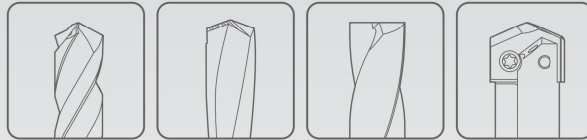




Global Cutting Tool Leader **YG-1**



HOLEMAKING



Leading Through Innovation



HSS & HSS-E

MORSE TAPER SHANK DRILLS

BOHRER MIT MK

- Morse Taper Shank Drills for Wide Applications
- Bohrer mit Morsekegel für breite Anwendungen

SELECTION GUIDE



SERIES	DL205	D1205	D1206
STANDARD	DIN 345	DIN 345	DIN 341
LENGTH	JOBBER	JOBBER	LONG
SIZE MIN	D13.0	D5.0	D13.0
SIZE MAX	D30.0	D60.0	D30.0
PAGE	A270	A271	A274

SURFACE TREATMENT	Bright	Vap
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HSS & HSS-E MORSE TAPER SHANK DRILLS

Morse Taper Shank Drills for Wide Applications

Please visit global.yg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.A277



ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRC	DL205	D1205	D1206
P	1	Non-alloy steel	About 0.15% C Annealed	125		◎	◎	◎
	2		About 0.45% C Annealed	190	13	◎	◎	◎
	3		About 0.45% C Quenched & Tempered	250	25	◎	◎	◎
	4		About 0.75% C Annealed	270	28	○	○	○
	5		About 0.75% C Quenched & Tempered	300	32	○	○	○
	6	Low alloy steel	Annealed	180	10	◎	◎	◎
	7		Quenched & Tempered	275	29	○	○	○
	8		Quenched & Tempered	300	32	○	○	○
	9		Quenched & Tempered	350	38	○	○	○
	10		High alloyed steel, and tool steel	Annealed	200	15	○	○
	11	Quenched & Tempered		325	35	○	○	○
M	12	Stainless steel	Ferritic / Martensitic Annealed	200	15	◎	◎	◎
	13		Martensitic Quenched & Tempered	240	23	○	○	○
	14		Austenitic	180	10	○	○	○
K	15	Grey cast iron	Pearlitic / ferritic	180	10	○	○	○
	16		Pearlitic (Martensitic)	260	26	○	○	○
	17	Nodular cast iron	Ferritic	160	3	○	○	○
	18		Pearlitic	250	25	○	○	○
	19		Ferritic	130		○	○	○
	20		Malleable cast iron	Pearlitic	230	21	○	○
N	21	Aluminum-wrought alloy	Not Curable	60		○	○	○
	22		Curable	100		○	○	○
	23		≤ 12% Si, Not Curable	75		○	○	○
	24	Aluminum-cast, alloyed	≤ 12% Si, Curable	90		○	○	○
	25		> 12% Si, Not Curable	130		○	○	○
	26	Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%	110		○	○	○
	27		CuZn, CuSnZn (Brass)	90		○	○	○
	28		CuSn, lead-free copper and electrolytic copper	100		○	○	○
	29	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic			○	○	○
	30		Rubber, Wood, etc.			○	○	○
S	31	Heat Resistant Super Alloys	Fe Based Annealed	200	15	○	○	○
	32		Cured	280	30	○	○	○
	33		Annealed	250	25	○	○	○
	34		Cured	350	38	○	○	○
	35		Cast	320	34	○	○	○
	36	Titanium Alloys	Pure Titanium	400 Rm		○	○	○
	37		Alpha + Beta Alloys	1050 Rm		○	○	○
H	38	Hardened steel	Hardened	550	55	○	○	○
	39		Hardened	630	60	○	○	○
	40	Chilled Cast Iron	Cast	400	42	○	○	○
41	Hardened Cast Iron	Hardened	550	55	○	○	○	

