

DE EERSTE KEUS UNI MACHINETAPPEN



Waarom

PHANTOM UNIVERSELE MACHINETAPPEN?

- > Betrouwbaar – verzekerd van een goedgekeurde schroefdraad
- > Kostenbesparend - minder voorraad van tappen nodig
- > Duurzame HP2 uitvoering - voor massaproductie, hoge treksterkte staalsoorten en eventueel milieuvriendelijk droog verspanen

THERE'S NO END TO WHAT YOU CAN DO.

ISO ■	ISO □	NL	FR	ES	DE
P 11 S800 N/mm ²	P 11 S800 N/mm ²	Ongelegeerd en gelegeerd staal ≤600 N/mm² 1.0037 (S137), 1.0038 (S235JR G2), 1.00402 (C22), 1.1178 (C30E)	Aciers non-alliés ou faiblement alliés ≤600 N/mm² 1.0037 (A37), 1.0038 (E 24-2 Ne), 1.00402 (1C20), 1.1178 (1C30)	Acero no aleado ≤600 N/mm² 1.0037 (S235JR), 1.0038 (S235JR G2), 1.0402 (F.112), 1.1178 (C30E)	Unlegierter und legierter Stahl ≤600 N/mm² 1.0037 (S137), 1.0038 (S235JR G2), 1.00402 (C22), 1.1178 (C30E)
P 12 S850 N/mm ²	P 12 S850 N/mm ²	Ongelegeerd en gelegeerd staal 600 - 850 N/mm² 1.0050 (S150-2), 1.0070 (St70-2), 1.0301 (C10), 1.0503 (C45), 1.1121 (Ck10), 1.1191 (C45E), 1.0718 (11SMnPb30), 1.0736 (11SMn37)	Aciers non-alliés ou faiblement alliés 600 - 850 N/mm² 1.0050 (A50-2), 1.0070 (A70-2), 1.0301 (1C10), 1.0503 (1C45), 1.1121 (XC10), 1.1191 (2C45), 1.0718 (S250PB), 1.0736 (S300PB)	Acero no aleado 600 - 850 N/mm² 1.0050 (Fe490-2), 1.0070 (Fe690-2), 1.0301 (F.1151), 1.0503 (F.114), 1.1121 (F.1510-C10K), 1.1191 (C45K), 1.0718 (F.2112-11SMnPb28), 1.0736 (F.2113-11SMn37)	Unlegierter und legierter Stahl 600 - 850 N/mm² 1.0050 (St50-2), 1.0070 (St70-2), 1.0301 (C10), 1.0503 (C45), 1.1121 (Ck10), 1.1191 (C45E), 1.0718 (11SMnPb30), 1.0736 (11SMn37)
P 13 S1000 N/mm ²	P 13 S1000 N/mm ²	Gelegeerd staal 850 - 1000 N/mm² 1.0727 (46S20), 1.0728 (60S20), 1.0757 (46SPb20), 1.2080 (X210Cr12), 1.2083 (X42Cr13), 1.2767 (X45NiCrMo4), 1.5131 (50MnSi4), 1.7003 (38Cr2), 1.7030 (28Cr4), 1.7043 (38Cr4)	Aciers alliés 850 - 1000 N/mm² 1.0727 (45MF4), 1.0728 (60S20), 1.0757 (46SPb20), 1.2080 (Z200C12), 1.2083 (Z40C14), 1.2767 (Y35NCD16), 1.5131 (50MnSi4), 1.7003 (38Cr2), 1.7030 (28Cr4), 1.7043 (38Cr4)	Acero aleado 850 - 1000 N/mm² 1.0727 (46S20), 1.0728 (60S20), 1.0757 (46SPb20), 1.2080 (F.5212-X210Cr12), 1.2083 (X42Cr13), 1.2767 (X45NiCrMo4), 1.5131 (50MnSi4), 1.7003 (38Cr2), 1.7030 (28Cr4), 1.7043 (38Cr4)	Legierter Stahl 850 - 1000 N/mm² 1.0727 (46S20), 1.0728 (60S20), 1.0757 (46SPb20), 1.2080 (X210Cr12), 1.2083 (X42Cr13), 1.2767 (X45NiCrMo4), 1.5131 (50MnSi4), 1.7003 (38Cr2), 1.7030 (28Cr4), 1.7043 (38Cr4)
P 14 S1400 N/mm ²	P 14 S1400 N/mm ²	Gelegeerd staal 1000 - 1400 N/mm² 1.5710 (36NiCr6), 1.7035 (41Cr40), 1.7225 (42CrMo4), 1.8519 (31CrMoV9), 1.8550 (34CrAlNi7), 1.5752 (15NiCr13), 1.7131 (16MnCr5), 1.7264 (20CrMo5)	Aciers alliés 1000 - 1400 N/mm² 1.5710 (36NiCr6), 1.7035 (41Cr40), 1.7225 (42CrMo4), 1.8519 (31CrMoV9), 1.8550 (34CrAlNi7), 1.5752 (15NiCr13), 1.7131 (16MnCr5), 1.7264 (20CrMo5)	Acero aleado 1000 - 1400 N/mm² 1.5710 (36NiCr6), 1.7035 (41Cr40), 1.7225 (42CrMo4), 1.8519 (31CrMoV9), 1.8550 (34CrAlNi7), 1.5752 (15NiCr13), 1.7131 (16MnCr5), 1.7264 (20CrMo5)	Legierter Stahl 1000 - 1400 N/mm² 1.5710 (36NiCr6), 1.7035 (41Cr40), 1.7225 (42CrMo4), 1.8519 (31CrMoV9), 1.8550 (34CrAlNi7), 1.5752 (15NiCr13), 1.7131 (16MnCr5), 1.7264 (20CrMo5)
H 15 HRC	H 15 HRC	Gehard en inzetgehard staal 50 - 60 HRC 1.2344 (X40CrMoV5), 1.2767 (X45NiCrMo4), 1.2379 (X155CrVMo12-1), 1.2080 (X210Cr12), 1.3343 (S6-5-2)	Aciers trempés et Aciers de cémentation alliés 50 - 60 HRC 1.2344 (Z 40 CDV 5), 1.2767 (X45NiCrMo4), 1.2379 (D2), 1.2080 (Z200C12), 1.3343 (Z85WDCV)	Acero templado 50 - 60 HRC 1.2344 (X40CrMoV5), 1.2767 (X45NiCrMo4), 1.2379 (X155CrVMo12-1), 1.2080 (X210Cr12), 1.3343 (S6-5-2)	Gehärteter und einsatzgehärteter Stahl, 50-60 HRC 1.2344 (X40CrMoV5), 1.2767 (X45NiCrMo4), 1.2379 (X155CrVMo12-1), 1.2080 (X210Cr12), 1.3343 (S6-5-2)
M 21 INOX S850N/mm ²	M 21 INOX S850N/mm ²	Roestvaststaal, INOX ≤850 N/mm² 1.4005 (X12CrS13), 1.4104 (X14CrMos17), 1.4105 (X6CrMoS17), 1.4301 (XCrNi18-10)(304), 1.4305 (X8CrNiS18-9)(303)	Aciers Inoxydables ≤850 N/mm² 1.4005 (Z11CF13), 1.4104 (Z13CF17), 1.4105 (Z8CF17), 1.4301 (XCrNi18-10)(304), 1.4305 (X8CrNiS18-9)(303)	Acero inoxidable ≤850 N/mm² 1.4006 (F.3401-X10Cr13), 1.4104 (F.3117-X10CrS17), 1.4301 (F.3504-X5CrNi18-10)(304), 1.4305 (F.3508-X10CrNiS18-09)(303)	Rostfreier Stahl, INOX ≤850 N/mm² 1.4005 (X12CrS13), 1.4104 (X14CrMos17), 1.4105 (X6CrMoS17), 1.4301 (XCrNi18-10)(304), 1.4305 (X8CrNiS18-9)(303)
M 22 INOX >850N/mm ²	M 22 INOX >850N/mm ²	Roestvaststaal, INOX >850 N/mm² 1.4438 (X2CrNiMo18-15-4)(317), 1.4404 (X2CrNiMo17-12-2)(316L), 1.4571 (X6CrNiMoTi17-12-2)(316Ti)	Aciers Inoxydables >850 N/mm² 1.4438 (X2CrNiMo18-15-4)(317), 1.4404 (X2CrNiMo17-12-2)(316L), 1.4571 (X6CrNiMoTi17-12-2)(316Ti)	Acero inoxidable >850 N/mm² 1.4438 (X2CrNiMo18-15-4)(317), 1.4404 (X2CrNiMo17-12-2)(316L), 1.4571 (F.3535-X6CrNiMoTi17-12-2)(316Ti)	Rostfreier Stahl, INOX >850 N/mm² 1.4438 (X2CrNiMo18-15-4)(317), 1.4404 (X2CrNiMo17-12-2)(316L), 1.4571 (X6CrNiMoTi17-12-2)(316Ti)
K 31 GG	K 31 GG	Grijs gietijzer GG <260 HB30 0.6015 (GG 15), 0.6025 (GG 25), 0.6040 (GG 40)	Fontes <260 HB30 0.6015 (GG 15), 0.6025 (GG 25), 0.6040 (GG 40)	Fundición gris con grafito laminado GG <260 HB30 0.6015 (FG15), 0.6025 (FG25), 0.6040 (FG40)	Grauguss GG <260 HB30 0.6015 (GG 15), 0.6025 (GG 25), 0.6040 (GG 40)
K 32 GGG GTS-GTW	K 32 GGG GTS-GTW	Smeedbaar en Nodulair gietijzer <260 HB30 0.8145 (GTS-45), 0.8170 (GTS-70-02), 0.7040 (GGG 40), 0.7070 (GGG 70)	Fontes à graphites et malléables <260 HB30 0.8145 (GTS-45), 0.8170 (GTS-70-02), 0.7040 (GGG 40), 0.7070 (GGG 70)	Fundición gris con grafito esferoidal <260 HB30 0.8145 (GTS-45), 0.8170 (GTS-70-02), 0.7040 (GGG 40), 0.7070 (GGG 70)	Formbar und dehnbares Gusseisen <260 HB30 0.8145 (GTS-45), 0.8170 (GTS-70-02), 0.7040 (GGG 40), 0.7070 (GGG 70)
N 41 Alu	N 41 Alu	Aluminium en Aluminiumlegeringen 3.0255 (Al99.5), 3.2315 (AlMgSi1), 3.3515 (AlMg1)	Aluminium et Alliages d'Aluminium 3.0255 (A59050C), 3.2315 (AlMgSi1), 3.3515 (AlMg1)	Aluminio y aleaciones de Aluminio 3.0255 (Al99.5), 3.2315 (AlMgSi1), 3.3515 (AlMg1)	Aluminium und Aluminiumlegeringen 3.0255 (Al99.5), 3.2315 (AlMgSi1), 3.3515 (AlMg1)
N 42 Alu Si>10%	N 42 Alu Si>10%	Gietaluminium Si 10 - 24% 3.2131 (G-AISi5Cu1), 3.2153 (G-AISi7Cu3), (3.2573 G-AISi9), 3.2581 (G-AISi12), 3.2583 (G-AISi12Cu)	Alliages d'Aluminium Si 10 - 24% 3.2131 (G-AISi5Cu1), 3.2153 (G-AISi7Cu3), (3.2573 G-AISi9), 3.2581 (G-AISi12), 3.2583 (G-AISi12Cu)	Fundición de Aluminio aleada Si 10 - 24% 3.2131 (G-AISi5Cu1), 3.2153 (G-AISi7Cu3), (3.2573 G-AISi9), 3.2581 (L-2520,21), 3.2583 (L2530)	Druckguss Si 10 - 24% 3.2131 (G-AISi5Cu1), 3.2153 (G-AISi7Cu3), (3.2573 G-AISi9), 3.2581 (G-AISi12), 3.2583 (G-AISi12Cu)
N 43 Mg	N 43 Mg	Magnesiumlegeringen 3.5200 (MgMn2), 3.5812 (G-MgAl8Zn1), 3.5612 (G-MgAl6Zn1)	Alliages de Magnésium 3.5200 (MgMn2), 3.5812 (AZ81hp), 3.5612 (AZ61)	Aleaciones de Magnesio 3.5200 (MgMn2), 3.5812 (AZ81hp), 3.5612 (AZ61)	Magnesiumlegeringen 3.5200 (MgMn2), 3.5812 (G-MgAl8Zn1), 3.5612 (G-MgAl6Zn1)
N 51 Cu	N 51 Cu	Koper en Koperlegeringen 2.0070 (SE-Cu), 2.1020 (CuSn6), 2.1096 (G-CuSn5ZnPb), 2.0380 (CuZn39Pb2), 2.0401 (CuZn39Pb3), 2.0250 (CuZn20), 2.0280 (CuZn33), 2.0332 (CuZn37Pb0.5)	Cuivres et Alliages de cuivres 2.0070 (SE-Cu), 2.1020 (CuSn6), 2.1096 (G-CuSn5ZnPb), 2.0380 (CuZn40), 2.0401 (CuZn39Pb3), 2.0250 (CuZn20), 2.0280 (CuZn33), 2.0332 (CuZn37Pb0.5)	Cobre y aleaciones de cobre 2.0070 (SE-Cu), 2.1020 (CuSn6), 2.1096 (G-CuSn5ZnPb), 2.0380 (CuZn39Pb2), 2.0401 (CuZn39Pb3), 2.0250 (CuZn20), 2.0280 (CuZn33), 2.0332 (CuZn37Pb0.5)	Kupfer und Kupferlegeringen 2.0070 (SE-Cu), 2.1020 (CuSn6), 2.1096 (G-CuSn5ZnPb), 2.0380 (CuZn39Pb2), 2.0401 (CuZn39Pb3), 2.0250 (CuZn20), 2.0280 (CuZn33), 2.0332 (CuZn37Pb0.5)
N 52 CuAlFe	N 52 CuAlFe	Koper- en Aluminiumlegering 2.0916 (CuAl5), 2.0960 (CuAl9Mn), 2.1050 (CuSn10), 2.0980 (CuAl11Ni), 2.1247 (CuBe2) AMPCO® 8, AMPCO® 8 15, AMPCO® 18	Cuivre et Alliages d'Aluminium 2.0916 (CuAl5), 2.0960 (CuAl9Mn), 2.1050 (CuSn10), 2.0980 (CuAl11Ni), 2.1247 (CuBe1.9) AMPCO® 8, AMPCO® 8 15, AMPCO® 18	Cobre y aleaciones de Aluminio 2.0916 (CuAl5), 2.0960 (CuAl9Mn), 2.1050 (CuSn10), 2.0980 (CuAl11Ni), 2.1247 (CuBe2) AMPCO® 8, AMPCO® 8 15, AMPCO® 18	Kupfer- und Aluminiumlegeringen 2.0916 (CuAl5), 2.0960 (CuAl9Mn), 2.1050 (CuSn10), 2.0980 (CuAl11Ni), 2.1247 (Cu-Be2) AMPCO® 8, AMPCO® 8 15, AMPCO® 18
N 61 PVC	N 61 PVC	Duroplastic en Thermoplastic PMMA, PVC, PE, PP, PTFE	Duroplastiques et Thermoplastiques PMMA, PVC, PE, PP, PTFE	Duroplásticos en Termoplásticos PMMA, PVC, PE, PP, PTFE	Duroplaste und Thermoplaste PMMA, PVC, PE, PP, PTFE
N 62 GFK/CFK	N 62 GFK/CFK	Versterkte kunststoffen GFK, CFK	Plastiques réenforcés GFK, CFK	Plásticos reforzados GFK, CFK	Verstärkte Kunststoffe GFK, CFK
S 71 Ni/Co	S 71 Ni/Co	Nikkel- en Cobaltlegeringen Hastelloy, Inconel, Nimonic, Jetalloy	Alliages de Nickel et de Cobalt Hastelloy, Inconel, Nimonic, Jetalloy	Aleaciones de Niquel y Cobalto Hastelloy, Inconel, Nimonic, Jetalloy	Nickel und Kobaltlegeringen Hastelloy, Inconel, Nimonic, Jetalloy
S 72 Ti	S 72 Ti	Titaniumlegeringen 3.7024 (Ti99.5), 3.7114 (TiAl5Sn2.5), 3.7124 (TiCu2), 3.7154 (TiAl6Zr5), 3.7165 (TiAl6V4), 3.7184 (TiAl4Mo4Sn2.5)	Alliages de Titane 3.7024 (T35), 3.7114 (TiAl5Sn2.5), 3.7124 (T-U2), 3.7154 (TiAl6Zr5), 3.7165 (TiAl6V4), 3.7184 (TiAl4Mo4Sn2.5)	Titanio aleado 3.7024 (Ti99.5), 3.7114 (TiAl5Sn2.5), 3.7124 (TiCu2), 3.7154 (TiAl6Zr5), 3.7165 (TiAl6V4), 3.7184 (TiAl4Mo4Sn2.5)	Titanlegeringen 3.7024 (Ti99.5), 3.7114 (TiAl5Sn2.5), 3.7124 (TiCu2), 3.7154 (TiAl6Zr5), 3.7165 (TiAl6V4), 3.7184 (TiAl4Mo4Sn2.5)

