5xD Ratio drills

Series no. **5744**

Tool material **Solid Carbide**

Surface **a**

5xD Cutting depth | RT 100 US Type | 140° Point angle | m7 Tolerance on Ø | Internal coolant | HA Shank form | R Cutting direction

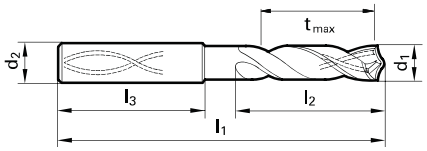
P	Steel	
M	Stainless steel	●
K	Cast iron	
N	Aluminum	
S	Titanium alloys	●
H	Hardened steel	○

●=Optimal
○=Limited

web thinning ≥ Ø 3.000 • relieved cone • main cutting edge form concave • optimized cutting geometry

stainless/acid-/heat-resistant steels • alloyed and high tensile steels up to 1600 N/mm² • Inconel, Hastelloy, Monel • Titanium and Titanium alloys

$t_{max} = l_2-(1.5 \times d_1)$



Speeds and feeds information on pg. 562

Diameter (d1) inch	wire/ltr	mm	d2 mm	l1 mm	t_{max} mm	l2 mm	EDP #
0.1181		3.00	6.00	66.00	23.50	28.00	**9057440030000**
0.1220		3.10	6.00	66.00	23.35	28.00	**9057440031000**
0.1248	1/8	3.17	6.00	66.00	23.25	28.00	**9057440031700**
0.1260		3.20	6.00	66.00	23.20	28.00	**9057440032000**
0.1280		3.25	6.00	66.00	23.13	28.00	**9057440032500**
0.1299		3.30	6.00	66.00	23.05	28.00	**9057440033000**
0.1339		3.40	6.00	66.00	22.90	28.00	**9057440034000**
0.1378		3.50	6.00	66.00	22.75	28.00	**9057440035000**
0.1406	9/64 #28	3.57	6.00	66.00	22.65	28.00	**9057440035700**
0.1417		3.60	6.00	66.00	22.60	28.00	**9057440036000**
0.1457		3.70	6.00	66.00	22.45	28.00	**9057440037000**
0.1496		3.80	6.00	74.00	30.30	36.00	**9057440038000**
0.1535		3.90	6.00	74.00	30.15	36.00	**9057440039000**
0.1563	5/32	3.97	6.00	74.00	30.05	36.00	**9057440039700**
0.1575		4.00	6.00	74.00	30.00	36.00	**9057440040000**
0.1614		4.10	6.00	74.00	29.85	36.00	**9057440041000**
0.1654		4.20	6.00	74.00	29.70	36.00	**9057440042000**
0.1693		4.30	6.00	74.00	29.55	36.00	**9057440043000**
0.1720	11/64	4.37	6.00	74.00	29.45	36.00	**9057440043700**
0.1732		4.40	6.00	74.00	29.40	36.00	**9057440044000**
0.1772		4.50	6.00	74.00	29.25	36.00	**9057440045000**
0.1811		4.60	6.00	74.00	29.10	36.00	**9057440046000**
0.1831		4.65	6.00	74.00	29.03	36.00	**9057440046500**
0.1850		4.70	6.00	74.00	28.95	36.00	**9057440047000**
0.1874	3/16	4.76	6.00	82.00	36.86	44.00	**9057440047600**
0.1890		4.80	6.00	82.00	36.80	44.00	**9057440048000**
0.1929		4.90	6.00	82.00	36.65	44.00	**9057440049000**
0.1969		5.00	6.00	82.00	36.50	44.00	**9057440050000**
0.2008		5.10	6.00	82.00	36.35	44.00	**9057440051000**
0.2031	13/64	5.16	6.00	82.00	36.26	44.00	**9057440051600**
0.2047		5.20	6.00	82.00	36.20	44.00	**9057440052000**
0.2087		5.30	6.00	82.00	36.05	44.00	**9057440053000**
0.2126		5.40	6.00	82.00	35.90	44.00	**9057440054000**
0.2165		5.50	6.00	82.00	35.75	44.00	**9057440055000**
0.2185		5.55	6.00	82.00	35.68	44.00	**9057440055500**
0.2189	7/32	5.56	6.00	82.00	35.66	44.00	**9057440055600**
0.2205		5.60	6.00	82.00	35.60	44.00	**9057440056000**
0.2244		5.70	6.00	82.00	35.45	44.00	**9057440057000**
0.2283		5.80	6.00	82.00	35.30	44.00	**9057440058000**
0.2323		5.90	6.00	82.00	35.15	44.00	**9057440059000**
0.2343	15/64	5.95	6.00	82.00	35.08	44.00	**9057440059500**
0.2362		6.00	6.00	82.00	35.00	44.00	**9057440060000**

