G2"	11	220	40	45	35,00	6	76233	

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

Avance f = P (Paso - Pitch - Pas)

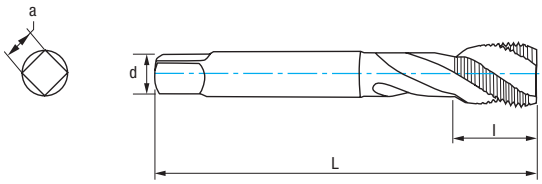
$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

Vf (mm/min.) = r.p.m. x f

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

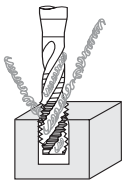
Ref. 3156

MACHO HELICOIDAL MÁQUINA BSP (GAS)
BSP (Gas) Machine Spiral Tap
Taraud hélicoïdal machine BSP (Gaz)



HSSE 5%Co | DIN 5156 | C 2-3h | 35° | α 10° ± 2 | 55°

Rosca británica para tubo paralelo (BSPP-GAS)
British Standard Parallel Pipe (BSPP-GAS)
Filetage britannique pour tuyau parallèle (BSPP-GAS)


< 2D

Material		Vc (m/min)
Grupo	Sub.	5%Co
P	P.1	6-10
K	K.1	7-10
	K.2	4-7
N	N.1	5-8
	N.2	8-12
	N.3	15-35
	N.4	14-20
	N.5	12-15

G	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. 5% Co	€
G1/8	28	90	20	7	5,50	3	63188	
G1/4	19	100	22	11	9,00	3	63185	
G3/8	19	100	22	12	9,00	3	75142	
G1/2	14	125	25	16	12,00	4	75484	
G3/4	14	140	28	20	16,00	4	75485	
G1"	11	160	30	25	20,00	4	75487	
G1"1/4	11	170	30	32	24,00	5	76208	
G1"1/2	11	190	32	36	29,00	5	76222	

Avance f = P (Paso - Pitch - Pas)

$$P = \frac{25{,}40}{\text{Hilos Threads - Filets}}$$

Vf (mm/min.) = r.p.m. x f

$$\text{r.p.m.} = \frac{Vc \times 1.000}{\pi \times \varnothing}$$

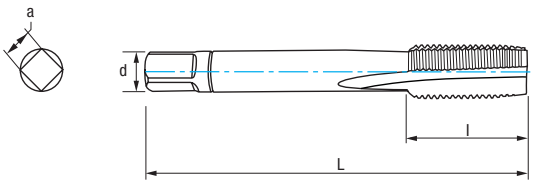
Ref. 3106

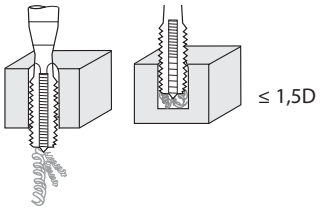
Ref. 3116

Ref. 3156

Ref. 3026

JUEGO MACHOS MANO BSP (GAS)
BSP (Gas) Hand Tap Set
Jeu tarauds à main BSP (Gaz)





HSS | DIN 5157 | C 2-3h | α 10° ± 2 | **N°1 Desbaste** Roughing Ébauche

N°3 Acabado Finishing Finition

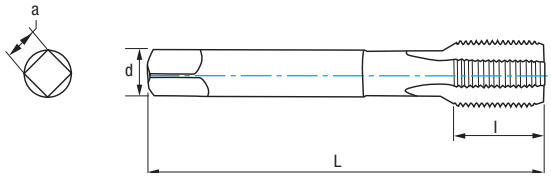
55° **Rosca británica para tubo paralelo (BSPP-GAS)**
British Standard Parallel Pipe (BSPP-GAS)
Filetage britannique pour tuyau parallèle (BSPP-GAS)

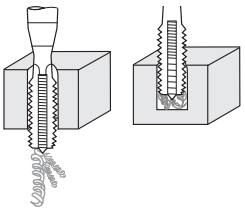
Grupo Group-Groupe	Subgrup.	Grupo Group-Groupe	Grupo Group-Groupe	Subgrup.
P	**P.1**	**K**	**N**	**N.1 - N.3 N.4 - N.5**

G	Hilos Threads Filets	L mm	l mm	d mm	a mm	z	N° Art. HSS	€
G1/8	**28**	63	20	7	5,50	3	62510	
G1/4	**19**	70	22	11	9,00	4	62504	
G3/8	**19**	70	22	12	9,00	4	62516	
G1/2	**14**	80	22	16	12,00	4	62498	
G5/8	**14**	80	22	18	14,50	4	62522	
G3/4	**14**	90	22	20	16,00	4	62513	
G7/8	**14**	90	22	22	18,00	4	62525	
G1"	**11**	100	25	25	20,00	4	62528	
G1" 1/8	**11**	125	40	28	22,00	4	76195	
G1" 1/4	**11**	125	40	32	24,00	4	76203	
G1" 3/8	**11**	125	40	36	29,00	4	76211	
G1" 1/2	**11**	140	40	36	29,00	6	74823	
G1" 3/4	**11**	140	40	40	32,00	6	76225	
G2"	**11**	160	40	45	35,00	8	76231	

Ref. 3016

MACHO ÚNICO MANO BSP (GAS)
BSP (Gas) Hand Tap
Taraud à main BSP (Gaz)





HSS | DIN 5157 | C 2-3h | α 10° ± 2 | **N°3 Acabado** Finishing Finition

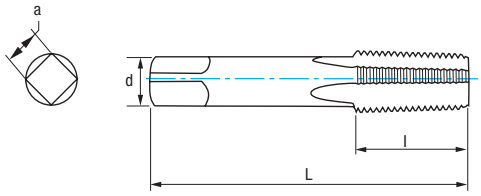
55° **Rosca británica para tubo paralelo (BSPP-GAS)**
British Standard Parallel Pipe (BSPP-GAS)
Filetage britannique pour tuyau parallèle (BSPP-GAS)