D1209	D1210
DIN 1870/1	DIN 1870/2
EXTRA LONG	EXTRA LONG
D13.0	D13.0
D50.0	D50.0
A275	A276

SURFACE TREATMENT	Vap
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ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRC	D1209	D1210
P	1	Non-alloy steel	About 0.15% C Annealed	125		◎	◎
	2		About 0.45% C Annealed	190	13	◎	◎
	3		About 0.45% C Quenched & Tempered	250	25	◎	◎
	4		About 0.75% C Annealed	270	28	○	○
	5		About 0.75% C Quenched & Tempered	300	32	○	○
	6	Low alloy steel	Annealed	180	10	◎	◎
	7		Quenched & Tempered	275	29	○	○
	8		Quenched & Tempered	300	32	○	○
	9		Quenched & Tempered	350	38	○	○
	10		High alloyed steel, and tool steel	Annealed	200	15	○
	11	Quenched & Tempered		325	35	○	○
M	12	Stainless steel	Ferritic / Martensitic Annealed	200	15	◎	◎
	13		Martensitic Quenched & Tempered	240	23	○	○
	14		Austenitic	180	10	○	○
K	15	Grey cast iron	Pearlitic / ferritic	180	10	○	○
	16		Pearlitic (Martensitic)	260	26	○	○
	17	Nodular cast iron	Ferritic	160	3	○	○
	18		Pearlitic	250	25	○	○
	19		Ferritic	130		○	○
	20		Malleable cast iron	Pearlitic	230	21	○
N	21	Aluminum-wrought alloy	Not Curable	60		○	○
	22		Curable	100		○	○
	23		≤ 12% Si, Not Curable	75		○	○
	24	Aluminum-cast, alloyed	≤ 12% Si, Curable	90		○	○
	25		> 12% Si, Not Curable	130		○	○
	26	Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%	110		○	○
	27		CuZn, CuSnZn (Brass)	90		○	○
	28		CuSn, lead-free copper and electrolytic copper	100		○	○
	29	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic			○	○
	30		Rubber, Wood, etc.			○	○
S	31	Heat Resistant Super Alloys	Fe Based Annealed	200	15	○	○
	32		Cured	280	30	○	○
	33		Annealed	250	25	○	○
	34		Cured	350	38	○	○
	35		Cast	320	34	○	○
	36	Titanium Alloys	Pure Titanium	400 Rm		○	○
	37		Alpha + Beta Alloys	1050 Rm		○	○
H	38	Hardened steel	Hardened	550	55	○	○
	39		Hardened	630	60	○	○
	40	Chilled Cast Iron	Cast	400	42	○	○
41	Hardened Cast Iron	Hardened	550	55	○	○	

YG MORSE TAPER SHANK DRILLS

DL205 SERIES

HSS-E, MORSE TAPER SHANK TWIST DRILLS for HEAVY DUTY

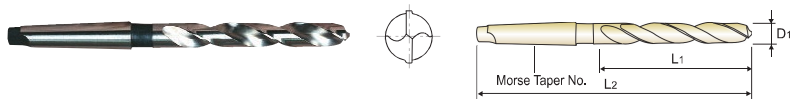
JOBBER

- HSS-E, SPIRALBOHRER für HOHELEISTUNGEN mit MORSEKEGELSCHAFT
- Forets HSS-E, queue cône morse pour matériaux durs, série courte
- HSS-E, PUNTE ELICOIDALI, ATTACCO CM PER LAVORAZIONI GRAVOSE

- KURZ
- COURTE
- CORTA

►Surface treatment : Bright Finish
 ►Application : Drilling steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron, graphite.

►Oberflächenbehandlung : Helle Beschaffenheit
 ►Verwendung : Zum Bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sinterisen, Graphit.



DIN 345 HSS-E N 30° 1~3 h8 118° Bright p.A277

Plain Shank Recommended Tool-Holder MORSE TAPER ARBOR

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2	Morse Taper No.
DL205130	13.0	101	182	1
DL205135	13.5	108	189	1
DL205140	14.0	108	189	1
DL205145	14.5	114	212	2
DL205150	15.0	114	212	2
DL205155	15.5	120	218	2
DL205160	16.0	120	218	2
DL205165	16.5	125	223	2
DL205170	17.0	125	223	2
DL205175	17.5	130	228	2
DL205180	18.0	130	228	2
DL205185	18.5	135	233	2
DL205190	19.0	135	233	2
DL205195	19.5	140	238	2
DL205200	20.0	140	238	2
DL205205	20.5	145	243	2
DL205210	21.0	145	243	2
DL205215	21.5	150	248	2

