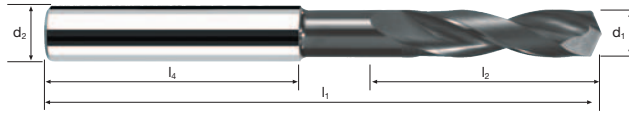
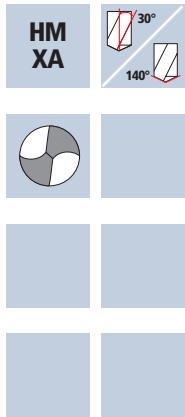


Spiralbohrer Supradrill® HX

3xd



			Rm 1300-1500	HRC 48-56	HRC 56-60	HRC > 60			HSS GG(G)
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							DURO-SD	
							B52111	
							B53111	
Ø Code	d1 m7	d2 h6	l1	l2	l4	L _{max}		
.0260	2.60	6	62	20	36	14.8		●
.0300	3.00	6	62	20	36	16.2		●
.0340	3.40	6	62	20	36	15.8		●
.0350	3.50	6	62	20	36	15.8		●
.0400	4.00	6	66	24	36	18.9		●
.0420	4.20	6	66	24	36	18.8		●
.0430	4.30	6	66	24	36	18.8		●
.0450	4.50	6	66	24	36	18.6		●
.0500	5.00	6	66	28	36	18.8		●
.0510	5.10	6	66	28	36	18.8		●
.0520	5.20	6	66	28	36	18.7		●
.0550	5.50	6	66	28	36	18.5		●
.0560	5.60	6	66	28	36	18.5		●
.0600	6.00	6	66	28	36	18.6		●
.0650	6.50	8	79	34	36	29.1		●
.0670	6.70	8	79	34	36	29.0		●
.0690	6.90	8	79	34	36	28.9		●
.0700	7.00	8	79	34	36	28.8		●
.0710	7.10	8	79	41	36	28.7		●
.0750	7.50	8	79	41	36	28.5		●
.0800	8.00	8	79	41	36	28.5		●

Anwendung



Werkstoff

Werkzeugstahl
gehärtet
42 - 48 HRC

d1 [mm]	v _c [m/min]	f [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
3.00	35	0.060	3715	225	1.5	4.3
4.00	35	0.080	2785	225	3.0	5.0
4.30	35	0.085	2590	220	3.0	5.1
5.00	35	0.100	2230	225	4.5	5.0
5.50	35	0.110	2025	225	5.5	4.9
6.00	35	0.120	1855	225	6.5	5.0
6.50	35	0.130	1715	225	7.5	7.7
6.90	35	0.135	1615	220	8.0	7.9
8.00	35	0.155	1395	215	11.0	8.0

Werkzeugstahl
gehärtet
48 - 52 HRC

d1 [mm]	v _c [m/min]	f [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
3.00	30	0.050	3185	160	1.0	6.1
4.00	30	0.065	2385	155	2.0	7.3
4.30	30	0.070	2220	155	2.5	7.3
5.00	30	0.085	1910	160	3.0	7.1
5.50	30	0.090	1735	155	3.5	7.1
6.00	30	0.100	1590	160	4.5	7.0
6.50	30	0.110	1470	160	5.5	10.9
6.90	30	0.115	1385	160	6.0	10.8
8.00	30	0.130	1195	155	8.0	11.0

Werkzeugstahl
gehärtet
52 - 56 HRC

d1 [mm]	v _c [m/min]	f [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
3.00	20	0.045	2120	95	0.5	10.2
4.00	20	0.055	1590	85	1.0	13.3
4.30	20	0.060	1480	90	1.5	12.5
5.00	20	0.070	1275	90	2.0	12.5
5.50	20	0.080	1155	90	2.0	12.3
6.00	20	0.085	1060	90	2.5	12.4
6.50	20	0.095	980	95	3.0	18.3
6.90	20	0.080	925	75	3.0	23.1
8.00	20	0.085	795	70	3.5	24.4

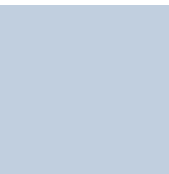
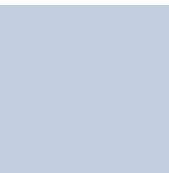
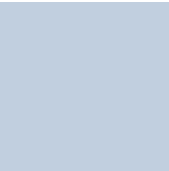
Werkzeugstahl
gehärtet
56 - 60 HRC

d1 [mm]	v _c [m/min]	f [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
3.00	15	0.020	1590	30	0.0	32.4
4.00	15	0.025	1195	30	0.5	37.8
4.30	15	0.025	1110	30	0.5	37.5
5.00	15	0.030	955	30	0.5	37.6
5.50	15	0.035	870	30	0.5	36.9
6.00	15	0.040	795	30	1.0	37.2
6.50	15	0.040	735	30	1.0	58.1
6.90	15	0.040	690	30	1.0	57.7
8.00	15	0.050	595	30	1.5	57.0

