

145N-145NTI

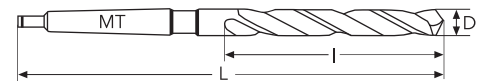
N type for general purpose, MT shank, short (145N),
 N type for general purpose, MT shank, TiN coated, short (145NTI)

DIN 345	H	HSS OX	HSS TIN	118°	25-30°
		145N	145NTI		



P	M	K	N	S	H
★		☆	☆		

★ 1st choice ☆ suitable



D(h8)	D Tol.	MT	I	L	PACKAGING	145N		145NTI	
						EDP No.	Stock	EDP No.	Stock
5.00	0/-0.018	1	52	133	1	P145N0500	●		
5.25	0/-0.018	1	52	133	1	P145N0525	○		
5.50	0/-0.018	1	57	138	1	P145N0550	●		
5.75	0/-0.018	1	57	138	1	P145N0575	○		
6.00	0/-0.018	1	57	138	1	P145N0600	●		
6.25	0/-0.022	1	63	144	1	P145N0625	○		
6.50	0/-0.022	1	63	144	1	P145N0650	●		
6.75	0/-0.022	1	69	150	1	P145N0675	●		
7.00	0/-0.022	1	69	150	1	P145N0700	●		
7.25	0/-0.022	1	69	150	1	P145N0725	○		
7.50	0/-0.022	1	69	150	1	P145N0750	●		
7.75	0/-0.022	1	75	156	1	P145N0775	○		
8.00	0/-0.022	1	75	156	1	P145N0800	●		
8.25	0/-0.022	1	75	156	1	P145N0825	○		
8.50	0/-0.022	1	75	156	1	P145N0850	●		
8.75	0/-0.022	1	81	162	1	P145N0875	○		
9.00	0/-0.022	1	81	162	1	P145N0900	●		
9.25	0/-0.022	1	81	162	1	P145N0925	○		
9.50	0/-0.022	1	81	162	1	P145N0950	●		
9.75	0/-0.022	1	87	168	1	P145N0975	○		
10.00	0/-0.022	1	87	168	1	P145N1000	●		
10.25	0/-0.027	1	87	168	1	P145N1025	●		
10.50	0/-0.027	1	87	168	1	P145N1050	●		
10.75	0/-0.027	1	94	175	1	P145N1075	○		
11.00	0/-0.027	1	94	175	1	P145N1100	●		
11.25	0/-0.027	1	94	175	1	P145N1125	○		
11.50	0/-0.027	1	94	175	1	P145N1150	●		
11.75	0/-0.027	1	94	175	1	P145N1175	○		
12.00	0/-0.027	1	101	182	1	P145N1200	●		
12.25	0/-0.027	1	101	182	1	P145N1225	○		
12.50	0/-0.027	1	101	182	1	P145N1250	●		
12.75	0/-0.027	1	101	182	1	P145N1275	○		
13.00	0/-0.027	1	101	182	1	P145N1300	●	P145NTI1300	●
13.25	0/-0.027	1	108	189	1	P145N1325	●		
13.50	0/-0.027	1	108	189	1	P145N1350	●	P145NTI1350	●
13.75	0/-0.027	1	108	189	1	P145N1375	●		
14.00	0/-0.027	1	108	189	1	P145N1400	●	P145NTI1400	●
14.25	0/-0.027	2	114	212	1	P145N1425	●		
14.50	0/-0.027	2	114	212	1	P145N1450	●	P145NTI1450	●

INFO
TYPHOON TA-HTA-4HTA
TYPHOON PU-HPU
TYPHOON SUH
TYPHOON ALH
TYPHOON HRC
TYPHOON SUH MINI
TYPHOON HL
C-SD-TA
LFTA
SUTA
HSS-HSS/CO DRILLS
G2
MDTA
HF VH/UP
MEF
ALU
MEX
UH
HSS/CO-HSSP END MILLS
CARBIDE BURRS