PHANTOM UNI MACHINETAP... INNOVATIEF, BETROUWBAAR, KOSTENBESPAREND EN DUURZAAM!

Ontdek de eerste keus innovatieve, ongecoate UNI machinetap met unieke geometrie verkrijgbaar in alle maten (ook minder bekende maten). Dit betrouwbare stuk gereedschap zorgt voor gegarandeerd nauwkeurig draadsnijden op veelgebruikte materialen, zonder dat enorme voorraden van tappen nodig zijn.



EERSTE KEUS: UNI ONGECOAT

De universele tap voor alle materialen

GECOAT VOOR HOGERE PRODUCTIVITEIT EN LANGERE STANDTIJD



UNI TIN GECOAT

Universele tap met extra performance op staal



UNI TICN GECOAT

Universele tap met extra performance op RVS



HP2 UNI HARDLUBE

Universele tap voor massaproductie en gebruik op hooggelegeerd staal en RVS

Een echte **kostenbespaarder** op het prijsniveau van de standaard tappen in de markt, maar met **veel meer mogelijkheden**; kiezen is niet moeilijk... deze UNI machinetap is de oplossing!

Naast de ongecoate versie, staat namelijk een breed scala aan gecoate upgrades tot uw beschikking voor **meer efficiëntie** en **meer productiviteit** op specifieke materialen. Zo kunt u bijvoorbeeld: **sneller draadsnijden**, **meer gaten produceren** en heeft u **minder wisselingen** tijdens productie.

De topper uit de familie is de **PM HP2 UNI hardlube machinetap** geschikt voor **massaproductie** en **gebruik op hooggelegeerd staal en RVS**. Deze HP2 UNI machinetap is ook inzetbaar bij specifieke wensen, zoals **droog verspanen zonder reiniging achteraf** en **duurzaamheid**.

MEER WETEN? PHANTOM.EU

Op [Phantom.eu](https://phantom.eu) vindt u een **overzicht van het assortiment**, **video's**, **testresultaten** en **voorboordiameters**; dat alles om bij te dragen aan uw gewenste resultaat.

UNI Machinetappen



Bij uitstek geschikt

Beperkt geschikt




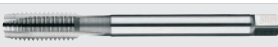




Metrisch

> 22.200	Phantom	M	DIN 371		P M K N S		P. 6
> 22.201	Phantom	M	DIN 376		P M K N S		P. 6
> 22.210	Phantom	M	DIN 371		P M K N S		P. 6
> 22.211	Phantom	M	DIN 376		P M K N S		P. 6
> 22.230	Phantom	M	DIN 371		P M K N S		NIEUW P. 7
> 22.231	Phantom	M	DIN 376		P M K N S		NIEUW P. 7
> 22.240	Phantom	M	DIN 371		P M K N S		P. 7
> 22.241	Phantom	M	DIN 376		P M K N S		P. 7
> 22.268	Phantom	M	DIN 371		P M K N S		P. 8
> 22.269	Phantom	M	DIN 376		P M K N S		P. 8
> 22.350	Phantom	M	NORM		P M K N S		P. 8
> 22.351	Phantom	M	NORM		P M K N S		P. 8
> 23.300	Phantom	M	DIN 371		P M K N S		P. 9
> 23.301	Phantom	M	DIN 376		P M K N S		P. 9
> 23.320	Phantom	M	DIN 371		P M K N S		NIEUW P. 9
> 23.321	Phantom	M	DIN 376		P M K N S		NIEUW P. 9
> 23.324	Phantom	M	DIN 371		P M K N S		P. 10
> 23.325	Phantom	M	DIN 376		P M K N S		P. 10
> 23.368	Phantom	M	DIN 371		P M K N S		P. 10
> 23.369	Phantom	M	DIN 376		P M K N S		P. 10
> 23.370	Phantom	M	NORM		P M K N S		P. 11
> 23.371	Phantom	M	NORM		P M K N S		P. 11









Metrisch Fijn

> 23.620	Phantom	MF	DIN 374		P M K N S		P. 12
> 23.621	Phantom	MF	DIN 374		P M K N S		NIEUW P. 12
> 23.668	Phantom	MF	DIN 374		P M K N S		P. 13
> 23.840	Phantom	MF	DIN 374		P M K N S		P. 13
> 23.868	Phantom	MF	DIN 374		P M K N S		P. 13




UNC

> 24.120	Phantom	UNC	DIN 371		P M K N S		P. 14
> 24.121	Phantom	UNC	DIN 376		P M K N S		P. 14
> 24.340	Phantom	UNC	DIN 371		P M K N S		P. 14
> 24.341	Phantom	UNC	DIN 376		P M K N S		P. 14



UNF

> 24.520	Phantom	UNF	DIN 371		P M K N S		P. 15
> 24.521	Phantom	UNF	DIN 376		P M K N S		P. 15
> 24.740	Phantom	UNF	DIN 371		P M K N S		P. 15
> 24.741	Phantom	UNF	DIN 376		P M K N S		P. 15













BSP (Gasdraad)

> 25.097	Phantom	BSP G	DIN 5156		P M K N S		NIEUW P. 16
> 25.297	Phantom	BSP G	DIN 5156		P M K N S		NIEUW P. 16







Set Machinetappen Metrisch

> 29.250	Phantom						P. 16
> 29.260	Phantom						P. 16

Metrisch, links

> 29.950	Phantom	M			P M K N S		P. 17
> 29.951	Phantom	M			P M K N S		P. 17
> 29.956	Phantom	M			P M K N S		P. 17
> 29.957	Phantom	M			P M K N S		P. 17

Metrisch Fijn, links

> 29.960	Phantom	MF			P M K N S		P. 18
> 29.961	Phantom	MF			P M K N S		P. 18

▶ 22.200 Phantom

NL UNI HSS-E Machinetap Metrisch

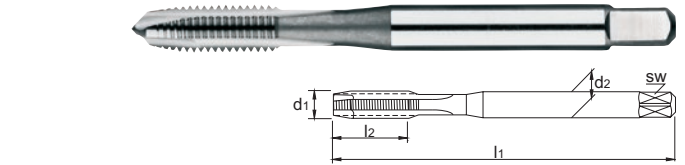
HSS-E M DIN 371 3xD Form B ISO 2 6H UNI

P 11 **P 12** **P 13** **M 21** **K 31** **K 32** **N 41** **N 42** **N 51** **S 71** **S 72**

≤500 N/mm² ≤850 N/mm² <1000 N/mm² INOX ≤850N/mm² GG GGG GTS-GTW Alu Alu Si>10% Cu Ni/Co Ti

15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	2-8	2-8
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Ref.	d1	P	l1	l2	d2	sw	€
22.200.0100	M1	0.25	40	6	2.5	2.1	€ 28,80
22.200.0110	M1,1	0.25	40	6	2.5	2.1	€ 25,90
22.200.0120	M1,2	0.25	40	6	2.5	2.1	€ 23,51
22.200.0140	M1,4	0.3	40	7	2.5	2.1	€ 21,89
22.200.0160	M1,6	0.35	40	8	2.5	2.1	€ 19,66
22.200.0170	M1,7	0.35	40	8	2.5	2.1	€ 18,13
22.200.0180	M1,8	0.35	40	8	2.5	2.1	€ 18,04
22.200.0200	M2	0.4	45	8	2.8	2.1	€ 19,56
22.200.0220	M2,2	0.45	45	9	2.8	2.1	€ 20,00
22.200.0230	M2,3	0.4	45	9	2.8	2.1	€ 20,41
22.200.0250	M2,5	0.45	50	9	2.8	2.1	€ 18,70



▶ 22.201 Phantom

NL UNI HSS-E Machinetap Metrisch

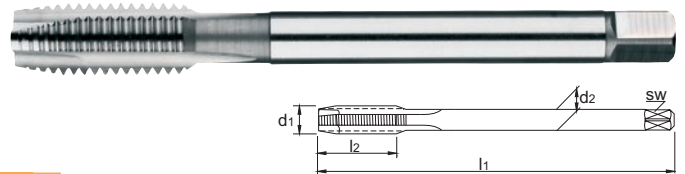
HSS-E M DIN 376 3xD Form B ISO 2 6H UNI

P 11 **P 12** **P 13** **M 21** **K 31** **K 32** **N 41** **N 42** **N 51** **S 71** **S 72**

≤500 N/mm² ≤850 N/mm² <1000 N/mm² INOX ≤850N/mm² GG GGG GTS-GTW Alu Alu Si>10% Cu Ni/Co Ti

