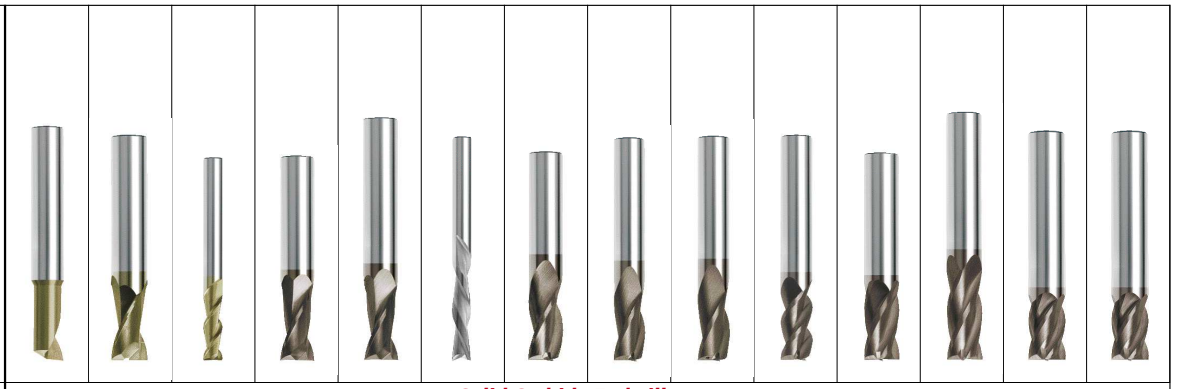
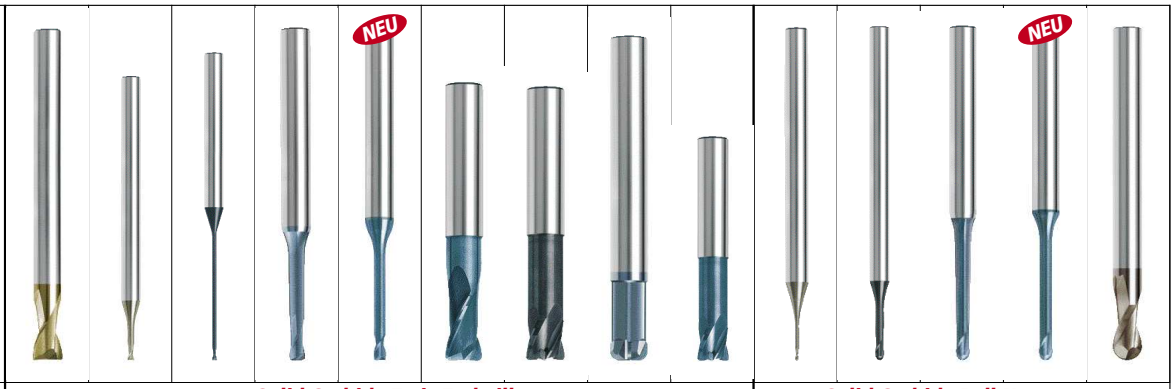