Diameter (d1) inch	wire/ltr	mm	d2 mm	l1 mm	t_{max} mm	l2 mm	EDP #
0.2402		6.10	8.00	91.00	43.85	53.00	**9057440061000**
0.2441		6.20	8.00	91.00	43.70	53.00	**9057440062000**
0.2480		6.30	8.00	91.00	43.55	53.00	**9057440063000**
0.2500	1/4 E	6.35	8.00	91.00	43.48	53.00	**9057440063500**
0.2520		6.40	8.00	91.00	43.40	53.00	**9057440064000**
0.2559		6.50	8.00	91.00	43.25	53.00	**9057440065000**
0.2571	F	6.53	8.00	91.00	43.21	53.00	**9057440065300**
0.2598		6.60	8.00	91.00	43.10	53.00	**9057440066000**
0.2638		6.70	8.00	91.00	42.95	53.00	**9057440067000**
0.2657	17/64 H	6.75	8.00	91.00	42.88	53.00	**9057440067500**
0.2677		6.80	8.00	91.00	42.80	53.00	**9057440068000**
0.2717	I	6.90	8.00	91.00	42.65	53.00	**9057440069000**
0.2756		7.00	8.00	91.00	42.50	53.00	**9057440070000**
0.2795		7.10	8.00	91.00	42.35	53.00	**9057440071000**
0.2811	9/32 K	7.14	8.00	91.00	42.29	53.00	**9057440071400**
0.2835		7.20	8.00	91.00	42.20	53.00	**9057440072000**
0.2874		7.30	8.00	91.00	42.05	53.00	**9057440073000**
0.2913		7.40	8.00	91.00	41.90	53.00	**9057440074000**
0.2953		7.50	8.00	91.00	41.75	53.00	**9057440075000**
0.2969	19/64	7.54	8.00	91.00	41.69	53.00	**9057440075400**
0.2992		7.60	8.00	91.00	41.60	53.00	**9057440076000**
0.3031		7.70	8.00	91.00	41.45	53.00	**9057440077000**
0.3071		7.80	8.00	91.00	41.30	53.00	**9057440078000**
0.3110		7.90	8.00	91.00	41.15	53.00	**9057440079000**
0.3126	5/16	7.94	8.00	91.00	41.09	53.00	**9057440079400**
0.3150		8.00	8.00	91.00	41.00	53.00	**9057440080000**
0.3189		8.10	10.00	103.00	48.85	61.00	**9057440081000**
0.3228	P	8.20	10.00	103.00	48.70	61.00	**9057440082000**
0.3268		8.30	10.00	103.00	48.55	61.00	**9057440083000**
0.3280	21/64	8.33	10.00	103.00	48.51	61.00	**9057440083300**
0.3307		8.40	10.00	103.00	48.40	61.00	**9057440084000**
0.3346		8.50	10.00	103.00	48.25	61.00	**9057440085000**
0.3386		8.60	10.00	103.00	48.10	61.00	**9057440086000**
0.3425		8.70	10.00	103.00	47.95	61.00	**9057440087000**
0.3437	11/32	8.73	10.00	103.00	47.91	61.00	**9057440087300**
0.3465		8.80	10.00	103.00	47.80	61.00	**9057440088000**
0.3504		8.90	10.00	103.00	47.65	61.00	**9057440089000**
0.3543		9.00	10.00	103.00	47.50	61.00	**9057440090000**
0.3583		9.10	10.00	103.00	47.35	61.00	**9057440091000**
0.3594	23/64	9.13	10.00	103.00	47.31	61.00	**9057440091300**
0.3622		9.20	10.00	103.00	47.20	61.00	**9057440092000**
0.3642		9.25	10.00	103.00	47.13	61.00	**9057440092500**

