



Leading Through Innovation



**SUPER HSS**

**SUPER-GP  
DRILLS**

**SUPER-GP DRILLS**

- All Applications Regardless of Machining Conditions; Good or Poor
- Für alle Anwendungen unabhängig von den Bearbeitungsbedingungen; gut oder schlecht

SELECTION GUIDE



SERIES	DSH105
STANDARD	DIN 338
LENGTH	JOBBER
SIZE MIN	D2.0
SIZE MAX	D13.0
PAGE	A211
SURFACE TREATMENT	Vap

# SUPER HSS SUPER-GP DRILLS

All Applications Regardless of Machining Conditions; Good or Poor



Please visit [globalyg1.com/mat](http://globalyg1.com/mat) for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.A214

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRc		
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 Hardened	100		○	
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75		○	
	24		≤ 12% Si, Curable Hardened	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		Ni or Co Based Cured	350	38		
	35		Cast	320	34		
	36	Titanium Alloys	Pure Titanium	400 Rm		○	
	37		Alpha + Beta Alloys Hardened	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 SUPER-GP DRILLS

## DSH105 SERIES

### SUPER HSS, SUPER-GP DRILLS (DIN 338)

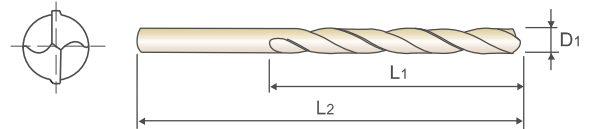
JOBBER

- SUPER HSS, SUPER-GP DRILLS (DIN 338)
- Forets SUPER-GP Super HSS, queue cylindrique (DIN 338)
- PUNTA SUPER-GP DRILL, IN SUPER-HSS, GAMBO CILINDRICO (DIN 338)

KURZ  
COURTE  
CORTA

- ▶ Surface treatment: Steam Tempered (Black Oxide Finish)
- ▶ Applications: Excellent tool performance in steels, cast iron, alloy steels and malleable cast iron.
- ▶ Special HSS improves toughness, wear resistance as well as extends dramatically the tool life.
- ▶ All applications regardless of machine condition: Good or Poor.

- ▶ Oberflächenbehandlung: Dampfgehärtet (Schwarze Oxidschicht)
- ▶ Anwendungen: Ausgezeichnete Leistung bei Stählen, Gusseisen, legierten Stählen und Temperguss.
- ▶ Spezial-HSS verbessert Zähigkeit, Verschleissfestigkeit und verlängert drastisch die Standzeit.
- ▶ Alle Anwendungen unabhängig vom Maschinenzustand: Gut oder schlecht.



DIN 338
SUPER HSS
30°
h8
118°
Vap
p.A214

Plain Shank  
Recommended ToolHolder
ER COLLET CHUCK

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
* DSH105068	6.8	69	109
* DSH105069	6.9	69	109
* DSH105070	7.0	69	109
* DSH105071	7.1	69	109
* DSH105072	7.2	69	109
* DSH105073	7.3	69	109
* DSH105074	7.4	69	109
* DSH105075	7.5	69	109
* DSH105076	7.6	75	117
* DSH105077	7.7	75	117
* DSH105078	7.8	75	117
* DSH105079	7.9	75	117
* DSH105080	8.0	75	117
* DSH105081	8.1	75	117
* DSH105082	8.2	75	117
* DSH105083	8.3	75	117
** DSH105084	8.4	75	117
** DSH105085	8.5	75	117
** DSH105086	8.6	81	125
** DSH105087	8.7	81	125
** DSH105088	8.8	81	125
** DSH105089	8.9	81	125
** DSH105090	9.0	81	125
** DSH105091	9.1	81	125