Grupo Group-Groupe	Subgrup.	Grupo Group-Groupe	Grupo Group-Groupe	Subgrup.
P	**P.1**	**K**	**N**	**N.1 - N.3 N.4 - N.5**

G	Hilos Threads Filets	L mm	l mm	d mm	a mm	z	N° Art. HSS	€
G1/8	**28**	63	20	7	5,50	3	75461	
G1/4	**19**	70	22	11	9,00	4	75460	
G3/8	**19**	70	22	12	9,00	4	75462	
G1/2	**14**	80	22	16	12,00	4	75459	
G5/8	**14**	80	22	18	14,50	4	75463	
G3/4	**14**	90	22	20	16,00	4	75106	
G7/8	**14**	90	22	22	18,00	4	76246	
G1"	**11**	100	25	25	20,00	4	75464	
G1" 1/8	**11**	125	40	28	22,00	4	76196	
G1" 1/4	**11**	125	40	32	24,00	4	76204	
G1" 3/8	**11**	140	40	36	29,00	4	76212	
G1" 1/2	**11**	140	40	36	29,00	6	76218	
G1" 3/4	**11**	140	40	40	32,00	6	76226	
G2"	**11**	160	40	45	35,00	8	76232	

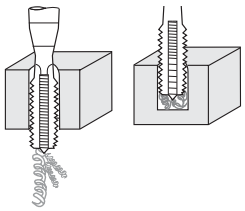
Ref. 3019

MACHO ÚNICO MANO BSPT (RC)
BSPT (RC) Hand Single Tap
Taraud à main BSPT (RC)



HSS	DIN 5157	C 2-3h		α 10° ± 2	**N°3 Acabado Finishing** Finition	55° 1:16 **Rosca británica para tubo cónica** British Standard Pipe Taper Raccord BSPT

Grupo Group-Groupe	Subgrup.	Grupo Group-Groupe	Grupo Group-Groupe	Subgrup.
P	**P.1**	**K**	**N**	**N.1 - N.3 N.4 - N.5**

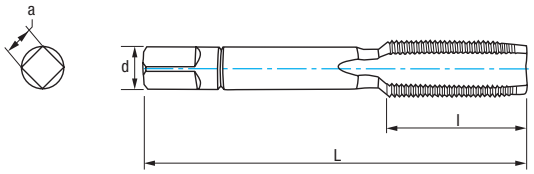


≤ 1,5D

BSPT	Hilos Threads Filets	L mm	l mm	d mm	a mm	z	N° Art. HSS	€
B1/8	**28**	65	19	7	5,50	3	38254	
B1/4	**19**	70	25	11	9,00	4	38255	
B3/8	**19**	75	25	12	9,00	5	38256	
B1/2	**14**	80	31	16	12,00	5	38257	
B5/8	**14**	80	36	18	14,00	5	38258	
B3/4	**14**	85	33	20	17,00	5	76138	
B7/8	**14**	100	36	22	17,00	6	38259	
B1"	**11**	110	38	25	21,50	6	38260	

Ref. 3011

MACHO ÚNICO MANO PG
PG Hand Single Tap
Taraud à main PG



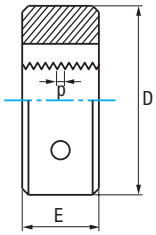
HSS	DIN 40432	C 2-3h		α 10° ± 2	**N°3 Acabado** Finishing Finition	80° **Rosca para tubos eléctricos en acero** Steel Electric Pipe Thread Filetage tubes electriques en acier

Grupo Group-Groupe	Subgrup.	Grupo Group-Groupe	Grupo Group-Groupe	Subgrup.
P	**P.1**	**K**	**N**	**N.1 - N.3 N.4 - N.5**

PG	D mm	Hilos Threads Filets	L mm	l mm	d mm	a mm	Z	N° Art. HSS	€
PG 07	12,50	20	70	22	9	7,00	4	38291	
PG 09	15,20	18	70	22	12	9,00	4	38292	
PG 11	18,60	18	80	22	14	11,00	4	38293	
PG 13,5	20,40	18	80	22	16	12,00	4	38294	
PG 16	22,50	18	80	22	18	14,50	4	38295	
PG 21	28,30	16	90	22	22	18,00	4	38296	
PG 29	37,00	16	100	25	28	22,00	6	38297	
PG 36	47,00	16	140	40	36	29,00	6	38298	
PG 42	54,00	16	140	40	40	32,00	6	38299	
PG 48	59,30	16	160	40	45	35,00	6	38300	

Ref. 3540

COJINETE MÁQUINA MÉTRICA
Metric Machine Die
Filière à machine métrique



HSS	Métrica	DIN 223	Tol. 6g	α 10 - 17°	**Chaflán Entrada 1,75h** **Chamfer 1,75 threads** Chanfrein 1,75 filets	**Rompe Virutas ≥ M4** **Chip Breaker ≥ M4** Brise copeaux ≥ M4

M	P	D mm	E mm	N° Art. HSS	€
M2	0,40	16	5	76867	
M2,5	0,45	16	5	76869	
M3	0,50	20	5	77259	
M3,5	0,60	20	5	77260	
M4	0,70	20	5	77263	
M5	0,80	20	5	76882	
M6	1,00	20	7	76888	
M7	1,00	25	9	76891	
M8	1,25	25	9	76895	
M9	1,25	25	9	76898	
M10	1,50	30	11	76903	
M11	1,50	30	11	76907	
M12	1,75	38	14	76912	
M14	2,00	38	14	76922	
M16	2,00	45	18	76930	
M18	2,50	45	18	76938	
M20	2,50	45	18	76946	
M22	2,50	55	22	76954	
M24	3,00	55	22	76961	
M27	3,00	65	25	76972	
M30	3,50	65	25	76979	
M33	3,50	65	25	76986	

Ref. 3536

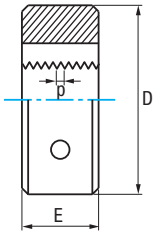
COJINETE MANO MÉTRICA / MÉTRICA FINA INOX
Stainless Metric / Metric Fine Hand Die
Filière à main métrique / métrique pas fin inox