5xD Ratio drills

Series no. **5744**

Diameter (d1) inch	wire/ltr	mm	d2 mm	l1 mm	t_{max} mm	l2 mm	EDP #
0.3661		9.30	10.00	103.00	47.05	61.00	**9057440093000**
0.3701		9.40	10.00	103.00	46.90	61.00	**9057440094000**
0.3740		9.50	10.00	103.00	46.75	61.00	**9057440095000**
0.3748	3/8	9.52	10.00	103.00	46.72	61.00	**9057440095200**
0.3780		9.60	10.00	103.00	46.60	61.00	**9057440096000**
0.3819		9.70	10.00	103.00	46.45	61.00	**9057440097000**
0.3858	W	9.80	10.00	103.00	46.30	61.00	**9057440098000**
0.3898		9.90	10.00	103.00	46.15	61.00	**9057440099000**
0.3906	25/64	9.92	10.00	103.00	46.12	61.00	**9057440099200**
0.3937		10.00	10.00	103.00	46.00	61.00	**9057440100000**
0.3976		10.10	12.00	118.00	55.85	71.00	**9057440101000**
0.4016		10.20	12.00	118.00	55.70	71.00	**9057440102000**
0.4055		10.30	12.00	118.00	55.55	71.00	**9057440103000**
0.4063	13/32	10.32	12.00	118.00	55.52	71.00	**9057440103200**
0.4094		10.40	12.00	118.00	55.40	71.00	**9057440104000**
0.4134		10.50	12.00	118.00	55.25	71.00	**9057440105000**
0.4173		10.60	12.00	118.00	55.10	71.00	**9057440106000**
0.4213		10.70	12.00	118.00	54.95	71.00	**9057440107000**
0.4220	27/64	10.72	12.00	118.00	54.92	71.00	**9057440107200**
0.4252		10.80	12.00	118.00	54.80	71.00	**9057440108000**
0.4291		10.90	12.00	118.00	54.65	71.00	**9057440109000**

Diameter (d1) inch	wire/ltr	mm	d2 mm	l1 mm	t_{max} mm	l2 mm	EDP #
0.4331		11.00	12.00	118.00	54.50	71.00	**9057440110000**
0.4370		11.10	12.00	118.00	54.35	71.00	**9057440111000**
0.4374	7/16	11.11	12.00	118.00	54.34	71.00	**9057440111100**
0.4409		11.20	12.00	118.00	54.20	71.00	**9057440112000**
0.4449		11.30	12.00	118.00	54.05	71.00	**9057440113000**
0.4488		11.40	12.00	118.00	53.90	71.00	**9057440114000**
0.4528		11.50	12.00	118.00	53.75	71.00	**9057440115000**
0.4567		11.60	12.00	118.00	53.60	71.00	**9057440116000**
0.4606		11.70	12.00	118.00	53.45	71.00	**9057440117000**
0.4646		11.80	12.00	118.00	53.30	71.00	**9057440118000**
0.4685		11.90	12.00	118.00	53.15	71.00	**9057440119000**
0.4689	15/32	11.91	12.00	118.00	53.14	71.00	**9057440119100**
0.4724		12.00	12.00	118.00	53.00	71.00	**9057440120000**
0.4764		12.10	14.00	124.00	58.85	77.00	**9057440121000**
0.4803		12.20	14.00	124.00	58.70	77.00	**9057440122000**
0.4843	31/64	12.30	14.00	124.00	58.55	77.00	**9057440123000**
0.4882		12.40	14.00	124.00	58.40	77.00	**9057440124000**
0.4921		12.50	14.00	124.00	58.25	77.00	**9057440125000**
0.4961		12.60	14.00	124.00	58.10	77.00	**9057440126000**
0.5000	1/2	12.70	14.00	124.00	57.95	77.00	**9057440127000**