15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	2-8	2-8
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Ref.	d1	P	l1	l2	d2	sw	€
22.201.0200	M2	0.4	45	8	1.4		€ 21,00
22.201.0250	M2,5	0.45	50	9	1.8		€ 18,00
22.201.0300	M3	0.5	56	13	2.2		€ 17,79
22.201.0400	M4	0.7	63	13	2.8	2.1	€ 18,01
22.201.0500	M5	0.8	70	16	3.5	2.7	€ 18,01
22.201.0600	M6	1	80	19	4.5	3.4	€ 18,01
22.201.0700	M7	1	80	19	5.5	4.3	€ 19,00
22.201.0800	M8	1.25	90	22	6	4.9	€ 20,53
22.201.0900	M9	1.25	90	22	7	5.5	€ 31,95
22.201.1000	M10	1.5	100	24	7	5.5	€ 23,92
22.201.1200	M12	1.75	110	29	9	7	€ 27,90
22.201.1400	M14	2	110	30	11	9	€ 36,25
22.201.1600	M16	2	110	32	12	9	€ 41,20



▶ 22.210 Phantom

NL UNI HSS-E Machinetap Metrisch, Overmaats

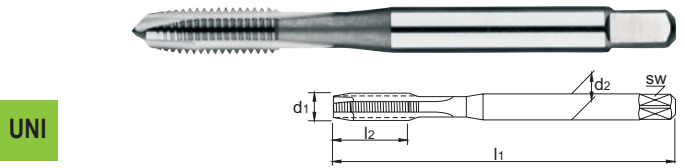
HSS-E M DIN 371 3xD Form B ISO 2 6H +0,1 +0,2 UNI

P 11 **P 12** **P 13** **M 21** **K 31** **K 32** **N 41** **N 42** **N 51** **S 71** **S 72**

≤500 N/mm² ≤850 N/mm² <1000 N/mm² INOX ≤850N/mm² GG GGG GTS-GTW Alu Alu Si>10% Cu Ni/Co Ti

15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	2-8	2-8
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Ref.	d1	P	l1	l2	d2	sw	€
22.210.0510	M5+0,1	0.8	70	15	6	4.9	€16,45
22.210.0610	M6+0,1	1	80	17	6	4.9	€16,45
22.210.0620	M6+0,2	1	80	17	6	4.9	€16,45



Ref.	d1	P	l1	l2	d2	sw	€
22.210.0820	M8+0,2	1.25	90	20	8	6.2	€22,00
22.210.1020	M10+0,2	1.5	100	22	10	8	€26,00

▶ 22.211 Phantom

NL UNI HSS-E Machinetap Metrisch, Overmaats

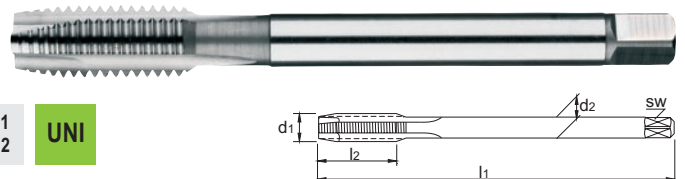
HSS-E M DIN 376 3xD Form B ISO 2 6H +0,1 +0,2 UNI

P 11 **P 12** **P 13** **M 21** **K 31** **K 32** **N 41** **N 42** **N 51** **S 71** **S 72**

≤500 N/mm² ≤850 N/mm² <1000 N/mm² INOX ≤850N/mm² GG GGG GTS-GTW Alu Alu Si>10% Cu Ni/Co Ti

15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	2-8	2-8
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Ref.	d1	P	l1	l2	d2	sw	€
22.211.1220	M12+0,2	1.75	110	24	9	7	€35,00
22.211.1420	M14+0,2	2	110	26	11	9	€42,00



Ref.	d1	P	l1	l2	d2	sw	€
22.211.1610	M16+0,1	2	110	27	12	9	€52,00
22.211.1620	M16+0,2	2	110	27	12	9	€52,00

> 22.230 Phantom



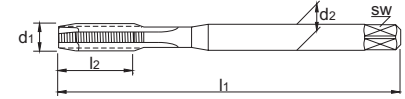
NL UNI HSS-E Machinetap Metrisch, TiN

HSS-E M 60° TiN DIN 371 3xD Form B 4-5 ISO 2 6H UNI

P 11 P 12 P 13 M 21 M 22 K 31 K 32 N 41 N 42 N 51 S 71 S 72

≤800 N/mm² ≤850 N/mm² <1000 N/mm² INOX ≤850N/mm² INOX >850N/mm² GG GGG GTS-GTW Alu Alu Si>10% Cu Ni/Co Ti

15-20 10-20 6-10 7-10 4-8 10-15 10-15 25-35 10-20 15-35 2-8 2-8



Ref.	d1	P	l1	l2	d2	sw	€
22.230.0200	M2	0.4	45	8	2.8	2.1	€22,20
22.230.0250	M2,5	0.45	50	9	2.8	2.1	€21,50
22.230.0300	M3	0.5	56	11	3.5	2.7	€18,50
22.230.0400	M4	0.7	63	13	4.5	3.4	€19,20
22.230.0500	M5	0.8	70	16	6	4.9	€19,50

Ref.	d1	P	l1	l2	d2	sw	€
22.230.0600	M6	1	80	19	6	4.9	€20,00
22.230.0700	M7	1	80	19	7	5.5	€24,50
22.230.0800	M8	1.25	90	22	8	6.2	€23,00
22.230.0900	M9	1.25	90	22	9	7	€27,00
22.230.1000	M10	1.5	100	24	10	8	€27,00

> 22.231 Phantom



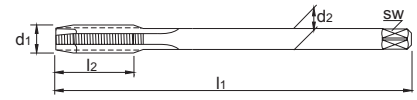
NL UNI HSS-E Machinetap Metrisch, TiN

HSS-E M 60° TiN DIN 376 3xD Form B 4-5 ISO 2 6H UNI

P 11 P 12 P 13 M 21 M 22 K 31 K 32 N 41 N 42 N 51 S 71 S 72

≤800 N/mm² ≤850 N/mm² <1000 N/mm² INOX ≤850N/mm² INOX >850N/mm² GG GGG GTS-GTW Alu Alu Si>10% Cu Ni/Co Ti

15-20 10-20 6-10 7-10 4-8 10-15 10-15 25-35 10-20 15-35 2-8 2-8



Ref.	d1	P	l1	l2	d2	sw	€
22.231.0300	M3	0.5	56	13	2.2		€21,00
22.231.0400	M4	0.7	63	13	2.8	2.1	€21,30
22.231.0500	M5	0.8	70	16	3.5	2.7	€21,50
22.231.0600	M6	1	80	19	4.5	3.4	€22,00
22.231.0700	M7	1	80	19	5.5	4.3	€23,50
22.231.0800	M8	1.25	90	22	6	4.9	€25,50
22.231.0900	M9	1.25	90	22	7	5.5	€37,50
22.231.1000	M10	1.5	100	24	7	5.5	€29,50
22.231.1200	M12	1.75	110	29	9	7	€36,00

Ref.	d1	P	l1	l2	d2	sw	€
22.231.1400	M14	2	110	30	11	9	€46,00
22.231.1600	M16	2	110	32	12	9	€51,00
22.231.1800	M18	2.5	125	34	14	11	€69,50
22.231.2000	M20	2.5	140	34	16	12	€78,00
22.231.2200	M22	2.5	140	34	18	14.5	€96,00
22.231.2400	M24	3	160	38	18	14.5	€104,00
22.231.2700	M27	3	160	38	20	16	€132,00
22.231.3000	M30	3.5	180	45	22	18	€165,00

> 22.240 Phantom



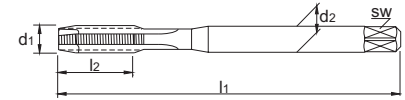
NL UNI HSS-E Machinetap Metrisch, TiCN

HSS-E M 60° TiCN DIN 371 3xD Form B 4-5 ISO 2 6H UNI

P 11 P 12 P 13 M 21 M 22 K 31 K 32 N 41 N 42 N 51 S 71 S 72

≤800 N/mm² ≤850 N/mm² <1000 N/mm² INOX ≤850N/mm² INOX >850N/mm² GG GGG GTS-GTW Alu Alu Si>10% Cu Ni/Co Ti

15-20 10-20 6-10 7-10 4-8 10-15 10-15 25-35 10-20 15-35 2-8 2-8



Ref.	d1	P	l1	l2	d2	sw	€
22.240.0200	M2	0.4	45	8	2.8	2.1	€27,40
22.240.0250	M2,5	0.45	50	9	2.8	2.1	€26,50
22.240.0300	M3	0.5	56	11	3.5	2.7	€24,33
22.240.0400	M4	0.7	63	13	4.5	3.4	€24,33
22.240.0500	M5	0.8	70	16	6	4.9	€24,33

Ref.	d1	P	l1	l2	d2	sw	€
22.240.0600	M6	1	80	19	6	4.9	€24,33
22.240.0700	M7	1	80	19	7	5.5	€29,00
22.240.0800	M8	1.25	90	22	8	6.2	€30,15
22.240.0900	M9	1.25	90	22	9	7	€35,00
22.240.1000	M10	1.5	100	24	10	8	€35,80

> 22.241 Phantom



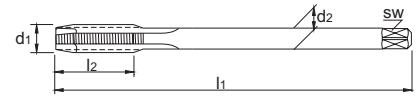
NL UNI HSS-E Machinetap Metrisch, TiCN

HSS-E M 60° TiCN DIN 376 3xD Form B 4-5 ISO 2 6H UNI

P 11 P 12 P 13 M 21 M 22 K 31 K 32 N 41 N 42 N 51 S 71 S 72

≤800 N/mm² ≤850 N/mm² <1000 N/mm² INOX ≤850N/mm² INOX >850N/mm² GG GGG GTS-GTW Alu Alu Si>10% Cu Ni/Co Ti

15-20 10-20 6-10 7-10 4-8 10-15 10-15 25-35 10-20 15-35 2-8 2-8

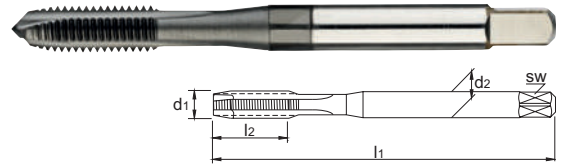


Ref.	d1	P	l1	l2	d2	sw	€
22.241.0300	M3	0.5	56	13	2.2		€26,00
22.241.0400	M4	0.7	63	13	2.8	2.1	€26,25
22.241.0500	M5	0.8	70	16	3.5	2.7	€26,50
22.241.0600	M6	1	80	19	4.5	3.4	€26,75
22.241.0800	M8	1.25	90	22	6	4.9	€30,50
22.241.1000	M10	1.5	100	24	7	5.5	€37,50
22.241.1200	M12	1.75	110	29	9	7	€43,95
22.241.1400	M14	2	110	30	11	9	€57,45

Ref.	d1	P	l1	l2	d2	sw	€
22.241.1600	M16	2	110	32	12	9	€64,55
22.241.1800	M18	2.5	125	34	14	11	€84,00
22.241.2000	M20	2.5	140	34	16	12	€102,80
22.241.2200	M22	2.5	140	34	18	14.5	€118,50
22.241.2400	M24	3	160	38	18	14.5	€126,00
22.241.2700	M27	3	160	38	20	16	€154,00
22.241.3000	M30	3.5	180	45	22	18	€189,50

▶ 22.268 **Phantom**

NL HP2 UNI HSS-E PM Machinetap Metrisch, HARDLUBE



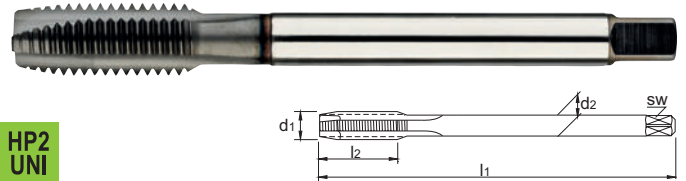
HSS-E PM	M	60°	HARD LUBE	DIN 371	3xD	Form B	4-5	ISO 2 6H	HP2 UNI		
P 11	P 12	P 13	P 14	M 21	M 22	K 31	K 32	N 41	N 42	S 71	S 72
≤800 N/mm ²	≤850 N/mm ²	<1000 N/mm ²	<1400 N/mm ²	INOX ≤850N/mm ²	INOX >850N/mm ²	GG	GGG GTS-GTW	Alu	Alu Si>10%	Ni/Co	Ti
15-20	15-20	8-15	8-15	8-15	8-15	20-25	20-25	20-25	20-25	5-12	5-12

Ref.	d1	P	l1	l2	d2	sw	€
22.268.0300	M3	0.5	56	11	3.5	2.7	€26,00
22.268.0400	M4	0.7	63	13	4.5	3.4	€26,50
22.268.0500	M5	0.8	70	16	6	4.9	€27,55