● stock standard ○ non-standard stock ▽ stock exhaustion

145N-145NTI

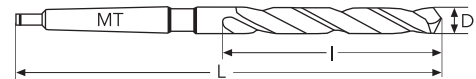
N type for general purpose, MT shank, short (145N),
 N type for general purpose, MT shank, TiN coated, short (145NTI)

DIN 345	H	HSS OX	HSS TIN	118°	25-30°
		145N	145NTI		



P	M	K	N	S	H
★		☆	☆		

★ 1st choice ☆ suitable



D(h8)	D Tol.	MT	I	L	PACKAGING	145N		145NTI	
						EDP No.	Stock	EDP No.	Stock
14.75	0/-0.027	2	114	212	1	P145N1475	●		
15.00	0/-0.027	2	114	212	1	P145N1500	●	P145NTI1500	●
15.25	0/-0.027	2	120	218	1	P145N1525	●		
15.50	0/-0.027	2	120	218	1	P145N1550	●	P145NTI1550	●
15.75	0/-0.027	2	120	218	1	P145N1575	●		
16.00	0/-0.027	2	120	218	1	P145N1600	●	P145NTI1600	●
16.25	0/-0.027	2	125	223	1	P145N1625	●		
16.50	0/-0.027	2	125	223	1	P145N1650	●	P145NTI1650	●
16.75	0/-0.027	2	125	223	1	P145N1675	●		
17.00	0/-0.027	2	125	223	1	P145N1700	●	P145NTI1700	●
17.25	0/-0.027	2	130	228	1	P145N1725	●		
17.50	0/-0.027	2	130	228	1	P145N1750	●	P145NTI1750	●
17.75	0/-0.027	2	130	228	1	P145N1775	●		
18.00	0/-0.027	2	130	228	1	P145N1800	●	P145NTI1800	●
18.25	0/-0.033	2	135	233	1	P145N1825	●		
18.50	0/-0.033	2	135	233	1	P145N1850	●	P145NTI1850	●
18.75	0/-0.033	2	135	233	1	P145N1875	●		
19.00	0/-0.033	2	135	233	1	P145N1900	●	P145NTI1900	●
19.25	0/-0.033	2	140	238	1	P145N1925	●		
19.50	0/-0.033	2	140	238	1	P145N1950	●	P145NTI1950	●
19.75	0/-0.033	2	140	238	1	P145N1975	●		
20.00	0/-0.033	2	140	238	1	P145N2000	●	P145NTI2000	●
20.25	0/-0.033	2	145	243	1	P145N2025	●		
20.50	0/-0.033	2	145	243	1	P145N2050	●	P145NTI2050	●
20.75	0/-0.033	2	145	243	1	P145N2075	●		
21.00	0/-0.033	2	145	243	1	P145N2100	●	P145NTI2100	●
21.25	0/-0.033	2	150	248	1	P145N2125	●		
21.50	0/-0.033	2	150	248	1	P145N2150	●	P145NTI2150	●
21.75	0/-0.033	2	150	248	1	P145N2175	●		
22.00	0/-0.033	2	150	248	1	P145N2200	●	P145NTI2200	●
22.25	0/-0.033	2	150	248	1	P145N2225	●		
22.50	0/-0.033	2	155	253	1	P145N2250	●	P145NTI2250	●
22.75	0/-0.033	2	155	253	1	P145N2275	●		
23.00	0/-0.033	2	155	253	1	P145N2300	●	P145NTI2300	●
23.25	0/-0.033	3	155	276	1	P145N2325	●		
23.50	0/-0.033	3	155	276	1	P145N2350	●	P145NTI2350	●
23.75	0/-0.033	3	160	281	1	P145N2375	●		
24.00	0/-0.033	3	160	281	1	P145N2400	●	P145NTI2400	●
24.25	0/-0.033	3	160	281	1	P145N2425	●		

