DORMER PRAMET

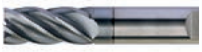
SOLID MILLING

2024

DORMER

SOLID MILLING – GENERAL CONTENT

SOLID MILLING

Navigator (by workpiece material)		P	M	K	N	S	H	📖
Tools for basic manufacturing, maintenance, repair, overhaul. Typically used with conventional machines. Suitable for low cutting parameters.	 Slotting	C1 C3	C1 C3	C1 C3	C366			5
	 Roughing	C9 C4	C908 C948	C9 C4	C9 C4	C908 C948		25
	 Semi-finishing	C2	C2	C2	C333 C2	C2		35
	 Finishing & Copy milling	C5 C907 C920	C5 C907 C920	C2 C907 C920	C159	C907 C920		45
	 Form cutters	C8 C7	C8 C7	C8 C7	C8 C7	C8 C7		49
	 Disc and Shell mills	D2 D7 D4	D2 D7 D4	D2 D7 D4	D2 D7 D4	D2 D76 D42		54
	 Basic carbide line	S9		S9	S9			69
Solid carbide tools for mixed manufacturing. Suitable for moderate cutting parameters.	 Slotting	S8	S71.	S8	S8	S71.		79
	 Semi-finishing	S8	S71.	S8	S8	S71.		95
Solid carbide tools for process security and productivity. Typically used with CNC and automated manufacturing. Suitable for high cutting parameters.	 Chamfering	S739 S740	S739 S740	S739 S740		S739 S740		105
	 Roughing & HFC	S765	S765	S765	S6..	S765	S536 (HFC)	109
	 Trochoidal milling	S77.	S77.	S77.		S77.	S52.	121
	 Semi-finishing	S76.	S26.	S76.	S662 S612	S76.	S5	126
	 Finishing	S768	S2	S768		S2	S5	145
	 Copy milling	S791	S2 S791	S511	S629	S2	S5	153
	 Thread milling	Thread forms: **M, MF, UNC, UNF, G, NPT**						167

ROTARY BURRS

(by suitability)	P ST	M VA	PMKSH DC	N AL GRP	S AS	Sets P100 P101	180

INSTRUCTIONS

**TOOLS FOR BASIC MANUFACTURING, MAINTENANCE, REPAIR, OVERHAUL.
TYPICALLY USED WITH CONVENTIONAL MACHINES.**

Material code (BMC)	HSS-E PM	HSS-E PM	HSS-E	HSS-E PM	HSS-E PM	HSS-E	HSS-E	HSS-E	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E
Mill Profile	N	N	W	N	N	N	N	N	N	N	N	N	N	N
Number of flutes (NOF)	2	2	2	2	2	2	2	2	3	3	3	3	3	3
Cut length														
Flute Helix (FHA)	λ 30°	λ 30°	λ 40°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 40°	λ 30°	λ 30°	λ 30°
Flute Helix (FHA)	λ 30°	λ 30°	λ 40°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 40°	λ 30°	λ 30°	λ 30°
Radial rake angle (GAMF)	γ 12°	γ 12°	γ 20°	γ 12°	γ 12°	γ 12°	γ 12°	γ 12°	γ 12°	γ 12°	γ 15°	γ 12°	γ 12°	γ 12°
Shank	DIN 1835B	DIN 1835B	DIN 1835B	DIN 1835B	DIN 1835B	DIN 1835A	DIN 1835B	DIN 1835A	DIN 1835B	DIN 1835B	DIN 1835B	DIN 1835B	DIN 1835B	DIN 1835B
Coating	Bright	TiCN	Bright	Bright	TiCN	Bright	Bright	Bright	Bright	Alcrona	Alcrona	Bright	Alcrona	Bright
Cutting diameter tolerance class (TCDC)	DC e8	DC e8	DC e8	DC e8	DC e8	DC js14	DC e8	DC e8	DC e8	DC e8	DC e8	DC e8	DC e8	DC e8
Direction														
Basic standard group (BSG)	DIN 327D	DIN 327D	DIN 844K	DIN 844K	DIN 844K	DORMER	DORMER	DORMER	DIN 327D	DIN 327D	DIN 327D	DIN 844K	DIN 844K	DIN 844L
														
Product Family Code	C110	C126	C159	C123	C139	C167	C135	C122	C306	C353	C367	C305	C352	C346
PSF cutting diameters range	1.00 – 40.00	1.00 – 25.00	2.00 – 20.00	1/16 – 30.00	2.00 – 22.00	6.00 – 16.00	2.00 – 20.00	5.00 – 22.00	3.00 – 30.00	3.00 – 30.00	2.00 – 20.00	2.00 – 32.00	3.00 – 20.00	3.00 – 20.00
	6	8	10	11	13	14	15	16	17	18	20	21	23	24
P	P1	■	■	◪	■	■	■	■	■	■	■	■	■	■	■
	P2	◪	■	◪	■	■	◪	◪	◪	■	■	◪	■	■	◪
	P3	◪	■		■	■	◪	◪	◪	◪	■	◪	◪	■	◪
	P4	◪	◪		■	◪	◪	◪	◪	◪	■	◪	◪	■	◪
M	M1	◪	◪	◪	◪	◪	◪	◪	◪	◪	◪	■	◪	◪	◪
	M2	◪	◪	◪	◪	◪	◪	◪	◪	◪	◪	■	◪	◪	◪
	M3		◪	◪		◪					◪	■		◪	
	M4		◪			◪					◪	■		◪	
K	K1	◪	■		◪	■	◪	◪	◪	◪	■		◪	■	◪
	K2	◪	■		◪	■	◪	◪	◪	◪	■		◪	■	◪
	K3	◪	■		◪	■	◪	◪	◪	◪	■		◪	■	◪
	K4	◪	■		◪	■	◪	◪	◪	◪	■		◪	■	◪
	K5	◪	■		◪	■	◪	◪	◪	◪	■		◪	■	◪
N	N1	◪	◪	■	◪	◪	◪	◪	◪	◪	◪	■	◪	◪	◪
	N2	◪	◪	■	◪	◪	◪	◪	◪	◪	◪	◪	◪	◪	
	N3	■	■	■	■	■	■	■	■	■	■	◪	■	■	■
	N4	◪	◪	■	◪	◪	◪	◪	◪	◪	◪	◪	◪	◪	◪
	N5														
S	S1	◪	■	◪	◪	■	◪	◪	◪	◪	■	◪	◪	■	◪
	S2	◪	◪		◪	◪	◪	◪	◪	◪	◪		■	◪	◪
	S3	◪	◪		◪	◪	◪	◪	◪	◪	◪		■	◪	◪
	S4	◪	◪		◪	◪	◪	◪	◪	◪	◪		■	◪	◪
H	H1														
	H2														
	H3														
	H4														

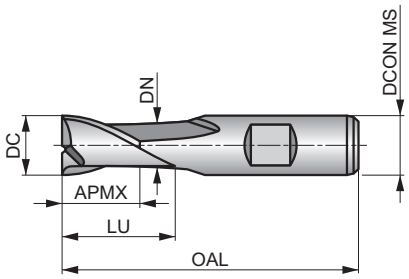
■ Primary use ◪ Possible use

C110

DORMER

2-Flute HSS-E-PM Slot End Mill, Bright Finish

Extra short cut length, 2-flute design provides high rigidity. Suitable for milling shallow slots and ramping. The accurate diameter means the tools are designed for milling standard keyway slots to a P9 tolerance. Versatile and can be used in mild steels, non-ferrous materials and medium strength titanium alloys.



HSS-E PM	N	NOF 2
	λ 30°	γ 12°
DIN 1835B	Bright	DC e8
	DIN 327D	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	K1.1	K1.2
■53 E	■59 E	■61 E	■45 E	◪40 E	◪37 E	◪30 D	◪22 D	◪41 E	◪35 E	◪37 E	◪30 D	◪35 E	◪26 E
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
◪19 E	◪62 E	◪50 E	◪40 D	◪54 E	◪42 E	◪34 D	◪50 D	◪38 D	◪28 D	◪24 C	◪20 C	◪57 D	◪43 D
K5.3	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S2.1**
◪33 D	◪95 G	◪71 F	◪48 F	◪48 E	◪43 E	◪31 E	■50 E	■29 E	■15 E	◪50 E	■35 D	◪25 D	◪20 C
S3.1	**S4.1**												
◪15 C	◪12 C												

DCON MS tolerance h6.

Product	DC (inch)	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C1101.0	–	1.00	6.00	2.50	47.0	2	–	–
C1101.5	–	1.50	6.00	3.00	47.0	2	–	–
C1101/16	1/16	1.59	6.00	3.00	47.0	2	–	–
C1101.8	–	1.80	6.00	4.00	48.0	2	–	–
C1102.0	–	2.00	6.00	4.00	48.0	2	–	–
C1103/32	3/32	2.38	6.00	5.00	49.0	2	–	–
C1102.5	–	2.50	6.00	5.00	49.0	2	–	–
C1102.8	–	2.80	6.00	5.00	49.0	2	–	–
C1103.0	–	3.00	6.00	5.00	49.0	2	–	–
C1101/8	1/8	3.18	6.00	6.00	50.0	2	–	–
C1103.5	–	3.50	6.00	6.00	50.0	2	–	–
C1103.8	–	3.80	6.00	7.00	51.0	2	–	–
C1104.0	–	4.00	6.00	7.00	51.0	2	–	–
C1104.5	–	4.50	6.00	7.00	51.0	2	–	–
C1103/16	3/16	4.76	6.00	8.00	52.0	2	–	–
C1105.0	–	5.00	6.00	8.00	52.0	2	–	–
C1105.5	–	5.50	6.00	8.00	52.0	2	–	–
C1105.75 [2)]	–	5.75	6.00	8.00	52.0	2	–	–
C1106.0	–	6.00	6.00	8.00	52.0	2	–	–
C1101/4	1/4	6.35	10.00	10.00	60.0	2	–	–
C1106.5	–	6.50	10.00	10.00	60.0	2	–	–
C1107.0	–	7.00	10.00	10.00	60.0	2	–	–
C1107.5	–	7.50	10.00	10.00	60.0	2	–	–
C1107.75 [2)]	–	7.75	10.00	11.00	61.0	2	–	–
C1105/16	5/16	7.94	10.00	11.00	61.0	2	–	–

Product	DC	DC	DCON MS	APMX	OAL	NOF	LU	DN
	(inch)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
C1108.0	–	8.00	10.00	11.00	61.0	2	–	–
C1108.5	–	8.50	10.00	11.00	61.0	2	–	–
C1109.0	–	9.00	10.00	11.00	61.0	2	–	–
C1109.5	–	9.50	10.00	11.00	61.0	2	–	–
C1103/8	3/8	9.52	10.00	13.00	63.0	2	22.50	9.50
C11010.0	–	10.00	10.00	13.00	63.0	2	22.50	9.50
C11013/32	13/32	10.32	12.00	13.00	70.0	2	–	–
C11010.5	–	10.50	12.00	13.00	70.0	2	–	–
C11011.0	–	11.00	12.00	13.00	70.0	2	–	–
C1107/16	7/16	11.11	12.00	13.00	70.0	2	–	–
C11011.5	–	11.50	12.00	13.00	70.0	2	–	–
C11012.0	–	12.00	12.00	16.00	73.0	2	27.50	11.50
C11012.5	–	12.50	12.00	16.00	73.0	2	27.50	11.50
C1101/2	1/2	12.70	12.00	16.00	73.0	2	27.50	11.50
C11013.0	–	13.00	12.00	16.00	73.0	2	27.50	11.50
C11017/32	17/32	13.49	12.00	16.00	73.0	2	27.50	11.50
C11014.0	–	14.00	12.00	16.00	73.0	2	27.50	11.50
C1109/16	9/16	14.29	12.00	16.00	73.0	2	27.50	11.50
C11015.0	–	15.00	12.00	16.00	73.0	2	27.50	11.50
C1105/8	5/8	15.88	16.00	19.00	79.0	2	30.50	15.50
C11016.0	–	16.00	16.00	19.00	79.0	2	30.50	15.50
C11017.0	–	17.00	16.00	19.00	79.0	2	30.50	15.50
C11011/16	11/16	17.46	16.00	19.00	79.0	2	30.50	15.50
C11018.0	–	18.00	16.00	19.00	79.0	2	30.50	15.50
C11019.0	–	19.00	16.00	19.00	79.0	2	30.50	15.50
C1103/4	3/4	19.05	20.00	22.00	88.0	2	37.50	18.50
C11020.0	–	20.00	20.00	22.00	88.0	2	37.50	19.50
C11022.0	–	22.00	20.00	22.00	88.0	2	37.50	19.50
C1107/8	7/8	22.22	20.00	22.00	88.0	2	37.50	19.50
C11024.0	–	24.00	25.00	26.00	102.0	2	45.50	23.50
C11025.0	–	25.00	25.00	26.00	102.0	2	45.50	24.50
C1101	1″	25.40	25.00	26.00	102.0	2	45.50	24.50
C11026.0	–	26.00	25.00	26.00	102.0	2	45.50	24.50
C11028.0	–	28.00	25.00	26.00	102.0	2	45.50	24.50
C11030.0	–	30.00	25.00	26.00	102.0	2	45.50	24.50
C11032.0	–	32.00	32.00	32.00	112.0	2	51.50	31.50
C11035.0 [1)]	–	35.00	32.00	32.00	112.0	2	51.50	31.50
C11036.0 [1)]	–	36.00	32.00	32.00	112.0	2	51.50	31.50
C11040.0 [1)]	–	40.00	40.00	38.00	130.0	2	59.50	39.00

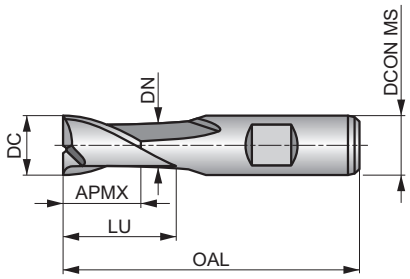
[1)] DC tolerance h10; available in HSS-E only.
[2)] DC tolerance h10; slot not in P9 tolerance.

C126

DORMER

2-Flute HSS-E-PM Slot End Mill, TiCN Coating

Extra short cut length, 2-flute design provides high rigidity. Suitable for milling shallow slots and ramping. The accurate diameter means the tools are designed for milling standard keyway slots to a P9 tolerance. TiCN coating increases the tool life and improves performance when milling hard and abrasive materials.



HSS-E PM	N	NOF 2
	λ 30°	γ 12°
DIN 1835B	TiCN	DC e8
	DIN 327D	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■126 E	■141 E	■146 E	■108 E	■95 E	◪84 D	■81 E	■65 D	◪55 D	■48 D	◪41 D	◪34 D	◪62 E	◪52 E
M2.1	**M2.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**
◪55 E	◪45 D	◪26 C	◪25 C	■60 E	■44 E	■33 E	■111 E	■90 E	■72 D	■98 E	■75 E	■61 D	■91 D
K4.2	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**
■68 D	■50 D	■43 C	■36 C	■103 D	■77 D	■60 D	◪177 G	◪133 F	◪89 F	◪89 E	■80 E	■57 E	■93 E
N3.2	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**		
■55 E	■28 E	◪93 E	■45 D	■40 D	◪15 C	■33 C	◪14 C	■25 C	◪10 C	■20 C	◪8 C		

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C1261.0	1.00	6.00	2.50	47.0	2	–	–
C1261.5	1.50	6.00	3.00	47.0	2	–	–
C1262.0	2.00	6.00	4.00	48.0	2	–	–
C1262.5	2.50	6.00	5.00	49.0	2	–	–
C1263.0	3.00	6.00	5.00	49.0	2	–	–
C1263.5	3.50	6.00	6.00	50.0	2	–	–
C1264.0	4.00	6.00	7.00	51.0	2	–	–
C1264.5	4.50	6.00	7.00	51.0	2	–	–
C1265.0	5.00	6.00	8.00	52.0	2	–	–
C1265.5	5.50	6.00	8.00	52.0	2	–	–
C1266.0	6.00	6.00	8.00	52.0	2	–	–
C1266.5	6.50	10.00	10.00	60.0	2	–	–
C1267.0	7.00	10.00	10.00	60.0	2	–	–
C1267.5	7.50	10.00	10.00	60.0	2	–	–
C1268.0	8.00	10.00	11.00	61.0	2	–	–
C1268.5	8.50	10.00	11.00	61.0	2	–	–
C1269.0	9.00	10.00	11.00	61.0	2	–	–
C12610.0	10.00	10.00	13.00	63.0	2	22.50	9.50
C12610.5	10.50	12.00	13.00	70.0	2	–	–
C12611.0	11.00	12.00	13.00	70.0	2	–	–
C12611.5	11.50	12.00	13.00	70.0	2	–	–
C12612.0	12.00	12.00	16.00	73.0	2	27.50	11.50
C12612.5	12.50	12.00	16.00	73.0	2	27.50	11.50
C12613.0	13.00	12.00	16.00	73.0	2	27.50	11.50
C12614.0	14.00	12.00	16.00	73.0	2	27.50	11.50

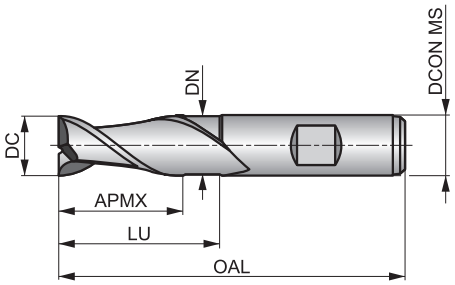
Product	DC	DCON MS	APMX	OAL	NOF	LU	DN
	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
C12615.0	15.00	12.00	16.00	73.0	2	27.50	11.50
C12616.0	16.00	16.00	19.00	79.0	2	30.50	15.50
C12618.0	18.00	16.00	19.00	79.0	2	30.50	15.50
C12620.0	20.00	20.00	22.00	88.0	2	37.50	19.50
C12622.0	22.00	20.00	22.00	88.0	2	37.50	19.50
C12624.0	24.00	25.00	26.00	102.0	2	45.50	23.50
C12625.0	25.00	25.00	26.00	102.0	2	45.50	24.50

C159

DORMER

2-Flute HSS-E Slot End Mill, Bright Finish

Short cut length, 2-flute design with 40° helix for milling slots, profile milling and ramping in softer materials, whilst the accurate diameter means standard keyway slots to P9 tolerance can be milled. Designed specifically for milling in non-ferrous materials.



HSS-E	W	NOF 2
	λ 40°	γ 20°
DIN 1835B	Bright	DC e8
	DIN 844K	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2	N1.1	N1.2	N1.3
◪46 D	◪52 D	◪54 D	◪40 D	◪35 D	◪32 D	◪27 D	◪28 D	◪23 C	◪22 C	◪19 C	■142 F	■107 E	■72 E

N2.1	N2.2	N2.3	N3.1	N3.2	N3.3	N4.1	N4.2	S1.1
■72 D	■64 D	◪46 D	■75 D	■44 D	■22 D	■75 D	■29 D	◪28 C

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C1592.0	2.00	6.00	7.00	51.0	2	–	–
C1593.0	3.00	6.00	8.00	52.0	2	–	–
C1594.0	4.00	6.00	11.00	55.0	2	–	–
C1595.0	5.00	6.00	13.00	57.0	2	–	–
C1596.0	6.00	6.00	13.00	57.0	2	–	–
C1598.0	8.00	10.00	19.00	69.0	2	–	–
C15910.0	10.00	10.00	22.00	72.0	2	–	–
C15912.0	12.00	12.00	26.00	83.0	2	–	–
C15914.0	14.00	12.00	26.00	83.0	2	37.50	11.50
C15916.0	16.00	16.00	32.00	92.0	2	43.50	15.50
C15918.0	18.00	16.00	32.00	92.0	2	43.50	15.50
C15920.0	20.00	20.00	38.00	104.0	2	53.50	19.50

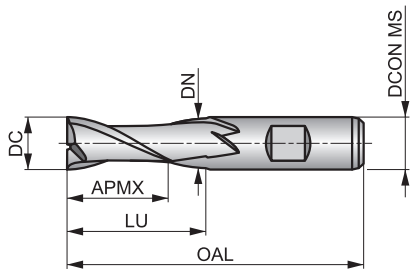
C123

DORMER

2-Flute HSS-E-PM Slot End Mill, Bright Finish

Short cut length, 2-flute design provides high rigidity. Suitable for milling shallow slots and ramping. The accurate diameter means the tools are designed for milling standard keyway slots to a P9 tolerance. Versatile and can be used in mild steels, non-ferrous materials and medium strength titanium alloys.

HSS-E PM	N	NOF 2
	λ 30°	γ 12°
DIN 1835B	Bright	DC e8
	DIN 844K	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	K1.1	K1.2
■53 D	■59 D	■61 D	■45 D	■40 D	■37 D	■30 C	■22 C	◪34 D	◪29 D	◪31 D	◪25 C	◪30 D	◪22 D
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
◪17 D	◪55 D	◪45 D	◪36 C	◪49 D	◪37 D	◪30 B	◪45 C	◪34 C	◪25 C	◪22 B	◪18 B	◪51 C	◪39 C
K5.3	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S2.1**
◪30 C	◪95 F	◪71 E	◪48 E	◪48 D	◪43 D	◪31 D	■50 D	■29 D	■15 D	◪50 D	■30 C	◪25 C	◪20 B
S3.1	**S4.1**												
◪15 B	◪12 B												

DCON MS tolerance h6.

Product	DC (inch)	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C1231/16 [1]	1/16	1.59	6.00	7.00	51.0	2	–	–
C1232.0	–	2.00	6.00	7.00	51.0	2	–	–
C1232.5	–	2.50	6.00	8.00	52.0	2	–	–
C1233.0	–	3.00	6.00	8.00	52.0	2	–	–
C1231/8 [1]	1/8	3.18	6.00	10.00	54.0	2	–	–
C1233.5	–	3.50	6.00	10.00	54.0	2	–	–
C1235/32 [1]	5/32	3.97	6.00	11.00	55.0	2	–	–
C1234.0	–	4.00	6.00	11.00	55.0	2	–	–
C1234.5	–	4.50	6.00	11.00	55.0	2	–	–
C1233/16 [1]	3/16	4.76	6.00	13.00	57.0	2	–	–
C1235.0	–	5.00	6.00	13.00	57.0	2	–	–
C1235.5	–	5.50	6.00	13.00	57.0	2	–	–
C1236.0	–	6.00	6.00	13.00	57.0	2	–	–
C1231/4 [1]	1/4	6.35	10.00	16.00	66.0	2	–	–
C1236.5	–	6.50	10.00	16.00	66.0	2	–	–
C1237.0	–	7.00	10.00	16.00	66.0	2	–	–
C1237.5	–	7.50	10.00	16.00	66.0	2	–	–
C1235/16 [1]	5/16	7.94	10.00	19.00	69.0	2	–	–
C1238.0	–	8.00	10.00	19.00	69.0	2	–	–
C1238.5	–	8.50	10.00	19.00	69.0	2	–	–
C1239.0	–	9.00	10.00	19.00	69.0	2	–	–
C1239.5	–	9.50	10.00	19.00	69.0	2	–	–
C1233/8 [1]	3/8	9.52	10.00	22.00	72.0	2	31.50	9.50
C12310.0	–	10.00	10.00	22.00	72.0	2	31.50	9.50
C12311.0	–	11.00	12.00	22.00	79.0	2	–	–

Product	DC	DC	DCON MS	APMX	OAL	NOF	LU	DN
	(inch)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
C12312.0	–	12.00	12.00	26.00	83.0	2	37.50	11.50
C1231/2 [1)]	1/2	12.70	12.00	26.00	83.0	2	37.50	11.50
C12313.0	–	13.00	12.00	26.00	83.0	2	37.50	11.50
C12314.0	–	14.00	12.00	26.00	83.0	2	37.50	11.50
C12315.0	–	15.00	12.00	26.00	83.0	2	37.50	11.50
C12316.0	–	16.00	16.00	32.00	92.0	2	43.50	15.50
C12318.0	–	18.00	16.00	32.00	92.0	2	43.50	15.50
C12320.0	–	20.00	20.00	38.00	104.0	2	53.50	19.50
C12322.0	–	22.00	20.00	38.00	104.0	2	53.50	19.50
C12325.0	–	25.00	25.00	45.00	121.0	2	64.50	24.50
C12330.0	–	30.00	25.00	45.00	121.0	2	64.50	24.50

[1)] DC tolerance -0.0005 inches / -0.0013 inches.

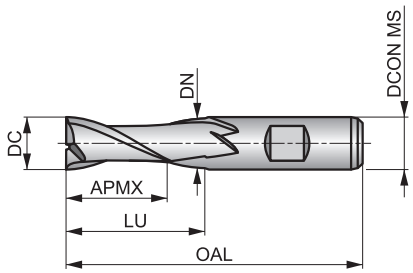
C139

DORMER

2-Flute HSS-E-PM Slot End Mill, TiCN Coating

Short cut length, 2-flute design provides high rigidity. Suitable for milling shallow slots and ramping. The accurate diameter means the tools are designed for milling standard keyway slots to a P9 tolerance. TiCN coating increases the life of the cutter and improves performance when milling hard and abrasive materials.

HSS-E PM	N	NOF 2
	λ 30°	γ 12°
DIN 1835B	TiCN	DC e8
	DIN 844K	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■113 D	■126 D	■131 D	■97 D	■85 D	◪75 C	■74 D	■59 C	◪50 C	■44 C	◪37 C	◪31 C	◪62 D	◪52 D
M2.1	**M2.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**
◪55 D	◪45 C	◪26 B	◪25 B	■55 D	■41 D	■31 D	■98 D	■80 D	■64 C	■87 D	■67 D	■54 B	■81 C
K4.2	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**
■61 C	■45 C	■38 B	■32 B	■91 C	■69 C	■53 C	◪159 F	◪120 E	◪80 E	◪80 D	■72 D	■51 D	■84 D
N3.2	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**		
■50 D	■25 D	◪84 D	■45 C	■35 C	◪15 B	■33 B	◪14 B	■25 B	◪10 B	■20 B	◪8 B		

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C1392.0	2.00	6.00	7.00	51.0	2	–	–
C1393.0	3.00	6.00	8.00	52.0	2	–	–
C1394.0	4.00	6.00	11.00	55.0	2	–	–
C1395.0	5.00	6.00	13.00	57.0	2	–	–
C1395.5	5.50	6.00	13.00	57.0	2	–	–
C1396.0	6.00	6.00	13.00	57.0	2	–	–
C1396.5	6.50	10.00	16.00	66.0	2	–	–
C1397.0	7.00	10.00	16.00	66.0	2	–	–
C1397.5	7.50	10.00	16.00	66.0	2	–	–
C1398.0	8.00	10.00	19.00	69.0	2	–	–
C1398.5	8.50	10.00	19.00	69.0	2	–	–
C1399.0	9.00	10.00	19.00	69.0	2	–	–
C13910.0	10.00	10.00	22.00	72.0	2	31.50	9.50
C13911.0	11.00	12.00	22.00	79.0	2	–	–
C13912.0	12.00	12.00	26.00	83.0	2	37.50	11.50
C13913.0	13.00	12.00	26.00	83.0	2	37.50	11.50
C13914.0	14.00	12.00	26.00	83.0	2	37.50	11.50
C13915.0	15.00	12.00	26.00	83.0	2	37.50	11.50
C13916.0	16.00	16.00	32.00	92.0	2	43.50	15.50
C13918.0	18.00	16.00	32.00	92.0	2	43.50	15.50
C13920.0	20.00	20.00	38.00	104.0	2	53.50	19.50
C13922.0	22.00	20.00	38.00	104.0	2	53.50	19.50

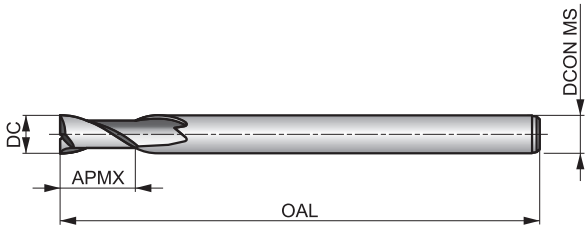
C167

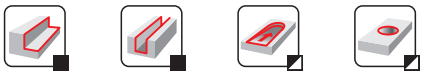
DORMER

2-flute HSS-E Extra Long Reach End Mill, Bright Finish

Short cut length, 2-flute design without neck recess and with extra long reach for machining extra deep pockets in difficult to reach areas. Suitable for milling in mild steels and non-ferrous materials.

HSS-E	N	NOF 2
	λ 30°	γ 12°
DIN 1835A	Bright	DC js14
	DORMER	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	K1.1	K1.2
■46 C	■52 C	■54 C	■40 C	◪35 C	◪32 C	◪26 B	◪19 B	◪34 C	◪29 C	◪31 C	◪25 B	◪30 C	◪22 C
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
◪17 C	◪49 C	◪40 C	◪32 B	◪44 C	◪33 C	◪27 A	◪40 B	◪30 B	◪22 B	◪19 A	◪16 A	◪46 B	◪34 B
K5.3	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S2.1**
◪27 B	◪81 E	◪60 D	◪41 D	◪41 C	◪37 C	◪26 C	■43 C	■25 C	■13 C	◪43 C	◪30 B	◪25 B	◪20 A
S3.1	**S4.1**												
◪15 A	◪12 A												

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
C1676.0	6.00	6.00	13.00	180.0	2
C1678.0	8.00	8.00	19.00	180.0	2
C16710.0	10.00	10.00	22.00	200.0	2
C16712.0	12.00	12.00	26.00	200.0	2
C16716.0	16.00	16.00	32.00	200.0	2

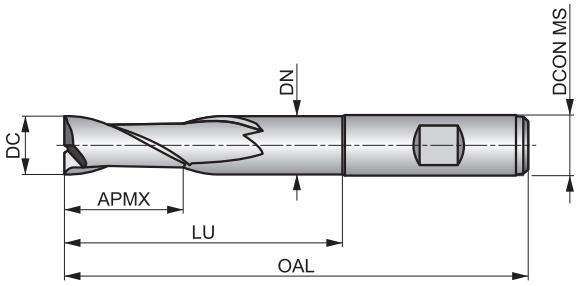
C135

DORMER

2-Flute HSS-E Extra Long Reach Slot End Mill, Bright Finish

Short cut length, 2-flute design provides high rigidity for milling standard keyway slots to a P9 tolerance. Provides increased strength and reduced vibrations in difficult to reach areas. This can be used in mild steels and non-ferrous materials.

HSS-E	N	NOF 2
	λ 30°	γ 12°
DIN 1835B	Bright	DC e8
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	K1.1	K1.2
■46 C	■52 C	■54 C	■40 C	◪35 C	◪32 C	◪26 B	◪19 B	◪34 C	◪29 C	◪31 C	◪25 B	◪30 C	◪22 C
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
◪17 C	◪49 C	◪40 C	◪32 B	◪44 C	◪33 C	◪27 A	◪40 B	◪30 B	◪22 B	◪19 A	◪16 A	◪46 B	◪34 B
K5.3	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S2.1**
◪27 B	◪81 E	◪60 D	◪41 D	◪41 C	◪37 C	◪26 C	■43 C	■25 C	■13 C	◪43 C	◪30 B	◪25 B	◪20 A
S3.1	**S4.1**												
◪15 A	◪12 A												

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C1352.0	2.00	6.00	7.00	54.0	2	18.00	1.80
C1353.0	3.00	6.00	8.00	56.0	2	20.00	2.80
C1354.0	4.00	6.00	11.00	63.0	2	27.00	3.70
C1355.0	5.00	6.00	13.00	68.0	2	32.00	4.70
C1356.0	6.00	6.00	13.00	68.0	2	32.00	5.70
C1358.0	8.00	10.00	19.00	88.0	2	48.00	7.50
C13510.0	10.00	10.00	22.00	95.0	2	54.50	9.50
C13512.0	12.00	12.00	26.00	110.0	2	64.50	11.50
C13514.0	14.00	12.00	26.00	110.0	2	64.50	11.50
C13516.0	16.00	16.00	32.00	123.0	2	74.50	15.50
C13518.0	18.00	16.00	32.00	123.0	2	74.50	15.50
C13520.0	20.00	20.00	38.00	141.0	2	90.50	19.50

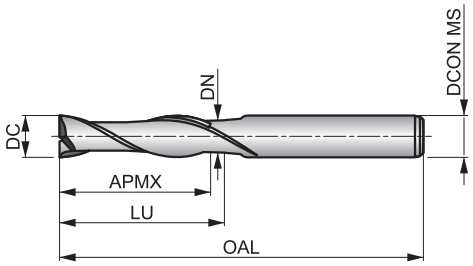
C122

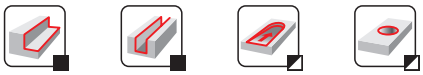
DORMER

2-flute HSS-E Extra Long Series End Mill, Bright Finish

Long cut length, 2-flute design provides high rigidity for milling standard slots. Designed for machining deep slots in difficult to reach areas in mild steels and non-ferrous materials.

HSS-E	N	NOF 2
	λ 30°	γ 12°
DIN 1835A	Bright	DC e8
	DORMER	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	K1.1	K1.2
■41 C	■46 C	■48 C	■35 C	◪31 C	◪28 C	◪23 B	◪17 B	◪27 C	◪23 C	◪24 C	◪20 B	◪25 C	◪19 C
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
◪14 C	◪44 C	◪36 C	◪29 B	◪39 C	◪30 C	◪24 A	◪36 B	◪27 B	◪20 B	◪17 A	◪14 A	◪41 B	◪31 B
K5.3	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S2.1**
◪24 B	◪76 E	◪57 D	◪38 D	◪38 C	◪34 C	◪25 C	■40 C	■23 C	■12 C	◪40 C	◪25 B	◪20 B	◪15 A
S3.1	**S4.1**												
◪11 A	◪9 A												

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C1225.0	5.00	5.00	22.00	65.0	2	–	–
C1226.0	6.00	6.00	27.00	75.0	2	–	–
C1227.0	7.00	8.00	33.00	85.0	2	–	–
C1228.0	8.00	8.00	33.00	85.0	2	–	–
C12210.0	10.00	10.00	40.00	95.0	2	–	–
C12212.0	12.00	12.00	45.00	110.0	2	–	–
C12214.0	14.00	12.00	52.00	125.0	2	–	–
C12216.0	16.00	16.00	58.00	140.0	2	69.50	15.50
C12218.0	18.00	16.00	65.00	150.0	2	76.50	15.50
C12220.0	20.00	20.00	70.00	160.0	2	85.50	19.50
C12222.0	22.00	20.00	75.00	170.0	2	90.50	19.50

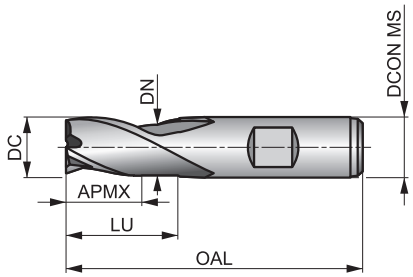
C306

DORMER

3-Flute HSS-E-PM Slot End Mill, Bright Finish

Extra short cut length, 3-flute design provides high rigidity and is suitable for milling shallow slots and ramping. The accurate diameter means the tools are designed for milling standard keyway slots to a P9 tolerance. Versatile and can be used in mild steels and non-ferrous materials.

HSS-E PM	N	NOF 3
	λ 30°	γ 12°
DIN 1835B	Bright	DC e8
	DIN 327D	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	K1.1	K1.2
■54 E	■61 E	■63 E	■47 E	■41 E	◪38 E	◪31 D	◪23 D	◪36 E	◪30 E	◪32 E	◪26 D	◪32 E	◪24 E
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
◪18 E	◪59 E	◪48 E	◪38 D	◪52 E	◪40 E	◪32 D	◪48 D	◪37 D	◪27 D	◪23 C	◪19 C	◪55 D	◪41 D
K5.3	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**
◪32 D	◪50 F	◪50 E	◪45 E	◪32 E	■52 E	■30 E	■16 E	◪52 E	■33 D	◪26 D	◪20 C	◪15 C	◪12 C

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C3063.0	3.00	6.00	5.00	49.0	3	–	–
C3064.0	4.00	6.00	7.00	51.0	3	–	–
C3065.0	5.00	6.00	8.00	52.0	3	–	–
C3066.0	6.00	6.00	8.00	52.0	3	–	–
C3067.0	7.00	10.00	10.00	60.0	3	–	–
C3068.0	8.00	10.00	11.00	61.0	3	–	–
C3069.0	9.00	10.00	11.00	61.0	3	–	–
C30610.0	10.00	10.00	13.00	63.0	3	22.50	9.50
C30611.0	11.00	12.00	13.00	70.0	3	–	–
C30612.0	12.00	12.00	16.00	73.0	3	27.50	11.50
C30614.0	14.00	12.00	16.00	73.0	3	27.50	11.50
C30615.0	15.00	12.00	16.00	73.0	3	27.50	11.50
C30616.0	16.00	16.00	19.00	79.0	3	30.50	15.50
C30618.0	18.00	16.00	19.00	79.0	3	30.50	15.50
C30620.0	20.00	20.00	22.00	88.0	3	37.50	19.50
C30622.0	22.00	20.00	22.00	88.0	3	37.50	19.50
C30625.0	25.00	25.00	26.00	102.0	3	45.50	24.50
C30630.0	30.00	25.00	26.00	102.0	3	45.50	24.50

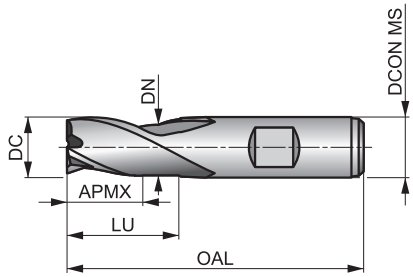
C353

DORMER

3-Flute HSS-E-PM Slot End Mill, Alcrona Coating

Extra short cut length, 3-flute design provides high rigidity and is suitable for milling shallow slots and ramping. The accurate diameter means the tools are designed for milling standard keyway slots to a P9 tolerance. Alcrona coating improves performance and extends the tool life.

HSS-E PM	N	NOF 3
	λ 30°	γ 12°
DIN 1835B	Alcrona	DC e8
	DIN 327D	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■133 E	■148 E	■154 E	■114 E	■100 E	■88 D	■88 E	■71 D	■60 D	■53 D	■45 D	◪37 D	◪69 E	◪58 E
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
◪61 E	◪50 D	◪52 D	◪45 D	◪41 C	◪30 C	■65 E	■48 E	■36 E	■117 E	■95 E	■76 D	■103 E	■79 E
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**
■64 D	■96 D	■72 D	■53 D	■45 C	■38 C	■108 D	■82 D	■63 D	◪89 F	◪89 E	■80 E	■57 E	■93 E
N3.2	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**		
■55 E	■28 E	◪93 E	■50 D	■40 D	◪20 C	■40 C	◪21 C	■30 C	◪15 C	■23 C	◪12 C		

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C3533.0	3.00	6.00	5.00	49.0	3	–	–
C3533.5	3.50	6.00	6.00	50.0	3	–	–
C3534.0	4.00	6.00	7.00	51.0	3	–	–
C3534.5	4.50	6.00	7.00	51.0	3	–	–
C3535.0	5.00	6.00	8.00	52.0	3	–	–
C3535.5	5.50	6.00	8.00	52.0	3	–	–
C3536.0	6.00	6.00	8.00	52.0	3	–	–
C3536.5	6.50	10.00	10.00	60.0	3	–	–
C3537.0	7.00	10.00	10.00	60.0	3	–	–
C3537.5	7.50	10.00	10.00	60.0	3	–	–
C3538.0	8.00	10.00	11.00	61.0	3	–	–
C3538.5	8.50	10.00	11.00	61.0	3	–	–
C3539.0	9.00	10.00	11.00	61.0	3	–	–
C3539.5	9.50	10.00	11.00	61.0	3	–	–
C35310.0	10.00	10.00	13.00	63.0	3	22.50	9.50
C35311.0	11.00	12.00	13.00	70.0	3	–	–
C35312.0	12.00	12.00	16.00	73.0	3	27.50	11.50
C35313.0	13.00	12.00	16.00	73.0	3	27.50	11.50
C35314.0	14.00	12.00	16.00	73.0	3	27.50	11.50
C35315.0	15.00	12.00	16.00	73.0	3	27.50	11.50
C35316.0	16.00	16.00	19.00	79.0	3	30.50	15.50
C35318.0	18.00	16.00	19.00	79.0	3	30.50	15.50
C35320.0	20.00	20.00	22.00	88.0	3	37.50	19.50
C35322.0	22.00	20.00	22.00	88.0	3	37.50	19.50
C35325.0	25.00	25.00	26.00	102.0	3	45.50	24.50

Product	DC	DCON MS	APMX	OAL	NOF	LU	DN
	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
C35328.0	28.00	25.00	26.00	102.0	3	45.50	24.50
C35330.0	30.00	25.00	26.00	102.0	3	45.50	24.50

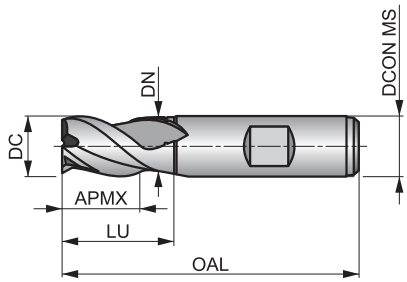
C367

DORMER

3-Flute HSS-E-PM Slot End Mill, Alcrona Coating

Extra short cut length, 3-flute design with a 40° helix. The sharp geometry is designed to machine mild steels, especially medium to high strength stainless steels and mild non-ferrous materials. The accurate diameter means that standard keyway slots to P9 tolerance can be milled. Alcrona coating extends tool life.

HSS-E PM	N	NOF 3
	λ 40°	γ 15°
DIN 1835B	Alcrona	DC e8
	DIN 327D	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	M2.3	M3.1
■135 E	■151 E	■157 E	■116 E	◪102 E	◪94 E	◪75 D	◪56 D	■92 E	■78 E	■82 E	■67 D	■56 D	■64 D
M3.2	**M3.3**	**M4.1**	**M4.2**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**
■55 D	■50 C	■35 C	■30 C	■177 G	■133 F	◪89 F	◪89 E	◪80 E	◪57 E	◪93 E	◪55 E	■28 E	◪93 E
S1.1													
◪50 D													

DCON MS tolerance h6.

Product	DC	DCON MS	APMX	OAL	NOF	LU	DN
	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
C3672.0	2.00	6.00	4.00	48.0	3	–	–
C3673.0	3.00	6.00	5.00	49.0	3	–	–
C3674.0	4.00	6.00	7.00	51.0	3	–	–
C3675.0	5.00	6.00	8.00	52.0	3	–	–
C3676.0	6.00	6.00	8.00	52.0	3	–	–
C3677.0	7.00	10.00	10.00	60.0	3	–	–
C3678.0	8.00	10.00	11.00	61.0	3	–	–
C36710.0	10.00	10.00	13.00	63.0	3	22.50	9.50
C36711.0	11.00	12.00	13.00	70.0	3	–	–
C36712.0	12.00	12.00	16.00	73.0	3	27.50	11.50
C36714.0	14.00	12.00	16.00	73.0	3	27.50	11.50
C36716.0	16.00	16.00	19.00	79.0	3	30.50	15.50
C36718.0	18.00	16.00	19.00	79.0	3	30.50	15.50
C36720.0	20.00	20.00	22.00	88.0	3	37.50	19.50

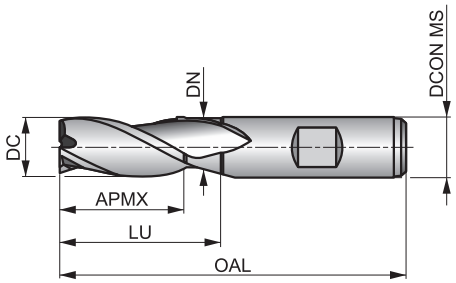
C305

DORMER

3-Flute HSS-E-PM Slot End Mill, Bright Finish

Short cut length, 3-flute design provides high rigidity for milling slots whilst the accurate diameter means that standard keyway slots to P9 tolerance can be milled. Suitable also for ramping and profile milling in mild steels, non-ferrous materials and medium strength high temperature alloys.

HSS-E PM	N	NOF 3
	λ 30°	γ 12°
DIN 1835B	Bright	DC e8
	DIN 844K	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	K1.1	K1.2
■52 D	■58 D	■60 D	■44 D	■39 D	◪36 D	◪29 C	◪21 C	◪36 D	◪30 D	◪32 D	◪26 C	◪30 D	◪22 D
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
◪17 D	◪55 D	◪45 D	◪36 C	◪49 D	◪37 D	◪30 B	◪45 C	◪34 C	◪25 C	◪22 B	◪18 B	◪51 C	◪39 C
K5.3	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**
◪30 C	◪48 E	◪48 D	◪43 D	◪31 D	■50 D	■29 D	■15 D	◪50 D	■29 C	◪24 C	■17 B	■13 B	■10 B

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C3052.0	2.00	6.00	7.00	51.0	3	–	–
C3052.5	2.50	6.00	8.00	52.0	3	–	–
C3053.0	3.00	6.00	8.00	52.0	3	–	–
C3053.5	3.50	6.00	10.00	54.0	3	–	–
C3054.0	4.00	6.00	11.00	55.0	3	–	–
C3054.5	4.50	6.00	11.00	55.0	3	–	–
C3055.0	5.00	6.00	13.00	57.0	3	–	–
C3055.5	5.50	6.00	13.00	57.0	3	–	–
C3056.0	6.00	6.00	13.00	57.0	3	–	–
C3056.5	6.50	10.00	16.00	66.0	3	–	–
C3057.0	7.00	10.00	16.00	66.0	3	–	–
C3057.5	7.50	10.00	16.00	66.0	3	–	–
C3058.0	8.00	10.00	19.00	69.0	3	–	–
C3058.5	8.50	10.00	19.00	69.0	3	–	–
C3059.0	9.00	10.00	19.00	69.0	3	–	–
C30510.0	10.00	10.00	22.00	72.0	3	31.50	9.50
C30511.0	11.00	12.00	22.00	79.0	3	–	–
C30512.0	12.00	12.00	26.00	83.0	3	37.50	11.50
C30513.0	13.00	12.00	26.00	83.0	3	37.50	11.50
C30514.0	14.00	12.00	26.00	83.0	3	37.50	11.50
C30515.0	15.00	12.00	26.00	83.0	3	37.50	11.50
C30516.0	16.00	16.00	32.00	92.0	3	43.50	15.50
C30517.0	17.00	16.00	32.00	92.0	3	43.50	15.50
C30518.0	18.00	16.00	32.00	92.0	3	43.50	15.50
C30519.0	19.00	16.00	32.00	92.0	3	43.50	15.50
C30520.0	20.00	20.00	38.00	104.0	3	53.50	19.50
C30522.0	22.00	20.00	38.00	104.0	3	53.50	19.50

Product	DC	DCON MS	APMX	OAL	NOF	LU	DN
	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
C30525.0	25.00	25.00	45.00	121.0	3	–	–
C30528.0	28.00	25.00	45.00	121.0	3	–	–
C30532.0	32.00	32.00	53.00	133.0	3	–	–

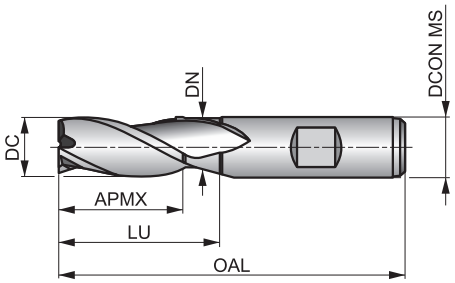
C352

DORMER

3-Flute HSS-E-PM Slot End Mill, Alcrona Coating

Short cut length, 3-flute design provides high rigidity for milling slots whilst the accurate diameter means that standard keyway slots to P9 tolerance can be milled. Suitable also for ramping and profile milling in mild materials. Alcrona coating improves performance and extends the tool life.

HSS-E PM	N	NOF 3
	λ 30°	γ 12°
DIN 1835B	Alcrona	DC e8
	DIN 844K	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■126 D	■141 D	■146 D	■108 D	■95 D	■84 C	■81 D	■65 C	■55 C	■48 C	■41 C	◪34 C	◪69 D	◪58 D
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
◪61 D	◪50 C	◪47 C	◪40 C	◪36 B	◪25 B	■60 D	■44 D	■33 D	■111 D	■90 D	■72 C	■98 D	■75 D
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**
■61 B	■91 C	■68 C	■50 C	■43 B	■36 B	■103 C	■77 C	■60 C	◪89 E	◪89 D	■80 D	■57 D	■93 D
N3.2	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**		
■55 D	■28 D	◪93 D	■45 C	■35 C	◪15 B	■33 B	◪14 B	■25 B	◪10 B	■20 B	◪8 B		

DCON MS tolerance h6.

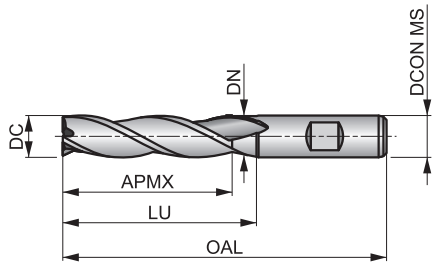
Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C3523.0	3.00	6.00	8.00	52.0	3	–	–
C3524.0	4.00	6.00	11.00	55.0	3	–	–
C3525.0	5.00	6.00	13.00	57.0	3	–	–
C3526.0	6.00	6.00	13.00	57.0	3	–	–
C3528.0	8.00	10.00	19.00	69.0	3	–	–
C35210.0	10.00	10.00	22.00	72.0	3	31.50	9.50
C35212.0	12.00	12.00	26.00	83.0	3	37.50	11.50
C35214.0	14.00	12.00	26.00	83.0	3	37.50	11.50
C35216.0	16.00	16.00	32.00	92.0	3	43.50	15.50
C35218.0	18.00	16.00	32.00	92.0	3	43.50	15.50
C35220.0	20.00	20.00	38.00	104.0	3	53.50	19.50

C346

3-Flute HSS-E Long Series End Mill, Bright Finish

Long cut length, 3-flute design provides high rigidity for standard slotting and profile milling in mild steels and non-ferrous materials. Long series cutter designed for machining deeper slots and walls in places which are difficult to reach.

HSS-E	N	NOF 3
	λ 30°	γ 12°
DIN 1835B	Bright	DC e8
	DIN 844L	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	K1.1	K1.2
■40 C	■45 C	■46 C	■34 C	◪30 C	◪28 C	◪22 B	◪16 B	◪27 C	◪23 C	◪24 C	◪20 B	◪25 C	◪19 C
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
◪14 C	◪43 C	◪35 C	◪28 B	◪38 C	◪29 C	◪24 A	◪35 B	◪27 B	◪20 B	◪17 A	◪14 A	◪40 B	◪30 B
K5.3	**N1.1**	**N1.2**	**N1.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**	
◪23 B	◪76 E	◪57 D	◪38 D	■40 C	■23 C	■12 C	◪40 C	■25 B	◪20 B	◪13 A	◪10 A	◪8 A	

DCON MS tolerance h6.

