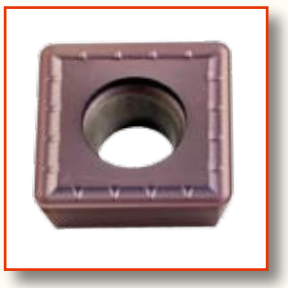
Wendeplattenbohrer Indexable Drills
VHM-Bohrer *Solid Carbide Drills* 7



... Qualität schafft Vertrauen

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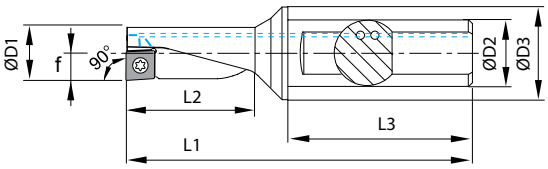
VHM-Bohrer
Solid Carbide Drills

Bezeichnung *Part Number*	Norm (DIN)	Schaft *Shank*	Bohrtiefe *Depth*	Beschichtung *Coating*	IK *Coolant*	Ø - Bereich *- Range*	Drall *Helix*	Spitzen- *Point-* ∠		Seite *Page*
P03	6537	HA HE	3 x D	DP 6030	-	3.0 ... 15.0	30°	140°		7.18
P03	6537	HA HE	3 x D	DP 6030	IK	3.0 ... 15.0	30°	140°		7.18
P05	JD Std.	HA HE	5 x D	DP 6030	IK	3.0 ... 15.0	30°	140°		7.21
JD 2090	JD Std.	HA	-	DN 630+			30°	90°		7.24

MFD 2.25 x D

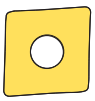
Multi - Function - Drill



Bezeichnung *Part Number*	Lager *Stock*	Maße [mm] *Dimensions*							Wendeplatte *Insert*	Ersatzteile *Spare Parts*	
		D_1	D_2	D_3	L_1	L_2	L_3	f	Seite / Page: 7.06		
MFD 08 R2. 25 D04	●	8	12	16	70	18,5	42	4	XC•• 04	83.30.153	75.20.621 (T06)
MFD 08 L2. 25 D04	○										
MFD 10 R2. 25 D05	●	10	12	16	74.5	22.5	42	5	XC•• 05	83.30.146	75.20.621 (T06)
MFD 10 L2. 25 D05	○										
MFD 12 R2. 25 D06	●	12	16	20	85	27	45	6	XC•• 06	83.30.145	56.33.611 (T07)
MFD 12 L2. 25 D06	○										
MFD 14 R2. 25 D07	●	14	16	20	90	31.5	45	7	XC•• 07	56.44.144	56.33.612 (T08)
MFD 14 L2. 25 D07	○										
MFD 16 R2. 25 D08	●	16	20	25	100	36	50	8	XC•• 08	83.30.149	56.33.612 (T08)
MFD 16 L2. 25 D08	○										
MFD 18 R2. 25 D09	○	18	25	31	112	40.5	56	9	XC•• 09	83.30.149	56.33.612 (T08)
MFD 18 L2. 25 D09	○										
MFD 20 R2. 25 D10	●	20	25	31	116	45	56	10	XC•• 10	83.30.150	56.33.613 (T15)
MFD 20 L2. 25 D10	○										
MFD 25 R2. 25 D13	●	25	32	39	135	56.5	60	12.5	XC...13	56.44.102	56.33.614 (T20)
MFD 25 L2. 25 D13	○										
MFD 32 R2. 25 D17	○	32	40	50	158	72	70	16	XC•• 17	83.30.152	56.33.614 (T20)
MFD 32 L2. 25 D17	○										

● JD-Lager / *JD-Stock* ○ begrenzte Lagerhaltung - auf Anfrage / *limited stock - upon request*

XC□□



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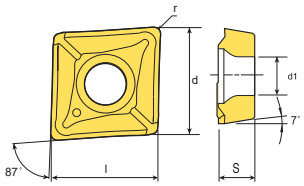
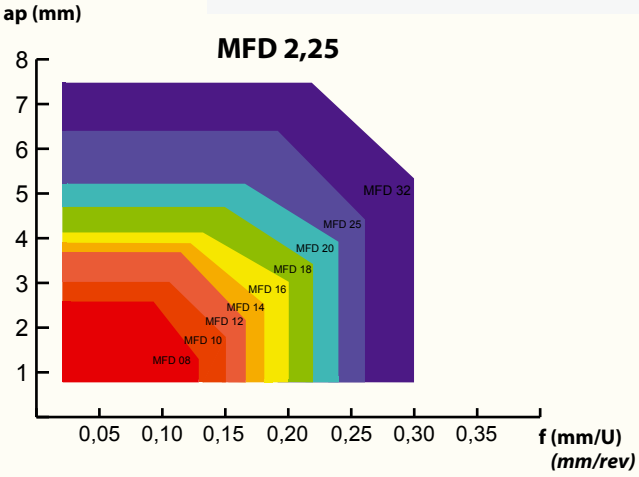
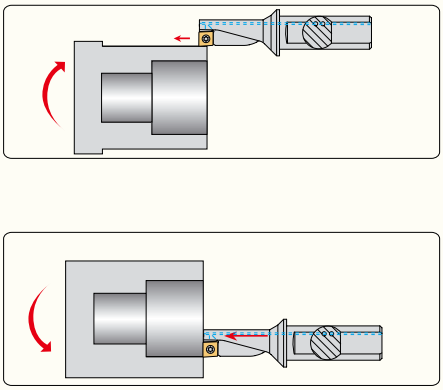


Wendeplatten *Inserts*	Bezeichnung *Part Number*	Beschichtet *Coated*		Unbeschichtet *Uncoated*	Maße [mm] *Dimensions*					Passende Trägerwerkzeuge *Suitable Tools*
		DP 2320 +	DP 5530	DK 1210	l	s	d	d1	r	Bezeichnung *Part Number*
	Anwendung *Application*	Stahl *Steel*	Niro *Stainless Steel*	Aluminium						
XCGT	**05 02 04 EN**			○	5.00	2.10	5.40	2.30	0.40	MFD 10 R/L 2.25 D05
	06 02 04 EN			○	6.00	2.38	6.40	2.50	0.40	MFD 12 R/L 2.25 D06
	07 03 04 EN			○	7.00	3.18	7.40	2.80	0.40	MFD 14 R/L 2.25 D07
	08 03 04 EN			○	8.00	3.18	8.40	3.40	0.40	MFD 16 R/L 2.25 D08
	09 T3 04EN			○	9.00	3.97	9.60	3.40	0.40	MFD 18 R/L 2.25 D09
	10 T3 04 EN			○	10.00	3.97	10.40	4.00	0.40	MFD 20 R/L 2.25 D10
	13 04 04EN			○	12.50	4.76	13.50	5.30	0.40	MFD 25 R/L 2.25 D13
	13 04 08 EN			○	12.50	4.76	13.50	5.30	0.80	MFD 25 R/L 2.25 D13
	17 05 08 EN			○	16.00	5.56	17.50	5.30	0.80	MFD 32 R/L 2.25 D17
XCMT	**04 01 04 EL**	○			4.00	1.80	4.00	2.10	0.40	MFD 08 L 2.25 D04
	04 01 04 ER	●			4.00	1.80	4.00	2.10	0.40	MFD 08 R 2.25 D04
	05 02 04 EN	●		○	5.00	2.10	5.40	2.30	0.40	MFD 10 R/L 2.25 D05
	06 02 04 EN	●		○	6.00	2.38	6.40	2.50	0.40	MFD 12 R/L 2.25 D06
	07 03 04 EN	●		○	7.00	3.18	7.40	2.80	0.40	MFD 14 R/L 2.25 D07
	08 03 04 EN	●		○	8.00	3.18	8.40	3.40	0.40	MFD 16 R/L 2.25 D08
	09 T3 04EN	○		○	9.00	3.97	9.60	3.40	0.40	MFD 18 R/L 2.25 D09
	10 T3 04 EN	●		○	10.00	3.97	10.40	4.00	0.40	MFD 20 R/L 2.25 D10
	13 04 04EN	○		○	12.50	4.76	13.50	5.30	0.40	MFD 25 R/L 2.25 D13
	13 04 08 EN	●		○	12.50	4.76	13.50	5.30	0.80	MFD 25 R/L 2.25 D13
	17 05 08 EN	○		○	16.00	5.56	17.50	5.30	0.80	MFD 32 R/L 2.25 D17
XCMT	**04 01 04 EL**		○		4.00	1.80	4.00	2.10	0.40	MFD 08 L 2.25 D04
	04 01 04 ER		○		4.00	1.80	4.00	2.10	0.40	MFD 08 R 2.25 D04
	05 02 04 EN		●		5.00	2.10	5.40	2.30	0.40	MFD 10 R/L 2.25 D05
	06 02 04 EN		●		6.00	2.38	6.40	2.50	0.40	MFD 12 R/L 2.25 D06
	07 03 04 EN		●		7.00	3.18	7.40	2.80	0.40	MFD 14 R/L 2.25 D07
	08 03 04 EN		●		8.00	3.18	8.40	3.40	0.40	MFD 16 R/L 2.25 D08
	09 T3 04EN		○		9.00	3.97	9.60	3.40	0.40	MFD 18 R/L 2.25 D09
	10 T3 04 EN		●		10.00	3.97	10.40	4.00	0.40	MFD 20 R/L 2.25 D10
	13 04 04EN		○		12.50	4.76	13.50	5.30	0.40	MFD 25 R/L 2.25 D13
	13 04 08 EN		○		12.50	4.76	13.50	5.30	0.80	MFD 25 R/L 2.25 D13
	17 05 08 EN		○		16.00	5.56	17.50	5.30	0.80	MFD 32 R/L 2.25 D17