Werkstoff

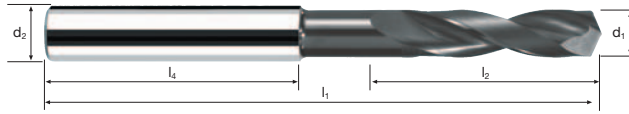
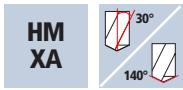
Werkzeugstahl
gehärtet
> 60 HRC

d1 [mm]	v _c [m/min]	f [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
3.00	10	0.015	1060	15	0.0	64.8
4.00	10	0.020	795	15	0.0	75.6
4.30	10	0.025	740	20	0.5	56.3
5.00	10	0.030	635	20	0.5	56.4
5.50	10	0.030	580	15	0.5	73.8
6.00	10	0.035	530	20	0.5	55.8
6.50	10	0.035	490	15	0.5	116.2
6.90	10	0.040	460	20	0.5	86.6
8.00	10	0.045	400	20	1.0	85.5



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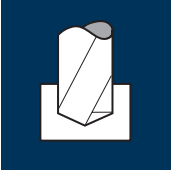
3xd



			Rm 1300-1500	HRC 48-56	HRC 56-60	HRC > 60			HSS GG(G)
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Beispiel: Bestell-Nr. B52111 .0810							DURO-SD	
							B52111	
							B53111	
Ø Code	d1 m7	d2 h6	l1	l2	l4	L _{max}		
.0810	8.10	10	89	47	40	32.4		●
.0850	8.50	10	89	47	40	32.1		●
.0860	8.60	10	89	47	40	32.0		●
.0885	8.85	10	89	47	40	31.8		●
.0900	9.00	10	89	47	40	31.7		●
.0910	9.10	10	89	47	40	31.7		●
.0950	9.50	10	89	47	40	31.5		●
.1000	10.00	10	89	47	40	31.5		●
.1030	10.30	12	102	55	45	37.2		●
.1040	10.40	12	102	55	45	37.1		●
.1050	10.50	12	102	55	45	37.1		●
.1070	10.70	12	102	55	45	37.0		●
.1100	11.00	12	102	55	45	36.7		●
.1150	11.50	12	102	55	45	36.5		●
.1160	11.60	12	102	55	45	36.4		●
.1190	11.90	12	102	55	45	36.4		●
.1200	12.00	12	102	55	45	36.4		●
.1210	12.10	14	107	60	45	39.3		●
.1220	12.20	14	107	60	45	39.2		●
.1250	12.50	14	107	60	45	39.1		●
.1270	12.70	14	107	60	45	39.0		●
.1300	13.00	14	107	60	45	38.7		●
.1400	14.00	14	107	60	45	38.4		●

Anwendung



Werkstoff

Werkzeugstahl
gehärtet
42 - 48 HRC

d1 [mm]	v _c [m/min]	f [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
8.60	35	0.160	1295	205	12.0	9.4
9.00	35	0.170	1240	210	13.5	9.1
10.00	35	0.185	1115	205	16.0	9.2
10.40	35	0.190	1070	205	17.5	10.9
11.00	35	0.195	1015	200	19.0	11.0
12.00	35	0.210	930	195	22.0	11.2
12.20	35	0.210	915	190	22.0	12.4
13.00	35	0.220	855	190	25.0	12.2
14.00	35	0.235	795	185	28.5	12.5

Werkzeugstahl
gehärtet
48 - 52 HRC

d1 [mm]	v _c [m/min]	f [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
8.60	30	0.135	1110	150	8.5	12.8
9.00	30	0.140	1060	150	9.5	12.7
10.00	30	0.155	955	150	12.0	12.6
10.40	30	0.155	920	145	12.5	15.4
11.00	30	0.165	870	145	14.0	15.2
12.00	30	0.175	795	140	16.0	15.6
12.20	30	0.175	785	135	16.0	17.4
13.00	30	0.185	735	135	18.0	17.2
14.00	30	0.195	680	135	21.0	17.1

Werkzeugstahl
gehärtet
52 - 56 HRC

d1 [mm]	v _c [m/min]	f [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
8.60	20	0.090	740	65	4.0	29.5
9.00	20	0.095	705	65	4.0	29.3
10.00	20	0.100	635	65	5.0	29.1
10.40	20	0.100	610	60	5.0	37.1
11.00	20	0.105	580	60	5.5	36.7
12.00	20	0.110	530	60	7.0	36.4
12.20	20	0.110	520	55	6.5	42.8
13.00	20	0.115	490	55	7.5	42.2
14.00	20	0.125	455	55	8.5	41.9