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2	Morse Taper No.
DL205220	22.0	150	248	2
DL205225	22.5	155	253	2
DL205230	23.0	155	253	2
DL205235	23.5	155	276	3
DL205240	24.0	160	281	3
DL205245	24.5	160	281	3
DL205250	25.0	160	281	3
DL205255	25.5	165	286	3
DL205260	26.0	165	286	3
DL205265	26.5	165	286	3
DL205270	27.0	170	291	3
DL205275	27.5	170	291	3
DL205280	28.0	170	291	3
DL205285	28.5	175	296	3
DL205290	29.0	175	296	3
DL205295	29.5	175	296	3
DL205300	30.0	175	296	3

Unit : mm

◎ : Excellent ○ : Good

ISO	P					M					K									
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel and tool steel	Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	○	○	◎	○	○	○	○	○	◎	○	○	○	○	○	○	○	○

YG MORSE TAPER SHANK DRILLS

D1205 SERIES

HSS, MORSE TAPER SHANK TWIST DRILLS

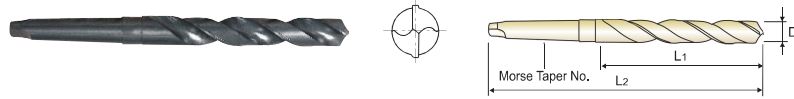
JOBBER

- HSS, SPIRALBOHRER mit MORSEKEGELSCHAFT
- Forets HSS, queue cône morse, série courte
- PUNTE ELICOIDALI IN HSS, ATTACCO CM

- KURZ
- COURTE
- CORTA

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

►Oberflächenbehandlung : Steam Homo(Schwarzoxidation)
 ►Verwendung : Zum Bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sinterisen, Graphit.



DIN 345 HSS N 30° 1~5 h8 118° Vap p.A277

Plain Shank Recommended Tool-Holder MORSE TAPER ARBOR

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2	Morse Taper No.
D1205050	5.0	52	133	1
D1205055	5.5	57	138	1
D1205060	6.0	57	138	1
D1205065	6.5	63	144	1
D1205070	7.0	69	150	1
D1205075	7.5	69	150	1
D1205080	8.0	75	156	1
D1205085	8.5	75	156	1
D1205090	9.0	81	162	1
D1205095	9.5	81	162	1
D1205100	10.0	87	168	1
D1205105	10.5	87	168	1
D1205110	11.0	94	175	1
D1205115	11.5	94	175	1
D1205120	12.0	101	182	1
D1205125	12.5	101	182	1
D1205130	13.0	101	182	1
D1205132	13.2	101	182	1
D120513A	13.25	108	189	1
D1205135	13.5	108	189	1
D120513B	13.75	108	189	1
D1205138	13.8	108	189	1
D1205140	14.0	108	189	1
D120514A	14.25	114	212	2
D1205145	14.5	114	212	2
D120514B	14.75	114	212	2

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2	Morse Taper No.
D1205150	15.0	114	212	2
D120515A	15.25	120	218	2
D1205155	15.5	120	218	2
D120515B	15.75	120	218	2
D1205160	16.0	120	218	2
D120516A	16.25	125	223	2
D1205165	16.5	125	223	2
D120516B	16.75	125	223	2
D1205170	17.0	125	223	2
D120517A	17.25	130	228	2
D1205175	17.5	130	228	2
D120517B	17.75	130	228	2
D1205180	18.0	130	228	2
D120518A	18.25	135	233	2
D1205185	18.5	135	233	2
D120518B	18.75	135	233	2
D1205190	19.0	135	233	2
D120519A	19.25	140	238	2
D1205195	19.5	140	238	2
D120519B	19.75	140	238	2
D1205200	20.0	140	238	2
D120520A	20.25	145	243	2
D1205205	20.5	145	243	2
D120520B	20.75	145	243	2
D1205210	21.0	145	243	2
D120521A	21.25	150	248	2

◎ : Excellent ○ : Good

ISO	P					M					K									
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel and tool steel	Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	○	○	◎	○	○	○	○	○	◎	○	○	○	○	○	○	○	○

YG MORSE TAPER SHANK DRILLS

D1206 SERIES

HSS, MORSE TAPER SHANK TWIST DRILLS

HSS, SPIRALBOHRER mit MORSEKEGELSCHAFT
 Forets HSS, queue cône morse, série longue
 PUNTE ELICOIDALI IN HSS, ATTACCO CM

LONG

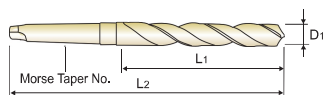
LANG

LONGUE

LUNGA

► 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 Bohrbohrchen oder an tief liegenden Stellen. Zum Bohren von Stahl und Stahlguß, Grauß, Temperguß, Sphäroguß, Sintereisen, Neusilber und Graphit.