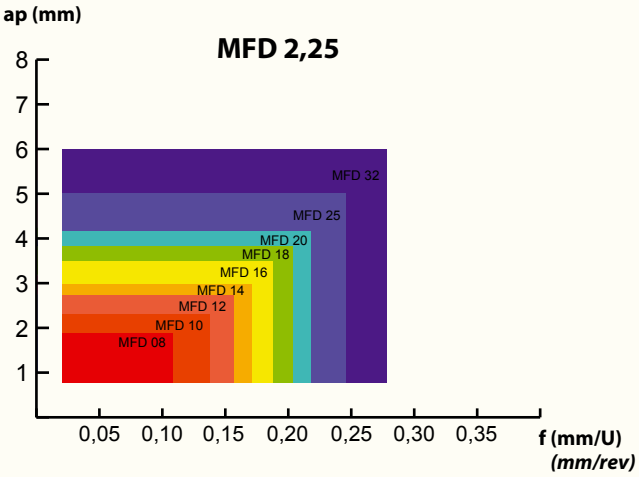
● JD-Lager / *JD-Stock* ○ begrenzte Lagerhaltung - auf Anfrage / *limited stock - upon request*

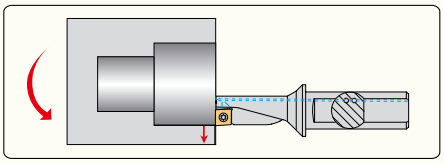
Außen -/ Innenkonturdrehen *Turn outer and innner contour*



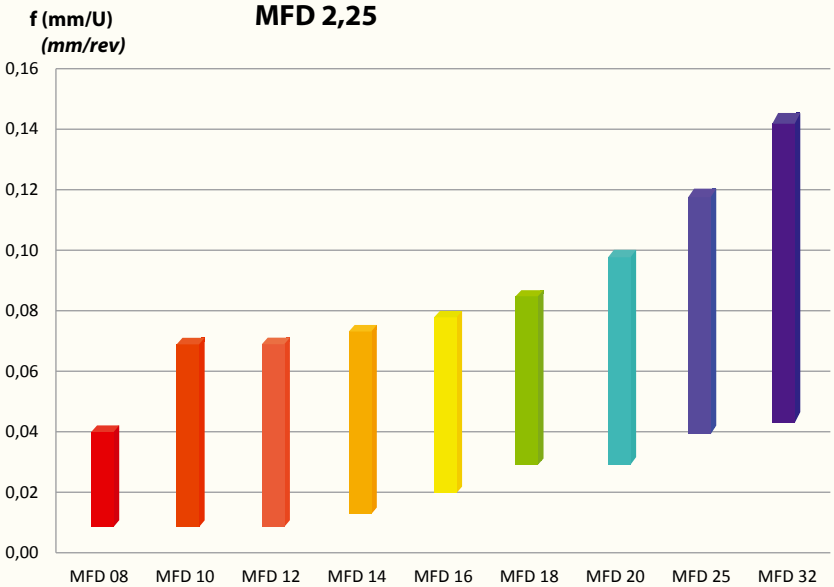


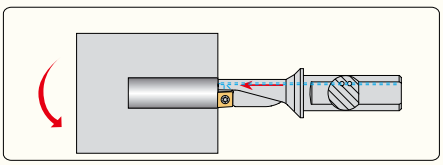
Plandrehen *Turning*





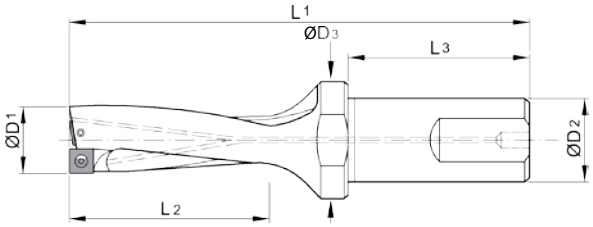
Bohren *Drilling*





JDSD 2xD

Wendeplattenbohrer
Indexable Drills

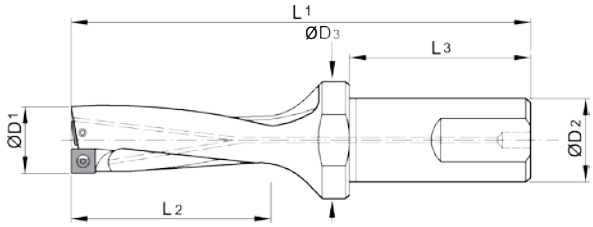


Bezeichnung *Part Number*	Lager *Stock*	Maße [mm] *Dimensions*						Wendeplatte *Insert*	Ersatzteile *Spare Parts*	
		D_1	D_2	D_3	L_1	L_2	L_3	Seite / *Page*: 7.11		
JDSD 130. 20. 2	○	13	20	25	94	26	50	SP.. 050204	83.30.144	75.20.621 (T6)
JDSD 140. 20. 2	○	14	20	25	96	28	50			
JDSD 150. 20. 2	○	15	20	25	99	30	50			
JDSD 160. 25. 2	●	16	25	34	108	32	56	SP.. 060204	83.30.145	56.33.611 (T7)
JDSD 170. 25. 2	●	17	25	34	110	34	56			
JDSD 180. 25. 2	●	18	25	34	113	36	56			
JDSD 190. 25. 2	●	19	25	34	115	38	56			
JDSD 200. 25. 2	●	20	25	34	119	40	56			
JDSD 210. 25. 2	●	21	25	34	121	42	56			
JDSD 220. 25. 2	●	22	25	34	123	44	56	SP.. 07T308	56.33.104	56.33.612 (T8)
JDSD 230. 25. 2	●	23	25	34	127	46	56			
JDSD 240. 25. 2	●	24	25	34	130	48	56			
JDSD 250. 25. 2	●	25	25	34	133	50	56			
JDSD 260. 25. 2	○	26	25	34	135	52	56			

● JD-Lager / *JD-Stock* ○ begrenzte Lagerhaltung - auf Anfrage / *limited stock - upon request*