● stock standard ○ non-standard stock ▽ stock exhaustion

145N-145NTI

N type for general purpose, MT shank, short (145N),
 N type for general purpose, MT shank, TiN coated, short (145NTI)

DIN 345	H	HSS OX	HSS TIN	118°	25-30°
		145N	145NTI		



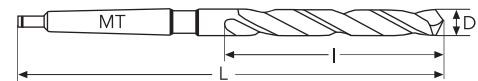
145N



145NTI

P	M	K	N	S	H
★		☆	☆		

★ 1st choice ☆ suitable



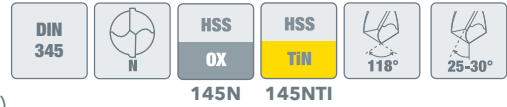
D(h8)	D Tol.	MT	I	L	PACKAGING	145N		145NTI	
						EDP No.	Stock	EDP No.	Stock
24.50	0/-0.033	3	160	281	1	P145N2450	●	P145NTI2450	●
24.75	0/-0.033	3	160	281	1	P145N2475	●		
25.00	0/-0.033	3	160	281	1	P145N2500	●	P145NTI2500	●
25.25	0/-0.033	3	165	286	1	P145N2525	○		
25.50	0/-0.033	3	165	286	1	P145N2550	●		
25.75	0/-0.033	3	165	286	1	P145N2575	○		
26.00	0/-0.033	3	165	286	1	P145N2600	●	P145NTI2600	●
26.25	0/-0.033	3	165	286	1	P145N2625	○		
26.50	0/-0.033	3	165	286	1	P145N2650	●		
26.75	0/-0.033	3	170	291	1	P145N2675	○		
27.00	0/-0.033	3	170	291	1	P145N2700	●	P145NTI2700	●
27.25	0/-0.033	3	170	291	1	P145N2725	○		
27.50	0/-0.033	3	170	291	1	P145N2750	●		
27.75	0/-0.033	3	170	291	1	P145N2775	○		
28.00	0/-0.033	3	170	291	1	P145N2800	●	P145NTI2800	●
28.25	0/-0.033	3	175	296	1	P145N2825	○		
28.50	0/-0.033	3	175	296	1	P145N2850	●		
28.75	0/-0.033	3	175	296	1	P145N2875	○		
29.00	0/-0.033	3	175	296	1	P145N2900	●	P145NTI2900	●
29.25	0/-0.033	3	175	296	1	P145N2925	○		
29.50	0/-0.033	3	175	296	1	P145N2950	●		
29.75	0/-0.033	3	175	296	1	P145N2975	○		
30.00	0/-0.033	3	175	296	1	P145N3000	●	P145NTI3000	●
30.25	0/-0.039	3	180	301	1	P145N3025	○		
30.50	0/-0.039	3	180	301	1	P145N3050	●		
30.75	0/-0.039	3	180	301	1	P145N3075	○		
31.00	0/-0.039	3	180	301	1	P145N3100	●		
31.25	0/-0.039	3	180	301	1	P145N3125	○		
31.50	0/-0.039	3	180	301	1	P145N3150	●		
31.75	0/-0.039	3	185	306	1	P145N3175	○		
32.00	0/-0.039	4	185	334	1	P145N3200	●		
32.50	0/-0.039	4	185	334	1	P145N3250	●		
33.00	0/-0.039	4	185	334	1	P145N3300	●		
33.50	0/-0.039	4	185	334	1	P145N3350	●		
34.00	0/-0.039	4	190	339	1	P145N3400	●		
34.50	0/-0.039	4	190	339	1	P145N3450	●		
35.00	0/-0.039	4	190	339	1	P145N3500	●		
35.50	0/-0.039	4	190	339	1	P145N3550	●		
36.00	0/-0.039	4	195	344	1	P145N3600	●		