Product	DC	DCON MS	APMX	OAL	NOF	LU	DN
	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
C3463.0	3.00	6.00	12.00	56.0	3	–	–
C3464.0	4.00	6.00	19.00	63.0	3	–	–
C3465.0	5.00	6.00	24.00	68.0	3	–	–
C3466.0	6.00	6.00	24.00	68.0	3	–	–
C3467.0	7.00	10.00	30.00	80.0	3	–	–
C3468.0	8.00	10.00	38.00	88.0	3	–	–
C3469.0	9.00	10.00	38.00	88.0	3	–	–
C34610.0	10.00	10.00	45.00	95.0	3	–	–
C34611.0	11.00	12.00	45.00	102.0	3	–	–
C34612.0	12.00	12.00	53.00	110.0	3	–	–
C34613.0	13.00	12.00	53.00	110.0	3	64.50	11.50
C34615.0	15.00	12.00	53.00	110.0	3	64.50	11.50
C34616.0	16.00	16.00	63.00	123.0	3	74.50	15.50
C34620.0	20.00	20.00	75.00	141.0	3	90.50	19.50

Material code (BMC)		HSS-E PM	HSS-E	HSS-E	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM				
Mill Profile		HRA	NF	NF	NRA	HRA	NRA	HRA	NRA				
Number of flutes (NOF)		NOF 3-4	NOF 4	NOF 4	NOF 4	NOF 4-6	NOF 4-6	NOF 3-6	NOF 4-6				
Cut length													
Flute Helix (FHA)		λ 35°	λ 30°	λ 30°	λ 35°	λ 35°	λ 35°	λ 35°	λ 35°				
Flute Helix (FHA)		λ 35°	λ 30°	λ 30°	λ 35°	λ 35°	λ 35°	λ 35°	λ 35°				
Radial rake angle (GAMF)		γ 12°	γ 12°	γ 12°	γ 12°	γ 12°	γ 12°	γ 12°	γ 12°				
Shank		DIN 1835B	DIN 1835B	DIN 1835B	DIN 1835B	DIN 1835B	DIN 1835B	DIN 1835B	DIN 1835B				
Coating		Alcrona	Bright	TiCN	Bright	Alcrona	Alcrona	Alcrona	Alcrona				
Cutting diameter tolerance class (TCDC)		DC k12	DC k12	DC k12	DC k12	DC k12	DC k12	DC k12	DC k12				
Direction													
Basic standard group (BSG)		DIN 844K	DIN 844K	DIN 844K	DIN 844K	DIN 844K	DIN 844K	DIN 844L	DIN 844L				
													
Product Family Code		C922	C400	C413	C407	C428	C908	C492	C948				
PSF cutting diameters range		6.00 – 24.00	6.00 – 20.00	6.00 – 20.00	6.00 – 20.00	6.00 – 32.00	6.00 – 32.00	6.00 – 30.00	6.00 – 32.00				
		26	27	28	29	30	31	32	33				
P	P1		■	■	■								
	P2	◪	■	■	■	◪	■	■	■				
	P3	■	◪	■	■	■	■	■	■				
	P4	■	◪	◪	■	■	■	■	■				
M	M1	■	◪	◪	■	■	■	■	■				
	M2	■	◪	◪	■	■	■	■	■				
	M3	■		◪	◪	■	■	■	■				
	M4	■		◪	■	■	■	■	■				
K	K1	■	◪	■	■	■	■	■	■				
	K2	■	◪	■	■	■	■	■	■				
	K3	■	◪	■	■	■	■	■	■				
	K4	■	◪	■	■	■	■	■	■				
	K5	■	◪	■	■	■	■	■	■				
N	N1		◪	◪									
	N2		◪	◪									
	N3	■	■	■	■	■	■	■	■				
	N4		◪	◪									
	N5												
S	S1	■	◪	◪	■	■	■	■	■				
	S2	■	◪	◪	■	■	■	■	■				
	S3	■	◪	◪	■	■	■	■	■				
	S4	■	◪	◪	■	■	■	■	■				
H	H1												
	H2												
	H3												
	H4												

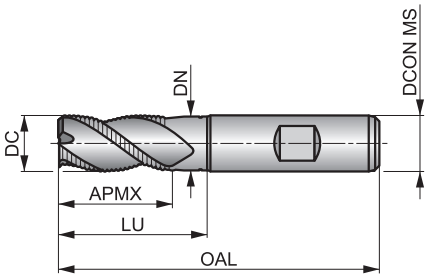
■ Primary use ◪ Possible use

C922

DORMER

3-4 Flute HSS-E-PM Roughing End Mill, Alcrona Coating

Short cut length, 3 or 4 flute design with neck recess on big cutting diameter sizes and an HRA profile to break up the chips for efficient roughing application. A 35° helix reduces vibration and improves performance. Alcrona coating improves performance and extends the tool life.



HSS-E PM	HRA	NOF 3-4
	λ 35°	γ 12°
DIN 1835B	Alcrona	DC k12
	DIN 844K	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2
◪95 F	■84 E	■81 F	■65 E	■55 E	■48 E	■41 E	■34 E	■69 F	■58 F	■61 F	■50 E	■47 E	■40 E
M3.3	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**
■36 D	■25 D	■60 F	■44 F	■33 F	■111 F	■90 F	■72 E	■98 F	■75 F	■61 E	■91 E	■68 E	■50 E
K4.4	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**
■43 D	■36 D	■103 E	■77 E	■60 E	■93 F	■55 F	◪45 E	■35 E	■15 D	■33 D	■14 D	■25 D	■10 D
S4.1	**S4.2**												
■20 D	■8 D												

DCON MS tolerance h6.

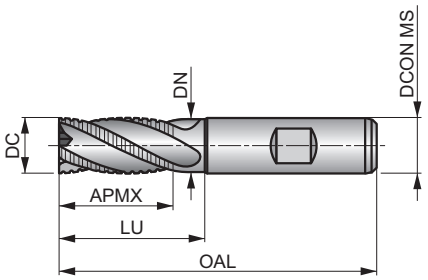
Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C9226.0	6.00	6.00	13.00	57.0	3	–	–
C9227.0	7.00	10.00	16.00	66.0	3	–	–
C9228.0	8.00	10.00	19.00	69.0	3	–	–
C9229.0	9.00	10.00	19.00	69.0	3	–	–
C92210.0	10.00	10.00	22.00	72.0	3	31.50	9.50
C92211.0	11.00	12.00	22.00	79.0	3	–	–
C92212.0	12.00	12.00	26.00	83.0	3	37.50	11.50
C92213.0	13.00	12.00	26.00	83.0	3	37.50	11.50
C92214.0	14.00	12.00	26.00	83.0	3	37.50	11.50
C92215.0	15.00	12.00	26.00	83.0	3	37.50	11.50
C92216.0	16.00	16.00	32.00	92.0	3	43.50	15.50
C92218.0	18.00	16.00	32.00	92.0	3	43.50	15.50
C92220.0	20.00	20.00	38.00	104.0	3	53.50	19.50
C92222.0	22.00	20.00	38.00	104.0	3	53.50	19.50
C92224.0	24.00	25.00	45.00	121.0	4	64.50	23.50

C400

DORMER

4-Flute HSS-E Roughing End Mill, Bright Finish

Short cut length, 4-flute design without center cut, for peripheral roughing operations only. The NF profile breaks chips for an efficient roughing operation. A 30° helix reduces vibrations and improves performance when roughing mild materials.



HSS-E	NF	NOF 4
	λ 30°	γ 12°
DIN 1835B	Bright	DC k12
	DIN 844K	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	K1.1	K1.2
■46 E	■52 E	■54 E	■40 E	■35 E	◪32 E	◪26 D	◪19 D	◪34 E	◪29 E	◪31 E	◪25 D	◪30 E	◪22 E
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
◪17 E	◪49 E	◪40 E	◪32 D	◪44 E	◪33 E	◪27 D	◪40 D	◪30 D	◪22 D	◪19 C	◪16 C	◪46 D	◪34 D
K5.3	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**
◪27 D	◪41 F	◪41 E	◪37 E	◪26 E	■43 E	■25 E	◪13 E	◪43 E	◪30 D	◪25 D	◪20 C	◪15 C	◪12 C

DCON MS tolerance h6.

Product	DC	DCON MS	APMX	OAL	NOF	LU	DN
	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
C4006.0	6.00	6.00	13.00	57.0	4	–	–
C4008.0	8.00	10.00	19.00	69.0	4	–	–
C40010.0	10.00	10.00	22.00	72.0	4	–	–
C40012.0	12.00	12.00	26.00	83.0	4	–	–
C40014.0	14.00	12.00	26.00	83.0	4	37.50	11.50
C40016.0	16.00	16.00	32.00	92.0	4	43.50	15.50
C40018.0	18.00	16.00	32.00	92.0	4	43.50	15.50
C40020.0	20.00	20.00	38.00	104.0	4	53.50	19.50

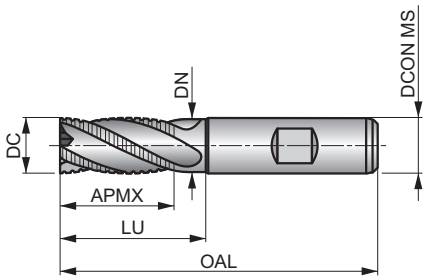
C413

DORMER

4-Flute HSS-E Roughing End Mill, TiCN Coating

Short cut length, 4-flute design for peripheral roughing operations only. The NF profile breaks chips for an efficient roughing application. A 30° helix reduces vibrations and improves performance in roughing. TiCN coating increases the life of the cutter and improves performance when milling hard and abrasive materials.

HSS-E	NF	NOF 4
	λ 30°	γ 12°
DIN 1835B	TiCN	DC k12
	DIN 844K	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■93 E	■104 E	■108 E	■80 E	■70 E	◪62 D	■59 E	■47 D	◪40 D	■35 D	◪30 D	◪24 D	◪48 E	◪41 E
M2.1	**M2.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**
◪43 E	◪35 D	◪21 C	◪20 C	■45 E	■33 E	■25 E	■80 E	■65 E	■52 D	■71 E	■54 E	■44 D	■66 D
K4.2	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**
■49 D	■36 D	■31 C	■26 C	■74 D	■56 D	■43 D	◪82 F	◪82 E	■74 E	■52 E	■86 E	■50 E	◪26 E
N4.1	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**				
◪86 E	◪35 D	■30 D	◪10 C	■27 C	◪14 C	■20 C	◪10 C	■16 C	◪8 C				

DCON MS tolerance h6.

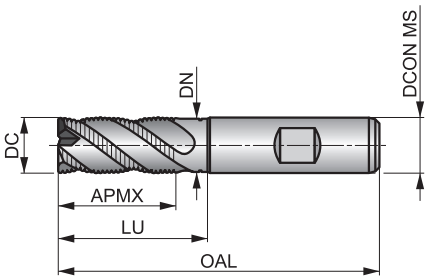
Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C4136.0	6.00	6.00	13.00	57.0	4	–	–
C4138.0	8.00	10.00	19.00	69.0	4	–	–
C41310.0	10.00	10.00	22.00	72.0	4	–	–
C41312.0	12.00	12.00	26.00	83.0	4	–	–
C41314.0	14.00	12.00	26.00	83.0	4	37.50	11.50
C41316.0	16.00	16.00	32.00	92.0	4	43.50	15.50
C41318.0	18.00	16.00	32.00	92.0	4	43.50	15.50
C41320.0	20.00	20.00	38.00	104.0	4	53.50	19.50

C407

DORMER

4-Flute HSS-E-PM Roughing End Mill, Bright Finish

Short cut length, 4-flute design with neck recess on big cutting diameter sizes and an NRA profile to break chips for efficient roughing applications. A 35° helix reduces vibration and improves performance in roughing operations.



HSS-E PM	NRA	NOF 4
	λ 35°	γ 12°
DIN 1835B	Bright	DC k12
	DIN 844K	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■50 G	■56 G	■58 G	■43 G	■38 G	■34 F	■32 G	■26 F	■22 F	■19 F	■16 F	◪13 F	■34 G	■29 G
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
■31 G	■25 F	◪24 F	◪21 F	■19 E	■13 E	■30 G	■22 G	■17 G	■54 G	■44 G	■35 F	■48 G	■37 G
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**S1.1**	**S1.2**	**S1.3**
■30 F	■44 F	■33 F	■25 F	■21 E	■18 E	■50 F	■38 F	■29 F	■43 G	■25 G	◪30 F	■25 F	■11 E
S2.1	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**								
■19 E	■8 E	■14 E	■6 E	■11 E	■5 E								

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C4076.0	6.00	6.00	13.00	57.0	4	–	–
C4077.0	7.00	10.00	16.00	66.0	4	–	–
C4078.0	8.00	10.00	19.00	69.0	4	–	–
C4079.0	9.00	10.00	19.00	69.0	4	–	–
C40710.0	10.00	10.00	22.00	72.0	4	31.50	9.50
C40711.0	11.00	12.00	22.00	79.0	4	–	–
C40712.0	12.00	12.00	26.00	83.0	4	37.50	11.50
C40713.0	13.00	12.00	26.00	83.0	4	37.50	11.50
C40714.0	14.00	12.00	26.00	83.0	4	37.50	11.50
C40716.0	16.00	16.00	32.00	92.0	4	43.50	15.50
C40718.0	18.00	16.00	32.00	92.0	4	43.50	15.50
C40720.0	20.00	20.00	38.00	104.0	4	53.50	19.50

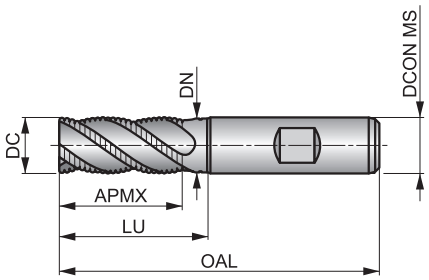
C428

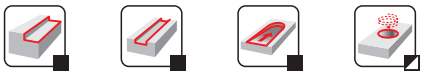
DORMER

Multi-Flute HSS-E-PM Roughing End Mill, Alcrona Coating

Short cut length, 4 or 6 flute design with neck recess on big cutting diameter sizes and an HRA profile to break chips for efficient roughing application. A 35° helix reduces vibration and improves performance. Alcrona coating improves performance and extends the tool life.

HSS-E PM	HRA	NOF 4-6
	λ 35°	γ 12°
DIN 1835B	Alcrona	DC k12
	DIN 844K	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2
◪93 F	■82 E	■80 F	■64 E	■54 E	■48 E	■40 E	■33 E	■66 F	■56 F	■59 F	■48 E	■47 E	■40 E
M3.3	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**
■36 D	■26 D	■61 F	■45 F	■34 F	■108 F	■88 F	■70 E	■96 F	■73 F	■59 E	■89 E	■67 E	■49 E
K4.4	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**
■42 D	■35 D	■100 E	■76 E	■58 E	■116 F	■68 F	◪46 E	■37 E	■16 D	■36 D	■16 D	■27 D	■11 D
S4.1	**S4.2**												
■21 D	■9 D												

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C4286.0	6.00	6.00	13.00	57.0	4	–	–
C4287.0	7.00	10.00	16.00	66.0	4	–	–
C4288.0	8.00	10.00	19.00	69.0	4	–	–
C4289.0	9.00	10.00	19.00	69.0	4	–	–
C42810.0	10.00	10.00	22.00	72.0	4	31.50	9.50
C42811.0	11.00	12.00	22.00	79.0	4	–	–
C42812.0	12.00	12.00	26.00	83.0	4	37.50	11.50
C42813.0	13.00	12.00	26.00	83.0	4	37.50	11.50
C42814.0	14.00	12.00	26.00	83.0	4	37.50	11.50
C42815.0	15.00	12.00	26.00	83.0	4	37.50	11.50
C42816.0	16.00	16.00	32.00	92.0	4	43.50	15.50
C42818.0	18.00	16.00	32.00	92.0	4	43.50	15.50
C42820.0	20.00	20.00	38.00	104.0	4	53.50	19.50
C42822.0	22.00	20.00	38.00	104.0	4	53.50	19.50
C42825.0	25.00	25.00	45.00	121.0	6	64.50	24.50
C42828.0	28.00	25.00	45.00	121.0	6	64.50	24.50
C42830.0	30.00	25.00	45.00	121.0	6	64.50	24.50
C42832.0	32.00	32.00	53.00	133.0	6	72.50	31.50

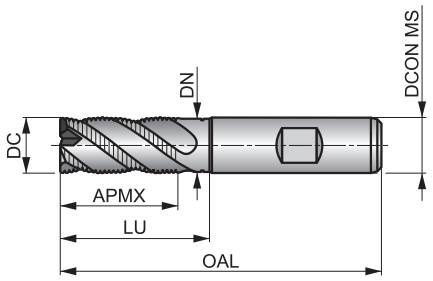
C908

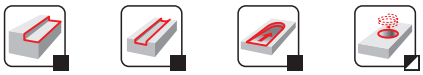
DORMER

Multi-Flute HSS-E-PM Roughing End Mill, Alcrona Coating

Short cut length, 4 or 6 flute design with neck recess on big cutting diameter sizes and an NRA profile to break chips for efficient roughing application. A 35° helix reduces vibration and improves performance in roughing operations. Alcrona coating improves performance and extends the tool life.

HSS-E PM	NRA	NOF 4-6
	λ 35°	γ 12°
DIN 1835B	Alcrona	DC k12
	DIN 844K	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2
■93 G	■82 F	■80 G	■64 F	■54 F	■48 F	■40 F	◪33 F	■66 G	■56 G	■59 G	■48 F	■47 F	■40 F
M3.3	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**
■36 E	■26 E	■61 G	■45 G	■34 G	■108 G	■88 G	■70 F	■96 G	■73 G	■59 F	■89 F	■67 F	■49 F
K4.4	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**
■42 E	■35 E	■100 F	■76 F	■58 F	■93 G	■55 G	◪46 F	■37 F	■16 E	■36 E	■16 E	■27 E	■11 E
S4.1	**S4.2**												
■21 E	■9 E												

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C9086.0	6.00	6.00	13.00	57.0	4	–	–
C9087.0	7.00	10.00	16.00	66.0	4	–	–
C9088.0	8.00	10.00	19.00	69.0	4	–	–
C9089.0	9.00	10.00	19.00	69.0	4	–	–
C90810.0	10.00	10.00	22.00	72.0	4	31.50	9.50
C90811.0	11.00	12.00	22.00	79.0	4	–	–
C90812.0	12.00	12.00	26.00	83.0	4	37.50	11.50
C90813.0	13.00	12.00	26.00	83.0	4	37.50	11.50
C90814.0	14.00	12.00	26.00	83.0	4	37.50	11.50
C90816.0	16.00	16.00	32.00	92.0	4	43.50	15.50
C90818.0	18.00	16.00	32.00	92.0	4	43.50	15.50
C90820.0	20.00	20.00	38.00	104.0	4	53.50	19.50
C90822.0	22.00	20.00	38.00	104.0	4	53.50	19.50
C90825.0	25.00	25.00	45.00	121.0	6	64.50	24.50
C90830.0	30.00	25.00	45.00	121.0	6	64.50	24.50
C90832.0	32.00	32.00	53.00	133.0	6	72.50	31.50

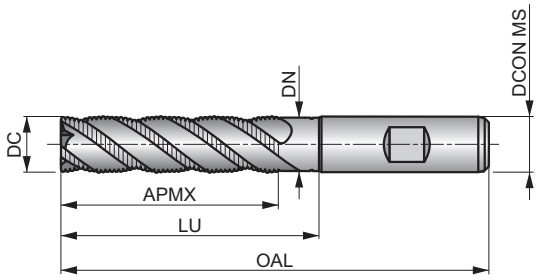
C492

DORMER

Multi-Flute HSS-E-PM Long Series Roughing End Mill, Alcrona Coating

Long cut length, 3, 4 or 6 flute design with an HRA profile to break chips for efficient roughing of deep profiles. Neck recess on cutting diameter equal to 10 mm and above. A 35° helix reduces vibration and improves performance when roughing. Alcrona coating improves performance and extends tool life.

HSS-E PM	HRA	NOF 3-6
	λ 35°	γ 12°
DIN 1835B	Alcrona	DC k12
	DIN 844L	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2
■83 E	■73 D	■72 E	■58 D	■49 D	■43 D	■37 D	■30 D	■59 E	■50 E	■53 E	■43 D	■42 D	■36 D
M3.3	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**
■32 C	■23 C	■55 E	■41 E	■31 E	■97 E	■79 E	■63 D	■86 E	■66 E	■53 D	■80 D	■60 D	■44 D
K4.4	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**
■38 C	■31 C	■90 D	■68 D	■52 D	■104 E	■61 E	◪41 D	■34 D	■15 C	■32 C	■14 C	■24 C	■10 C
S4.1	**S4.2**												
■19 C	■8 C												

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C4926.0	6.00	6.00	24.00	68.0	3	–	–
C4928.0	8.00	10.00	38.00	88.0	3	–	–
C49210.0	10.00	10.00	45.00	95.0	4	54.50	9.50
C49212.0	12.00	12.00	53.00	110.0	4	64.50	11.50
C49214.0	14.00	12.00	53.00	110.0	4	64.50	11.50
C49216.0	16.00	16.00	63.00	123.0	4	74.50	15.50
C49218.0	18.00	16.00	63.00	123.0	4	74.50	15.50
C49220.0	20.00	20.00	75.00	141.0	4	90.50	19.50
C49222.0	22.00	20.00	75.00	141.0	4	90.50	19.50
C49225.0	25.00	25.00	90.00	166.0	6	109.50	24.50
C49230.0	30.00	25.00	90.00	166.0	6	109.50	24.50

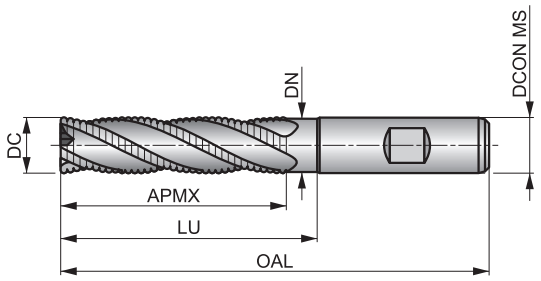
C948

DORMER

Multi-Flute HSS-E-PM Long Series Roughing End Mill, Alcrona Coating

Long cut length, 4 or 6 flute design with an NRA profile to break chips for efficient roughing of deep profiles. A 35° helix reduces vibration and improves performance in roughing operations. Neck recess on cutting diameter equal to 10 mm and above. Alcrona coating improves performance and extends tool life.

HSS-E PM	NRA	NOF 4-6
	λ 35°	γ 12°
DIN 1835B	Alcrona	DC k12
	DIN 844L	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2
■83 F	■73 E	■72 F	■58 E	■49 E	■43 E	■37 E	■30 E	■59 F	■50 F	■53 F	■43 E	■42 E	■36 E
M3.3	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**
■32 D	■23 D	■55 F	■41 F	■31 F	■97 F	■79 F	■63 E	■86 F	■66 F	■53 E	■80 E	■60 E	■44 E
K4.4	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**
■38 D	■31 D	■90 E	■68 E	■52 E	■83 F	■49 F	◪41 E	■34 E	■15 D	■32 D	■14 D	■24 D	■10 D
S4.1	**S4.2**												
■19 D	■8 D												

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C9486.0	6.00	6.00	24.00	68.0	4	–	–
C9488.0	8.00	10.00	38.00	88.0	4	–	–
C94810.0	10.00	10.00	45.00	95.0	4	54.50	9.50
C94812.0	12.00	12.00	53.00	110.0	4	64.50	11.50
C94814.0	14.00	12.00	53.00	110.0	4	64.50	11.50
C94816.0	16.00	16.00	63.00	123.0	4	74.50	15.50
C94818.0	18.00	16.00	63.00	123.0	4	74.50	15.50
C94820.0	20.00	20.00	75.00	141.0	4	90.50	19.50
C94825.0	25.00	25.00	90.00	166.0	6	109.50	24.50
C94832.0	32.00	32.00	106.00	186.0	6	125.50	31.50

Material code (BMC)	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM	HSS-E PM							
Mill Profile	N	N	N	N	N	N							
Number of flutes (NOF)	NOF 3-4	NOF 3-6	NOF 4-6	NOF 4-5	NOF 4-6	NOF 4-6							
Cut length													
Flute Helix (FHA)	λ 45°	λ 45°	λ 30°	λ 30°	λ 30°	λ 30°							
Flute Helix (FHA)	λ 45°	λ 45°	λ 30°	λ 30°	λ 30°	λ 30°							
Radial rake angle (GAMF)	γ 12°	γ 12°	γ 12°	γ 12°	γ 12°	γ 12°							
Shank	DIN 1835B	DIN 1835B	DIN 1835B	DIN 1835B	DIN 1835B	DIN 1835B							
Coating	Bright	Alcrona	Bright	TiCN	Bright	TiCN							
Cutting diameter tolerance class (TCDC)	DC k10	DC k10	DC k10	DC k10	DC k10	DC k10							
Direction													
Basic standard group (BSG)	DIN 844K	DIN 844K	DIN 844K	DIN 844K	DIN 844L	DIN 844L							
													
Product Family Code	C299	C907	C247	C246	C273	C295							
PSF cutting diameters range	3.00 – 20.00	3.00 – 32.00	2.00 – 40.00	2.00 – 25.00	2.00 – 40.00	2.00 – 40.00							
	36	37	38	40	41	43							
P	P1			■	■	■	■						
	P2	■	■	■	■	■	■						
	P3	■	■	◪	■	◪	■						
	P4	■	■	◪	◪	◪	◪						
M	M1	■	■	◪	◪	◪	◪						
	M2	■	■	◪	◪	◪	◪						
	M3	◪	■		◪		◪						
	M4	■	■		◪		◪						
K	K1	■	■	◪	■	◪	■						
	K2	■	■	◪	■	◪	■						
	K3	■	■	◪	■	◪	■						
	K4	■	■	◪	■	◪	■						
	K5	■	■	◪	■	◪	■						
N	N1			◪	◪	◪	◪						
	N2			◪	◪	◪	◪						
	N3	■	■	■	■	■	■						
	N4			◪	◪	◪	◪						
	N5												
S	S1	■	■	◪	■	◪	■						
	S2	■	■	◪	◪	◪	◪						
	S3	■	■	◪	◪	◪	◪						
	S4	■	■	◪	◪	◪	◪						
H	H1												
	H2												
	H3												
	H4												

■ Primary use ◪ Possible use

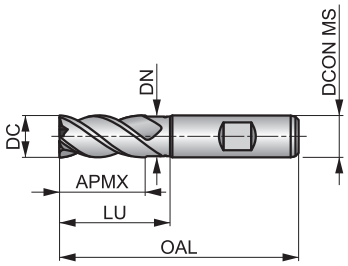
C299

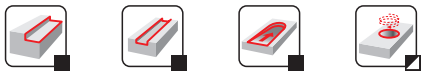
DORMER

3-4 Flute HSS-E-PM End Mill, Bright Finish

Short cut length, 3 or 4 flute design provides high rigidity for general profile and ramp milling applications. With a 45° helix and designed for machining higher strength materials. Neck recess on cutting diameter equal to 10 mm and above.

HSS-E PM	N	NOF 3-4
	λ 45°	γ 12°
DIN 1835B	Bright	DC k10
	DIN 844K	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2
■37 D	■33 C	■32 D	■26 C	■22 C	■19 C	■16 C	◪13 C	■36 D	■30 D	■32 D	■26 C	◪24 C	◪21 C
M3.3	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**
■19 B	■13 B	■30 D	■22 D	■17 D	■55 D	■45 D	■36 C	■49 D	■37 D	■30 B	■45 C	■34 C	■25 C
K4.4	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**
■22 B	■18 B	■51 C	■39 C	■30 C	■43 D	■25 D	◪29 C	■57 C	■10 B	■17 B	■7 B	■13 B	■5 B
S4.1	**S4.2**												
■10 B	■4 B												

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C2993.0	3.00	6.00	8.00	52.0	3	–	–
C2994.0	4.00	6.00	11.00	55.0	3	–	–
C2995.0	5.00	6.00	13.00	57.0	3	–	–
C2996.0	6.00	6.00	13.00	57.0	3	–	–
C2998.0	8.00	10.00	19.00	69.0	4	–	–
C29910.0	10.00	10.00	22.00	72.0	4	31.50	9.50
C29912.0	12.00	12.00	26.00	83.0	4	37.50	11.50
C29914.0	14.00	12.00	26.00	83.0	4	37.50	11.50
C29916.0	16.00	16.00	32.00	92.0	4	43.50	15.50
C29920.0	20.00	20.00	38.00	104.0	4	53.50	19.50

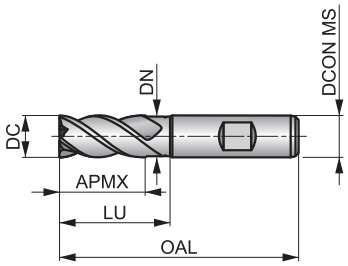
C907

DORMER

Multi-Flute HSS-E-PM End Mill, Alcrona Coating

Short cut length, 3, 4, 5 or 6 flute design provides high rigidity for general profile and ramp milling applications. With a 45° helix and designed for machining higher strength materials. Neck recess on cutting diameter equal to 10 mm and above. Alcrona coating improves performance and extends the tool life.

HSS-E PM	N	NOF 3-6
	λ 45°	γ 12°
DIN 1835B	Alcrona	DC k10
	DIN 844K	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2
■95 D	■84 C	■81 D	■65 C	■55 C	■48 C	■41 C	■34 C	■69 D	■58 D	■61 D	■50 C	■47 C	■40 C
M3.3	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**
■36 B	■25 B	■60 D	■44 D	■33 D	■111 D	■90 D	■72 C	■98 D	■75 D	■61 B	■91 C	■68 C	■50 C
K4.4	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**
■43 B	■36 B	■103 C	■77 C	■60 C	■93 D	■55 D	◪45 C	■85 C	■15 B	■33 B	■14 B	■25 B	■10 B
S4.1	**S4.2**												
■20 B	■8 B												

DCON MS tolerance h6.

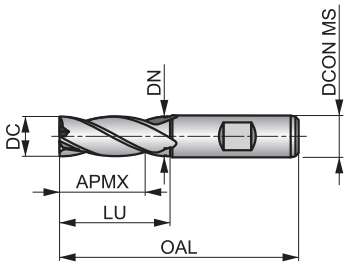
Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C9073.0	3.00	6.00	8.00	52.0	3	–	–
C9074.0	4.00	6.00	11.00	55.0	3	–	–
C9075.0	5.00	6.00	13.00	57.0	3	–	–
C9076.0	6.00	6.00	13.00	57.0	3	–	–
C9078.0	8.00	10.00	19.00	69.0	4	–	–
C90710.0	10.00	10.00	22.00	72.0	4	31.50	9.50
C90712.0	12.00	12.00	26.00	83.0	4	37.50	11.50
C90714.0	14.00	12.00	26.00	83.0	4	37.50	11.50
C90716.0	16.00	16.00	32.00	92.0	4	43.50	15.50
C90718.0	18.00	16.00	32.00	92.0	4	43.50	15.50
C90720.0	20.00	20.00	38.00	104.0	4	53.50	19.50
C90722.0	22.00	20.00	38.00	104.0	5	53.50	19.50
C90725.0	25.00	25.00	45.00	121.0	5	64.50	24.50
C90728.0	28.00	25.00	45.00	121.0	6	64.50	24.50
C90730.0	30.00	25.00	45.00	121.0	6	64.50	24.50
C90732.0	32.00	32.00	53.00	133.0	6	72.50	31.50

C247

DORMER

Multi-Flute HSS-E-PM End Mill, Brigh Finish

Short cut length, 4, 5 or 6 flute design provides high rigidity for general profile and ramp milling applications in mild steels and non-ferrous materials.



HSS-E PM	N	NOF 4-6
	λ 30°	γ 12°
DIN 1835B	Bright	DC k10
	DIN 844K	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	K1.1	K1.2
■53 D	■59 D	■61 D	■45 D	■40 D	◪36 D	◪29 C	◪22 C	◪34 D	◪29 D	◪31 D	◪25 C	◪30 D	◪22 D
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
◪17 D	◪55 D	◪45 D	◪36 C	◪49 D	◪37 D	◪30 B	◪45 C	◪34 C	◪25 C	◪22 B	◪18 B	◪51 C	◪39 C
K5.3	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S2.1**
◪30 C	◪95 F	◪71 E	◪48 E	◪48 D	◪43 D	◪31 D	■50 D	◪29 D	■15 D	◪50 D	■30 C	◪25 C	◪20 B
S3.1	**S4.1**												
◪15 B	◪12 B												

DCON MS tolerance h6.

Product	DC (inch)	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C2472.0	–	2.00	6.00	7.00	51.0	4	–	–
C2472.5	–	2.50	6.00	8.00	52.0	4	–	–
C2473.0	–	3.00	6.00	8.00	52.0	4	–	–
C2471/8 [2)]	1/8	3.18	6.00	10.00	54.0	4	–	–
C2473.5	–	3.50	6.00	10.00	54.0	4	–	–
C2474.0	–	4.00	6.00	11.00	55.0	4	–	–
C2474.5	–	4.50	6.00	11.00	55.0	4	–	–
C2473/16 [2)]	3/16	4.76	6.00	13.00	57.0	4	–	–
C2475.0	–	5.00	6.00	13.00	57.0	4	–	–
C2475.5	–	5.50	6.00	13.00	57.0	4	–	–
C2476.0	–	6.00	6.00	13.00	57.0	4	–	–
C2471/4 [2)]	1/4	6.35	10.00	16.00	66.0	4	–	–
C2476.5	–	6.50	10.00	16.00	66.0	4	–	–
C2477.0	–	7.00	10.00	16.00	66.0	4	–	–
C2477.5	–	7.50	10.00	16.00	66.0	4	–	–
C2475/16 [2)]	5/16	7.94	10.00	19.00	69.0	4	–	–
C2478.0	–	8.00	10.00	19.00	69.0	4	–	–
C2478.5	–	8.50	10.00	19.00	69.0	4	–	–
C2479.0	–	9.00	10.00	19.00	69.0	4	–	–
C2479.5	–	9.50	10.00	19.00	69.0	4	–	–
C2473/8 [2)]	3/8	9.52	10.00	22.00	72.0	4	31.50	9.50
C24710.0	–	10.00	10.00	22.00	72.0	4	31.50	9.50
C24711.0	–	11.00	12.00	22.00	79.0	4	–	–
C24712.0	–	12.00	12.00	26.00	83.0	4	37.50	11.50
C2471/2 [2)]	1/2	12.70	12.00	26.00	83.0	4	37.50	11.50

Product	DC	DC	DCON MS	APMX	OAL	NOF	LU	DN
	(inch)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
C24713.0	–	13.00	12.00	26.00	83.0	4	37.50	11.50
C24714.0	–	14.00	12.00	26.00	83.0	4	37.50	11.50
C2479/16 [2]	9/16	14.29	12.00	26.00	83.0	4	37.50	11.50
C24715.0	–	15.00	12.00	26.00	83.0	4	37.50	11.50
C2475/8 [2]	5/8	15.88	16.00	32.00	92.0	4	43.50	15.50
C24716.0	–	16.00	16.00	32.00	92.0	4	43.50	15.50
C24717.0	–	17.00	16.00	32.00	92.0	4	43.50	15.50
C24718.0	–	18.00	16.00	32.00	92.0	4	43.50	15.50
C24719.0	–	19.00	16.00	32.00	92.0	4	43.50	15.50
C2473/4 [2]	3/4	19.05	20.00	38.00	104.0	4	53.50	18.50
C24720.0	–	20.00	20.00	38.00	104.0	4	53.50	19.50
C24721.0	–	21.00	20.00	38.00	104.0	4	53.50	19.50
C24722.0	–	22.00	20.00	38.00	104.0	5	53.50	19.50
C2477/8 [2]	7/8	22.22	20.00	38.00	104.0	5	53.50	19.50
C24723.0	–	23.00	20.00	38.00	104.0	5	53.50	19.50
C24724.0	–	24.00	25.00	45.00	121.0	5	64.50	23.50
C24725.0	–	25.00	25.00	45.00	121.0	5	64.50	24.50
C2471 [2]	1″	25.40	25.00	45.00	121.0	5	64.50	24.50
C24726.0	–	26.00	25.00	45.00	121.0	6	64.50	24.50
C24728.0	–	28.00	25.00	45.00	121.0	6	64.50	24.50
C24730.0	–	30.00	25.00	45.00	121.0	6	64.50	24.50
C24732.0	–	32.00	32.00	53.00	133.0	6	72.50	31.50
C24736.0 [1]	–	36.00	32.00	53.00	133.0	6	72.50	31.50
C24740.0 [1]	–	40.00	40.00	63.00	155.0	6	84.50	39.00

[1] Available in HSS-E only; no centre cutting.
[2] DC tolerance +0.0025 inches / -0.0005 inches.

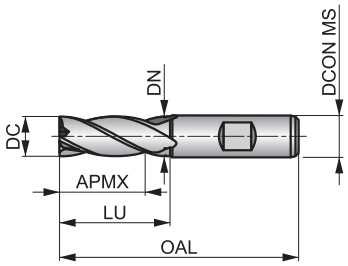
C246

DORMER

Multi-Flute HSS-E-PM End Mill, TiCN Coating

Short cut length, 4 or 5 flute design provides high rigidity for general profile and ramp milling applications. TiCN coating increases the life of the cutter and improves performance when milling hard and abrasive materials.

HSS-E PM	N	NOF 4-5
	λ 30°	γ 12°
DIN 1835B	TiCN	DC k10
	DIN 844K	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■113 D	■126 D	■131 D	■97 D	■85 D	◪75 C	■74 D	■59 C	◪50 C	■44 C	◪37 C	◪31 C	◪62 D	◪52 D
M2.1	**M2.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**
◪55 D	◪45 C	◪26 B	◪25 B	■55 D	■41 D	■31 D	■97 D	■79 D	■63 C	■86 D	■66 D	■53 B	■80 C
K4.2	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**
■60 C	■44 C	■38 B	■31 B	■90 C	■68 C	■52 C	◪159 F	◪120 E	◪80 E	◪80 D	■72 D	■51 D	■84 D
N3.2	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**		
■50 D	■25 D	◪84 D	■43 C	■35 C	◪15 B	■32 B	◪14 B	■24 B	◪10 B	■19 B	◪8 B		

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C2462.0	2.00	6.00	7.00	51.0	4	–	–
C2463.0	3.00	6.00	8.00	52.0	4	–	–
C2464.0	4.00	6.00	11.00	55.0	4	–	–
C2465.0	5.00	6.00	13.00	57.0	4	–	–
C2466.0	6.00	6.00	13.00	57.0	4	–	–
C2467.0	7.00	10.00	16.00	66.0	4	–	–
C2468.0	8.00	10.00	19.00	69.0	4	–	–
C24610.0	10.00	10.00	22.00	72.0	4	31.50	9.50
C24611.0	11.00	12.00	22.00	79.0	4	–	–
C24612.0	12.00	12.00	26.00	83.0	4	37.50	11.50
C24613.0	13.00	12.00	26.00	83.0	4	37.50	11.50
C24614.0	14.00	12.00	26.00	83.0	4	37.50	11.50
C24615.0	15.00	12.00	26.00	83.0	4	37.50	11.50
C24616.0	16.00	16.00	32.00	92.0	4	43.50	15.50
C24618.0	18.00	16.00	32.00	92.0	4	43.50	15.50
C24620.0	20.00	20.00	38.00	104.0	4	53.50	19.50
C24622.0	22.00	20.00	38.00	104.0	5	53.50	19.50
C24625.0	25.00	25.00	45.00	121.0	5	64.50	24.50

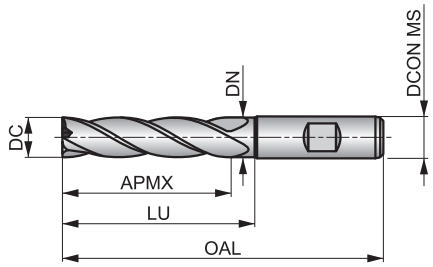
C273

DORMER

Multi-Flute HSS-E-PM Long Series End Mill, Bright Finish

Long cut length, 4, 5 or 6 flute design provides high rigidity for finishing deep profiles in mild steels and non-ferrous materials, such as aluminium and medium strength titanium alloys.

HSS-E PM	N	NOF 4-6
	λ 30°	γ 12°
DIN 1835B	Bright	DC k10
	DIN 844L	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	K1.1	K1.2
■46 C	■52 C	■54 C	■40 C	■35 C	◪32 C	◪26 B	◪19 B	◪14 C	◪12 C	◪12 C	◪10 B	◪25 C	◪19 C
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
◪14 C	◪49 C	◪40 C	◪32 B	◪44 C	◪33 C	◪27 A	◪40 B	◪30 B	◪22 B	◪19 A	◪16 A	◪46 B	◪34 B
K5.3	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S2.1**
◪27 B	◪81 E	◪60 D	◪41 D	◪41 C	◪37 C	◪26 C	■43 C	◪25 C	■13 C	◪43 C	■25 B	◪20 B	◪13 A
S3.1	**S4.1**												
◪10 A	◪8 A												

DCON MS tolerance h6.

Product	DC (inch)	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C2732.0	–	2.00	6.00	10.00	54.0	4	–	–
C2732.5	–	2.50	6.00	12.00	56.0	4	–	–
C2733.0	–	3.00	6.00	12.00	56.0	4	–	–
C2731/8 [2)]	1/8	3.18	6.00	15.00	59.0	4	–	–
C2733.5	–	3.50	6.00	15.00	59.0	4	–	–
C2734.0	–	4.00	6.00	19.00	63.0	4	–	–
C2734.5	–	4.50	6.00	19.00	63.0	4	–	–
C2733/16 [2)]	3/16	4.76	6.00	24.00	68.0	4	–	–
C2735.0	–	5.00	6.00	24.00	68.0	4	–	–
C2735.5	–	5.50	6.00	24.00	68.0	4	–	–
C2736.0	–	6.00	6.00	24.00	68.0	4	–	–
C2731/4 [2)]	1/4	6.35	10.00	30.00	80.0	4	–	–
C2737.0	–	7.00	10.00	30.00	80.0	4	–	–
C2738.0	–	8.00	10.00	38.00	88.0	4	–	–
C2739.0	–	9.00	10.00	38.00	88.0	4	–	–
C2733/8 [2)]	3/8	9.52	10.00	45.00	95.0	4	54.50	9.50
C27310.0	–	10.00	10.00	45.00	95.0	4	54.50	9.50
C27311.0	–	11.00	12.00	45.00	102.0	4	–	–
C27312.0	–	12.00	12.00	53.00	110.0	4	64.50	11.50
C2731/2 [2)]	1/2	12.70	12.00	53.00	110.0	4	64.50	11.50
C27313.0	–	13.00	12.00	53.00	110.0	4	64.50	11.50
C27314.0	–	14.00	12.00	53.00	110.0	4	64.50	11.50
C27315.0	–	15.00	12.00	53.00	110.0	4	64.50	11.50
C2735/8 [2)]	5/8	15.88	16.00	63.00	123.0	4	74.50	15.50
C27316.0	–	16.00	16.00	63.00	123.0	4	74.50	15.50

Product	DC	DC	DCON MS	APMX	OAL	NOF	LU	DN
	(inch)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
C27318.0	–	18.00	16.00	63.00	123.0	4	74.50	15.50
C2733/4 [2]	3/4	19.05	20.00	75.00	141.0	4	90.50	18.50
C27320.0	–	20.00	20.00	75.00	141.0	4	90.50	19.50
C27322.0	–	22.00	20.00	75.00	141.0	5	90.50	19.50
C27325.0	–	25.00	25.00	90.00	166.0	5	109.50	24.50
C2731 [2]	1″	25.40	25.00	90.00	166.0	5	109.50	24.50
C27330.0	–	30.00	25.00	90.00	166.0	6	109.50	24.50
C27332.0	–	32.00	32.00	106.00	186.0	6	125.50	31.50
C27340.0 [1]	–	40.00	40.00	125.00	217.0	6	146.50	39.00

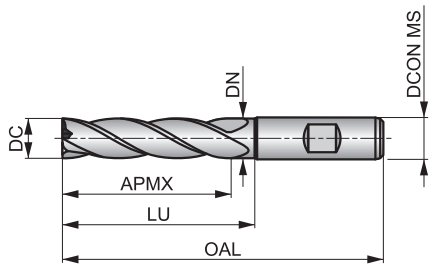
[1] Available in HSS-E only; no centre cutting.
[2] DC tolerance +0.0025 inches / -0.0005 inches.

C295

DORMER

Multi-Flute HSS-E-PM Long Series End Mill, TiCN Coating

Long cut length, 4, 5 or 6 flute design provides high rigidity for finishing deep profiles. TiCN coating increases the life of the cutter and improves performance when milling hard and abrasive materials.



HSS-E PM	N	NOF 4-6
	λ 30°	γ 12°
DIN 1835B	TiCN	DC k10
	DIN 844L	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■99 C	■111 C	■115 C	■85 C	■75 C	◪66 B	■66 C	■53 B	◪45 B	■40 B	◪34 B	◪27 B	◪55 C	◪46 C
M2.1	**M2.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**
◪49 C	◪40 B	◪21 A	◪20 A	■50 C	■37 C	■28 C	■86 C	■70 C	■56 B	■76 C	■58 C	■47 A	■71 B
K4.2	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**
■53 B	■39 B	■33 A	■28 A	■80 B	■60 B	■46 B	◪139 E	◪105 D	◪70 D	◪70 C	■63 C	■45 C	■73 C
N3.2	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**		
■43 C	■22 C	◪73 C	■40 B	■30 B	◪15 A	■27 A	◪14 A	■20 A	◪10 A	■16 A	◪8 A		

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C2952.0	2.00	6.00	10.00	54.0	4	–	–
C2953.0	3.00	6.00	12.00	56.0	4	–	–
C2954.0	4.00	6.00	19.00	63.0	4	–	–
C2955.0	5.00	6.00	24.00	68.0	4	–	–
C2956.0	6.00	6.00	24.00	68.0	4	–	–
C2957.0	7.00	10.00	30.00	80.0	4	–	–
C2958.0	8.00	10.00	38.00	88.0	4	–	–
C2959.0	9.00	10.00	38.00	88.0	4	–	–
C29510.0	10.00	10.00	45.00	95.0	4	54.50	9.50
C29512.0	12.00	12.00	53.00	110.0	4	64.50	11.50
C29515.0	15.00	12.00	53.00	110.0	4	64.50	11.50
C29516.0	16.00	16.00	63.00	123.0	4	74.50	15.50
C29518.0	18.00	16.00	63.00	123.0	4	74.50	15.50
C29520.0	20.00	20.00	75.00	141.0	4	90.50	19.50
C29525.0	25.00	25.00	90.00	166.0	5	109.50	24.50
C29530.0	30.00	25.00	90.00	166.0	6	109.50	24.50
C29532.0	32.00	32.00	106.00	186.0	6	125.50	31.50
C29540.0 [1)]	40.00	40.00	125.00	217.0	6	146.50	39.00

[1)] Available in HSS-E only; no centre cutting.

Material code (BMC)	HSS-E PM	HSS-E	HSS-E	
Mill Profile	N	N	N	
Number of flutes (NOF)	NOF 3-5	NOF 2	NOF 2	
Cut length				
Flute Helix (FHA)	λ 45°	λ 30°	λ 30°	
Flute Helix (FHA)	λ 45°	λ 30°	λ 30°	
Radial rake angle (GAMF)	γ 12°	γ 12°	γ 12°	
Shank	DIN 1835B	DIN 1835B	DIN 1835B	
Coating	Alcrona	Bright	Bright	
Cutting diameter tolerance class (TCDC)	DC k10	DC e8	DC e8	
Direction				
Basic standard group (BSG)	DIN 844L	DIN 327D	DIN 844K	
				
Product Family Code	C920	C500	C505	
PSF cutting diameters range	6.00 – 25.00	2.00 – 20.00	3.00 – 30.00	
	46	47	48	
P	P1		■	■
	P2	■	◪	◪
	P3	■	◪	◪
	P4	■	◪	◪
M	M1	■	◪	◪
	M2	■	◪	◪
	M3	■		
	M4	■		
K	K1	■	◪	◪
	K2	■	◪	◪
	K3	■	◪	◪
	K4	■	◪	◪
	K5	■	◪	◪
N	N1		◪	◪
	N2		◪	◪
	N3	■	■	■
	N4		◪	◪
	N5			
S	S1	■	◪	◪
	S2	■	◪	◪
	S3	■	◪	◪
	S4	■	◪	◪
H	H1			
	H2			
	H3			
	H4			

■ Primary use ◪ Possible use

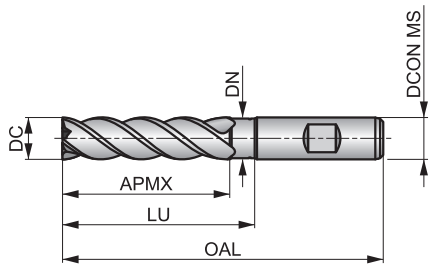
C920

DORMER

Multi-Flute HSS-E-PM Long Series End Mill, Alcrona Coating

Long cut length, 3, 4 or 5 flute design for high rigidity finishing deep profiles. With a 45° helix and designed for machining higher strength materials. Neck recess on cutting diameter equal to 10 mm and above to avoid work contact with the wall and extend reach. Alcrona coating extends the tool life.

HSS-E PM	N	NOF 3-5
	λ 45°	γ 12°
DIN 1835B	Alcrona	DC k10
	DIN 844L	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2
■85 C	■75 B	■74 C	■59 B	■50 B	■44 B	■37 B	■31 B	■62 C	■52 C	■55 C	■45 B	■41 B	■35 B
M3.3	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**
■32 A	■25 A	■55 C	■41 C	■31 C	■98 C	■80 C	■64 B	■87 C	■67 C	■54 A	■81 B	■61 B	■45 B
K4.4	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**
■38 A	■32 A	■91 B	■69 B	■53 B	■83 C	■49 C	◪40 B	■35 B	■15 A	■33 A	■14 A	■25 A	■10 A
S4.1	**S4.2**												
■20 A	■8 A												

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C9206.0	6.00	6.00	24.00	68.0	3	–	–
C9208.0	8.00	10.00	38.00	88.0	4	–	–
C92010.0	10.00	10.00	45.00	95.0	4	54.50	9.50
C92012.0	12.00	12.00	53.00	110.0	4	64.50	11.50
C92014.0	14.00	12.00	53.00	110.0	4	64.50	11.50
C92016.0	16.00	16.00	63.00	123.0	4	74.50	15.50
C92020.0	20.00	20.00	75.00	141.0	4	90.50	19.50
C92025.0	25.00	25.00	90.00	166.0	5	109.50	24.50

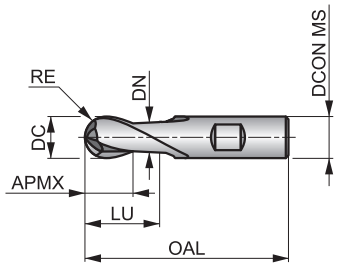
C500

DORMER

2-Flute HSS-E Ball-Nosed End Mill, Bright Finish

Extra short cut length, 2-flute design provides high rigidity for increased strength and reduced vibrations. Geometry designed for contouring complex surfaces on CNC m/c, suited for mild steels, mild non-ferrous materials and medium strength titanium alloys. Neck recess on cutting diameter equal to 14 mm and above.

HSS-E	N	NOF 2
	λ 30°	γ 12°
DIN 1835B	Bright	DC e8
	DIN 327D	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	K1.1	K1.2
■53 E	■59 E	■61 E	■45 E	◪40 E	◪36 E	◪29 D	◪22 D	◪34 E	◪29 E	◪31 E	◪25 D	◪30 E	◪22 E
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
◪17 E	◪55 E	◪45 E	◪36 D	◪49 E	◪37 E	◪30 D	◪45 D	◪34 D	◪25 D	◪22 C	◪18 C	◪51 D	◪39 D
K5.3	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S2.1**
◪30 D	◪95 G	◪71 F	◪48 F	◪48 E	◪43 E	◪31 E	■50 E	■29 E	■15 E	◪50 E	■30 D	◪25 D	◪20 C
S3.1	**S4.1**												
◪15 C	◪12 C												

DCON MS tolerance h6; RE ±0.05 mm.

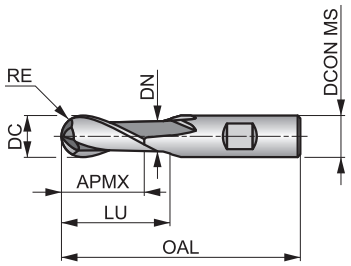
Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C5002.0	2.00	1.00	6.00	4.00	48.0	2	–	–
C5003.0	3.00	1.50	6.00	5.00	49.0	2	–	–
C5004.0	4.00	2.00	6.00	7.00	51.0	2	–	–
C5005.0	5.00	2.50	6.00	8.00	52.0	2	–	–
C5006.0	6.00	3.00	6.00	8.00	52.0	2	–	–
C5007.0	7.00	3.50	10.00	10.00	60.0	2	–	–
C5008.0	8.00	4.00	10.00	11.00	61.0	2	–	–
C50010.0	10.00	5.00	10.00	13.00	63.0	2	–	–
C50012.0	12.00	6.00	12.00	16.00	73.0	2	–	–
C50014.0	14.00	7.00	12.00	16.00	73.0	2	27.50	11.50
C50015.0	15.00	7.50	12.00	16.00	73.0	2	27.50	11.50
C50016.0	16.00	8.00	16.00	19.00	79.0	2	30.50	15.50
C50018.0	18.00	9.00	16.00	19.00	79.0	2	30.50	15.50
C50020.0	20.00	10.00	20.00	22.00	88.0	2	37.50	19.50

C505

DORMER

2-Flute HSS-E Ball-Nosed End Mill, Bright Finish

Short cut length, 2-flute design provides high rigidity for increased strength and reduced vibrations. Geometry designed for contouring complex surfaces on CNC machines, suited for mild steels, mild non-ferrous materials and medium strength titanium alloys. Neck recess on cutting diameter equal to 14 mm and above.