JDSD 2xD

Wendeplattenbohrer
Indexable Drills

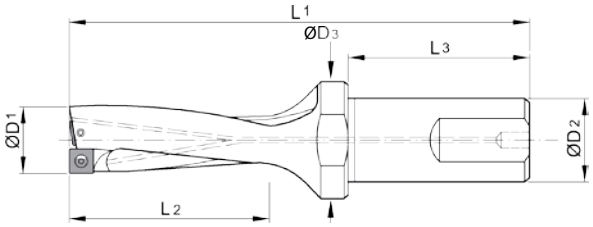


Bezeichnung *Part Number*	Lager *Stock*	Maße [mm] *Dimensions*						Wendeplatte *Insert*	Ersatzteile *Spare Parts*	
		D_1	D_2	D_3	L_1	L_2	L_3	Seite / *Page*: 7.11		
JDSD 270. 25. 2	○	27	25	34	137	54	56	SP.. 07T308	56.33.104	56.33.612
JDSD 280. 25. 2	○	28	25	34	140	56	56	SP.. 090408	83.40.148	56.33.613
JDSD 290. 25. 2	○	29	25	34	142	58	56			
JDSD 300. 32. 2	○	30	32	44	151	60	58			
JDSD 310. 32. 2	○	31	32	44	154	62	58			
JDSD 320. 32. 2	○	32	32	44	156	64	58			
JDSD 330. 32. 2	○	33	32	44	159	66	58			
JDSD 340. 32. 2	○	34	32	44	161	68	58	SP.. 110408	56.33.154	56.33.613
JDSD 350. 32. 2	○	35	32	44	164	70	58			
JDSD 360. 32. 2	○	36	32	44	167	72	58			
JDSD 370. 32. 2	○	37	32	44	170	74	58			
JDSD 380. 32. 2	○	38	32	44	173	76	58			
JDSD 390. 32. 2	○	39	32	44	175	78	58			
JDSD 400. 32. 2	○	40	32	44	178	80	58			

● JD-Lager / *JD-Stock* ○ begrenzte Lagerhaltung - auf Anfrage / *limited stock - upon request*

JDSD 3xD

Wendeplattenbohrer
Indexable Drills

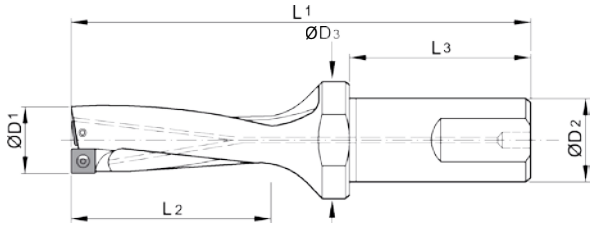


Bezeichnung *Part Number*	Lager *Stock*	Maße [mm] *Dimensions*						Wendeplatte *Insert*	Ersatzteile *Spare Parts*	
		D_1	D_2	D_3	L_1	L_2	L_3	Seite / *Page*: 7.11		
JDSD 130. 20. 3	●	13	20	25	107	39	50	SP.. 050204	83.30.144	75.20.621
JDSD 135. 20. 3	●	13,5	20	25	107	39	50			
JDSD 140. 20. 3	●	14	20	25	110	42	50			
JDSD 145. 20. 3	●	14,5	20	25	110	42	50			
JDSD 150. 20. 3	●	15	20	25	114	45	50			
JDSD 155. 20. 3	●	15,5	20	25	114	45	50			
JDSD 160. 25. 3	●	16	25	34	124	48	56	SP.. 060204	83.30.145	56.33.611
JDSD 165. 25. 3	●	16,5	25	34	124	51	56			
JDSD 170. 25. 3	●	17	25	34	127	51	56			
JDSD 175. 25. 3	●	17,5	25	34	127	51	56			
JDSD 180. 25. 3	●	18	25	34	131	54	56			
JDSD 185. 25. 3	●	18,5	25	34	131	54	56			
JDSD 190. 25. 3	●	19	25	34	134	57	56			
JDSD 195. 25. 3	●	19,5	25	34	134	57	56			
JDSD 200. 25. 3	●	20	25	34	139	60	56			
JDSD 205. 25. 3	●	20.5	25	34	139	60	56			
JDSD 210. 25. 3	●	21	25	34	142	63	56			
JDSD 215. 25. 3	●	21,5	25	34	142	63	56			
JDSD 220. 25. 3	●	22	25	34	145	66	56	SP.. 07T308	56.33.104	56.33.612
JDSD 225. 25. 3	●	22,5	25	34	145	66	56			
JDSD 230. 25. 3	●	23	25	34	150	69	56			
JDSD 235. 25. 3	●	23,5	25	34	150	69	56			
JDSD 240. 25. 3	●	24	25	34	154	72	56			
JDSD 245. 25. 3	●	24,5	25	34	154	72	56			
JDSD 250. 25. 3	●	25	25	34	157	75	56			
JDSD 255. 25. 3	●	25,5	25	34	157	75	56			
JDSD 260. 25. 3	●	26	25	34	161	78	56			
JDSD 265. 25. 3	●	26,5	25	34	161	78	56			

● JD-Lager / *JD-Stock* ○ begrenzte Lagerhaltung - auf Anfrage / *limited stock - upon request*

JDSD 3xD

Wendeplattenbohrer
Indexable Drills

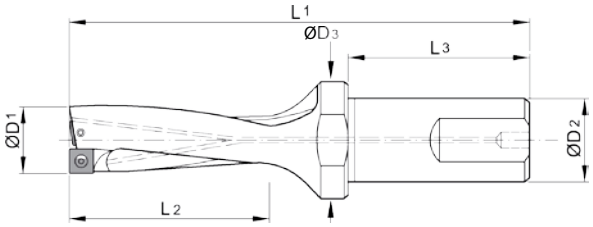


Bezeichnung *Part Number*	Lager *Stock*	Maße [mm] *Dimensions*						Wendeplatte *Insert*	Ersatzteile *Spare Parts*	
		D_1	D_2	D_3	L_1	L_2	L_3	Seite / *Page*: 7.11		
JDSD 270. 25. 3	●	27	25	34	164	81	56	SP.. 07T308	56.33.104	56.33.612
JDSD 275. 25. 3	●	27,5	25	34	164	81	56			
JDSD 280. 25. 3	●	28	25	34	168	84	56	SP.. 090408	83.40.148	56.33.613
JDSD 285. 25. 3	●	28,5	25	34	168	84	56			
JDSD 290. 25. 3	●	29	25	34	171	87	56			
JDSD 295. 25. 3	●	29,5	25	34	171	87	56			
JDSD 300. 32. 3	●	30	32	44	181	90	58			
JDSD 310. 32. 3	●	31	32	44	185	93	58			
JDSD 320. 32. 3	●	32	32	44	188	96	58			
JDSD 330. 32. 3	●	33	32	44	192	99	58			
JDSD 340. 32. 3	●	34	32	44	195	102	58	SP.. 110408	56.33.154	56.33.613
JDSD 350. 32. 3	●	35	32	44	199	105	58			
JDSD 360. 32. 3	●	36	32	44	203	108	58			
JDSD 370. 32. 3	●	37	32	44	207	111	58			
JDSD 380. 32. 3	●	38	32	44	211	114	58			
JDSD 390. 32. 3	●	39	32	44	214	117	58			
JDSD 400. 32. 3	●	40	32	44	218	120	58			

● JD-Lager / *JD-Stock* ○ begrenzte Lagerhaltung - auf Anfrage / *limited stock - upon request*