Ref.	d1	P	l1	l2	d2	sw	€
22.268.0600	M6	1	80	19	6	4.9	€32,65
22.268.0800	M8	1.25	90	22	8	6.2	€36,70
22.268.1000	M10	1.5	100	24	10	8	€52,00

▶ 22.269 **Phantom**

NL HP2 UNI HSS-E PM Machinetap Metrisch, HARDLUBE



HSS-E PM	M	60°	HARD LUBE	DIN 376	3xD	Form B	4-5	ISO 2 6H	HP2 UNI		
P 11	P 12	P 13	P 14	M 21	M 22	K 31	K 32	N 41	N 42	S 71	S 72
≤800 N/mm ²	≤850 N/mm ²	<1000 N/mm ²	<1400 N/mm ²	INOX ≤850N/mm ²	INOX >850N/mm ²	GG	GGG GTS-GTW	Alu	Alu Si>10%	Ni/Co	Ti
15-20	15-20	8-15	8-15	8-15	8-15	20-25	20-25	20-25	20-25	5-12	5-12

Ref.	d1	P	l1	l2	d2	sw	€
22.269.1200	M12	1.75	110	29	9	7	€59,15
22.269.1400	M14	2	110	30	11	9	€85,70

Ref.	d1	P	l1	l2	d2	sw	€
22.269.1600	M16	2	110	32	12	9	€75,95
22.269.2000	M20	2.5	140	34	16	12	€123,05

▶ 22.350 **Phantom**

NL UNI HSS-E Machinetap Metrisch, lang



HSS-E	M	60°	NORM	3xD	Form B	4-5	ISO 2 6H	UNI		
P 11	P 12	P 13	M 21	K 31	K 32	N 41	N 42	N 51	S 71	S 72
≤800 N/mm ²	≤850 N/mm ²	<1000 N/mm ²	INOX ≤850N/mm ²	GG	GGG GTS-GTW	Alu	Alu Si>10%	Cu	Ni/Co	Ti
15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	2-8	2-8

Ref.	d1	P	l1	l2	d2	sw	€
22.350.0400	M4	0.7	126	13	4.5	3.4	€41,35
22.350.0500	M5	0.8	140	15	6	4.9	€43,30

Ref.	d1	P	l1	l2	d2	sw	€
22.350.0600	M6	1	160	17	6	4.9	€44,70
22.350.0800	M8	1.25	180	20	8	6.2	€50,65

▶ 22.351 **Phantom**

NL UNI HSS-E Machinetap Metrisch, lang



HSS-E	M	60°	NORM	3xD	Form B	4-5	ISO 2 6H	UNI		
P 11	P 12	P 13	M 21	K 31	K 32	N 41	N 42	N 51	S 71	S 72
≤800 N/mm ²	≤850 N/mm ²	<1000 N/mm ²	INOX ≤850N/mm ²	GG	GGG GTS-GTW	Alu	Alu Si>10%	Cu	Ni/Co	Ti
15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	8-15	2-8

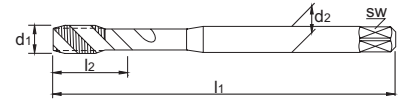
Ref.	d1	P	l1	l2	d2	sw	€
22.351.0800	M8	1.25	180	20	6	4.9	€50,65
22.351.1000	M10	1.5	200	22	7	5.5	€61,50
22.351.1200	M12	1.75	220	24	9	7	€70,95

Ref.	d1	P	l1	l2	d2	sw	€
22.351.1600	M16	2	220	32	12	9	€104,60
22.351.2000	M20	2.5	280	32	16	12	€143,65
22.351.2400	M24	3	320	34	18	14.5	€183,95

> 23.300 Phantom



NL UNI HSS-E Machinetap Metrisch



HSS-E M 60° DIN 371 2,5xD 40° Form C 2,5 ISO 2 6H UNI

P 11 ≤800 N/mm ²	P 12 ≤850 N/mm ²	P 13 <1000 N/mm ²	M 21 INOX ≤850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	N 51 Cu	S 71 Ni/Co	S 72 Ti
15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	2-8	2-8

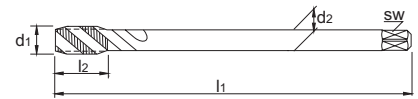
Ref.	d1	P	l1	l2	d2	sw	€
23.300.0200	M2	0.4	45	4	2.8	2.1	€19,61
23.300.0220	M2,2	0.45	45	4.5	2.8	2.1	€25,50
23.300.0230	M2,3	0.4	45	4	2.8	2.1	€26,15
23.300.0250	M2,5	0.45	50	4	2.8	2.1	€19,20
23.300.0260	M2,6	0.45	50	4	2.8	2.1	€25,35
23.300.0300	M3	0.5	56	6	3.5	2.7	€17,19
23.300.0350	M3,5	0.6	56	6	4	3	€19,54

Ref.	d1	P	l1	l2	d2	sw	€
23.300.0400	M4	0.7	63	7	4.5	3.4	€17,19
23.300.0500	M5	0.8	70	8	6	4.9	€17,19
23.300.0600	M6	1	80	10	6	4.9	€18,20
23.300.0700	M7	1	80	10	7	5.5	€23,04
23.300.0800	M8	1.25	90	12.5	8	6.2	€21,27
23.300.1000	M10	1.5	100	15	10	8	€25,10

> 23.301 Phantom



NL UNI HSS-E Machinetap Metrisch



HSS-E M 60° DIN 376 2,5xD 40° Form C 2,5 ISO 2 6H UNI

P 11 ≤800 N/mm ²	P 12 ≤850 N/mm ²	P 13 <1000 N/mm ²	M 21 INOX ≤850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	N 51 Cu	S 71 Ni/Co	S 72 Ti
15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	2-8	2-8

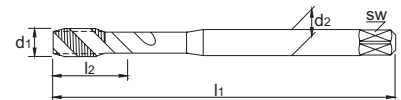
Ref.	d1	P	l1	l2	d2	sw	€
23.301.0600	M6	1	80	8	4.5	3.4	€19,84
23.301.0800	M8	1.25	90	10	6	4.9	€22,68
23.301.0900	M9	1.25	90	12.5	7	5.5	€42,30
23.301.1000	M10	1.5	100	15	7	5.5	€27,65
23.301.1200	M12	1.75	110	17.5	9	7	€32,35
23.301.1400	M14	2	110	20	11	9	€42,85
23.301.1600	M16	2	110	20	12	9	€48,00
23.301.1800	M18	2.5	125	25	14	11	€64,05

Ref.	d1	P	l1	l2	d2	sw	€
23.301.2000	M20	2.5	140	25	16	12	€71,40
23.301.2200	M22	2.5	140	25	18	14.5	€79,65
23.301.2400	M24	3	160	30	18	14.5	€90,50
23.301.2700	M27	3	160	30	20	16	€121,10
23.301.3000	M30	3.5	180	45	22	18	€154,25
23.301.3300	M33	3.5	180	35	25	20	€193,45
23.301.3600	M36	4	200	40	28	22	€268,00

> 23.320 Phantom



NL UNI HSS-E Machinetap Metrisch, TiN



HSS-E M 60° TiN DIN 371 2,5xD 40° Form C 2,5 ISO 2 6H UNI

P 11 ≤800 N/mm ²	P 12 ≤850 N/mm ²	P 13 <1000 N/mm ²	M 21 INOX ≤850N/mm ²	M 22 INOX >850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	N 51 Cu	S 71 Ni/Co	S 72 Ti
15-20	10-20	6-10	7-10	4-8	10-15	10-15	25-35	10-20	15-35	2-8	2-8

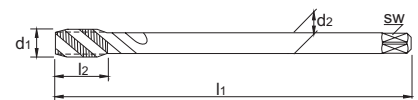
Ref.	d1	P	l1	l2	d2	sw	€
23.320.0200	M2	0.4	45	4	2.8	2.1	€22,25
23.320.0250	M2,5	0.45	50	4	2.8	2.1	€22,00
23.320.0300	M3	0.5	56	6	3.5	2.7	€20,25
23.320.0400	M4	0.7	63	7	4.5	3.4	€20,50
23.320.0500	M5	0.8	70	8	6	4.9	€20,75

Ref.	d1	P	l1	l2	d2	sw	€
23.320.0600	M6	1	80	10	6	4.9	€22,00
23.320.0700	M7	1	80	10	7	5.5	€27,50
23.320.0800	M8	1.25	90	12.5	8	6.2	€25,50
23.320.1000	M10	1.5	100	15	10	8	€30,50

> 23.321 Phantom



NL UNI HSS-E Machinetap Metrisch, TiN



HSS-E M 60° TiN DIN 376 2,5xD 40° Form C 2,5 ISO 2 6H UNI

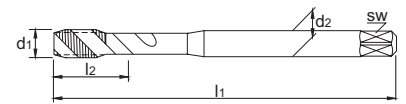
P 11 ≤800 N/mm ²	P 12 ≤850 N/mm ²	P 13 <1000 N/mm ²	M 21 INOX ≤850N/mm ²	M 22 INOX >850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	N 51 Cu	S 71 Ni/Co	S 72 Ti
15-20	10-20	6-10	7-10	4-8	10-15	10-15	25-35	10-20	15-35	2-8	2-8

Ref.	d1	P	l1	l2	d2	sw	€
23.321.0600	M6	1	80	8	4.5	3.4	€23,50
23.321.0800	M8	1.25	90	10	6	4.9	€27,00
23.321.1000	M10	1.5	100	15	7	5.5	€33,00
23.321.1200	M12	1.75	110	17.5	9	7	€40,00

Ref.	d1	P	l1	l2	d2	sw	€
23.321.1400	M14	2	110	20	11	9	€52,00
23.321.1600	M16	2	110	20	12	9	€57,50
23.321.2000	M20	2.5	140	25	16	12	€88,50
23.321.2400	M24	3	160	30	18	14.5	€113,00

▶ 23.324 **Phantom**

NL UNI HSS-E Machinetap Metrisch, TiCN



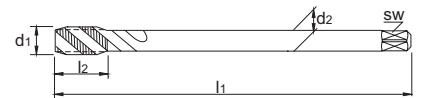
HSS-E	M	60°	TiCN	DIN 371	2,5xD	40°	Form C	2,5	ISO 2 6H	UNI	
P 11	P 12	P 13	M 21	M 22	K 31	K 32	N 41	N 42	N 51	S 71	S 72
≤800 N/mm ²	≤850 N/mm ²	<1000 N/mm ²	INOX ≤850N/mm ²	INOX >850N/mm ²	GG	GGG GTS-GTW	Alu	Alu Si>10%	Cu	Ni/Co	Ti
15-20	10-20	6-10	7-10	4-8	10-15	10-15	25-35	10-20	15-35	2-8	2-8

Ref.	d1	P	l1	l2	d2	sw	€
23.324.0300	M3	0.5	56	6	3.5	2.7	€24,80
23.324.0400	M4	0.7	63	7	4.5	3.4	€24,80
23.324.0500	M5	0.8	70	8	6	4.9	€24,80

Ref.	d1	P	l1	l2	d2	sw	€
23.324.0600	M6	1	80	10	6	4.9	€24,80
23.324.0800	M8	1.25	90	12.5	8	6.2	€30,45
23.324.1000	M10	1.5	100	15	10	8	€36,25

▶ 23.325 **Phantom**

NL UNI HSS-E Machinetap Metrisch, TiCN



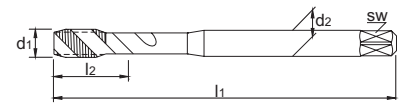
HSS-E	M	60°	TiCN	DIN 376	2,5xD	40°	Form C	2,5	ISO 2 6H	UNI	
P 11	P 12	P 13	M 21	M 22	K 31	K 32	N 41	N 42	N 51	S 71	S 72
≤800 N/mm ²	≤850 N/mm ²	<1000 N/mm ²	INOX ≤850N/mm ²	INOX >850N/mm ²	GG	GGG GTS-GTW	Alu	Alu Si>10%	Cu	Ni/Co	Ti
15-20	10-20	6-10	7-10	4-8	10-15	10-15	25-35	10-20	15-35	2-8	2-8

Ref.	d1	P	l1	l2	d2	sw	€
23.325.0600	M6	1	80	10	4.5	3.4	€28,50
23.325.0800	M8	1.25	90	12.5	6	4.9	€31,50
23.325.1000	M10	1.5	100	15	7	5.5	€39,00
23.325.1200	M12	1.75	110	17.5	9	7	€45,00

Ref.	d1	P	l1	l2	d2	sw	€
23.325.1400	M14	2	110	20	11	9	€58,60
23.325.1600	M16	2	110	20	12	9	€65,90
23.325.2000	M20	2.5	140	25	16	12	€108,80

