

# YG MORSE TAPER SHANK DRILLS

**D1206** SERIES

## HSS, MORSE TAPER SHANK TWIST DRILLS

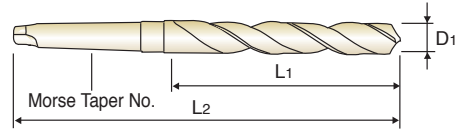
LONG

## HSS, SPIRALBOHRER mit MORSEKEGELSCHAFT

LANG

► **Surface treatment** : Steam Tempered(Black Oxide Finish)  
 ► **Application** : Drilling deep holes in steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron, graphite.

► **Oberflächenbehandlung** : Steam Homo(Schwarzoxidation)  
 ► **Verwendung** : Für Bohrungen mit Bohrbuchsen oder an tief liegenden Stellen.  
 Zum Bohren von Stahl und Stahlguß, Grauß, Temperguß, Sphäroguß, Sintereisen, Neusilber und Graphit.



DIN 341
HSS
N 30°
1~3
h8
118°
P.229

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	No. of Morse Taper	EDP No.	Drill Diameter	Flute Length	Overall Length	No. of Morse Taper
	D1	L1	L2			D1	L1	L2	
D1206130	13.0	134	215	1	D1206195	19.5	177	275	2
D1206135	13.5	142	223	1	D1206200	20.0	177	275	2
D1206140	14.0	142	223	1	D1206210	21.0	184	282	2
D1206145	14.5	147	245	2	D1206220	22.0	191	289	2
D1206150	15.0	147	245	2	D1206230	23.0	198	296	2
D1206155	15.5	153	251	2	D1206240	24.0	206	327	3
D1206160	16.0	153	251	2	D1206250	25.0	206	327	3
D1206165	16.5	159	257	2	D1206260	26.0	214	335	3
D1206170	17.0	159	257	2	D1206270	27.0	222	343	3
D1206175	17.5	165	263	2	D1206280	28.0	222	343	3
D1206180	18.0	165	263	2	D1206290	29.0	230	351	3
D1206185	18.5	171	269	2	D1206300	30.0	230	351	3
D1206190	19.0	171	269	2					

i-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL TYPE

DREAM DRILLS for HARDENED STEELS

GENERAL CARBIDE DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎	○			○	○	○		○			



# MORSE TAPER SHANK DRILLS

## RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN

### HSS-E, TWIST DRILLS for HEAVY DUTY, DIN345 HSS-E, SPIRALBOHRER für HOHELEISTUNGEN DIN 345

#### DL205 SERIES

WORK MATERIAL	CARBON STEELS		CARBON STEELS		CARBON STEELS		ALLOY STEELS		ALLOY STEELS		STAINLESS STEELS		CAST IRON	
	N	S	N	S	N	S	N	S	N	S	N	S	N	S
HARDNESS			~ HRC23		HRC23 ~ 28		HRC23 ~ 34		HRC34 ~ 38		HRC23		HRC21	
STRENGTH	~ 570 N/mm <sup>2</sup>		~ 830 N/mm <sup>2</sup>		830 ~ 950 N/mm <sup>2</sup>		830 ~ 1110 N/mm <sup>2</sup>		1110 ~ 1260 N/mm <sup>2</sup>		830 N/mm <sup>2</sup>		800 N/mm <sup>2</sup>	
DRILLING SPEED	27 ~ 32 m/min		20 ~ 25 m/min		13 ~ 18 m/min		17 ~ 22 m/min		8 ~ 13 m/min		27 ~ 32 m/min		27 ~ 32 m/min	
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S	N	S
13.0	785	0.17	575	0.17	445	0.09	540	0.20	325	0.05	785	0.17	785	0.17
14.0	720	0.18	530	0.18	410	0.10	500	0.20	300	0.05	720	0.18	720	0.18
16.0	635	0.20	475	0.20	365	0.11	445	0.22	265	0.05	635	0.20	635	0.20
18.0	550	0.22	420	0.22	320	0.12	390	0.23	230	0.05	550	0.22	550	0.22
20.0	500	0.23	380	0.23	290	0.13	355	0.23	210	0.06	500	0.23	500	0.23
22.0	450	0.24	340	0.24	260	0.14	320	0.23	190	0.06	450	0.24	450	0.24
24.0	420	0.25	320	0.25	240	0.15	295	0.23	175	0.07	420	0.25	420	0.25
26.0	390	0.26	300	0.26	220	0.16	270	0.23	160	0.07	390	0.26	390	0.26
28.0	360	0.27	275	0.27	205	0.17	250	0.23	150	0.07	360	0.27	360	0.27
30.0	330	0.28	250	0.28	190	0.18	230	0.23	140	0.08	330	0.28	330	0.28