JDSD 4xD

Wendeplattenbohrer
Indexable Drills

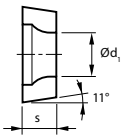


Bezeichnung *Part Number*	Lager *Stock*	Maße [mm] *Dimensions*						Wendeplatte *Insert*	Ersatzteile *Spare Parts*	
		D_1	D_2	D_3	L_1	L_2	L_3	Seite / *Page*: 7.11		
JDSD 130. 20. 4	○	13	20	25	120	52	50	SP.. 050204	83.30.144	75.20.621
JDSD 140. 20. 4	○	14	20	25	124	56	50			
JDSD 150. 20. 4	○	15	20	25	129	60	50			
JDSD 160. 25. 4	●	16	25	34	140	64	56	SP.. 060204	83.30.145	56.33.611
JDSD 170. 25. 4	●	17	25	34	144	68	56			
JDSD 180. 25. 4	●	18	25	34	149	72	56			
JDSD 190. 25. 4	●	19	25	34	153	76	56			
JDSD 200. 25. 4	●	20	25	34	159	80	56			
JDSD 210. 25. 4	●	21	25	34	163	84	56			
JDSD 220. 25. 4	●	22	25	34	167	88	56	SP.. 07T308	56.33.104	56.33.612
JDSD 230. 25. 4	●	23	25	34	173	92	56			
JDSD 240. 25. 4	●	24	25	34	178	96	56			
JDSD 250. 25. 4	●	25	25	34	183	100	56			
JDSD 260. 25. 4	●	26	25	34	187	104	56			
JDSD 270. 25. 4	●	27	25	34	191	108	56			
JDSD 280. 25. 4	●	28	25	34	196	112	56	SP.. 090408	83.40.148	56.33.613
JDSD 290. 25. 4	●	29	25	34	200	116	56			
JDSD 300. 32. 4	●	30	32	44	211	120	58			
JDSD 310. 32. 4	●	31	32	44	216	124	58			
JDSD 320. 32. 4	●	32	32	44	220	128	58			
JDSD 330. 32. 4	●	33	32	44	225	132	58			
JDSD 340. 32. 4	●	34	32	44	229	136	58	SP.. 110408	56.33.154	56.33.613
JDSD 350. 32. 4	●	35	32	44	234	140	58			
JDSD 360. 32. 4	●	36	32	44	239	144	58			
JDSD 370. 32. 4	●	37	32	44	244	148	58			
JDSD 380. 32. 4	●	38	32	44	249	152	58			
JDSD 390. 32. 4	●	39	32	44	253	156	58			
JDSD 400. 32. 4	●	40	32	44	258	160	58			

● JD-Lager / *JD-Stock* ○ begrenzte Lagerhaltung - auf Anfrage / *limited stock - upon request*

SP□□

90°

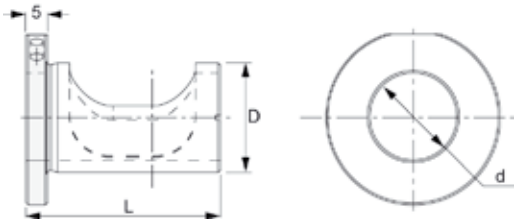


Wendeplatten *Inserts*	Bezeichnung *Part Number*	DM 5220 M20C Niro *Stainless Steel* Lager *Stock*	DM 5125 M30C Universal Lager *Stock*	DP 5330 P30C Stahl *Steel* Lager *Stock*	Maße *Dimensions* [mm] Ø d	s	Ø d_1	Passende Trägerwerkzeuge *Suitable Toolholders* Bezeichnung *Part Number*
SPMX	**05 02 04 - M20**			●	5,56	2,38	2,50	JDSD 130-150
	06 02 04 - M20			●	6,35	2,38	2,80	JDSD 155-215
	07 T3 08 - M20			●	7,94	3,97	2,80	JDSD 220-275
	09 04 08 - M20			●	9,80	4,30	4,10	JDSD 280-330
	11 04 08 - M20			●	11,50	4,76	4,40	JDSD 340-410
	14 05 12 - M20			●	14,30	5,65	5,50	JDSD 420-500
SPKX	**05 02 04 - S20**	●			5,00	2,38	2,20	JDSD 130-150
	06 02 04 - S20	●			6,00	2,38	2,55	JDSD 155-215
	07 T3 08 - S20	●			7,94	3,97	2,85	JDSD 220-275
	09 04 08 - S20	●			9,80	4,30	4,10	JDSD 280-330
	11 04 08 - S20	●			11,50	4,80	4,40	JDSD 340-410
	14 05 12 - S20	●			14,30	5,20	5,75	JDSD 420-500
new! **SPGT**	**05 02 04**		●		5,00	2,38	2,20	JDSD 130-150
	06 02 04		●		6,00	2,38	2,60	JDSD 155-215
	07 T3 08		●		7,94	3,97	2,80	JDSD 220-275
	09 04 08		●		9,80	4,30	4,20	JDSD 280-330
	11 04 08		●		11,50	4,76	4,40	JDSD 340-410
	14 05 12		●		14,30	5,20	5,75	JDSD 420-500

● JD-Lager / *JD-Stock* ○ begrenzte Lagerhaltung - auf Anfrage / *limited stock - upon request*

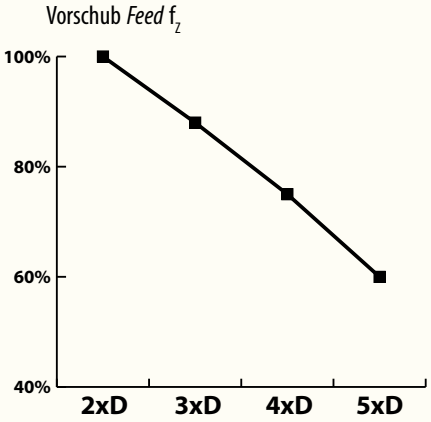
JDSD - H

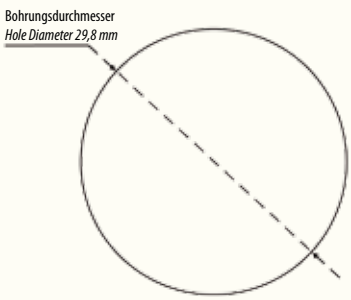
Excenter- Reduzierhülse Eccentric Sleeve



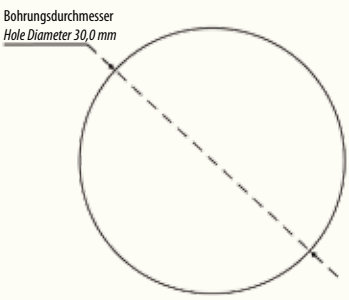
Bezeichnung *Part Number*	Lager *Stock*	Maße [mm] *Dimensions*		
		d	D	L
JDSD-H-2025	●	20	25	46,5
JDSD-H-2532	●	25	32	47,0
JDSD-H-3240	●	32	40	57,0

Empfohlene Schnittwertänderungen bei Nutzung einer Reduzierhülse
Recommended feed when using eccentric sleeve

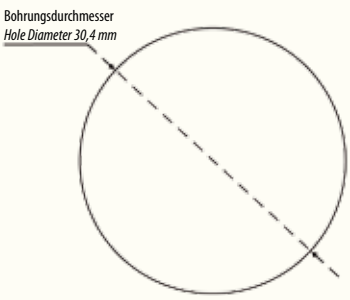




Ø Bohrer *Drill* = 30 mm



Ø Bohrer *Drill* = 30 mm



Ø Bohrer *Drill* = 30 mm

● JD-Lager / *JD-Stock* ○ begrenzte Lagerhaltung - auf Anfrage / *limited stock - upon request*

Bohrungs- Toleranz und max. Durchmesser der Bohrung bei radialer Neuausrichtung
Hole tolerance and max. hole size with radial adjustment