Drill Description ▶	*Solid Carbide Endmill*													
DIN ▶	HAM	HAM	6527	HAM	6527	HAM	HAM	6527	6527	HAM	HAM	6527	6527	6527
Length ▶	Short	Short/Long	Long	—	Long	—	—	Long	Long	Long	—	Long	Short/Long	—
Part Number	40-1001	40-1041	40-1081	40-1161	40-1201	40-1240	40-1281	40-1321	40-1361	40-1401	40-1441	40-1481	40-5151	40-5181
HAM Type	491	480/482/484	410	421	412	425	401	434	435	430	400	404	407/408	—
Page Number	10	11	12	14	15	16	17	18	20	21	22	23	24	25
Endmill Type	W	W	W	N	N	W	N	N	N	N	N	N	N	N
Material	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide
Flutes	1	2	2	2	2	2	3	3	3	3	4	4 – 6	4	4
Coating	TA-AL	TA-AL	TA-AL	TA	TA	—	TA	TA	TA	TA	TA	TA	TA	TA
Ø in mm	0,3 – 10	1 – 20	0,3 – 3	0,3 – 20	2 – 20	0,6 – 3	0,6 – 20	3 – 20	8 – 20	0,4 – 25	2 – 20	3 – 32	3 – 26	4 – 25
Ø in inch	.01 - .39	.04 - .79	.01 - .12	.01 - .79	.08 - .79	.02 - .12	.02 - .79	.12 - .79	.31 - .79	.02 - .98	.08 - .79	.12 - 1.26	.12 - 1.02	.16 - .98
Tech. Application ▶														
▼ **Material Group**														
Aluminum	●	●	●	○	○	●	○	○	○	○			○	○
Aluminum > 9% Si	●	●	●	○	○	●	○	○	○	○			○	○
Steel < 23 HRC				●	●		●	●	●	●	●	●	●	●
Steel < 38 HRC				●	●		●	●	●	●	●	●	●	●
Steel < 48 HRC				·	·		●	●	●	○	●	●	●	●
Steel < 55 HRC							○	○	○		●	●		
Steel < 60 HRC														
Steel < 66 HRC														
SST < 23 HRC			○	○	○		○	○	○	●	○	○	●	●
SST > 23 HRC			○	○	○		○	○	○	●			●	●
Cast Iron				●	●		●	●	●	●	●	●	●	●
Nodular, Ductile Iron				●	●		●	●	●	●	●	●	●	●
Iconel, Super Alloys				○	○		○	○	○	○	○	○	○	○
Titanium				○	○		○	○	○	●	○	○	●	●
Copper,Non-Ferrous	●	●	●	○	○	●	○	○	○	○			○	○
Graphite,Composites	○	○	○			●								
UNI														

● very suitable ○ suitable

Solid Carbide Endmill							Solid Carbide Roughing									
6527	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM
Long	Long	Extra Long	Extra Long	Extra Long	Long	Long	Long	Long	Long	—	Short	Short	Short	Short	Short	Short
40-1521	40-5160	40-5120	40-1561	40-1571	40-5200	40-5280	40-5351	40-1691	40-1681	40-1721	40-1580	40-1590	40-1600	40-1610	40-1620	40-1630
405	—	409	432/433/439	—	436/438	—	—	—	403/406	402	441	443	445	446	448	449
26	27	28	29	30	31	32	34	35	36	37	38	39	40	40	41	42
N	N	N	N	N	H	H	W	HR	HR	N	W	W	W	W	W	W
Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide
4	4	4 – 6	6 – 8	6 – 8	4 – 8	6 – 8	3	4	3 – 6	3 – 6	5 – 7	5 – 7	5 – 12	7 – 12	5 – 6	5 – 6
TA	TA	TA	TA	TA	TA-X	TA-X	TA-AL	TA-C	TA-C	TA-C	—	—	—	—	—	—
3 – 25	3 – 20	6 – 32	6 – 32	6 – 32	3 – 32	6 – 25	3 – 20	6 – 25	4 – 32	6 – 32	0,8 – 3,175	0,8 – 3,175	0,8 – 12,7	1,6 – 2,4	0,8 – 3,175	0,8 – 3,175
.12 - .98	.12 - .79	.24 - 1.26	.24 - 1.26	.24 - 1.26	.12 - 1.26	.24 - .98	.12 - .79	.24 - .98	.16 - 1.26	.24 - 1.26	.03 - .13	.03 - .13	.03 - .50	.06 - .09	.03 - .13	.03 - .13
	Eckradius					Eckradius										
	W+F	W+F			W+F	W+F										
○		○	●	●			●				○	○	○	○	○	○
○		○	●	●			●				○	○	○	○	○	○
●	●	●	●	●				●	●	●						
●	●	●	●	●				●	●	●						
●	●	●	●	●				●	●	●						
○	●	○	●	●	●	●										
	○				●	●										
					●	●										
●	●	○	●	●				○	○	○						
●	●	○	●	●				○	○	○						
●	●	●	●	●				●	●	●						
●	●	●	●	●				●	●	●						
○	○	○	●	●				●	●	●						
●	○	○	●	●												
○		○	●	●			●									
											●	●	●	●	●	●