HSSE 5%Co | DIN 22568 | Tol. 6g | Métrica | α 20°

Chaflán Entrada 2,25h
Chamfer 2,25 threads
Chanfrein 2,25 filets

Grupo Group-Groupe P

Grupo Group-Groupe M



M/MF	P	D mm	E mm	N° Art. 5% Co	€
M3	0,50	20	5	34255	
M4	0,70	20	5	34256	
M5	0,80	20	7	34257	
M6	1,00	20	7	34258	
M7	1,00	25	9	55515	
M8	1,25	25	9	34259	
MF10	0,75	30	11	81370	
MF10	1,00	30	11	81371	
MF10	1,25	30	11	81372	
M10	1,50	30	11	34260	
MF12	1,00	38	10	81373	
MF12	1,25	38	10	81374	
MF12	1,50	38	10	81375	
M12	1,75	38	14	34261	
MF14	1,00	38	10	81376	
MF14	1,50	38	10	81377	
M14	2,00	38	14	34262	
MF15	1,00	38	10	81378	
MF16	1,00	45	14	81379	

M/MF	P	D mm	E mm	N° Art. 5% Co	€
MF16	1,50	45	14	81380	
M16	2,00	45	18	34263	
MF17	1,00	45	14	81381	
MF18	1,00	45	14	81382	
MF18	1,50	45	14	81383	
MF18	2,00	45	14	81384	
M18	2,50	45	18	34264	
MF20	1,00	45	14	81385	
MF20	1,50	45	14	81386	
MF20	2,00	45	14	81387	
M20	2,50	45	18	34265	
MF22	1,00	55	16	81388	
MF22	1,50	55	16	81389	
MF22	2,00	55	16	81390	
M22	2,50	55	22	81391	
MF24	1,50	55	16	81392	
M24	3,00	55	22	81393	
M27	3,00	65	25	81394	
M30	3,50	65	25	81395	
M33	3,50	65	25	83117	

7 Pcs

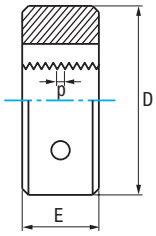
Cont.	N° Art. HSS	€
Cojinetes / Dies / Filières **DIN 223: M3-M4-M5-M6-M8-M10-M12**	76494	

Ref. 3500

COJINETE MANO MÉTRICA / MÉTRICA FINA
Metric / Metric Fine Hand Die
Filière â main métrique / métrique pas fin

HSS | DIN 223 | Tol. 6g | α 10 - 17°

Chaflán Entrada 1,75h
Chamfer 1,75 threads
Chanfrein 1,75 filets



M/MF	P	D mm	E mm	N° Art. HSS	€
M2	**0,40**	16	5	63191	
M2,5	**0,45**	16	5	75001	
M3	**0,50**	20	5	63194	
M3,5	**0,60**	20	5	63197	
MF4	0,50	20	5	77025	
M4	**0,70**	20	5	63200	
M4,5	**0,75**	20	7	77028	
MF5	0,50	20	5	77029	
M5	**0,80**	20	7	63203	
MF6	0,50	20	5	77034	
MF6	0,75	20	7	77035	
M6	**1,00**	20	7	63206	
MF7	0,75	25	9	77037	
M7	**1,00**	25	9	63209	
MF8	0,50	25	9	77038	
MF8	0,75	25	9	77039	
MF8	1,00	25	9	63212	
M8	**1,25**	25	9	63215	
MF9	1,00	25	9	77041	
M9	**1,25**	25	9	63218	
MF10	0,75	30	11	77043	
MF10	1,00	30	11	63221	
MF10	1,25	30	11	63224	
M10	**1,50**	30	11	63227	
MF11	1,00	30	11	77045	
MF11	1,25	30	11	77046	
M11	**1,50**	30	11	63230	
MF12	1,00	38	10	63233	
MF12	1,25	38	10	63236	
MF12	1,50	38	10	63239	
M12	**1,75**	38	14	63242	
MF13	1,00	38	10	77049	
MF13	1,50	38	10	77050	
MF14	1,00	38	10	63251	
MF14	1,25	38	10	63254	
MF14	1,50	38	10	63257	
M14	**2,00**	38	14	63260	
MF15	1,00	38	10	75307	
MF15	1,50	38	10	77053	
MF16	1,00	45	14	63266	
MF16	1,25	45	14	77054	
MF16	1,50	45	14	63269	
M16	**2,00**	45	18	63272	
MF18	1,00	45	14	77057	
MF18	1,25	45	14	77058	
MF18	1,50	45	14	63278	
MF18	2,00	45	14	63281	
M18	**2,50**	45	18	63284	
MF20	1,00	45	14	77061	
MF20	1,50	45	14	63287	

M/MF	P	D mm	E mm	N° Art. HSS	€
MF20	2,00	45	14	63290	
M20	**2,50**	45	18	63293	
MF22	1,00	55	16	77066	
MF22	1,50	55	16	63296	
MF22	2,00	55	16	63299	
M22	**2,50**	55	22	63302	
MF24	1,00	55	16	77069	
MF24	1,50	55	16	77070	
MF24	2,00	55	16	63308	
M24	**3,00**	55	22	63311	
MF25	1,00	55	16	77072	
MF25	1,50	55	16	77073	
MF26	1,00	55	16	77075	
MF26	1,50	55	16	77076	
MF27	1,00	65	18	70103	
MF27	1,50	65	18	77656	
MF27	2,00	65	18	77079	
M27	**3,00**	65	25	63314	
MF28	1,50	65	18	77081	
MF30	1,00	65	18	77082	
MF30	1,50	65	18	77083	
MF30	2,00	65	18	75310	
M30	**3,50**	65	25	63317	
MF32	1,50	65	18	77085	
MF33	1,50	65	18	77088	
MF33	2,00	65	18	77089	
M33	**3,50**	65	25	77090	
MF35	1,50	65	18	77093	
MF36	1,50	65	18	75311	
MF36	2,00	65	18	77095	
MF36	3,00	65	25	77096	
M36	**4,00**	65	25	77097	
M39	**4,00**	75	30	77103	
MF40	1,50	75	20	77104	
MF40	2,00	75	20	77105	
MF40	3,00	75	30	70104	
MF42	2,00	75	20	77108	
MF42	3,00	75	30	70106	
M42	**4,50**	75	30	77110	
MF45	1,50	90	22	77112	
MF45	2,00	90	22	77113	
MF45	3,00	90	36	77114	
M45	**4,50**	90	36	77115	
MF48	1,50	90	22	70107	
MF48	3,00	90	36	35159	
M48	**5,00**	90	36	77119	
MF50	1,50	90	22	77120	
MF52	1,50	90	22	77121	
M52	**5,00**	90	36	77124	