2 x D & 3 x D				4 x D			
Bohrer *Drill Ø mm*	Bohrungs-durchmesser *Hole normal*	Neuausrichtung Radial *Adjustment mm*	max. Bohrungs-Ø *max. Hole-Ø*	Bohrer *Drill Ø mm*	Bohrungs-durchmesser *Hole normal*	Neuausrichtung Radial *Adjustment mm*	max. Bohrungs-Ø *max. Hole-Ø*
13	13,16	0,50	14,0	13	13,22	0,50	14,0
14	14,10	0,50	15,0	14	14,15	0,50	15,0
15	15,10	0,50	16,0	15	15,17	0,50	16,0
16	16,07	0,50	17,0	16	16,09	0,50	17,0
17	17,08	0,50	18,0	17	17,13	0,50	18,0
18	18,05	0,50	19,0	18	18,20	0,50	19,0
19	19,08	0,50	20,0	19	19,18	0,50	20,0
20	20,06	0,50	21,0	20	20,05	0,50	21,0
21	20,97	0,25	21,5	21	21,00	0,25	21,5
22	21,94	0,50	23,0	22	22,01	0,50	23,0
23	23,10	0,50	24,0	23	23,10	0,50	24,0
24	24,10	0,50	25,0	24	24,15	0,50	25,0
25	25,06	0,50	26,0	25	25,13	0,50	26,0
26	26,03	0,25	26,5	26	26,09	0,25	26,5
27	27,05	0,25	27,5	27	26,96	0,25	27,5
28	28,11	0,50	29,0	28	27,97	0,50	29,0
29	28,54	0,50	30,0	29	29,07	0,50	30,0
30	30,23	0,50	31,0	30	30,13	0,50	31,0
31	31,07	0,25	31,5	31	31,12	0,25	31,5
32	32,06	0,25	32,5	32	32,11	0,25	32,5
33	33,12	0,25	33,5	33	33,17	0,25	33,5
34	34,10	0,50	35,0	34	34,15	0,50	35,0
35	35,07	0,50	36,0	35	35,12	0,50	36,0
36	36,03	0,50	37,0	36	36,08	0,50	37,0
37	37,14	0,50	38,0	37	37,19	0,50	38,0
38	38,05	0,50	39,0	38	38,08	0,50	39,0
39	39,03	0,50	40,0	39	39,08	0,50	40,0
40	40,00	0,25	40,5	40	40,05	0,25	40,5
41	40,99	0,25	41,5	41	41,04	0,25	41,5
42	42,03	0,50	43,0	42	42,08	0,50	43,0
43	42,99	0,50	44,0	43	43,04	0,50	44,0
44	44,17	0,50	45,0	44	44,22	0,50	45,0
45	45,21	0,50	46,0	45	45,26	0,50	46,0
46	46,17	0,50	47,0	46	46,23	0,50	47,0
47	47,15	0,50	48,0	47	47,20	0,50	48,0
48	48,12	0,25	48,5	48	48,17	0,25	48,5
49	49,00	0,25	49,5	49	49,05	0,25	49,5
50	50,02	0,25	50,5	50	50,07	0,25	50,5

Bohrungstoleranz mm *hole tolerance mm*		
Bohrer *Drill*	*Ø mm*	3xD
13,0-21,5		-0,10/ +0,15
22,0-50,0		-0,12/ +0,20

Schnittdaten-Empfehlungen zum Bohren
Cutting Data Recommendations for Drilling

Werkstückwerkstoff *Material*		Härte *hardness* HB	Wahl *Choice*	Spanstufe CB	HM-Sorte *Grade*	Schnittdaten *Conditions* (L=3xD + 2xD)						
						V_c	Vorschub f [mm/U] *Feed f [mm/rev]*					
						m/min	Ø12,5-15	Ø15,5-21,5	Ø22-27,5	Ø28-33	Ø34-41	Ø42-50
A	C-Stahl *Low carbon steel*	80 - 180	1.	M 2 0	DP 5330	180-260	0,05-0,08	0,06-0,10	0,06-0,11	0,07-0,13	0,08-0,14	0,08-0,15
			2.	S 2 0	DM 5220	170-250						
		180 - 260	1.	M 2 0	DP 5330	140-230	0,06-0,11	0,08-0,14	0,09-0,18	0,12-0,22	0,13-0,24	0,13-0,25
			2.	S 2 0	DM 5220	160-220						
	Niedrig legierter Stahl *Low alloy steel*	140 - 250	1.	M 2 0	DP 5330	160-220	0,06-0,12	0,08-0,14	0,10-0,17	0,12-0,22	0,12-0,23	0,13-0,24
			2.	S 2 0	DM 5220	140-210						
	Hoch legierter Stahl *High alloy steel*	220 - 450	1.	M 2 0	DP 5330	80-180	0,06-0,10	0,08-0,15	0,10-0,19	0,11-0,22	0,13-0,23	0,14-0,25
			2.	S 2 0	DM 5220	120-170						
R	Niro austenitisch Ni > 8% *Austenite*	135 - 275	1.	S 2 0	DM 5220	140-200	0,06-0,09	0,06-0,11	0,07-0,13	0,09-0,14	0,09-0,16	0,10-0,17
			2.	M 2 0	DP 5330	100-150						
	Niro ferritisch/ martensitisch *Ferrite / Martensite*	135 - 275	1.	S 2 0	DM 5220	170-240	0,06-0,10	0,06-0,12	0,08-0,15	0,09-0,16	0,10-0,17	0,11-0,19
			2.	M 2 0	DP 5330	120-180						
S	Titanlegierung *Ti-alloy*	130 - 400	1.	S 2 0	DM 5220	30-50	0,05-0,10	0,05-0,12	0,08-0,16	0,10-0,20	0,11-0,21	0,14-0,24
			2.	M 2 0	DP 5330	20-40						
F	Grauguss *Grey cast iron*	150 - 220	1.	M 2 0	DP 5330	150-280	0,06-0,12	0,08-0,16	0,12-0,19	0,15-0,23	0,16-0,25	0,18-0,28
			2.	S 2 0	DM 5220	180-250						
	Kugel-Graphit-Guss *Graphite*	200 - 300	1.	M 2 0	DP 5330	100-220	0,06-0,09	0,08-0,14	0,10-0,18	0,12-0,20	0,14-0,22	0,16-0,25
			2.	S 2 0	DM 5220	100-200						
N	Aluminium	330 - 380	1.	S 2 0	DM 5220	300-350	0,06-0,14	0,08-0,15	0,10-0,20	0,12-0,21	0,14-0,22	0,15-0,24
			2.	M 2 0	DP 5330	250-280						
	Kupfer *Copper*	150 - 180	1.	S 2 0	DM 5220	220-280	0,06-0,12	0,08-0,13	0,10-0,18	0,12-0,20	0,14-0,21	0,14-0,22
			2.	M 2 0	DP 5330	180-250						

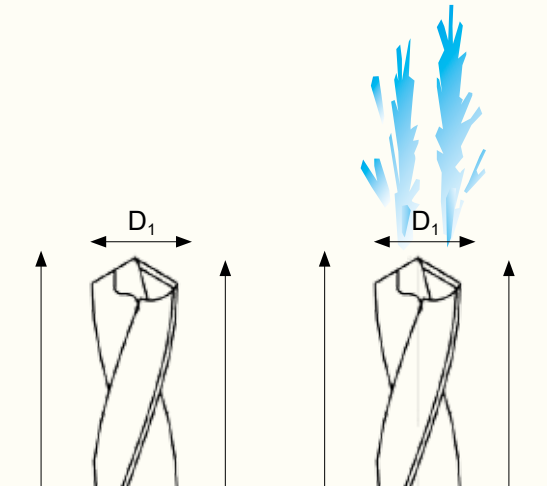
P-Line

Hochleistungs-VHM-Bohrer

P-Line

VHM-Hochleistungsbohrer, Feinstkorn, 3xD, rechtsschneidend,
Solid Carbide High Performance Drills, Super Micrograin, 3xD, RH