▶ 23.368 **Phantom**

NL HP2 UNI HSS-E PM Machinetap Metrisch, HARDLUBE



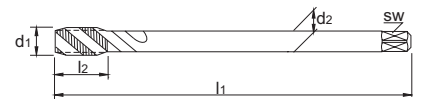
HSS-E PM	M	60°	HARD LUBE	DIN 371	2,5xD	50°	Form C	2-2,5	6HX	HP2 UNI	
P 11	P 12	P 13	P 14	M 21	M 22	K 31	K 32	N 41	N 42	S 71	S 72
≤800 N/mm ²	≤850 N/mm ²	<1000 N/mm ²	<1400 N/mm ²	INOX ≤850N/mm ²	INOX >850N/mm ²	GG	GGG GTS-GTW	Alu	Alu Si>10%	Ni/Co	Ti
15-20	15-20	8-15	8-15	8-15	8-15	20-25	20-25	20-25	20-25	5-12	5-12

Ref.	d1	P	l1	l2	d2	sw	€
23.368.0300	M3	0.5	56	6	3.5	2.7	€29,15
23.368.0400	M4	0.7	63	7	4.5	3.4	€29,60
23.368.0500	M5	0.8	70	8	6	4.9	€31,20

Ref.	d1	P	l1	l2	d2	sw	€
23.368.0600	M6	1	80	10	6	4.9	€36,40
23.368.0800	M8	1.25	90	12.5	8	6.2	€41,20
23.368.1000	M10	1.5	100	15	10	8	€49,45

▶ 23.369 **Phantom**

NL HP2 UNI HSS-E PM Machinetap Metrisch, HARDLUBE



HSS-E PM	M	60°	HARD LUBE	DIN 376	2,5xD	50°	Form C	2-2,5	6HX	HP2 UNI	
P 11	P 12	P 13	P 14	M 21	M 22	K 31	K 32	N 41	N 42	S 71	S 72
≤800 N/mm ²	≤850 N/mm ²	<1000 N/mm ²	<1400 N/mm ²	INOX ≤850N/mm ²	INOX >850N/mm ²	GG	GGG GTS-GTW	Alu	Alu Si>10%	Ni/Co	Ti
15-20	15-20	8-15	8-15	8-15	8-15	20-25	20-25	20-25	20-25	5-12	5-12

Ref.	d1	P	l1	l2	d2	sw	€
23.369.1200	M12	1.75	110	17.5	9	7	€60,75
23.369.1400	M14	2	110	20	11	9	€69,50

Ref.	d1	P	l1	l2	d2	sw	€
23.369.1600	M16	2	110	20	12	9	€72,20
23.369.2000	M20	2.5	140	25	16	12	€113,20

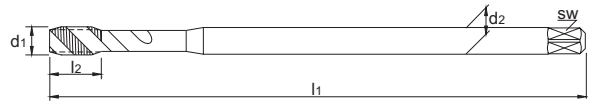
> 23.370 Phantom

NL UNI HSS-E Machinetap Metrisch, lang



HSS-E M 60° NORM 2,5xD 40° Form C 2,5 ISO 2 6H UNI

P 11 ≤800 N/mm ²	P 12 ≤850 N/mm ²	P 13 <1000 N/mm ²	M 21 INOX ≤850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	N 51 Cu	S 71 Ni/Co	S 72 Ti
15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	2-8	2-8



Ref.	d1	P	l1	l2	d2	sw	€
23.370.0400	M4	0.7	126	7	4.5	3.4	€40,60
23.370.0500	M5	0.8	140	8	6	4.9	€46,25

Ref.	d1	P	l1	l2	d2	sw	€
23.370.0600	M6	1	160	10	6	4.9	€48,25
23.370.0800	M8	1.25	180	12.5	8	6.2	€55,20

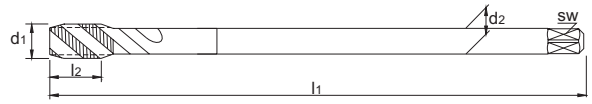
> 23.371 Phantom

NL UNI HSS-E Machinetap Metrisch, lang



HSS-E M 60° NORM 2,5xD 40° Form C 2,5 ISO 2 6H UNI

P 11 ≤800 N/mm ²	P 12 ≤850 N/mm ²	P 13 <1000 N/mm ²	M 21 INOX ≤850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	N 51 Cu	S 71 Ni/Co	S 72 Ti
15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	2-8	2-8

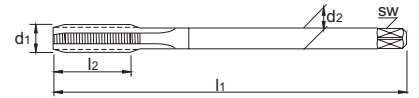


Ref.	d1	P	l1	l2	d2	sw	€
23.371.0800	M8	1.25	180	12	6	4.9	€55,20
23.371.1000	M10	1.5	200	15	7	5.5	€63,70
23.371.1200	M12	1.75	220	17.5	9	7	€78,00

Ref.	d1	P	l1	l2	d2	sw	€
23.371.1600	M16	2	220	20	12	9	€111,55
23.371.2000	M20	2.5	280	25	16	12	€152,10

> 23.620 **Phantom**

NL UNI HSS-E Machinetap Metrisch Fijn



HSS-E MF 60° DIN 374 3xD Form B 5 ISO 2 6H UNI

P 11 P 12 P 13 M 21 K 31 K 32 N 41 N 42 N 51 S 71 S 72
≤600 N/mm² ≤850 N/mm² <1000 N/mm² INOX ≤850N/mm² GG GGG GTS-GTW Alu Alu Si>10% Cu Ni/Co Ti

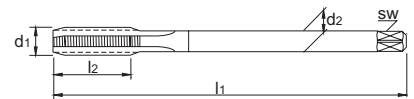
15-20 10-20 6-10 7-10 10-15 10-15 25-35 10-20 15-35 2-8 2-8

Ref.	d1	P	l1	l2	d2	sw	€
23.620.0303	MF3	0.35	56	8	2.2		€24,46
23.620.0405	MF4	0.5	63	10	2.8	2.1	€21,91
23.620.0505	MF5	0.5	70	11	3.5	2.7	€22,67
23.620.0605	MF6	0.5	80	13	4.5	3.4	€23,25
23.620.0607	MF6	0.75	80	13	4.5	3.4	€22,67
23.620.0705	MF7	0.5	80	13	5.5	4.3	€34,00
23.620.0707	MF7	0.75	80	13	5.5	4.3	€32,00
23.620.0805	MF8	0.5	80	13	6	4.9	€28,00
23.620.0807	MF8	0.75	80	13	6	4.9	€26,80
23.620.0810	MF8	1	90	20	6	4.9	€23,89
23.620.0907	MF9	0.75	90	20	7	5.5	€32,50
23.620.0910	MF9	1	90	20	7	5.5	€31,75
23.620.1005	MF10	0.5	90	16	7	5.5	€34,50
23.620.1007	MF10	0.75	90	16	7	5.5	€34,50
23.620.1010	MF10	1	90	16	7	5.5	€26,50
23.620.1012	MF10	1.25	100	22	7	5.5	€27,55
23.620.1110	MF11	1	90	20	8	6.2	€40,55
23.620.1112	MF11	1.25	90	20	8	6.2	€20,00
23.620.1205	MF12	0.5	100	22	9	7	€35,00
23.620.1207	MF12	0.75	100	22	9	7	€33,45
23.620.1210	MF12	1	100	22	9	7	€28,50
23.620.1212	MF12	1.25	100	22	9	7	€33,45
23.620.1215	MF12	1.5	100	22	9	7	€29,45
23.620.1310	MF13	1	100	22	11	9	€32,40
23.620.1410	MF14	1	100	22	11	9	€40,85
23.620.1412	MF14	1.25	100	22	11	9	€39,05
23.620.1415	MF14	1.5	100	22	11	9	€39,05
23.620.1510	MF15	1	100	22	12	9	€49,90
23.620.1515	MF15	1.5	100	22	12	9	€51,30
23.620.1610	MF16	1	100	22	12	9	€43,05
23.620.1612	MF16	1.25	100	22	12	9	€41,55
23.620.1615	MF16	1.5	100	22	12	9	€41,55
23.620.1810	MF18	1	110	25	14	11	€59,80
23.620.1815	MF18	1.5	110	25	14	11	€53,90
23.620.1820	MF18	2	125	30	14	11	€66,05
23.620.2010	MF20	1	125	25	16	12	€60,65
23.620.2015	MF20	1.5	125	25	16	12	€57,50

Ref.	d1	P	l1	l2	d2	sw	€
23.620.2020	MF20	2	140	32	16	12	€9,15
23.620.2210	MF22	1	125	25	18	14.5	€7,85
23.620.2212	MF22	1.25	125	25	18	14.5	€7,80
23.620.2215	MF22	1.5	125	25	18	14.5	€4,60
23.620.2220	MF22	2	140	32	18	14.5	€9,45
23.620.2410	MF24	1	140	28	18	14.5	€3,70
23.620.2415	MF24	1.5	140	28	18	14.5	€7,60
23.620.2420	MF24	2	140	28	18	14.5	€10,80
23.620.2510	MF25	1	140	28	18	14.5	€14,20
23.620.2515	MF25	1.5	140	28	18	14.5	€19,55
23.620.2520	MF25	2	140	28	18	14.5	€18,00
23.620.2615	MF26	1.5	140	28	18	14.5	€19,70
23.620.2715	MF26	1.5	140	28	18	16	€11,90
23.620.2720	MF27	2	140	28	20	16	€13,10
23.620.2815	MF28	1.5	140	28	20	16	€13,95
23.620.3010	MF30	1	150	28	22	18	€13,35
23.620.3015	MF30	1.5	150	28	22	18	€12,80
23.620.3020	MF30	2	150	28	22	18	€13,20
23.620.3215	MF32	1.5	150	28	22	18	€14,35
23.620.3315	MF33	1.5	160	30	25	20	€20,05
23.620.3320	MF33	2	160	30	25	20	€20,05
23.620.3415	MF34	1.5	170	30	28	22	€20,10
23.620.3515	MF35	1.5	170	30	28	22	€20,10
23.620.3615	MF36	1.5	170	30	28	22	€20,70
23.620.3620	MF36	2	170	30	28	22	€21,90
23.620.3630	MF36	3	200	50	28	22	€26,80
23.620.3815	MF38	1.5	170	30	28	22	€23,90
23.620.4015	MF40	1.5	170	30	32	24	€27,55
23.620.4215	MF42	1.5	170	30	32	24	€28,10
23.620.4220	MF42	2	170	30	32	24	€30,80
23.620.4230	MF42	3	200	45	32	24	€32,20
23.620.4515	MF45	1.5	180	32	36	29	€33,00
23.620.4520	MF45	2	180	32	36	29	€34,10
23.620.4815	MF48	1.5	190	32	36	29	€40,00
23.620.5015	MF50	1.5	190	32	36	29	€47,80
23.620.5215	MF52	1.5	190	32	40	32	€47,80

> 23.621 **Phantom**

NL UNI HSS-E Machinetap Metrisch Fijn, TiN



HSS-E MF 60° TiN DIN 374 3xD Form B 5 ISO 2 6H UNI

P 11 P 12 P 13 M 21 K 31 K 32 N 41 N 42 N 51 S 71 S 72
≤600 N/mm² ≤850 N/mm² <1000 N/mm² INOX ≤850N/mm² GG GGG GTS-GTW Alu Alu Si>10% Cu Ni/Co Ti

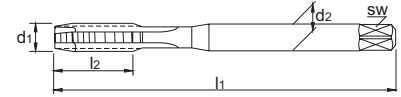
15-20 10-20 6-10 7-10 10-15 10-15 25-35 10-20 15-35 2-8 2-8

Ref.	d1	P	l1	l2	d2	sw	€
23.621.0810	MF8	1	90	20	6	4.9	€28,00
23.621.1010	MF10	1	90	16	7	5.5	€32,00
23.621.1012	MF10	1.25	100	22	7	5.5	€33,00
23.621.1210	MF12	1	100	22	9	7	€36,50
23.621.1212	MF12	1.25	100	22	9	7	€41,50
23.621.1215	MF12	1.5	100	22	9	7	€37,50
23.621.1415	MF14	1.5	100	22	11	9	€48,00
23.621.1615	MF16	1.5	100	22	12	9	€51,00
23.621.1815	MF18	1.5	110	25	14	11	€65,00
23.621.2010	MF20	1	125	25	16	12	€74,00
23.621.2015	MF20	1.5	125	25	16	12	€71,00

Ref.	d1	P	l1	l2	d2	sw	€
23.621.2020	MF20	2	140	32	16	12	€2,50
23.621.2215	MF22	1.5	125	25	18	14.5	€9,50
23.621.2415	MF24	1.5	140	28	18	14.5	€7,50
23.621.2420	MF24	2	140	28	18	14.5	€12,50
23.621.2515	MF25	1.5	140	28	18	14.5	€16,40
23.621.2720	MF27	2	140	28	20	16	€14,50
23.621.3015	MF30	1.5	150	28	22	18	€15,50
23.621.3020	MF30	2	150	28	22	18	€16,00
23.621.3215	MF32	1.5	150	28	22	18	€18,80
23.621.3620	MF36	2	170	30	28	22	€27,00