Ref. 3500

COJINETE MANO MÉTRICA / MÉTRICA FINA
Metric / Metric Fine Hand Die
Filière à main métrique / métrique pas fin

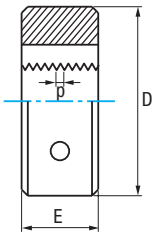
7 Pcs

Cont.	N° Art. HSS	€
Cojinetes / **Dies** / Filières **DIN 223: M3-M4-M5-M6-M8-M10-M12**	56518	

Ref. 3501

COJINETE MANO MÉTRICA CORTE IZQUIERDA
Left Cutting Metric Hand Die
Filière à main métrique coupe à gauche

HSS | Métrica | DIN 223 | Tol. 6g | α 10 - 17° | L



Chaflán Entrada 1,75h
Chamfer 1,75 threads
Chanfrein 1,75 filets

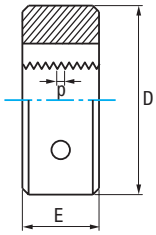
M	P	D mm	E mm	N° Art. HSS	€
M2	0,40	16	5	59875	
M3	0,50	20	5	23318	
M4	0,70	20	5	23319	
M5	0,80	20	7	23320	
M6	1,00	20	7	23321	
M7	1,00	25	9	11007	
M8	1,00	25	9	10941	
M8	1,25	25	9	23322	
M10	1,50	30	11	23323	
M11	1,50	30	11	59876	
M12	1,75	38	14	23324	
M14	2,00	38	14	23325	
M16	2,00	45	18	23326	
M18	2,50	45	18	23327	
M20	2,50	45	18	23328	

Ref. 3510

COJINETE MANO MÉTRICA ISO
ISO Metric Hand Die
Filière à main métrique ISO

HSS | ISO 529 | **Ajustable** BS 1127 A Adjustable

Tol. 6g | α 10 - 17° | **Forma** A Form



M	P	D mm	E mm	N° Art. HSS	€
M3	0,50	**25,4**	9,5	38230	
M4	0,70	**25,4**	9,5	38231	
M5	0,80	**25,4**	9,5	38232	
M6	1,00	**25,4**	9,5	38233	
M7	1,00	**25,4**	9,5	38234	
M8	1,25	**25,4**	9,5	38235	
M10	1,50	**25,4**	9,5	38237	
M12	1,75	**25,4**	9,5	38238	

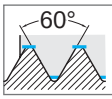
M	P	D mm	E mm	N° Art. HSS	€
M8	1,25	**38,1**	12,7	38239	
M10	1,50	**38,1**	12,7	38240	
M12	1,75	**38,1**	12,7	38242	
M14	2,00	**38,1**	12,7	38243	
M16	2,00	**38,1**	12,7	38244	
M18	2,50	**38,1**	12,7	38245	
M20	2,50	**38,1**	12,7	38246	

M	P	D mm	E mm	N° Art. HSS	€
M18	2,50	**50,8**	15,9	38250	
M20	2,50	**50,8**	15,9	38251	
M22	2,50	**50,8**	15,9	38252	
M24	3,00	**50,8**	15,9	38253	

Ref. 3534

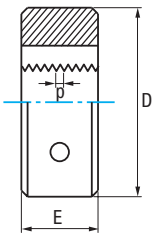
COJINETE MANO UNC
UNC Hand Die
Filière à main UNC

HSS | UNC | DIN 223 | α 10 - 17° | Tol. 2A



Estándar americano para rosca gruesa
U.S standard for coarse thread
Norme américaine pour le filetage grossier

Chaflán Entrada 1,75h
Chamfer 1,75 threads
Chanfrein 1,75 filets



UNC	Hilos Threads Filets	D mm	E mm	N° Art. HSS	€
UNC 1/4	**20**	20	7	75557	
UNC 5/16	**18**	25	9	75561	
UNC 3/8	**16**	30	11	75559	
UNC 7/16	**14**	30	11	75563	
UNC 1/2	**13**	38	14	75556	
UNC 9/16	**12**	38	14	75564	
UNC 5/8	**11**	45	18	75560	
UNC 3/4	**10**	45	18	75558	
UNC 7/8	**9**	55	22	75562	
UNC 1"	**8**	55	22	75565	

Ref. 3510

Ref. 3534

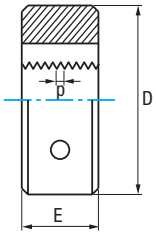
Ref. 3504

COJINETE MANO UNF
UNF Hand Die
Filière à main UNF

HSS | DIN 223 | UNF | Tol. 2A | α 10 - 17°

60° **Estándar americano para rosca fina**
U.S. standard for fine thread
Norme américaine pour le filetage fin

Chaflán Entrada 1,75h
Chamfer 1,75 threads
Chanfrein 1,75 filets



UNF	Hilos Threads Filets	D mm	E mm	N° Art. HSS	€
UNF N°4	**48**	16	5	75688	
UNF N°5	**44**	20	5	75689	
UNF N°6	**40**	20	7	75690	
UNF N°8	**36**	20	7	75691	
UNF N°10	**32**	20	7	75692	
UNF N°12	**28**	20	7	75693	
UNF 1/4	**28**	20	7	63422	
UNF 5/16	**24**	25	9	63434	
UNF 3/8	**24**	30	11	63428	
UNF 7/16	**20**	30	11	63440	
UNF 1/2	**20**	38	10	63419	
UNF 9/16	**18**	38	10	75747	
UNF 5/8	**18**	45	14	63431	
UNF 3/4	**16**	45	14	63425	
UNF 7/8	**14**	55	16	63437	