Unit : mm

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2	Morse Taper No.
D1206130	13.0	134	215	1
D1206135	13.5	142	223	1
D1206140	14.0	142	223	1
D1206145	14.5	147	245	2
D1206150	15.0	147	245	2
D1206155	15.5	153	251	2
D1206160	16.0	153	251	2
D1206165	16.5	159	257	2
D1206170	17.0	159	257	2
D1206175	17.5	165	263	2
D1206180	18.0	165	263	2
D1206185	18.5	171	269	2
D1206190	19.0	171	269	2

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2	Morse Taper No.
D1206195	19.5	177	275	2
D1206200	20.0	177	275	2
D1206210	21.0	184	282	2
D1206220	22.0	191	289	2
D1206230	23.0	198	296	2
D1206240	24.0	206	327	3
D1206250	25.0	206	327	3
D1206260	26.0	214	335	3
D1206270	27.0	222	343	3
D1206280	28.0	222	343	3
D1206290	29.0	230	351	3
D1206300	30.0	230	351	3

YG MORSE TAPER SHANK DRILLS

D1209 SERIES

HSS, MORSE TAPER SHANK TWIST DRILLS

HSS, SPIRALBOHRER mit MORSEKEGELSCHAFT
 Forets HSS, queue cône morse, série extra-longue
 PUNTE ELICOIDALI IN HSS, ATTACCO CM

EXTRA LONG

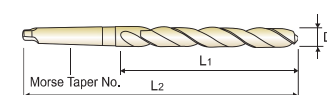
ÜBERLANG

EXTRA-LONGUE

EXTRA LUNGA

► 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 Bohrbohrchen oder an tief liegenden Stellen. Zum Bohren von Stahl und Stahlguß, Grauß, Temperguß, Sphäroguß, Sintereisen, Neusilber und Graphit.



Unit : mm

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2	Morse Taper No.
D1209130	13.0	205	310	1
D1209135	13.5	220	325	1
D1209140	14.0	220	325	1
D1209145	14.5	220	340	2
D1209150	15.0	220	340	2
D1209155	15.5	230	355	2
D1209160	16.0	230	355	2
D1209165	16.5	230	355	2
D1209170	17.0	230	355	2
D1209175	17.5	245	370	2
D1209180	18.0	245	370	2
D1209185	18.5	245	370	2
D1209190	19.0	245	370	2
D1209195	19.5	260	385	2
D1209200	20.0	260	385	2
D1209205	20.5	260	385	2
D1209210	21.0	260	385	2
D1209215	21.5	270	405	2
D1209220	22.0	270	405	2
D1209225	22.5	270	405	2
D1209230	23.0	270	405	2
D1209235	23.5	270	425	3
D1209240	24.0	290	440	3
D1209245	24.5	290	440	3
D1209250	25.0	290	440	3
D1209255	25.5	290	440	3
D1209260	26.0	290	440	3
D1209265	26.5	290	440	3

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2	Morse Taper No.
D1209270	27.0	305	460	3
D1209275	27.5	305	460	3
D1209280	28.0	305	460	3
D1209285	28.5	305	460	3
D1209290	29.0	305	460	3
D1209295	29.5	305	460	3
D1209300	30.0	305	460	3
D1209305	30.5	320	480	3
D1209310	31.0	320	480	3
D1209320	32.0	320	505	4
D1209330	33.0	320	505	4
D1209340	34.0	340	530	4
D1209350	35.0	340	530	4
D1209360	36.0	340	530	4
D1209370	37.0	340	530	4
D1209380	38.0	360	555	4
D1209390	39.0	360	555	4
D1209400	40.0	360	555	4
D1209410	41.0	360	555	4
D1209420	42.0	360	555	4
D1209430	43.0	385	585	4
D1209440	44.0	385	585	4
D1209450	45.0	385	585	4
D1209460	46.0	385	585	4
D1209470	47.0	385	585	4
D1209480	48.0	405	605	4
D1209490	49.0	405	605	4
D1209500	50.0	405	605	4

ISO	P			M			K													
	Non-alloy steel			Low alloy steel			Stainless steel													
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	130	230	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

ISO	P			M			K													
	Non-alloy steel			Low alloy steel			Stainless steel													
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	130	230	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