3 x D | 30° | 140° | DIN 6535 HA HE | DIN 6537 | IK IC | DP 6030

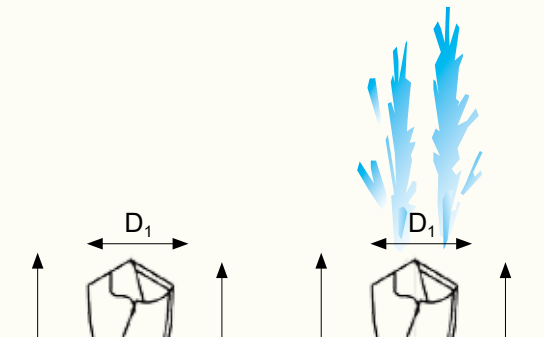


Bezeichnung *Part Number*	Lager *Stock* HA		Lager *Stock* HE		Maße [mm] *Dimensions*			
	IK *IC*	ohne *without* IK *IC*	IK IC	ohne *without* IK *IC*	D_1m_7	D_2h_6	L_1	L_2
P03 0300	●	○	○	○	3.00	6	62	20
P03 0310	○	○	○	○	3.10	6	62	20
P03 0320	○	○	○	○	3.20	6	62	20
P03 0330	●	○	○	○	3.30	6	62	20
P03 0340	○	○	○	○	3.40	6	62	20
P03 0350	○	○	○	○	3.50	6	62	20
P03 0360	○	○	○	○	3.60	6	62	20
P03 0370	○	○	○	○	3.70	6	62	20
P03 0380	○	○	○	○	3.80	6	66	24
P03 0390	○	○	○	○	3.90	6	66	24
P03 0400	●	○	○	○	4.00	6	66	24
P03 0410	○	○	○	○	4.10	6	66	24
P03 0420	●	○	○	○	4.20	6	66	24
P03 0430	○	○	○	○	4.30	6	66	24
P03 0440	○	○	○	○	4.40	6	66	24
P03 0450	○	○	○	○	4.50	6	66	24
P03 0460	○	○	○	○	4.60	6	66	24
P03 0465	○	○	○	○	4.65	6	66	24
P03 0470	○	○	○	○	4.70	6	66	24
P03 0480	○	○	○	○	4.80	6	66	28
P03 0490	○	○	○	○	4.90	6	66	28
P03 0500	●	○	○	○	5.00	6	66	28
P03 0510	○	○	○	○	5.10	6	66	28
P03 0520	○	○	○	○	5.20	6	66	28
P03 0530	○	○	○	○	5.30	6	66	28
P03 0540	○	○	○	○	5.40	6	66	28
P03 0550	○	○	○	○	5.50	6	66	28
P03 0555	○	○	○	○	5.55	6	66	28
P03 0560	○	○	○	○	5.60	6	66	28
P03 0570	○	○	○	○	5.70	6	66	28
P03 0580	○	○	○	○	5.80	6	66	28
P03 0590	○	○	○	○	5.90	6	66	28
P03 0600	●	○	○	○	6.00	6	66	28
P03 0610	○	○	○	○	6.10	8	79	34
P03 0620	○	○	○	○	6.20	8	79	34
P03 0630	○	○	○	○	6.30	8	79	34
P03 0640	○	○	○	○	6.40	8	79	34
P03 0650	○	○	○	○	6.50	8	79	34
P03 0660	○	○	○	○	6.60	8	79	34
P03 0670	○	○	○	○	6.70	8	79	34
P03 0680	●	○	○	○	6.80	8	79	34
P03 0690	○	○	○	○	6.90	8	79	34
P03 0700	●	○	○	○	7.00	8	79	34
P03 0710	○	○	○	○	7.10	8	79	41
P03 0720	○	○	○	○	7.20	8	79	41
P03 0730	○	○	○	○	7.30	8	79	41
P03 0740	○	○	○	○	7.40	8	79	41
P03 0750	○	○	○	○	7.50	8	79	41
P03 0760	○	○	○	○	7.60	8	79	41

● JD-Lager / *JD-Stock* ○ begrenzte Lagerhaltung - auf Anfrage / *limited stock - upon request*

VHM-Hochleistungsbohrer, Feinstkorn, 3xD, rechtsschneidend,
Solid Carbide High Performance Drills, Super Micrograin, 3xD, RH

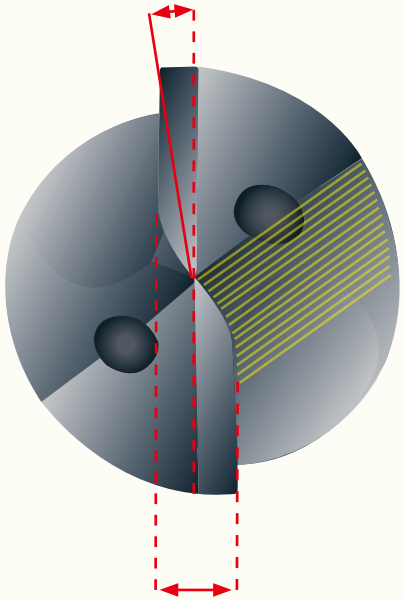
3 x D | 30° | 140° | DIN 6535 HA HE | DIN 6537 | IK IC | DP 6030



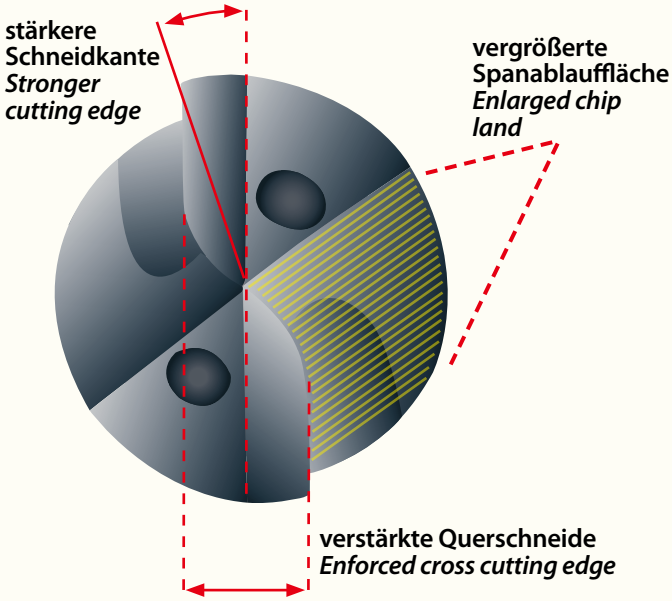
Bezeichnung *Part Number*	Lager *Stock* HA		Lager *Stock* HE		Maße [mm] *Dimensions*			
	IK *IC*	ohne *without* IK *IC*	IK IC	ohne *without* IK *IC*	D_1m_7	D_2h_6	L_1	L_2
P03 0770	○	○	○	○	7.70	8	79	41
P03 0780	○	○	○	○	7.80	8	79	41
P03 0790	○	○	○	○	7.90	8	79	41
P03 0800	●	○	○	○	8.00	8	79	41
P03 0810	○	○	○	○	8.10	10	89	47
P03 0820	○	○	○	○	8.20	10	89	47
P03 0830	○	○	○	○	8.30	10	89	47
P03 0840	○	○	○	○	8.40	10	89	47
P03 0850	●	○	○	○	8.50	10	89	47
P03 0860	○	○	○		8.60	10	89	47
P03 0870	○	○	○	○	8.70	10	89	47
P03 0880	○	○	○	○	8.80	10	89	47
P03 0890	○	○	○	○	8.90	10	89	47
P03 0900	●	○	○	○	9.00	10	89	47
P03 0910	○	○	○	○	9.10	10	89	47
P03 0920	○	○	○	○	9.20	10	89	47
P03 0930	○	○	○	○	9.30	10	89	47
P03 0940	○	○	○	○	9.40	10	89	47
P03 0950	○	○	○	○	9.50	10	89	47
P03 0960	○	○	○	○	9.60	10	89	47
P03 0970	○	○	○	○	9.70	10	89	47
P03 0980	○	○	○	○	9.80	10	89	47
P03 0990	○	○	○	○	9.90	10	89	47
P03 1000	●	○	○	○	10.00	10	89	47
P03 1010	○	○	○	○	10.10	12	102	55
P03 1020	●	○	○	○	10.20	12	102	55
P03 1030	○	○	○	○	10.30	12	102	55
P03 1040	○	○	○	○	10.40	12	102	55
P03 1050	○	○	○	○	10.50	12	102	55
P03 1060	○	○	○	○	10.60	12	102	55
P03 1070	○	○	○	○	10.70	12	102	55
P03 1080	○	○	○	○	10.80	12	102	55
P03 1090	○	○	○	○	10.90	12	102	55
P03 1100	●	○	○	○	11.00	12	102	55
P03 1110	○	○	○	○	11.10	12	102	55
P03 1120	○	○	○	○	11.20	12	102	55
P03 1130	○	○	○	○	11.30	12	102	55
P03 1140	○	○	○	○	11.40	12	102	55
P03 1150	○	○	○	○	11.50	12	102	55
P03 1160	○	○	○	○	11.60	12	102	55
P03 1170	○	○	○	○	11.70	12	102	55
P03 1180	○	○	○	○	11.80	12	102	55
P03 1190	○	○	○	○	11.90	12	102	55
P03 1200	●	○	○	○	12.00	12	102	55
P03 1250	○	○	○	○	12.50	14	107	60
P03 1280	○	○	○	○	12.80	14	107	60
P03 1300	○	○	○	○	13.00	14	107	60
P03 1350	○	○	○	○	13.50	14	107	60
P03 1380	○	○	○	○	13.80	14	107	60
P03 1400	○	○	○	○	14.00	14	107	60
P03 1450	○	○	○	○	14.50	16	115	65
P03 1480	○	○	○	○	14.80	16	115	65
P03 1500	○	○	○	○	15.00	16	115	65

