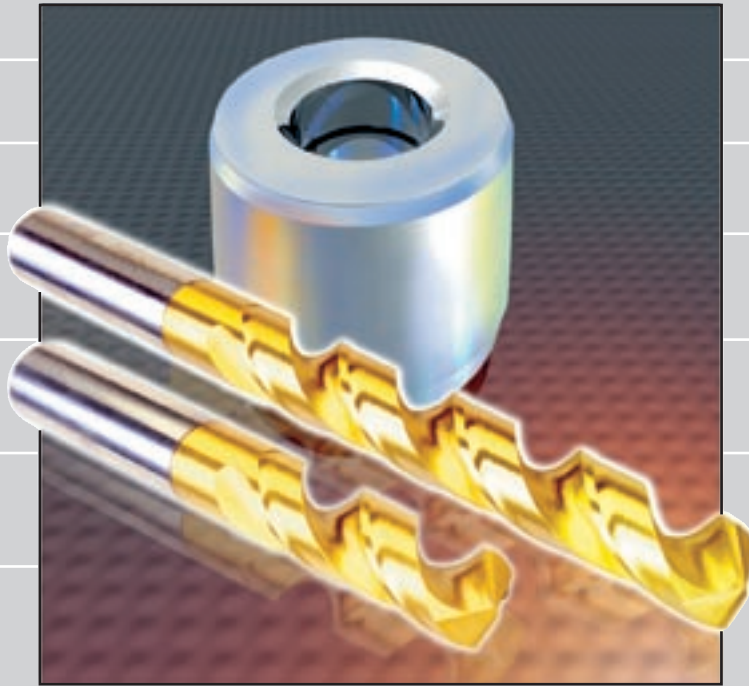


 **STOCK**



NX-Drills

A modern „universal“ drill

Chip - by Chip - to the Top

NX-Drills

NX - the new "universal" drill from Stock!

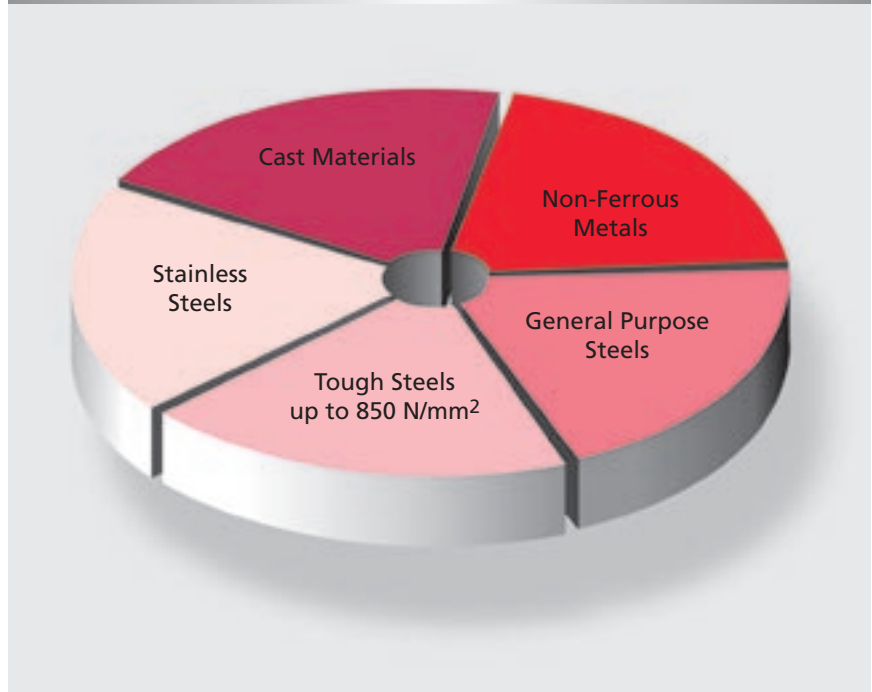
For all low to medium tensile strength materials Stock offers now a universal twist drill. The NX-drill is highly suited to a very broad range of applications.

The NX-drill is recommended for

- non-ferrous metals,
- construction and carbon steels,
- high-alloyed steels,
- tool steels,
- cast and cast alloys,
- magnesium alloys,
- plastics and
- aluminium

The NX-drill reduces confusing one drill type for the other and enables users to reduce their inventory, thus allowing for greater economy.

Application Range of NX-Drills: universal in a broad range of materials



One tool for all applications!

A modified secondary relief cone combined with a special web thinning let the NX-drill run smoothly at minimum required feed forces. This in turn results in a greater bore accuracy.

Additional the NX-drill has a rounded flute form allowing improved chip removal. The TiN-coating increases the tool life and reduces cutting edge build-up.