HSS-E	N	NOF 2
	λ 30°	γ 12°
DIN 1835B	Bright	DC e8
	DIN 844K	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	K1.1	K1.2
■46 D	■52 D	■54 D	■40 D	◪35 D	◪32 D	◪26 C	◪19 C	◪34 D	◪29 D	◪31 D	◪25 C	◪30 D	◪22 D
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
◪17 D	◪49 D	◪40 D	◪32 C	◪44 D	◪33 D	◪27 B	◪40 C	◪30 C	◪22 C	◪19 B	◪16 B	◪46 C	◪34 C
K5.3	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S2.1**
◪27 C	◪81 F	◪60 E	◪41 E	◪41 D	◪37 D	◪26 D	■43 D	■25 D	■13 D	◪43 D	■30 C	◪25 C	◪20 B
S3.1	**S4.1**												
◪15 B	◪12 B												

DCON MS tolerance h6; RE ±0.05 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
C5053.0	3.00	1.50	6.00	8.00	52.0	2	–	–
C5054.0	4.00	2.00	6.00	11.00	55.0	2	–	–
C5055.0	5.00	2.50	6.00	13.00	57.0	2	–	–
C5056.0	6.00	3.00	6.00	13.00	57.0	2	–	–
C5058.0	8.00	4.00	10.00	19.00	69.0	2	–	–
C50510.0	10.00	5.00	10.00	22.00	72.0	2	–	–
C50512.0	12.00	6.00	12.00	26.00	83.0	2	–	–
C50514.0	14.00	7.00	12.00	26.00	83.0	2	37.50	11.50
C50516.0	16.00	8.00	16.00	32.00	92.0	2	43.50	15.50
C50520.0	20.00	10.00	20.00	38.00	104.0	2	53.50	19.50
C50522.0	22.00	11.00	20.00	38.00	104.0	2	53.50	19.50
C50530.0	30.00	15.00	25.00	45.00	121.0	2	64.50	24.50

Material code (BMC)		HSS-E	HSS-E	HSS-E	HSS-E								
Mill Profile		N	N	N	N								
Number of flutes (NOF)		NOF 4-5	NOF 10-12	NOF 6-8	NOF 6-12								
Cut length													
Flute Helix (FHA)		λ 0°	λ 0°	λ 15°	λ 10°								
Flute Helix (FHA)		λ 0°	λ 0°	λ 15°	λ 10°								
Radial rake angle (GAMF)		γ 0°	γ 0°	γ 10°	γ 10°								
Shank		DIN 1835B	DIN 1835B	DIN 1835	DIN 1835								
Coating		Bright	Bright	Bright	Bright								
Cutting diameter tolerance class (TCDC)			DC js16	DC d11	DC h11								
Direction													
Basic standard group (BSG)		DORMER	DIN 1833C	DIN 851	DIN 850								
													
Product Family Code		C700	C830	C800	C822								
PSF cutting diameters range		1.00 – 15.00	12.00 – 32.00	11.00 – 32.00	4.50 – 45.50								
		50	51	52	53								
P	P1	■	■	■	■								
	P2	■	■	■	■								
	P3	■	■	■	■								
	P4	■	■	■	■								
M	M1	■	■	■	■								
	M2	■	■	■	■								
	M3	■	■	■	■								
	M4	■	■	■	■								
K	K1	■	■	■	■								
	K2	■	■	■	■								
	K3	■	■	■	■								
	K4	■	■	■	■								
	K5	■	■	■	■								
N	N1	■	■	■	■								
	N2	■	■	■	■								
	N3	■	■	■	■								
	N4		■	■	■								
	N5												
S	S1	■	■	■	■								
	S2	■	■	■	■								
	S3	■	■	■	■								
	S4	■	■	■	■								
H	H1												
	H2												
	H3												
	H4												

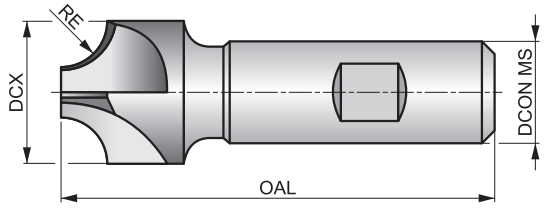
■ Primary use ◪ Possible use

C700

HSS-E Corner Rounding Cutter

With an accurate ground radius, suitable for producing accurate corner radii around the perimeter of components. The Weldon shank ensures stable holding to improve radius surface finish. Suitable for corner radius milling. Bright finish.

HSS-E	N	NOF 4-5
	λ 0°	γ 0°
DIN 1835B	Bright	
DORMER		



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■33 W	■37 W	■38 W	■28 W	■25 W	■22 W	■22 W	■18 W	■15 W	■13 W	■11 W	■9 W	■27 U	■23 U
M2.1	M2.2	M3.1	M3.2	M3.3	M4.1	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3	K3.1	K3.2
■24 U	■20 U	■17 U	■15 U	■14 U	■10 U	■20 W	■15 W	■11 W	■31 W	■25 W	■20 W	■27 W	■21 W
K3.3	K4.1	K4.2	K4.3	K4.4	K4.5	K5.1	K5.2	K5.3	N1.1	N1.2	N1.3	N2.1	N2.2
■17 W	■25 U	■19 U	■14 U	■12 U	■10 U	■29 W	■21 W	■17 W	■57 X	■43 X	■29 X	■29 X	■26 X
N2.3	N3.1	N3.2	N3.3	S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2	
■19 X	■30 X	■17 X	■9 X	■25 U	■20 U	■10 U	■13 U	■7 U	■10 U	■5 U	■8 U	■4 U	

DCON MS tolerance h6.

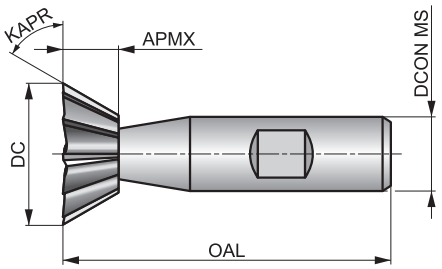
Product	RE (mm)	DCX (mm)	DCON MS (mm)	OAL (mm)	NOF
C7001.0	1.00	10.00	10.00	60.0	4
C7001.5	1.50	10.00	10.00	60.0	4
C7002.0	2.00	10.00	10.00	60.0	4
C7002.5	2.50	10.00	10.00	60.0	4
C7003.0	3.00	12.00	12.00	60.0	4
C7003.5	3.50	12.00	12.00	60.0	4
C7004.0	4.00	15.00	12.00	60.0	4
C7005.0	5.00	18.00	16.00	70.0	4
C7006.0	6.00	21.00	16.00	70.0	4
C7007.0	7.00	24.00	16.00	70.0	4
C7008.0	8.00	24.00	16.00	70.0	4
C7009.0	9.00	28.00	20.00	85.0	4
C70010.0	10.00	28.00	20.00	85.0	4
C70012.0	12.00	35.00	20.00	100.0	4
C70012.5	12.50	35.00	20.00	100.0	4
C70015.0	15.00	48.00	25.00	105.0	5

C830

DORMER

HSS-E Dovetail Cutter

Designed with the optional 45° and 60° angle and Weldon shank for accurate and stable holding, it is suitable for common dovetail forms. The bright finish prevents workpiece material from sticking to the cutting edges of the tool.



HSS-E	N	NOF 10-12
λ 0°	γ 0°	DIN 1835B
Bright	DC js16	
DIN 1833C		

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

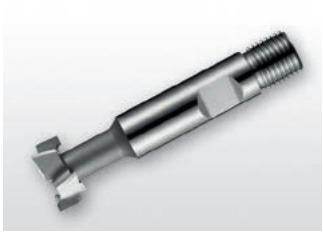
P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
33 Y	37 Y	38 Y	28 Y	25 X	22 X	22 X	18 X	15 X	13 X	11 X	9 X	27 W	23 W
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
24 W	20 W	17 W	15 W	14 W	10 W	20 Y	15 Y	11 Y	31 X	25 X	20 X	27 X	21 X
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**
17 X	25 W	19 W	14 W	12 W	10 W	29 X	21 X	17 X	59 Z	44 Z	30 Z	30 Z	27 Z
N2.3	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**
19 Z	31 Y	18 Y	9 Z	31 Z	25 Y	15 Y	10 X	13 W	7 W	10 W	5 W	8 W	4 W

DCON MS tolerance h6.

Product	KAPR (°)	APMX (mm)	DC (mm)	OAL (mm)	DCON MS (mm)	NOF
C83012.0X45	45	3.50	12.00	54.0	10.00	10
C83016.0X45	45	4.00	16.00	60.0	12.00	10
C83020.0X45	45	5.00	20.00	63.0	12.00	10
C83025.0X45	45	6.30	25.00	67.0	12.00	10
C83032.0X45	45	8.00	32.00	71.0	16.00	12
C83012.0X60	60	5.00	12.00	54.0	10.00	10
C83016.0X60	60	6.30	16.00	60.0	12.00	10
C83020.0X60	60	8.00	20.00	63.0	12.00	10
C83025.0X60	60	10.00	25.00	67.0	12.00	10
C83032.0X60	60	12.50	32.00	71.0	16.00	12

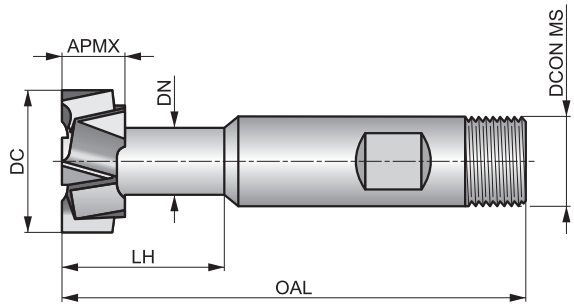
C800

DORMER



HSS-E T-Slot Cutter

Suitable for milling T-slots. For accurate and stable holding in all types of toolholder, it has a combination shank and is capable of milling T-slots to accept standard T-bolts. The bright finish prevents workpiece material from sticking to the cutting edges of the tool.



HSS-E	N	NOF 6-8
λ 15°	γ 10°	DIN 1835
Bright	DC d11	
DIN 851		

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■40 V	■45 V	■46 V	■34 V	■30 U	■27 T	■29 U	■24 U	■20 T	■18 U	■15 T	■12 T	■27 S	■23 S
M2.1	M2.2	M3.1	M3.2	M3.3	M4.1	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3	K3.1	K3.2
■24 S	■20 S	■17 S	■15 S	■14 S	■10 S	■20 V	■15 V	■11 V	■37 U	■30 U	■24 U	■33 U	■25 U
K3.3	K4.1	K4.2	K4.3	K4.4	K4.5	K5.1	K5.2	K5.3	N1.1	N1.2	N1.3	N2.1	N2.2
■20 U	■30 S	■23 S	■17 S	■14 S	■12 S	■34 U	■26 U	■20 U	■71 Y	■53 Y	■36 Y	■36 Y	■32 Y
N2.3	N3.1	N3.2	N3.3	N4.1	S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2
■23 Y	■38 V	■22 V	■11 W	■38 Y	■30 V	■20 V	■10 U	■13 U	■7 T	■10 U	■5 T	■8 U	■4 T

DCON MS tolerance h6.

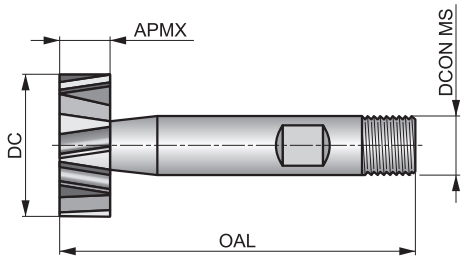
Product	APMX (mm)	DC (mm)	T DIN650	DN (mm)	LH (mm)	OAL (mm)	DCON MS (mm)	NOF
C80011.0X5.0	4.00	11.00	5	4.00	10.5	53.5	10.00	6
C80012.5X6.0	6.00	12.50	6	5.00	15.0	57.0	10.00	6
C80016.0X8.0	8.00	16.00	8	7.00	20.0	62.0	10.00	6
C80018.0X10.0	8.00	18.00	10	8.00	23.0	70.0	12.00	6
C80021.0X12.0	9.00	21.00	12	10.00	27.0	74.0	12.00	8
C80025.0X14.0	11.00	25.00	14	12.00	31.0	82.0	16.00	8
C80032.0X18.0	14.00	32.00	18	15.00	40.0	90.0	16.00	8

C822

DORMER

HSS-E Woodruff Cutter

Suitable for milling Woodruff keys in spindles and shafts. The combination shank provides stable and accurate holding in all types of holders. The bright finish prevents workpiece material from sticking to the cutting edges of the tool.



HSS-E	N	NOF 6-12
λ 10°	γ 10°	DIN 1835
Bright	DC h11	
DIN 850		

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

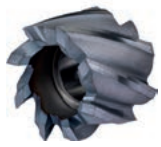
P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■40 V	■45 V	■46 V	■34 V	■30 U	■27 T	■29 U	■24 U	■20 T	■18 U	■15 T	■12 T	■34 S	■29 S
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
■31 S	■25 S	■17 S	■15 S	■14 S	■15 S	■25 V	■19 V	■14 V	■37 U	■30 U	■24 U	■33 U	■25 U
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**
■20 U	■30 S	■23 S	■17 S	■14 S	■12 S	■34 U	■26 U	■20 U	■71 Y	■53 Y	■36 Y	■36 Y	■32 Y
N2.3	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**
■23 Y	■38 V	■22 V	■11 W	■38 Y	■30 V	■20 V	■10 U	■13 U	■7 T	■10 U	■5 T	■8 U	■4 T

DCON MS tolerance h6.

Product	APMX (mm)	DC (mm)	OAL (mm)	DCON MS (mm)	NOF
C8224.5X1.0	1.00	4.50	50.0	6.00	6
C8227.5X1.5	1.50	7.50	50.0	6.00	6
C8227.5X2.0	2.00	7.50	50.0	6.00	6
C82210.5X2.0	2.00	10.50	50.0	6.00	8
C82210.5X2.5	2.50	10.50	50.0	6.00	8
C82210.5X3.0	3.00	10.50	50.0	6.00	8
C82213.5X3.0	3.00	13.50	56.0	10.00	8
C82213.5X4.0	4.00	13.50	56.0	10.00	8
C82216.5X3.0	3.00	16.50	56.0	10.00	8
C82216.5X4.0	4.00	16.50	56.0	10.00	8
C82216.5X5.0	5.00	16.50	56.0	10.00	8
C82219.5X3.0	3.00	19.50	63.0	10.00	10
C82219.5X4.0	4.00	19.50	63.0	10.00	10
C82219.5X5.0	5.00	19.50	63.0	10.00	10
C82222.5X5.0	5.00	22.50	63.0	10.00	10
C82222.5X6.0	6.00	22.50	63.0	10.00	10
C82222.5X8.0	8.00	22.50	63.0	10.00	10
C82225.5X6.0	6.00	25.50	63.0	10.00	12
C82228.5X6.0	6.00	28.50	63.0	10.00	12
C82228.5X8.0	8.00	28.50	63.0	10.00	12
C82228.5X10.0	10.00	28.50	71.0	12.00	12
C82232.5X8.0	8.00	32.50	71.0	12.00	12
C82232.5X10.0	10.00	32.50	71.0	12.00	12
C82245.5X10.0	10.00	45.50	71.0	12.00	12

Material code (BMC)		HSS	HSS	HSS	HSS	HSS	HSS
Mill Profile							
Number of flutes (NOF)							
Flute Helix (FHA)							
Flute Helix (FHA)							
Radial rake angle (GAMF)		γ 15°	γ 5°	γ 18°	γ 18°	γ 18°	γ 18°
Coating		Bright	Bright	ST	ST	ST	ST
Cutting diameter tolerance class (TCDC)							
Direction							
Basic standard group (BSG)		DIN 1838	DIN 1837	DORMER	DORMER	DORMER	DORMER
							
Product Family Code		D745	D747	D750	D751	D752	D753
PSF cutting diameters range		50.00 – 250.00	32.00 – 200.00	200.00 – 350.00	200.00 – 350.00	250.00 – 350.00	250.00 – 350.00
		56	58	60	61	62	63
P	P1	■	■	■	■	■	■
	P2	■	■	■	■	■	■
	P3	■	■	■	■	■	■
	P4	■	■	■	■	■	■
M	M1	◪	◪	◪	◪	◪	◪
	M2	◪	◪	◪	◪	◪	◪
	M3	◪	◪	◪	◪	◪	◪
	M4						
K	K1	■	■	■	■	■	■
	K2	■	■	■	■	■	■
	K3	■	■	■	■	■	■
	K4	■	■	■	■	■	■
	K5	■	■	■	■	■	■
N	N1	■	■	■	■	■	■
	N2	■	■	■	■	■	■
	N3	■	■	■	■	■	■
	N4	■	■	■	■	■	■
	N5						
S	S1						
	S2						
	S3						
	S4						
H	H1						
	H2						
	H3						
	H4						

■ Primary use ◪ Possible use

	D763	D400	D420	D402							
	HSS-E	HSS-E	HSS-E	HSS-E							
		N	N	NR							
		NOF 8	NOF 8	NOF 8							
	λ 15°	λ 30°	λ 30°	λ 30°							
	λ 15°	λ 30°	λ 30°	λ 30°							
	γ 10°	γ 12°	γ 12°	γ 12°							
	Bright	Bright	TiCN	Bright							
	DC js16	DC js16	DC js16	DC js16							
	DIN 885A	DIN 1880	DIN 1880	DIN 1880							
											
	63.00 – 125.00	40.00 – 50.00	63.00	63.00							
	64	65	66	67							
P1	■	■	■	■							
P2	■	■	■	■							
P3	■	■	■	■							
P4	■	◪	■	◪							
M1	■	■	■	■							
M2	■	■	■	■							
M3	■	◪	■	◪							
M4	■	■	■	■							
K1	■	■	■	■							
K2	■	■	■	■							
K3	■	■	■	■							
K4	■	■	■	■							
K5	■	■	■	■							
N1	■	◪	◪	◪							
N2	■	■	■	■							
N3	■	■	■	■							
N4	■	◪	◪	◪							
N5											
S1	■	◪	■	◪							
S2	■	◪	■	◪							
S3	■	◪	■	◪							
S4	■	◪	■	◪							
H1											
H2											
H3											
H4											

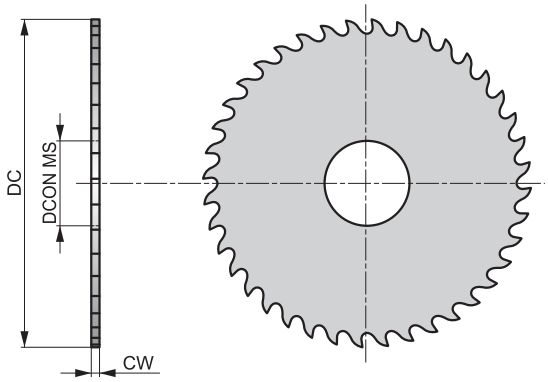
■ Primary use ◪ Possible use

D745

DORMER

HSS Slitting Saw Coarse Pitch

Designed with a coarse pitch, ideal for narrow, deep slots, whilst the dish ground and neutral tooth geometry, helps control chips and prevents rubbing when milling deep slots. Suitable for horizontal milling of slots and parting-off applications. Bright finish.



HSS | γ 15° | Bright | DIN 1838

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2
■ 40 Q	■ 45 Q	■ 46 Q	■ 34 Q	■ 30 Q	■ 29 P	■ 24 P	■ 18 P	◪ 14 P	◪ 12 P	◪ 12 P	◪ 10 P	◪ 12 P	◪ 10 P
K1.1	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K3.1**	**K3.2**	**K4.1**	**K4.2**	**K5.1**	**K5.2**	**N1.1**	**N1.2**	**N1.3**
■ 40 Q	■ 30 Q	■ 22 Q	■ 37 Q	■ 30 Q	■ 33 Q	■ 25 Q	■ 30 P	■ 23 P	■ 34 Q	■ 26 Q	■ 600 R	■ 450 R	■ 300 R
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**							
■ 769 R	■ 692 R	■ 500 R	■ 339 R	■ 200 R	■ 100 Q	■ 60 R							

Product	DC (mm)	CW (mm)	DCON MS (mm)	NOF
D74550.0X.5	50.00	0.5	13.00	48
D74550.0X.8	50.00	0.8	13.00	40
D74550.0X1.0	50.00	1.0	13.00	40
D74550.0X1.2	50.00	1.2	13.00	40
D74550.0X1.5	50.00	1.5	13.00	32
D74550.0X1.6	50.00	1.6	13.00	32
D74550.0X2.0	50.00	2.0	13.00	32
D74563.0X.5	63.00	0.5	16.00	64
D74563.0X.6	63.00	0.6	16.00	48
D74563.0X.8	63.00	0.8	16.00	48
D74563.0X1.0	63.00	1.0	16.00	48
D74563.0X1.2	63.00	1.2	16.00	40
D74563.0X1.5	63.00	1.5	16.00	40
D74563.0X1.6	63.00	1.6	16.00	40
D74563.0X2.0	63.00	2.0	16.00	40
D74580.0X1.0	80.00	1.0	22.00	48
D74580.0X1.2	80.00	1.2	22.00	48
D74580.0X1.5	80.00	1.5	22.00	48
D74580.0X1.6	80.00	1.6	22.00	48
D74580.0X2.0	80.00	2.0	22.00	40
D74580.0X2.5	80.00	2.5	22.00	40
D74580.0X3.0	80.00	3.0	22.00	40
D745100.0X1.0	100.00	1.0	22.00	64
D745100.0X1.2	100.00	1.2	22.00	64
D745100.0X1.5	100.00	1.5	22.00	48
D745100.0X1.6	100.00	1.6	22.00	48
D745100.0X2.0	100.00	2.0	22.00	48
D745100.0X2.5	100.00	2.5	22.00	48

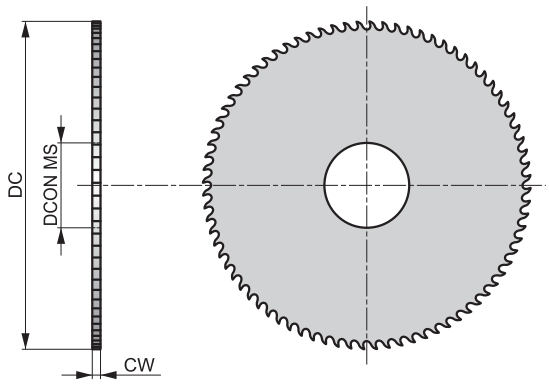
Product	DC	CW	DCON MS	NOF
	(mm)	(mm)	(mm)	
D745100.0X3.0	100.00	3.0	22.00	40
D745100.0X4.0	100.00	4.0	22.00	40
D745125.0X1.0	125.00	1.0	22.00	80
D745125.0X1.2	125.00	1.2	22.00	64
D745125.0X1.5	125.00	1.5	22.00	64
D745125.0X1.6	125.00	1.6	22.00	64
D745125.0X2.0	125.00	2.0	22.00	64
D745125.0X2.5	125.00	2.5	22.00	48
D745125.0X3.0	125.00	3.0	22.00	48
D745160.0X2.0	160.00	2.0	32.00	64
D745160.0X2.5	160.00	2.5	32.00	64
D745160.0X3.0	160.00	3.0	32.00	64
D745200.0X1.6	200.00	1.6	32.00	80
D745200.0X2.0	200.00	2.0	32.00	80
D745200.0X2.5	200.00	2.5	32.00	80
D745200.0X3.0	200.00	3.0	32.00	64
D745250.0X2.0	250.00	2.0	32.00	100

D747

DORMER

HSS Slitting Saw Fine Pitch

Designed with a neutral tooth geometry to help control chips and prevent rubbing when milling deep slots. The fine pitch design makes it ideal for narrow, deep slots, and can be used for horizontal milling slots and parting-off applications. Bright finish.



HSS | γ 5° | Bright | DIN 1837

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

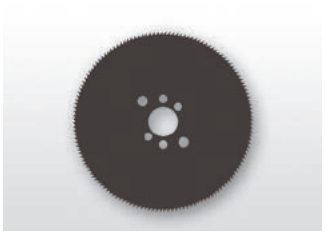
P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2
■ 40 Q	■ 45 Q	■ 46 Q	■ 34 Q	■ 30 Q	■ 29 P	■ 24 P	■ 18 P	◪ 14 P	◪ 12 P	◪ 12 P	◪ 10 P	◪ 12 P	◪ 10 P
K1.1	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K3.1**	**K3.2**	**K4.1**	**K4.2**	**K5.1**	**K5.2**	**N1.1**	**N1.2**	**N1.3**
■ 40 Q	■ 30 Q	■ 22 Q	■ 37 Q	■ 30 Q	■ 33 Q	■ 25 Q	■ 30 P	■ 23 P	■ 34 Q	■ 26 Q	■ 600 R	■ 450 R	■ 300 R
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**							
■ 769 R	■ 692 R	■ 500 R	■ 339 R	■ 200 R	■ 100 Q	■ 60 R							

Product	DC (mm)	CW (mm)	DCON MS (mm)	NOF
D74732.0X.3	32.00	0.3	8.00	80
D74732.0X.4	32.00	0.4	8.00	80
D74732.0X.5	32.00	0.5	8.00	80
D74732.0X.6	32.00	0.6	8.00	64
D74732.0X.8	32.00	0.8	8.00	64
D74732.0X1.0	32.00	1.0	8.00	64
D74732.0X1.2	32.00	1.2	8.00	48
D74732.0X1.5	32.00	1.5	8.00	48
D74732.0X1.6	32.00	1.6	8.00	48
D74732.0X2.0	32.00	2.0	8.00	48
D74740.0X.3	40.00	0.3	10.00	100
D74740.0X.4	40.00	0.4	10.00	100
D74740.0X.5	40.00	0.5	10.00	80
D74740.0X.8	40.00	0.8	10.00	80
D74740.0X1.0	40.00	1.0	10.00	64
D74740.0X1.2	40.00	1.2	10.00	64
D74740.0X1.5	40.00	1.5	10.00	64
D74740.0X1.6	40.00	1.6	10.00	64
D74740.0X2.0	40.00	2.0	10.00	48
D74750.0X.3	50.00	0.3	13.00	128
D74750.0X.4	50.00	0.4	13.00	100
D74750.0X.5	50.00	0.5	13.00	100
D74750.0X.6	50.00	0.6	13.00	100
D74750.0X.8	50.00	0.8	13.00	80
D74750.0X1.0	50.00	1.0	13.00	80
D74750.0X1.2	50.00	1.2	13.00	80
D74750.0X1.5	50.00	1.5	13.00	64
D74750.0X1.6	50.00	1.6	13.00	64

Product	DC	CW	DCON MS	NOF
	(mm)	(mm)	(mm)	
D74750.0X2.0	50.00	2.0	13.00	64
D74750.0X2.5	50.00	2.5	13.00	64
D74750.0X3.0	50.00	3.0	13.00	48
D74763.0X.5	63.00	0.5	16.00	128
D74763.0X.6	63.00	0.6	16.00	100
D74763.0X.8	63.00	0.8	16.00	100
D74763.0X1.0	63.00	1.0	16.00	100
D74763.0X1.2	63.00	1.2	16.00	80
D74763.0X1.5	63.00	1.5	16.00	80
D74763.0X1.6	63.00	1.6	16.00	80
D74763.0X2.0	63.00	2.0	16.00	80
D74763.0X2.5	63.00	2.5	16.00	64
D74763.0X3.0	63.00	3.0	16.00	64
D74763.0X4.0	63.00	4.0	16.00	64
D74780.0X.5	80.00	0.5	22.00	128
D74780.0X.6	80.00	0.6	22.00	128
D74780.0X.8	80.00	0.8	22.00	128
D74780.0X1.0	80.00	1.0	22.00	100
D74780.0X1.2	80.00	1.2	22.00	100
D74780.0X1.5	80.00	1.5	22.00	100
D74780.0X1.6	80.00	1.6	22.00	100
D74780.0X2.0	80.00	2.0	22.00	80
D74780.0X2.5	80.00	2.5	22.00	80
D74780.0X3.0	80.00	3.0	22.00	80
D74780.0X4.0	80.00	4.0	22.00	64
D747100.0X.5	100.00	0.5	22.00	160
D747100.0X.6	100.00	0.6	22.00	160
D747100.0X.8	100.00	0.8	22.00	128
D747100.0X1.0	100.00	1.0	22.00	128
D747100.0X1.2	100.00	1.2	22.00	128
D747100.0X1.5	100.00	1.5	22.00	100
D747100.0X1.6	100.00	1.6	22.00	100
D747100.0X2.0	100.00	2.0	22.00	100
D747100.0X2.5	100.00	2.5	22.00	100
D747100.0X3.0	100.00	3.0	22.00	80
D747100.0X4.0	100.00	4.0	22.00	80
D747125.0X1.0	125.00	1.0	22.00	160
D747125.0X1.2	125.00	1.2	22.00	128
D747125.0X1.5	125.00	1.5	22.00	128
D747125.0X1.6	125.00	1.6	22.00	128
D747125.0X2.0	125.00	2.0	22.00	128
D747125.0X2.5	125.00	2.5	22.00	100
D747125.0X3.0	125.00	3.0	22.00	100
D747125.0X4.0	125.00	4.0	22.00	100
D747160.0X1.0	160.00	1.0	32.00	160
D747160.0X1.2	160.00	1.2	32.00	160
D747160.0X1.5	160.00	1.5	32.00	160
D747160.0X2.0	160.00	2.0	32.00	128
D747160.0X2.5	160.00	2.5	32.00	128
D747160.0X3.0	160.00	3.0	32.00	128
D747200.0X1.0	200.00	1.0	32.00	200
D747200.0X1.2	200.00	1.2	32.00	200
D747200.0X2.0	200.00	2.0	32.00	160
D747200.0X3.0	200.00	3.0	32.00	128

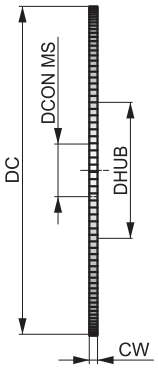
D750

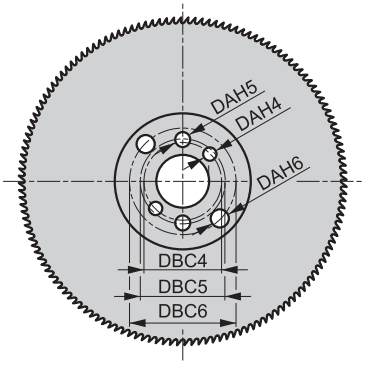
DORMER



HSS Slitting Saw Fine Pitch

Designed with fine pitch, ideal for thin section components. Suitable for slitting and cutting. With ranges from 130 to 220 teeth, the neutral tooth geometry helps control chips and prevents rubbing when slitting tubes and pipes. The steam oxide finish acts to retain cutting fluid and prevent chip tool welding.





HSS | γ 18° | ST | DORMER

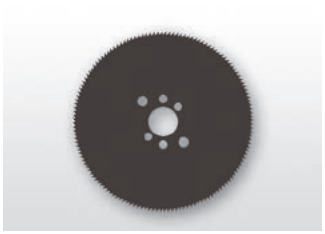
Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2
■ 40 Q	■ 45 Q	■ 46 Q	■ 34 Q	■ 30 Q	■ 29 P	■ 24 P	■ 18 P	◪ 14 P	◪ 12 P	◪ 12 P	◪ 10 P	◪ 12 P	◪ 10 P
K1.1	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K3.1**	**K3.2**	**K4.1**	**K4.2**	**K5.1**	**K5.2**	**N1.1**	**N1.2**	**N1.3**
■ 40 Q	■ 30 Q	■ 22 Q	■ 37 Q	■ 30 Q	■ 33 Q	■ 25 Q	■ 30 P	■ 23 P	■ 34 Q	■ 26 Q	■ 600 R	■ 450 R	■ 300 R
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**							
■ 769 R	■ 692 R	■ 500 R	■ 339 R	■ 200 R	■ 100 Q	■ 60 R							

Product	DC (mm)	CW (mm)	DCON MS (mm)	NOF	P (mm)	DHUB (mm)	DAH4 (mm)	DBC4 (mm)	DAH5 (mm)	DBC5 (mm)	DAH6 (mm)	DBC6 (mm)
D750200.0X1.8	200.00	1.8	32.00	130	5	100	8	45	9	50	11	63
D750225.0X2.0	225.00	2.0	32.00	140	5	100	8	45	9	50	11	63
D750250.0X2.0	250.00	2.0	32.00	160	5	100	8	45	9	50	11	63
D750275.0X2.5	275.00	2.5	32.00	180	5	100	8	45	9	50	11	63
D750300.0X2.5	300.00	2.5	32.00	180	5	100	8	45	9	50	11	63
D750315.0X2.5	315.00	2.5	32.00	200	5	100	8	45	9	50	11	63
D750350.0X2.5	350.00	2.5	32.00	220	5	120	8	45	9	59	11	63

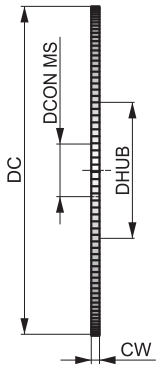
D751

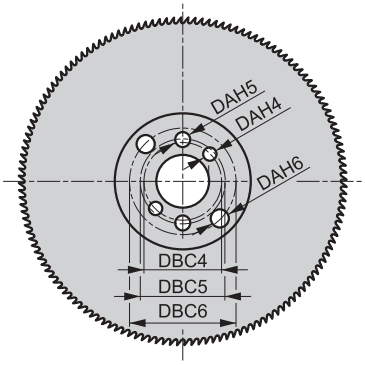
DORMER



HSS Slitting Saw Fine Pitch

Designed with fine pitch, ideal for thin section components. Suitable for slitting and cutting. With ranges from 160 to 350 teeth, the neutral tooth geometry helps control chips and prevents rubbing when slitting tubes and pipes. The steam oxide finish acts to retain cutting fluid and prevent chip tool welding.





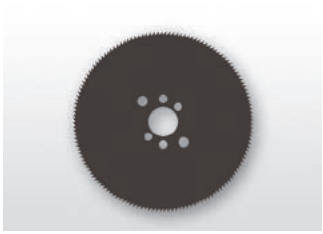
HSS | γ 18° | ST | DORMER

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2
■ 40 Q	■ 45 Q	■ 46 Q	■ 34 Q	■ 30 Q	■ 29 P	■ 24 P	■ 18 P	◪ 14 P	◪ 12 P	◪ 12 P	◪ 10 P	◪ 12 P	◪ 10 P
K1.1	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K3.1**	**K3.2**	**K4.1**	**K4.2**	**K5.1**	**K5.2**	**N1.1**	**N1.2**	**N1.3**
■ 40 Q	■ 30 Q	■ 22 Q	■ 37 Q	■ 30 Q	■ 33 Q	■ 25 Q	■ 30 P	■ 23 P	■ 34 Q	■ 26 Q	■ 600 R	■ 450 R	■ 300 R
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**							
■ 769 R	■ 692 R	■ 500 R	■ 339 R	■ 200 R	■ 100 Q	■ 60 R							

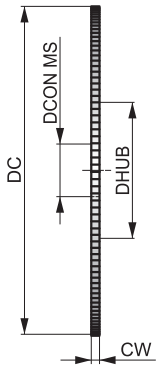
Product	DC (mm)	CW (mm)	DCON MS (mm)	NOF	P (mm)	DHUB (mm)	DAH4 (mm)	DBC4 (mm)	DAH5 (mm)	DBC5 (mm)	DAH6 (mm)	DBC6 (mm)
D751200.0X1.8X160	200.00	1.8	32.00	160	4	100	8	45	9	50	11	63
D751200.0X1.8X200	200.00	1.8	32.00	200	3	100	8	45	9	50	11	63
D751225.0X2.0X180	225.00	2.0	32.00	180	4	100	8	45	9	50	11	63
D751225.0X2.0X220	225.00	2.0	32.00	220	3	100	8	45	9	50	11	63
D751250.0X2.0X200	250.00	2.0	32.00	200	4	100	8	45	9	50	11	63
D751250.0X2.0X250	250.00	2.0	32.00	250	3	100	8	45	9	50	11	63
D751275.0X2.5X220	275.00	2.5	32.00	220	4	100	8	45	9	50	11	63
D751300.0X2.5X220	300.00	2.5	32.00	220	4	100	8	45	9	50	11	63
D751300.0X2.5X300	300.00	2.5	32.00	300	3	100	8	45	9	50	11	63
D751315.0X2.5X240	315.00	2.5	32.00	240	4	100	8	45	9	50	11	63
D751350.0X2.5X280	350.00	2.5	32.00	280	4	120	8	45	9	50	11	63
D751350.0X2.5X350	350.00	2.5	32.00	350	3	120	8	45	9	50	11	63

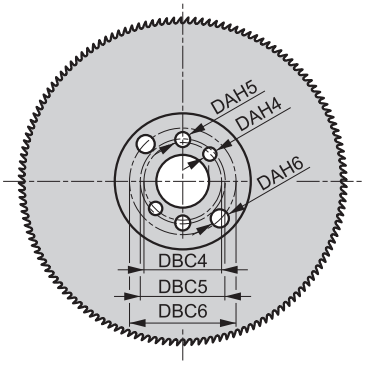
D752



HSS Slitting Saw Coarse Pitch

Designed with coarse pitch, ideal for thin section components. The dish ground and neutral tooth geometry, in addition to helping control chips, also prevents rubbing when slitting tubes and pipes. Suitable for slitting and cutting. The steam oxide finish acts to retain cutting fluid and prevent chip tool welding.





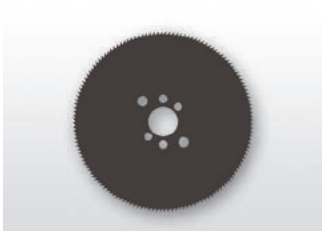
HSS | γ 18° | ST | DORMER

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2
■ 40 Q	■ 45 Q	■ 46 Q	■ 34 Q	■ 30 Q	■ 29 P	■ 24 P	■ 18 P	◪ 14 P	◪ 12 P	◪ 12 P	◪ 10 P	◪ 12 P	◪ 10 P
K1.1	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K3.1**	**K3.2**	**K4.1**	**K4.2**	**K5.1**	**K5.2**	**N1.1**	**N1.2**	**N1.3**
■ 40 Q	■ 30 Q	■ 22 Q	■ 37 Q	■ 30 Q	■ 33 Q	■ 25 Q	■ 30 P	■ 23 P	■ 34 Q	■ 26 Q	■ 600 R	■ 450 R	■ 300 R
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**							
■ 769 R	■ 692 R	■ 500 R	■ 339 R	■ 200 R	■ 100 Q	■ 60 R							

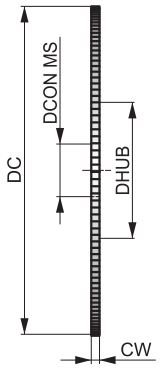
Product	DC (mm)	CW (mm)	DCON MS (mm)	NOF	P (mm)	DHUB (mm)	DAH4 (mm)	DBC4 (mm)	DAH5 (mm)	DBC5 (mm)	DAH6 (mm)	DBC6 (mm)
D752250.0X2.0X128	250.00	2.0	32.00	128	6	100	8	45	9	50	11	63
D752300.0X2.5X160	300.00	2.5	32.00	160	6	100	8	45	9	50	11	63
D752315.0X2.5X160	315.00	2.5	32.00	160	6	100	8	45	9	50	11	63
D752350.0X2.5X180	350.00	2.5	32.00	180	6	120	8	45	9	50	11	63

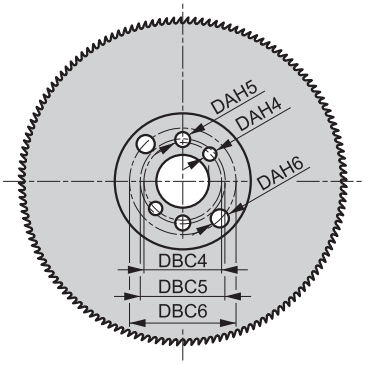
D753



HSS Slitting Saw Coarse Pitch

Designed with coarse pitch, ideal for thin section components. The dish ground and neutral tooth geometry, in addition to helping control chips, also prevents rubbing when slitting tubes and pipes. Suitable for slitting and cutting. The steam oxide finish acts to retain cutting fluid and prevent chip tool welding.





HSS | γ 18° | ST | DORMER

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P3.1	P3.2	P4.1	M1.1	M1.2	M2.1	M2.2	M3.1	M3.2
■ 40 Q	■ 45 Q	■ 46 Q	■ 34 Q	■ 30 Q	■ 29 P	■ 24 P	■ 18 P	◪ 14 P	◪ 12 P	◪ 12 P	◪ 10 P	◪ 12 P	◪ 10 P
K1.1	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K3.1**	**K3.2**	**K4.1**	**K4.2**	**K5.1**	**K5.2**	**N1.1**	**N1.2**	**N1.3**
■ 40 Q	■ 30 Q	■ 22 Q	■ 37 Q	■ 30 Q	■ 33 Q	■ 25 Q	■ 30 P	■ 23 P	■ 34 Q	■ 26 Q	■ 600 R	■ 450 R	■ 300 R
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**							
■ 769 R	■ 692 R	■ 500 R	■ 339 R	■ 200 R	■ 100 Q	■ 60 R							

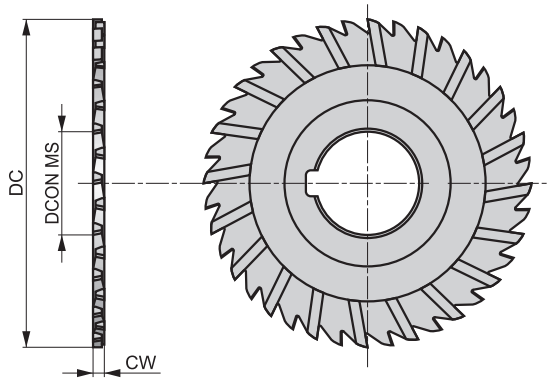
Product	DC (mm)	CW (mm)	DCON MS (mm)	NOF	P (mm)	DHUB (mm)	DAH4 (mm)	DBC4 (mm)	DAH5 (mm)	DBC5 (mm)	DAH6 (mm)	DBC6 (mm)
D753250.0X2.0	250.00	2.0	32.00	100	8	100	8	45	9	50	11	63
D753350.0X2.5	350.00	2.5	32.00	140	8	120	8	45	9	50	11	63

D763

DORMER

HSS-E Side and Face Fine Pitch Milling Cutter

Designed with a fine pitch, ideal for narrow, deep slots, where the staggered tooth geometry also helps control chips during milling. A very versatile tool which can be used for horizontal milling slots and parting-off applications. The bright finish prevents workpiece material from sticking to the cutting edges of the tool.



HSS-E		λ 15°
γ 10°	Bright	DC js16
DIN 885A		

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■46 X	■52 X	■54 X	■40 X	■35 X	■31 X	■29 X	■24 X	■20 X	■18 X	■15 X	■12 X	■41 X	■35 X
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
■37 X	■30 X	■23 X	■20 X	■18 X	■10 X	■30 X	■22 X	■17 X	■49 X	■40 X	■32 X	■44 X	■33 X
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**
■27 X	■40 X	■30 X	■22 X	■19 X	■16 X	■46 X	■34 X	■27 X	■83 X	■62 X	■42 X	■42 X	■37 X
N2.3	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**
■27 X	■44 X	■25 X	■13 X	■44 S	■30 V	■20 W	■15 W	■20 W	■14 S	■15 W	■10 S	■12 W	■8 S

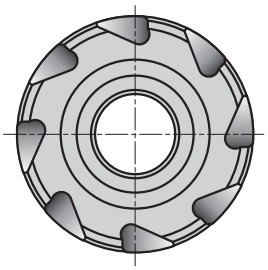
Product	DC (mm)	CW (mm)	DCON MS (mm)	NOF
D76363.0X1.6	63.00	1.6	22.00	32
D76363.0X2.0	63.00	2.0	22.00	32
D76380.0X3.0	80.00	3.0	27.00	32
D763100.0X2.0	100.00	2.0	32.00	44
D763125.0X3.0	125.00	3.0	32.00	44

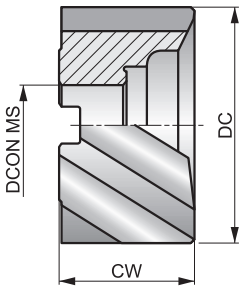
D400

DORMER

HSS-E Shell Cutter, Bright Finish

The standard bore sizes make it suitable for shell mill holders with a large diameter. Suitable for slotting and cutting. Bright finish.





HSS-E	N	NOF 8
λ 30°	γ 12°	Bright
DC js16		DIN 1880

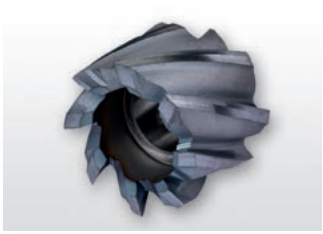
Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■40 C	■45 C	■46 C	■34 C	■30 C	◪27 B	■29 C	■24 B	◪20 B	■18 B	◪15 B	◪12 B	■34 C	■29 C
M2.1	M2.2	M3.1	M3.2	M3.3	M4.1	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3	K3.1	K3.2
■31 C	■25 B	◪17 B	◪15 B	■14 A	■10 A	■20 C	■15 C	■11 C	■37 C	■30 C	■24 B	■33 C	■25 C
K3.3	K4.1	K4.2	K4.3	K4.4	K4.5	K5.1	K5.2	K5.3	N1.1	N1.2	N1.3	N2.1	N2.2
■20 A	■30 B	■23 B	■17 B	■14 A	■12 A	■34 B	■26 B	■20 B	◪76 E	◪57 D	■38 D	■38 C	■34 C
N2.3	N3.1	N3.2	N3.3	N4.1	N4.2	N4.3	S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2
■25 C	■40 C	■23 C	■12 C	◪40 C	◪15 C	◪17 C	■30 B	◪20 B	◪10 A	◪13 A	◪7 A	◪10 A	◪5 A
S4.1	S4.2												
◪8 A	◪4 A												

Product	DC (mm)	CW (mm)	DCON MS (mm)	NOF
D40040.0	40.00	32.0	16.00	8
D40050.0	50.00	36.0	22.00	8

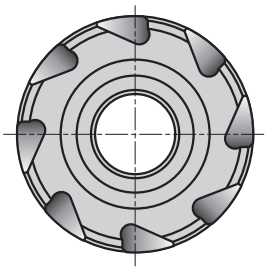
D420

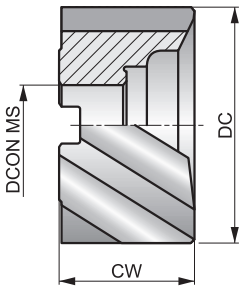
DORMER



HSS-E Shell Cutter, TiCN Coating

The standard bore sizes make it suitable for standard shell mill holders and can be used for slotting and cutting. Available in a large range of sizes, with diameters up to 63 mm available. TiCN coating increases the life of the cutter and improves performance when milling hard and abrasive materials.





HSS-E	N	NOF 8
λ 30°	γ 12°	TiCN
DC js16		DIN 1880

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■86 C	■96 C	■100 C	■74 C	■65 C	■57 B	■52 C	■42 B	■35 B	■31 B	■26 B	■21 B	■48 C	■41 C
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
■43 C	■35 B	■35 B	■30 B	■27 A	■20 A	■35 C	■26 C	■19 C	■62 C	■50 C	■40 B	■54 C	■42 C
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**
■34 A	■50 B	■38 B	■28 B	■24 A	■20 A	■57 B	■43 B	■33 B	◪159 E	◪120 D	■80 D	■80 C	■72 C
N2.3	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**N4.3**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**
■51 C	■84 C	■50 C	■25 C	■84 C	◪32 C	◪35 C	■35 B	■25 B	■15 A	■27 A	■14 A	■20 A	■10 A
S4.1	**S4.2**												
■16 A	■8 A												

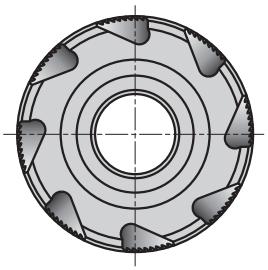
Product	DC (mm)	CW (mm)	DCON MS (mm)	NOF
D42063.0	63.00	40.0	27.00	8

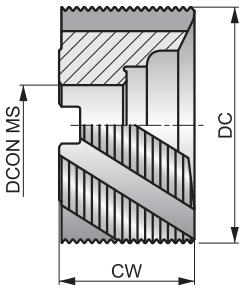
D402

DORMER

HSS-E Roughing Shell Mill Cutter, Bright Finish

Designed with a coarse pitch NR roughing profile, the tools are suitable for high metal removal roughing applications. The standard bore makes it possible to be used with standard shell end mill holders. Bright finish.





HSS-E	NR	NOF 8
λ 30°	γ 12°	Bright
DC js16		DIN 1880

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 261.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■40 D	■45 D	■46 D	■34 D	■30 D	◪27 C	■29 D	■24 C	◪20 C	■18 C	◪15 C	◪12 C	■34 D	■29 D
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
■31 D	■25 C	◪17 C	◪15 C	■14 B	■10 B	■20 D	■15 D	■11 D	■37 D	■30 D	■24 C	■33 D	■25 D
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**
■20 B	■30 C	■23 C	■17 C	■14 B	■12 B	■34 C	■26 C	■20 C	◪76 F	◪57 E	■38 E	■38 D	■34 D
N2.3	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**N4.3**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**
■25 D	■40 D	■23 D	■12 D	◪40 D	◪15 D	◪17 D	■30 C	◪20 C	◪10 B	◪13 B	◪7 B	◪10 B	◪5 B
S4.1	**S4.2**												
◪8 B	◪4 B												

Product	DC (mm)	CW (mm)	DCON MS (mm)	NOF
D40263.0	63.00	40.0	27.00	8

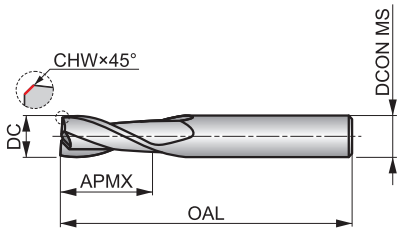
Material code (BMC)	HM	HM	HM	HM	HM	HM	HM					
Mill Profile	N	N	N	N	N	N						
Number of flutes (NOF)	NOF 2	NOF 2	NOF 3	NOF 3	NOF 4	NOF 4						
Cut length												
Flute Helix (FHA)	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°						
Flute Helix (FHA)	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°						
Radial rake angle (GAMF)	γ 12°	γ 12°	γ 12°	γ 12°	γ 12°	γ 12°						
Shank	DIN 6535HA	DIN 6535HB	DIN 6535HA	DIN 6535HB	DIN 6535HA	DIN 6535HB						
Coating	Bright	TiAlN	Bright	TiAlN	Bright	TiAlN						
Cutting diameter tolerance class (TCDC)	DC h10	DC h10	DC h10	DC h10	DC h12	DC h12						
Direction												
Basic standard group (BSG)	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER						
												
Product Family Code	S902	S922	S903	S933	S904	S944	S991					
PSF cutting diameters range	2.00 – 20.00	2.00 – 20.00	2.00 – 20.00	2.00 – 20.00	2.00 – 20.00	2.00 – 20.00	Set					
	70	71	72	73	74	75	76					
P	P1	■	■	■	■	■	■						
	P2	■	■	■	■	■	■						
	P3	■	■	■	■	■	■						
	P4	◪	■	◪	■	◪	■						
M	M1												
	M2												
	M3												
	M4												
K	K1	◪	■	◪	■	◪	■						
	K2	■	■	■	■	■	■						
	K3	■	■	■	■	■	■						
	K4	◪	■	◪	■	◪	■						
	K5	■	■	■	■	■	■						
N	N1	◪	◪	◪	◪	◪	◪						
	N2	◪	■	◪	■	◪	■						
	N3	■	■	■	■	■	■						
	N4	◪	◪	◪	◪	◪	◪						
	N5												
S	S1	◪	◪	◪	◪	◪	◪						
	S2					◪	◪						
	S3					◪	◪						
	S4					◪	◪						
H	H1												
	H2												
	H3												
	H4												

■ Primary use ◪ Possible use

S902

2-Flute Solid Carbide End Mill

Medium cut length, 2-flute design with 30° helix provides high rigidity for milling standard slots.



HM	N	NOF 2
	λ 30°	γ 12°
DIN 6535HA	Bright	DC h10
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	K1.1	K1.2	K1.3
■106 K	■119 K	■123 K	■91 K	■80 K	◪71 J	■66 K	■53 J	◪45 J	■40 J	◪34 J	■80 K	◪59 K	◪44 K
K2.1	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**
■98 K	■80 K	◪64 J	■87 K	■67 K	◪54 J	■81 J	■61 J	◪45 J	◪38 J	◪32 J	■91 J	■69 J	◪53 J
N1.1	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S1.3**
◪355 K	■267 K	■179 K	■179 K	◪160 K	◪115 K	■187 K	■109 K	■56 K	◪187 K	◪72 K	■38 J	◪36 J	◪15 J

DCON MS tolerance h6; DC≤10.00 mm: CHW ± 0.03×45° mm; DC>10.00 mm: CHW ± 0.05×45° mm.