● JD-Lager / *JD-Stock* ○ begrenzte Lagerhaltung - auf Anfrage / *limited stock - upon request*

Konventioneller Bohrer *Konventional Drill*



P-Line Bohrer *Drill*

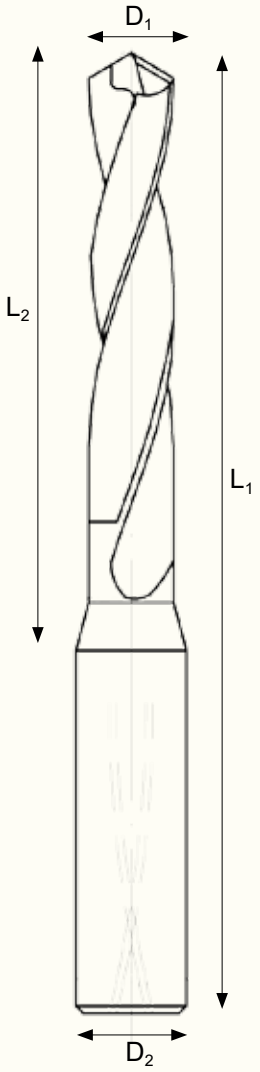


Schnittdaten-Empfehlungen *Cutting Data Recommendations*

Werkstück *Material*	Brinell-Härte *Brinell-hardness* HB	Zugfestigkeit *Tensile strength* N/mm²	Schnittgeschwindigkeit *Cutting speed* Vc [m/min]		Vorschub fz [mm/U] *Feed [mm/rev]*				
			P-Line P03	P-Line P03 IK *IC*	Durchmesser *Diameter* [mm]				
					4 - 6	6 - 8	8 - 10	10 - 12	13 - 15
Baustahl, Einsatzstahl, Automatenstahl, Vergütungsstahl *Mild steel, heat treated steel*	< 135	< 500	115	140	0,18	0,22	0,25	0,30	0,32
	135 - 200	500 - 700	105	115	0,16	0,20	0,23	0,27	0,30
	200 - 300	700 - 1000	90	95	0,14	0,18	0,20	0,23	0,26
	300 - 390	1000 - 1300	70	75	0,11	0,14	0,16	0,20	0,22
Werkzeugstahl (legiert/unlegiert) *Tool steel (alloyed, unalloyed)*	< 390	< 1300	55	60	0,11	0,14	0,16	0,20	0,23
rostfreier Stahl *Stainless steel*	< 235	< 850	45	50	0,10	0,13	0,15	0,16	0,18
	235 - 330	850 - 1100	45	50	0,09	0,12	0,14	0,15	0,17
Grauguss mit Lamellengraphit *Cast iron*	<175	< 600	170	180	0,23	0,28	0,33	0,37	0,39
Temperguss *Malleable cast iron*	175 - 235	600 - 850	150	160	0,20	0,25	0,28	0,32	0,35
Grauguss mit Kugelgraphit *Nodular cast iron*	< 235	< 850	120	130	0,15	0,22	0,25	0,28	0,30
AL / AL-Legierungen (<12% SI) *AL / AL-alloys (<12% Si)*	< 60	< 300	180	200	0,25	0,30	0,40	0,50	0,55
Kupfer, Bronze, Messing *Copper, bronze, brass*	< 100	< 350	70	80	0,05	0,06	0,07	0,09	0,11
nichtmetallische Werkstoffe *Non-metallic materials*	< 100	< 350	-	-	-	-	-	-	-

VHM-Hochleistungsbohrer, Feinstkorn, 5xD, rechtsschneidend,
Solid Carbide High Performance Drills, Super Micrograin, 5xD, RH

5 x D | 30° | 140 | DIN 6535 HA HE | DIN 6537 | IK IC | DP 6030



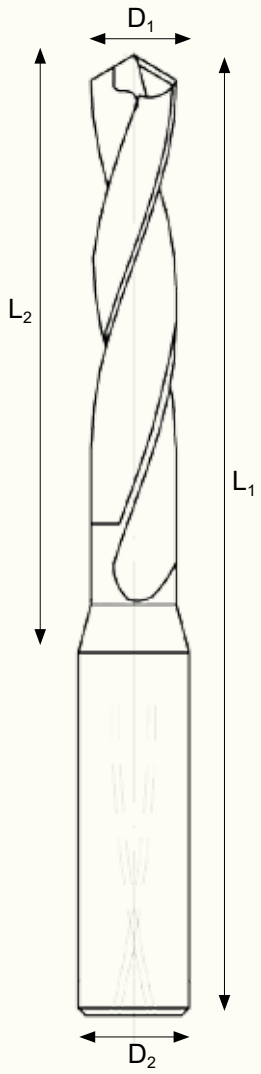
Bezeichnung *Part Number*	Lager *Stock* HA	Lager *Stock* HE	Maße [mm] *Dimensions*			
	IK *IC*	ohne without IK *IC*	D_1m_7	D_2h_6	L_1	L_2
P05 0300	●	○	3.00	6	66	28
P05 0310	●	○	3.10	6	66	28
P05 0320	●	○	3.20	6	66	28
P05 0330	●	○	3.30	6	66	28
P05 0340	●	○	3.40	6	66	28
P05 0350	●	○	3.50	6	66	28
P05 0360	●	○	3.60	6	66	28
P05 0370	●	○	3.70	6	66	28
P05 0380	●	○	3.80	6	74	36
P05 0390	●	○	3.90	6	74	36
P05 0400	●	○	4.00	6	74	36
P05 0410	●	○	4.10	6	74	36
P05 0420	●	○	4.20	6	74	36
P05 0430	●	○	4.30	6	74	36
P05 0440	●	○	4.40	6	74	36
P05 0450	●	○	4.50	6	74	36
P05 0460	●	○	4.60	6	74	36
P05 0465	●	○	4.55	6	74	36
P05 0470	●	○	4.70	6	74	36
P05 0480	●	○	4.80	6	74	44
P05 0490	●	○	4.90	6	74	44
P05 0500	●	○	5.00	6	82	44
P05 0510	●	○	5.10	6	82	44
P05 0520	●	○	5.20	6	82	44
P05 0530	●	○	5.30	6	82	44
P05 0540	●	○	5.40	6	82	44
P05 0550	●	○	5.50	6	82	44
P05 0555	●	○	5.55	6	82	44
P05 0560	●	○	5.60	6	82	44
P05 0570	●	○	5.70	6	82	44
P05 0580	●	○	5.80	6	82	44
P05 0590	●	○	5.90	6	82	44
P05 0600	●	○	6.00	6	82	44
P05 0610	●	○	6.10	8	91	53
P05 0620	●	○	6.20	8	91	53
P05 0630	●	○	6.30	8	91	53
P05 0640	●	○	6.40	8	91	53
P05 0650	●	○	6.50	8	91	53
P05 0660	●	○	6.60	8	91	53
P05 0670	●	○	6.70	8	91	53
P05 0680	●	○	6.80	8	91	53
P05 0690	●	○	6.90	8	91	53
P05 0700	●	○	7.00	8	91	53
P05 0710	●	○	7.10	8	91	53
P05 0720	●	○	7.20	8	91	53
P05 0730	●	○	7.30	8	91	53
P05 0740	●	○	7.40	8	91	53
P05 0750	●	○	7.50	8	91	53
P05 0760	●	○	7.60	8	91	53
P05 0770	●	○	7.70		91	53