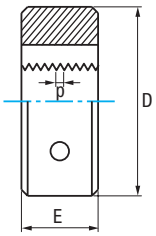
Ref. 3505

COJINETE MANO UNEF
UNEF Hand Die
Filière à main UNEF

HSS | UNEF | DIN 22568 | Tol. 2A | α 10 - 17°

60° **Estándar americano para rosca extra fina**
U.S. standard for extra fine thread
Norme américaine pour le filetage extra fin

Chaflán Entrada 1,75h
Chamfer 1,75 threads
Chanfrein 1,75 filets

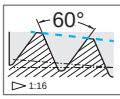


UNEF	Hilos Threads Filets	D mm	E mm	N° Art. HSS	€
UNEF 1/4	**32**	20	7	38275	
UNEF 5/16	**32**	25	9	38279	
UNEF 3/8	**32**	30	11	38277	
UNEF 7/16	**28**	30	11	38280	
UNEF 1/2	**28**	38	10	38274	
UNEF 9/16	**24**	38	10	15217	
UNEF 5/8	**24**	45	14	38278	
UNEF 3/4	**20**	45	14	38276	
UNEF 1"	**20**	55	16	38281	

Ref. 3507

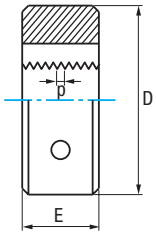
COJINETE MANO NPT
NPT Hand Die
Filière à main NPT

HSS | NPT | DIN 223 B | α 10 - 17°



Estándar americano para tubos y acoples
U.S. standard thread for sealing pipes and fittings
Norme américaine pour les tuyaux et les raccords

Chaflán Entrada 1,75h
Chamfer 1,75 threads
Chanfrein 1,75 filets

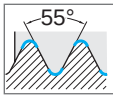


NPT	Hilos Threads Filets	D mm	E mm	N° Art. HSS	€
NPT 1/8	**27,00**	30	11	76043	
NPT 1/4	**18,00**	38	14	77707	
NPT 3/8	**18,00**	45	18	22395	
NPT 1/2	**14,00**	45	18	45894	
NPT 3/4	**14,00**	55	22	76052	
NPT 1"	**11,50**	65	25	63476	
NPT 1"1/4	**11,50**	75	26	22456	
NPT 1"1/2	**11,50**	90	27	22460	
NPT 2"	**11,50**	105	28	22475	

Ref. 3502

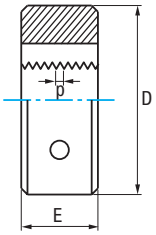
COJINETE MANO BSW (WHITWORTH)
BSW (Whitworth) Hand Die
Filiere a main BSW (Whitworth)

HSS | W | DIN 223 | α 10 - 17°



Estándar británico para rosca gruesa
British standard for coarse thread
Norme britannique pour le filetage grossier

Chaflán Entrada 1,75h
Chamfer 1,75 threads
Chanfrein 1,75 filets



W	Hilos Threads Filets	D mm	E mm	N° Art. HSS	€
W3/32	**48**	16	5	63344	
W1/8	**40**	20	5	63329	
W5/32	**32**	20	7	63356	
W3/16	**24**	20	7	63341	
W7/32	**24**	20	7	63365	
W1/4	**20**	20	7	63323	
W5/16	**18**	25	9	63350	
W3/8	**16**	30	11	63335	
W7/16	**14**	30	11	63362	
W1/2	**12**	38	14	63320	
W9/16	**12**	38	14	63368	
W5/8	**11**	45	18	63347	
W3/4	**10**	45	18	63332	
W7/8	**9**	55	22	63359	
W1"	**8**	55	22	63374	
W1" 1/8	**7**	65	25	63383	

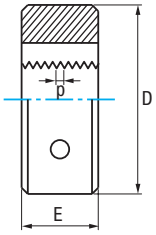
Ref. 3546

COJINETE MANO BSP (GAS) INOX
Stainless BSP (Gas) Hand Die
Filière à main BSP (Gaz) Inox

HSSE 5%Co | Gas (BSP) | DIN 24231 | α 20° | Tol. A

Chaflán Entrada 2,25h
Chamfer 2,25 threads
Chanfrein 2,25 filets

55°
Rosca británica para tubo paralelo (BSPP-GAS)
British Standard Parallel Pipe (BSPP-GAS)
Filetage britannique pour tuyau parallèle (BSPP-GAS)



Grupo Group-Groupe P

Grupo Group-Groupe M

G	Hilos Threads Filets	D mm	E mm	N° Art. 5% Co	€
G1/8	**28**	30	11	81341	
G1/4	**19**	38	10	81342	
G3/8	**19**	45	14	81343	
G1/2	**14**	45	14	81344	
G3/4	**14**	55	16	81345	
G1"	**11**	65	18	81346	

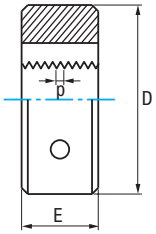
Ref. 3506

COJINETE MANO BSP (GAS)
BSP (Gas) Hand Die
Filière à main BSP (Gaz)

HSS | Gas (BSP) | DIN 24231 | Tol. A | α 10 - 17°

Chaflán Entrada 1,75h
Chamfer 1,75 threads
Chanfrein 1,75 filets

55°
Rosca británica para tubo paralelo (BSPP-GAS)
British Standard Parallel Pipe (BSPP-GAS)
Filetage britannique pour tuyau parallèle (BSPP-GAS)