● very suitable ○ suitable



Drill Description ▶	Solid Carbide Toric Endmills									Solid Carbide Ball Nose				
DIN ▶	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM
Length ▶	Long	Long	Extra Long	—	—	—	Extra Long	—	Long	Short/Long	Extra Long	Short/Long	Short/Long	Short/Long
Part Number	40-5420	40-5460	40-5480	40-6120	40-6130	40-5360	40-5600	40-5500	40-5520	40-5860	40-5880	40-6080	40-6090	40-5680
HAM Type	486	—	—	—	—	417	—	—	418/419	—	—	—	—	422/429
Page Number	44	45	46	47	50	53	54	55	56	58	59	60	62	65
Endmill Type	W	W	W	H	H	H	W	H	H	W	W	H	H	N
Material	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide
Flutes	2	2	2	2	2	2	4	3 – 4	4	2	2	2	2	2
Coating	TA-AL	TA-AL	Diamond	TA-X	TA-X	TA-X	Diamond	TA-X	TA-X	TA-AL	Diamond	TA-X	TA-X	TA
Ø in mm	1 – 16	0,2 – 6	0,2 – 6	0,2 – 6	0,2 – 6	0,5 – 6	2 – 12	2 – 16	2 – 16	0,2 – 6	0,2 – 6	0,2 – 6	0,2 – 6	0,4 – 20
Internal Coolant	.04 - .63	.01 - .24	.01 - .24	.01 - .24	.01 - .24	.02 - .24	.08 - .47	.08 - .63	.08 - .63	.08 - .24	.01 - .24	.01 - .24	.01 - .24	.02 - .63
Tech. Application ▶														
▼ **Material Group**														
Aluminum	●	●				○				●				
Aluminum > 9% Si	●	●				○	○			●				
Steel < 23 HRC				○	○	●		○	●			●	●	●
Steel < 38 HRC				●	●	●		●	●			●	●	●
Steel < 48 HRC				●	●	●		●	●			●	●	●
Steel < 55 HRC				●	●	●		●	○			●	●	○
Steel < 60 HRC				●	●			●				●	●	
Steel < 66 HRC								●						
SST < 23 HRC		○		○	○	○			○	○		○	○	○
SST > 23 HRC		○		○	○	○			○	○		○	○	○
Cast Iron				●	●	●		●	●			●	●	●
Nodular, Ductile Iron				●	●	●		●	●			●	●	●
Iconel, Super Alloys														
Titanium		○								○				
Copper,Non-Ferrous	●	●								●				
Graphite,Composites	○	○	●				●			○	●			
UNI														

● very suitable ○ suitable

Solid Carbide Ball Nose					Solid Carbide Special Cutters					Solid Carbide / PCD Cutters				
HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM	HAM
Short	Long	Extra Long	Long	Long	—	Short	Short	Short	—	Short	Short	Short/Long	Extra Long	Extra Long
40-5760	40-5781	40-5920	40-5981	40-5800	40-1880	40-1921	40-1961	40-2001	40-2041	43-1000	43-1040	43-1080	40-5640	40-6040
463/464	416	—	424/428	469	462	466	467	468	465	3460	3462/3463	3464/-65/-66	—	—
66	67	68	69	70	72	73	73	74	76	78	78	79	79	80
H	H	H	H	H	N	N	N	N	N	W	W	W	W	W
Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	Carbide	PKD	PKD	PKD	PKD	PKD
2	2	3	4	2	1	4	4	4	4	1	1	2	2	2
TA-X	TA-X	TA-X	TA-X	TA-X	—	TA	TA	TA	TA	—	—	—	—	—
0,4 – 16	3 – 10	2 – 20	3 – 20	1 – 10	2 – 12	4 – 20	4 – 12	0,5 – 6	2,8 – 9,8	3 – 12	4 – 10	6 – 20	4 – 20	4 – 20
.02 - .63	.12 - .39	.08 - .79	.12 - .79	.04 - .39	.08 - .47	.16 - .79	.16 - .47	.02 - .24	.11 - .39	.12 - .47	.16 - .39	.24 - .79	.16 - .79	.16 - .79
W+F	W+F	W+F	W+F	W+F									W+F	W+F
					●	●	●	●	●	●	●	●	●	●
					●	●	●	●	●	●	●	●	●	●
○	○		●	·	●	●	●	●	●					
●	○		●	●	●	●	●	●	●					
●	●	○	●	●	●	●	●	●	●					
●	●	●	●	●		○	○	○	○					
●	●	●	○	○										
○	●	●												
○			○	○		●	●	●	●					
○			○	○		●	●	●	●					
●	●	●	●	●	●	●	●	●	●					
●	●	●	●	●	●	●	●	●	●					
○						○	○	○	○					
○						○	○	●	●	○	○	○	○	○
					●	●	●	●	●	●	●	●	●	●
					○	○	○	○	○	●	●	●	●	●

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