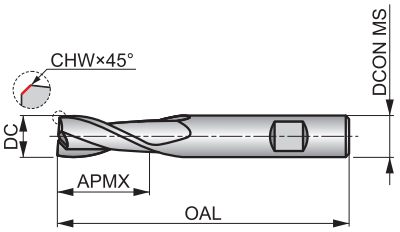
Product	DC	CHW	DCON MS	APM×	OAL	NOF
	(mm)	(mm)	(mm)	(mm)	(mm)	
S9022.0	2.00	0.08	3.00	6.00	38.0	2
S9022.5	2.50	0.08	3.00	9.00	38.0	2
S9023.0	3.00	0.08	3.00	12.00	38.0	2
S9024.0	4.00	0.08	4.00	14.00	50.0	2
S9025.0	5.00	0.13	5.00	16.00	50.0	2
S9026.0	6.00	0.13	6.00	19.00	57.0	2
S9027.0	7.00	0.13	8.00	19.00	63.0	2
S9028.0	8.00	0.13	8.00	19.00	63.0	2
S9029.0	9.00	0.13	10.00	21.00	72.0	2
S90210.0	10.00	0.18	10.00	22.00	72.0	2
S90212.0	12.00	0.20	12.00	25.00	73.0	2
S90214.0	14.00	0.20	14.00	30.00	83.0	2
S90216.0	16.00	0.20	16.00	32.00	92.0	2
S90218.0	18.00	0.20	18.00	32.00	92.0	2
S90220.0	20.00	0.30	20.00	38.00	104.0	2

S922

DORMER

2-Flute Solid Carbide End Mill

Medium cut length, 2-flute design with 30° helix provides high rigidity for milling standard slots. Cylindrical shank for cutting diameter up to 5 mm. TiALN coating for higher temperature resistance and longer tool life.



HM	N	NOF 2
	λ 30°	γ 12°
DIN 6535HB	TiAlN	DC h10
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	K1.1	K1.2
■ 132 K	■ 148 K	■ 153 K	■ 113 K	■ 100 K	■ 88 J	■ 98 K	■ 79 J	■ 67 J	■ 59 J	■ 50 J	◪ 41 J	■ 100 K	■ 74 K
K1.3	K2.1	K2.2	K2.3	K3.1	K3.2	K3.3	K4.1	K4.2	K4.3	K4.4	K4.5	K5.1	K5.2
■ 56 K	■ 107 K	■ 87 K	■ 70 J	■ 95 K	■ 72 K	■ 59 J	■ 88 J	■ 67 J	■ 49 J	■ 42 J	■ 35 J	■ 100 J	■ 75 J
K5.3	N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N3.3	N4.1	N4.2	N4.3	S1.1
■ 58 J	◪ 296 K	◪ 222 K	■ 149 K	■ 149 K	■ 133 K	■ 96 K	■ 156 K	■ 91 K	◪ 47 K	◪ 156 K	◪ 60 K	◪ 64 K	■ 47 J
S1.2	S1.3												
◪ 45 J	◪ 20 J												

DCON MS tolerance h6; DC≤10.00 mm: CHW ± 0.03×45° mm; DC>10.00 mm: CHW ± 0.05×45° mm.
Products from this series are also available in set. Please see S991.

Product	DC (mm)	CHW (mm)	DCON MS (mm)	APM× (mm)	OAL (mm)	NOF
S9222.0 [1]	2.00	0.08	3.00	6.00	38.0	2
S9222.5 [1]	2.50	0.08	3.00	9.00	38.0	2
S9223.0 [1]	3.00	0.08	3.00	12.00	38.0	2
S9224.0 [1]	4.00	0.08	4.00	14.00	50.0	2
S9225.0 [1]	5.00	0.13	5.00	16.00	50.0	2
S9226.0	6.00	0.13	6.00	19.00	57.0	2
S9227.0	7.00	0.13	8.00	19.00	63.0	2
S9228.0	8.00	0.13	8.00	19.00	63.0	2
S9229.0	9.00	0.13	10.00	21.00	72.0	2
S92210.0	10.00	0.18	10.00	22.00	72.0	2
S92212.0	12.00	0.20	12.00	25.00	73.0	2
S92214.0	14.00	0.20	14.00	30.00	83.0	2
S92216.0	16.00	0.20	16.00	32.00	92.0	2
S92218.0	18.00	0.20	18.00	32.00	92.0	2
S92220.0	20.00	0.30	20.00	38.00	104.0	2

[1] Cylindrical shank.

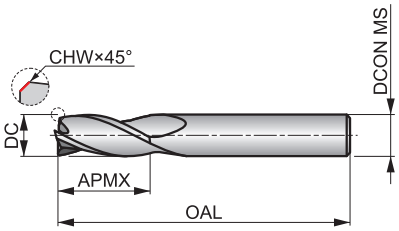
S903

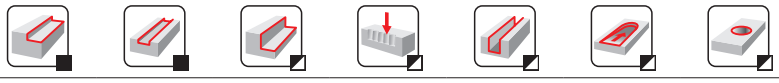
DORMER

3-Flute Solid Carbide End Mill

Medium cut length, 3-flute design with 30° helix and provides high rigidity for milling standard slots.

HM	N	NOF 3
	λ 30°	γ 12°
DIN 6535HA	Bright	DC h10
	DORMER	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	K1.1	K1.2	K1.3
■106 J	■119 J	■123 J	■91 J	■80 J	◪71 I	■66 J	■53 I	◪45 I	■40 I	◪34 I	■80 J	◪59 J	◪44 J
K2.1	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**
■98 J	■80 J	◪64 I	■87 J	■67 J	◪54 I	■81 I	■61 I	◪45 I	◪38 I	◪32 I	■91 I	■69 I	◪53 I
N1.1	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S1.3**
◪355 K	■267 K	■179 K	■179 J	◪160 J	◪115 J	■187 J	■109 J	■56 J	◪187 J	◪72 J	■38 I	◪36 I	◪43 I

DCON MS tolerance h6; DC≤9.00 mm: CHW ± 0.03×45° mm; DC > 9.00 mm: CHW ± 0.05×45° mm.

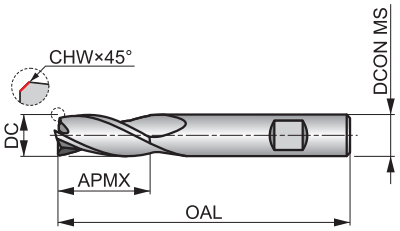
Product	DC	CHW	DCON MS	APM×	OAL	NOF
	(mm)	(mm)	(mm)	(mm)	(mm)	
S9032.0	2.00	0.08	3.00	6.00	38.0	3
S9032.5	2.50	0.08	3.00	9.00	38.0	3
S9033.0	3.00	0.08	3.00	12.00	38.0	3
S9034.0	4.00	0.08	4.00	14.00	50.0	3
S9035.0	5.00	0.13	5.00	16.00	50.0	3
S9036.0	6.00	0.13	6.00	19.00	57.0	3
S9037.0	7.00	0.13	8.00	19.00	63.0	3
S9038.0	8.00	0.13	8.00	19.00	63.0	3
S9039.0	9.00	0.13	10.00	21.00	72.0	3
S90310.0	10.00	0.20	10.00	22.00	72.0	3
S90312.0	12.00	0.20	12.00	25.00	73.0	3
S90314.0	14.00	0.20	14.00	30.00	83.0	3
S90316.0	16.00	0.20	16.00	32.00	92.0	3
S90318.0	18.00	0.20	18.00	32.00	92.0	3
S90320.0	20.00	0.30	20.00	38.00	104.0	3

S933

DORMER

3-Flute Solid Carbide End Mill

Medium cut length, 3-flute design with 30° helix provides high rigidity for milling standard slots. Cylindrical shank for cutting diameter up to 5 mm. TiALN coating for higher temperature resistance and longer tool life.



HM	N	NOF 3
	λ 30°	γ 12°
DIN 6535HB	TiAlN	DC h10
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	K1.1	K1.2
■ 132 J	■ 148 J	■ 153 J	■ 113 J	■ 100 J	■ 88 I	■ 98 J	■ 79 I	■ 67 I	■ 59 I	■ 50 I	◪ 41 I	■ 100 J	■ 74 J
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
■ 56 J	■ 107 J	■ 87 J	■ 70 I	■ 95 J	■ 72 J	■ 59 I	■ 88 I	■ 67 I	■ 49 I	■ 42 I	■ 35 I	■ 100 I	■ 75 I
K5.3	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**N4.3**	**S1.1**
■ 58 I	◪ 296 K	◪ 222 K	■ 149 K	■ 149 J	■ 133 J	■ 96 J	■ 156 J	■ 91 J	◪ 47 J	◪ 156 J	◪ 60 J	◪ 64 J	■ 47 I
S1.2	**S1.3**												
◪ 45 I	◪ 20 I												

DCON MS tolerance h6; DC≤9.00 mm: CHW ± 0.03×45° mm; DC > 9.00 mm: CHW ± 0.05×45° mm.
Products from this series are also available in set. Please see S991.

Product	DC (mm)	CHW (mm)	DCON MS (mm)	APM× (mm)	OAL (mm)	NOF
S9332.0 [1]	2.00	0.08	3.00	6.00	38.0	3
S9332.5 [1]	2.50	0.08	3.00	9.00	38.0	3
S9333.0 [1]	3.00	0.08	3.00	12.00	38.0	3
S9334.0 [1]	4.00	0.08	4.00	14.00	50.0	3
S9335.0 [1]	5.00	0.13	5.00	16.00	50.0	3
S9336.0	6.00	0.13	6.00	19.00	57.0	3
S9337.0	7.00	0.13	8.00	19.00	63.0	3
S9338.0	8.00	0.13	8.00	19.00	63.0	3
S9339.0	9.00	0.13	10.00	21.00	72.0	3
S93310.0	10.00	0.20	10.00	22.00	72.0	3
S93312.0	12.00	0.20	12.00	25.00	73.0	3
S93314.0	14.00	0.20	14.00	30.00	83.0	3
S93316.0	16.00	0.20	16.00	32.00	92.0	3
S93318.0	18.00	0.20	18.00	32.00	92.0	3
S93320.0	20.00	0.30	20.00	38.00	104.0	3

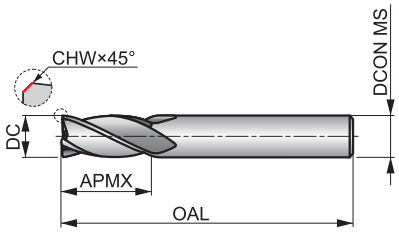
[1] Cylindrical shank.

S904

DORMER

4-Flute Solid Carbide End Mill

Medium cut length, 4-flute design with 30° helix provides high rigidity for milling standard slots.



HM	N	NOF 4
	λ 30°	γ 12°
DIN 6535HA	Bright	DC h12
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	K1.1	K1.2
■106 J	■119 J	■123 J	■91 J	■80 J	◪71 I	■66 J	■53 I	◪45 I	■40 I	◪34 I	◪18 I	■80 J	◪59 J
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
◪44 J	■98 J	■80 J	◪64 I	■87 J	■67 J	◪54 I	■81 I	■61 I	◪45 I	◪38 I	◪32 I	■91 I	■69 I
K5.3	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**
◪53 I	◪355 J	■267 J	■179 J	■179 J	◪160 J	◪115 J	■187 J	■109 J	■56 J	◪187 J	◪72 J	■38 I	◪36 I
S1.3	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**							
◪43 I	◪40 I	◪35 I	◪30 I	◪25 I	◪23 I	◪20 I							

DCON MS tolerance h6; DC≤9.00 mm: CHW ± 0.03×45° mm; DC > 9.00 mm: CHW ± 0.05×45° mm.

Product	DC (mm)	CHW (mm)	DCON MS (mm)	APM× (mm)	OAL (mm)	NOF
S9042.0	2.00	0.08	3.00	6.00	38.0	4
S9042.5	2.50	0.08	3.00	9.00	38.0	4
S9043.0	3.00	0.08	3.00	12.00	38.0	4
S9044.0	4.00	0.08	4.00	14.00	50.0	4
S9045.0	5.00	0.13	5.00	16.00	50.0	4
S9046.0	6.00	0.13	6.00	19.00	57.0	4
S9047.0	7.00	0.13	8.00	19.00	63.0	4
S9048.0	8.00	0.13	8.00	19.00	63.0	4
S9049.0	9.00	0.13	10.00	21.00	72.0	4
S90410.0	10.00	0.20	10.00	22.00	72.0	4
S90412.0	12.00	0.20	12.00	25.00	73.0	4
S90414.0	14.00	0.20	14.00	30.00	83.0	4
S90416.0	16.00	0.20	16.00	32.00	92.0	4
S90418.0	18.00	0.20	18.00	32.00	92.0	4
S90420.0	20.00	0.30	20.00	38.00	104.0	4

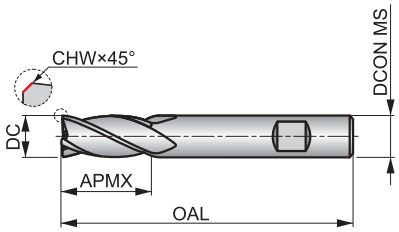
S944

DORMER

4-Flute Solid Carbide End Mill

Medium cut length, 4-flute design with 30° helix provides high rigidity for milling standard slots. Cylindrical shank for cutting diameter up to 5 mm. TiALN coating for higher temperature resistance and longer tool life.

HM	N	NOF 4
	λ 30°	γ 12°
DIN 6535HB	TiAlN	DC h12
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	K1.1	K1.2
■132 J	■148 J	■153 J	■113 J	■100 J	■88 I	■98 J	■79 I	■67 I	■59 I	■50 I	◪41 I	■100 J	■74 J
K1.3	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**
■56 J	■107 J	■87 J	■70 I	■95 J	■72 J	■59 I	■88 I	■67 I	■49 I	■42 I	■35 I	■100 I	■75 I
K5.3	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**N4.3**	**S1.1**
■58 I	◪296 J	◪222 J	■149 J	■149 J	■133 J	■96 J	■156 J	■91 J	◪47 J	◪156 J	◪60 J	◪64 J	■47 I
S1.2	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**						
◪45 I	◪45 I	◪60 I	◪49 I	◪45 I	◪35 I	◪35 I	◪28 I						

DCON MS tolerance h6; DC≤9.00 mm: CHW ± 0.03×45° mm; DC > 9.00 mm: CHW ± 0.05×45° mm.
Products from this series are also available in set. Please see S991.

Product	DC (mm)	CHW (mm)	DCON MS (mm)	APM× (mm)	OAL (mm)	NOF
S9442.0 [1]	2.00	0.08	3.00	6.00	38.0	4
S9442.5 [1]	2.50	0.08	3.00	9.00	38.0	4
S9443.0 [1]	3.00	0.08	3.00	12.00	38.0	4
S9444.0 [1]	4.00	0.08	4.00	14.00	50.0	4
S9445.0 [1]	5.00	0.13	5.00	16.00	50.0	4
S9446.0	6.00	0.13	6.00	19.00	57.0	4
S9447.0	7.00	0.13	8.00	19.00	63.0	4
S9448.0	8.00	0.13	8.00	19.00	63.0	4
S9449.0	9.00	0.13	10.00	21.00	72.0	4
S94410.0	10.00	0.20	10.00	22.00	72.0	4
S94412.0	12.00	0.20	12.00	25.00	73.0	4
S94414.0	14.00	0.20	14.00	30.00	83.0	4
S94416.0	16.00	0.20	16.00	32.00	92.0	4
S94418.0	18.00	0.20	18.00	32.00	92.0	4
S94420.0	20.00	0.30	20.00	38.00	104.0	4

[1] Cylindrical shank.

S991

Set of Solid Carbide End Mills

Sets of solid carbide End Mills with TiALN coating. Range of S922, S933 or S944 (2, 3 or 4 flute). Sets contain Ø3, 4, 5, 6, 8 and 10 mm. Carried in a plastic container for good overview.

HM		

A = Styles in Set, B = No. in Set, C = Diameters in Set.

Product	A	B	C
S991SET922	S922	6	Ø 3.00 mm, 4.00 mm, 5.00 mm, 6.00 mm, 8.00 mm, 10.00 mm
S991SET933	S933	6	Ø 3.00 mm, 4.00 mm, 5.00 mm, 6.00 mm, 8.00 mm, 10.00 mm
S991SET944	S944	6	Ø 3.00 mm, 4.00 mm, 5.00 mm, 6.00 mm, 8.00 mm, 10.00 mm

SOLID CARBIDE TOOLS FOR MIXED MANUFACTURING.
SUITABLE FOR MODERATE CUTTING PARAMETERS.

Material code (BMC)	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	
Mill Profile	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Number of flutes (NOF)	NOF 2	NOF 2	NOF 2	NOF 2	NOF 2	NOF 2	NOF 3	NOF 3	NOF 3	NOF 3	NOF 3	NOF 3	NOF 3	NOF 3	
Cut length															
Flute Helix (FHA)	λ 28°	λ 28°	λ 28°	λ 28°	λ 40°	λ 28°	λ 28°	λ 28°	λ 28°	λ 28°	λ 40°	λ 28°	λ 40°	λ 40°	
Flute Helix (FHA)	λ 28°	λ 28°	λ 28°	λ 28°	λ 40°	λ 28°	λ 28°	λ 28°	λ 28°	λ 28°	λ 40°	λ 28°	λ 40°	λ 40°	
Radial rake angle (GAMF)	γ 9°	γ 9°	γ 9°	γ 9°	γ 10°	γ 9°	γ 9°	γ 9°	γ 9°	γ 9°	γ 10°	γ 9°	γ 10°	γ 10°	
Shank	DIN 6535HA	DIN 6535HB	DIN 6535HA	DIN 6535HB	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HB	DIN 6535HA	DIN 6535HB	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	
Coating	AlCrN	AlCrN	AlCrN	AlCrN	AlCrN	AlCrN	AlCrN	AlCrN	AlCrN	AlCrN	AlCrN	AlCrN	AlCrN	AlCrN	
Cutting diameter tolerance class (TCDC)	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	
Direction															
Basic standard group (BSG)	DIN 6527K	DIN 6527K	DIN 6527L	DIN 6527L	DORMER	DORMER	DIN 6527K	DIN 6527K	DIN 6527L	DIN 6527L	DORMER	DORMER	DORMER	DORMER	
															
Product Family Code	S802HA	S802HB	S812HA	S812HB	S710	S822	S803HA	S803HB	S813HA	S813HB	S713	S823	S714	S715	
PSF cutting diameters range	1.00 – 20.00	2.00 – 20.00	2.00 – 20.00	2.00 – 20.00	1.00 – 20.00	2.00 – 20.00	1.00 – 20.00	2.00 – 20.00	2.00 – 20.00	2.00 – 20.00	1.50 – 20.00	2.00 – 20.00	3.00 – 20.00	3.00 – 20.00	
	80	81	82	83	84	85	86	87	88	89	90	91	92	93	
P	P1	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	P2	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	P3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	P4	■	■	■	■	■	■	■	■	■	■	■	■	■	■
M	M1	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	M2	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	M3	■	■	■	■	■	■	■	■	◪	◪	■	◪	■	■
	M4	◪	◪	■	■		■	◪	◪	◪	◪		◪		
K	K1	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K2	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K4	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K5	■	■	■	■	■	■	■	■	■	■	■	■	■	■
N	N1	◪	◪	■	■		■	◪	◪	◪	◪		◪	◪	◪
	N2	■	■	■	■		■	■	■	■	■		■	◪	◪
	N3	■	■	■	■		■	■	■	■	■		■	◪	◪
	N4	◪	◪	◪	◪		◪	◪	◪	◪	◪		◪		
	N5														
S	S1	◪	◪	■	■	■	■	◪	◪	◪	◪	■	◪	■	■
	S2	◪	◪	■	■	■	■	◪	◪	◪	◪	■	◪	■	■
	S3	◪	◪	■	■	■	■	◪	◪	◪	◪	■	◪	■	■
	S4	◪	◪	■	■	■	■	◪	◪	◪	◪	■	◪	■	■
H	H1														
	H2														
	H3														
	H4														

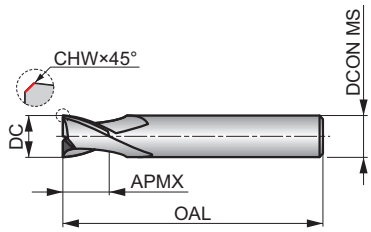
■ Primary use ◪ Possible use

S802HA

DORMER

2-Flute Solid Carbide Slot End Mill, DIN 6535 HA Shank

Extra short cut length, 2-flute design provides high rigidity for milling shallow slots to a P9 tolerance and ramping operation. AlCrN coating improves performance and extends the tool life.



HM	N	NOF 2
	λ 28°	γ 9°
DIN 6535HA	AlCrN	
DIN 6527K		

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■206 K	■230 K	■238 K	■176 K	■155 K	■137 J	■143 K	■114 J	■97 J	■84 J	■72 J	■58 J	■121 K	■102 K
M2.1	M2.2	M2.3	M3.1	M3.2	M3.3	M4.1	M4.2	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3
■107 K	■89 J	◪75 J	■99 J	■85 J	◪76 J	◪75 J	◪63 J	■205 K	■152 K	■114 K	■210 K	■171 K	■137 J
K3.1	K3.2	K3.3	K4.1	K4.2	K4.3	K4.4	K4.5	K5.1	K5.2	K5.3	N1.1	N1.2	N1.3
■186 K	■143 K	■115 J	■173 J	■131 J	■95 J	■82 J	■68 J	■196 J	■147 J	■114 J	◪408 K	◪307 K	■206 K
N2.1	N2.2	N2.3	N3.1	N3.2	N3.3	N4.1	N4.2	S1.1	S1.2	S2.1	S3.1	S4.1	
■206 K	■184 K	■132 K	■215 K	■125 K	◪64 K	◪215 K	◪83 K	◪81 J	◪71 J	◪55 J	◪41 J	◪32 J	

DCON MS tolerance h6; DC ≤ 7.75 mm: CHW ±0.03×45° mm; DC > 7.75 mm: CHW ±0.05×45° mm.

Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S802HA1.0	1.00	–	3.00	3.00	38.0	2
S802HA1.5	1.50	–	3.00	3.00	38.0	2
S802HA2.0	2.00	–	6.00	3.00	50.0	2
S802HA2.5	2.50	0.08	6.00	3.00	50.0	2
S802HA3.0	3.00	0.08	6.00	4.00	50.0	2
S802HA3.5	3.50	0.08	6.00	4.00	50.0	2
S802HA4.0	4.00	0.13	6.00	5.00	54.0	2
S802HA4.5	4.50	0.13	6.00	5.00	54.0	2
S802HA5.0	5.00	0.13	6.00	6.00	54.0	2
S802HA6.0	6.00	0.13	6.00	7.00	54.0	2
S802HA7.0	7.00	0.13	8.00	8.00	58.0	2
S802HA8.0	8.00	0.20	8.00	9.00	58.0	2
S802HA9.0	9.00	0.20	10.00	10.00	66.0	2
S802HA10.0	10.00	0.20	10.00	11.00	66.0	2
S802HA12.0	12.00	0.20	12.00	12.00	73.0	2
S802HA14.0	14.00	0.20	14.00	14.00	75.0	2
S802HA16.0	16.00	0.20	16.00	16.00	82.0	2
S802HA18.0	18.00	0.20	18.00	18.00	84.0	2
S802HA20.0	20.00	0.30	20.00	20.00	92.0	2

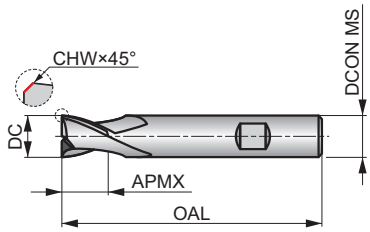
S802HB

DORMER

2-Flute Solid Carbide Slot End Mill, DIN 6535 HB Shank

Extra short cut length, 2-flute design provides high rigidity for milling shallow slots to a P9 tolerance and ramping operation. The Weldon shank prevents the end mill from slipping in the toolholder. AlCrN coating improves performance and extends the tool life.

HM	N	NOF 2
	λ 28°	γ 9°
DIN 6535HB	AlCrN	
DIN 6527K		



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■ 206 K	■ 230 K	■ 238 K	■ 176 K	■ 155 K	■ 137 J	■ 143 K	■ 114 J	■ 97 J	■ 84 J	■ 72 J	■ 58 J	■ 121 K	■ 102 K
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■ 107 K	■ 89 J	◪ 75 J	■ 99 J	■ 85 J	◪ 76 J	◪ 75 J	◪ 63 J	■ 205 K	■ 152 K	■ 114 K	■ 210 K	■ 171 K	■ 137 J
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■ 186 K	■ 143 K	■ 115 J	■ 173 J	■ 131 J	■ 95 J	■ 82 J	■ 68 J	■ 196 J	■ 147 J	■ 114 J	◪ 408 K	◪ 307 K	■ 206 K
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**	
■ 206 K	■ 184 K	■ 132 K	■ 215 K	■ 125 K	◪ 64 K	◪ 215 K	◪ 83 K	◪ 81 J	◪ 71 J	◪ 55 J	◪ 41 J	◪ 32 J	

DCON MS tolerance h6; DC ≤ 7.75 mm: CHW ±0.03×45° mm; DC > 7.75 mm: CHW ±0.05×45° mm.

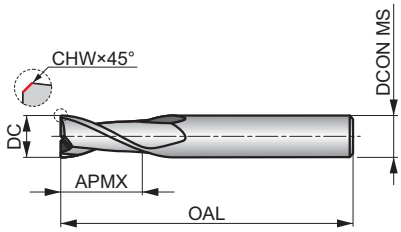
Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S802HB2.0	2.00	–	6.00	3.00	50.0	2
S802HB2.5	2.50	0.08	6.00	3.00	50.0	2
S802HB3.0	3.00	0.08	6.00	4.00	50.0	2
S802HB3.5	3.50	0.08	6.00	4.00	50.0	2
S802HB4.0	4.00	0.13	6.00	5.00	54.0	2
S802HB4.5	4.50	0.13	6.00	5.00	54.0	2
S802HB5.0	5.00	0.13	6.00	6.00	54.0	2
S802HB6.0	6.00	0.13	6.00	7.00	54.0	2
S802HB7.0	7.00	0.13	8.00	8.00	58.0	2
S802HB8.0	8.00	0.20	8.00	9.00	58.0	2
S802HB9.0	9.00	0.20	10.00	10.00	66.0	2
S802HB10.0	10.00	0.20	10.00	11.00	66.0	2
S802HB12.0	12.00	0.20	12.00	12.00	73.0	2
S802HB14.0	14.00	0.20	14.00	14.00	75.0	2
S802HB16.0	16.00	0.20	16.00	16.00	82.0	2
S802HB18.0	18.00	0.20	18.00	18.00	84.0	2
S802HB20.0	20.00	0.30	20.00	20.00	92.0	2

S812HA

DORMER

2-Flute Solid Carbide Slot End Mill, DIN 6535 HA Shank

Short cut length, 2-flute design provides high rigidity for milling standard slots to a P9 tolerance and ramping operation. AlCrN coating improves performance and extends the tool life.



HM	N	NOF 2
	λ 28°	γ 9°
DIN 6535HA	AlCrN	
DIN 6527L		

P9

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■166 K	■186 K	■192 K	■142 K	■125 K	■111 J	■115 K	■93 J	■78 J	■68 J	■59 J	■47 J	■97 K	■81 K
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
■85 K	■71 J	■79 J	■68 J	■61 J	■60 J	■166 K	■123 K	■92 K	■170 K	■138 K	■110 J	■150 K	■115 K
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**
■93 J	■140 J	■105 J	■77 J	■66 J	■56 J	■159 J	■118 J	■92 J	◪330 K	◪247 K	■166 K	■166 K	■148 K
N2.3	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**			
■107 K	■173 K	■101 K	◪52 K	◪173 K	◪67 K	■72 J	■64 J	■49 J	■38 J	■30 J			

DCON MS tolerance h6; DC ≤ 7.00 mm: CHW ±0.03×45° mm; DC > 7.00 mm: CHW ±0.05×45° mm.

Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S812HA2.0	2.00	–	6.00	6.00	57.0	2
S812HA2.5	2.50	0.08	6.00	7.00	57.0	2
S812HA3.0	3.00	0.08	6.00	7.00	57.0	2
S812HA3.5	3.50	0.08	6.00	7.00	57.0	2
S812HA4.0	4.00	0.13	6.00	8.00	57.0	2
S812HA4.5	4.50	0.13	6.00	8.00	57.0	2
S812HA5.0	5.00	0.13	6.00	10.00	57.0	2
S812HA6.0	6.00	0.13	6.00	10.00	57.0	2
S812HA7.0	7.00	0.13	8.00	13.00	63.0	2
S812HA8.0	8.00	0.20	8.00	16.00	63.0	2
S812HA9.0	9.00	0.20	10.00	16.00	72.0	2
S812HA10.0	10.00	0.20	10.00	19.00	72.0	2
S812HA12.0	12.00	0.20	12.00	22.00	83.0	2
S812HA14.0	14.00	0.20	14.00	22.00	83.0	2
S812HA16.0	16.00	0.20	16.00	26.00	92.0	2
S812HA18.0	18.00	0.20	18.00	26.00	92.0	2
S812HA20.0	20.00	0.30	20.00	32.00	104.0	2

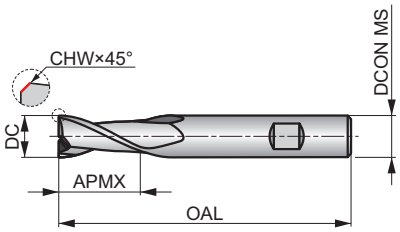
S812HB

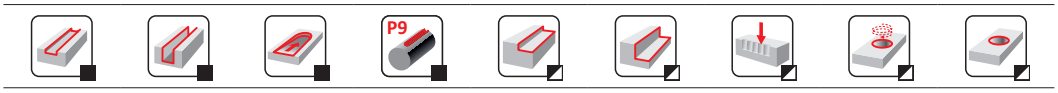
DORMER

2-Flute Solid Carbide Slot End Mill, DIN 6535 HB Shank

Short cut length, 2-flute design provides high rigidity for milling standard slots to a P9 tolerance and ramping operation. The Weldon shank prevents the end mill from slipping in the toolholder. AlCrN coating improves performance and extends the tool life.

HM	N	NOF 2
	λ 28°	γ 9°
DIN 6535HB	AlCrN	
DIN 6527L		





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■166 K	■186 K	■192 K	■142 K	■125 K	■111 J	■115 K	■93 J	■78 J	■68 J	■59 J	■47 J	■97 K	■81 K
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
■85 K	■71 J	■79 J	■68 J	■61 J	■60 J	■166 K	■123 K	■92 K	■170 K	■138 K	■110 J	■150 K	■115 K
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**
■93 J	■140 J	■105 J	■77 J	■66 J	■56 J	■159 J	■118 J	■92 J	◪330 K	◪247 K	■166 K	■166 K	■148 K
N2.3	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**			
■107 K	■173 K	■101 K	◪52 K	◪173 K	◪67 K	■72 J	■64 J	■49 J	■38 J	■30 J			

DCON MS tolerance h6; DC ≤ 7.00 mm: CHW ±0.03×45° mm; DC > 7.00 mm: CHW ±0.05×45° mm.

Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S812HB2.0	2.00	0.00	6.00	6.00	57.0	2
S812HB2.5	2.50	0.08	6.00	7.00	57.0	2
S812HB3.0	3.00	0.08	6.00	7.00	57.0	2
S812HB3.5	3.50	0.08	6.00	7.00	57.0	2
S812HB4.0	4.00	0.13	6.00	8.00	57.0	2
S812HB4.5	4.50	0.13	6.00	8.00	57.0	2
S812HB5.0	5.00	0.13	6.00	10.00	57.0	2
S812HB6.0	6.00	0.13	6.00	10.00	57.0	2
S812HB7.0	7.00	0.13	8.00	13.00	63.0	2
S812HB8.0	8.00	0.20	8.00	16.00	63.0	2
S812HB9.0	9.00	0.20	10.00	16.00	72.0	2
S812HB10.0	10.00	0.20	10.00	19.00	72.0	2
S812HB12.0	12.00	0.20	12.00	22.00	83.0	2
S812HB14.0	14.00	0.20	14.00	22.00	83.0	2
S812HB16.0	16.00	0.20	16.00	26.00	92.0	2
S812HB18.0	18.00	0.20	18.00	26.00	92.0	2
S812HB20.0	20.00	0.30	20.00	32.00	104.0	2

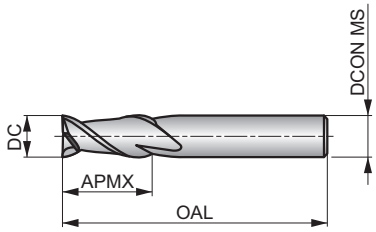
S710

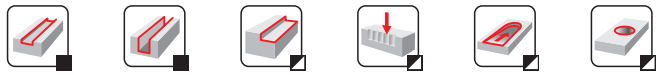
DORMER

2-Flute Solid Carbide End Mill

Short cut length, 2-flute design with 40° helix provides high rigidity for milling standard slots. AlCrN coating improves performance and extends the tool life.

HM	N	NOF 2
	λ 40°	γ 10°
DIN 6535HA	AlCrN	DC h9
	DORMER	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■199 K	■223 K	■230 K	■170 K	■150 K	■133 J	■138 K	■111 J	■94 J	■82 J	■70 J	■115 K	■97 K	■102 K
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■84 J	■94 J	■81 J	■196 K	■145 K	■109 K	■202 K	■164 K	■131 J	■178 K	■136 K	■110 J	■165 J	■125 J
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**S1.2**	**S2.1**	**S3.1**	**S4.1**				
■91 J	■78 J	■65 J	■187 J	■141 J	■109 J	■69 J	■53 J	■40 J	■31 J				

DCON MS tolerance h6.

Product	DC	DCON MS	APMX	OAL	NOF
	(mm)	(mm)	(mm)	(mm)	
S7101.0	1.00	3.00	3.00	40.0	2
S7101.5	1.50	3.00	4.50	40.0	2
S7102.0	2.00	3.00	6.50	40.0	2
S7102.5	2.50	3.00	6.50	40.0	2
S7103.0	3.00	6.00	9.00	50.0	2
S7104.0	4.00	6.00	12.00	50.0	2
S7105.0	5.00	6.00	15.00	50.0	2
S7106.0	6.00	6.00	20.00	60.0	2
S7108.0	8.00	8.00	20.00	64.0	2
S71010.0	10.00	10.00	22.00	75.0	2
S71012.0	12.00	12.00	25.00	75.0	2
S71016.0	16.00	16.00	32.00	90.0	2
S71020.0	20.00	20.00	38.00	100.0	2

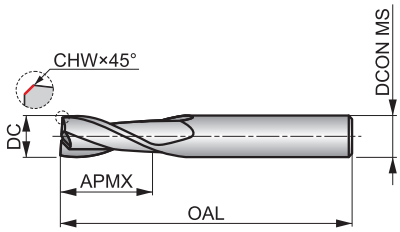
S822

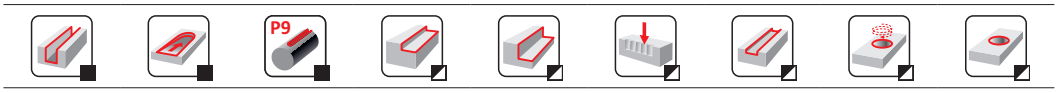
DORMER

2-Flute Solid Carbide Slot End Mill

Medium cut length, 2-flute design provides high rigidity for milling standard slots to a P9 tolerance and ramping operation. AlCrN coating improves performance and extends the tool life.

HM	N	NOF 2
	λ 28°	γ 9°
DIN 6535HA	AlCrN	
DORMER		





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■146 K	■164 K	■169 K	■125 K	■110 K	■98 J	■101 K	■82 J	■69 J	■61 J	■52 J	■41 J	■85 K	■72 K
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
■76 K	■62 J	■70 J	■60 J	■54 J	■53 J	■145 K	■108 K	■81 K	■150 K	■122 K	■97 J	■133 K	■102 K
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**
■82 J	■123 J	■93 J	■68 J	■59 J	■48 J	■139 J	■105 J	■81 J	◪287 K	◪216 K	■144 K	■144 K	■129 K
N2.3	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**			
■93 K	■152 K	■88 K	◪45 K	◪152 K	◪59 K	■58 J	■51 J	■39 J	■29 J	■23 J			

DCON MS tolerance h6; DC ≤ 7.00 mm: CHW ±0.03×45° mm; DC > 7.00 mm: CHW ±0.05×45° mm.

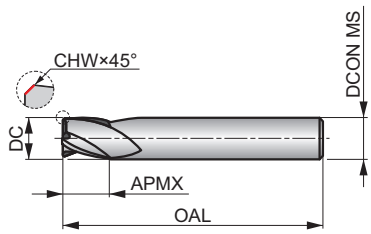
Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S8222.0	2.00	–	6.00	8.00	57.0	2
S8222.5	2.50	0.08	6.00	12.00	57.0	2
S8223.0	3.00	0.08	6.00	12.00	57.0	2
S8224.0	4.00	0.13	6.00	14.00	57.0	2
S8225.0	5.00	0.13	6.00	16.00	57.0	2
S8226.0	6.00	0.13	6.00	19.00	57.0	2
S8227.0	7.00	0.13	8.00	19.00	63.0	2
S8228.0	8.00	0.20	8.00	19.00	63.0	2
S8229.0	9.00	0.20	10.00	21.00	72.0	2
S82210.0	10.00	0.20	10.00	22.00	72.0	2
S82212.0	12.00	0.20	12.00	25.00	83.0	2
S82214.0	14.00	0.20	14.00	30.00	83.0	2
S82216.0	16.00	0.20	16.00	32.00	92.0	2
S82218.0	18.00	0.20	18.00	32.00	92.0	2
S82220.0	20.00	0.30	20.00	38.00	104.0	2

S803HA

DORMER

3-Flute Solid Carbide Slot End Mill, DIN 6535 HA Shank

Extra short cut length, 3-flute design provides high rigidity for milling shallow slots to a P9 tolerance. AlCrN coating increases service life and improves performance. Also suited for plunging and ramping milling.



HM	N	NOF 3
	λ 28°	γ 9°
DIN 6535HA	AlCrN	
DIN 6527K		

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■206 J	■230 J	■238 J	■176 J	■155 J	■137 I	■143 J	■114 I	■97 I	■84 I	■72 I	■58 I	■121 J	■102 J
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■107 J	■89 I	◪75 I	■99 I	■85 I	◪76 I	◪75 I	◪63 I	■205 J	■152 J	■114 J	■210 J	■171 J	■137 I
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■186 J	■143 J	■115 I	■173 I	■131 I	■95 I	■82 I	■68 I	■196 I	■147 I	■114 I	◪408 K	◪307 K	■206 K
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**	
■206 J	■184 J	■132 J	■215 J	■125 J	◪64 J	◪215 J	◪83 J	◪81 I	◪71 I	◪55 I	◪41 I	◪32 I	

DCON MS tolerance h6; DC ≤ 7.75 mm: CHW ±0.03×45° mm; DC > 7.75 mm: CHW ±0.05×45° mm.

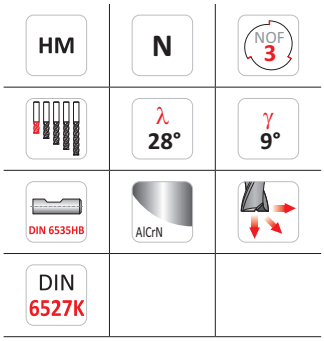
Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S803HA1.0	1.00	–	3.00	3.00	38.0	3
S803HA1.5	1.50	–	3.00	3.00	38.0	3
S803HA2.0	2.00	–	6.00	3.00	50.0	3
S803HA2.5	2.50	0.08	6.00	3.00	50.0	3
S803HA2.8	2.80	0.08	6.00	4.00	50.0	3
S803HA3.0	3.00	0.08	6.00	4.00	50.0	3
S803HA3.5	3.50	0.08	6.00	4.00	50.0	3
S803HA3.8	3.80	0.08	6.00	5.00	54.0	3
S803HA4.0	4.00	0.13	6.00	5.00	54.0	3
S803HA4.5	4.50	0.13	6.00	5.00	54.0	3
S803HA4.8	4.80	0.13	6.00	6.00	54.0	3
S803HA5.0	5.00	0.13	6.00	6.00	54.0	3
S803HA6.0	6.00	0.13	6.00	7.00	54.0	3
S803HA7.0	7.00	0.13	8.00	8.00	58.0	3
S803HA8.0	8.00	0.20	8.00	9.00	58.0	3
S803HA9.0	9.00	0.20	10.00	10.00	66.0	3
S803HA10.0	10.00	0.20	10.00	11.00	66.0	3
S803HA12.0	12.00	0.20	12.00	12.00	73.0	3
S803HA14.0	14.00	0.20	14.00	14.00	75.0	3
S803HA16.0	16.00	0.20	16.00	16.00	82.0	3
S803HA18.0	18.00	0.20	18.00	18.00	84.0	3
S803HA20.0	20.00	0.30	20.00	20.00	92.0	3

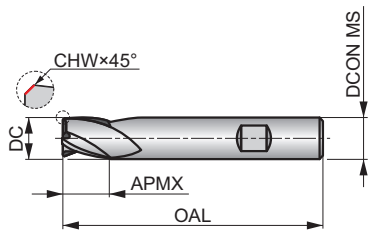
S803HB

DORMER

3-Flute Solid Carbide Slot End Mill, DIN 6535 HB Shank

Extra short cut length, 3-flute design provides high rigidity for milling shallow slots to a P9 tolerance. AlCrN coating increases service life and improves performance. Also suited for plunging and ramping milling.





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■206 J	■230 J	■238 J	■176 J	■155 J	■137 I	■143 J	■114 I	■97 I	■84 I	■72 I	■58 I	■121 J	■102 J
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■107 J	■89 I	◪75 I	■99 I	■85 I	◪76 I	◪75 I	◪63 I	■205 J	■152 J	■114 J	■210 J	■171 J	■137 I
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■186 J	■143 J	■115 I	■173 I	■131 I	■95 I	■82 I	■68 I	■196 I	■147 I	■114 I	◪408 K	◪307 K	■206 K
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**	
■206 J	■184 J	■132 J	■215 J	■125 J	◪64 J	◪215 J	◪83 J	◪81 I	◪71 I	◪55 I	◪41 I	◪32 I	

DCON MS tolerance h6; DC ≤ 7.75 mm: CHW ±0.03×45° mm; DC > 7.75 mm: CHW ±0.05×45° mm.

Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S803HB2.0	2.00	–	6.00	3.00	50.0	3
S803HB2.5	2.50	0.08	6.00	3.00	50.0	3
S803HB2.8	2.80	0.08	6.00	4.00	50.0	3
S803HB3.0	3.00	0.08	6.00	4.00	50.0	3
S803HB3.5	3.50	0.08	6.00	4.00	50.0	3
S803HB3.8	3.80	0.08	6.00	5.00	54.0	3
S803HB4.0	4.00	0.13	6.00	5.00	54.0	3
S803HB4.5	4.50	0.13	6.00	5.00	54.0	3
S803HB4.8	4.80	0.13	6.00	6.00	54.0	3
S803HB5.0	5.00	0.13	6.00	6.00	54.0	3
S803HB5.75	5.75	0.13	6.00	7.00	54.0	3
S803HB6.0	6.00	0.13	6.00	7.00	54.0	3
S803HB6.75	6.75	0.13	8.00	8.00	58.0	3
S803HB7.0	7.00	0.13	8.00	8.00	58.0	3
S803HB7.75	7.75	0.13	8.00	9.00	58.0	3
S803HB8.0	8.00	0.20	8.00	9.00	58.0	3
S803HB9.0	9.00	0.20	10.00	10.00	66.0	3
S803HB9.7	9.70	0.20	10.00	11.00	66.0	3
S803HB10.0	10.00	0.20	10.00	11.00	66.0	3
S803HB11.7	11.70	0.20	12.00	12.00	73.0	3
S803HB12.0	12.00	0.20	12.00	12.00	73.0	3
S803HB14.0	14.00	0.20	14.00	14.00	75.0	3
S803HB16.0	16.00	0.20	16.00	16.00	82.0	3
S803HB18.0	18.00	0.20	18.00	18.00	84.0	3
S803HB20.0	20.00	0.30	20.00	20.00	92.0	3

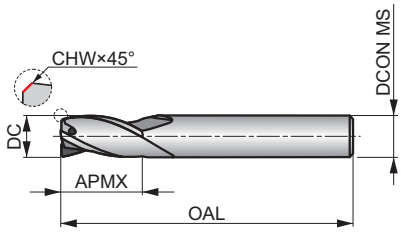
S813HA

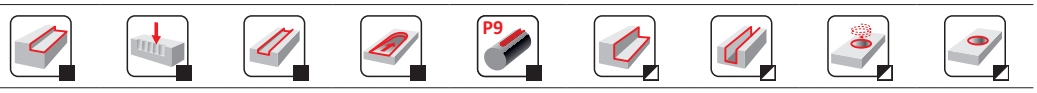
DORMER

3-Flute Solid Carbide Slot End Mill, DIN 6535 HA Shank

Short cut length, 3-flute design provides high rigidity for milling standard slots to a P9 tolerance. AlCrN coating increases service life and improves performance. Also suited for plunging and ramping milling.

HM	N	NOF 3
	λ 28°	γ 9°
DIN 6535HA	AlCrN	
DIN 6527L		





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■166 J	■186 J	■192 J	■142 J	■125 J	■111 I	■115 J	■93 I	■78 I	■68 I	■59 I	◪47 I	■97 J	■81 J
M2.1	M2.2	M3.1	M3.2	M3.3	M4.1	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3	K3.1	K3.2
■85 J	■71 I	◪79 I	◪68 I	◪61 I	◪60 I	■166 J	■123 J	■92 J	■170 J	■138 J	■110 I	■150 J	■115 J
K3.3	K4.1	K4.2	K4.3	K4.4	K4.5	K5.1	K5.2	K5.3	N1.1	N1.2	N1.3	N2.1	N2.2
■93 I	■140 I	■105 I	■77 I	■66 I	■56 I	■159 I	■118 I	■92 I	◪330 K	◪247 K	■166 K	■166 J	■148 J
N2.3	N3.1	N3.2	N3.3	N4.1	N4.2	S1.1	S1.2	S2.1	S3.1	S4.1			
■107 J	■173 J	■101 J	◪52 J	◪173 J	◪67 J	◪72 I	◪64 I	◪49 I	◪38 I	◪30 I			

DCON MS tolerance h6; DC ≤ 7.00 mm: CHW ±0.03×45° mm; DC > 7.00 mm: CHW ±0.05×45° mm.

Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S813HA2.0	2.00	0.00	6.00	6.00	57.0	3
S813HA2.5	2.50	0.08	6.00	7.00	57.0	3
S813HA3.0	3.00	0.08	6.00	7.00	57.0	3
S813HA3.5	3.50	0.08	6.00	7.00	57.0	3
S813HA4.0	4.00	0.13	6.00	8.00	57.0	3
S813HA4.5	4.50	0.13	6.00	8.00	57.0	3
S813HA5.0	5.00	0.13	6.00	10.00	57.0	3
S813HA6.0	6.00	0.13	6.00	10.00	57.0	3
S813HA7.0	7.00	0.13	8.00	13.00	63.0	3
S813HA8.0	8.00	0.20	8.00	16.00	63.0	3
S813HA9.0	9.00	0.20	10.00	16.00	72.0	3
S813HA10.0	10.00	0.20	10.00	19.00	72.0	3
S813HA12.0	12.00	0.20	12.00	22.00	83.0	3
S813HA14.0	14.00	0.20	14.00	22.00	83.0	3
S813HA16.0	16.00	0.20	16.00	26.00	92.0	3
S813HA18.0	18.00	0.20	18.00	26.00	92.0	3
S813HA20.0	20.00	0.30	20.00	32.00	104.0	3

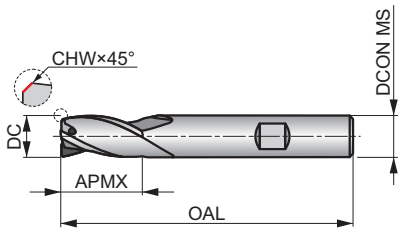
S813HB

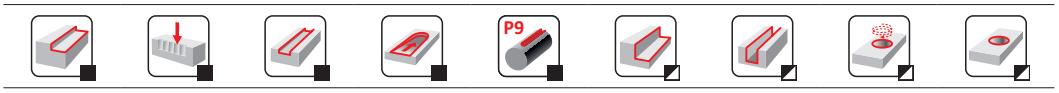
DORMER

3-Flute Solid Carbide Slot End Mill, DIN 6535 HB Shank

Short cut length, 3-flute design provides high rigidity for milling standard slots to a P9 tolerance. The Weldon shank prevents the end mill from slipping in the toolholder. AlCrN coating improves performance and extends the tool life. Also suited for plunging and ramping milling.

HM	N	NOF 3
	λ 28°	γ 9°
DIN 6535HB	AlCrN	
DIN 6527L		





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■166 J	■186 J	■192 J	■142 J	■125 J	■111 I	■115 J	■93 I	■78 I	■68 I	■59 I	◪47 I	■97 J	■81 J
M2.1	M2.2	M3.1	M3.2	M3.3	M4.1	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3	K3.1	K3.2
■85 J	■71 I	◪79 I	◪68 I	◪61 I	◪60 I	■166 J	■123 J	■92 J	■170 J	■138 J	■110 I	■150 J	■115 J
K3.3	K4.1	K4.2	K4.3	K4.4	K4.5	K5.1	K5.2	K5.3	N1.1	N1.2	N1.3	N2.1	N2.2
■93 I	■140 I	■105 I	■77 I	■66 I	■56 I	■159 I	■118 I	■92 I	◪330 K	◪247 K	■166 K	■166 J	■148 J
N2.3	N3.1	N3.2	N3.3	N4.1	N4.2	S1.1	S1.2	S2.1	S3.1	S4.1			
■107 J	■173 J	■101 J	◪52 J	◪173 J	◪67 J	◪72 I	◪64 I	◪49 I	◪38 I	◪30 I			

DCON MS tolerance h6; DC ≤ 7.00 mm: CHW ±0.03×45° mm; DC > 7.00 mm: CHW ±0.05×45° mm.

Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S813HB2.0	2.00	0.00	6.00	6.00	57.0	3
S813HB2.5	2.50	0.08	6.00	7.00	57.0	3
S813HB3.0	3.00	0.08	6.00	7.00	57.0	3
S813HB3.5	3.50	0.08	6.00	7.00	57.0	3
S813HB4.0	4.00	0.13	6.00	8.00	57.0	3
S813HB4.5	4.50	0.13	6.00	8.00	57.0	3
S813HB5.0	5.00	0.13	6.00	10.00	57.0	3
S813HB6.0	6.00	0.13	6.00	10.00	57.0	3
S813HB7.0	7.00	0.13	8.00	13.00	63.0	3
S813HB8.0	8.00	0.20	8.00	16.00	63.0	3
S813HB9.0	9.00	0.20	10.00	16.00	72.0	3
S813HB10.0	10.00	0.20	10.00	19.00	72.0	3
S813HB12.0	12.00	0.20	12.00	22.00	83.0	3
S813HB14.0	14.00	0.20	14.00	22.00	83.0	3
S813HB16.0	16.00	0.20	16.00	26.00	92.0	3
S813HB18.0	18.00	0.20	18.00	26.00	92.0	3
S813HB20.0	20.00	0.30	20.00	32.00	104.0	3

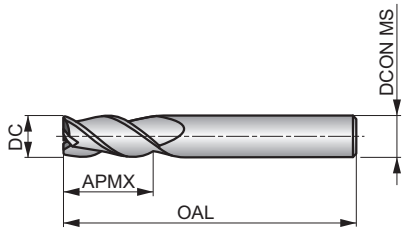
S713

DORMER

3-Flute Solid Carbide End Mill

Short cut length, 3-flute design with 40° helix provides high rigidity for milling standard slots. AlCrN coating improves performance and extends the tool life.

HM	N	NOF 3
	λ 40°	γ 10°
DIN 6535HA	AlCrN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■199 J	■223 J	■230 J	■170 J	■150 J	■133 I	■138 J	■111 I	■94 I	■82 I	■70 I	■115 J	■97 J	■102 J
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■84 I	■94 I	■81 I	■196 J	■145 J	■109 J	■202 J	■164 J	■131 I	■178 J	■136 J	■110 I	■165 I	■125 I
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**S1.2**	**S2.1**	**S3.1**	**S4.1**				
■91 I	■78 I	■65 I	■187 I	■141 I	■109 I	■69 I	■53 I	■40 I	■31 I				

DCON MS tolerance h6.