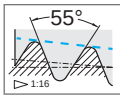
G	Hilos Threads Filets	D mm	E mm	N° Art. HSS	€
G1/8	**28**	30	11	63461	
G1/4	**19**	38	10	63455	
G3/8	**19**	45	14	63467	
G1/2	**14**	45	14	63452	
G5/8	**14**	55	16	75496	
G3/4	**14**	55	16	63464	
G7/8	**14**	65	18	76252	
G1"	**11**	65	18	63470	
G1" 1/8	**11**	75	20	76202	
G1" 1/4	**11**	75	20	76210	
G1" 1/2	**11**	90	22	76224	

Ref. 3519

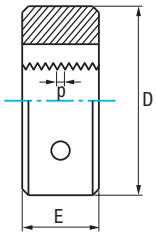
COJINETE MANO BSPT (RC)
BSPT (RC) Hand Die
Filière à main BSPT (RC)

HSS | BSPT (RC) | DIN 24231 | α 10 - 17°

Chaflán Entrada 1,75h
Chamfer 1,75 threads
Chanfrein 1,75 filets



Rosca británica para tubo cónica
British Standard Pipe Taper
Raccord BSPT



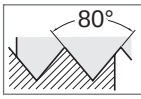
BSPT	Hilos Threads Filets	D mm	E mm	N° Art. HSS	€
BSPT 1/8	**28**	30	11	38263	
BSPT 1/4	**19**	38	14	38262	
BSPT 3/8	**19**	45	18	38265	
BSPT 1/2	**14**	55	22	38261	
BSPT 5/8	**14**	55	22	38266	
BSPT 3/4	**14**	55	22	38264	
BSPT 7/8	**14**	65	22	38267	
BSPT 1"	**11**	65	25	38268	

Ref. 3509

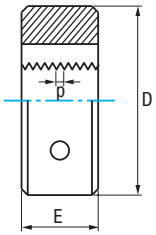
COJINETE MANO PG
PG Hand Die
Filière à main PG

HSS | PG | DIN 40434 | α 10 - 17°

Chaflán Entrada 1,75h
Chamfer 1,75 threads
Chanfrein 1,75 filets



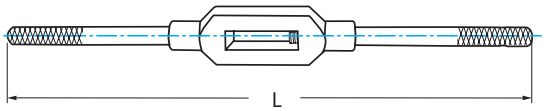
Rosca para tubos eléctricos en acero
Steel Electric Pipe Thread
Filetage tubes electriques en acier



PG	Hilos Threads Filets	D mm	E mm	N° Art. HSS	€
PG 07	**20**	38	10	38301	
PG 09	**18**	45	14	38302	
PG 11	**18**	45	14	38303	
PG 13,50	**18**	45	14	38304	
PG 16	**18**	55	16	38305	
PG 21	**16**	65	18	38306	
PG 29	**16**	65	18	38307	
PG 36	**16**	90	22	38308	
PG 42	**16**	105	22	38309	
PG 48	**16**	105	22	38310	

Ref. 3191

GIRA-MACHOS
Tap Wrench
Porte-taraud



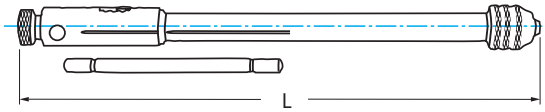
DIN 1814

Mod.	Uso Use Usage	L mm	Cuadradillo Square / Carré mm	Nº Art.	€
000	**M1-M8**	125	2,10-4,90	69826	
010	**M1-M10**	180	2,10-5,50	69828	
015	**M1-M12**	200	2,10-7,00	69829	
020	**M4-M12**	280	3,40-7,00	69831	
030	**M5-M20**	375	4,90-12,00	69832	
040	**M11-M27**	500	6,20-16,00	69834	
050	**M13-M32**	750	7,00-20,00	69835	
*** 060**	**M18-M42**	870	7,00-28,00	83111	
*** 070**	**M25-M52**	1250	16,00-32,00	26694	

*** Acero** / **Steel** / Acier

Ref. 3912

GIRA-MACHOS CRIQUÉ
Tap Wrench
Porte-taraud



"T" + Criqué

Mod.	M	L mm	Cap. mm	Nº Art.	€
01	**M3-M10**	**85**	2,4-5,5	25340	
02	**M5-M12**	**100**	4,5-8,0	25341	
10	**M3-M10**	**250**	2,4-5,5	25342	
20	**M5-M12**	**300**	4,5-8,0	25343	