Series # 5741

Material group	Hardness HRc	Hardness Bhn	SFM	Feed Rate - IPR 1/16 in. 1.590 mm	1/8 in. 3.170 mm	1/4 in. 6.350 mm	3/8 in. 9.520 mm	1/2 in. 12.700 mm	5/8 in. 15.870 mm	3/4 in. 19.050 mm	1 in. 25.400 mm	1 1/4 in. 31.750 mm	1 1/2 in. 38.100 mm
Common structural steels	-	≤ 150	425		0.0065	0.0100	0.0125	0.0160					
	≤ 32	≤ 301	360		0.0050	0.0080	0.0100	0.0125					
Free-cutting steels	≤ 25	≤ 255	475		0.0080	0.0125	0.0160	0.0200					
	≤ 32	≤ 301	360		0.0065	0.0100	0.0125	0.0160					
Unalloyed heat-treatable steels	≤ 20	≤ 220	395		0.0065	0.0100	0.0125	0.0160					
	≤ 25	≤ 255	360		0.0065	0.0100	0.0125	0.0160					
	≤ 32	≤ 301	345		0.0065	0.0100	0.0125	0.0160					
Alloyed heat-treatable steels	≤ 32	≤ 301	345		0.0065	0.0100	0.0125	0.0160					
	≤ 43	≤ 402	330		0.0050	0.0080	0.0100	0.0125					
Unalloyed case hardened steels	≤ 25	≤ 255	425		0.0080	0.0125	0.0160	0.0200					
Alloyed case hardened steels	≤ 32	≤ 301	395		0.0065	0.0100	0.0125	0.0160					
	≤ 43	≤ 402	280		0.0040	0.0065	0.0080	0.0100					
Nitriding steels	≤ 32	≤ 301	330		0.0050	0.0080	0.0100	0.0125					
	≤ 43	≤ 402	295		0.0040	0.0065	0.0080	0.0100					
Tool steels	≤ 25	≤ 255	215		0.0050	0.0080	0.0100	0.0125					
	≤ 43	≤ 402	180		0.0040	0.0065	0.0080	0.0100					
High speed steels	≤ 43	≤ 402	150		0.0030	0.0050	0.0065	0.0080					
Spring steels	≤ 38	≤ 354	150		0.0025	0.0040	0.0050	0.0065					
Hardened steels	≤ 48	≤ 460	150		0.0025	0.0040	0.0050	0.0065					
	≤ 66	-	80		0.0020	0.0030	0.0040	0.0050					
Stainless steels, sulphured	≤ 28	≤ 273	180		0.0030	0.0050	0.0065	0.0080					
austenitic	≤ 36	≤ 337	150		0.0030	0.0050	0.0065	0.0080					
martensitic	≤ 46	≤ 435	150		0.0025	0.0040	0.0050	0.0065					
Cast iron	≤ 23	≤ 242	690		0.0080	0.0125	0.0160	0.0200					
	≤ 38	≤ 354	510		0.0080	0.0125	0.0160	0.0200					
Spheroidal graphite iron and malleable cast iron	≤ 23	≤ 242	510		0.0065	0.0100	0.0125	0.0160					
	≤ 38	≤ 354	410		0.0065	0.0100	0.0125	0.0160					
Chilled cast iron	≤ 38	≤ 354	115		0.0025	0.0040	0.0050	0.0065					
New cast materials GGV	≤ 20	≤ 220											
	≤ 32	≤ 301											
New cast materials ADI	≤ 32	≤ 301											
	≤ 43	≤ 402											
Special alloys	≤ 54	≤ 549	80		0.0030	0.0050	0.0065	0.0080					
Ti and Ti-alloys	≤ 25	≤ 255	130		0.0030	0.0050	0.0065	0.0080					
	≤ 43	≤ 402	115		0.0025	0.0040	0.0050	0.0065					
Aluminium and Al-alloys	-	≤ 120	855										
Al wrought alloys	-	≤ 200	855										
Al cast alloys ≤ 10 % Si	-	≤ 180	720										
≤ 24 % Si	-	≤ 180	590										
Magnesium alloys	-	≤ 120	855										
Copper, low-alloyed	-	≤ 150	360										
Brass, short-chipping	-	≤ 180	885										
long-chipping	-	≤ 180	590										
Bronze, short-chipping	-	≤ 180	360										
	≤ 25	≤ 255	330										
Bronze, long-chipping	≤ 25	≤ 255	240										
	≤ 32	≤ 301	215										
Duroplastics													
Thermoplastics													
Reinforced plastics - Kevlar													
Reinforced plastics - GFK / CFK													