> 23.668 Phantom

NL HP2 UNI HSS-E PM Machinetap Metrisch Fijn, HARDLUBE



HSS-E MF 60° HARD LUBE DIN 374 3xD Form B 4-5 ISO 2 6H HP2 UNI

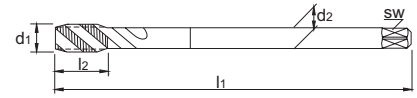
P 11 s800 N/mm ²	P 12 s850 N/mm ²	P 13 <1000 N/mm ²	P 14 <1400 N/mm ²	M 21 INOX s850N/mm ²	M 22 INOX >850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	S 71 Ni/Co	S 72 Ti
15-20	15-20	8-15	8-15	8-15	8-15	20-25	20-25	20-25	20-25	5-12	5-12

Ref.	d1	P	l1	l2	d2	sw	€
23.668.0810	MF8	1	90	20	6	4.9	€3,80
23.668.1010	MF10	1	90	16	7	5.5	€1,85
23.668.1012	MF10	1.25	90	16	7	5.5	€6,20
23.668.1210	MF12	1	100	22	9	7	€7,05
23.668.1212	MF12	1.25	100	22	9	7	€7,45
23.668.1215	MF12	1.5	100	22	9	7	€7,95
23.668.1410	MF14	1	100	22	11	9	€9,15

Ref.	d1	P	l1	l2	d2	sw	€
23.668.1415	MF14	1.5	100	22	11	9	€9,15
23.668.1615	MF16	1.5	100	22	12	9	€10,05
23.668.1815	MF18	1.5	110	25	14	11	€13,30
23.668.2015	MF20	1.5	125	25	16	12	€18,95
23.668.2215	MF22	1.5	125	25	18	14.5	€16,10
23.668.2415	MF24	1.5	140	28	18	14.5	€19,85
23.668.2420	MF24	2	140	28	18	14.5	€17,00

> 23.840 Phantom

NL UNI HSS-E Machinetap Metrisch Fijn



HSS-E MF 60° DIN 374 2,5xD Form C 2-3 ISO 2 6H UNI

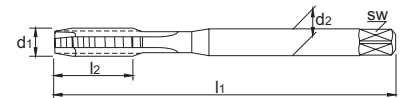
P 11 s800 N/mm ²	P 12 s850 N/mm ²	P 13 <1000 N/mm ²	M 21 INOX s850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	N 51 Cu	S 71 Ni/Co	S 72 Ti
15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	2-8	2-8

Ref.	d1	P	l1	l2	d2	sw	€
23.840.0405	MF4	0.5	63	10	2.8	2.1	€2,00
23.840.0505	MF5	0.5	70	11	3.5	2.7	€2,50
23.840.0605	MF6	0.5	80	13	4.5	3.4	€2,50
23.840.0607	MF6	0.75	80	13	4.5	3.4	€3,00
23.840.0807	MF8	0.75	80	13	6	4.9	€2,30
23.840.0810	MF8	1	90	20	6	4.9	€2,30
23.840.0910	MF9	1	90	20	7	5.5	€3,00
23.840.1007	MF10	0.75	90	16	7	5.5	€3,00
23.840.1010	MF10	1	90	16	7	5.5	€2,65
23.840.1012	MF10	1.25	100	22	7	5.5	€2,65
23.840.1110	MF11	1	90	20	8	6.2	€3,00
23.840.1210	MF12	1	100	22	9	7	€3,90
23.840.1212	MF12	1.25	100	22	9	7	€3,15
23.840.1215	MF12	1.5	100	22	9	7	€3,95
23.840.1310	MF13	1	100	22	11	9	€3,95
23.840.1410	MF14	1	100	22	11	9	€4,70
23.840.1412	MF14	1.25	100	22	11	9	€4,70
23.840.1415	MF14	1.5	100	22	11	9	€4,20
23.840.1510	MF15	1	100	22	12	9	€5,20
23.840.1515	MF15	1.5	100	22	12	9	€5,20
23.840.1610	MF16	1	100	22	12	9	€5,20
23.840.1615	MF16	1.5	100	22	12	9	€5,20
23.840.1810	MF18	1	110	25	14	11	€9,00
23.840.1815	MF18	1.5	110	25	14	11	€7,60
23.840.1820	MF18	2	125	30	14	11	€5,00

Ref.	d1	P	l1	l2	d2	sw	€
23.840.2010	MF20	1	125	25	16	12	€7,40
23.840.2015	MF20	1.5	125	25	16	12	€7,55
23.840.2020	MF20	2	140	32	16	12	€7,40
23.840.2210	MF22	1	125	25	18	14.5	€9,20
23.840.2215	MF22	1.5	125	25	18	14.5	€1,95
23.840.2220	MF22	2	140	32	18	14.5	€4,00
23.840.2410	MF24	1	140	28	18	14.5	€8,00
23.840.2415	MF24	1.5	140	28	18	14.5	€6,90
23.840.2420	MF24	2	140	28	18	14.5	€8,00
23.840.2515	MF25	1.5	140	28	18	14.5	€15,60
23.840.2615	MF26	1.5	140	28	18	14.5	€12,40
23.840.2715	MF27	1.5	140	28	20	16	€13,15
23.840.2720	MF27	2	140	28	20	16	€14,20
23.840.2815	MF28	1.5	140	28	20	16	€11,35
23.840.3010	MF30	1	150	28	22	18	€16,00
23.840.3015	MF30	1.5	150	28	22	18	€15,90
23.840.3020	MF30	2	150	28	22	18	€16,40
23.840.3215	MF32	1.5	150	28	22	18	€18,40
23.840.3315	MF33	1.5	160	30	25	20	€21,60
23.840.3320	MF33	2	160	30	25	20	€21,80
23.840.3515	MF35	1.5	170	30	28	22	€25,20
23.840.3615	MF36	1.5	170	30	28	22	€26,00
23.840.3620	MF36	2	170	30	28	22	€23,40
23.840.3630	MF36	3	200	50	28	22	€42,00
23.840.4015	MF40	1.5	170	30	32	24	€27,00

> 23.868 Phantom

NL HP2 UNI HSS-E PM Machinetap Metrisch Fijn, HARDLUBE



HSS-E MF 60° HARD LUBE DIN 374 2,5xD Form C 2-2,5 ISO 2 6H HP2 UNI

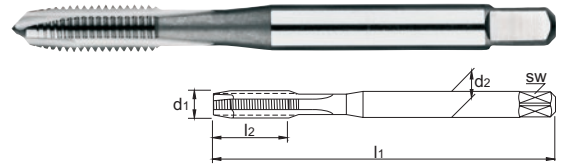
P 11 s800 N/mm ²	P 12 s850 N/mm ²	P 13 <1000 N/mm ²	P 14 <1400 N/mm ²	M 21 INOX s850N/mm ²	M 22 INOX >850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	S 71 Ni/Co	S 72 Ti
15-20	15-20	8-15	8-15	8-15	8-15	20-25	20-25	20-25	20-25	5-12	5-12

Ref.	d1	P	l1	l2	d2	sw	€
23.868.0810	MF8	1	90	20	6	4.9	€5,20
23.868.1010	MF10	1	90	16	7	5.5	€7,20
23.868.1012	MF10	1.25	100	22	7	5.5	€7,20
23.868.1210	MF12	1	100	22	9	7	€9,10
23.868.1212	MF12	1.25	100	22	9	7	€8,80
23.868.1215	MF12	1.5	100	22	9	7	€9,10
23.868.1412	MF14	1.25	100	22	11	9	€10,45

Ref.	d1	P	l1	l2	d2	sw	€
23.868.1415	MF14	1.5	100	22	11	9	€10,45
23.868.1615	MF16	1.5	100	22	12	9	€18,40
23.868.1815	MF18	1.5	110	25	14	11	€15,05
23.868.2015	MF20	1.5	125	25	16	12	€19,85
23.868.2215	MF22	1.5	125	25	18	14.5	€19,85
23.868.2415	MF24	1.5	140	28	18	14.5	€19,45
23.868.2420	MF24	2	140	28	18	14.5	€25,45

▶ 24.120 **Phantom**

NL UNI HSS-E Machinetap UNC



HSS-E UNC 60° DIN 371 3xD Form B 5 2B UNI

P 11 P 12 P 13 M 21 K 31 K 32 N 41 N 42 N 51 S 71 S 72

≤800 N/mm² ≤850 N/mm² <1000 N/mm² INOX ≤850N/mm² GG GGG GTS-GTW Alu Alu Si>10% Cu Ni/Co Ti

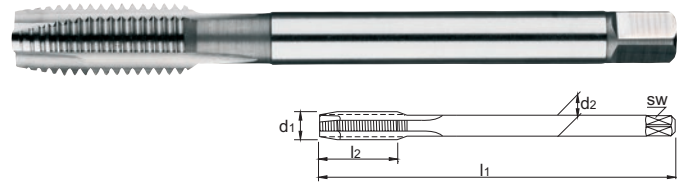
15-20 10-20 6-10 7-10 10-15 10-15 25-35 10-20 15-35 2-8 2-8

Ref.	d1	P	l1	l2	d2	sw	€
24.120.0284	UNC Nr. 4	40	56	11	3.5	2.7	€22,44
24.120.0317	UNC Nr. 5	40	56	11	3.5	2.7	€22,44
24.120.0350	UNC Nr. 6	32	56	13	4	3	€21,32
24.120.0416	UNC Nr. 8	32	63	13	4.5	3.4	€21,32
24.120.0482	UNC Nr. 10	24	70	15	6	4.9	€23,62

Ref.	d1	P	l1	l2	d2	sw	€
24.120.0548	UNC Nr. 12	24	80	19	6	4.9	€24,09
24.120.0635	UNC 1/4	20	80	19	7	5.5	€25,20
24.120.0794	UNC 5/16	18	90	22	8	6.2	€26,10
24.120.0952	UNC 3/8	16	100	22	9	7	€28,50

▶ 24.121 **Phantom**

NL UNI HSS-E Machinetap UNC



HSS-E UNC 60° DIN 376 3xD Form B 5 2B UNI

P 11 P 12 P 13 M 21 K 31 K 32 N 41 N 42 N 51 S 71 S 72

≤800 N/mm² ≤850 N/mm² <1000 N/mm² INOX ≤850N/mm² GG GGG GTS-GTW Alu Alu Si>10% Cu Ni/Co Ti

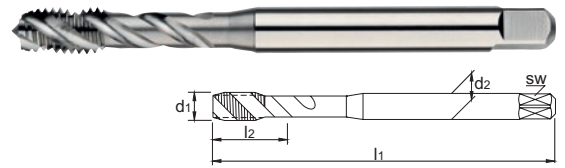
15-20 10-20 6-10 7-10 10-15 10-15 25-35 10-20 15-35 2-8 2-8

Ref.	d1	P	l1	l2	d2	sw	€
24.121.1111	UNC 7/16	14	100	22	8	6.2	€35,95
24.121.1270	UNC 1/2	13	110	24	9	7	€37,55
24.121.1429	UNC 9/16	12	110	26	11	9	€55,95
24.121.1588	UNC 5/8	11	110	27	12	9	€51,80

Ref.	d1	P	l1	l2	d2	sw	€
24.121.1905	UNC 3/4	10	125	30	14	11	€69,25
24.121.2222	UNC 7/8	9	140	32	18	14.5	€29,95
24.121.2540	UNC 1	8	160	36	18	14.5	€119,20

▶ 24.340 **Phantom**

NL UNI HSS-E Machinetap UNC



HSS-E UNC 60° DIN 371 2,5xD Form C 2,5 2B UNI

P 11 P 12 P 13 M 21 K 31 K 32 N 41 N 42 N 51 S 71 S 72

≤800 N/mm² ≤850 N/mm² <1000 N/mm² INOX ≤850N/mm² GG GGG GTS-GTW Alu Alu Si>10% Cu Ni/Co Ti

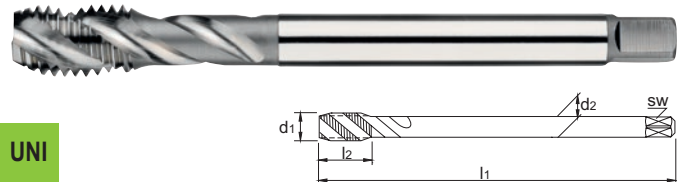
15-20 10-20 6-10 7-10 10-15 10-15 25-35 10-20 15-35 2-8 2-8