INFO
TYPHOON TA-HTA-4HTA
TYPHOON PU-HPU
TYPHOON SUH
TYPHOON ALH
TYPHOON HRC
TYPHOON SUH MINI
TYPHOON HL
C-SD-TA
LFTA
SUTA
HSS-HSS/CO DRILLS
G2
MDTA
HF VH/UP
MEF
ALU
MEX
UH
HSS/CO-HSSP END MILLS
CARBIDE BURRS

● stock standard ○ non-standard stock ▽ stock exhaustion

145N-145NTI

N type for general purpose, MT shank, short (145N),
 N type for general purpose, MT shank, TiN coated, short (145NTI)



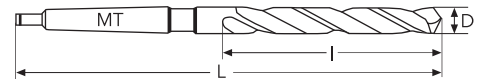
145N



145NTI

P	M	K	N	S	H
★		☆	☆		

★ 1st choice ☆ suitable



							145N		145NTI	
D(h8)	D Tol.	MT	I	L	PACKAGING	EDP No.	Stock	EDP No.	Stock	
36.50	0/-0.039	4	195	344	1	P145N3650	●			
37.00	0/-0.039	4	195	344	1	P145N3700	●			
37.50	0/-0.039	4	195	344	1	P145N3750	●			
38.00	0/-0.039	4	200	349	1	P145N3800	●			
38.50	0/-0.039	4	200	349	1	P145N3850	●			
39.00	0/-0.039	4	200	349	1	P145N3900	●			
39.50	0/-0.039	4	200	349	1	P145N3950	●			
40.00	0/-0.039	4	200	349	1	P145N4000	●			
40.50	0/-0.039	4	205	354	1	P145N4050	●			
41.00	0/-0.039	4	205	354	1	P145N4100	●			
42.00	0/-0.039	4	205	354	1	P145N4200	●			
43.00	0/-0.039	4	210	359	1	P145N4300	●			
44.00	0/-0.039	4	210	359	1	P145N4400	●			
45.00	0/-0.039	4	210	359	1	P145N4500	●			
46.00	0/-0.039	4	215	364	1	P145N4600	●			
47.00	0/-0.039	4	215	364	1	P145N4700	●			
48.00	0/-0.039	4	220	369	1	P145N4800	●			
49.00	0/-0.039	4	220	369	1	P145N4900	●			
50.00	0/-0.039	4	220	369	1	P145N5000	●			
55.00	0/-0.046	5	230	417	1	P145N5500	●			
60.00	0/-0.046	5	235	422	1	P145N6000	●			