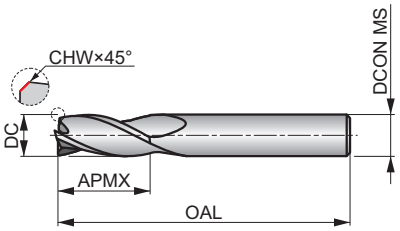
Product	DC	DCON MS	APMX	OAL	NOF
	(mm)	(mm)	(mm)	(mm)	
S7131.5	1.50	4.00	4.50	40.0	3
S7132.0	2.00	4.00	6.50	40.0	3
S7133.0	3.00	3.00	9.00	40.0	3
S7134.0	4.00	4.00	12.00	50.0	3
S7135.0	5.00	5.00	15.00	50.0	3
S7136.0	6.00	6.00	16.00	50.0	3
S7138.0	8.00	8.00	20.00	64.0	3
S71310.0	10.00	10.00	22.00	70.0	3
S71312.0	12.00	12.00	25.00	75.0	3
S71314.0	14.00	14.00	32.00	90.0	3
S71316.0	16.00	16.00	32.00	90.0	3
S71318.0	18.00	18.00	38.00	100.0	3
S71320.0	20.00	20.00	38.00	100.0	3

S823

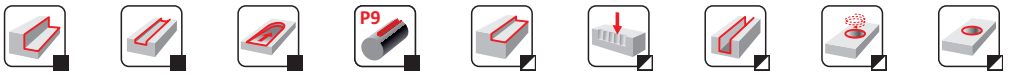
DORMER

3-Flute Solid Carbide Slot End Mill

Medium cut length, 3-flute design provides high rigidity for milling standard slots to a P9 tolerance and ramping operation. AlCrN coating improves performance and extends the tool life.



HM	N	NOF 3
	λ 28°	γ 9°
DIN 6535HA	AlCrN	
DORMER		



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■145 J	■162 J	■167 J	■124 J	■109 J	■97 I	■100 J	■81 I	■68 I	■60 I	■51 I	◪41 I	■84 J	■71 J
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
■75 J	■61 I	◪69 I	◪59 I	◪53 I	◪52 I	■144 J	■107 J	■80 J	■149 J	■121 J	■96 I	■132 J	■101 J
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**
■81 I	■122 I	■92 I	■67 I	■58 I	■48 I	■138 I	■104 I	■80 I	◪284 K	◪214 K	■143 K	■143 J	■128 J
N2.3	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**			
■92 J	■150 J	■87 J	◪45 J	◪150 J	◪58 J	◪113 I	◪100 I	◪77 I	◪58 I	◪45 I			

DCON MS tolerance h6; DC ≤ 7.00 mm: CHW ±0.03×45° mm; DC > 7.00 mm: CHW ±0.05×45° mm.

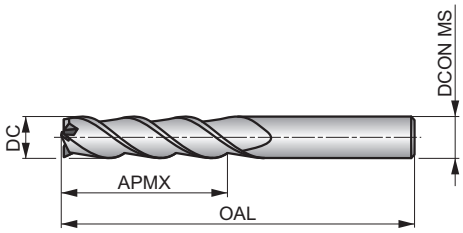
Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S8232.0	2.00	–	6.00	8.00	57.0	3
S8232.5	2.50	0.08	6.00	12.00	57.0	3
S8233.0	3.00	0.08	6.00	12.00	57.0	3
S8234.0	4.00	0.13	6.00	14.00	57.0	3
S8235.0	5.00	0.13	6.00	16.00	57.0	3
S8236.0	6.00	0.13	6.00	19.00	57.0	3
S8237.0	7.00	0.13	8.00	19.00	63.0	3
S8238.0	8.00	0.20	8.00	19.00	63.0	3
S8239.0	9.00	0.20	10.00	21.00	72.0	3
S82310.0	10.00	0.20	10.00	22.00	72.0	3
S82312.0	12.00	0.20	12.00	25.00	83.0	3
S82314.0	14.00	0.20	14.00	30.00	83.0	3
S82316.0	16.00	0.20	16.00	32.00	92.0	3
S82318.0	18.00	0.20	18.00	32.00	92.0	3
S82320.0	20.00	0.30	20.00	38.00	104.0	3

S714

3-Flute Solid Carbide End Mill, Long Series

Long cut length, 3-flute design with 40° helix provides high rigidity for profile milling deep walls. AlCrN coating improves performance and extends the tool life.

HM	N	NOF 3
	λ 40°	γ 10°
DIN 6535HA	AlCrN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■140 J	■157 J	■162 J	■120 J	■106 J	■94 I	■97 J	■78 I	■66 I	■58 I	■49 I	■81 J	■68 J	■71 J
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■59 I	■66 I	■57 I	■138 J	■102 J	■77 J	■142 J	■115 J	■92 I	■125 J	■96 J	■78 I	■116 I	■88 I
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**
■64 I	■55 I	■46 I	■132 I	■99 I	■77 I	◪249 K	◪187 K	◪125 K	◪125 J	◪112 J	◪81 J	◪131 J	◪76 J
N3.3	**S1.2**	**S2.1**	**S3.1**	**S4.1**									
◪39 J	■49 I	■37 I	■28 I	■22 I									

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S7143.0	3.00	3.00	19.00	60.0	3
S7144.0	4.00	4.00	19.00	60.0	3
S7145.0	5.00	5.00	19.00	60.0	3
S7146.0	6.00	6.00	31.00	75.0	3
S7148.0	8.00	8.00	31.00	75.0	3
S71410.0	10.00	10.00	31.00	75.0	3
S71412.0	12.00	12.00	50.00	100.0	3
S71414.0	14.00	14.00	57.00	125.0	3
S71416.0	16.00	16.00	57.00	125.0	3
S71418.0	18.00	18.00	57.00	125.0	3
S71420.0	20.00	20.00	57.00	125.0	3

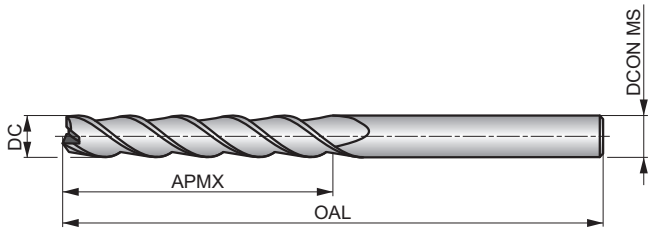
S715

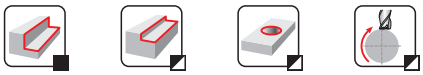
DORMER

3-Flute Solid Carbide End Mill, Extra Long Series

Extra long cut length, 3-flute design with 40° helix provides high rigidity for profile milling extra deep walls. AlCrN coating improves performance and extends the tool life.

HM	N	NOF 3
	λ 40°	γ 10°
DIN 6535HA	AlCrN	DC h9
	DORMER	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■88 J	■98 J	■101 J	■75 J	■66 J	■59 I	■61 J	■49 I	■41 I	■36 I	■31 I	■50 J	■42 J	■44 J
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■36 I	■41 I	■35 I	■86 J	■64 J	■48 J	■89 J	■72 J	■58 I	■79 J	■60 J	■49 I	■73 I	■55 I
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**
■40 I	■35 I	■29 I	■83 I	■62 I	■48 I	◪178 K	◪134 K	◪90 K	◪90 J	◪80 J	◪58 J	◪94 J	◪55 J
N3.3	**S1.2**	**S2.1**	**S3.1**	**S4.1**									
◪28 J	■30 I	■23 I	■18 I	■14 I									

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S7153.0	3.00	3.00	25.00	100.0	3
S7154.0	4.00	4.00	31.00	100.0	3
S7155.0	5.00	5.00	31.00	100.0	3
S7156.0	6.00	6.00	38.00	100.0	3
S7158.0	8.00	8.00	41.00	100.0	3
S71510.0	10.00	10.00	57.00	125.0	3
S71512.0	12.00	12.00	75.00	150.0	3
S71514.0	14.00	14.00	75.00	150.0	3
S71516.0	16.00	16.00	75.00	150.0	3
S71518.0	18.00	18.00	75.00	150.0	3
S71520.0	20.00	20.00	75.00	150.0	3

Material code (BMC)	HM	HM	HM	HM	HM	HM	HM						
Mill Profile	N	N	N	N	N	N	N						
Number of flutes (NOF)	NOF 4	NOF 4	NOF 4	NOF 4	NOF 4	NOF 4	NOF 4						
Cut length													
Flute Helix (FHA)	λ 34°	λ 34°	λ 34°	λ 34°	λ 40°	λ 40°	λ 40°						
Flute Helix (FHA)	λ 34°	λ 34°	λ 34°	λ 34°	λ 40°	λ 40°	λ 40°						
Radial rake angle (GAMF)	γ 9°	γ 9°	γ 9°	γ 9°	γ 10°	γ 10°	γ 10°						
Shank	DIN 6535HA	DIN 6535HB	DIN 6535HA	DIN 6535HB	DIN 6535HA	DIN 6535HA	DIN 6535HA						
Coating	AlCrN	AlCrN	AlCrN	AlCrN	AlCrN	AlCrN	AlCrN						
Cutting diameter tolerance class (TCDC)	DC h10	DC h10	DC h10	DC h10	DC h9	DC h9	DC h9						
Direction													
Basic standard group (BSG)	DIN 6527K	DIN 6527K	DIN 6527L	DIN 6527L	DORMER	DORMER	DORMER						
													
Product Family Code	S804HA	S804HB	S814HA	S814HB	S716	S717	S718						
PSF cutting diameters range	2.00 – 25.00	2.00 – 25.00	2.00 – 25.00	2.00 – 25.00	2.00 – 20.00	3.00 – 20.00	3.00 – 20.00						
	96	97	98	99	100	101	102						
P	P1	■	■	■	■	■	■	■						
	P2	■	■	■	■	■	■	■						
	P3	■	■	■	■	■	■	■						
	P4	■	■	■	■	■	■	■						
M	M1	■	■	■	■	■	■	■						
	M2	■	■	■	■	■	■	■						
	M3	■	■	◪	◪	■	■	■						
	M4	◪	◪	◪	◪									
K	K1	■	■	■	■	■	■	■						
	K2	■	■	■	■	■	■	■						
	K3	■	■	■	■	■	■	■						
	K4	■	■	■	■	■	■	■						
	K5	■	■	■	■	■	■	■						
N	N1	◪	◪	◪	◪		◪	◪						
	N2	◪	◪	◪	◪		◪	◪						
	N3	■	■	■	■		◪	◪						
	N4	◪	◪	◪	◪									
	N5													
S	S1	◪	◪	◪	◪	■	■	■						
	S2	◪	◪	◪	◪	■	■	■						
	S3	◪	◪	◪	◪	■	■	■						
	S4	◪	◪	◪	◪	■	■	■						
H	H1													
	H2													
	H3													
	H4													

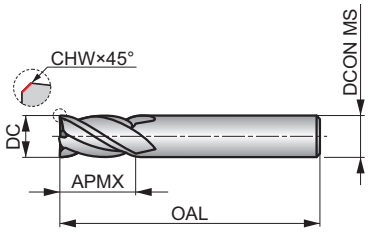
■ Primary use ◪ Possible use

S804HA

DORMER

4-Flute Solid Carbide End Mill, DIN 6535 HA Shank

Extra short cut length, 4-flute design provides high rigidity for shallow profile and plunge milling applications. AlCrN coating increases service life and improves performance.



HM	N	NOF 4
	λ 34°	γ 9°
DIN 6535HA	AlCrN	DC h10
	DIN 6527K	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■206 J	■230 J	■238 J	■176 J	■155 J	■137 I	■143 J	■114 I	■97 I	■84 I	■72 I	■58 I	■121 J	■102 J
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■107 J	■89 I	◪75 I	■99 I	■85 I	◪76 I	◪75 I	◪63 I	■205 J	■152 J	■114 J	■210 J	■171 J	■137 I
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■186 J	■143 J	■115 I	■173 I	■131 I	■95 I	■82 I	■68 I	■196 I	■147 I	■114 I	◪408 J	◪307 J	◪206 J
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**	
◪206 J	◪184 J	◪132 J	■215 J	■125 J	◪64 J	◪215 J	◪83 J	◪81 I	◪71 I	◪55 I	◪41 I	◪32 I	

DCON MS tolerance h6; DC ≤ 8.00 mm: CHW ±0.03×45° mm; DC > 8.00 mm: CHW ±0.05×45° mm.

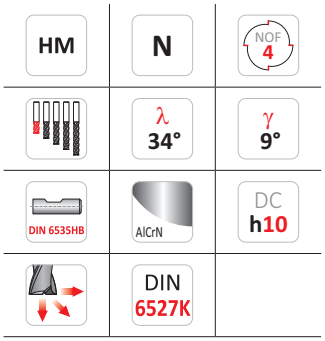
Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S804HA2.0	2.00	–	6.00	4.00	50.0	4
S804HA3.0	3.00	0.08	6.00	5.00	50.0	4
S804HA4.0	4.00	0.13	6.00	8.00	54.0	4
S804HA5.0	5.00	0.13	6.00	9.00	54.0	4
S804HA6.0	6.00	0.13	6.00	10.00	54.0	4
S804HA8.0	8.00	0.13	8.00	12.00	58.0	4
S804HA10.0	10.00	0.20	10.00	14.00	66.0	4
S804HA12.0	12.00	0.20	12.00	16.00	73.0	4
S804HA16.0	16.00	0.20	16.00	22.00	82.0	4
S804HA20.0	20.00	0.30	20.00	26.00	92.0	4
S804HA25.0	25.00	0.30	25.00	32.00	121.0	4

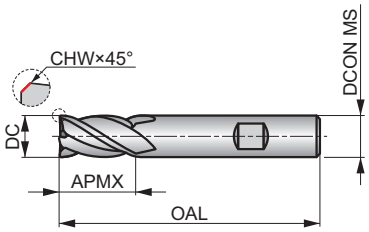
S804HB

DORMER

4-Flute Solid Carbide End Mill, DIN 6535 HB Shank

Extra short cut length, 4-flute design provides high rigidity for shallow profile and plunge milling applications. The Weldon shank prevents the end mill from slipping in the toolholder. AlCrN coating increases service life and improves performance.





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■206 J	■230 J	■238 J	■176 J	■155 J	■137 I	■143 J	■114 I	■97 I	■84 I	■72 I	■58 I	■121 J	■102 J
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■107 J	■89 I	◪75 I	■99 I	■85 I	◪76 I	◪75 I	◪63 I	■205 J	■152 J	■114 J	■210 J	■171 J	■137 I
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■186 J	■143 J	■115 I	■173 I	■131 I	■95 I	■82 I	■68 I	■196 I	■147 I	■114 I	◪408 J	◪307 J	◪206 J
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**	
◪206 J	◪184 J	◪132 J	■215 J	■125 J	◪64 J	◪215 J	◪83 J	◪81 I	◪71 I	◪55 I	◪41 I	◪32 I	

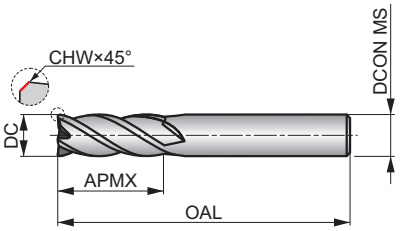
DCON MS tolerance h6; DC ≤ 8.00 mm: CHW ±0.03×45° mm; DC > 8.00 mm: CHW ±0.05×45° mm.

Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S804HB2.0	2.00	–	6.00	4.00	50.0	4
S804HB3.0	3.00	0.08	6.00	5.00	50.0	4
S804HB4.0	4.00	0.13	6.00	8.00	54.0	4
S804HB5.0	5.00	0.13	6.00	9.00	54.0	4
S804HB6.0	6.00	0.13	6.00	10.00	54.0	4
S804HB8.0	8.00	0.13	8.00	12.00	58.0	4
S804HB10.0	10.00	0.20	10.00	14.00	66.0	4
S804HB12.0	12.00	0.20	12.00	16.00	73.0	4
S804HB16.0	16.00	0.20	16.00	22.00	82.0	4
S804HB20.0	20.00	0.30	20.00	26.00	92.0	4
S804HB25.0	25.00	0.30	25.00	32.00	121.0	4

S814HA

4-Flute Solid Carbide End Mill, DIN 6535 HA Shank

Short cut length, 4-flute design provides high rigidity for general profile and plunge milling applications. AlCrN coating improves performance and extends the tool life.



HM	N	NOF 4
	λ 34°	γ 9°
DIN 6535HA	AlCrN	
DIN 6527L	DC h10	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■166 J	■186 J	■192 J	■142 J	■125 J	■111 I	■115 J	■93 I	■78 I	■68 I	■59 I	◪47 I	■97 J	■81 J
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
■85 J	■71 I	◪79 I	◪68 I	◪61 I	◪60 I	■166 J	■123 J	■92 J	■170 J	■138 J	■110 I	■150 J	■115 J
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**
■93 I	■140 I	■105 I	■77 I	■66 I	■56 I	■159 I	■118 I	■92 I	◪330 J	◪247 J	◪166 J	◪166 J	◪148 J
N2.3	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**			
◪107 J	■173 J	■101 J	◪52 J	◪173 J	◪67 J	◪72 I	◪64 I	◪49 I	◪38 I	◪30 I			

DCON MS tolerance h6; DC ≤ 8.00 mm: CHW ±0.03×45° mm; DC > 8.00 mm: CHW ±0.05×45° mm.

Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S814HA2.0	2.00	0.00	6.00	7.00	57.0	4
S814HA3.0	3.00	0.08	6.00	8.00	57.0	4
S814HA4.0	4.00	0.13	6.00	11.00	57.0	4
S814HA5.0	5.00	0.13	6.00	13.00	57.0	4
S814HA6.0	6.00	0.13	6.00	13.00	57.0	4
S814HA8.0	8.00	0.13	8.00	19.00	63.0	4
S814HA10.0	10.00	0.20	10.00	22.00	72.0	4
S814HA12.0	12.00	0.20	12.00	26.00	83.0	4
S814HA16.0	16.00	0.20	16.00	32.00	92.0	4
S814HA20.0	20.00	0.30	20.00	38.00	104.0	4
S814HA25.0	25.00	0.30	25.00	45.00	121.0	4

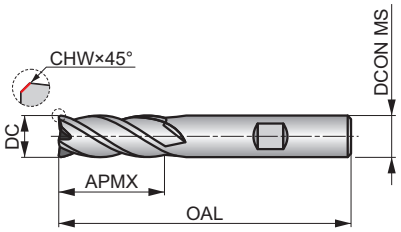
S814HB

DORMER

4-Flute Solid Carbide End Mill, DIN 6535 HB Shank

Short cut length, 4-flute design provides high rigidity for general profile and plunge milling applications. The Weldon shank prevents the end mill from slipping in the toolholder. AlCrN coating improves performance and extends the tool life.

HM	N	NOF 4
	λ 34°	γ 9°
DIN 6535HB	AlCrN	DC h10
	DIN 6527L	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■166 J	■186 J	■192 J	■142 J	■125 J	■111 I	■115 J	■93 I	■78 I	■68 I	■59 I	◪47 I	■97 J	■81 J
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
■85 J	■71 I	◪79 I	◪68 I	◪61 I	◪60 I	■166 J	■123 J	■92 J	■170 J	■138 J	■110 I	■150 J	■115 J
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**
■93 I	■140 I	■105 I	■77 I	■66 I	■56 I	■159 I	■118 I	■92 I	◪330 J	◪247 J	◪166 J	◪166 J	◪148 J
N2.3	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**			
◪107 J	■173 J	■101 J	◪52 J	◪173 J	◪67 J	◪72 I	◪64 I	◪49 I	◪38 I	◪30 I			

DCON MS tolerance h6; DC ≤ 8.00 mm: CHW ±0.03×45° mm; DC > 8.00 mm: CHW ±0.05×45° mm.

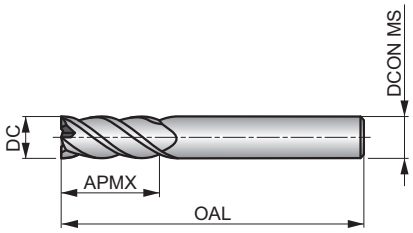
Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S814HB2.0	2.00	0.00	6.00	7.00	57.0	4
S814HB3.0	3.00	0.08	6.00	8.00	57.0	4
S814HB4.0	4.00	0.13	6.00	11.00	57.0	4
S814HB5.0	5.00	0.13	6.00	13.00	57.0	4
S814HB6.0	6.00	0.13	6.00	13.00	57.0	4
S814HB8.0	8.00	0.13	8.00	19.00	63.0	4
S814HB10.0	10.00	0.20	10.00	22.00	72.0	4
S814HB12.0	12.00	0.20	12.00	26.00	83.0	4
S814HB16.0	16.00	0.20	16.00	32.00	92.0	4
S814HB20.0	20.00	0.30	20.00	38.00	104.0	4
S814HB25.0	25.00	0.30	25.00	45.00	121.0	4

S716

DORMER

4-Flute Solid Carbide End Mill

Short cut length, 4-flute design with 40° helix provides high rigidity for standard profile milling. AlCrN coating improves performance and extends the tool life.



HM	N	NOF 4
	λ 40°	γ 10°
DIN 6535HA	AlCrN	DC h9
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■199 J	■223 J	■230 J	■170 J	■150 J	■133 I	■138 J	■111 I	■94 I	■82 I	■70 I	■115 J	■97 J	■102 J
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■84 I	■94 I	■81 I	■196 J	■145 J	■109 J	■202 J	■164 J	■131 I	■178 J	■136 J	■110 I	■165 I	■125 I
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**S1.2**	**S2.1**	**S3.1**	**S4.1**				
■91 I	■78 I	■65 I	■187 I	■141 I	■109 I	■69 I	■53 I	■40 I	■31 I				

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S7162.0	2.00	4.00	6.50	40.0	4
S7163.0	3.00	3.00	9.00	40.0	4
S7164.0	4.00	4.00	12.00	50.0	4
S7165.0	5.00	5.00	15.00	50.0	4
S7166.0	6.00	6.00	16.00	50.0	4
S7168.0	8.00	8.00	20.00	64.0	4
S71610.0	10.00	10.00	22.00	70.0	4
S71612.0	12.00	12.00	25.00	75.0	4
S71614.0	14.00	14.00	32.00	90.0	4
S71616.0	16.00	16.00	32.00	90.0	4
S71618.0	18.00	18.00	38.00	100.0	4
S71620.0	20.00	20.00	38.00	100.0	4

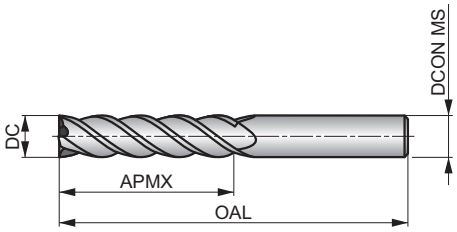
S717

DORMER

4-Flute Solid Carbide End Mill, Long Series

Long cut length, 4-flute design with 40° helix provides high rigidity for profile milling deep walls. AlCrN coating improves performance and extends the tool life.

HM	N	NOF 4
	λ 40°	γ 10°
DIN 6535HA	AlCrN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■140 J	■157 J	■162 J	■120 J	■106 J	■94 I	■97 J	■78 I	■66 I	■58 I	■49 I	■81 J	■68 J	■71 J
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■59 I	■66 I	■57 I	■138 J	■102 J	■77 J	■142 J	■115 J	■92 I	■125 J	■96 J	■78 I	■116 I	■88 I
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**
■64 I	■55 I	■46 I	■132 I	■99 I	■77 I	◪249 K	◪187 K	◪125 K	◪125 J	◪112 J	◪81 J	◪131 J	◪76 J
N3.3	**S1.2**	**S2.1**	**S3.1**	**S4.1**									
◪39 J	■49 I	■37 I	■28 I	■22 I									

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S7173.0	3.00	3.00	19.00	60.0	4
S7174.0	4.00	4.00	19.00	60.0	4
S7175.0	5.00	5.00	19.00	60.0	4
S7176.0	6.00	6.00	31.00	75.0	4
S7178.0	8.00	8.00	31.00	75.0	4
S71710.0	10.00	10.00	31.00	75.0	4
S71712.0	12.00	12.00	50.00	100.0	4
S71714.0	14.00	14.00	57.00	125.0	4
S71716.0	16.00	16.00	57.00	125.0	4
S71718.0	18.00	18.00	57.00	125.0	4
S71720.0	20.00	20.00	57.00	125.0	4

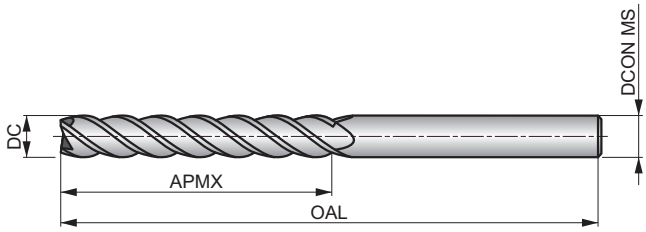
S718

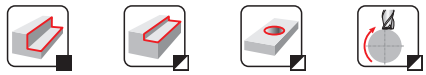
DORMER

4-Flute Solid Carbide End Mill, Extra Long Series

Extra long cut length, 4-flute design with 40° helix provides high rigidity for profile milling extra deep walls. AlCrN coating improves performance and extends the tool life.

HM	N	NOF 4
	λ 40°	γ 10°
DIN 6535HA	AlCrN	DC h9
	DORMER	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■88 J	■98 J	■101 J	■75 J	■66 J	■59 I	■61 J	■49 I	■41 I	■36 I	■31 I	■50 J	■42 J	■44 J
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■36 I	■41 I	■35 I	■86 J	■64 J	■48 J	■89 J	■72 J	■58 I	■79 J	■60 J	■49 I	■73 I	■55 I
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**
■40 I	■35 I	■29 I	■83 I	■62 I	■48 I	◪178 K	◪134 K	◪90 K	◪90 J	◪80 J	◪58 J	◪94 J	◪55 J
N3.3	**S1.2**	**S2.1**	**S3.1**	**S4.1**									
◪28 J	■30 I	■23 I	■18 I	■14 I									

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S7183.0	3.00	3.00	25.00	100.0	4
S7184.0	4.00	4.00	31.00	100.0	4
S7185.0	5.00	5.00	31.00	100.0	4
S7186.0	6.00	6.00	38.00	100.0	4
S7188.0	8.00	8.00	41.00	100.0	4
S71810.0	10.00	10.00	57.00	125.0	4
S71812.0	12.00	12.00	75.00	150.0	4
S71814.0	14.00	14.00	75.00	150.0	4
S71816.0	16.00	16.00	75.00	150.0	4
S71818.0	18.00	18.00	75.00	150.0	4
S71820.0	20.00	20.00	75.00	150.0	4

**SOLID CARBIDE TOOLS FOR PROCESS SECURITY AND PRODUCTIVITY.
TYPICALLY USED WITH CNC AND AUTOMATED MANUFACTURING.**

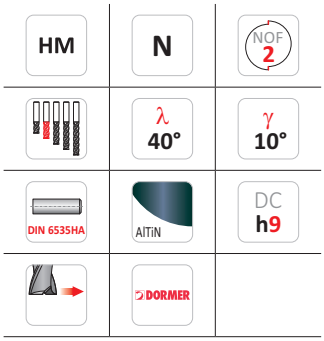
Material code (BMC)		HM	HM
Mill Profile		N	N
Number of flutes (NOF)		NOF 2	NOF 2
Cut length			
Flute Helix (FHA)		λ 40°	λ 40°
Flute Helix (FHA)		λ 40°	λ 40°
Radial rake angle (GAMF)		γ 10°	γ 10°
Shank		DIN 6535HA	DIN 6535HA
Coating		AlTiN	AlTiN
Cutting diameter tolerance class (TCDC)		DC h9	DC h9
Direction			
Basic standard group (BSG)		DORMER	DORMER
			
Product Family Code		S739	S740
PSF cutting diameters range		3.00 – 20.00	3.00 – 20.00
		106	107
P	P1	■	■
	P2	■	■
	P3	■	■
	P4	■	■
M	M1	■	■
	M2	■	■
	M3	■	■
	M4		
K	K1	■	■
	K2	■	■
	K3	■	■
	K4	■	■
	K5	■	■
N	N1	■	■
	N2	■	■
	N3	■	■
	N4		
	N5		
S	S1	■	■
	S2	■	■
	S3	■	■
	S4	■	■
H	H1		
	H2		
	H3		
	H4		

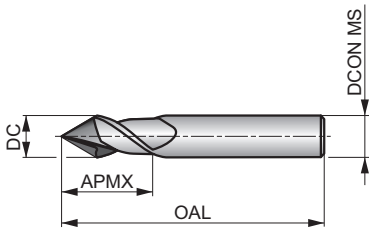
■ Primary use ◪ Possible use

S739

2-Flute Solid Carbide Chamfering End Mill, 60°

Short cut length, 2-flute design provides high rigidity and reduces vibrations. The 60° point is designed for chamfer milling on CNC machines. AlTiN coating increases tool life and improves performance.





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■ 199 K	■ 223 K	■ 230 K	■ 170 K	■ 150 K	■ 133 J	■ 138 K	■ 111 J	■ 94 J	■ 82 J	■ 70 J	■ 115 K	■ 97 K	■ 102 K
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■ 84 J	■ 94 J	■ 81 J	■ 196 K	■ 145 K	■ 109 K	■ 202 K	■ 164 K	■ 131 J	■ 178 K	■ 136 K	■ 110 J	■ 165 J	■ 125 J
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**
■ 91 J	■ 78 J	■ 65 J	■ 187 J	■ 141 J	■ 109 J	◪ 355 N	■ 267 N	■ 179 N	■ 179 K	■ 160 K	■ 115 K	■ 187 K	■ 109 K
N3.3	**S1.2**	**S2.1**	**S3.1**	**S4.1**									
◪ 56 K	■ 69 J	■ 53 J	■ 40 J	■ 31 J									

DCON MS tolerance h6.

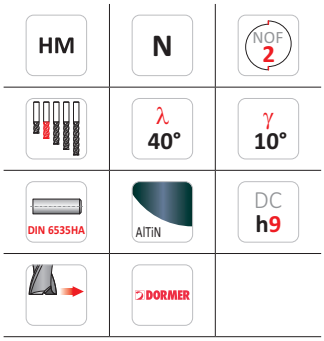
Product	KAPR	DC	DCON MS	APMX	OAL	NOF
	(°)	(mm)	(mm)	(mm)	(mm)	
S7393.0	60	3.00	3.00	9.00	40.0	2
S7394.0	60	4.00	4.00	12.00	50.0	2
S7395.0	60	5.00	5.00	15.00	50.0	2
S7396.0	60	6.00	6.00	16.00	50.0	2
S7398.0	60	8.00	8.00	20.00	64.0	2
S73910.0	60	10.00	10.00	22.00	70.0	2
S73912.0	60	12.00	12.00	25.00	75.0	2
S73916.0	60	16.00	16.00	32.00	90.0	2
S73920.0	60	20.00	20.00	38.00	100.0	2

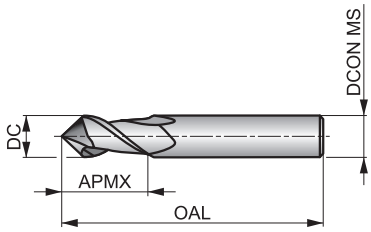
S740

DORMER

2-Flute Solid Carbide Chamfering End Mill, 90°

Short cut length, 2-flute design provides high rigidity and reduces vibrations. The 90° point is designed for chamfer milling on CNC machines. AlTiN coating increases tool life and improves performance.





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■ 199 K	■ 223 K	■ 230 K	■ 170 K	■ 150 K	■ 133 J	■ 138 K	■ 111 J	■ 94 J	■ 82 J	■ 70 J	■ 115 K	■ 97 K	■ 102 K
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■ 84 J	■ 94 J	■ 81 J	■ 196 K	■ 145 K	■ 109 K	■ 202 K	■ 164 K	■ 131 J	■ 178 K	■ 136 K	■ 110 J	■ 165 J	■ 125 J
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**	**N2.3**	**N3.1**	**N3.2**
■ 91 J	■ 78 J	■ 65 J	■ 187 J	■ 141 J	■ 109 J	◪ 355 N	■ 267 N	■ 179 N	■ 179 K	■ 160 K	■ 115 K	■ 187 K	■ 109 K
N3.3	**S1.2**	**S2.1**	**S3.1**	**S4.1**									
◪ 56 K	■ 69 J	■ 53 J	■ 40 J	■ 31 J									

DCON MS tolerance h6.

Product	KAPR	DC	DCON MS	APMX	OAL	NOF
	(°)	(mm)	(mm)	(mm)	(mm)	
S7403.0	90	3.00	3.00	9.00	40.0	2
S7404.0	90	4.00	4.00	12.00	50.0	2
S7405.0	90	5.00	5.00	15.00	50.0	2
S7406.0	90	6.00	6.00	16.00	50.0	2
S7408.0	90	8.00	8.00	20.00	64.0	2
S74010.0	90	10.00	10.00	22.00	70.0	2
S74012.0	90	12.00	12.00	25.00	75.0	2
S74016.0	90	16.00	16.00	32.00	90.0	2
S74020.0	90	20.00	20.00	38.00	100.0	2

Material code (BMC)	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	
Mill Profile	NRA	NRA	W	W	W	W	W	W NRA	W	N	
Number of flutes (NOF)	NOF 4≠	NOF 4≠	NOF 1	NOF 2	NOF 2	NOF 2	NOF 3≠	NOF 3≠	NOF 3	NOF 4-6	
Cut length											
Flute Helix (FHA)	λ 40°	λ 40°	λ 25°	λ 30°	λ 30°	λ 30°	λ 40°	λ 40°	λ 40°	λ 25°	
Flute Helix (FHA)	λ 40°	λ 40°	λ 25°	λ 30°	λ 30°	λ 30°	λ 40°	λ 40°	λ 40°	λ 25°	
Radial rake angle (GAMF)	γ 10°	γ 10°	γ 20°	γ 20°	γ 20°	γ 20°	γ 13°	γ 15°	γ 13°	γ 0°	
Shank	DIN 6535HA	DIN 6535HB	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	
Coating	AlCrN	AlCrN	Hi	Hi	Hi	Hi	Bright	Bright	Bright	TiSiN	
Cutting diameter tolerance class (TCDC)	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	
Direction											
Basic standard group (BSG)	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	
											
Product Family Code	S765	S765HB	S637	S610	S611	S638	S650	S654	S614	S536	
PSF cutting diameters range	6.00 – 20.00	6.00 – 20.00	2.00 – 12.00	2.00 – 20.00	3.00 – 20.00	6.20 – 20.30	1.00 – 20.00	6.00 – 20.00	3.00 – 16.00	6.00 – 12.00	
	110	111	112	113	114	115	116	117	118	119	
P	P1	■	■								
	P2	■	■								
	P3	■	■								
	P4	■	■								
M	M1	■	■								
	M2	■	■								
	M3	■	■								
	M4										
K	K1	■	■								
	K2	■	■								
	K3	■	■								
	K4	■	■								
	K5	■	■								
N	N1			■	■	■	■	■	■	■	
	N2			■	■	■	■	■	■	■	
	N3			■	■	■	■	■	■	■	
	N4			■	■	■	■	■	■	■	
	N5										
S	S1	■	■								
	S2	■	■								
	S3	■	■								
	S4	■	■								
H	H1										■
	H2										■
	H3										■
	H4										■

■ Primary use ◪ Possible use

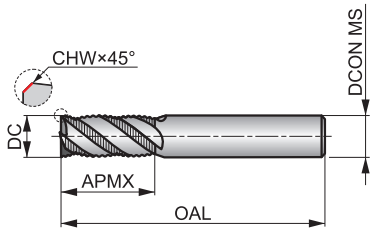
S765

DORMER

4-Flute Solid Carbide Roughing End Mill, DIN 6535 HA Shank

Short cut length, 4-flute design with 40° helix and differential pitch to reduce vibrations. The NRA profile is designed to break chips for efficient roughing applications. AlCrN coating improves performance and extends the tool life. Also suited for slotting and trochoidal roughing operation.

HM	NRA	NOF 4≠
	λ 40°	γ 10°
DIN 6535HA	AlCrN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■211 J	■236 J	■243 J	■180 J	■158 J	■140 J	■146 J	■117 J	■99 J	■86 J	■74 J	■122 J	■103 J	■108 J
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■89 J	■100 J	■86 J	■208 J	■154 J	■116 J	■214 J	■174 J	■139 J	■189 J	■145 J	■117 J	■176 J	■132 J
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**S1.2**	**S2.1**	**S3.1**	**S4.1**				
■97 J	■83 I	■69 I	■199 J	■149 J	■116 J	■72 J	■56 I	■42 I	■33 I				

DCON MS tolerance h6; CHW ±0.02×45° mm.

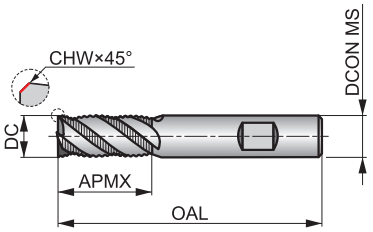
Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S7656.0	6.00	0.10	6.00	16.00	50.0	4
S7658.0	8.00	0.20	8.00	20.00	64.0	4
S76510.0	10.00	0.20	10.00	22.00	70.0	4
S76512.0	12.00	0.20	12.00	26.00	75.0	4
S76514.0	14.00	0.30	14.00	32.00	90.0	4
S76516.0	16.00	0.30	16.00	32.00	90.0	4
S76518.0	18.00	0.30	18.00	38.00	100.0	4
S76520.0	20.00	0.40	20.00	38.00	100.0	4

S765HB

DORMER

4-Flute Solid Carbide Roughing End Mill, DIN 6535 HB Shank

Short cut length, 4-flute design with 40° helix and differential pitch to reduce vibrations. The NRA profile is designed to break chips for efficient roughing applications. The Weldon shank prevents the end mill from slipping in the toolholder. AlCrN coating. Also suited for slotting and trochoidal roughing operation.



HM	NRA	NOF 4≠
	λ 40°	γ 10°
DIN 6535HB	AlCrN	DC h9
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■211 J	■236 J	■243 J	■180 J	■158 J	■140 J	■146 J	■117 J	■99 J	■86 J	■74 J	■122 J	■103 J	■108 J
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■89 J	■100 J	■86 J	■208 J	■154 J	■116 J	■214 J	■174 J	■139 J	■189 J	■145 J	■117 J	■176 J	■132 J
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**S1.2**	**S2.1**	**S3.1**	**S4.1**				
■97 J	■83 I	■69 I	■199 J	■149 J	■116 J	■72 J	■56 I	■42 I	■33 I				

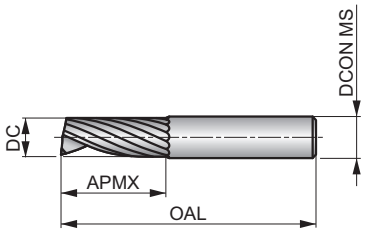
DCON MS tolerance h6; CHW ±0.02×45° mm.

Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S765HB6.0	6.00	0.10	6.00	16.00	50.0	4
S765HB8.0	8.00	0.20	8.00	20.00	64.0	4
S765HB10.0	10.00	0.20	10.00	22.00	70.0	4
S765HB12.0	12.00	0.20	12.00	26.00	75.0	4
S765HB14.0	14.00	0.30	14.00	32.00	90.0	4
S765HB16.0	16.00	0.30	16.00	32.00	90.0	4
S765HB18.0	18.00	0.30	18.00	38.00	100.0	4
S765HB20.0	20.00	0.40	20.00	38.00	100.0	4

S637

Single-Flute Solid Carbide End Mill

Short cut length, 1-flute design provides high performance when slotting and routing. The S637, with high hook geometry, is designed for high speed routing in thin walled non-ferrous materials. Polished surface prevents workpiece material from sticking to the cutting edge.



HM	W	NOF 1
	λ 25°	γ 20°
DIN 6535HA	Hi	DC h9
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N3.3	N4.1	N4.2
■709 R	■533 R	■357 R	■357 P	■320 P	■229 P	■373 P	■219 P	■112 P	■373 S	■144 S

DCON MS tolerance h6.

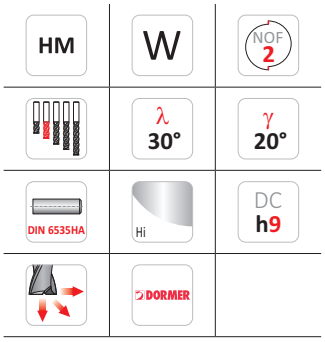
Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S6372.0	2.00	2.00	10.00	40.0	1
S6373.0	3.00	3.00	12.00	40.0	1
S6374.0	4.00	4.00	15.00	50.0	1
S6375.0	5.00	5.00	16.00	50.0	1
S6376.0	6.00	6.00	20.00	60.0	1
S6378.0	8.00	8.00	22.00	63.0	1
S63710.0	10.00	10.00	25.00	72.0	1
S63712.0	12.00	12.00	30.00	83.0	1

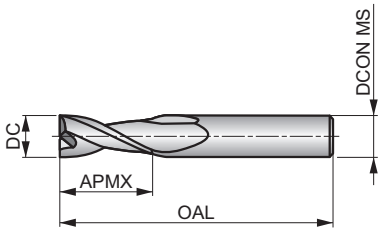
S610

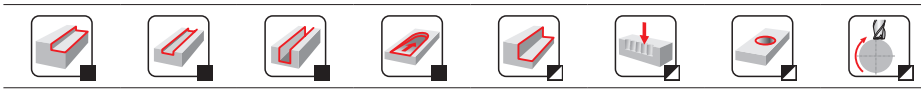
DORMER

2-Flute Solid Carbide End Mill

Short cut length, 2-flute design provides high rigidity for milling standard slots and profiling. The S610, with high hook geometry, is designed for high performance machining in non-ferrous materials. Polished surface prevents workpiece material from sticking to the cutting edge.







Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N3.3	N4.1	N4.2
■709 P	■533 P	■357 P	■357 0	■320 0	■229 0	■373 0	■219 0	■112 0	■373 R	■144 R

DCON MS tolerance h6; RE ±0.02 mm.

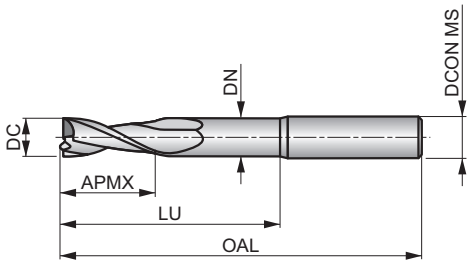
Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S6102.0	2.00	0.10	4.00	6.50	40.0	2
S6103.0XD3	3.00	0.10	3.00	9.00	40.0	2
S6103.0XD6	3.00	0.10	6.00	9.00	50.0	2
S6104.0XD4	4.00	0.10	4.00	12.00	50.0	2
S6104.0XD6	4.00	0.10	6.00	12.00	50.0	2
S6105.0	5.00	0.10	6.00	15.00	50.0	2
S6106.0	6.00	0.10	6.00	20.00	50.0	2
S6108.0	8.00	0.10	8.00	20.00	64.0	2
S61010.0	10.00	0.10	10.00	22.00	75.0	2
S61012.0	12.00	0.10	12.00	25.00	75.0	2
S61014.0	14.00	0.10	14.00	32.00	90.0	2
S61016.0	16.00	0.10	16.00	32.00	90.0	2
S61020.0	20.00	0.10	20.00	38.00	100.0	2

S611

2-Flute Solid Carbide End Mill, Extra Long Reach

Short cut length, 2-flute design with neck recess provides high rigidity for milling and profiling in hard to reach areas. The S611, with high hook geometry, is designed for high performance machining in non-ferrous materials. Polished surface prevents workpiece material from sticking to the cutting edge.

HM	W	NOF 2
	λ 30°	γ 20°
DIN 6535HA	Hi	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N3.3	N4.1	N4.2
638 P	480 P	321 P	321 0	288 0	206 0	336 0	197 0	101 0	336 R	130 R

DCON MS tolerance h6; RE ±0.02 mm.

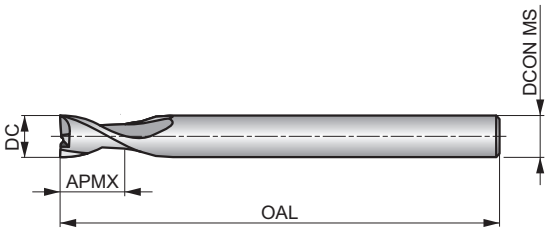
Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S6113.0XD3	3.00	0.10	3.00	9.00	40.0	2	15.00	2.80
S6113.0XD6	3.00	0.10	6.00	9.00	50.0	2	15.00	2.80
S6114.0XD4	4.00	0.10	4.00	12.00	50.0	2	20.00	3.70
S6114.0XD6	4.00	0.10	6.00	12.00	50.0	2	20.00	3.70
S6115.0	5.00	0.10	6.00	15.00	50.0	2	20.00	4.60
S6116.0	6.00	0.10	6.00	16.00	80.0	2	40.00	5.50
S6118.0	8.00	0.10	8.00	20.00	80.0	2	40.00	7.40
S61110.0	10.00	0.10	10.00	22.00	100.0	2	60.00	9.20
S61112.0	12.00	0.10	12.00	25.00	100.0	2	60.00	11.00
S61114.0	14.00	0.10	14.00	32.00	125.0	2	75.00	13.00
S61116.0	16.00	0.10	16.00	32.00	125.0	2	75.00	15.00
S61120.0	20.00	0.10	20.00	38.00	125.0	2	75.00	19.00

S638

2-Flute Solid Carbide End Mill, Extra Long Reach

Extra short cut length, 2-flute reduced shank provides clearance when machining against deep walls. The S638, with high hook geometry, is designed for high speed machining in non-ferrous materials. Polished surface prevents workpiece material from sticking to the cutting edge.

HM	W	NOF 2
	λ 30°	γ 20°
DIN 6535HA	Hi	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N3.3	N4.1	N4.2
709 N	533 N	357 N	357 N	320 N	229 N	373 N	219 N	112 N	373 O	144 O

Reduced shank; DCON MS tolerance h6; RE ±0.02 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S6386.2	6.20	0.10	6.00	8.00	100.0	2
S6388.2	8.20	0.10	8.00	10.00	100.0	2
S63810.3	10.30	0.10	10.00	14.00	125.0	2
S63812.3	12.30	0.10	12.00	16.00	125.0	2
S63816.3	16.30	0.10	16.00	20.00	125.0	2
S63820.3	20.30	0.10	20.00	25.00	125.0	2

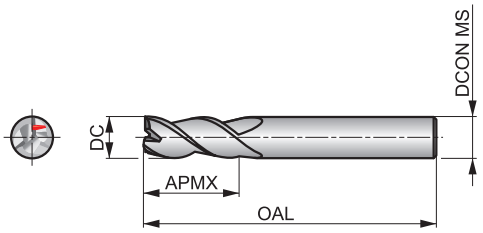
S650

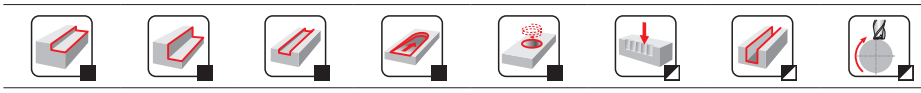
DORMER

3-Flute Solid Carbide End Mill

Short cut length, 3-flute with differential pitch is designed to reduce vibrations, spindle load and improve surface finish when milling. The single chip divider helps to break swarf into manageable pieces for a better evacuation in non-ferrous materials.

HM	W	NOF 3≠
	λ 40°	γ 13°
DIN 6535HA	Bright	DC h9
	DORMER	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N3.3	N4.1	N4.2
■780 O	■608 O	■393 O	■393 N	■352 N	■252 N	■410 N	■241 N	■123 N	■410 P	■158 P

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S6501.0	1.00	4.00	3.00	40.0	3
S6501.5	1.50	4.00	4.50	40.0	3
S6502.0	2.00	4.00	6.50	40.0	3
S6502.5	2.50	4.00	6.50	40.0	3
S6503.0XD3	3.00	3.00	9.00	40.0	3
S6503.0XD6	3.00	6.00	9.00	50.0	3
S6504.0XD4	4.00	4.00	12.00	50.0	3
S6504.0XD6	4.00	6.00	12.00	50.0	3
S6505.0	5.00	6.00	15.00	50.0	3
S6506.0	6.00	6.00	16.00	50.0	3
S6508.0	8.00	8.00	20.00	64.0	3
S65010.0	10.00	10.00	22.00	70.0	3
S65012.0	12.00	12.00	25.00	75.0	3
S65014.0	14.00	14.00	32.00	90.0	3
S65016.0	16.00	16.00	32.00	90.0	3
S65020.0 [1]	20.00	20.00	38.00	100.0	3

[1] No differential pitch and chip divider.

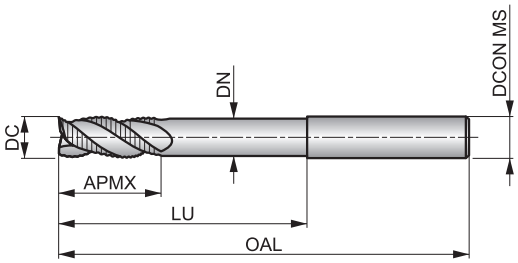
S654

DORMER

3-Flute Solid Carbide Roughing End Mill, Long Reach

Short cut length, 3-flute roughing design with neck recess and differential pitch to reduce vibrations and maximize productivity and tool life. The S654, with NRA profile, breaks the swarf into small manageable pieces. It is designed for high performance roughing in non-ferrous materials.

HM	W NRA	NOF 3≠
	λ 40°	γ 15°
DIN 6535HA	Bright	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N3.3	N4.1	N4.2
709 O	533 O	357 O	357 N	320 N	229 N	373 N	219 N	112 N	373 P	144 P

DCON MS tolerance h6; RE ±0.02 mm.

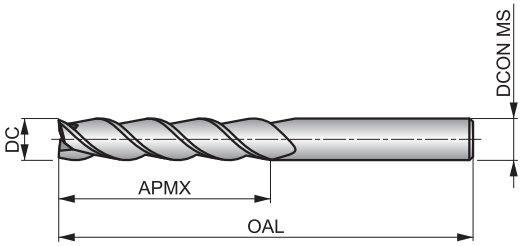
Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S6546.0	6.00	0.10	6.00	13.00	75.0	3	40.00	5.50
S6548.0	8.00	0.10	8.00	20.00	75.0	3	40.00	7.40
S65410.0	10.00	0.10	10.00	22.00	100.0	3	60.00	9.20
S65412.0	12.00	0.12	12.00	26.00	100.0	3	60.00	11.00
S65416.0	16.00	0.16	16.00	32.00	125.0	3	75.00	15.00
S65420.0	20.00	0.20	20.00	40.00	150.0	3	100.00	19.00

S614

3-Flute Solid Carbide End Mill, Extra Long Series

Extra long cut length, 3-flute design for light profiling applications in hard to reach areas. The S614, with high hook geometry, is designed for high performance machining in non-ferrous materials.

HM	W	NOF 3
	λ 40°	γ 13°
DIN 6535HA	Bright	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N3.3	N4.1	N4.2
■638 G	■480 G	■321 G	■321 F	■288 F	■206 F	■336 F	■197 F	■101 F	■336 I	■130 I

DCON MS tolerance h6.

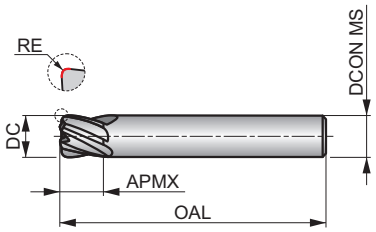
Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S6143.0XD3	3.00	3.00	19.00	60.0	3
S6143.0XD6	3.00	6.00	19.00	75.0	3
S6144.0XD4	4.00	4.00	19.00	60.0	3
S6144.0XD6	4.00	6.00	19.00	75.0	3
S6145.0	5.00	6.00	19.00	75.0	3
S6146.0	6.00	6.00	31.00	75.0	3
S6148.0	8.00	8.00	41.00	100.0	3
S61410.0	10.00	10.00	50.00	100.0	3
S61412.0	12.00	12.00	50.00	100.0	3
S61414.0	14.00	14.00	57.00	125.0	3
S61416.0	16.00	16.00	57.00	125.0	3

S536

DORMER

High Feed, Multi-Flute Solid Cabide Corner Radius End Mill

Extra short cut length, 4 or 6 flute design with corner radius, 25° helix and specific geometry for high feed machining in hardened materials up to 63HRC. TiSiN coating increases tool life and improves performance.