Werkzeugstahl
gehärtet
56 - 60 HRC

d1 [mm]	v _c [m/min]	f [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
8.60	15	0.050	555	30	1.5	64.0
9.00	15	0.050	530	25	1.5	76.1
10.00	15	0.055	475	25	2.0	75.6
10.40	15	0.060	460	30	2.5	74.2
11.00	15	0.060	435	25	2.5	88.1
12.00	15	0.065	400	25	3.0	87.4
12.20	15	0.065	390	25	3.0	94.1
13.00	15	0.070	365	25	3.5	92.9
14.00	15	0.075	340	25	4.0	92.2

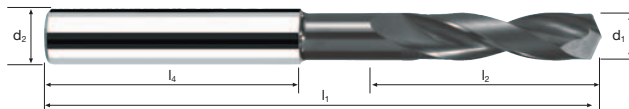
Werkstoff

Werkzeugstahl
gehärtet
> 60 HRC

d1 [mm]	v _c [m/min]	f [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
8.60	10	0.045	370	15	1.0	128.0
9.00	10	0.045	355	15	1.0	126.8
10.00	10	0.050	320	15	1.0	126.0
10.40	10	0.050	305	15	1.5	148.4
11.00	10	0.055	290	15	1.5	146.8
12.00	10	0.060	265	15	1.5	145.6
12.20	10	0.060	260	15	2.0	156.8
13.00	10	0.060	245	15	2.0	154.8
14.00	10	0.065	225	15	2.5	153.6

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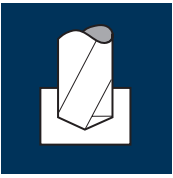
3xd



			Rm 1300-1500	HRC 48-56	HRC 56-60	HRC > 60			HSS GG(G)
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							DURO-SD	
							B52111	
							B53111	
ø Code	d1 m7	d2 h6	l1	l2	l4	L _{max}		
.1410	14.10	16	115	65	48	41.3	●	
.1420	14.20	16	115	65	48	41.2	●	
.1470	14.70	16	115	65	48	41.0	●	
.1500	15.00	16	115	65	48	40.7	●	
.1540	15.40	16	115	65	48	40.5	●	
.1600	16.00	16	115	65	48	40.4	●	
.1920	19.20	20	131	79	50	48.6	●	

Anwendung



Werkstoff

Werkzeugstahl
gehärtet
42 - 48 HRC

d1 [mm]	v _c [m/min]	f [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
14.10	35	0.235	790	185	29.0	13.4
14.20	35	0.235	785	185	29.5	13.4
14.70	35	0.245	760	185	31.5	13.3
15.00	35	0.245	745	185	32.5	13.2
15.40	35	0.250	725	180	33.5	13.5
16.00	35	0.260	695	180	36.0	13.5
19.20	35	0.310	580	180	52.0	16.2

Werkzeugstahl
gehärtet
48 - 52 HRC

14.10	30	0.195	675	130	20.5	19.0
14.20	30	0.195	670	130	20.5	19.0
14.70	30	0.205	650	135	23.0	18.2
15.00	30	0.205	635	130	23.0	18.8
15.40	30	0.210	620	130	24.0	18.7
16.00	30	0.215	595	130	26.0	18.6
19.20	30	0.260	495	130	37.5	22.4

Werkzeugstahl
gehärtet
52 - 56 HRC

14.10	20	0.125	450	55	8.5	45.0
14.20	20	0.125	450	55	8.5	44.9
14.70	20	0.130	435	55	9.5	44.7
15.00	20	0.130	425	55	9.5	44.4
15.40	20	0.135	415	55	10.0	44.2
16.00	20	0.135	400	55	11.0	44.1
19.20	20	0.165	330	55	16.0	53.0

Werkzeugstahl
gehärtet
56 - 60 HRC

14.10	15	0.075	340	25	4.0	99.0
14.20	15	0.075	335	25	4.0	98.9
14.70	15	0.075	325	25	4.0	98.3
15.00	15	0.075	320	25	4.5	97.7
15.40	15	0.080	310	25	4.5	97.2
16.00	15	0.080	300	25	5.0	97.0
19.20	15	0.095	250	25	7.0	116.6

Werkstoff

Werkzeugstahl
gehärtet
> 60 HRC

d1 [mm]	v _c [m/min]	f [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
14.10	10	0.065	225	15	2.5	165.0
14.20	10	0.065	225	15	2.5	164.8
14.70	10	0.070	215	15	2.5	163.8
15.00	10	0.070	210	15	2.5	162.8
15.40	10	0.070	205	15	3.0	162.0
16.00	10	0.070	200	15	3.0	161.6
19.20	10	0.085	165	15	4.5	194.4