N = R.P.M  
S = Feed per Revolution (mm/rev.)

### HSS DRILLS DIN345, DIN341, DIN1870 HSS SPIRALBOHRER DIN 345, DIN 341, DIN 1870

#### D1205, D1206, D1209, D1210 SERIES

WORK MATERIAL	CARBON STEELS		CARBON STEELS		CARBON STEELS		ALLOY STEELS		ALLOY STEELS		STAINLESS STEELS		TITANIUM ALLOYS	
	N	S	N	S	N	S	N	S	N	S	N	S	N	S
HARDNESS			~ HRC23		~ HRC23 ~ 28		HRC23 ~ 34		HRC34 ~ 38		HRC23			
STRENGTH	~ 570 N/mm <sup>2</sup>		~ 830 N/mm <sup>2</sup>		830 ~ 950 N/mm <sup>2</sup>		830 ~ 1110 N/mm <sup>2</sup>		1110 ~ 1260 N/mm <sup>2</sup>		830 N/mm <sup>2</sup>		410 N/mm <sup>2</sup>	
DRILLING SPEED	20 ~ 25 m/min		18 ~ 22 m/min		10 ~ 15 m/min		13 ~ 18 m/min		8 ~ 12 m/min		15 ~ 20 m/min		8 ~ 12 m/min	
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S	N	S
13.0	645	0.17	480	0.17	370	0.09	440	0.17	265	0.05	480	0.17	265	0.09
19.0	440	0.23	330	0.23	255	0.13	300	0.23	180	0.05	330	0.23	180	0.13
32.0	260	0.28	195	0.28	145	0.18	180	0.28	107	0.08	195	0.28	107	0.18
50.0	165	0.33	125	0.33	93	0.20	115	0.33	68	0.08	125	0.33	68	0.20
60.0	140	0.40	105	0.40	78	0.23	95	0.40	57	0.10	105	0.40	57	0.23

WORK MATERIAL	TOOL STEELS		CAST IRON		ALUMINUM ALLOYS		MAGNESIUM ALLOYS		ZINC ALLOYS		PLASTICS	
	N	S	N	S	N	S	N	S	N	S	N	S
HARDNESS			~ HRC21									
STRENGTH	~ 270 N/mm <sup>2</sup>		~ 800 N/mm <sup>2</sup>									
DRILLING SPEED	20 ~ 25 m/min		15 ~ 20 m/min		40 ~ 50 m/min		55 ~ 65 m/min		40 ~ 50 m/min		20 ~ 25 m/min	
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S
13.0	645	0.17	480	0.17	1200	0.26	1600	0.26	1200	0.26	645	0.17
19.0	440	0.23	330	0.23	820	0.30	1100	0.30	820	0.30	440	0.23
32.0	240	0.30	195	0.28	490	0.38	660	0.38	490	0.38	260	0.28
50.0	150	0.43	125	0.33	310	0.46	415	0.46	310	0.46	165	0.33
60.0	125	0.48	105	0.40	260	0.50	345	0.50	260	0.50	140	0.40

N = R.P.M  
S = Feed per Revolution (mm/rev.)