HM	N	NOF 4-6
	λ 25°	γ 0°
DIN 6535HA	TiSiN	DC h9
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

H1.1	H2.1	H2.2	H3.1	H3.2	H4.1	H4.2
205 E	122 E	104 D	135 E	111 E	86 D	73 D

DCON MS tolerance h6; RE ±0.01 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S5366.0XR1.0	6.00	1.00	6.00	6.00	60.0	4
S5368.0XR2.0	8.00	2.00	8.00	8.00	64.0	6
S53610.0XR2.0	10.00	2.00	10.00	10.00	75.0	6
S53612.0XR2.0	12.00	2.00	12.00	12.00	75.0	6

Material code (BMC)	HM	HM	HM	HM	
Mill Profile	N	FS	N	FS	
Number of flutes (NOF)	NOF 5	NOF 5	NOF 5	NOF 5	
Cut length					
Flute Helix (FHA)	λ ≠	λ ≠	λ ≠	λ ≠	
Radial rake angle (GAMF)	γ 10°	γ 10°	γ 10°	γ 10°	
Shank	DIN 6535HB	DIN 6535HB	DIN 6535HB	DIN 6535HB	
Cutting diameter tolerance class (TCDC)	DC h9	DC h9	DC h9	DC h9	
Coating	AlCrN	AlCrN	AlCrN	AlCrN	
Direction					
Basic standard group (BSG)	DORMER	DORMER	DORMER	DORMER	
Cooling (CSP)					
					
Product Family Code	S770HB	S771HB	S772HB	S773HB	
PSF cutting diameters range	10.00 – 20.00	10.00 – 20.00	10.00 – 20.00	10.00 – 20.00	
	122	123	124	125	
P	P1	■	■	■	■
	P2	■	■	■	■
	P3	■	■	■	■
	P4	■	■	■	■
M	M1	■	■	■	■
	M2	■	■	■	■
	M3	■	■	■	■
	M4				
K	K1	■	■	■	■
	K2	■	■	■	■
	K3	■	■	■	■
	K4	■	■	■	■
	K5	■	■	■	■
N	N1				
	N2				
	N3				
	N4				
	N5				
S	S1	■	■	■	■
	S2	■	■	■	■
	S3	■	■	■	■
	S4	■	■	■	■
H	H1				
	H2				
	H3				
	H4				

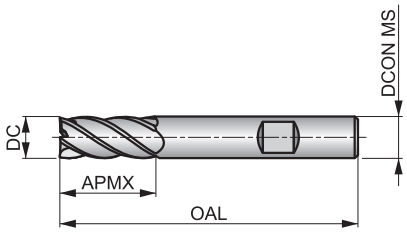
■ Primary use ◪ Possible use

S770HB

5-Flute Solid Carbide End Mill

Short cut length, 5-flute design with unequal helix to reduce vibrations especially when using the cutter in dynamic milling strategies. AlCrN coating improves performance and extends the tool life. Suited for trochoidal and shoulder milling, ramping and helicoidal interpolation milling.

HM	N	NOF 5
	λ ≠	γ 10°
DIN 6535HB	AlCrN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■211 I	■236 I	■243 I	■180 I	■158 I	■140 I	■146 I	■117 I	■99 I	■86 I	■74 I	■122 I	■103 I	■108 I
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■89 I	■100 I	■86 I	■208 I	■154 I	■116 I	■214 I	■174 I	■139 I	■189 I	■145 I	■117 I	■176 I	■132 I
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**S1.2**	**S2.1**	**S3.1**	**S4.1**				
■97 I	■83 G	■69 G	■199 I	■149 I	■116 I	■72 I	■56 G	■42 G	■33 G				

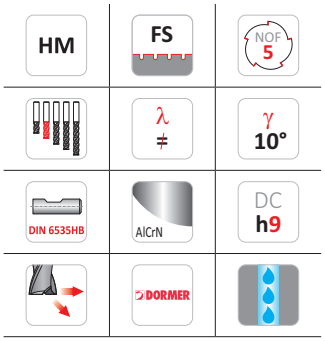
DCON MS tolerance h6; RE ±0.01 mm.

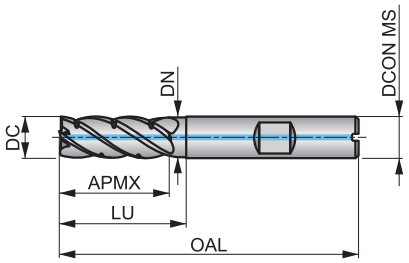
Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S770HB10.0	10.00	0.20	10.00	22.00	72.0	5
S770HB12.0	12.00	0.30	12.00	26.00	83.0	5
S770HB16.0	16.00	0.30	16.00	32.00	92.0	5
S770HB20.0	20.00	0.30	20.00	38.00	104.0	5

S771HB

5-Flute Solid Carbide End Mill, Chip Dividers and Through Coolant

Short cut length, 5-flute design with neck recess and unequal helix helps to reduce vibrations especially when using the cutter in dynamic milling strategies. AlCrN coating improves performance and extends the tool life. Chip divider and through coolant improve chip evacuation in pocketing operation.





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■222 J	■248 J	■255 J	■189 J	■166 J	■147 I	■153 J	■123 I	■104 I	■90 I	■78 I	■128 I	■108 I	■113 I
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■93 I	■105 I	■90 I	■218 J	■162 J	■122 J	■225 J	■183 J	■146 I	■198 J	■152 I	■123 I	■185 I	■139 I
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**S1.2**	**S2.1**	**S3.1**	**S4.1**				
■102 I	■87 I	■72 I	■209 I	■156 I	■122 I	■76 I	■59 I	■44 G	■35 G				

DCON MS tolerance h6; RE ±0.01 mm.

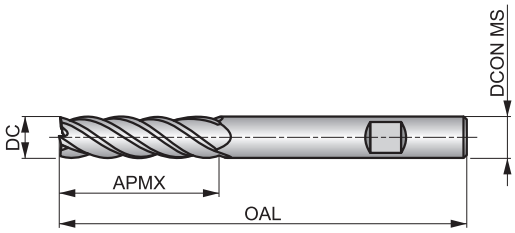
Product	DC	RE	DCON MS	APMX	OAL	NOF	LU	DN
	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
S771HB10.0	10.00	0.20	10.00	25.00	72.0	5	30.00	9.70
S771HB12.0	12.00	0.20	12.00	30.00	83.0	5	38.00	11.70
S771HB16.0	16.00	0.30	16.00	39.00	92.0	5	44.00	15.70
S771HB20.0	20.00	0.30	20.00	48.00	104.0	5	54.00	19.70

S772HB

5-Flute Solid Carbide End Mill, Long Series

Long cut length, 5-flute design with unequal helix to reduce vibrations especially when using the cutter in dynamic milling strategies. AlCrN coating improves performance and extends the tool life. Suited for trochoidal and shoulder milling, ramping and helicoidal interpolation milling.

HM	N	NOF 5
	λ ≠	γ 10°
DIN 6535HB	AlCrN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■148 G	■165 G	■170 G	■126 G	■111 G	■98 F	■102 G	■82 F	■69 F	■60 F	■52 F	■85 G	■72 G	■76 G
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■62 G	■70 G	■60 G	■146 G	■108 G	■81 G	■150 G	■122 G	■97 F	■132 G	■102 G	■82 F	■123 F	■92 F
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**S1.2**	**S2.1**	**S3.1**	**S4.1**				
■68 F	■58 G	■48 G	■139 F	■104 F	■81 F	■50 F	■39 F	■29 F	■23 F				

DCON MS tolerance h6; RE ±0.01 mm.

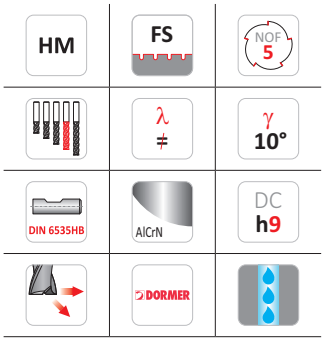
Product	DC	RE	DCON MS	APMX	OAL	NOF
	(mm)	(mm)	(mm)	(mm)	(mm)	
S772HB10.0	10.00	0.20	10.00	38.00	100.0	5
S772HB12.0	12.00	0.30	12.00	45.00	100.0	5
S772HB16.0	16.00	0.30	16.00	55.00	125.0	5
S772HB20.0	20.00	0.30	20.00	65.00	125.0	5

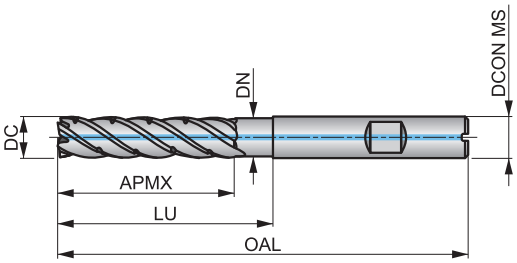
S773HB

DORMER

5-Flute Solid Carbide End Mill, Chip Dividers, Through Coolant, Long Series

Long cut length, 5-flute design with neck recess and unequal helix helps to reduce vibrations especially when using the cutter in dynamic milling strategies. AlCrN coating improves performance and extends the tool life. Chip divider and through coolant improve chip evacuation in pocketing operations.





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■155 G	■173 G	■179 G	■132 G	■117 G	■103 F	■107 G	■86 F	■72 F	■63 F	■55 F	■89 F	■76 F	■80 F
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■65 F	■74 F	■63 F	■153 G	■113 G	■85 G	■158 G	■128 G	■102 F	■139 G	■107 G	■86 F	■129 F	■97 F
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**S1.2**	**S2.1**	**S3.1**	**S4.1**				
■71 F	■61 F	■50 F	■146 F	■109 F	■85 F	■53 F	■41 F	■30 F	■24 F				

DCON MS tolerance h6; RE ±0.01 mm.

Product	DC	RE	DCON MS	APMX	OAL	NOF	LU	DN
	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
S773HB10.0	10.00	0.20	10.00	42.00	100.0	5	52.00	9.70
S773HB12.0	12.00	0.20	12.00	42.00	100.0	5	54.00	11.70
S773HB16.0	16.00	0.30	16.00	60.00	125.0	5	68.00	15.70
S773HB20.0	20.00	0.30	20.00	67.00	125.0	5	75.00	19.70

Material code (BMC)	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM
Mill Profile	N	N	N	N	N	N	N	N	N	N	W	N	N
Number of flutes (NOF)	NOF 4≠	NOF 4≠	NOF 4≠	NOF 4≠	NOF 4≠	NOF 4≠	NOF 4≠	NOF 4≠	NOF 4	NOF 4	NOF 4≠	NOF 4	NOF 4
Cut length													
Flute Helix (FHA)	λ 40°	λ 40°	λ ≠	λ ≠	λ 40°	λ ≠	λ 40°	λ 40°	λ 40°	λ 40°	λ 40°	λ 45°	λ 40°
Flute Helix (FHA)	λ 40°	λ 40°	λ ≠	λ ≠	λ 40°	λ ≠	λ 40°	λ 40°	λ 40°	λ 40°	λ 40°	λ 45°	λ 40°
Radial rake angle (GAMF)	γ 10°	γ 10°	γ 10°	γ 10°	γ 7°	γ 10°	γ 4°	γ 4°	γ 3°	γ 10°	γ 10°	γ -10°	γ -6°
Shank	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HB	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA
Coating	AlCrN	AlCrN	TiSiN	TiSiN	AlCrN	TiSiN	AlCrN	AlCrN	AlTiN	Diamond	Bright	TiSiN	TiSiN
Cutting diameter tolerance class (TCDC)	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9
Direction													
Basic standard group (BSG)	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER
Product Family Code	**S761**	**S763**	**S766**	**S767**	**S722HB**	**S768**	**S260**	**S262**	**S219**	**S612**	**S662**	**S521**	**S523**
PSF cutting diameters range	3.00 – 20.00	3.00 – 20.00	4.00 – 20.00	4.00 – 20.00	3.00 – 20.00	4.00 – 20.00	3.00 – 20.00	3.00 – 20.00	3.00 – 20.00	1.00 – 12.00	3.00 – 20.00	3.00 – 16.00	1.50 – 16.00
	128	129	130	131	132	133	134	135	137	138	139	140	141
P P1	■	■	■	■	■	■							
P2	■	■	■	■	■	■							
P3	■	■	■	■	■	■							
P4	■	■	■	■	■	■			◪				
M M1	■	■	■	■	■	■							
M2	■	■	■	■	■	■	■	■	■				
M3	■	■	■	■	■	■	■	■	■				
M4							■	■	■				
K K1	■	■	■	■	■	■							
K2	■	■	■	■	■	■							
K3	■	■	■	■	■	■							
K4	■	■	■	■	■	■							
K5	■	■	■	■	■	■							
N N1											■		
N2											■		
N3											■		
N4											■		
N5										■			
S S1	■	■	■	■	■	■	■	■	■				
S2	■	■	■	■	■	■	■	■	■				
S3	■	■	■	■	■	■	■	■	■				
S4	■	■	■	■	■	■	■	■	■				
H H1							■	■				■	■
H2							■	■				■	■
H3							■	■				■	■
H4												■	■

■ Primary use ◪ Possible use

	HM	HM
	N	N
	NOF 4	NOF 4≠
	λ 40°	λ 40°
	λ 40°	λ 40°
	γ -6°	γ -6°
	DIN 6535HA	DIN 6535HA
	TiSiN	TiSiN
	DC h9	DC h9
	DORMER	DORMER
		
	S524	**S561**
	3.00 – 16.00	1.00 – 20.00
	143	144
P1		
P2		
P3		
P4		
M1		
M2		
M3		
M4		
K1		
K2		
K3		
K4		
K5		
N1		
N2		
N3		
N4		
N5		
S1		
S2		
S3		
S4		
H1	■	■
H2	■	■
H3	■	■
H4	■	■

■ Primary use ◪ Possible use

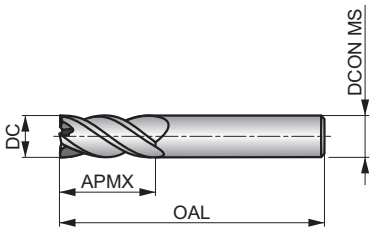
S761

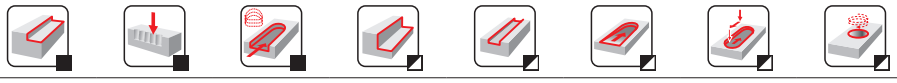
DORMER

4-Flute Solid Carbide End Mill

Short cut length, 4-flute design with 40° helix and differential pitch to reduce vibrations and improve surface finish in profile milling. AlCrN coating improves performance and extends the tool life. Also suited for plunging, ramping and trochoidal milling.

HM	N	NOF 4≠
	λ 40°	γ 10°
DIN 6535HA	AlCrN	DC h9
	DORMER	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
211 J	236 J	243 J	180 J	158 J	140 I	146 J	117 I	99 I	86 I	74 I	122 J	103 J	108 J
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
89 I	100 I	86 I	208 J	154 J	116 J	214 J	174 J	139 I	189 J	145 J	117 I	176 I	132 I
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**S1.2**	**S2.1**	**S3.1**	**S4.1**				
97 I	83 I	69 I	199 I	149 I	116 I	72 I	56 I	42 I	33 I				

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S7613.0	3.00	6.00	9.00	57.0	4
S7614.0	4.00	6.00	12.00	57.0	4
S7615.0	5.00	6.00	13.00	57.0	4
S7616.0	6.00	6.00	13.00	57.0	4
S7618.0	8.00	8.00	20.00	64.0	4
S76110.0	10.00	10.00	22.00	72.0	4
S76112.0	12.00	12.00	26.00	83.0	4
S76114.0	14.00	14.00	32.00	83.0	4
S76116.0	16.00	16.00	32.00	92.0	4
S76120.0	20.00	20.00	38.00	104.0	4

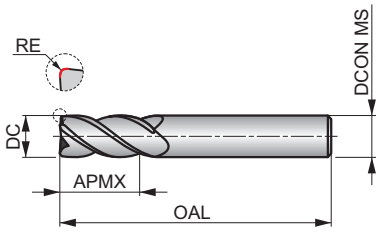
S763

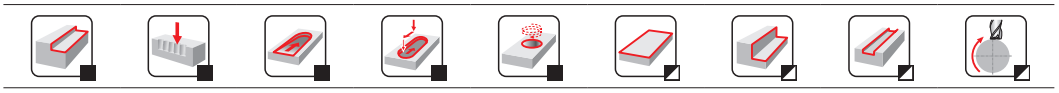
DORMER

4-Flute Solid Carbide Corner Radius End Mill

Short cut length, 4-flute design with different corner radius available, 40° helix with differential pitch to reduce vibrations and improve surface finish, when milling contours where a corner radius is required. AlCrN coating improves performance. Also suited for plunging, ramping, z-level roughing and helical interpolation.

HM	N	NOF 4≠
	λ 40°	γ 10°
DIN 6535HA	AlCrN	DC h9
	DORMER	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

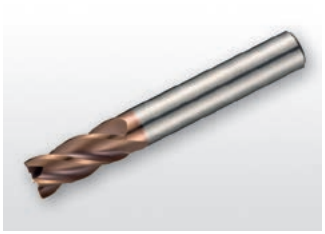
P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■211 J	■236 J	■243 J	■180 J	■158 J	■140 I	■146 J	■117 I	■99 I	■86 I	■74 I	■122 J	■103 J	■108 J
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■89 I	■100 I	■86 I	■208 J	■154 J	■116 J	■214 J	■174 J	■139 I	■189 J	■145 J	■117 I	■176 I	■132 I
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**S1.2**	**S2.1**	**S3.1**	**S4.1**				
■97 I	■83 I	■69 I	■199 I	■149 I	■116 I	■72 I	■56 I	■42 I	■33 I				

DCON MS tolerance h6; RE ±0.01 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S7633.0XR0.3	3.00	0.30	3.00	9.00	40.0	4
S7634.0XR0.3	4.00	0.30	4.00	12.00	50.0	4
S7634.0XR0.5	4.00	0.50	4.00	12.00	50.0	4
S7635.0XR0.3	5.00	0.30	5.00	15.00	50.0	4
S7635.0XR0.5	5.00	0.50	5.00	15.00	50.0	4
S7636.0XR0.5	6.00	0.50	6.00	16.00	50.0	4
S7636.0XR1.0	6.00	1.00	6.00	16.00	50.0	4
S7638.0XR0.5	8.00	0.50	8.00	20.00	64.0	4
S7638.0XR1.0	8.00	1.00	8.00	20.00	64.0	4
S76310.0XR0.5	10.00	0.50	10.00	22.00	70.0	4
S76310.0XR1.0	10.00	1.00	10.00	22.00	70.0	4
S76310.0XR2.0	10.00	2.00	10.00	22.00	70.0	4
S76312.0XR1.0	12.00	1.00	12.00	25.00	75.0	4
S76312.0XR2.0	12.00	2.00	12.00	25.00	75.0	4
S76312.0XR3.0	12.00	3.00	12.00	25.00	75.0	4
S76314.0XR1.5	14.00	1.50	14.00	32.00	90.0	4
S76316.0XR1.0	16.00	1.00	16.00	32.00	90.0	4
S76316.0XR2.0	16.00	2.00	16.00	32.00	90.0	4
S76316.0XR3.0	16.00	3.00	16.00	32.00	90.0	4
S76318.0XR2.0	18.00	2.00	18.00	38.00	100.0	4
S76320.0XR3.0	20.00	3.00	20.00	38.00	100.0	4

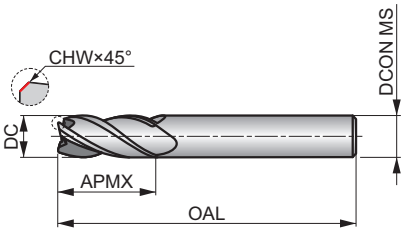
S766

DORMER



4-Flute Solid Carbide End Mill

Short cut length, 4-flute design with unequal helix and differential pitch to reduce vibrations and improve surface finish in profile milling. TiSiN coating increases tool life and improves performance. Also suited for plunging, ramping and trochoidal milling.



HM	N	NOF 4≠
	λ ≠	γ 10°
DIN 6535HA	TiSiN	DC h9
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■211 J	■236 J	■243 J	■180 J	■158 J	■140 I	■146 J	■117 I	■99 I	■86 I	■74 I	■122 J	■103 J	■108 J
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■89 I	■100 I	■86 I	■208 J	■154 J	■116 J	■214 J	■174 J	■139 I	■189 J	■145 J	■117 I	■176 I	■132 I
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**S1.2**	**S2.1**	**S3.1**	**S4.1**				
■97 I	■83 I	■69 I	■199 I	■149 I	■116 I	■72 I	■56 I	■42 I	■33 I				

DCON MS tolerance h6; CHW ±0.02X45° mm.

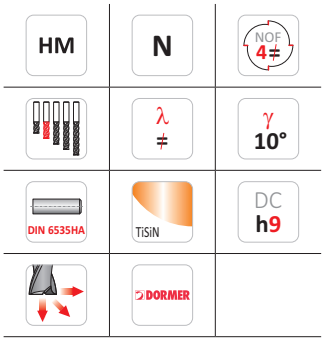
Product	DC (mm)	CHW (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S7664.0	4.00	0.10	6.00	11.00	57.0	4
S7665.0	5.00	0.10	6.00	13.00	57.0	4
S7666.0	6.00	0.10	6.00	13.00	57.0	4
S7668.0	8.00	0.20	8.00	20.00	64.0	4
S76610.0	10.00	0.20	10.00	22.00	72.0	4
S76612.0	12.00	0.20	12.00	26.00	83.0	4
S76614.0	14.00	0.30	14.00	26.00	83.0	4
S76616.0	16.00	0.30	16.00	32.00	92.0	4
S76620.0	20.00	0.40	20.00	38.00	104.0	4

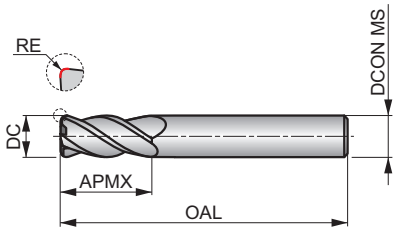
S767

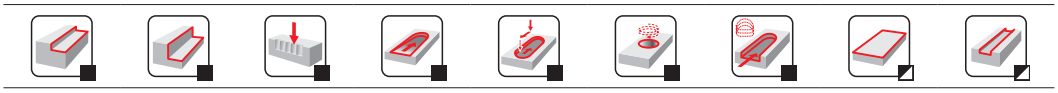
DORMER

4-Flute Solid Carbide Corner Radius End Mill

Short cut length, 4-flute design with different corner radius available, unequal helix and differential pitch to reduce vibrations and improve surface finish when milling contours where a corner radius is required. TiSiN coating improves performance. Also suited for plunging, ramping and trochoidal milling.







Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■211 J	■236 J	■243 J	■180 J	■158 J	■140 I	■146 J	■117 I	■99 I	■86 I	■74 I	■122 J	■103 J	■108 J
M2.2	M3.1	M3.2	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3	K3.1	K3.2	K3.3	K4.1	K4.2
■89 I	■100 I	■86 I	■208 J	■154 J	■116 J	■214 J	■174 J	■139 I	■189 J	■145 J	■117 I	■176 I	■132 I
K4.3	K4.4	K4.5	K5.1	K5.2	K5.3	S1.2	S2.1	S3.1	S4.1				
■97 I	■83 I	■69 I	■199 I	■149 I	■116 I	■72 I	■56 I	■42 I	■33 I				

DCON MS tolerance h6; RE ±0.01 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S7674.0XR0.3	4.00	0.30	6.00	11.00	57.0	4
S7674.0XR0.5	4.00	0.50	6.00	11.00	57.0	4
S7675.0XR0.3	5.00	0.30	6.00	13.00	57.0	4
S7675.0XR0.5	5.00	0.50	6.00	13.00	57.0	4
S7676.0XR0.3	6.00	0.30	6.00	13.00	57.0	4
S7676.0XR0.5	6.00	0.50	6.00	13.00	57.0	4
S7676.0XR1.0	6.00	1.00	6.00	13.00	57.0	4
S7678.0XR0.3	8.00	0.30	8.00	20.00	64.0	4
S7678.0XR0.5	8.00	0.50	8.00	20.00	64.0	4
S7678.0XR1.0	8.00	1.00	8.00	20.00	64.0	4
S76710.0XR0.3	10.00	0.30	10.00	22.00	72.0	4
S76710.0XR0.5	10.00	0.50	10.00	22.00	72.0	4
S76710.0XR1.0	10.00	1.00	10.00	22.00	72.0	4
S76712.0XR0.3	12.00	0.30	12.00	26.00	83.0	4
S76712.0XR0.5	12.00	0.50	12.00	26.00	83.0	4
S76712.0XR1.0	12.00	1.00	12.00	26.00	83.0	4
S76712.0XR2.0	12.00	2.00	12.00	26.00	83.0	4
S76716.0XR0.3	16.00	0.30	16.00	32.00	92.0	4
S76716.0XR0.5	16.00	0.50	16.00	32.00	92.0	4
S76716.0XR1.0	16.00	1.00	16.00	32.00	92.0	4
S76716.0XR2.0	16.00	2.00	16.00	32.00	92.0	4
S76720.0XR0.3	20.00	0.30	20.00	38.00	104.0	4
S76720.0XR0.5	20.00	0.50	20.00	38.00	104.0	4
S76720.0XR1.0	20.00	1.00	20.00	38.00	104.0	4
S76720.0XR2.0	20.00	2.00	20.00	38.00	104.0	4

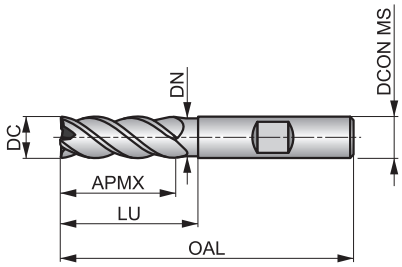
S722HB

DORMER

4-Flute Solid Carbide End Mill

Medium cut length, 4-flute design with 40° helix, differential pitch and Weldon shank provides high rigidity for profile milling deep walls. Neck recess to avoid work contact with the wall and extend reach. AlCrN coating improves performance and extends the tool life.

HM	N	NOF 4≠
	λ 40°	γ 7°
DIN 6535HB	AlCrN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■199 J	■223 J	■230 J	■170 J	■150 J	■133 I	■138 J	■111 I	■94 I	■82 I	■70 I	■115 J	■97 J	■102 J
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■84 I	■94 I	■81 I	■196 J	■145 J	■109 J	■202 J	■164 J	■131 I	■178 J	■136 J	■110 I	■165 I	■125 I
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**S1.2**	**S2.1**	**S3.1**	**S4.1**				
■91 I	■78 I	■65 I	■187 I	■141 I	■109 I	■69 I	■53 I	■40 I	■31 I				

DCON MS tolerance h6; RE ±0.02 mm.

Product	DC	RE	DCON MS	APMX	OAL	NOF	LU	DN
	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
S722HB3.0	3.00	0.10	6.00	9.00	50.0	4	15.00	2.80
S722HB4.0	4.00	0.10	6.00	11.00	57.0	4	20.00	3.70
S722HB5.0	5.00	0.10	6.00	13.00	57.0	4	20.00	4.60
S722HB6.0	6.00	0.10	6.00	20.00	60.0	4	25.00	5.50
S722HB8.0	8.00	0.20	8.00	20.00	64.0	4	26.00	7.40
S722HB10.0	10.00	0.20	10.00	27.00	70.0	4	32.00	9.20
S722HB12.0	12.00	0.20	12.00	26.00	83.0	4	37.00	11.00
S722HB14.0	14.00	0.20	14.00	26.00	83.0	4	37.00	13.00
S722HB16.0	16.00	0.20	16.00	32.00	92.0	4	42.00	15.00
S722HB18.0	18.00	0.20	18.00	32.00	92.0	4	42.00	17.00
S722HB20.0	20.00	0.20	20.00	38.00	104.0	4	50.00	19.00

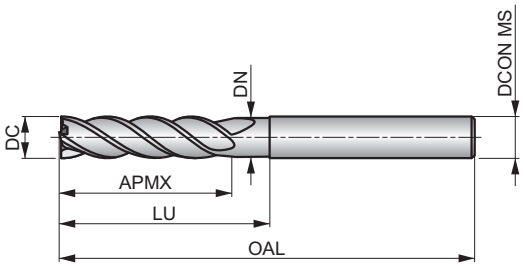
S768

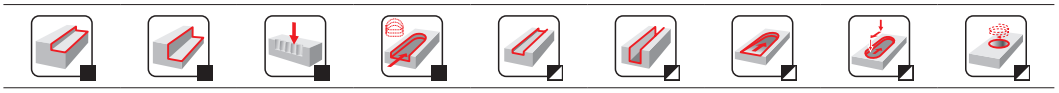
DORMER

4-Flute Solid Carbide End Mill, Long Series

Long cut length, 4-flute design with unequal helix and differential pitch to reduce vibrations and improve surface finish when milling deep walls in profile milling. Neck recess to avoid work contact with the wall and extend reach. TiSiN coating increases tool life and improves performance.

HM	N	NOF 4≠
	λ ≠	γ 10°
DIN 6535HA	TiSiN	DC h9
	DORMER	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■148 I	■165 I	■170 I	■126 I	■111 I	■98 G	■102 I	■82 G	■69 G	■60 G	■52 G	■85 I	■72 I	■76 I
M2.2	**M3.1**	**M3.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**	**K3.3**	**K4.1**	**K4.2**
■62 I	■70 I	■60 I	■146 I	■108 I	■81 I	■150 I	■122 I	■97 G	■132 I	■102 I	■82 G	■123 G	■92 G
K4.3	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**S1.2**	**S2.1**	**S3.1**	**S4.1**				
■68 G	■58 I	■48 I	■139 G	■104 G	■81 G	■50 I	■39 G	■29 G	■23 G				

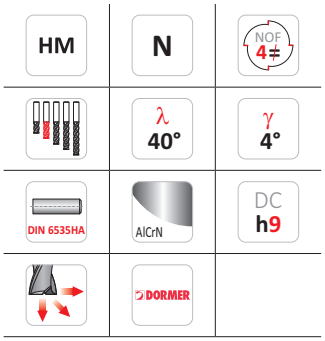
DCON MS tolerance h6; RE ±0.01 mm.

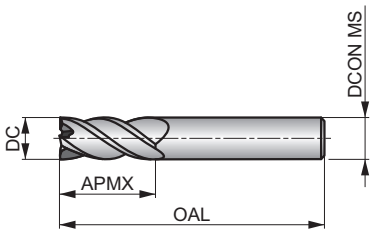
Product	DC	RE	DCON MS	APMX	OAL	NOF	LU	DN
	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
S7684.0	4.00	0.10	6.00	19.00	75.0	4	32.00	3.70
S7685.0	5.00	0.10	6.00	19.00	75.0	4	32.00	4.60
S7686.0	6.00	0.10	6.00	25.00	75.0	4	32.00	5.50
S7688.0	8.00	0.20	8.00	30.00	75.0	4	38.00	7.40
S76810.0	10.00	0.20	10.00	40.00	100.0	4	50.00	9.20
S76812.0	12.00	0.30	12.00	45.00	100.0	4	55.00	11.00
S76816.0	16.00	0.30	16.00	65.00	125.0	4	75.00	15.00
S76820.0	20.00	0.30	20.00	65.00	125.0	4	75.00	19.00

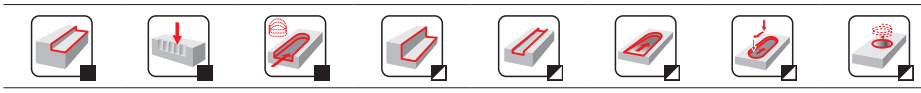
S260

4-Flute Solid Carbide End Mill

Short cut length, 4-flute design provides high rigidity for standard profile milling. AlCrN coating improves performance and extends the tool life when milling difficult to machine materials. The 40° helix with differential pitch reduces vibrations and maximizes productivity and tool life.







Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P4.3	M2.3	M3.3	M4.1	M4.2	S1.3	S2.2	S3.2	S4.2	H1.1	H2.1	H3.1	H3.2
■ 97 J	■ 97 J	■ 99 I	■ 97 I	■ 83 I	■ 70 I	■ 56 I	■ 40 I	■ 32 I	■ 179 I	■ 106 G	■ 118 G	■ 97 G

DCON MS tolerance h6.

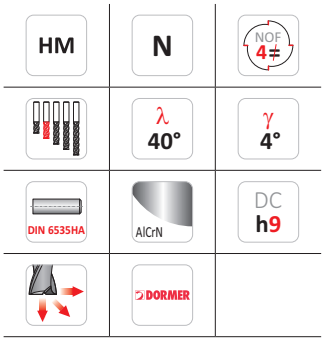
Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S2603.0	3.00	6.00	9.00	57.0	4
S2604.0	4.00	6.00	12.00	57.0	4
S2605.0	5.00	6.00	13.00	57.0	4
S2606.0	6.00	6.00	13.00	57.0	4
S2608.0	8.00	8.00	20.00	64.0	4
S26010.0	10.00	10.00	22.00	72.0	4
S26012.0	12.00	12.00	26.00	83.0	4
S26014.0	14.00	14.00	32.00	83.0	4
S26016.0	16.00	16.00	32.00	92.0	4
S26018.0	18.00	18.00	38.00	92.0	4
S26020.0	20.00	20.00	38.00	104.0	4

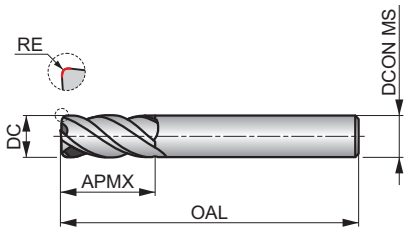
S262

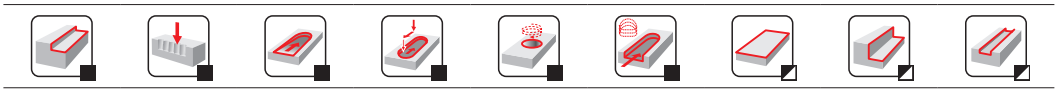
DORMER

4-Flute Solid Carbide Corner Radius End Mill

Short cut length, 4-flute design with different corner radius available provides high rigidity for standard profile milling when corner radius is required. AlCrN coating improves performance when milling difficult to machine materials. The 40° helix with differential pitch reduces vibrations and maximizes productivity.







Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P4.3	M2.3	M3.3	M4.1	M4.2	S1.3	S2.2	S3.2	S4.2	H1.1	H2.1	H3.1	H3.2
■97 J	■97 J	■99 I	■97 I	■83 I	■70 I	■56 I	■40 I	■32 I	■179 I	■106 G	■118 G	■97 G

DCON MS tolerance h6; RE ±0.01 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S2623.0XR0.3	3.00	0.30	6.00	9.00	50.0	4
S2623.0XR0.5	3.00	0.50	6.00	9.00	50.0	4
S2624.0XR0.3	4.00	0.30	6.00	12.00	57.0	4
S2624.0XR0.5	4.00	0.50	6.00	12.00	57.0	4
S2624.0XR1.0	4.00	1.00	6.00	12.00	57.0	4
S2625.0XR0.3	5.00	0.30	6.00	15.00	57.0	4
S2625.0XR0.5	5.00	0.50	6.00	15.00	57.0	4
S2626.0XR0.3	6.00	0.30	6.00	16.00	57.0	4
S2626.0XR0.5	6.00	0.50	6.00	16.00	57.0	4
S2626.0XR1.0	6.00	1.00	6.00	16.00	57.0	4
S2628.0XR0.3	8.00	0.30	8.00	20.00	64.0	4
S2628.0XR0.5	8.00	0.50	8.00	20.00	64.0	4
S2628.0XR1.0	8.00	1.00	8.00	20.00	64.0	4
S2628.0XR1.5	8.00	1.50	8.00	20.00	64.0	4
S2628.0XR2.0	8.00	2.00	8.00	20.00	64.0	4
S26210.0XR0.3	10.00	0.30	10.00	22.00	72.0	4
S26210.0XR0.5	10.00	0.50	10.00	22.00	72.0	4
S26210.0XR1.0	10.00	1.00	10.00	22.00	72.0	4
S26210.0XR1.5	10.00	1.50	10.00	22.00	72.0	4
S26210.0XR2.0	10.00	2.00	10.00	22.00	72.0	4
S26212.0XR0.3	12.00	0.30	12.00	26.00	83.0	4
S26212.0XR0.5	12.00	0.50	12.00	26.00	83.0	4
S26212.0XR1.0	12.00	1.00	12.00	26.00	83.0	4
S26212.0XR2.0	12.00	2.00	12.00	26.00	83.0	4
S26212.0XR2.5	12.00	2.50	12.00	26.00	83.0	4
S26212.0XR3.0	12.00	3.00	12.00	26.00	83.0	4
S26214.0XR0.3	14.00	0.30	14.00	32.00	83.0	4
S26214.0XR0.5	14.00	0.50	14.00	32.00	83.0	4
S26214.0XR1.0	14.00	1.00	14.00	32.00	83.0	4
S26214.0XR2.0	14.00	2.00	14.00	32.00	83.0	4
S26214.0XR3.0	14.00	3.00	14.00	32.00	83.0	4

Product	DC	RE	DCON MS	APMX	OAL	NOF
	(mm)	(mm)	(mm)	(mm)	(mm)	
S26216.0XR0.3	16.00	0.30	16.00	32.00	92.0	4
S26216.0XR0.5	16.00	0.50	16.00	32.00	92.0	4
S26216.0XR1.0	16.00	1.00	16.00	32.00	92.0	4
S26216.0XR2.0	16.00	2.00	16.00	32.00	92.0	4
S26216.0XR2.5	16.00	2.50	16.00	32.00	92.0	4
S26216.0XR3.0	16.00	3.00	16.00	32.00	92.0	4
S26216.0XR4.0	16.00	4.00	16.00	32.00	92.0	4
S26218.0XR0.3	18.00	0.30	18.00	38.00	92.0	4
S26218.0XR0.5	18.00	0.50	18.00	38.00	92.0	4
S26218.0XR1.0	18.00	1.00	18.00	38.00	92.0	4
S26218.0XR2.0	18.00	2.00	18.00	38.00	92.0	4
S26218.0XR3.0	18.00	3.00	18.00	38.00	92.0	4
S26220.0XR0.3	20.00	0.30	20.00	38.00	104.0	4
S26220.0XR0.5	20.00	0.50	20.00	38.00	104.0	4
S26220.0XR1.0	20.00	1.00	20.00	38.00	104.0	4
S26220.0XR2.0	20.00	2.00	20.00	38.00	104.0	4
S26220.0XR2.5	20.00	2.50	20.00	38.00	104.0	4
S26220.0XR3.0	20.00	3.00	20.00	38.00	104.0	4
S26220.0XR4.0	20.00	4.00	20.00	38.00	104.0	4

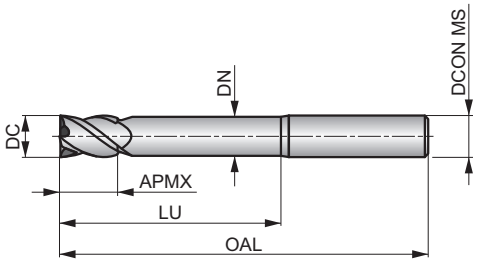
S219

DORMER

4-Flute Solid Carbide End Mill, Long Reach

Extra short cut length, 4-flute design provides high rigidity for milling and profiling in hard to reach areas. Neck recess to avoid work contact with the wall. AlTiN coating increases tool life and improves performance when milling difficult to machine materials. The 40° helix is designed for high performance machining.

HM	N	NOF 4
	λ 40°	γ 3°
DIN 6535HA	AlTiN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P4.3	M2.3	M3.3	M4.1	M4.2	S1.3	S2.2	S3.2	S4.2
64 J	64 J	65 I	64 I	54 I	46 I	38 I	26 I	22 I

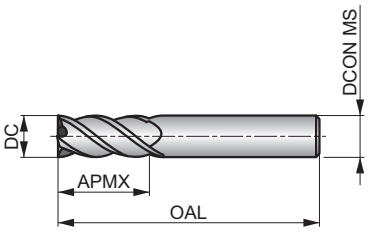
DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S2193.0	3.00	3.00	5.00	60.0	4	30.00	2.80
S2194.0	4.00	4.00	8.00	60.0	4	32.00	3.70
S2195.0	5.00	5.00	9.00	60.0	4	32.00	4.60
S2196.0	6.00	6.00	10.00	75.0	4	40.00	5.50
S2198.0	8.00	8.00	12.00	75.0	4	40.00	7.40
S21910.0	10.00	10.00	14.00	75.0	4	40.00	9.20
S21912.0	12.00	12.00	16.00	100.0	4	60.00	11.00
S21914.0	14.00	14.00	22.00	125.0	4	85.00	13.00
S21916.0	16.00	16.00	22.00	125.0	4	85.00	15.00
S21918.0	18.00	18.00	26.00	125.0	4	85.00	17.00
S21920.0	20.00	20.00	26.00	125.0	4	85.00	19.00

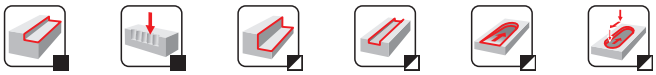
S612

4-Flute Solid Carbide End Mill

Short cut length, 4-flute design provides high rigidity for standard profile milling. Diamond like coating increases service life and improves performance. For milling abrasive materials.



HM	N	NOF 4
	λ 40°	γ 10°
DIN 6535HA	Diamond	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

N5.1

■ 350 G

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S6121.0	1.00	3.00	3.00	50.0	4
S6121.5	1.50	3.00	4.50	50.0	4
S6122.0	2.00	3.00	6.50	50.0	4
S6122.5	2.50	3.00	6.50	50.0	4
S6123.0	3.00	3.00	9.00	50.0	4
S6124.0	4.00	4.00	12.00	50.0	4
S6125.0	5.00	5.00	15.00	50.0	4
S6126.0	6.00	6.00	20.00	60.0	4
S6128.0	8.00	8.00	20.00	64.0	4
S61210.0	10.00	10.00	22.00	70.0	4
S61212.0	12.00	12.00	25.00	75.0	4

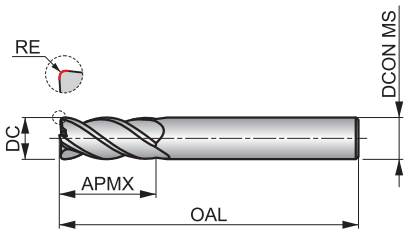
S662

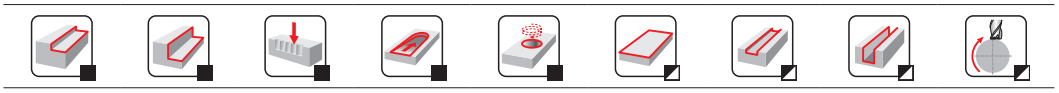
DORMER

4-Flute Solid Carbide Corner Radius End Mill

Short cut length, 4-flute design with differential pitch and different corner radius available, for profile milling where a corner radius is required. The S662, with high hook geometry, is designed for high performance machining in non-ferrous materials.

HM	W	NOF 4
	λ 40°	γ 10°
DIN 6535HA	Bright	DC h9
	DORMER	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N3.3	N4.1	N4.2
■709 O	■533 O	■357 O	■357 N	■320 N	■229 N	■373 N	■219 N	■112 N	■373 P	■144 P

DCON MS tolerance h6; RE ±0.01 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S6623.0XR0.3	3.00	0.30	6.00	9.00	57.0	4
S6624.0XR0.3	4.00	0.30	6.00	12.00	57.0	4
S6624.0XR0.5	4.00	0.50	6.00	12.00	57.0	4
S6625.0XR0.3	5.00	0.30	6.00	15.00	57.0	4
S6625.0XR0.5	5.00	0.50	6.00	15.00	57.0	4
S6626.0XR0.5	6.00	0.50	6.00	16.00	57.0	4
S6626.0XR1.0	6.00	1.00	6.00	16.00	57.0	4
S6626.0XR2.0	6.00	2.00	6.00	16.00	57.0	4
S6628.0XR0.5	8.00	0.50	8.00	20.00	64.0	4
S6628.0XR1.0	8.00	1.00	8.00	20.00	64.0	4
S6628.0XR2.0	8.00	2.00	8.00	20.00	64.0	4
S66210.0XR0.5	10.00	0.50	10.00	22.00	72.0	4
S66210.0XR1.0	10.00	1.00	10.00	22.00	72.0	4
S66210.0XR2.0	10.00	2.00	10.00	22.00	72.0	4
S66212.0XR1.0	12.00	1.00	12.00	26.00	83.0	4
S66212.0XR2.0	12.00	2.00	12.00	26.00	83.0	4
S66212.0XR2.5	12.00	2.50	12.00	26.00	83.0	4
S66212.0XR3.0	12.00	3.00	12.00	26.00	83.0	4
S66216.0XR1.0	16.00	1.00	16.00	32.00	92.0	4
S66216.0XR2.0	16.00	2.00	16.00	32.00	92.0	4
S66216.0XR3.0	16.00	3.00	16.00	32.00	92.0	4
S66216.0XR4.0	16.00	4.00	16.00	32.00	92.0	4
S66220.0XR2.0	20.00	2.00	20.00	38.00	104.0	4
S66220.0XR4.0	20.00	4.00	20.00	38.00	104.0	4

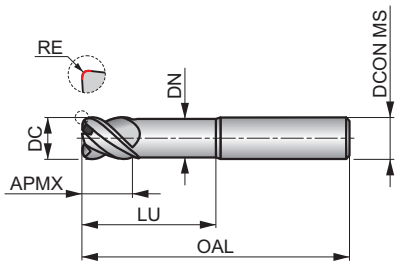
S521

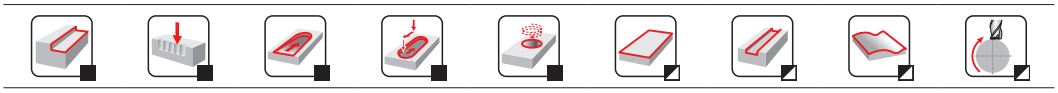
DORMER

4-Flute Solid Carbide Corner Radius End Mill

Extra short cut length, 4-flute design with different corner radius available and neck recess provides high rigidity for milling contours when corner radius is required. TiSiN coating improves performance and 45° helix is designed for high performance machining in hardened materials up to 63HRC.

HM	N	NOF 4
	λ 45°	γ -10°
DIN 6535HA	TiSiN	DC h9
	DORMER	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

H1.1	H2.1	H2.2	H3.1	H3.2	H4.1	H4.2
119 I	70 G	60 E	78 G	64 G	50 E	42 B

DCON MS tolerance h6; RE ±0.01 mm.

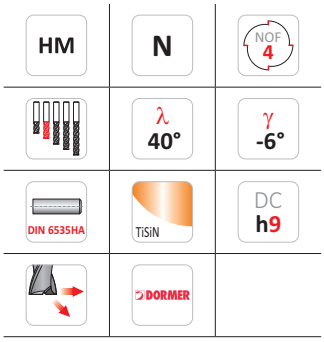
Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S5213.0XR0.3	3.00	0.30	6.00	4.00	60.0	4	14.00	2.80
S5214.0XR0.3	4.00	0.30	6.00	5.00	60.0	4	16.00	3.70
S5214.0XR0.5	4.00	0.50	6.00	5.00	60.0	4	16.00	3.70
S5215.0XR0.3	5.00	0.30	6.00	6.00	60.0	4	18.00	4.60
S5215.0XR0.5	5.00	0.50	6.00	6.00	60.0	4	18.00	4.60
S5216.0XR0.5	6.00	0.50	6.00	7.00	60.0	4	20.00	5.50
S5216.0XR1.0	6.00	1.00	6.00	7.00	60.0	4	20.00	5.50
S5218.0XR0.5	8.00	0.50	8.00	9.00	64.0	4	26.00	7.40
S5218.0XR1.0	8.00	1.00	8.00	9.00	64.0	4	26.00	7.40
S52110.0XR1.0	10.00	1.00	10.00	11.00	70.0	4	31.00	9.20
S52110.0XR2.0	10.00	2.00	10.00	11.00	70.0	4	31.00	9.20
S52112.0XR1.0	12.00	1.00	12.00	13.00	75.0	4	37.00	11.00
S52112.0XR2.0	12.00	2.00	12.00	13.00	75.0	4	37.00	11.00
S52116.0XR1.0	16.00	1.00	16.00	17.00	90.0	4	43.00	15.00
S52116.0XR2.0	16.00	2.00	16.00	17.00	90.0	4	43.00	15.00
S52116.0XR3.0	16.00	3.00	16.00	17.00	90.0	4	43.00	15.00

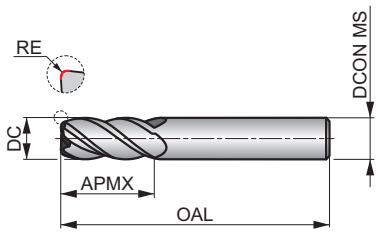
S523

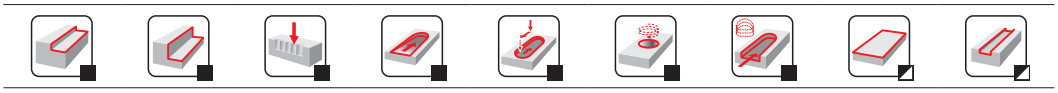
DORMER

4-Flute Solid Carbide Corner Radius End Mill

Short cut length, 4-flute design with different corner radius available provides high rigidity for standard profile milling where a corner radius is required. TiSiN coating improves performance and 40° helix is designed for high performance machining in hardened materials up to 63HRC.







Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

H1.1	H2.1	H2.2	H3.1	H3.2	H4.1	H4.2
119 I	70 G	60 E	78 G	64 G	50 E	42 B

DCON MS tolerance h6; RE ±0.01 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S5231.5XR0.2	1.50	0.20	6.00	4.50	50.0	4
S5232.0XR0.2	2.00	0.20	6.00	6.50	50.0	4
S5233.0XR0.2XD3	3.00	0.20	3.00	9.00	50.0	4
S5233.0XR0.3XD3	3.00	0.30	3.00	9.00	50.0	4
S5233.0XR0.2XD6	3.00	0.20	6.00	9.00	50.0	4
S5233.0XR0.3XD6	3.00	0.30	6.00	9.00	50.0	4
S5233.0XR0.5XD6	3.00	0.50	6.00	9.00	50.0	4
S5234.0XR0.3XD4	4.00	0.30	4.00	12.00	50.0	4
S5234.0XR0.5XD4	4.00	0.50	4.00	12.00	50.0	4
S5234.0XR0.3XD6	4.00	0.30	6.00	12.00	50.0	4
S5234.0XR0.5XD6	4.00	0.50	6.00	12.00	50.0	4
S5235.0XR0.3XD5	5.00	0.30	5.00	15.00	50.0	4
S5235.0XR0.5XD5	5.00	0.50	5.00	15.00	50.0	4
S5235.0XR0.3XD6	5.00	0.30	6.00	15.00	50.0	4
S5235.0XR0.5XD6	5.00	0.50	6.00	15.00	50.0	4
S5236.0XR0.3	6.00	0.30	6.00	16.00	50.0	4
S5236.0XR0.5	6.00	0.50	6.00	16.00	50.0	4
S5236.0XR1.0	6.00	1.00	6.00	16.00	50.0	4
S5238.0XR0.3	8.00	0.30	8.00	20.00	64.0	4
S5238.0XR0.5	8.00	0.50	8.00	20.00	64.0	4
S5238.0XR1.0	8.00	1.00	8.00	20.00	64.0	4
S5238.0XR2.0	8.00	2.00	8.00	20.00	64.0	4
S52310.0XR0.5	10.00	0.50	10.00	22.00	70.0	4
S52310.0XR1.0	10.00	1.00	10.00	22.00	70.0	4
S52310.0XR1.5	10.00	1.50	10.00	22.00	70.0	4
S52310.0XR2.0	10.00	2.00	10.00	22.00	70.0	4
S52312.0XR0.5	12.00	0.50	12.00	25.00	75.0	4
S52312.0XR1.0	12.00	1.00	12.00	25.00	75.0	4
S52312.0XR2.0	12.00	2.00	12.00	25.00	75.0	4
S52312.0XR3.0	12.00	3.00	12.00	25.00	75.0	4
S52316.0XR0.5	16.00	0.50	16.00	32.00	90.0	4

Product	DC	RE	DCON MS	APMX	OAL	NOF
	(mm)	(mm)	(mm)	(mm)	(mm)	
S52316.0XR1.0	16.00	1.00	16.00	32.00	90.0	4
S52316.0XR2.0	16.00	2.00	16.00	32.00	90.0	4
S52316.0XR3.0	16.00	3.00	16.00	32.00	90.0	4

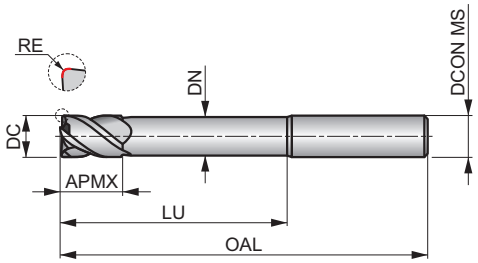
S524

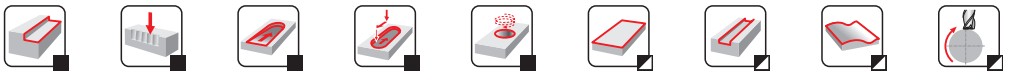
DORMER

4-Flute Solid Carbide Corner Radius End Mill, Long Reach

Extra short cut length, 4-flute design with different corner radius available and 40° helix provides high rigidity for profile milling in hard to reach areas where a corner radius is required. Neck recess to avoid work contact with the wall. TiSiN coating improves performance machining in hardened materials up to 63HRC.