Ref.	d1	P	l1	l2	d2	sw	€
24.340.0285	UNC Nr. 4	40	56	5	3.5	2.7	€22,68
24.340.0317	UNC Nr. 5	40	56	6	3.5	2.7	€22,68
24.340.0350	UNC Nr. 6	32	56	6	4	3	€21,78
24.340.0416	UNC Nr. 8	32	63	7	4.5	3.4	€21,78
24.340.0482	UNC Nr. 10	24	70	8	6	4.9	€23,81

Ref.	d1	P	l1	l2	d2	sw	€
24.340.0548	UNC Nr. 12	24	80	10	6	4.9	€25,55
24.340.0635	UNC 1/4	20	80	10	7	5.5	€25,40
24.340.0794	UNC 5/16	18	90	13	8	6.2	€26,55
24.340.0952	UNC 3/8	16	100	16	9	7	€29,25

▶ 24.341 **Phantom**

NL UNI HSS-E Machinetap UNC



HSS-E UNC 60° DIN 376 2,5xD Form C 2,5 2B UNI

P 11 P 12 P 13 M 21 K 31 K 32 N 41 N 42 N 51 S 71 S 72

≤800 N/mm² ≤850 N/mm² <1000 N/mm² INOX ≤850N/mm² GG GGG GTS-GTW Alu Alu Si>10% Cu Ni/Co Ti

15-20 10-20 6-10 7-10 10-15 10-15 25-35 10-20 15-35 2-8 2-8

Ref.	d1	P	l1	l2	d2	sw	€
24.341.1111	UNC 7/16	14	100	15	8	6.2	€39,15
24.341.1270	UNC 1/2	13	110	18	9	7	€40,40
24.341.1429	UNC 9/16	12	110	20	11	9	€56,85
24.341.1588	UNC 5/8	11	110	20	12	9	€57,20

Ref.	d1	P	l1	l2	d2	sw	€
24.341.1905	UNC 3/4	10	125	25	14	11	€72,60
24.341.2222	UNC 7/8	9	140	28	18	14.5	€90,45
24.341.2540	UNC 1	8	160	32	18	14.5	€119,65

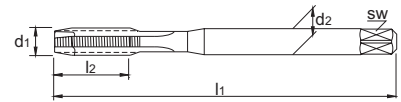
> 24.520 Phantom



NL UNI HSS-E Machinetap UNF

HSS-E UNF 60° DIN 371 3xD Form B 5 2B UNI

P 11 s800 N/mm ²	P 12 s850 N/mm ²	P 13 <1000 N/mm ²	M 21 INOX s850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	N 51 Cu	S 71 Ni/Co	S 72 Ti
15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	2-8	2-8



Ref.	d1	P	l1	l2	d2	sw	€
24.520.0285	UNF Nr. 4	48	56	11	3.5	2.7	€30,40
24.520.0317	UNF Nr. 5	44	56	11	3.5	2.7	€25,40
24.520.0350	UNF Nr. 6	40	56	13	4	3	€24,36
24.520.0416	UNF Nr. 8	36	63	13	4.5	3.4	€24,36
24.520.0482	UNF Nr. 10	32	70	16	6	4.9	€25,40

Ref.	d1	P	l1	l2	d2	sw	€
24.520.0548	UNF Nr. 12	28	80	19	6	4.9	€28,85
24.520.0635	UNF 1/4	28	80	19	7	5.5	€28,35
24.520.0794	UNF 5/16	24	90	22	8	6.2	€29,45
24.520.0952	UNF 3/8	24	100	18	9	7	€31,00

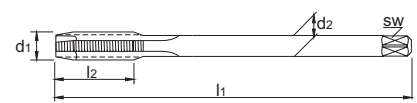
> 24.521 Phantom



NL UNI HSS-E Machinetap UNF

HSS-E UNF 60° DIN 376 3xD Form B 5 2B UNI

P 11 s800 N/mm ²	P 12 s850 N/mm ²	P 13 <1000 N/mm ²	M 21 INOX s850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	N 51 Cu	S 71 Ni/Co	S 72 Ti
15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	2-8	2-8



Ref.	d1	P	l1	l2	d2	sw	€
24.521.1111	UNF 7/16	20	100	22	8	6.2	€39,90
24.521.1270	UNF 1/2	20	110	28	9	7	€39,90
24.521.1429	UNF 9/16	18	110	32	11	9	€59,20
24.521.1588	UNF 5/8	18	110	32	12	9	€56,60

Ref.	d1	P	l1	l2	d2	sw	€
24.521.1905	UNF 3/4	16	125	34	14	11	€74,75
24.521.2222	UNF 7/8	14	140	34	18	14.5	€99,80
24.521.2540	UNF 1	12	160	38	18	14.5	€131,55

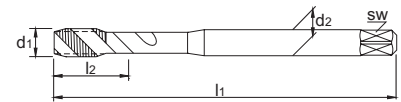
> 24.740 Phantom



NL UNI HSS-E Machinetap UNF

HSS-E UNF 60° DIN 371 2,5xD Form C 2,5 2B UNI

P 11 s800 N/mm ²	P 12 s850 N/mm ²	P 13 <1000 N/mm ²	M 21 INOX s850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	N 51 Cu	S 71 Ni/Co	S 72 Ti
15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	2-8	2-8



Ref.	d1	P	l1	l2	d2	sw	€
24.740.0285	UNF Nr. 4	48	56	5	3.5	2.7	€31,70
24.740.0317	UNF Nr. 5	44	56	6	3.5	2.7	€25,70
24.740.0350	UNF Nr. 6	40	56	6	4	3	€25,40
24.740.0416	UNF Nr. 8	36	63	7	4.5	3.4	€25,40
24.740.0482	UNF Nr. 10	32	70	8	6	4.9	€26,85

Ref.	d1	P	l1	l2	d2	sw	€
24.740.0548	UNF Nr. 12	28	80	10	6	4.9	€29,90
24.740.0635	UNF 1/4	28	80	10	7	5.5	€29,90
24.740.0794	UNF 5/16	24	90	13	8	6.2	€32,70
24.740.0952	UNF 3/8	24	100	10	9	7	€33,10

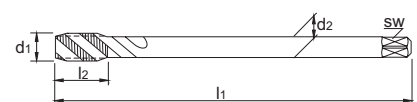
> 24.741 Phantom



NL UNI HSS-E Machinetap UNF

HSS-E UNF 60° DIN 376 2,5xD Form C 2,5 2B UNI

P 11 s800 N/mm ²	P 12 s850 N/mm ²	P 13 <1000 N/mm ²	M 21 INOX s850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	N 51 Cu	S 71 Ni/Co	S 72 Ti
15-20	10-20	6-10	7-10	10-15	10-15	25-35	10-20	15-35	2-8	2-8



Ref.	d1	P	l1	l2	d2	sw	€
24.741.1111	UNF 7/16	20	100	15	8	6.2	€42,10
24.741.1270	UNF 1/2	20	110	18	9	7	€42,80
24.741.1429	UNF 9/16	18	110	20	11	9	€61,10
24.741.1588	UNF 5/8	18	110	20	12	9	€58,75

Ref.	d1	P	l1	l2	d2	sw	€
24.741.1905	UNF 3/4	16	125	25	14	11	€11,10
24.741.2222	UNF 7/8	14	140	28	18	14.5	€4,70
24.741.2540	UNF 1	12	160	32	18	14.5	€134,85

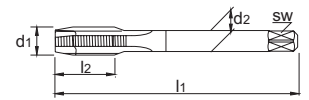
▶ 25.097 **Phantom**

NL UNI HSS-E Machinetap BSP (Gasdraad)



HSS-E BSP G 55° DIN 5156 3xD Form B 5 UNI

P 11 ≤500 N/mm ²	P 12 ≤850 N/mm ²	P 13 ≤1000 N/mm ²	M 21 INOX ≤850N/mm ²	M 22 INOX >850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	N 51 Cu	S 71 Ni/Co	S 72 Ti
15-20	10-20	6-10	7-10	4-8	10-15	10-15	25-35	10-20	15-35	2-8	2-8



Ref.	d1	P	l1	l2	d2	sw	€
25.097.0973	BSP 1/8	28	90	16	7	5.5	€25,60
25.097.1316	BSP 1/4	19	100	22	11	9	€34,65
25.097.1666	BSP 3/8	19	100	22	12	9	€40,90
25.097.2096	BSP 1/2	14	125	25	16	12	€58,75
25.097.2291	BSP 5/8	14	125	25	18	14.5	€74,25
25.097.2644	BSP 3/4	14	140	28	20	16	€93,95

Ref.	d1	P	l1	l2	d2	sw	€
25.097.3020	BSP 7/8	14	150	28	22	18	€122,40
25.097.3325	BSP 1	11	160	30	25	20	€146,05
25.097.3790	BSP 1.1/8	11	170	30	28	22	€204,50
25.097.4191	BSP 1.1/4	11	170	30	32	24	€241,10
25.097.4780	BSP 1.1/2	11	190	32	36	29	€342,00

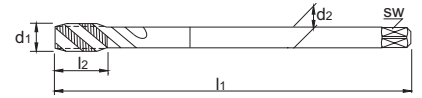
▶ 25.297 **Phantom**

NL UNI HSS-E Machinetap BSP (Gasdraad)



HSS-E BSP G 55° DIN 5156 2,5xD Form C 2,5 UNI

P 11 ≤500 N/mm ²	P 12 ≤850 N/mm ²	P 13 ≤1000 N/mm ²	M 21 INOX ≤850N/mm ²	M 22 INOX >850N/mm ²	K 31 GG	K 32 GGG GTS-GTW	N 41 Alu	N 42 Alu Si>10%	N 51 Cu	S 71 Ni/Co	S 72 Ti
15-20	10-20	6-10	7-10	4-8	10-15	10-15	25-35	10-20	15-35	2-8	2-8

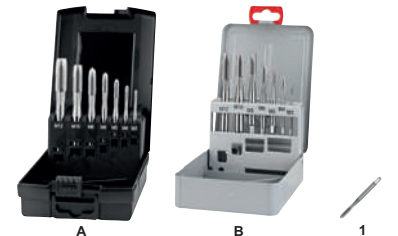


Ref.	d1	P	l1	l2	d2	sw	€
25.297.0973	BSP 1/8	28	90	16	7	5.5	€40,15
25.297.1316	BSP 1/4	19	100	22	11	9	€55,30
25.297.1666	BSP 3/8	19	100	22	12	9	€67,85
25.297.2096	BSP 1/2	14	125	25	16	12	€89,60
25.297.2291	BSP 5/8	14	125	25	18	14.5	€111,50
25.297.2644	BSP 3/4	14	140	28	20	16	€143,30

Ref.	d1	P	l1	l2	d2	sw	€
25.297.3020	BSP 7/8	14	150	28	22	18	€191,05
25.297.3325	BSP 1	11	160	30	25	20	€222,80
25.297.3790	BSP 1.1/8	11	170	30	28	22	€295,00
25.297.4191	BSP 1.1/4	11	170	30	32	24	€355,00
25.297.4780	BSP 1.1/2	11	190	32	36	29	€402,00

▶ 29.250 **Phantom**

NL Set Draadsnijden



Ref.	1	A, B	€
29.250.2000	22.200/22.201: M3-4-5-6-8-10-12	A	€140,00
29.250.2100	22.201: M3-4-5-6-8-10-12	B	€95,00
29.250.2120	22.230/22.231: M3-4-5-6-8-10-12	A	€99,50
29.250.2150	22.205: M3-4-5-6-8-10-12	B	€31,50
29.250.2500	22.268/22.269: M3-4-5-6-8-10-12	A	€70,00
29.250.3300	23.300/23.301: M3-4-5-6-8-10-12	A	€58,00
29.250.3450	23.450/23.451: M3-4-5-6-8-10-12	A	€90,00

▶ 29.260 **Phantom**

NL Set Draadsnijden (combinatie)



Ref.	1	2	A, B	€
29.260.1980	22.200/22.201: M3-4-5-6-8-10-12	11.450: 2,5-3,3-4,2-5-6-8-8,5-10,2	A	€169,00
29.260.1990	22.200/22.201: M3-4-5-6-8-10-12	11.451: 2,5-3,3-4,2-5-6-8-8,5-10,2	A	€172,50
29.260.1995	22.200/22.201: M3-4-5-6-8-10-12	11.461: 2,5-3,3-4,2-5-6-8-8,5-10,2	A	€172,50
29.260.2000	22.200/22.201: M3-4-5-6-8-10-12	11.500: 2,5-3,3-4,2-5-6-8-8,5-10,2	A	€185,00
29.260.2100	22.201: M3-4-5-6-8-10-12	11.500: 2,5-3,3-4,2-5-6-8-8,5-10,2	B	€217,50
29.260.2120	22.230/22.231: M3-4-5-6-8-10-12	11.461: 2,5-3,3-4,2-5-6-8-8,5-10,2	A	€204,00
29.260.2500	22.268/22.269: M3-4-5-6-8-10-12	11.568: 2,5-3,3-4,2-5-6-8-8,5-10,2	A	€345,00
29.260.3340	23.300/23.301: M3-4-5-6-8-10-12	11.450: 2,5-3,3-4,2-5-6-8-8,5-10,2	A	€186,00
29.260.3350	23.300/23.301: M3-4-5-6-8-10-12	11.451: 2,5-3,3-4,2-5-6-8-8,5-10,2	A	€172,30
29.260.3360	23.300/23.301: M3-4-5-6-8-10-12	11.500: 2,5-3,3-4,2-5-6-8-8,5-10,2	A	€168,00