The NX is available in six types:

As stub drills to DIN 1897 and jobber drills to DIN 338. The reinforced shank with NX-drills catalog no. 61120 and 61121 enables application with shrink and hydraulic chucks. NX-drills catalog no. 71220, 61220, 71221 and 61221 are provided with a straight shank.

See for yourself how universally applicable the Stock NX is!



Catalog No: **71220**



Catalog No: **61220**



Catalog No: **61120**

- STOCK-Standard / Flute length to DIN 1897
- Point angle 118°
- Ø-Tolerance h8
- HSS-Co
- Bright or TiN-coated
- Drilling depth ~ 3 x D
- Reinforced shank to DIN 1835 A* or straight shank



Catalog No: **71221**



Catalog No: **61221**



Catalog No: **61121**



- STOCK-Standard / Flute length to DIN 338
- Point angle 118°
- Ø-Tolerance h8
- HSS-Co
- Bright or TiN-coated
- Drilling depth ~ 5 x D
- Reinforced shank to DIN 1835 A* or straight shank

* Shanks with flat to DIN 1835 B available upon request; please call for delivery times.

Application Recommendations for NX-Drills

Drill Ø mm	Feed Rate Codes								
	A	B	C	D	E	F	G	H	I
	f (mm/rev.)								
0.50	0.004	0.006	0.007	0.008	0.010	0.012	0.014	0.016	0.019
1.00	0.006	0.008	0.012	0.014	0.016	0.018	0.020	0.023	0.025
2.00	0.020	0.025	0.032	0.040	0.050	0.063	0.080	0.100	0.125
2.50	0.025	0.032	0.040	0.050	0.063	0.080	0.100	0.125	0.160
3.15	0.032	0.040	0.050	0.063	0.080	0.100	0.125	0.160	0.160
4.00	0.040	0.050	0.063	0.080	0.100	0.125	0.160	0.200	0.200
5.00	0.040	0.050	0.063	0.080	0.100	0.125	0.160	0.200	0.250
6.30	0.050	0.063	0.080	0.100	0.125	0.160	0.200	0.250	0.315
8.00	0.063	0.080	0.100	0.125	0.160	0.200	0.250	0.315	0.315
10.00	0.080	0.100	0.125	0.160	0.200	0.250	0.315	0.400	0.400
12.50	0.080	0.100	0.125	0.160	0.200	0.250	0.315	0.400	0.500
16.00	0.100	0.125	0.160	0.200	0.250	0.315	0.400	0.500	0.630
20.00	0.125	0.160	0.200	0.250	0.315	0.400	0.500	0.630	0.630
25.00	0.160	0.200	0.250	0.315	0.400	0.500	0.630	0.800	0.800

NX-Drills with feed rate code **in grey** are the preferred choices for the respective material group.

Catalog No.	71220 3xD 71221 5xD	61220 3xD 61221 5xD 61220 3xD 61221 5xD
Cutting Material	HSS-Co	HSS-Co
Surface Finish	bright	TiN
DIN/Norm	STOCK	STOCK
	 fig.: 71221	 fig.: 61221

Coolants & Lubricants:

- Cutting oil, highly activated (surface active) ■
- Soluble oil (emulsion) ■
- None □
- Air ONLY ■