HM	N	NOF 4
	λ 40°	γ -6°
DIN 6535HA	TiSiN	DC h9
	DORMER	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

H1.1	H2.1	H2.2	H3.1	H3.2	H4.1	H4.2
119 I	70 G	60 E	78 G	64 G	50 E	42 B

DCON MS tolerance h6; RE ±0.01 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S5243.0XR0.3	3.00	0.30	6.00	5.00	75.0	4	30.00	2.80
S5244.0XR0.3	4.00	0.30	6.00	8.00	75.0	4	32.00	3.70
S5244.0XR0.5	4.00	0.50	6.00	8.00	75.0	4	32.00	3.70
S5245.0XR0.3	5.00	0.30	6.00	9.00	75.0	4	32.00	4.60
S5245.0XR0.5	5.00	0.50	6.00	9.00	75.0	4	32.00	4.60
S5246.0XR0.3	6.00	0.30	6.00	10.00	75.0	4	40.00	5.50
S5246.0XR0.5	6.00	0.50	6.00	10.00	75.0	4	40.00	5.50
S5246.0XR1.0	6.00	1.00	6.00	10.00	75.0	4	40.00	5.50
S5248.0XR0.3	8.00	0.30	8.00	12.00	75.0	4	40.00	7.40
S5248.0XR0.5	8.00	0.50	8.00	12.00	75.0	4	40.00	7.40
S5248.0XR1.0	8.00	1.00	8.00	12.00	75.0	4	40.00	7.40
S52410.0XR0.5	10.00	0.50	10.00	14.00	75.0	4	40.00	9.20
S52410.0XR1.0	10.00	1.00	10.00	14.00	75.0	4	40.00	9.20
S52410.0XR2.0	10.00	2.00	10.00	14.00	75.0	4	40.00	9.20
S52412.0XR0.5	12.00	0.50	12.00	16.00	100.0	4	60.00	11.00
S52412.0XR1.0	12.00	1.00	12.00	16.00	100.0	4	60.00	11.00
S52412.0XR2.0	12.00	2.00	12.00	16.00	100.0	4	60.00	11.00
S52416.0XR0.5	16.00	0.50	16.00	22.00	125.0	4	85.00	15.00
S52416.0XR1.0	16.00	1.00	16.00	22.00	125.0	4	85.00	15.00
S52416.0XR2.0	16.00	2.00	16.00	22.00	125.0	4	85.00	15.00
S52416.0XR3.0	16.00	3.00	16.00	22.00	125.0	4	85.00	15.00

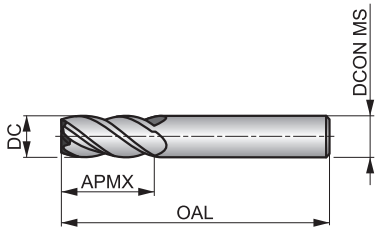
S561

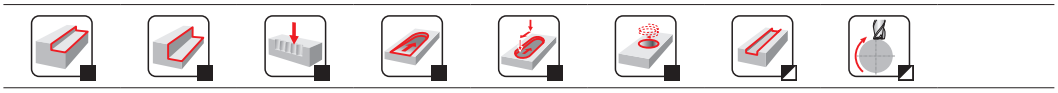
DORMER

4-Flute Solid Carbide End Mill

Medium cut length, 4-flute design with 40° helix and gash-land to enable milling hard materials up to 70HRC. TiSiN coating improves performance and the differential pitch reduces vibrations, maximizing productivity and tool life. Square end design to produce sharp corners.

HM	N	NOF 4
	λ 40°	γ -6°
DIN 6535HA	TiSiN	DC h9
	DORMER	





Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

H1.1	H2.1	H2.2	H3.1	H3.2	H4.1	H4.2
119 I	70 G	60 E	78 G	64 G	50 E	42 B

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S5611.0	1.00	6.00	3.00	50.0	4
S5611.5	1.50	6.00	4.50	50.0	4
S5612.0	2.00	6.00	6.50	50.0	4
S5612.5	2.50	6.00	6.50	50.0	4
S5613.0	3.00	6.00	9.00	50.0	4
S5614.0	4.00	6.00	12.00	50.0	4
S5615.0	5.00	6.00	15.00	50.0	4
S5616.0	6.00	6.00	20.00	60.0	4
S5618.0	8.00	8.00	20.00	64.0	4
S56110.0	10.00	10.00	22.00	70.0	4
S56112.0	12.00	12.00	25.00	75.0	4
S56114.0	14.00	14.00	32.00	90.0	4
S56116.0	16.00	16.00	32.00	90.0	4
S56118.0	18.00	18.00	38.00	100.0	4
S56120.0	20.00	20.00	38.00	100.0	4

Material code (BMC)	HM	HM	HM	HM	HM	HM							
Mill Profile	N	N	N	N	N	N							
Number of flutes (NOF)	NOF 6-8	NOF 6-8	NOF 6-8	NOF 6-8	NOF 6-8	NOF 6-8							
Cut length													
Flute Helix (FHA)	λ 50°	λ 50°	λ 50°	λ 50°	λ 50°	λ 50°							
Flute Helix (FHA)	λ 50°	λ 50°	λ 50°	λ 50°	λ 50°	λ 50°							
Radial rake angle (GAMF)	γ 3°	γ 3°	γ 3°	γ -26°	γ -26°	γ -26°							
Shank	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA							
Coating	AlTiN	AlTiN	AlTiN	TiSiN	TiSiN	TiSiN							
Cutting diameter tolerance class (TCDC)	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9							
Direction													
Basic standard group (BSG)	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER							
													
Product Family Code	S225	S226	S227	S525	S526	S527							
PSF cutting diameters range	3.00 – 20.00	3.00 – 20.00	6.00 – 20.00	3.00 – 20.00	3.00 – 20.00	3.00 – 20.00							
	146	147	148	149	150	151							
P	P1												
	P2												
	P3												
	P4	◪	◪	◪									
M	M1												
	M2	■	■	■									
	M3	■	■	■									
	M4	■	■	■									
K	K1												
	K2												
	K3												
	K4												
	K5												
N	N1												
	N2												
	N3												
	N4												
	N5												
S	S1	■	■	■									
	S2	■	■	■									
	S3	■	■	■									
	S4	■	■	■									
H	H1				■	■	■						
	H2				■	■	■						
	H3				■	■	■						
	H4				■	■	■						

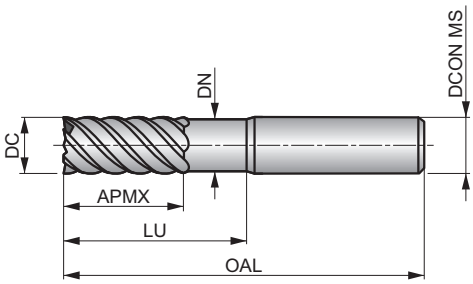
■ Primary use ◪ Possible use

S225

Multi-Flute Solid Carbide Finishing End Mill

Short cut length, 6 or 8 flute design provides high rigidity for profile finishing of deep walls. Neck recess to avoid work contact with the wall and extend reach. AlTiN coating increases tool life and improves performance when milling difficult to machine materials. The 50° helix is designed for high surface finish quality.

HM	N	NOF 6-8
	λ 50°	γ 3°
DIN 6535HA	AlTiN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P4.3	M2.3	M3.3	M4.1	M4.2	S1.3	S2.2	S3.2	S4.2
80 G	80 G	82 F	80 F	68 F	58 F	47 F	33 F	27 F

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S2253.0	3.00	6.00	8.00	50.0	6	20.00	2.80
S2254.0	4.00	6.00	11.00	50.0	6	20.00	3.70
S2256.0	6.00	6.00	15.00	50.0	6	20.00	5.50
S2258.0	8.00	8.00	20.00	64.0	6	30.00	7.40
S22510.0	10.00	10.00	22.00	70.0	6	32.00	9.20
S22512.0	12.00	12.00	25.00	75.0	6	37.00	11.00
S22514.0	14.00	14.00	30.00	90.0	6	44.00	13.00
S22516.0	16.00	16.00	30.00	90.0	8	46.00	15.00
S22518.0	18.00	18.00	35.00	100.0	8	53.00	17.00
S22520.0	20.00	20.00	38.00	100.0	8	58.00	19.00

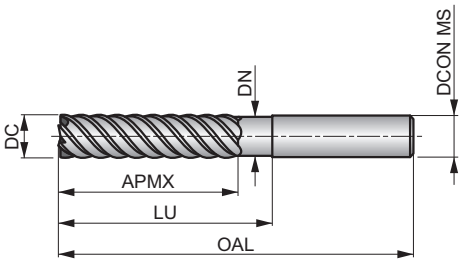
S226

DORMER

Multi-Flute Solid Carbide Finishing End Mill, Long Series

Long cut length, 6 or 8 flute design provides high rigidity for finishing of deeper walls. Neck recess to avoid work contact with the wall and extend reach. AlTiN coating increases service life and improves performance when milling difficult to machine materials. The 50° helix is designed for high surface finish quality.

HM	N	NOF 6-8
	λ 50°	γ 3°
DIN 6535HA	AlTiN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P4.3	M2.3	M3.3	M4.1	M4.2	S1.3	S2.2	S3.2	S4.2
64 G	64 G	65 F	64 F	54 F	46 F	38 F	26 F	22 F

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S2263.0	3.00	6.00	19.00	75.0	6	30.00	2.80
S2264.0	4.00	6.00	19.00	75.0	6	32.00	3.70
S2266.0	6.00	6.00	31.00	75.0	6	40.00	5.50
S2268.0	8.00	8.00	31.00	75.0	6	40.00	7.40
S22610.0	10.00	10.00	45.00	100.0	6	60.00	9.20
S22612.0	12.00	12.00	50.00	100.0	6	60.00	11.00
S22614.0	14.00	14.00	57.00	125.0	6	85.00	13.00
S22616.0	16.00	16.00	57.00	125.0	8	85.00	15.00
S22618.0	18.00	18.00	57.00	125.0	8	85.00	17.00
S22620.0	20.00	20.00	57.00	125.0	8	85.00	19.00

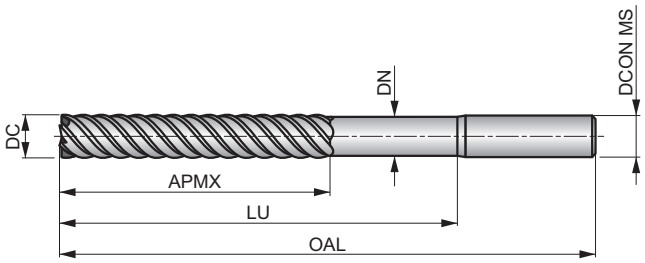
S227

DORMER

Multi-Flute Solid Carbide Finishing End Mill, Extra Long Series

Extra long cut length, 6 or 8 flute design provides high rigidity for finishing of extra deep walls. Neck recess to avoid work contact with the wall and extend reach. AlTiN coating increases tool life and improves performance when milling difficult to machine materials. The 50° helix is designed for high surface finish quality.

HM	N	NOF 6-8
	λ 50°	γ 3°
DIN 6535HA	AlTiN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P4.3	M2.3	M3.3	M4.1	M4.2	S1.3	S2.2	S3.2	S4.2
40 G	40 G	41 F	40 F	34 F	29 F	24 F	17 F	14 F

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S2276.0	6.00	6.00	38.00	100.0	6	60.00	5.50
S2278.0	8.00	8.00	41.00	100.0	6	60.00	7.40
S22710.0	10.00	10.00	57.00	125.0	6	85.00	9.20
S22712.0	12.00	12.00	75.00	150.0	6	110.00	11.00
S22714.0	14.00	14.00	75.00	150.0	6	110.00	13.00
S22716.0	16.00	16.00	75.00	150.0	8	110.00	15.00
S22718.0	18.00	18.00	75.00	150.0	8	110.00	17.00
S22720.0	20.00	20.00	75.00	150.0	8	110.00	19.00

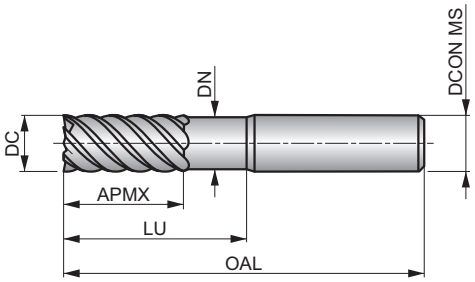
S525

DORMER

Multi-Flute Solid Carbide Finishing End Mill

Short cut length, 6 or 8 flute design with 50° helix provides high rigidity for finishing of deep walls. Neck recess to avoid work contact with the wall and extend reach. TiSiN coating increases tool life and improves performance when milling hardened materials up to 63HRC.

HM	N	NOF 6-8
	λ 50°	γ -26°
DIN 6535HA	TiSiN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

H1.1	H2.1	H2.2	H3.1	H3.2	H4.1	H4.2
119 G	70 G	60 E	78 G	64 G	50 E	42 A

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S5253.0	3.00	6.00	8.00	50.0	6	20.00	2.80
S5254.0	4.00	6.00	11.00	50.0	6	20.00	3.70
S5256.0	6.00	6.00	15.00	50.0	6	20.00	5.50
S5258.0	8.00	8.00	20.00	64.0	6	30.00	7.40
S52510.0	10.00	10.00	22.00	70.0	6	32.00	9.20
S52512.0	12.00	12.00	25.00	75.0	6	37.00	11.00
S52514.0	14.00	14.00	30.00	90.0	6	44.00	13.00
S52516.0	16.00	16.00	30.00	90.0	8	46.00	15.00
S52518.0	18.00	18.00	35.00	100.0	8	53.00	17.00
S52520.0	20.00	20.00	38.00	100.0	8	58.00	19.00

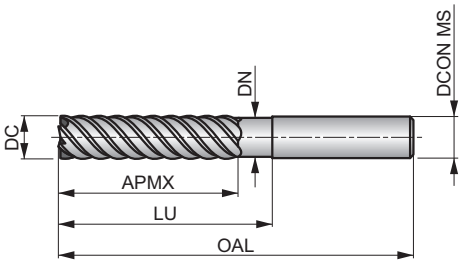
S526

DORMER

Multi-Flute Solid Carbide Finishing End Mill, Long Series

Long cut length, 6 or 8 flute design with 50° helix provides high rigidity for finishing of deeper walls. Neck recess to avoid work contact with the wall and extend reach. TiSiN coating increases tool life and improves performance when milling hardened materials up to 63HRC.

HM	N	NOF 6-8
	λ 50°	γ -26°
DIN 6535HA	TiSiN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

H1.1	H2.1	H2.2	H3.1	H3.2	H4.1	H4.2
96 G	57 G	49 E	63 G	52 G	40 E	34 A

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S5263.0	3.00	6.00	19.00	75.0	6	30.00	2.80
S5264.0	4.00	6.00	19.00	75.0	6	32.00	3.70
S5266.0	6.00	6.00	31.00	75.0	6	40.00	5.50
S5268.0	8.00	8.00	31.00	75.0	6	40.00	7.40
S52610.0	10.00	10.00	45.00	100.0	6	60.00	9.20
S52612.0	12.00	12.00	50.00	100.0	6	60.00	11.00
S52614.0	14.00	14.00	57.00	125.0	6	85.00	13.00
S52616.0	16.00	16.00	57.00	125.0	8	85.00	15.00
S52618.0	18.00	18.00	57.00	125.0	8	85.00	17.00
S52620.0	20.00	20.00	57.00	125.0	8	85.00	19.00

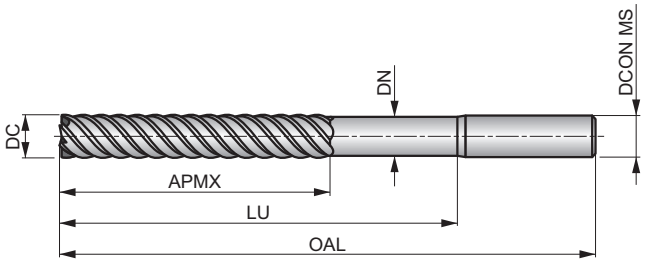
S527

DORMER

Multi-Flute Solid Carbide Finishing End Mill, Extra Long Series

Extra long cut length, 6 or 8 flute design with 50° helix provides high rigidity for finishing of extra deep walls. Neck recess to avoid work contact with the wall and extend reach. TiSiN coating increases service life and improves performance when milling hardened materials up to 63HRC.

HM	N	NOF 6-8
	λ 50°	γ -26°
DIN 6535HA	TiSiN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

H1.1	H2.1	H2.2	H3.1	H3.2	H4.1	H4.2
59 G	35 G	30 E	39 G	32 G	25 E	21 A

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S5273.0	3.00	6.00	25.00	100.0	6	60.00	2.80
S5274.0	4.00	6.00	31.00	100.0	6	60.00	3.70
S5276.0	6.00	6.00	38.00	100.0	6	60.00	5.50
S5278.0	8.00	8.00	41.00	100.0	6	60.00	7.40
S52710.0	10.00	10.00	57.00	125.0	6	85.00	9.20
S52712.0	12.00	12.00	75.00	150.0	6	110.00	11.00
S52716.0	16.00	16.00	75.00	150.0	8	110.00	15.00
S52720.0	20.00	20.00	75.00	150.0	8	110.00	19.00

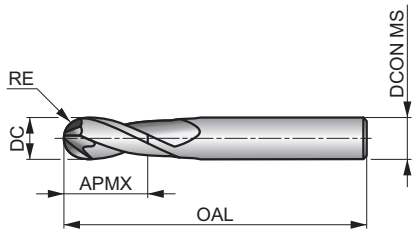
Material code (BMC)	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	
Mill Profile	N	N	N	N	N	W	N	N	N	N	N	N	
Number of flutes (NOF)	NOF 2	NOF 4	NOF 2	NOF 2	NOF 2	NOF 2	NOF 2	NOF 2	NOF 2	NOF 4	NOF 4	NOF 3-4	
Cut length													
Flute Helix (FHA)	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	
Flute Helix (FHA)	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	λ 30°	
Radial rake angle (GAMF)	γ 10°	γ 10°	γ 3°	γ 3°	γ 3°	γ 15°	γ -10°	γ -10°	γ -10°	γ -10°	γ -10°	γ 8°	
Shank	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HA	
Coating	X-CEED	X-CEED	TiSiN	TiSiN	TiSiN	Bright	TiSiN	TiSiN	TiSiN	TiSiN	TiSiN	AlCrN	
Cutting diameter tolerance class (TCDC)	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9	DC h9		
Direction													
Basic standard group (BSG)	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	
													
Product Family Code	S501	S511	S229	S231	S233	S629	S529	S531	S533	S534	S535	S791	
PSF cutting diameters range	1.00 – 16.00	3.00 – 16.00	1.50 – 16.00	1.50 – 16.00	2.00 – 16.00	1.00 – 20.00	1.50 – 16.00	1.50 – 16.00	2.00 – 16.00	3.00 – 16.00	3.00 – 16.00	6.00 – 16.00	
	154	155	156	157	158	159	160	161	162	163	164	165	
P	P1	■	■										■
	P2	■	■										■
	P3	■	■										■
	P4	■	■	◪	◪	◪							■
M	M1	■	■										■
	M2	■	■	■	■	■							■
	M3	◪	◪	■	■	■							◪
	M4	◪	◪	■	■	■							◪
K	K1	■	■										■
	K2	■	■										■
	K3	■	■										■
	K4	■	■										■
	K5	■	■										■
N	N1	◪	◪				■						◪
	N2	◪	◪				■						◪
	N3	■	■				■						■
	N4	◪	◪				■						◪
	N5												
S	S1	◪	◪	■	■	■							◪
	S2	◪	◪	■	■	■							◪
	S3	◪	◪	■	■	■							◪
	S4	◪	◪	■	■	■							◪
H	H1							■	■	■	■	■	
	H2							■	■	■	■	■	
	H3							■	■	■	■	■	
	H4							■	■	■	■	■	

■ Primary use ◪ Possible use

S501

2-Flute Solid Carbide Ball-Nosed End Mill

Short cut length, 2-flute design reduces vibrations and provides increased strength. Ball nosed geometry is designed for high performance contouring of complex surfaces. The X-CEED coating provides improved performance for milling difficult to machine materials.



HM	N	NOF 2
	λ 30°	γ 10°
DIN 6535HA	X-CEED	DC h9
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■161 F	■181 F	■186 F	■138 F	■121 F	■108 F	■112 F	■90 F	■76 F	■66 F	■57 F	◪46 F	■94 F	■79 F
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
■83 F	■69 F	◪77 F	◪66 F	◪59 E	◪58 E	■161 F	■119 F	■89 F	■165 F	■134 F	■107 F	■146 F	■112 F
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**
■90 F	■136 F	■102 F	■75 F	■64 E	■54 E	■154 F	■115 F	■89 F	◪355 G	◪267 G	◪179 G	◪179 F	◪160 F
N2.3	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**			
◪115 F	■187 F	■109 F	◪56 F	◪187 F	◪72 F	◪126 F	◪112 F	◪86 E	◪65 E	◪51 E			

DCON MS tolerance h6; RE ±0.01 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S5011.0	1.00	0.50	3.00	3.00	38.0	2
S5011.5	1.50	0.75	3.00	3.00	38.0	2
S5012.0	2.00	1.00	3.00	6.00	38.0	2
S5012.5	2.50	1.25	3.00	7.00	38.0	2
S5013.0	3.00	1.50	3.00	7.00	38.0	2
S5014.0	4.00	2.00	6.00	8.00	57.0	2
S5015.0	5.00	2.50	6.00	10.00	57.0	2
S5016.0	6.00	3.00	6.00	10.00	57.0	2
S5017.0	7.00	3.50	8.00	13.00	63.0	2
S5018.0	8.00	4.00	8.00	16.00	63.0	2
S5019.0	9.00	4.50	10.00	16.00	72.0	2
S50110.0	10.00	5.00	10.00	19.00	72.0	2
S50112.0	12.00	6.00	12.00	22.00	83.0	2
S50116.0	16.00	8.00	16.00	26.00	92.0	2

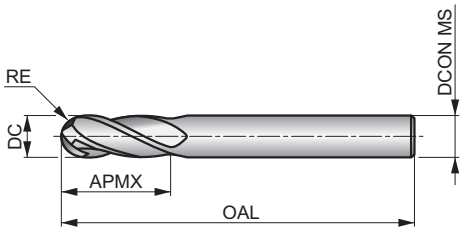
S511

DORMER

4-Flute Solid Carbide Ball-Nosed End Mill, Extra Long Reach

Short cut length, extra long reach, 4-flute design provides high rigidity for increased strength and reduces vibrations in deeper applications. Ball nosed geometry is designed for high performance contouring of complex surfaces. X-CEED coating provides improved performance for milling difficult to machine materials.

HM	N	NOF 4
	λ 30°	γ 10°
DIN 6535HA	X-CEED	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■161 E	■181 E	■186 E	■138 E	■121 E	■108 E	■112 E	■90 E	■76 E	■66 E	■57 E	◪46 E	■94 E	■79 E
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
■83 E	■69 E	◪77 E	◪66 E	◪59 D	◪58 D	■161 E	■119 E	■89 E	■165 E	■134 E	■107 E	■146 E	■112 E
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**
■90 E	■136 E	■102 E	■75 E	■64 D	■54 D	■154 E	■115 E	■89 E	◪355 F	◪267 F	◪179 F	◪179 E	◪160 E
N2.3	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**			
◪115 E	■187 E	■109 E	◪56 E	◪187 E	◪72 E	◪126 E	◪112 E	◪86 D	◪65 D	◪51 D			

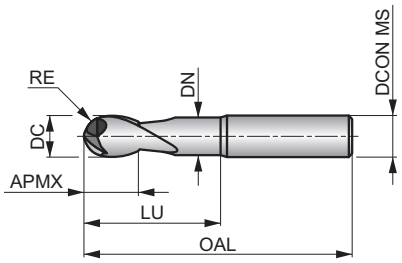
DCON MS tolerance h6; RE +0/-0.01 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S5113.0	3.00	1.50	6.00	8.00	80.0	4
S5114.0	4.00	2.00	6.00	11.00	80.0	4
S5115.0	5.00	2.50	6.00	13.00	80.0	4
S5116.0	6.00	3.00	6.00	13.00	80.0	4
S5117.0	7.00	3.50	8.00	16.00	100.0	4
S5118.0	8.00	4.00	8.00	19.00	100.0	4
S5119.0	9.00	4.50	10.00	19.00	100.0	4
S51110.0	10.00	5.00	10.00	22.00	100.0	4
S51112.0	12.00	6.00	12.00	26.00	100.0	4
S51116.0	16.00	8.00	16.00	32.00	100.0	4

S229

2-Flute Solid Carbide Ball-Nosed End Mill

Extra short cut length, 2-flute design with neck recess reduces vibrations and provides high rigidity. Ball nosed geometry is designed for high performance contouring of complex surfaces. TiSiN coating increases service life of the milling cutter and improves performance when milling difficult to machine materials.



HM	N	NOF 2
	λ 30°	γ 3°
DIN 6535HA	TiSiN	DC h9
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P4.3	M2.3	M3.3	M4.1	M4.2	S1.3	S2.2	S3.2	S4.2
80 F	80 F	82 F	80 F	68 F	58 F	47 F	33 F	27 F

DCON MS tolerance h6; RE +0/-0.02 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S2291.5XD4	1.50	0.75	4.00	3.00	50.0	2	6.00	1.40
S2292.0XD3	2.00	1.00	3.00	4.00	50.0	2	8.00	1.90
S2292.0XD4	2.00	1.00	4.00	4.00	50.0	2	8.00	1.90
S2293.0XD3	3.00	1.50	3.00	5.00	50.0	2	14.00	2.80
S2293.0XD6	3.00	1.50	6.00	5.00	50.0	2	14.00	2.80
S2294.0XD4	4.00	2.00	4.00	8.00	50.0	2	20.00	3.70
S2294.0XD6	4.00	2.00	6.00	8.00	50.0	2	20.00	3.70
S2295.0XD5	5.00	2.50	5.00	9.00	50.0	2	20.00	4.60
S2295.0XD6	5.00	2.50	6.00	9.00	50.0	2	20.00	4.60
S2296.0	6.00	3.00	6.00	10.00	50.0	2	20.00	5.50
S2298.0	8.00	4.00	8.00	12.00	64.0	2	30.00	7.40
S22910.0	10.00	5.00	10.00	14.00	70.0	2	32.00	9.20
S22912.0	12.00	6.00	12.00	16.00	75.0	2	38.00	11.00
S22914.0	14.00	7.00	14.00	32.00	90.0	2	44.00	13.00
S22916.0	16.00	8.00	16.00	32.00	90.0	2	46.00	15.00

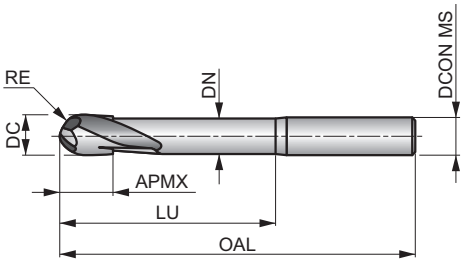
S231

DORMER

2-Flute Solid Carbide Ball-Nosed End Mill, Long Reach

Extra short cut length, long reach, 2-flute design with neck recess provides high rigidity and reduces vibrations. Ball nosed geometry is designed for high performance contouring of complex surfaces. TiSiN coating increases tool life and improves performance when milling difficult to machine materials.

HM	N	NOF 2
	λ 30°	γ 3°
DIN 6535HA	TiSiN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P4.3	M2.3	M3.3	M4.1	M4.2	S1.3	S2.2	S3.2	S4.2
64 F	64 F	65 F	64 F	54 F	46 F	38 F	26 F	22 F

DCON MS tolerance h6; RE +0/-0.02 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S2311.5XD4	1.50	0.75	4.00	3.00	75.0	2	10.00	1.40
S2312.0XD3	2.00	1.00	3.00	4.00	60.0	2	14.00	1.90
S2312.0XD4	2.00	1.00	4.00	4.00	75.0	2	14.00	1.90
S2313.0XD3	3.00	1.50	3.00	5.00	60.0	2	21.00	2.80
S2313.0XD6	3.00	1.50	6.00	5.00	75.0	2	21.00	2.80
S2314.0XD4	4.00	2.00	4.00	8.00	60.0	2	28.00	3.70
S2314.0XD6	4.00	2.00	6.00	8.00	75.0	2	28.00	3.70
S2315.0	5.00	2.50	5.00	9.00	60.0	2	32.00	4.60
S2316.0	6.00	3.00	6.00	10.00	75.0	2	40.00	5.50
S2318.0	8.00	4.00	8.00	10.00	75.0	2	40.00	7.40
S23110.0	10.00	5.00	10.00	12.00	75.0	2	40.00	9.20
S23112.0	12.00	6.00	12.00	16.00	100.0	2	60.00	11.00
S23116.0	16.00	8.00	16.00	32.00	125.0	2	80.00	15.00

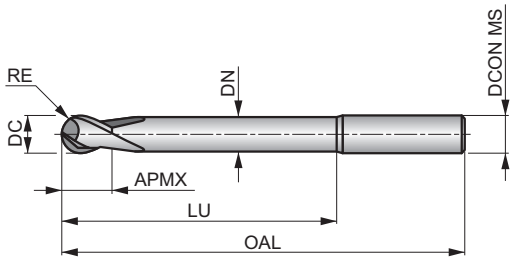
S233

DORMER

2-Flute Solid Carbide Ball-Nosed End Mill, Extra Long Reach

Extra short cut length, extra long reach, 2-flute design with neck recess provides high rigidity and reduces vibrations. Ball nosed geometry is designed for high performance contouring of complex surfaces. TiSiN coating increases tool life and improves performance when milling difficult to machine materials.

HM	N	NOF 2
	λ 30°	γ 3°
DIN 6535HA	TiSiN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P4.3	M2.3	M3.3	M4.1	M4.2	S1.3	S2.2	S3.2	S4.2
40 F	40 F	41 F	40 F	34 F	29 F	24 F	17 F	14 F

DCON MS tolerance h6; RE +0/-0.02 mm.

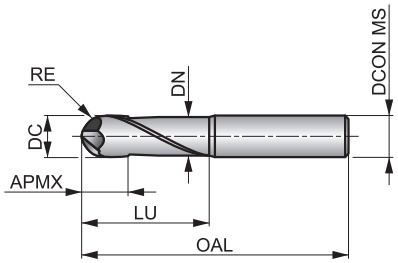
Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S2332.0XD3	2.00	1.00	3.00	4.00	100.0	2	20.00	1.90
S2332.0XD4	2.00	1.00	4.00	4.00	100.0	2	20.00	1.90
S2333.0XD3	3.00	1.50	3.00	5.00	100.0	2	30.00	2.80
S2333.0XD6	3.00	1.50	6.00	5.00	100.0	2	30.00	2.80
S2334.0XD4	4.00	2.00	4.00	8.00	100.0	2	40.00	3.70
S2334.0XD6	4.00	2.00	6.00	8.00	100.0	2	40.00	3.70
S2335.0	5.00	2.50	5.00	9.00	100.0	2	50.00	4.60
S2336.0	6.00	3.00	6.00	10.00	100.0	2	60.00	5.50
S2338.0	8.00	4.00	8.00	12.00	100.0	2	60.00	7.40
S23310.0	10.00	5.00	10.00	14.00	125.0	2	85.00	9.20
S23312.0	12.00	6.00	12.00	16.00	125.0	2	85.00	11.00
S23314.0	14.00	7.00	14.00	32.00	150.0	2	110.00	13.00
S23316.0	16.00	8.00	16.00	32.00	150.0	2	110.00	15.00

S629

DORMER

2-Flute Solid Carbide Ball-Nosed End Mill

Extra short cut length, 2-flute design with neck recess reduces vibrations and provides high rigidity. Ball nosed geometry is designed for high performance contouring of complex surfaces in non-ferrous materials.



HM	W	NOF 2
	λ 30°	γ 15°
DIN 6535HA	Bright	DC h9
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N3.3	N4.1	N4.2
■ 709 N	■ 533 N	■ 357 N	■ 357 N	■ 320 N	■ 229 N	■ 373 N	■ 219 N	■ 112 N	■ 373 O	■ 144 O

DCON MS tolerance h6; RE +0/-0.02 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S6291.0 [1]	1.00	0.50	4.00	0.80	50.0	2	10.00	0.90
S6291.5 [1]	1.50	0.75	4.00	1.20	50.0	2	12.00	1.40
S6292.0 [1]	2.00	1.00	4.00	1.60	60.0	2	18.00	1.90
S6293.0	3.00	1.50	6.00	5.00	57.0	2	20.00	2.80
S6294.0	4.00	2.00	6.00	6.00	57.0	2	20.00	3.70
S6295.0	5.00	2.50	6.00	7.00	57.0	2	20.00	4.60
S6296.0	6.00	3.00	6.00	8.00	57.0	2	20.00	5.50
S6298.0	8.00	4.00	8.00	10.00	64.0	2	25.00	7.40
S62910.0	10.00	5.00	10.00	12.00	75.0	2	35.00	9.20
S62912.0	12.00	6.00	12.00	14.00	75.0	2	35.00	11.00
S62916.0	16.00	8.00	16.00	18.00	90.0	2	45.00	15.00
S62920.0	20.00	10.00	20.00	22.00	100.0	2	50.00	19.00

[1] Rake angle 11°.

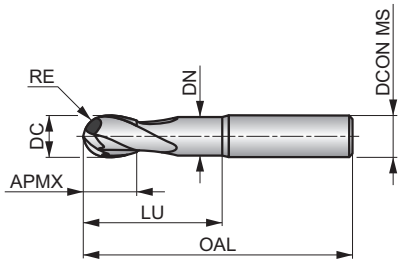
S529

DORMER

2-Flute Solid Carbide Ball-Nosed End Mill

Extra short cut length, 2-flute design with neck recess provides high rigidity and reduces vibrations. Ball nosed geometry is designed for high performance contouring of complex surfaces. TiSiN coating increases tool life and improves performance when machining hardened materials up to 63HRC.

HM	N	NOF 2
	λ 30°	γ -10°
DIN 6535HA	TiSiN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

H1.1	H2.1	H2.2	H3.1	H3.2	H4.1	H4.2
119 F	70 E	60 D	78 E	64 E	50 D	42 A

DCON MS tolerance h6; RE +0/-0.02 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S5291.5	1.50	0.75	6.00	3.00	50.0	2	6.00	1.40
S5292.0XD4	2.00	1.00	4.00	4.00	50.0	2	8.00	1.90
S5292.0XD6	2.00	1.00	6.00	4.00	50.0	2	8.00	1.90
S5293.0XD3	3.00	1.50	3.00	5.00	50.0	2	14.00	2.80
S5293.0XD6	3.00	1.50	6.00	5.00	50.0	2	14.00	2.80
S5294.0XD4	4.00	2.00	4.00	8.00	50.0	2	20.00	3.70
S5294.0XD6	4.00	2.00	6.00	8.00	50.0	2	20.00	3.70
S5295.0XD5	5.00	2.50	5.00	9.00	50.0	2	20.00	4.60
S5295.0XD6	5.00	2.50	6.00	9.00	50.0	2	20.00	4.60
S5296.0	6.00	3.00	6.00	10.00	50.0	2	20.00	5.50
S5298.0	8.00	4.00	8.00	12.00	64.0	2	30.00	7.40
S52910.0	10.00	5.00	10.00	14.00	70.0	2	32.00	9.20
S52912.0	12.00	6.00	12.00	16.00	75.0	2	38.00	11.00
S52916.0	16.00	8.00	16.00	32.00	90.0	2	46.00	15.00

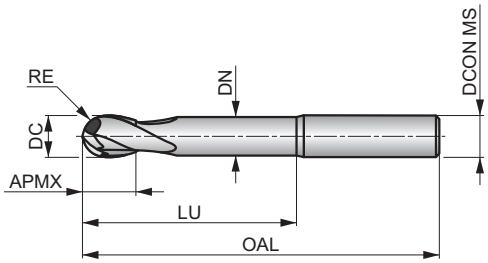
S531

DORMER

2-Flute Solid Carbide Ball-Nosed End Mill, Long Reach

Extra short cut length, long reach, 2-flute design with neck recess provides high rigidity and reduces vibrations. Ball nosed geometry is designed for high performance contouring of complex surfaces. TiSiN coating increases tool life and improves performance when machining hardened materials up to 63HRC.

HM	N	NOF 2
	λ 30°	γ -10°
DIN 6535HA	TiSiN	DC h9
	DORMER	



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

H1.1	H2.1	H2.2	H3.1	H3.2	H4.1	H4.2
96 F	57 E	49 D	63 E	52 E	40 D	34 A

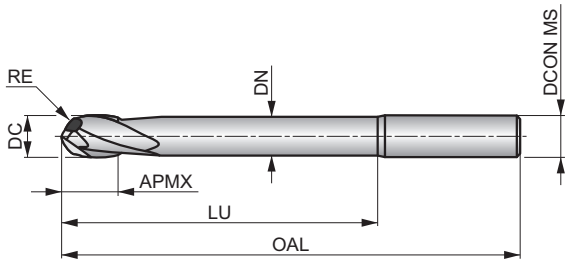
DCON MS tolerance h6; RE +0/-0.02 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S5311.5	1.50	0.75	6.00	3.00	75.0	2	10.00	1.40
S5312.0XD4	2.00	1.00	4.00	4.00	75.0	2	14.00	1.90
S5312.0XD6	2.00	1.00	6.00	4.00	75.0	2	14.00	1.90
S5313.0XD3	3.00	1.50	3.00	5.00	60.0	2	21.00	2.80
S5313.0XD6	3.00	1.50	6.00	5.00	75.0	2	21.00	2.80
S5314.0XD4	4.00	2.00	4.00	8.00	60.0	2	28.00	3.70
S5314.0XD6	4.00	2.00	6.00	8.00	75.0	2	28.00	3.70
S5315.0XD5	5.00	2.50	5.00	9.00	60.0	2	32.00	4.60
S5315.0XD6	5.00	2.50	6.00	9.00	75.0	2	32.00	4.60
S5316.0	6.00	3.00	6.00	10.00	75.0	2	40.00	5.50
S5318.0	8.00	4.00	8.00	12.00	75.0	2	40.00	7.40
S53110.0	10.00	5.00	10.00	14.00	75.0	2	40.00	9.20
S53112.0	12.00	6.00	12.00	16.00	100.0	2	60.00	11.00
S53116.0	16.00	8.00	16.00	32.00	125.0	2	80.00	15.00

S533

2-Flute Solid Carbide Ball-Nosed End Mill, Extra Long Reach

Extra short cut length, extra long reach, 2-flute design with neck recess provides high rigidity and reduces vibrations. Ball nosed geometry is designed for high performance contouring of complex surfaces. TiSiN coating increases tool life and improves performance when machining hardened materials up to 63HRC.



HM	N	NOF 2
	λ 30°	γ -10°
DIN 6535HA	TiSiN	DC h9
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

H1.1	H2.1	H2.2	H3.1	H3.2	H4.1	H4.2
59 F	35 E	30 D	39 E	32 E	25 D	21 A

DCON MS tolerance h6; RE +0/-0.02 mm.

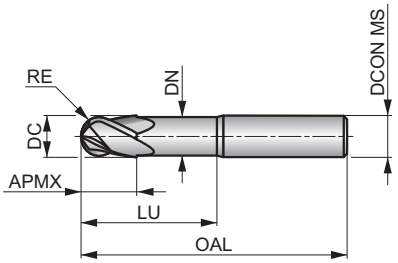
Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S5332.0XD4	2.00	1.00	4.00	4.00	100.0	2	20.00	1.90
S5332.0XD6	2.00	1.00	6.00	4.00	100.0	2	20.00	1.90
S5333.0XD4	3.00	1.50	4.00	5.00	100.0	2	30.00	2.80
S5333.0XD6	3.00	1.50	6.00	5.00	100.0	2	30.00	2.80
S5334.0XD4	4.00	2.00	4.00	8.00	100.0	2	40.00	3.70
S5334.0XD6	4.00	2.00	6.00	8.00	100.0	2	40.00	3.70
S5335.0XD5	5.00	2.50	5.00	9.00	100.0	2	50.00	4.60
S5335.0XD6	5.00	2.50	6.00	9.00	100.0	2	50.00	4.60
S5336.0	6.00	3.00	6.00	10.00	100.0	2	60.00	5.50
S5338.0	8.00	4.00	8.00	12.00	100.0	2	60.00	7.40
S53310.0	10.00	5.00	10.00	14.00	125.0	2	85.00	9.20
S53312.0	12.00	6.00	12.00	16.00	125.0	2	85.00	11.00
S53314.0	14.00	7.00	14.00	32.00	150.0	2	110.00	13.00
S53316.0	16.00	8.00	16.00	32.00	150.0	2	110.00	15.00

S534

DORMER

4-Flute Solid Carbide Ball-Nosed End Mill

Extra short cut length, 4-flute design with neck recess reduces vibrations and provides high rigidity. Ball nosed geometry is designed for high performance contouring of complex surfaces. TiSiN coating increases tool life and improves performance when machining hardened materials up to 63HRC.



HM	N	NOF 4
	λ 30°	γ -10°
DIN 6535HA	TiSiN	DC h9
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

H1.1	H2.1	H2.2	H3.1	H3.2	H4.1	H4.2
119 E	70 D	60 C	78 D	64 D	50 C	42 A

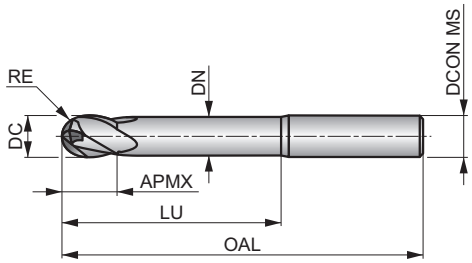
DCON MS tolerance h6; RE +0/-0.02 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S5343.0	3.00	1.50	6.00	5.00	50.0	4	14.00	2.80
S5344.0	4.00	2.00	6.00	8.00	50.0	4	20.00	3.70
S5345.0	5.00	2.50	6.00	9.00	50.0	4	20.00	4.60
S5346.0	6.00	3.00	6.00	10.00	50.0	4	20.00	5.50
S5348.0	8.00	4.00	8.00	12.00	64.0	4	30.00	7.40
S53410.0	10.00	5.00	10.00	14.00	70.0	4	32.00	9.20
S53412.0	12.00	6.00	12.00	16.00	75.0	4	38.00	11.00
S53414.0	14.00	7.00	14.00	32.00	90.0	4	44.00	13.00
S53416.0	16.00	8.00	16.00	32.00	90.0	4	46.00	15.00

S535

4-Flute Solid Carbide Ball-Nosed End Mill, Long Reach

Extra short cut length, long reach, 4-flute design with neck recess reduces vibrations and provides high rigidity. Ball nosed geometry is designed for high performance contouring of complex surfaces. TiSiN coating increases tool life and improves performance when machining hardened materials up to 63HRC.



HM	N	NOF 4
	λ 30°	γ -10°
DIN 6535HA	TiSiN	DC h9
	DORMER	

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

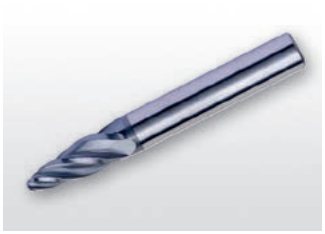
H1.1	H2.1	H2.2	H3.1	H3.2	H4.1	H4.2
96 E	57 D	49 C	63 D	52 D	40 C	34 A

DCON MS tolerance h6; RE +0/-0.02 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S5353.0	3.00	1.50	6.00	5.00	75.0	4	21.00	2.80
S5354.0	4.00	2.00	6.00	8.00	75.0	4	28.00	3.70
S5355.0	5.00	2.50	6.00	9.00	75.0	4	32.00	4.60
S5356.0	6.00	3.00	6.00	10.00	75.0	4	40.00	5.50
S5358.0	8.00	4.00	8.00	12.00	75.0	4	40.00	7.40
S53510.0	10.00	5.00	10.00	14.00	75.0	4	40.00	9.20
S53512.0	12.00	6.00	12.00	16.00	100.0	4	60.00	11.00
S53514.0	14.00	7.00	14.00	32.00	125.0	4	80.00	13.00
S53516.0	16.00	8.00	16.00	32.00	125.0	4	80.00	15.00

S791

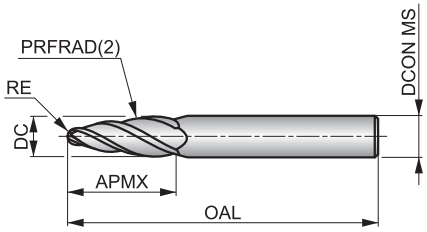
DORMER



3-4 Flute Solid Carbide Barrel-Shape End Mill

Medium cut length, 3 or 4 flute design with large tangential radius and ball nosed to increase contact with workpiece to reduce cycle time and improve surface finish of steep walls. AlCrN coating improves performance and extends the tool life. For semi-finishing and finishing operation.

HM	N	NOF 3-4
	λ 30°	γ 8°
DIN 6535HA	AlCrN	
DORMER		



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■161 F	■181 F	■186 F	■138 F	■121 F	■108 E	■112 F	■90 E	■76 E	■66 E	■57 E	◪46 E	■94 F	■79 F
M2.1	**M2.2**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**	**K3.1**	**K3.2**
■83 F	■69 E	◪77 E	◪66 E	◪59 E	◪58 E	■161 F	■119 F	■89 F	■165 F	■134 F	■107 E	■146 F	■112 F
K3.3	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**	**N2.1**	**N2.2**
■90 E	■136 E	■102 E	■75 E	■64 E	■54 E	■154 E	■115 E	■89 E	◪355 I	◪267 I	◪179 I	◪179 F	◪160 F
N2.3	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**S1.1**	**S1.2**	**S2.1**	**S3.1**	**S4.1**			
◪115 F	■187 F	■109 F	◪56 F	◪187 F	◪72 F	◪58 E	◪56 E	◪43 E	◪33 E	◪26 E			

DCON MS tolerance h6; RE ±0.01 mm; PRFRAD(2) ±0.01 mm.

Product	DC (mm)	RE (mm)	PRFRAD(2) (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF
S7916.0	6.00	1.00	95.0	6.00	22.00	67.0	3
S7918.0	8.00	1.00	90.0	8.00	25.00	75.0	3
S79110.0	10.00	2.00	85.0	10.00	26.00	75.0	4
S79112.0	12.00	2.00	80.0	12.00	28.00	83.0	4
S79116.0	16.00	3.00	75.0	16.00	31.00	90.0	4

Thread form (THFT)	M	M	M	M	MF	MF	UNC	UNF	NPT	G
Basic standard group (BSG)	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER
Usable length (ULDR)	2×D	2×D	2×D	2×D	1.5×D	1.5×D	2×D	2×D		1.5×D
Material code (BMC)	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM
Flute Geometry (FDC)										
Flute helix angle (FHA)	λ 10°	λ 10°	λ 27°	λ 27°	λ 10°	λ 10°	λ 10°	λ 10°	λ 10°	λ 10°
Hand (Cutting direction)	R	R	R	R	R	R	R	R	R	R
Coating	Alcrona Pro	Alcrona Pro	Alcrona Pro	Alcrona Pro	Alcrona Pro	Alcrona Pro	Alcrona Pro	Alcrona Pro	Alcrona Pro	Alcrona Pro
Shank	DIN 6535HA	DIN 6535HB	DIN 6535HA	DIN 6535HA	DIN 6535HA	DIN 6535HB	DIN 6535HB	DIN 6535HB	DIN 6535HB	DIN 6535HA
Coolant exit style (CXSC)										
Product Family Code	J200	J205	J210	J215	J220	J225	J235	J245	J260	J280
PSF cutting diameters range	M4 – M16	M8 – M16	M6 – M16	M6 – M16	M6 – M24	M12 – M18	1/4 – 3/4	1/4 – 3/4	1/8 – 2"	1/8 – 3"
	168	169	170	171	172	173	174	175	176	177
P	P1	■	■	■	■	■	■	■	■	■	■
	P2	■	■	■	■	■	■	■	■	■	■
	P3	■	■	■	■	■	■	■	■	■	■
	P4	■	■	■	■	■	■	■	■	■	■
M	M1	■	■	■	■	■	■	■	■	■	■
	M2	■	■	■	■	■	■	■	■	■	■
	M3	■	■	■	■	■	■	■	■	■	■
	M4	◪	◪	■	■	◪	◪	■	■	■	■
K	K1	■	■	■	■	■	■	■	■	■	■
	K2	■	■	■	■	■	■	■	■	■	■
	K3	■	■	■	■	■	■	■	■	■	■
	K4	■	■	■	■	■	■	■	■	■	■
	K5	■	■	■	■	■	■	■	■	■	■
N	N1	■	■	■	■	■	■	■	■	■	■
	N2	■	■	■	■	■	■	■	■	■	■
	N3	■	■	■	■	■	■	■	■	■	■
	N4	■	■	■	■	■	■	■	■	■	■
	N5										
S	S1	◪	■	◪	■	◪	■	■	■	■	■
	S2	◪	◪	◪	◪	◪	◪	◪	◪	◪	◪
	S3	◪	◪	◪	◪	◪	◪	◪	◪	◪	◪
	S4	◪	◪	◪	◪	◪	■	◪	◪	◪	◪
H	H1	◪	◪	■	■	■	■	■	■	■	■
	H2										
	H3			◪	◪	◪	◪	◪	◪	◪	◪
	H4										

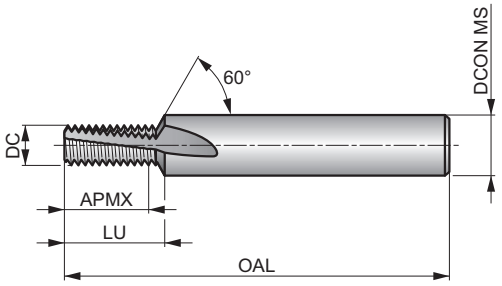
■ Primary use ◪ Possible use

J200

DORMER

Solid Carbide Thread Mill with Countersink, Metric

Universal high performance tool to machine same or bigger diameters than the TDZ with the same pitch. Left or right-hand, through or blind holes almost down to the bottom. With 60° countersink for chamfering in a single machining cycle. Alcrona Pro coated for the best machining result in a wide range of materials.



M	DORMER	2×D
HM		λ 10°
R	Alcrona Pro	DIN 6535HA

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■172 B	■193 B	■200 B	■148 B	■130 B	■115 B	■133 B	■107 B	■90 B	■79 B	■67 B	◪55 B	■62 B	■52 B
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■55 B	■45 B	◪38 B	■47 A	■40 A	◪36 A	■30 A	◪26 A	■130 B	■96 B	■72 B	■123 B	■100 B	■80 B
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■109 B	■83 B	■67 B	■101 A	■76 A	■56 A	■48 A	◪40 A	■114 B	■86 B	■66 B	■400 C	■300 C	■200 C
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**N4.3**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**
■262 C	■235 C	■170 C	■610 C	■360 C	■180 C	■290 C	■145 C	■65 C	■40 A	◪40 A	◪30 A	◪33 A	◪25 A
S3.1	**S3.2**	**S4.1**	**S4.2**	**H1.1**									
◪25 A	◪21 A	◪20 A	◪16 A	◪60 A									

Internal Thread.

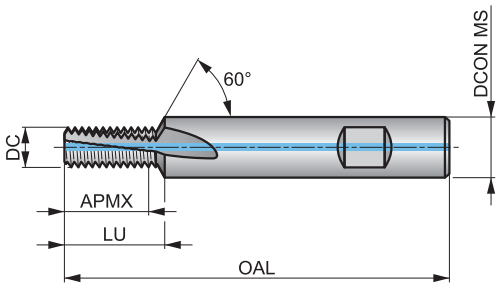
Product	TDZ	TP (mm)	DC (mm)	APMX (mm)	OAL (mm)	DCON MS (mm)	NOF	LU (mm)
J2003.2X.7	M4	0.70	3.20	8.40	57.0	6.00	3	9.50
J2004.1X.8	M5	0.80	4.10	11.20	57.0	6.00	3	12.10
J2004.8X1.0	M6	1.00	4.80	13.00	63.0	8.00	3	14.40
J2006.5X1.25	M8	1.25	6.50	17.50	72.0	10.00	3	19.10
J2008.2X1.5	M10	1.50	8.20	21.00	83.0	12.00	3	22.80
J2009.9X1.75	M12	1.75	9.90	26.25	83.0	14.00	4	28.20
J20011.6X2.0	M14	2.00	11.60	30.00	92.0	16.00	4	32.20
J20013.6X2.0	M16	2.00	13.60	34.00	92.0	18.00	4	36.20

J205

DORMER

Solid Carbide Thread Mill with Through Coolant and Countersink, Metric

Universal high performance tool to machine same or bigger diameters than the TDZ with the same pitch. Left or right-hand, through or blind holes almost down to the bottom. 60° countersink for chamfering. Alcrona Pro coated for the best machining result with through coolant for better chip evacuation.