● stock standard ○ non-standard stock ▽ stock exhaustion

CUTTING PARAMETERS

145N

Material Group ISO 513	P1 P2			P3 P4			K1 K2			N1 N5			N2 N3 N4		
Hardness/Rm	500-700 N/mm ²			600-1000 N/mm ²			150-350 HB								
Vc (m/min)	25-35			20-30			25-35			50-70			40-60		
D (mm)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)
5	1910	0.100	190	1590	0.085	140	1910	0.110	210	3820	0.140	530	3180	0.100	320
6	1590	0.120	190	1330	0.102	140	1590	0.132	210	3180	0.168	530	2650	0.120	320
7	1360	0.140	190	1140	0.119	140	1360	0.154	210	2730	0.196	540	2270	0.140	320
8	1190	0.160	190	1000	0.136	140	1190	0.176	210	2390	0.224	540	1990	0.160	320
9	1060	0.180	190	880	0.153	130	1060	0.198	210	2120	0.252	530	1770	0.180	320
10	960	0.200	190	800	0.170	140	960	0.220	210	1910	0.280	530	1590	0.200	320
11	870	0.208	180	720	0.177	130	870	0.229	200	1740	0.291	510	1450	0.208	300
12	800	0.216	170	660	0.184	120	800	0.238	190	1590	0.302	480	1330	0.216	290
13	730	0.224	160	610	0.190	120	730	0.246	180	1470	0.314	460	1220	0.224	270
14	680	0.232	160	570	0.197	110	680	0.255	170	1360	0.325	440	1140	0.232	260
15	640	0.240	150	530	0.204	110	640	0.264	170	1270	0.336	430	1060	0.240	250
16	600	0.250	150	500	0.213	110	600	0.275	170	1190	0.350	420	1000	0.250	250
17	560	0.265	150	470	0.225	110	560	0.292	160	1120	0.371	420	940	0.265	250
18	530	0.280	150	440	0.238	100	530	0.308	160	1060	0.392	420	880	0.280	250
19	500	0.295	150	420	0.251	110	500	0.325	160	1010	0.413	420	840	0.295	250
20	480	0.315	150	400	0.268	110	480	0.347	170	960	0.441	420	800	0.315	250
22	430	0.330	140	360	0.281	100	430	0.363	160	870	0.462	400	720	0.330	240
25	380	0.350	130	320	0.298	100	380	0.385	150	760	0.490	370	640	0.350	220
27	350	0.370	130	290	0.315	90	350	0.407	140	710	0.518	370	590	0.370	220
30	320	0.400	130	270	0.340	90	320	0.440	140	640	0.560	360	530	0.400	210
35	270	0.450	120	230	0.383	90	270	0.495	130	550	0.630	350	450	0.450	200
40	240	0.500	120	200	0.425	90	240	0.550	130	480	0.700	340	400	0.500	200
45	210	0.560	120	180	0.476	90	210	0.616	130	420	0.784	330	350	0.560	200
50	190	0.630	120	160	0.536	90	190	0.693	130	380	0.882	340	320	0.630	200
55	170	0.700	120	140	0.595	80	170	0.770	130	350	0.980	340	290	0.700	200
60	160	0.800	130	130	0.680	90	160	0.880	140	320	1.120	360	270	0.800	220

145NTI

Material Group ISO 513	P1 P2			P3 P4			K1 K2			N1 N5			N2 N3 N4		
Hardness/Rm	500-700 N/mm ²			600-1000 N/mm ²			150-350 HB								
Vc (m/min)	30-40			25-35			30-40			60-80			50-70		
D (mm)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)
13	860	0.224	190	730	0.190	139	860	0.246	210	1710	0.314	540	1470	0.224	330
14	800	0.232	190	680	0.197	134	800	0.255	200	1590	0.325	520	1360	0.232	320
15	740	0.240	180	640	0.204	131	740	0.264	200	1490	0.336	500	1270	0.240	300
16	700	0.250	180	600	0.213	128	700	0.275	190	1390	0.350	490	1190	0.250	300
17	660	0.265	170	560	0.225	126	660	0.292	190	1310	0.371	490	1120	0.265	300
18	620	0.280	170	530	0.238	126	620	0.308	190	1240	0.392	490	1060	0.280	300
19	590	0.295	170	500	0.251	125	590	0.325	190	1170	0.413	480	1010	0.295	300
20	560	0.315	180	480	0.268	129	560	0.347	190	1110	0.441	490	960	0.315	300
22	510	0.330	170	430	0.281	121	510	0.363	190	1010	0.462	470	870	0.330	290
25	450	0.350	160	380	0.298	113	450	0.385	170	890	0.490	440	760	0.350	270
27	410	0.370	150	350	0.315	110	410	0.407	170	830	0.518	430	710	0.370	260
30	370	0.400	150	320	0.340	109	370	0.440	160	740	0.560	410	640	0.400	260

- INFO
- TYPHOON TA-HTA-4HTA
- TYPHOON PU-HPU
- TYPHOON SUH
- TYPHOON ALH
- TYPHOON HRC
- TYPHOON SUH MINI
- TYPHOON HL
- C-SD-TA
- LFTA
- SUTA
- HSS-HSS/CO DRILLS
- G2
- MDTA
- HF VH/UP
- MEF
- ALU
- MEX
- UH
- HSS/CO-HSSP END MILLS
- CARBIDE BURRS