



Leading Through Innovation

**SOLID CARBIDE**

# **GENERAL CARBIDE DRILLS**

**UNIVERSELLE VHM - BOHRER**

- For General Purpose, DIN 338 & DIN 6539
- Für allgemeine Anwendungen, DIN 338 & DIN 6539

SELECTION GUIDE



SERIES	D5405	D5407
STANDARD	DIN 6539	DIN 338
LENGTH	STUB	JOBBER
SIZE MIN	D1.0	D1.0
SIZE MAX	D13.0	D13.0
PAGE	A155	A157

SURFACE TREATMENT

Bright

# SOLID CARBIDE GENERAL CARBIDE DRILLS

For General Purpose, DIN 338 & DIN 6539



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

◎ : Excellent ○ : Good

Recommended cutting conditions : p.A159



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		≤ 12% Si, Not Curable	75		◎	◎
	24	Aluminum-cast, alloyed	≤ 12% Si, Curable Hardened	90		◎	◎
	25		> 12% Si, Not Curable	130			
	26		Cutting Alloys, PB>1%	110			
	27	Copper and Copper Alloys (Bronze / Brass)	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 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		



**CARBIDE DRILLS**

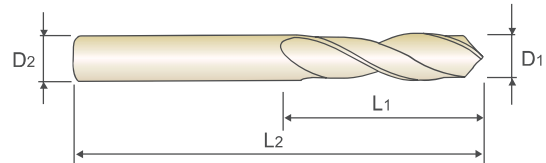
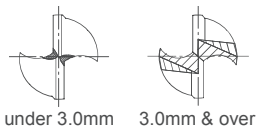
**STUB**

- VOLLHARTMETALL-SPIRALBOHRER**
- Forets carbure, série extra-courte**
- PUNTE IN METALLO DURO**

**EXTRA KURZ**  
**EXTRA-COURTE**  
**EXTRA CORTA**

► **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

► **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.



D<sub>1</sub>=D<sub>2</sub>

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

REAMERS

COUNTER SINKS

COUNTER BORES

TECHNICAL DATA

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>
D5405058	5.8	28	66
D5405059	5.9	28	66
D5405060	6.0	28	66
D5405061	6.1	31	70
D5405062	6.2	31	70
D5405063	6.3	31	70
D5405064	6.4	31	70
D5405065	6.5	31	70
D5405066	6.6	31	70
D5405067	6.7	31	70
D5405068	6.8	34	74
D5405069	6.9	34	74
D5405070	7.0	34	74
D5405071	7.1	34	74
D5405072	7.2	34	74
D5405073	7.3	34	74
D5405074	7.4	34	74
D5405075	7.5	34	74
D5405076	7.6	37	79
D5405077	7.7	37	79
D5405078	7.8	37	79
D5405079	7.9	37	79
D5405080	8.0	37	79
D5405081	8.1	37	79
D5405082	8.2	37	79

EDP No.	Drill Diameter	Flute Length	Overall Length
	D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>
D5405083	8.3	37	79
D5405084	8.4	37	79
D5405085	8.5	37	79
D5405086	8.6	40	84
D5405087	8.7	40	84
D5405088	8.8	40	84
D5405089	8.9	40	84
D5405090	9.0	40	84
D5405091	9.1	40	84
D5405092	9.2	40	84
D5405093	9.3	40	84
D5405094	9.4	40	84
D5405095	9.5	40	84
D5405096	9.6	43	89
D5405097	9.7	43	89
D5405098	9.8	43	89
D5405099	9.9	43	89
D5405100	10.0	43	89
D5405102	10.2	43	89
D5405105	10.5	43	89
D5405110	11.0	47	95
D5405115	11.5	47	95
D5405120	12.0	51	102
D5405130	13.0	51	102

► TiN(D6405), TiCN(DG405) and TiAlN(DH405) are available on your request.

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel				Grey cast iron		Nodular 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		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	○									○				○					

ISO	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			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	◎												○					



**CARBIDE DRILLS**

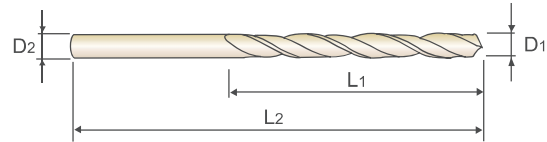
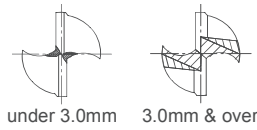
**JOBBER**

- VOLLHARTMETALL-SPIRALBOHRER**
- Forets carbure, série courte**
- MPUNTE IN METALLO DURO**

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**D<sub>1</sub>=D<sub>2</sub>**

Recommended ToolHolder

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>		D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>
D5407054	5.4	57	93	D5407070	7.0	69	109
D5407055	5.5	57	93	D5407075	7.5	69	109
D5407056	5.6	57	93	D5407080	8.0	75	117
D5407057	5.7	57	93	D5407085	8.5	75	117
D5407058	5.8	57	93	D5407090	9.0	81	125
D5407059	5.9	57	93	D5407095	9.5	81	125
D5407060	6.0	57	93	D5407100	10.0	87	133
D5407061	6.1	63	101	D5407102	10.2	87	133
D5407062	6.2	63	101	D5407105	10.5	87	133
D5407063	6.3	63	101	D5407110	11.0	94	142
D5407064	6.4	63	101	D5407115	11.5	94	142
D5407065	6.5	63	101	D5407120	12.0	101	151
D5407068	6.8	69	109	D5407130	13.0	101	151

Unit : mm

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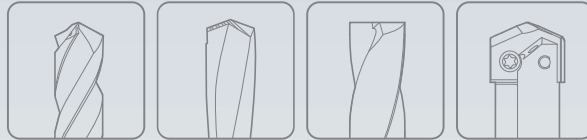
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB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

ISO	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			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	◎												○					



Global Cutting Tool Leader **YG-1**



# HOLEMAKING