Material Group	Material Group Example <i>Codes in bold = material to DIN EN</i>	Tensile str. N/mm ²	Hard- ness	Coolant	Vc m/min	Feed Rate Code	Vc m/min	Feed Rate Code
Common structural steels	1.0035 S185(St33), 1.0486 P275N(StE285), 1.0345 P235GH(H1), 1.0425 P265GH(H2) 1.0050 E295 (St50-2), 1.0070 E360 (St70-2), 1.8937 P500NH (WStE500)	<500 >500		■	35 30	F E	50 40	F E
Free-cutting steels	1.0718 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36) 1.0727 46S20 (45S20), 1.0728 (60S20), 1.0757 46SPb20 (45SPb20)	<800 >800		■	45 35	F F	60 50	F F
Unalloyed temper steels	1.0402 C22, 1.1178 C30E (Ck30) 1.0503 C45, 1.1191 C45E (Ck45) 1.0601 C60, 1.1221 C60E (Ck60)	< 700 700-850 850-1000		■	35 30 20	F F E	50 40 25	F F E
Alloyed temper steels	1.5131 50MnSi4, 1.7003 38Cr2, 1.7030 28Cr4 1.5710 36NiCr6, 1.7035 41Cr4, 1.7225 42CrMo4	850-1000 1000-1200		■	20 15	D C	22 15	D C
Unalloyed case hardened steels	1.0301 (C10), 1.1121 C10E (Ck10)	≤750		■	30	F	40	F
Alloyed case hardened steels	1.7043 38Cr4 1.5752 15NiCr13 (15NiCr13), 1.7131 16MnCr5, 1.7264 20CrMo5	850-1000 1000-1200		■	15 15	D C	20 15	D C
Nitrided steels	1.8504 34CrAl6 1.8519 31CrMoV9, 1.8550 34CrAlNi7	850-1000 1000-1200		■	15 15	D C	18 15	D C
Tool steels	1.1750 C75W, 1.2067 102Cr6, 1.2307 29CrMoV9 1.2080 X210Cr12, 1.2083 X42Cr13, 1.2419 105WCr6, 1.2767 X45NiCrMo4	<850 850-1000		■	20 10	D C	22 13	D C
High speed steels	1.3243 S 6-5-2-5, 1.3343 S 6-5-2, 1.3344 S 6-5-3	<1050		■	10	C	13	C
Spring steels	1.5026 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)	<330 HB		■				
Stainless steels, sulphured , austenitic , martensitic	1.4005 X12CrS13, 1.4104 X14CrMoS17, 1.4105 X6CrMoS17, 1.4305 X8CrNiS18-9 1.4301 X5CrNi18-10, 1.4541 X6CrNiTi18-10, 1.4571 X6CrNiMoTi 17 12 2 1.4057 X20CrNi 17 2 (X17CrNi16-2), 1.4122 X39CrMo17-1, 1.4521 X2CrMoTi18-2	≤850 ≤850 ≤850		■	20 15 15	D D D	22 20 20	D D D
Hardened steels	-	40-48 HRC 48-60 HRC		■				
Special alloys	Nimonic, Inconel, Monel, Hastelloy	1200		■				
Cast iron	0.6010 EN-GJL-100(GG10), 0.6020 EN-GJL-200(GG20) 0.6025 EN-GJL-250(GG25), 0.6035 EN-GJL-350(GG35)	<240 HB <300 HB		■ □	35 30	F F	45 36	F F
Spheroidal graphite iron and malleable cast iron	0.7050 EN-GJS-500-7(GGG50), 0.8035 EN-GJMW-350-4(GTW35) 0.7070 EN-GJS-700-2(GGG70), 0.8170 EN-GJMB-700-2(GTS70)	<240 HB <300 HB		■	30 25	F F	40 32	F F
Chilled cast iron	-	<350 HB		■				
Titanium and Ti-alloys	3.7024 Ti99,5, 3.7114 TiAl5Sn2,5, 3.7124 TiCu2 3.7154 TiAl6Zr5, 3.7164 TiAl6V4, 3.7184 TiAl4Mo4Sn2,5, - TiAl8Mo1V1	<850 850-1200		■				
Aluminium and Al-alloys	3.0255 Al99,5, 3.2315 AlMgSi1, 3.3515 AlMg1	<400		■	50	G	70	G
Al-wrought alloys	3.0615 AlMgSiPb, 3.1325 AlCuMg1, 3.3245 AlMg3Si, 3.4365 AlZnMgCu1,5	<450		■	50	G	70	G
Al-cast alloys ≤ 10 % Si	3.2131 G-AlSi5Cu1, 3.2153 G-AlSi7Cu3, 3.2573 G-AlSi9	<600		■	65	G	90	G
> 10 % Si	3.2581 G-AlSi12, 3.2583 G-AlSi12Cu, - G-AlSi12CuNiMg	<600		■	60	F	80	F
Magnesium alloys > 10 % Si	MgMn2, G-MgAl8Zn1, G-MgAl6Zn3	<450		■	60	F	80	F
Copper, low alloyed	2.0070 SE-Cu, 2.1020 CuSn6, 2.1096 G-CuSn5ZnPb	<400		■	25	E	32	E
Brass, short chipping	2.0380 CuZn39Pb2, 2.0401 CuZn39Pb3, 2.0410 CuZn43Pb2	<600		■	45	E	63	E
, long chipping	2.0250 CuZn20, 2.0280 CuZn33, 2.0332 CuZn37Pb0,5	<600		■	30	E	40	E
Bronze, short chipping	2.1090 CuSn7Zn2Pb, 2.1170 CuPb5Sn5, 2.1176 CuPb10Sn	<600		■	35	D	50	D
	2.0790 CuNi18Zn19Pb	600-850		■	25	D	30	D
Bronze, long chipping	2.0916 CuAl5, 2.0960 CuAl9Mn, 2.1050 CuSn10 2.0980 CuAl11Ni, 2.1247 CuBe2	850 850-1000		■	30 25	D D	40 30	D D
Duroplastics	Bakelit, Resopal, Pertinax, Moltopren	-		□	20	D	25	D
Thermoplastics	Plexiglass, Hostalen, Novodur, Makralon	-		■ □	20	D	25	D
Kevlar	-	-		□				
Glass/carbon-plastics	GFK/CFK	-		□				

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