Series # 5744

Material group	Hardness HRc	Hardness Bhn	SFM	Feed Rate - IPR 1/16 in. 1.590 mm	1/8 in. 3.170 mm	1/4 in. 6.350 mm	3/8 in. 9.520 mm	1/2 in. 12.700 mm	5/8 in. 15.870 mm	3/4 in. 19.050 mm	1 in. 25.400 mm	1 1/4 in. 31.750 mm	1 1/2 in. 38.100 mm
Common structural steels	-	≤ 150	475		0.0065	0.0100	0.0125	0.0160					
	≤ 32	≤ 301	395		0.0050	0.0080	0.0100	0.0125					
Free-cutting steels	≤ 25	≤ 255	560		0.0080	0.0125	0.0160	0.0200					
	≤ 32	≤ 301	475		0.0080	0.0125	0.0160	0.0200					
Unalloyed heat-treatable steels	≤ 20	≤ 220	425		0.0080	0.0125	0.0160	0.0200					
	≤ 25	≤ 255	410		0.0065	0.0100	0.0125	0.0160					
	≤ 32	≤ 301	395		0.0065	0.0100	0.0125	0.0160					
Alloyed heat-treatable steels	≤ 32	≤ 301	395		0.0065	0.0100	0.0125	0.0160					
	≤ 43	≤ 402	345		0.0065	0.0100	0.0125	0.0160					
Unalloyed case hardened steels	≤ 25	≤ 255	475		0.0080	0.0125	0.0160	0.0200					
Alloyed case hardened steels	≤ 32	≤ 301	395		0.0065	0.0100	0.0125	0.0160					
	≤ 43	≤ 402	280		0.0040	0.0065	0.0080	0.0100					
Nitriding steels	≤ 32	≤ 301	350		0.0065	0.0100	0.0125	0.0160					
	≤ 43	≤ 402	330		0.0040	0.0065	0.0080	0.0100					
Tool steels	≤ 25	≤ 255	240		0.0050	0.0080	0.0100	0.0125					
	≤ 43	≤ 402	180		0.0040	0.0065	0.0080	0.0100					
High speed steels	≤ 43	≤ 402	195		0.0030	0.0050	0.0065	0.0080					
Spring steels	≤ 38	≤ 354	195		0.0025	0.0040	0.0050	0.0065					
Hardened steels	≤ 48	≤ 460	180		0.0025	0.0040	0.0050	0.0065					
	≤ 66	-	115		0.0020	0.0030	0.0040	0.0050					
Stainless steels, sulphured	≤ 28	≤ 273	195		0.0040	0.0065	0.0080	0.0100					
austenitic	≤ 36	≤ 337	180		0.0040	0.0065	0.0080	0.0100					
martensitic	≤ 46	≤ 435	165		0.0040	0.0065	0.0080	0.0100					
Cast iron	≤ 23	≤ 242	690		0.0100	0.0160	0.0200	0.0245					
	≤ 38	≤ 354	525		0.0100	0.0160	0.0200	0.0245					
Spheroidal graphite iron and malleable cast iron	≤ 23	≤ 242	450		0.0100	0.0160	0.0200	0.0245					
	≤ 38	≤ 354	425		0.0080	0.0125	0.0160	0.0200					
Chilled cast iron	≤ 38	≤ 354	130		0.0025	0.0040	0.0050	0.0065					
New cast materials GGV	≤ 20	≤ 220											
	≤ 32	≤ 301											
New cast materials ADI	≤ 32	≤ 301											
	≤ 43	≤ 402											
Special alloys	≤ 54	≤ 549	115		0.0030	0.0050	0.0065	0.0080					
Ti and Ti-alloys	≤ 25	≤ 255	150		0.0030	0.0050	0.0065	0.0080					
	≤ 43	≤ 402	130		0.0025	0.0040	0.0050	0.0065					
Aluminium and Al-alloys	-	≤ 120	1015										
Al wrought alloys	-	≤ 200	1015										
Al cast alloys ≤ 10 % Si	-	≤ 180	855										
≤ 24 % Si	-	≤ 180	720										
Magnesium alloys	-	≤ 120	920										
Copper, low-alloyed	-	≤ 150	410										
Brass, short-chipping	-	≤ 180	1065										
long-chipping	-	≤ 180	720										
Bronze, short-chipping	-	≤ 180	410										
	≤ 25	≤ 255	345										
Bronze, long-chipping	≤ 25	≤ 255	295										
	≤ 32	≤ 301	260										
Duroplastics													
Thermoplastics													
Reinforced plastics - Kevlar													
Reinforced plastics - GFK / CFK													