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
** DSH105092	9.2	81	125
** DSH105093	9.3	81	125
** DSH105094	9.4	81	125
** DSH105095	9.5	81	125
** DSH105096	9.6	87	133
** DSH105097	9.7	87	133
** DSH105098	9.8	87	133
** DSH105099	9.9	87	133
** DSH105100	10.0	87	133
** DSH105101	10.1	87	133
** DSH105102	10.2	87	133
** DSH105103	10.3	87	133
** DSH105104	10.4	87	133
** DSH105105	10.5	87	133
** DSH105106	10.6	87	133
** DSH105107	10.7	94	142
** DSH105108	10.8	94	142
** DSH105109	10.9	94	142
** DSH105110	11.0	94	142
** DSH105111	11.1	94	142
** DSH105112	11.2	94	142
** DSH105113	11.3	94	142
** DSH105114	11.4	94	142
** DSH105115	11.5	94	142

\* 10pcs per package  
\*\* 5pcs per package

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO Material Description	P										M				K					
	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	36	10	29	32	38	15	35	15	23	10	10	26	3	25	42	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	○	◎	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO Material Description	N										S						H				
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron		
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	15	30	25	38	34	15	30	25	38	34	200	280	250	350	320	400Rm	1050Rm	550	630	420	550
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○						○							○					

**DSH105** SERIES

**SUPER HSS, SUPER-GP DRILLS (DIN 338)**

 Vc = m/min.  
 RPM = rev./min.  
 FEED = mm/rev.

ISO	VDI 3323	Material Description	Vc	Parameter	Drill Diameter (mm)						
					2.0	3.0	4.0	6.0	8.0	10.0	13.0
P	1	Non-alloy steel	30	RPM	4770	3180	2390	1590	1190	950	730
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17
			25	RPM	3980	2650	1990	1330	990	800	610
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17
	20	RPM	3180	2120	1590	1060	800	640	490		
		FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17		
	20	RPM	3180	2120	1590	1060	800	640	490		
		FEED	0.01-0.02	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.06	0.04-0.10		
	6	Low alloy steel	25	RPM	3980	2650	1990	1330	990	800	610
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17
20			RPM	3180	2120	1590	1060	800	640	490	
			FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	
20	RPM	3180	2120	1590	1060	800	640	490			
	FEED	0.01-0.02	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.06	0.04-0.10			
10	High alloyed steel, and tool steel	15	RPM	2390	1590	1190	800	600	480	370	
			FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	
M	12	Stainless steel	20	RPM	3180	2120	1590	1060	800	640	490
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17
			15	RPM	2390	1590	1190	800	600	480	370
15	13	Stainless steel	15	RPM	2390	1590	1190	800	600	480	370
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17
14	Stainless steel	10	RPM	1590	1060	800	530	400	320	240	
			FEED	0.01-0.02	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.06	0.04-0.10	
K	15	Grey cast iron	30	RPM	4770	3180	2390	1590	1190	950	730
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17
	25	Grey cast iron	25	RPM	3980	2650	1990	1330	990	800	610
				FEED	0.01-0.02	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.06	0.04-0.10
30	Nodular cast iron	30	RPM	4770	3180	2390	1590	1190	950	730	
			FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	
25	Malleable cast iron	25	RPM	3980	2650	1990	1330	990	800	610	
			FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.1-0.13	0.11-0.15	0.11-0.17	
N	21	Aluminum-wrought alloy	55	RPM	8750	5840	4380	2920	2190	1750	1350
				FEED	0.03-0.06	0.05-0.09	0.07-0.11	0.12-0.16	0.12-0.18	0.14-0.20	0.16-0.22
	55	Aluminum-wrought alloy	55	RPM	8750	5840	4380	2920	2190	1750	1350
				FEED	0.03-0.06	0.05-0.09	0.07-0.11	0.12-0.16	0.12-0.18	0.14-0.20	0.16-0.22
40	Aluminum-cast, alloyed	40	RPM	6370	4240	3180	2120	1590	1270	980	
			FEED	0.03-0.06	0.05-0.09	0.07-0.11	0.12-0.16	0.12-0.18	0.14-0.20	0.16-0.22	
20	Non Metallic Materials	20	RPM	3180	2120	1590	1060	800	640	490	
			FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	
S	36	Titanium Alloys	10	RPM	1590	1060	800	530	400	320	240
				FEED	0.01-0.03	0.02-0.04	0.03-0.05	0.04-0.07	0.05-0.08	0.05-0.09	0.06-0.10