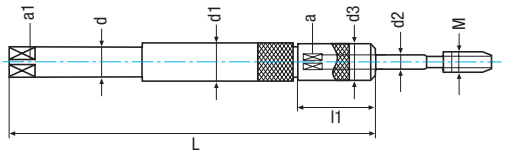
Ref. 3900

GALGA
Pitch Gauge
Jauge

Cap. M	Cap. W	N° Art.	€
0,25-6,00	4G-62G	44612	
0,40-6,00		67641	

Ref. 3194

ALARGADOR MACHOS MÁQUINA
Machine Tap Extension
Rallonge tarauds machine



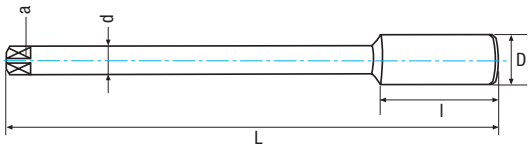
CNC

Apto para escariadores
Suitable for Reamers
Conseillé pour alésoirs

M 371	M 376	d2 mm	a mm	d1 mm	d = d3 mm	a1 mm	L mm	l1 mm	N° Art.	€
M2-M2,6	**M4**	2,80	2,10	6,10	6	4,90	**130**	22	10784	
M3	**M4,5-M5**	3,50	2,70	7,50	6	4,90	**130**	23	11299	
M4	**M6**	4,50	3,40	8,40	6	4,90	**130**	23	11794	
M4,5-M6	**M8**	6,00	4,90	12,10	7	5,50	**130**	26	11832	
M7	**M9-M10**	7,00	5,50	12,10	7	5,50	**130**	26	11875	
M8	**M11**	8,00	6,20	13,00	8	6,20	**130**	30	12092	
M9	**M12**	9,00	7,00	15,00	9	7,00	**130**	31	12104	
M10		10,00	8,00	15,00	10	8,00	**130**	33	12107	
	M14	11,00	9,00	18,00	11	9,00	**130**	36	12113	
	M16	12,00	9,00	18,00	12	9,00	**130**	36	12116	
M2-M2,6	**M4**	2,80	2,10	6,10	6	4,90	**230**	22	12122	
M3	**M4,5-M5**	3,50	2,70	7,50	6	4,90	**230**	23	12125	
M4	**M6**	4,50	3,40	8,40	6	4,90	**230**	23	12128	
M4,5-M6	**M8**	6,00	4,90	12,10	7	5,50	**230**	26	12137	
M7	**M9-M10**	7,00	5,50	12,10	7	5,50	**230**	26	12140	
M8	**M11**	8,00	6,20	13,00	8	6,20	**230**	30	12143	
M9	**M12**	9,00	7,00	15,00	9	7,00	**230**	31	12174	
M10		10,00	8,00	15,00	10	8,00	**230**	33	12177	
	M14	11,00	9,00	18,00	11	9,00	**230**	36	12180	
	M16	12,00	9,00	18,00	12	9,00	**230**	36	12183	

Ref. 3190

ALARGADOR MACHOS MANO
Hand Tap Extension
Rallonge tarauds à main

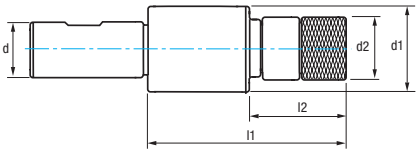


DIN 377

M	W	G	D mm	d mm	L mm	l mm	a mm	N° Art.	€
M1-M2,6	1/16-3/32		5	2,8	60	15	2,10	12994	
M3	1/8		7	3,5	80	20	2,70	12997	
M3,5			7	4	90	20	3,00	12999	
M4	5/32		8	4,5	95	22	3,40	13003	
M4,5	3/16		9	5	100	23	3,80	13006	
M5-M8	7/32-5/16		11	6	110	25	4,90	13024	
M9-M10	3/8	1/8	12	7	115	27	5,50	13026	
M11	7/16		14	8	120	29	6,20	13009	
M12	1/2		15	9	125	31	7,00	13012	
M13-M16	9/16-5/8	1/4-3/8	19	12	130	33	9,00	13030	
M18	11/16-3/4		23	14	150	39	11,00	13015	
M20	13/16	1/2	25	16	155	41	12,00	12448	
M22-M26	7/8-15/16	5/8	29	18	175	47	14,50	12451	
M27-M28	1"	3/4	30	20	185	47	16,00	12457	
M30-M32	1"1/8	7/8	33	22	195	48	18,00	12459	
M33	1"1/4	1	36	25	220	52	20,00	12463	
M34-M38	1"3/8	1"1/8	38	28	220	60	22,00	12465	
M39-M42	1"1/2-1"5/8	1"1/4	42	32	235	63	24,00	12469	
M45-M50	1"3/4-1"7/8	1"3/8-2"	50	36	265	70	29,00	12472	
M52	2"	2"1/4	55	40	285	75	32,00	12475	

Ref. 3193

PORTA-MACHOS COMPENSACIÓN RADIAL/AXIAL*
Radial/Axial Compensation Tap Holder*
Porte-tarauds compensation rayon / axe*



Cap.	d1 mm	d2 mm	d mm	l1 mm	l2 mm	N° Art.	€
M3-M12	45	29	20	96	44	20031	

Ref. 3193 bajo demanda / upon request / sur demande

***Para evitar la rotura de machos en máquinas automáticas**

***For avoiding broken taps in automatic machines**

*Pour éviter les ruptures de tarauds sur machines automatiques

Ref. 3195

ADAPTADOR PORTA-MACHOS CON EMBRAGUE
Tap Holder Adapter with Safety Clutch
Adaptateur porte-tarauds avec embrayage

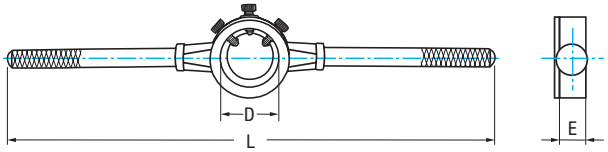
M 371	M 376	d2 mm	a1 mm	N° Art.	€
M3	**M5**	3,50	2,70	20183	
M4	**M6**	4,50	3,40	20185	
M4,5-M6	**M8**	6,00	4,90	20186	
M8	**M11**	8,00	6,20	20742	
	M12	9,00	7,00	21231	
M10		10,00	8,00	21253	

Ref. 3195 bajo demanda / upon request / sur demande

Ref. 3181

PORTA-COJINETES
Die Holder
Porte filières

¡NUEVO MODELO MEJORADO!
New improved model!
Nouveau modèle amélioré



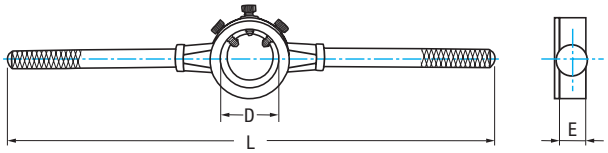
DIN 225

Mod.	D mm	E mm	L mm	M/MF	W	G	N° Art.	€
000	16	5	160	**M1-M2,6**	W1/16-W3/32		69792	
010	20	5	200	**M3-M4**	W1/8-W5/32		69790	
020	20	7	200	**M4,5-M6**	W3/16-W1/4		69798	
030	25	9	224	**M7-M9**	W5/16	G1/16	69799	
040	30	11	280	**M10-M11**	W3/8-W7/16	G1/8	69811	
050	38	14	315	**M12-M15**	W1/2-W9/16		69813	
060	38	10	315	MF12-MF15		G1/4	69814	
070	45	18	450	**M16-M20**	W5/8-W3/4		69816	
080	45	14	450	MF16-MF20		G3/8-G1/2	69817	
090	55	22	560	**M22-M24**	W7/8-W1		69819	
100	55	16	560	MF21-MF26		G5/8-G3/4	69795	
110	65	25	630	**M27-M36**	W1 1/8 - W1 3/8		69796	
120	65	18	630	MF27-MF36		G7/8-G1	30484	
***130**	75	30	920	**M39-M42**	W1 1/2 - W1 5/8		32600	
***140**	75	20	920	MF38-MF42		G1 1/8 - G1 1/4	43515	
***150**	90	36	950	**M45-M52**	W1 3/4 - W2		43516	
***160**	90	22	950	MF45-MF52		G1 1/2	43517	