● JD-Lager / *JD-Stock* ○ begrenzte Lagerhaltung - auf Anfrage / *limited stock - upon request*

P-Line

VHM-Hochleistungsbohrer, Feinstkorn, 5xD, rechtsschneidend,
Solid Carbide High Performance Drills, Super Micrograin, 5xD, RH

5 x D | 30° | 140 | DIN 6535 HA HE | DIN 6537 | IK IC | DP 6030



Bezeichnung *Part Number*	Lager *Stock* HA	Lager *Stock* HE	Maße [mm] *Dimensions*			
	IK *IC*	ohne without IK *IC*	D_1m_7	D_2h_6	L_1	L_2
P05 0780	●	○	7.80	8	91	53
P05 0790	●	○	7.90	8	91	53
P05 0800	●	○	8.00	8	91	53
P05 0810	●	○	8.10	10	103	61
P05 0820	●	○	8.20	10	103	61
P05 0830	●	○	8.30	10	103	61
P05 0840	●	○	8.40	10	103	61
P05 0850	●	○	8.50	10	103	61
P05 0860	●	○	8.60	10	103	61
P05 0870	●	○	8.70	10	103	61
P05 0880	●	○	8.80	10	103	61
P05 0890	●	○	8.90	10	103	61
P05 0900	●	○	9.00	10	103	61
P05 0910	●	○	9.10	10	103	61
P05 0920	●	○	9.20	10	103	61
P05 0930	●	○	9.30	10	103	61
P05 0940	●	○	9.40	10	103	61
P05 0950	●	○	9.50	10	103	61
P05 0960	●	○	9.60	10	103	61
P05 0970	●	○	9.70	10	103	61
P05 0980	●	○	9.80	10	103	61
P05 0990	●	○	9.90	10	103	61
P05 1000	●	○	10.00	10	103	61
P05 1010	●	○	10.10	12	118	71
P05 1020	●	○	10.20	12	118	71
P05 1030	●	○	10.30	12	118	71
P05 1040	●	○	10.40	12	118	71
P05 1050	●	○	10.50	12	118	71
P05 1060	●	○	10.60	12	118	71
P05 1070	●	○	10.70	12	118	71
P05 1080	●	○	10.80	12	118	71
P05 1090	●	○	10.90	12	118	71
P05 1100	●	○	11.00	12	118	71
P05 1110	●	○	11.10	12	118	71
P05 1120	●	○	11.20	12	118	71
P05 1130	●	○	11.30	12	118	71
P05 1140	●	○	11.40	12	118	71
P05 1150	●	○	11.50	12	118	71
P05 1160	●	○	11.60	12	118	71
P05 1170	●	○	11.70	12	118	71
P05 1180	●	○	11.80	12	118	71
P05 1190	●	○	11.90	12	118	71
P05 1200	●	○	12.00	12	118	71
P05 1250	●	○	12.50	14	124	77
P05 1280	●	○	12.80	14	124	77
P05 1300	●	○	13.00	14	124	77
P05 1350	●	○	13.50	14	124	77
P05 1380	●	○	13.80	14	124	77
P05 1400	●	○	14.00	14	124	77
P05 1450	●	○	14.50	16	133	83
P05 1480	●	○	14.80	16	133	83
P05 1500	●	○	15.00	16	133	83

● JD-Lager / *JD-Stock* ○ begrenzte Lagerhaltung - auf Anfrage / *limited stock - upon request*

P-Line

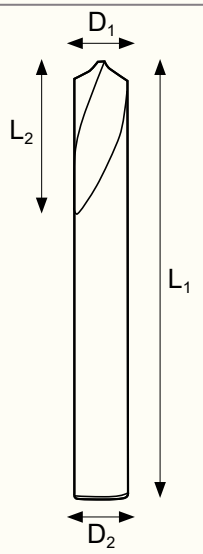
Hochleistungs-VHM-Bohrer
High Performance Carbide Drill

Schnittdaten-Empfehlungen *Cutting Data Recommendations*

Werkstück *Material*	Brinell-Härte *Brinell-hardness* HB	Zugfestigkeit *Tensile strength* N/mm²	Schnittgeschwindigkeit *Cutting speed* Vc [m/min]		Vorschub fz [mm/U] *Feed [mm/rev]*				
					Durchmesser *Diameter* [mm]				
			P-Line P05	P-Line P05 IK *IC*	4 - 6	6 - 8	8 - 10	10 - 12	13 - 15
Baustahl, Einsatzstahl, Automatenstahl, Vergütungsstahl *Mild steel, heat treated steel*	< 135	< 500	115	140	0,18	0,22	0,25	0,30	0,32
	135 - 200	500 - 700	105	115	0,16	0,20	0,23	0,27	0,30
	200 - 300	700 - 1000	90	95	0,14	0,18	0,20	0,23	0,26
	300 - 390	1000 - 1300	70	75	0,11	0,14	0,16	0,20	0,22
Werkzeugstahl (legiert/unlegiert) *Tool steel (alloyed, unalloyed)*	< 390	< 1300	55	60	0,11	0,14	0,16	0,20	0,23
rostfreier Stahl *Stainless steel*	< 235	< 850	45	50	0,10	0,13	0,15	0,16	0,18
	235 - 330	850 - 1100	45	50	0,09	0,12	0,14	0,15	0,17
Grauguss mit Lamellengraphit *Cast iron*	<175	< 600	170	180	0,23	0,28	0,33	0,37	0,39
Temperguss *Malleable cast iron*	175 - 235	600 - 850	150	160	0,20	0,25	0,28	0,32	0,35
Grauguss mit Kugelgraphit *Nodular cast iron*	< 235	< 850	120	130	0,15	0,22	0,25	0,28	0,30
AL / AL-Legierungen (<12% SI) *AL / AL-alloys (<12% Si)*	< 60	< 300	180	200	0,25	0,30	0,40	0,50	0,55
Kupfer, Bronze, Messing *Copper, bronze, brass*	< 100	< 350	70	80	0,05	0,06	0,07	0,09	0,11
nichtmetallische Werkstoffe *Non-metallic materials*	< 100	< 350	-	-	-	-	-	-	-

NC-Anbohrer, VHM, 90°
Spot Drill, Solid Carbide, 90°

2 Zähne *flute* | 30° | DIN 6353 HA | Typ Type N | JD STD. | DN630+ (TiALN)



Bezeichnung *Part Number*	Lager / *Stock* DN 630+	Maße [mm] *Dimensions*			
		D_1h_5	D_2h_5	L_1	L_2
JD 2090 030	●	3	3	38	8
JD 2090 040	●	4	4	50	10
JD 2090 050	●	5	5	50	13
JD 2090 060	●	6	6	57	13
JD 2090 080	●	8	8	63	23
JD 2090 100	●	10	10	66	24
JD 2090 120	●	12	12	72	24
JD 2090 160	●	16	16	82	29
JD 2090 200	●	20	20	92	35

L_2: Spannutlänge / *flute length*

● JD-Lager / *JD-Stock* ○ begrenzte Lagerhaltung - auf Anfrage / *limited stock - upon request*