> 29.950 Phantom

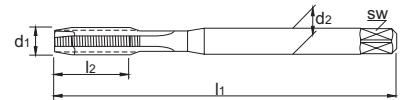


NL UNI HSS-E Machinetap Metrisch, links

HSS-E DIN 371 3xD M Form B ISO 2 6H UNI

P 11 P 12 P 13 M 21 K 31 K 32 N 41 N 42 N 51 S 71 S 72

15-20 10-20 6-10 7-10 10-15 10-15 25-35 10-20 15-35 2-8 2-8



Ref.	d1	P	l1	l2	d2	sw	€
29.950.0300	M3	0.5	56	11	3.5	2.7	€19,00
29.950.0400	M4	0.7	63	13	4.5	3.4	€19,00
29.950.0500	M5	0.8	70	15	6	4.9	€20,00

Ref.	d1	P	l1	l2	d2	sw	€
29.950.0600	M6	1	80	17	6	4.9	€20,00
29.950.0800	M8	1.25	90	20	8	6.2	€26,00
29.950.1000	M10	1.5	100	22	10	8	€31,00

> 29.951 Phantom

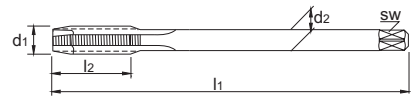


NL UNI HSS-E Machinetap Metrisch, links

HSS-E M DIN 376 3xD Form B ISO 2 6H UNI

P 11 P 12 P 13 M 21 K 31 K 32 N 41 N 42 N 51 S 71 S 72

15-20 10-20 6-10 7-10 10-15 10-15 25-35 10-20 15-35 2-8 2-8



Ref.	d1	P	l1	l2	d2	sw	€
29.951.1200	M12	1.75	110	24	9	7	€40,00
29.951.1400	M14	2	110	26	11	9	€51,00
29.951.1600	M16	2	110	27	12	9	€59,00
29.951.1800	M18	2.5	125	32	14	11	€78,00

Ref.	d1	P	l1	l2	d2	sw	€
29.951.2000	M20	2.5	140	32	16	12	€93,00
29.951.2200	M22	2.5	140	32	18	14.5	€119,00
29.951.2400	M24	3	160	34	18	14.5	€126,00
29.951.3000	M30	3.5	180	40	22	18	€240,00

> 29.956 Phantom

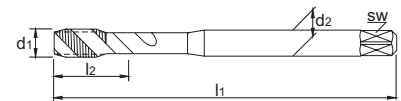


NL UNI HSS-E Machinetap Metrisch, links

HSS-E M DIN 371 2,5xD Form C ISO 2 6H UNI

P 11 P 12 P 13 M 21 K 31 K 32 N 41 N 42 N 51 S 71 S 72

15-20 10-20 6-10 7-10 10-15 10-15 25-35 10-20 15-35 2-8 2-8



Ref.	d1	P	l1	d2	sw	€
29.956.0300	M3	0.5	56	3.5	2.7	€19,00
29.956.0400	M4	0.7	63	4.5	3.4	€19,00
29.956.0500	M5	0.8	70	6	4.9	€20,00

Ref.	d1	P	l1	d2	sw	€
29.956.0600	M6	1	80	6	4.9	€20,00
29.956.0800	M8	1.25	90	8	6.2	€26,00
29.956.1000	M10	1.5	100	10	8	€31,00

> 29.957 Phantom

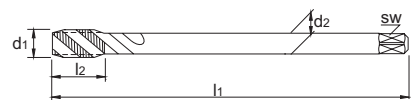


NL UNI HSS-E Machinetap Metrisch, links

HSS-E M DIN 376 2,5xD Form C ISO 2 6H UNI

P 11 P 12 P 13 M 21 K 31 K 32 N 41 N 42 N 51 S 71 S 72

15-20 10-20 6-10 7-10 10-15 10-15 25-35 10-20 15-35 2-8 2-8

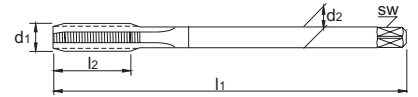


Ref.	d1	P	l1	d2	sw	€
29.957.1200	M12	1.75	110	9	7	€42,00
29.957.1400	M14	2	110	11	9	€51,00
29.957.1600	M16	2	110	12	9	€64,00

Ref.	d1	P	l1	d2	sw	€
29.957.2000	M20	2.5	140	16	12	€100,00
29.957.2400	M24	3	160	18	14.5	€136,00
29.957.3000	M30	3.5	180	22	18	€171,00

› 29.960 **Phantom**

NL UNI HSS-E Machinetap Metrisch Fijn, links



HSS-E MF 60° 3xD Form B 5 ISO 2 6H UNI

DIN 374

Material selection: P 11, P 12, P 13, M 21, K 31, K 32, N 41, N 42, N 51, S 71, S 72

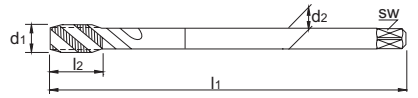
15-20 10-20 6-10 7-10 10-15 10-15 25-35 10-20 15-35 2-8 2-8

Ref.	d1	P	l1	l2	d2	sw	€
29.960.0607	MF6	0.75	80	13	4.5	3.4	€32,65
29.960.0810	MF8	1	90	20	6	4.9	€35,70
29.960.1010	MF10	1	90	16	7	5.5	€40,80
29.960.1012	MF10	1.25	100	22	7	5.5	€42,85
29.960.1210	MF12	1	100	22	9	7	€45,90
29.960.1212	MF12	1.25	100	22	9	7	€48,95
29.960.1415	MF14	1.5	100	22	11	9	€56,10

Ref.	d1	P	l1	l2	d2	sw	€
29.960.1615	MF16	1.5	100	22	12	9	€67,30
29.960.1815	MF18	1.5	110	25	14	11	€99,75
29.960.2015	MF20	1.5	125	25	16	12	€97,90
29.960.2215	MF22	1.5	125	25	18	14.5	€122,20
29.960.2415	MF24	1.5	140	28	18	14.5	€130,55
29.960.2420	MF24	2	140	28	18	14.5	€137,70
29.960.3015	MF30	1.5	150	28	22	18	€211,15

› 29.961 **Phantom**

NL UNI HSS-E Machinetap Metrisch Fijn, links



HSS-E MF 60° 2,5xD Form C 2-3 ISO 2 6H UNI

DIN 374

Material selection: P 11, P 12, P 13, M 21, K 31, K 32, N 41, N 42, N 51, S 71, S 72

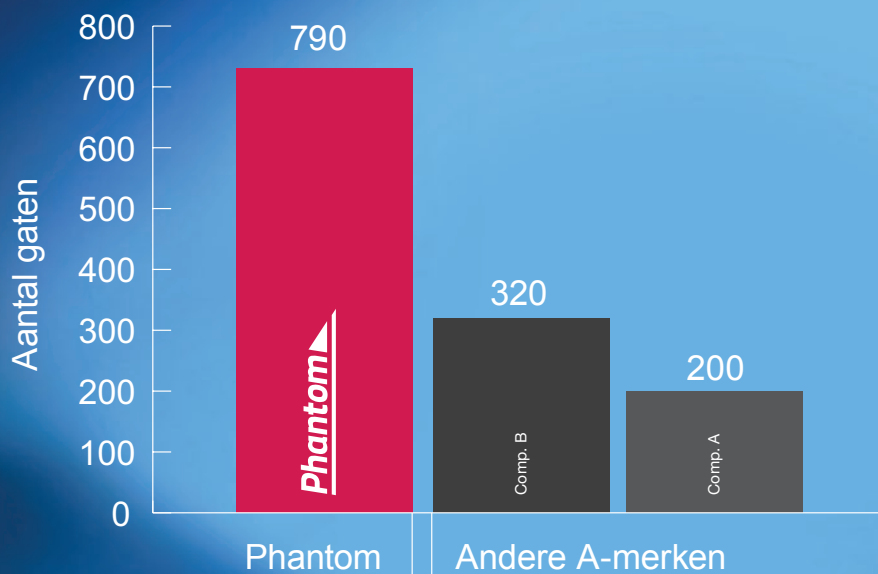
15-20 10-20 6-10 7-10 10-15 10-15 25-35 10-20 15-35 2-8 2-8

Ref.	d1	P	l1	l2	d2	sw	€
29.961.0810	MF8	1	90	20	6	4.9	€38,00
29.961.1010	MF10	1	90	16	7	5.5	€44,00
29.961.1012	MF10	1.25	100	22	7	5.5	€46,00
29.961.1210	MF12	1	100	22	9	7	€51,00
29.961.1212	MF12	1.25	100	22	9	7	€53,00
29.961.1215	MF12	1.5	100	22	9	7	€49,00
29.961.1410	MF14	1	100	22	11	9	€63,00
29.961.1412	MF14	1.25	100	22	11	9	€65,00
29.961.1415	MF14	1.5	100	22	11	9	€60,00
29.961.1615	MF16	1.5	100	22	12	9	€76,00

Ref.	d1	P	l1	l2	d2	sw	€
29.961.1815	MF18	1.5	110	25	14	11	€98,00
29.961.2015	MF20	1.5	125	25	16	12	€110,00
29.961.2215	MF22	1.5	125	25	18	14.5	€126,00
29.961.2415	MF24	1.5	140	28	18	14.5	€146,00
29.961.2615	MF26	1.5	140	20	18	14.5	€194,00
29.961.2715	MF27	1.5	140	20	20	16	€215,00
29.961.2720	MF27	2	140	20	20	16	€217,00
29.961.2815	MF28	1.5	140	20	20	16	€219,00
29.961.3015	MF30	1.5	150	22	22	18	€247,00
29.961.3020	MF30	2	150	22	22	18	€254,00

HAAL HET MAXIMALE UIT DE UNI MACHINETAP

LANGERE STANDTIJD IN 42CrMo4



Nog niet helemaal overtuigd? Vraag advies bij uw dealer of neem contact met ons op voor praktisch advies. Onze technische adviseurs helpen u graag om de UNI machinetap maximaal in te zetten binnen uw bedrijf. Bel onze technische adviseurs op 0800-742 68 66.



Voortdurend op zoek naar praktische en vernieuwende oplossingen op gebied van boren, tappen, frezen, verzinken, ruimen, zagen, draaien en spannen.



Sinds 1952 actief in de markt van verspaning en spangereedschappen.

Phantom

THERE'S NO END TO WHAT YOU CAN DO.

Phantom

ACTIE: 40% KORTING OP DE SET

29.250.2000

UNI HSS-E SET MET DE BESTE UNIVERSELE MACHINETAPPEN IN DE MARKT

- > M3-4-5-6-8-10-12
- > universeel inzetbaar
- > betrouwbaar (proces en schroefdraad)
- > de beste UNI tap onder de A-merken
- > gevuld met machinetappen uit artikelgroep 22.200/22.201



P 11 ≤600 N/mm ²	Ongelegeerd en gelegeerd staal ≤600 N/mm ²
P 12 ≤850 N/mm ²	Ongelegeerd en gelegeerd staal 600 - 850 N/mm ²
P 13 ≤1000 N/mm ²	Gelegeerd staal 850 - 1000 N/mm ²
M 21 INOX ≤950N/mm ²	Roestvaststaal, INOX ≤850 N/mm ²
K 31 GG	Grijs gietijzer GG <260 HB30
K 32 GGG GTS-GTW	Smeedbaar en Nodulair gietijzer
N 41 Alu	Aluminium en Aluminiumlegeringen
N 42 Alu Si>10%	Gietaluminium Si 10 - 24%
N 51 Cu	Koper en Koperlegeringen
S 71 Ni/Co	Nikkel- en Cobaltlegeringen
S 72 Ti	Titaniumlegeringen

ACTIEPRIJS:*

€ 84,00

€ 140,00

TEST DE UNI MACHINETAP NU GRATIS!

Wilt u ook maximale zekerheid en meer gaten kunnen tappen?
Bel 0800-742 68 66, kies de gewenste maat en u ontvangt deze UNI machinetap gratis.
Éénmaal geprobeerd en u wilt niets anders meer!

UW DEALER:

VOOR 19.00 UUR BESTELD OP PHANTOM.EU, DEZELFDE DAG VERSTUURD!

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