* **Acero** / **Steel** / Acier

Ref. 3184

PORTA-COJINETES ISO 529
ISO 529 Die Holder
Porte filières ISO 529

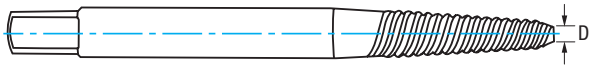


DIN 225

D mm	E mm	M	W	N° Art.	€
25,40	9,50	**M3-M12**	W1/8-W1/2	43317	
38,10	12,70	**M8-M20**	W5/16-W3/4	43318	
50,80	15,90	**M18-M24**	W11/16-W1	43319	

Ref. 3409

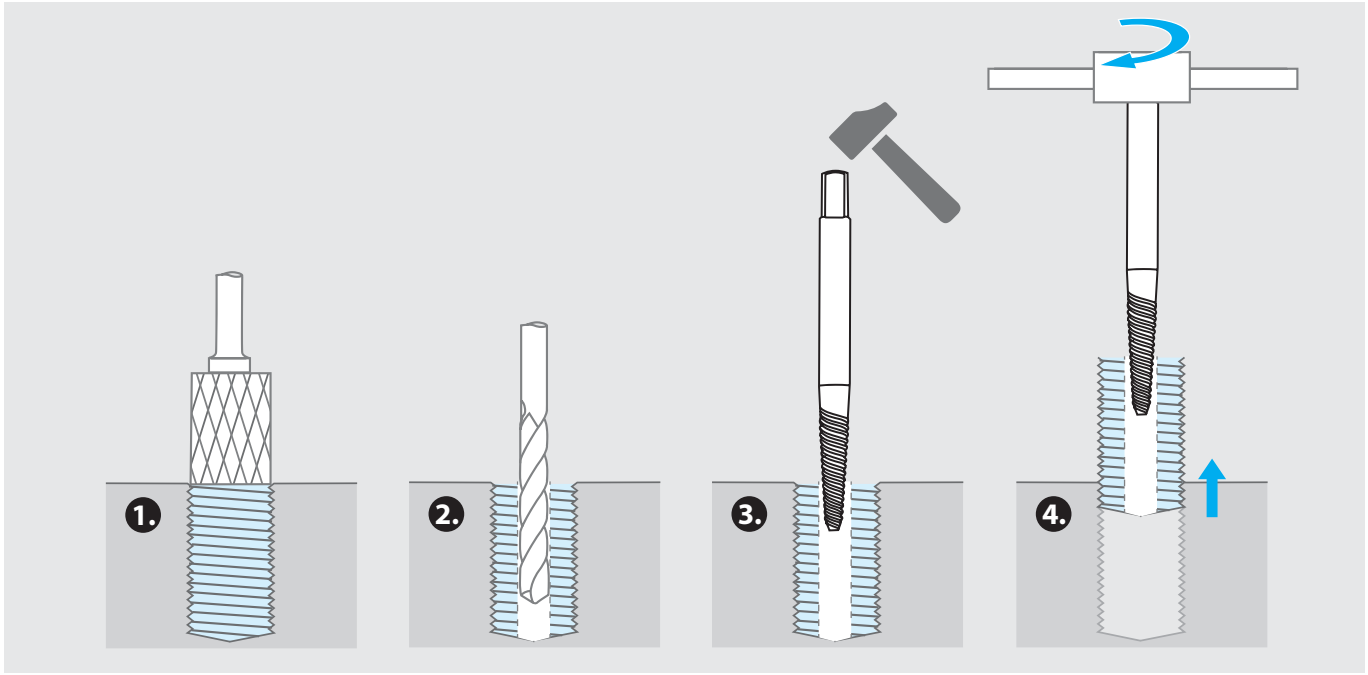
EXTRACTOR TORNILLOS
Screw Extractor
Extracteur vis



Mod.	Para tornillos For Screws Pour vis	Para tornillos For Screws Pour vis	D mm	a mm	Nº Art.	€
010	**M3-M6**	1/8-1/4	2,50	2,70	40639	
020	**M6-M8**	1/4-5/16	3,00	3,80	40641	
030	**M8-M11**	5/16-7/16	4,50	4,90	40642	
040	**M11-M14**	7/16-9/16	6,00	7,00	40644	
050	**M15-M18**	9/16-3/4	8,00	9,00	40645	
060	**M18-M24**	3/4-1	11,00	12,00	40647	

Set 5 Pcs

Juego para tornillos Set for Screws Jeu pour vis	Juego para tornillos Set for Screws Jeu pour vis	Nº Art.	€
M3-M18	**1/8-3/4**	75905	



INSTRUCCIONES USO:

1. **Limpiar la superficie del tornillo.**
2. **Taladrar un agujero centrado con broca apropiada. Recomendamos Ref. 8403.**
3. **Introducir el extractor asegurándose de que quede fijo.**
4. **Girar el extractor hacia la izquierda hasta extraer el tornillo.**

DIRECTIONS FOR USE:

1. **Clean properly the surface of the screw head.**
2. **Drill a hole on the screw using a suitable drill bit. We recommend our Ref. 8403.**
3. **Introduce the extractor and make sure it gets fixed/locked.**
4. **Turn left the extractor until the screw gets out.**

INSTRUCTIONS D´EMPLOI:

1. Nettoyez correctement la surface de la vis.
2. Percez un trou centré avec un foret approprié. Nous recommandons notre Réf. 8403.
3. Insérez l'extracteur et assurez-vous qu'il est fixé.
4. Tournez à gauche l'extracteur jusqu'à retirer la vis.