M	DORMER	2×D
HM		λ 10°
R	Alcrona Pro	DIN 6535HB

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■172 B	■193 B	■200 B	■148 B	■130 B	■115 B	■133 B	■107 B	■90 B	■79 B	■67 B	◪55 B	■62 B	■52 B
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■55 B	■45 B	■38 B	■47 A	■40 A	■36 A	■30 A	◪26 A	■130 B	■96 B	■72 B	■123 B	■100 B	■80 B
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■109 B	■83 B	■67 B	■101 A	■76 A	■56 A	■48 A	◪40 A	■114 B	■86 B	■66 B	■400 C	■300 C	■200 C
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**N4.3**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**
■262 C	■235 C	■170 C	■610 C	■360 C	■180 C	■290 C	■145 C	■65 C	■40 A	■40 A	◪30 A	■33 A	◪25 A
S3.1	**S3.2**	**S4.1**	**S4.2**	**H1.1**									
■25 A	◪21 A	■20 A	◪16 A	◪60 A									

Internal Thread.

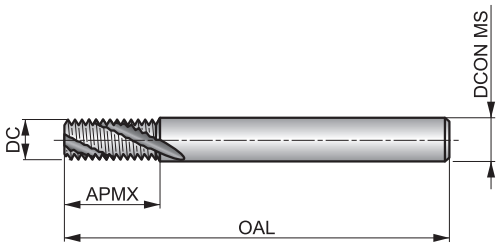
Product	TDZ	TP (mm)	DC (mm)	APMX (mm)	OAL (mm)	DCON MS (mm)	NOF	LU (mm)
J2056.5X1.25	M8	1.25	6.50	17.50	72.0	10.00	3	19.10
J2058.2X1.50	M10	1.50	8.20	21.00	83.0	12.00	3	22.80
J2059.9X1.75	M12	1.75	9.90	26.25	83.0	14.00	4	28.20
J20511.6X2.0	M14	2.00	11.60	30.00	92.0	16.00	4	32.20
J20513.6X2.0	M16	2.00	13.60	34.00	92.0	18.00	4	36.20

J210

DORMER

Solid Carbide Thread Mill with High Helix, Metric

Universal high performance tool to machine same or bigger diameters than the TDZ with the same pitch. Left or right-hand, through or blind holes almost down to the bottom. Alcrona Pro coated for the best machining result in a wide range of materials and 27° helix for a smoother cutting action.



M	DORMER	2×D
HM		λ 27°
R	Alcrona Pro	DIN 6535HA

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■181 B	■203 B	■210 B	■156 B	■137 B	■121 B	■140 B	■112 B	■95 B	■83 B	■70 B	◪58 B	■65 B	■55 B
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■58 B	■47 B	◪40 B	■50 A	■42 A	◪38 A	■32 A	◪27 A	■137 B	■101 B	■76 B	■129 B	■105 B	■84 B
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■115 B	■87 B	■71 B	■106 A	■80 A	■59 A	■51 A	◪42 A	■120 B	■90 B	■70 B	■420 C	■315 C	■210 C
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**N4.3**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**
■275 C	■247 C	■179 C	■640 C	■378 C	■189 C	■305 C	■153 C	■69 C	■42 A	◪42 A	◪32 A	◪35 A	◪26 A
S3.1	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H3.1**								
◪26 A	◪22 A	◪21 A	◪17 A	■63 A	◪45 A								

Internal Thread.

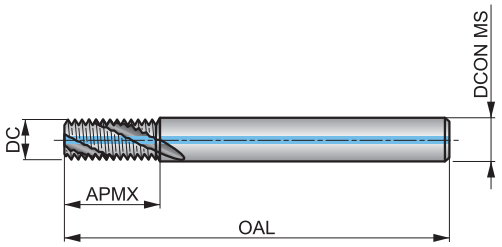
Product	TDZ	TP (mm)	DC (mm)	APMX (mm)	OAL (mm)	DCON MS (mm)	NOF
J2104.5X1.0	M6	1.00	4.50	13.00	57.0	6.00	3
J2106.0X1.25	M8	1.25	6.00	17.50	65.0	6.00	3
J2107.5X1.5	M10	1.50	7.50	21.00	72.0	8.00	3
J2109.5X1.75	M12	1.75	9.50	26.25	80.0	10.00	3
J21010.0X2.0	M14	2.00	10.00	30.00	83.0	10.00	4
J21012.0X2.0	M16	2.00	12.00	34.00	92.0	12.00	4

J215

DORMER

Solid Carbide Thread Mill with High Helix and Through Coolant, Metric

Universal high performance tool to machine same or bigger diameters than the TDZ with the same pitch. Left or right-hand, through or blind holes almost down to the bottom. Alcrona Pro coated for the best machining result with through coolant for better chip evacuation and 27° helix for a smoother cutting action.



M	DORMER	2×D
HM		λ 27°
R	Alcrona Pro	DIN 6535HA

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■ 181 B	■ 203 B	■ 210 B	■ 156 B	■ 137 B	■ 121 B	■ 140 B	■ 112 B	■ 95 B	■ 83 B	■ 70 B	■ 58 B	■ 65 B	■ 55 B
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■ 58 B	■ 47 B	■ 40 B	■ 50 A	■ 42 A	■ 38 A	■ 32 A	◪ 27 A	■ 137 B	■ 101 B	■ 76 B	■ 129 B	■ 105 B	■ 84 B
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■ 115 B	■ 87 B	■ 71 B	■ 106 A	■ 80 A	■ 59 A	■ 51 A	■ 42 A	■ 120 B	■ 90 B	■ 70 B	■ 420 C	■ 315 C	■ 210 C
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**N4.3**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**
■ 275 C	■ 247 C	■ 179 C	■ 640 C	■ 378 C	■ 189 C	■ 305 C	■ 153 C	■ 69 C	■ 42 A	■ 42 A	◪ 32 A	■ 35 A	◪ 26 A
S3.1	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H3.1**								
■ 26 A	◪ 22 A	■ 21 A	◪ 17 A	■ 63 A	◪ 45 A								

Internal Thread.

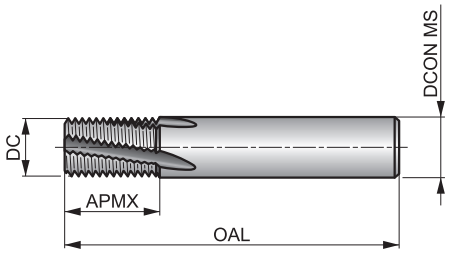
Product	TDZ	TP (mm)	DC (mm)	APMX (mm)	OAL (mm)	DCON MS (mm)	NOF
J2154.5X1.0	M6	1.00	4.50	13.00	57.0	6.00	3
J2156.0X1.25	M8	1.25	6.00	17.50	65.0	6.00	3
J2157.5X1.5	M10	1.50	7.50	21.00	72.0	8.00	3
J2159.5X1.75	M12	1.75	9.50	26.25	80.0	10.00	3
J21510.0X2.0	M14	2.00	10.00	30.00	83.0	10.00	4
J21512.0X2.0	M16	2.00	12.00	34.00	92.0	12.00	4

J220

DORMER

Solid Carbide Thread Mill, Metric Fine

Universal high performance tool to machine same or bigger diameters than the TDZ with the same pitch. Left or right-hand, through or blind holes almost down to the bottom. Alcrona Pro coated for the best machining result in a wide range of materials.



MF	DORMER	1.5×D
HM		λ 10°
R	Alcrona Pro	DIN 6535HA

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■190 E	■212 E	■242 E	■163 E	■143 E	■127 E	■146 E	■118 E	■99 E	■87 E	■74 E	■61 E	■69 E	■58 E
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■61 E	■50 E	◪42 E	■52 D	■44 D	◪40 D	■33 D	◪29 D	■143 E	■106 E	■80 E	■136 E	■110 E	■88 E
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■120 E	■91 E	■74 E	■111 D	■84 D	■62 D	■53 D	◪44 D	■126 E	■95 E	■73 E	■440 F	■330 F	■220 F
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**N4.3**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**
■288 F	■259 F	■187 F	■671 F	■396 F	■198 F	■319 F	■160 F	■72 F	■44 D	◪44 D	◪33 D	◪36 D	◪28 D
S3.1	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H3.1**								
◪28 D	◪23 D	◪22 D	◪18 D	■66 D	◪48 D								

Internal Thread.

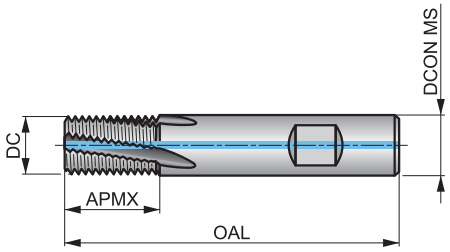
Product	TDZ	TP (mm)	DC (mm)	APMX (mm)	OAL (mm)	DCON MS (mm)	NOF
J2204.8X.5	M6	0.50	4.80	10.00	57.0	6.00	3
J2206.0X.75	M8	0.75	6.00	12.00	57.0	6.00	3
J2206.0X1.0	M8	1.00	6.00	12.00	57.0	6.00	3
J2208.0X1.0	M10	1.00	8.00	16.00	63.0	8.00	4
J22010.0X1.0	M12	1.00	10.00	20.00	72.0	10.00	4
J22010.0X1.5	M12	1.50	10.00	20.00	72.0	10.00	4
J22012.0X1.0	M14	1.00	12.00	22.00	83.0	12.00	4
J22012.0X1.5	M14	1.50	12.00	22.00	83.0	12.00	4
J22014.0X1.0	M16	1.00	14.00	26.00	83.0	14.00	5
J22014.0X1.5	M16	1.50	14.00	26.00	83.0	14.00	5
J22016.0X2.0	M20	2.00	16.00	30.00	92.0	16.00	5
J22016.0X2.5	M20	2.50	16.00	42.50	105.0	16.00	5
J22019.0X3.0	M24	3.00	19.00	50.00	125.0	20.00	5
J22020.0X2.0	M24	2.00	20.00	35.00	104.0	20.00	5

J225

DORMER

Solid Carbide Thread Mill with Through Coolant, Metric Fine

Universal high performance tool to machine same or bigger diameters than the TDZ with the same pitch. Left or right-hand, through or blind holes almost down to the bottom. Alcrona Pro coated for the best machining result and through coolant for better chip evacuation.



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■190 E	■212 E	■242 E	■163 E	■143 E	■127 E	■146 E	■118 E	■99 E	■87 E	■74 E	■61 E	■69 E	■58 E
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■61 E	■50 E	■42 E	■52 D	■44 D	■40 D	■33 D	◪29 D	■143 E	■106 E	■80 E	■136 E	■110 E	■88 E
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■120 E	■91 E	■74 E	■111 D	■84 D	■62 D	■53 D	■44 D	■126 E	■95 E	■73 E	■440 F	■330 F	■220 F
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**N4.3**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**
■288 F	■259 F	■187 F	■671 F	■396 F	■198 F	■319 F	■160 F	■72 F	■44 D	■44 D	◪33 D	■36 D	◪28 D
S3.1	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H3.1**								
■28 D	◪23 D	■22 D	◪18 D	■66 D	◪48 D								

Internal Thread.

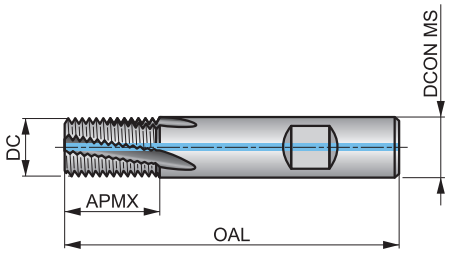
Product	TDZ	TP (mm)	DC (mm)	APMX (mm)	OAL (mm)	DCON MS (mm)	NOF
J22510.0X1.5	M12	1.50	10.00	20.00	72.0	10.00	4
J22512.0X1.0	M14	1.00	12.00	22.00	83.0	12.00	4
J22514.0X1.5	M16	1.50	14.00	26.00	83.0	14.00	5
J22516.0X1.5	M18	1.50	16.00	30.00	92.0	16.00	5

J235

DORMER

Solid Carbide Thread Mill with Through Coolant, UNC

Universal high performance tool to machine same or bigger diameters than the TDZ with the same pitch. Left or right-hand, through or blind holes almost down to the bottom. Alcrona Pro coated for the best machining result and through coolant for better chip evacuation.



UNC | DORMER | 2×D
HM | | λ 10°
R | Alcrona Pro | DIN 6535HB

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■ 181 H	■ 203 H	■ 210 H	■ 156 H	■ 137 H	■ 121 H	■ 140 H	■ 112 H	■ 95 H	■ 83 H	■ 70 H	■ 58 H	■ 65 H	■ 55 H
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■ 58 H	■ 47 H	■ 40 H	■ 50 G	■ 42 G	■ 38 G	■ 32 G	◪ 27 G	■ 137 H	■ 101 H	■ 76 H	■ 129 H	■ 105 H	■ 84 H
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■ 115 H	■ 87 H	■ 71 H	■ 106 G	■ 80 G	■ 59 G	■ 51 G	■ 42 G	■ 120 H	■ 90 H	■ 70 H	■ 420 I	■ 315 I	■ 210 I
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**N4.3**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**
■ 275 I	■ 247 I	■ 179 I	■ 640 I	■ 378 I	■ 189 I	■ 305 I	■ 153 I	■ 69 I	■ 42 G	■ 42 G	◪ 32 G	■ 35 G	◪ 26 G
S3.1	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H3.1**								
■ 26 G	◪ 22 G	■ 21 G	◪ 17 G	■ 63 G	◪ 45 G								

Internal Thread.

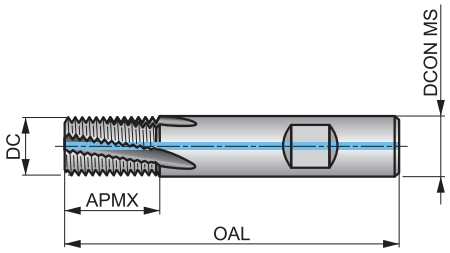
Product	TDZ	TPI	DC (mm)	APMX (mm)	OAL (mm)	DCON MS (mm)	NOF
J2354.8-20	1/4	20	4.80	14.00	57.0	6.00	3
J2355.5-18	5/16	18	5.50	14.00	57.0	6.00	3
J2357.5-16	3/8	16	7.50	19.00	63.0	8.00	4
J2358.0-14	7/16	14	8.00	19.00	63.0	8.00	4
J23510.0-13	1/2	13	10.00	22.00	72.0	10.00	4
J23510.0-12	9/16	12	10.00	22.00	72.0	10.00	4
J23512.0-11	5/8	11	12.00	26.00	83.0	12.00	4
J23514.0-10	3/4	10	14.00	32.00	83.0	14.00	5

J245

DORMER

Solid Carbide Thread Mill with Through Coolant, UNF

Universal high performance tool to machine same or bigger diameters than the TDZ with the same pitch. Left or right-hand, through or blind holes almost down to the bottom. Alcrona Pro coated for the best machining result and through coolant for better chip evacuation.



UNF | DORMER | 2×D

HM | | λ 10°

R | Alcrona Pro | DIN 6535HB

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■ 181 K	■ 203 K	■ 210 K	■ 156 K	■ 137 K	■ 121 K	■ 140 K	■ 112 K	■ 95 K	■ 83 K	■ 70 K	■ 58 K	■ 65 K	■ 55 K
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■ 58 K	■ 47 K	■ 40 K	■ 50 J	■ 42 J	■ 38 J	■ 32 J	◪ 27 J	■ 137 K	■ 101 K	■ 76 K	■ 129 K	■ 105 K	■ 84 K
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■ 115 K	■ 87 K	■ 71 K	■ 106 J	■ 80 J	■ 59 J	■ 51 J	■ 42 J	■ 120 K	■ 90 K	■ 70 K	■ 420 L	■ 315 L	■ 210 L
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**N4.3**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**
■ 275 L	■ 247 L	■ 179 L	■ 640 L	■ 378 L	■ 189 L	■ 305 L	■ 153 L	■ 69 L	■ 42 J	■ 42 J	◪ 32 J	■ 35 J	◪ 26 J
S3.1	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H3.1**								
■ 26 J	◪ 22 J	■ 21 J	◪ 17 J	■ 63 J	◪ 45 J								

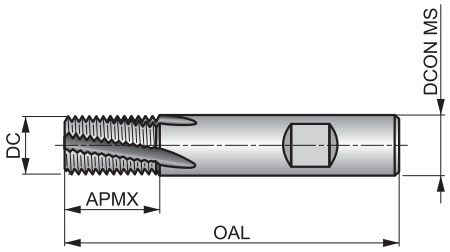
Internal Thread.

Product	TDZ	TPI	DC (mm)	APMX (mm)	OAL (mm)	DCON MS (mm)	NOF
J2454.8-28	1/4	28	4.80	14.00	57.0	6.00	3
J2456.0-24	5/16, 3/8	24	6.00	14.00	57.0	6.00	3
J2458.0-20	7/16, 1/2	20	8.00	19.00	63.0	8.00	4
J24510.0-18	9/16, 5/8	18	10.00	22.00	72.0	10.00	4
J24514.0-16	3/4	16	14.00	32.00	83.0	14.00	5

J260

Solid Carbide Thread Mill, NPT

Universal high performance tool to machine same or bigger diameters than the TDZ with the same pitch. Left or right-hand, through or blind holes almost down to the bottom. Alcrona Pro coated for the best machining result in a wide range of materials.



Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■ 190 R	■ 212 R	■ 242 R	■ 163 R	■ 143 R	■ 127 R	■ 146 R	■ 118 R	■ 99 R	■ 87 R	■ 74 R	■ 61 R	■ 69 R	■ 58 R
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■ 61 R	■ 50 R	■ 42 R	■ 52 Q	■ 44 Q	■ 40 Q	■ 33 Q	◪ 29 Q	■ 143 R	■ 106 R	■ 80 R	■ 136 R	■ 110 R	■ 88 R
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■ 120 R	■ 91 R	■ 74 R	■ 111 Q	■ 84 Q	■ 62 Q	■ 53 Q	■ 44 Q	■ 126 R	■ 95 R	■ 73 R	■ 440 S	■ 330 S	■ 220 S
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**N4.3**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**
■ 288 S	■ 259 S	■ 187 S	■ 671 S	■ 396 S	■ 198 S	■ 319 S	■ 160 S	■ 72 S	■ 44 Q	■ 44 Q	◪ 33 Q	■ 36 Q	◪ 28 Q
S3.1	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H3.1**								
■ 28 Q	◪ 23 Q	■ 22 Q	◪ 18 Q	■ 66 Q	◪ 48 Q								

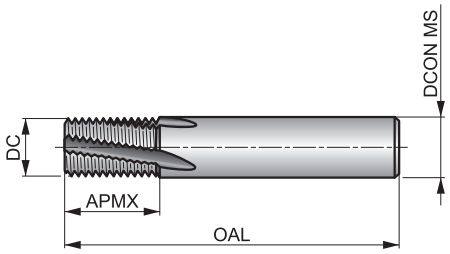
Internal Thread.

Product	TDZ	TPI	DC (mm)	APMX (mm)	OAL (mm)	DCON MS (mm)	NOF
J2607.9-27	1/8	27	7.90	11.50	58.0	8.00	3
J2609.9-18	1/4, 3/8	18	9.90	15.92	66.0	10.00	3
J26015.9-14	1/2, 3/4	14	15.90	20.46	82.0	16.00	4
J26019.9-11.5	1", 2"	11.5	19.90	27.12	92.0	20.00	5

J280

Solid Carbide Thread Mill, G(BSP)

Universal high performance tool to machine same or bigger diameters than the TDZ with the same pitch. Left or right-hand, through or blind holes almost down to the bottom. Alcrona Pro coated for the best machining result in a wide range of materials. Suited for producing internal and external threads.



G	DORMER	1.5×D
HM		λ 10°
R	Alcrona Pro	DIN 6535HA

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■ 190 N	■ 212 N	■ 242 N	■ 163 N	■ 143 N	■ 127 N	■ 146 N	■ 118 N	■ 99 N	■ 87 N	■ 74 N	■ 61 N	■ 69 N	■ 58 N
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■ 61 N	■ 50 N	■ 42 N	■ 52 M	■ 44 M	■ 40 M	■ 33 M	◪ 29 M	■ 143 N	■ 106 N	■ 80 N	■ 136 N	■ 110 N	■ 88 N
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N1.1**	**N1.2**	**N1.3**
■ 120 N	■ 91 N	■ 74 N	■ 111 M	■ 84 M	■ 62 M	■ 53 M	■ 44 M	■ 126 N	■ 95 N	■ 76 N	■ 440 0	■ 330 0	■ 220 0
N2.1	**N2.2**	**N2.3**	**N3.1**	**N3.2**	**N3.3**	**N4.1**	**N4.2**	**N4.3**	**S1.1**	**S1.2**	**S1.3**	**S2.1**	**S2.2**
■ 288 0	■ 259 0	■ 187 0	■ 671 0	■ 396 0	■ 198 0	■ 319 0	■ 160 0	■ 72 0	■ 44 M	■ 44 M	◪ 33 M	■ 36 M	◪ 28 M
S3.1	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H3.1**								
■ 28 M	◪ 23 M	■ 22 M	◪ 18 M	■ 66 M	◪ 48 M								

Internal and External Thread.

Product	TDZ	TPI	DC (mm)	APMX (mm)	OAL (mm)	DCON MS (mm)	NOF
J2806.0-28	1/8	28	6.00	15.00	57.0	6.00	3
J28010.0-19	1/4	19	10.00	20.00	72.0	10.00	4
J28014.0-19	3/8	19	14.00	26.00	83.0	14.00	5
J28016.0-14	1/2, 5/8	14	16.00	30.00	92.0	16.00	5
J28020.0-14	5/8, 3/4, 7/8	14	20.00	35.00	104.0	20.00	5
J28025.0-11	1", 3"	11	25.00	45.00	121.0	25.00	6

ROTARY BURRS

Material code (BMC)		HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM
Burr Type Code (BTC)		DC	DC	DC	DC	DC	DC	DC	DC	DC	DC	DC	DC	DC
Burr Shape		A	A	B	B	C	C	D	D	E	F	F	G	G
Coating		Bright	TiAlN	Bright	TiAlN	Bright	TiAlN	Bright	TiAlN	Bright	Bright	TiAlN	Bright	TiAlN
Basic standard group (BSG)		DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER
Application angle														
Burr end shot														
Product Family Code		P801	P801C	P803	P803C	P805	P805C	P807	P807C	P809	P811	P811C	P813	P813C
PSF cutting diameters range		3.00 – 16.00	3.00 – 12.70	3.00 – 16.00	3.00 – 12.70	3.00 – 16.00	3.00 – 12.70	3.00 – 16.00	3.00 – 12.70	3.00 – 16.00	3.00 – 16.00	3.00 – 12.70	3.00 – 16.00	3.00 – 12.70
		182	183	184	185	186	187	188	189	190	191	192	193	194
P	P1	■	■	■	■	■	■	■	■	■	■	■	■	■
	P2	■	■	■	■	■	■	■	■	■	■	■	■	■
	P3	■	■	■	■	■	■	■	■	■	■	■	■	■
	P4	■	■	■	■	■	■	■	■	■	■	■	■	■
M	M1	■	■	■	■	■	■	■	■	■	■	■	■	■
	M2	■	■	■	■	■	■	■	■	■	■	■	■	■
	M3	■	■	■	■	■	■	■	■	■	■	■	■	■
	M4	■	■	■	■	■	■	■	■	■	■	■	■	■
K	K1	■	■	■	■	■	■	■	■	■	■	■	■	■
	K2	■	■	■	■	■	■	■	■	■	■	■	■	■
	K3	■	■	■	■	■	■	■	■	■	■	■	■	■
	K4	■	■	■	■	■	■	■	■	■	■	■	■	■
	K5	■	■	■	■	■	■	■	■	■	■	■	■	■
N	N1													
	N2													
	N3	■	■	■	■	■	■	■	■	■	■	■	■	■
	N4													
	N5													
S	S1	■	■	■	■	■	■	■	■	■	■	■	■	■
	S2	■	■	■	■	■	■	■	■	■	■	■	■	■
	S3	■	■	■	■	■	■	■	■	■	■	■	■	■
	S4	■	■	■	■	■	■	■	■	■	■	■	■	■
H	H1	■	■	■	■	■	■	■	■	■	■	■	■	■
	H2	■	■	■	■	■	■	■	■	■	■	■	■	■
	H3	■	■	■	■	■	■	■	■	■	■	■	■	■
	H4	■	■	■	■	■	■	■	■	■	■	■	■	■

■ Primary use ◪ Possible use

	P815	P815C	P817	P819	P821	P821C	P823	P825							
HM	HM	HM	HM	HM	HM	HM	HM	HM							
DC	DC	DC	DC	DC	DC	DC	DC	DC							
H	H	J	K	L	L	M	N								
Bright	TiAlN	Bright	Bright	Bright	TiAlN	Bright	Bright								
DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER								
		60°	90°												
															
3.00 – 16.00	8.00 – 12.70	3.00 – 16.00	3.00 – 16.00	3.00 – 16.00	3.00 – 12.70	3.00 – 16.00	3.00 – 16.00								
195	196	197	198	199	200	201	202								
P1	■	■	■	■	■	■	■	■							
P2	■	■	■	■	■	■	■	■							
P3	■	■	■	■	■	■	■	■							
P4	■	■	■	■	■	■	■	■							
M1	■	■	■	■	■	■	■	■							
M2	■	■	■	■	■	■	■	■							
M3	■	■	■	■	■	■	■	■							
M4	■	■	■	■	■	■	■	■							
K1	■	■	■	■	■	■	■	■							
K2	■	■	■	■	■	■	■	■							
K3	■	■	■	■	■	■	■	■							
K4	■	■	■	■	■	■	■	■							
K5	■	■	■	■	■	■	■	■							
N1															
N2															
N3	■	■	■	■	■	■	■	■							
N4															
N5															
S1	■	■	■	■	■	■	■	■							
S2	■	■	■	■	■	■	■	■							
S3	■	■	■	■	■	■	■	■							
S4	■	■	■	■	■	■	■	■							
H1	■	■	■	■	■	■	■	■							
H2	■	■	■	■	■	■	■	■							
H3	■	■	■	■	■	■	■	■							
H4	■	■	■	■	■	■	■	■							

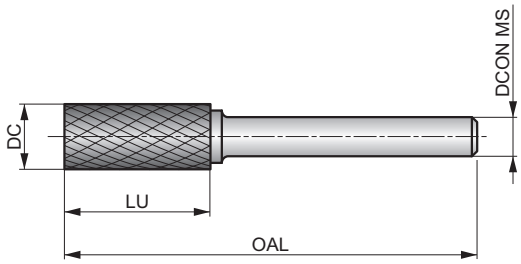
■ Primary use ◪ Possible use

P801

DORMER

Rotary Burr – Cylinder without endcut, Shape A, Bright Finish

DC double cut flute style with close spaced edges for trimming and deburring surfaces. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank.



HM | A | Bright

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■	■	■	■	■	■	■	■	■	■	■	■	■	■
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**N3.3**
■	■	■	■	■	■	■	■	■	■	■	■	■	◪
S1.1	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H2.1**	**H2.2**	**H3.1**	**H3.2**
■	■	■	■	■	■	■	■	■	■	■	■	■	■
H4.1	**H4.2**												
■	■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

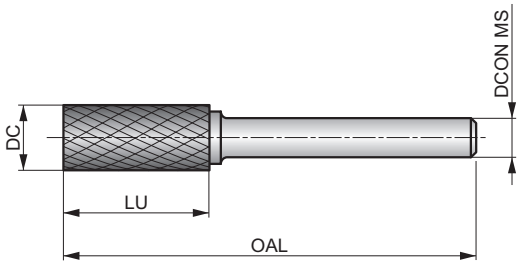
Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8013.0X3.0	3.00	3.00	14.00	38.0
P8016.3X3.0 [1]	6.30	3.00	12.70	45.0
P8016.0X6.0	6.00	6.00	18.00	50.0
P8018.0X6.0 [1]	8.00	6.00	19.00	64.0
P8019.6X6.0 [1]	9.60	6.00	19.00	64.0
P80112.7X6.0 [1]	12.70	6.00	25.00	70.0
P80116.0X6.0 [1]	16.00	6.00	25.00	70.0

[1] Brazed on steel shank

P801C

Rotary Burr – Cylinder without endcut, Shape A, TiAlN Coating

DC double cut flute style with close spaced edges for trimming and deburring surfaces. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. TiALN coating for increased tool life, reduced friction and improved swarf evacuation.



HM | A | TiAlN

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■

M2.1	M2.2	M2.3	M3.1	M3.2	M3.3	M4.1	M4.2	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3
■	■	■	■	■	■	■	■	■	■	■	■	■	■

K3.1	K3.2	K3.3	K4.1	K4.2	K4.3	K4.4	K4.5	K5.1	K5.2	K5.3	N3.1	N3.2	N3.3
■	■	■	■	■	■	■	■	■	■	■	■	■	◪

S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2	H1.1	H2.1	H2.2	H3.1	H3.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■

H4.1	H4.2
■	■

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P801C3.0X3.0	3.00	3.00	14.00	38.0
P801C6.0X6.0	6.00	6.00	18.00	50.0
P801C8.0X6.0 [1]	8.00	6.00	19.00	64.0
P801C9.6X6.0 [1]	9.60	6.00	19.00	64.0
P801C12.7X6.0 [1]	12.70	6.00	25.00	70.0

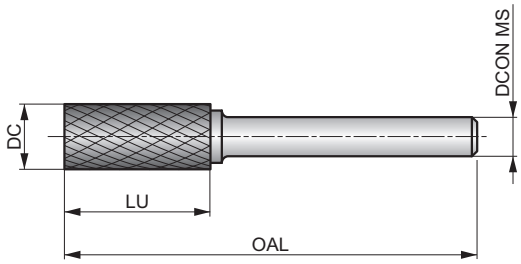
[1] Brazed on steel shank

P803

DORMER

Rotary Burr – Cylinder with endcut, Shape B, Bright Finish

DC double cut flute style with close spaced edges for trimming and deburring surfaces and right-angled corners. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank.



HM | B | Bright | DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1 ■	P1.2 ■	P1.3 ■	P2.1 ■	P2.2 ■	P2.3 ■	P3.1 ■	P3.2 ■	P3.3 ■	P4.1 ■	P4.2 ■	P4.3 ■	M1.1 ■	M1.2 ■
M2.1 ■	M2.2 ■	M2.3 ■	M3.1 ■	M3.2 ■	M3.3 ■	M4.1 ■	M4.2 ■	K1.1 ■	K1.2 ■	K1.3 ■	K2.1 ■	K2.2 ■	K2.3 ■
K3.1 ■	K3.2 ■	K3.3 ■	K4.1 ■	K4.2 ■	K4.3 ■	K4.4 ■	K4.5 ■	K5.1 ■	K5.2 ■	K5.3 ■	N3.1 ■	N3.2 ■	N3.3 ◪
S1.1 ■	S1.2 ■	S1.3 ■	S2.1 ■	S2.2 ■	S3.1 ■	S3.2 ■	S4.1 ■	S4.2 ■	H1.1 ■	H2.1 ■	H2.2 ■	H3.1 ■	H3.2 ■
H4.1 ■	H4.2 ■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880 or P890.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8033.0X3.0	3.00	3.00	14.00	38.0
P8036.3X3.0 [1]	6.30	3.00	12.70	45.0
P8036.0X6.0	6.00	6.00	18.00	50.0
P8038.0X6.0 [1]	8.00	6.00	19.00	64.0
P8039.6X6.0 [1]	9.60	6.00	19.00	64.0
P80312.7X6.0 [1]	12.70	6.00	25.00	70.0
P80316.0X6.0 [1]	16.00	6.00	25.00	70.0

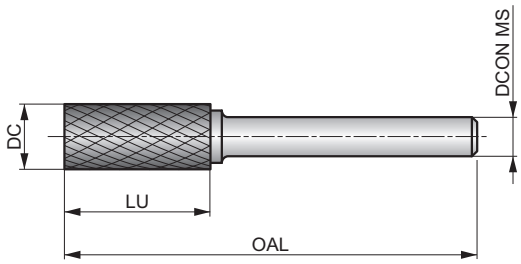
[1] Brazed on steel shank

P803C

DORMER

Rotary Burr – Cylinder with endcut, Shape B, TiAlN Coating

DC double cut flute style with close spaced edges for trimming and deburring surfaces and right-angled corners. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. TiALN coating for increased tool life, reduced friction and improved swarf evacuation.



HM | B | TiAlN | DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■

M2.1	M2.2	M2.3	M3.1	M3.2	M3.3	M4.1	M4.2	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3
■	■	■	■	■	■	■	■	■	■	■	■	■	■

K3.1	K3.2	K3.3	K4.1	K4.2	K4.3	K4.4	K4.5	K5.1	K5.2	K5.3	N3.1	N3.2	N3.3
■	■	■	■	■	■	■	■	■	■	■	■	■	◪

S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2	H1.1	H2.1	H2.2	H3.1	H3.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■

H4.1	H4.2
■	■

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P803C3.0X3.0	3.00	3.00	14.00	38.0
P803C6.0X6.0	6.00	6.00	18.00	50.0
P803C8.0X6.0 [1)]	8.00	6.00	19.00	64.0
P803C9.6X6.0 [1)]	9.60	6.00	19.00	64.0
P803C12.7X6.0 [1)]	12.70	6.00	25.00	70.0

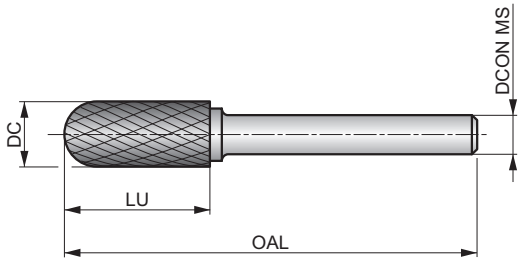
[1)] Brazed on steel shank

P805

DORMER

Rotary Burr – Ball Nosed Cylinder, Shape C, Bright Finish

DC double cut flute style with close spaced edges for trimming and deburring contours and circular arcs. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank.



HM | C | Bright

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1 ■	P1.2 ■	P1.3 ■	P2.1 ■	P2.2 ■	P2.3 ■	P3.1 ■	P3.2 ■	P3.3 ■	P4.1 ■	P4.2 ■	P4.3 ■	M1.1 ■	M1.2 ■
M2.1 ■	M2.2 ■	M2.3 ■	M3.1 ■	M3.2 ■	M3.3 ■	M4.1 ■	M4.2 ■	K1.1 ■	K1.2 ■	K1.3 ■	K2.1 ■	K2.2 ■	K2.3 ■
K3.1 ■	K3.2 ■	K3.3 ■	K4.1 ■	K4.2 ■	K4.3 ■	K4.4 ■	K4.5 ■	K5.1 ■	K5.2 ■	K5.3 ■	N3.1 ■	N3.2 ■	N3.3 ◪
S1.1 ■	S1.2 ■	S1.3 ■	S2.1 ■	S2.2 ■	S3.1 ■	S3.2 ■	S4.1 ■	S4.2 ■	H1.1 ■	H2.1 ■	H2.2 ■	H3.1 ■	H3.2 ■
H4.1 ■	H4.2 ■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880 or P890.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8053.0X3.0	3.00	3.00	14.00	38.0
P8056.3X3.0 [1]	6.30	3.00	12.70	45.0
P8056.0X6.0	6.00	6.00	18.00	50.0
P8058.0X6.0 [1]	8.00	6.00	19.00	64.0
P8059.6X6.0 [1]	9.60	6.00	19.00	64.0
P80512.7X6.0 [1]	12.70	6.00	25.00	70.0
P80516.0X6.0 [1]	16.00	6.00	25.00	70.0

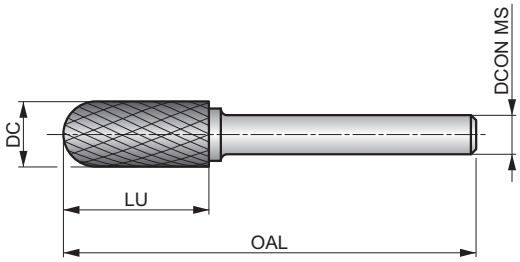
[1] Brazed on steel shank

P805C

DORMER

Rotary Burr – Ball Nosed Cylinder, Shape C, TiAlN Coating

DC double cut flute style with close spaced edges for trimming and deburring contours and circular arcs. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. TiALN coating for increased tool life, reduced friction and improved swarf evacuation.



HM | C | TiAlN

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■	■	■	■	■	■	■	■	■	■	■	■	■	■
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**N3.3**
■	■	■	■	■	■	■	■	■	■	■	■	■	◪
S1.1	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H2.1**	**H2.2**	**H3.1**	**H3.2**
■	■	■	■	■	■	■	■	■	■	■	■	■	■
H4.1	**H4.2**												
■	■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P805C3.0X3.0	3.00	3.00	14.00	38.0
P805C6.0X6.0	6.00	6.00	18.00	50.0
P805C8.0X6.0 [1]	8.00	6.00	19.00	64.0
P805C9.6X6.0 [1]	9.60	6.00	19.00	64.0
P805C12.7X6.0 [1]	12.70	6.00	25.00	70.0

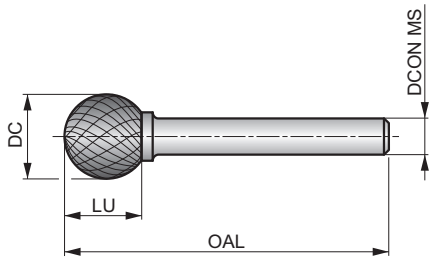
[1] Brazed on steel shank

P807

DORMER

Rotary Burr – Ball, Shape D, Bright Finish

DC double cut flute style with close spaced edges for intricate carving, metal engraving and welding preparation. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank.



HM | D | Bright

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1 ■	P1.2 ■	P1.3 ■	P2.1 ■	P2.2 ■	P2.3 ■	P3.1 ■	P3.2 ■	P3.3 ■	P4.1 ■	P4.2 ■	P4.3 ■	M1.1 ■	M1.2 ■
M2.1 ■	M2.2 ■	M2.3 ■	M3.1 ■	M3.2 ■	M3.3 ■	M4.1 ■	M4.2 ■	K1.1 ■	K1.2 ■	K1.3 ■	K2.1 ■	K2.2 ■	K2.3 ■
K3.1 ■	K3.2 ■	K3.3 ■	K4.1 ■	K4.2 ■	K4.3 ■	K4.4 ■	K4.5 ■	K5.1 ■	K5.2 ■	K5.3 ■	N3.1 ■	N3.2 ■	N3.3 ◪
S1.1 ■	S1.2 ■	S1.3 ■	S2.1 ■	S2.2 ■	S3.1 ■	S3.2 ■	S4.1 ■	S4.2 ■	H1.1 ■	H2.1 ■	H2.2 ■	H3.1 ■	H3.2 ■
H4.1 ■	H4.2 ■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8073.0X3.0	3.00	3.00	2.50	38.0
P8074.0X3.0	4.00	3.00	3.40	38.0
P8076.3X3.0 [1]	6.30	3.00	5.00	38.0
P8076.0X6.0	6.00	6.00	4.70	50.0
P8078.0X6.0 [1]	8.00	6.00	6.00	52.0
P8079.6X6.0 [1]	9.60	6.00	8.00	54.0
P80712.7X6.0 [1]	12.70	6.00	11.00	56.0
P80716.0X6.0 [1]	16.00	6.00	14.00	59.0

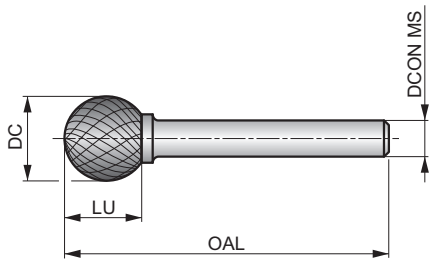
[1] Brazed on steel shank

P807C

DORMER

Rotary Burr – Ball, Shape D, TiAlN Coating

DC double cut flute style with close spaced edges for intricate carving, metal engraving and welding preparation. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. TiALN coating for increased tool life, reduced friction and improved swarf evacuation.



HM | D | TiAlN

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■	■	■	■	■	■	■	■	■	■	■	■	■	■
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**N3.3**
■	■	■	■	■	■	■	■	■	■	■	■	■	◪
S1.1	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H2.1**	**H2.2**	**H3.1**	**H3.2**
■	■	■	■	■	■	■	■	■	■	■	■	■	■
H4.1	**H4.2**												
■	■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P807C3.0X3.0	3.00	3.00	2.50	38.0
P807C6.0X6.0	6.00	6.00	4.70	50.0
P807C8.0X6.0 [1]	8.00	6.00	6.00	52.0
P807C9.6X6.0 [1]	9.60	6.00	8.00	54.0
P807C12.7X6.0 [1]	12.70	6.00	11.00	56.0

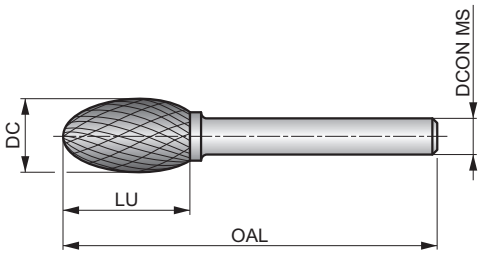
[1] Brazed on steel shank

P809

DORMER

Rotary Burr – Oval, Shape E

DC double cut flute style with close spaced edges for round edge contouring. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughend and hardened steel shank.



HM | E | Bright

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1 ■	P1.2 ■	P1.3 ■	P2.1 ■	P2.2 ■	P2.3 ■	P3.1 ■	P3.2 ■	P3.3 ■	P4.1 ■	P4.2 ■	P4.3 ■	M1.1 ■	M1.2 ■
M2.1 ■	M2.2 ■	M2.3 ■	M3.1 ■	M3.2 ■	M3.3 ■	M4.1 ■	M4.2 ■	K1.1 ■	K1.2 ■	K1.3 ■	K2.1 ■	K2.2 ■	K2.3 ■
K3.1 ■	K3.2 ■	K3.3 ■	K4.1 ■	K4.2 ■	K4.3 ■	K4.4 ■	K4.5 ■	K5.1 ■	K5.2 ■	K5.3 ■	N3.1 ■	N3.2 ■	N3.3 ◪
S1.1 ■	S1.2 ■	S1.3 ■	S2.1 ■	S2.2 ■	S3.1 ■	S3.2 ■	S4.1 ■	S4.2 ■	H1.1 ■	H2.1 ■	H2.2 ■	H3.1 ■	H3.2 ■
H4.1 ■	H4.2 ■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8093.0X3.0	3.00	3.00	6.00	38.0
P8096.3X3.0 [1]	6.30	3.00	9.50	42.0
P8096.0X6.0	6.00	6.00	10.00	50.0
P8098.0X6.0 [1]	8.00	6.00	15.00	60.0
P8099.6X6.0 [1]	9.60	6.00	16.00	60.0
P80912.7X6.0 [1]	12.70	6.00	22.00	67.0
P80916.0X6.0 [1]	16.00	6.00	25.00	70.0

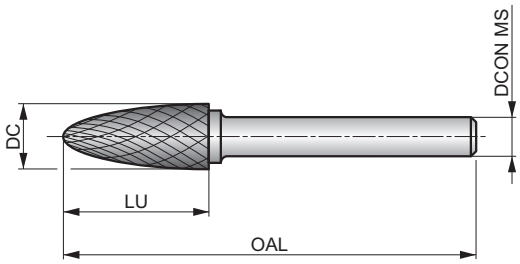
[1] Brazed on steel shank

P811

DORMER

Rotary Burr – Ball Nosed Tree, Shape F, Bright Finish

DC double cut flute style with close spaced edges for multi-angle contouring, rounding of edges and cutting into hard to reach areas. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank.



HM | F | Bright

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1 ■	P1.2 ■	P1.3 ■	P2.1 ■	P2.2 ■	P2.3 ■	P3.1 ■	P3.2 ■	P3.3 ■	P4.1 ■	P4.2 ■	P4.3 ■	M1.1 ■	M1.2 ■
M2.1 ■	M2.2 ■	M2.3 ■	M3.1 ■	M3.2 ■	M3.3 ■	M4.1 ■	M4.2 ■	K1.1 ■	K1.2 ■	K1.3 ■	K2.1 ■	K2.2 ■	K2.3 ■
K3.1 ■	K3.2 ■	K3.3 ■	K4.1 ■	K4.2 ■	K4.3 ■	K4.4 ■	K4.5 ■	K5.1 ■	K5.2 ■	K5.3 ■	N3.1 ■	N3.2 ■	N3.3 ◪
S1.1 ■	S1.2 ■	S1.3 ■	S2.1 ■	S2.2 ■	S3.1 ■	S3.2 ■	S4.1 ■	S4.2 ■	H1.1 ■	H2.1 ■	H2.2 ■	H3.1 ■	H3.2 ■
H4.1 ■	H4.2 ■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880 or P890.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8113.0X3.0	3.00	3.00	14.00	38.0
P8116.3X3.0 [1]	6.30	3.00	12.70	45.0
P8116.0X6.0	6.00	6.00	18.00	50.0
P8118.0X6.0 [1]	8.00	6.00	20.00	65.0
P8119.6X6.0 [1]	9.60	6.00	19.00	64.0
P81112.7X6.0 [1]	12.70	6.00	25.00	70.0
P81116.0X6.0 [1]	16.00	6.00	25.00	70.0

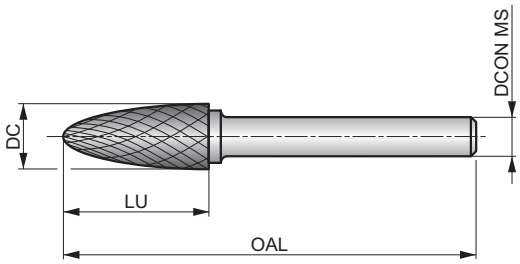
[1] Brazed on steel shank

P811C

DORMER

Rotary Burr – Ball Nosed Tree, Shape F, TiAlN Coating

DC double cut flute style with close spaced edges for multi-angle contouring, rounding of edges and cutting into hard to reach areas. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with tough hard steel shank. TiALN coating for increased tool life, reduced friction and improved swarf evacuation.



HM | F | TiAlN

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■	■	■	■	■	■	■	■	■	■	■	■	■	■
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**N3.3**
■	■	■	■	■	■	■	■	■	■	■	■	■	◪
S1.1	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H2.1**	**H2.2**	**H3.1**	**H3.2**
■	■	■	■	■	■	■	■	■	■	■	■	■	■
H4.1	**H4.2**												
■	■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P811C3.0X3.0	3.00	3.00	14.00	38.0
P811C6.0X6.0	6.00	6.00	18.00	50.0
P811C9.6X6.0 [1)]	9.60	6.00	19.00	64.0
P811C12.7X6.0 [1)]	12.70	6.00	25.00	70.0

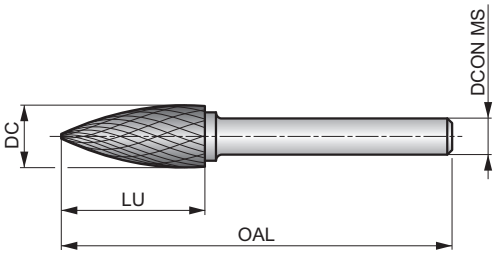
[1)] Brazed on steel shank

P813

DORMER

Rotary Burr – Pointed Tree, Shape G, Bright Finish

DC double cut flute style with close spaced edges for multi-angle contouring and cutting narrow angles in hard to reach areas. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank.



HM | G | Bright

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1 ■	P1.2 ■	P1.3 ■	P2.1 ■	P2.2 ■	P2.3 ■	P3.1 ■	P3.2 ■	P3.3 ■	P4.1 ■	P4.2 ■	P4.3 ■	M1.1 ■	M1.2 ■
M2.1 ■	M2.2 ■	M2.3 ■	M3.1 ■	M3.2 ■	M3.3 ■	M4.1 ■	M4.2 ■	K1.1 ■	K1.2 ■	K1.3 ■	K2.1 ■	K2.2 ■	K2.3 ■
K3.1 ■	K3.2 ■	K3.3 ■	K4.1 ■	K4.2 ■	K4.3 ■	K4.4 ■	K4.5 ■	K5.1 ■	K5.2 ■	K5.3 ■	N3.1 ■	N3.2 ■	N3.3 ◪
S1.1 ■	S1.2 ■	S1.3 ■	S2.1 ■	S2.2 ■	S3.1 ■	S3.2 ■	S4.1 ■	S4.2 ■	H1.1 ■	H2.1 ■	H2.2 ■	H3.1 ■	H3.2 ■
H4.1 ■	H4.2 ■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880 or P890.

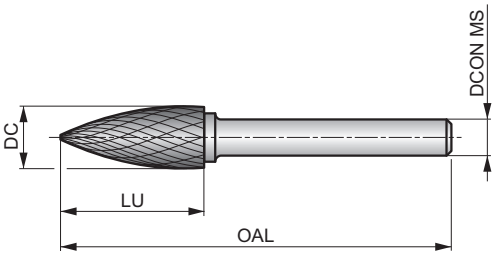
Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8133.0X3.0	3.00	3.00	14.00	38.0
P8136.3X3.0 [1]	6.30	3.00	12.70	45.0
P8136.0X6.0	6.00	6.00	18.00	50.0
P8138.0X6.0 [1]	8.00	6.00	19.00	64.0
P8139.6X6.0 [1]	9.60	6.00	19.00	64.0
P81312.7X6.0 [1]	12.70	6.00	25.00	70.0
P81316.0X6.0 [1]	16.00	6.00	25.00	70.0

[1] Brazed on steel shank

P813C

Rotary Burr – Pointed Tree, Shape G, TiAlN Coating

DC double cut flute style with close spaced edges for multi-angle contouring and cutting narrow angles in hard to reach areas. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with tough hard steel shank. TiALN coating for increased tool life, reduced friction and improved swarf evacuation.



HM | G | TiAlN

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■	■	■	■	■	■	■	■	■	■	■	■	■	■
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**N3.3**
■	■	■	■	■	■	■	■	■	■	■	■	■	◪
S1.1	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H2.1**	**H2.2**	**H3.1**	**H3.2**
■	■	■	■	■	■	■	■	■	■	■	■	■	■
H4.1	**H4.2**												
■	■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P813C3.0X3.0	3.00	3.00	14.00	38.0
P813C6.0X6.0	6.00	6.00	18.00	50.0
P813C9.6X6.0 [1)]	9.60	6.00	19.00	64.0
P813C12.7X6.0 [1)]	12.70	6.00	25.00	70.0

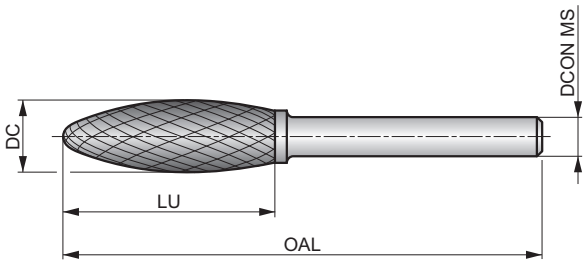
[1)] Brazed on steel shank

P815

DORMER

Rotary Burr – Flame, Shape H, Bright Finish

DC double cut flute style with close spaced edges for round edge contouring and welding preparation. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank.



HM | H | Bright

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1 ■	P1.2 ■	P1.3 ■	P2.1 ■	P2.2 ■	P2.3 ■	P3.1 ■	P3.2 ■	P3.3 ■	P4.1 ■	P4.2 ■	P4.3 ■	M1.1 ■	M1.2 ■
M2.1 ■	M2.2 ■	M2.3 ■	M3.1 ■	M3.2 ■	M3.3 ■	M4.1 ■	M4.2 ■	K1.1 ■	K1.2 ■	K1.3 ■	K2.1 ■	K2.2 ■	K2.3 ■
K3.1 ■	K3.2 ■	K3.3 ■	K4.1 ■	K4.2 ■	K4.3 ■	K4.4 ■	K4.5 ■	K5.1 ■	K5.2 ■	K5.3 ■	N3.1 ■	N3.2 ■	N3.3 ◪
S1.1 ■	S1.2 ■	S1.3 ■	S2.1 ■	S2.2 ■	S3.1 ■	S3.2 ■	S4.1 ■	S4.2 ■	H1.1 ■	H2.1 ■	H2.2 ■	H3.1 ■	H3.2 ■
H4.1 ■	H4.2 ■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8153.0X3.0	3.00	3.00	6.00	38.0
P8156.0X6.0	6.00	6.00	14.00	50.0
P8158.0X6.0 [1)]	8.00	6.00	19.00	64.0
P8159.6X6.0 [1)]	9.60	6.00	19.00	65.0
P81512.7X6.0 [1)]	12.70	6.00	32.00	77.0
P81516.0X6.0 [1)]	16.00	6.00	36.00	81.0

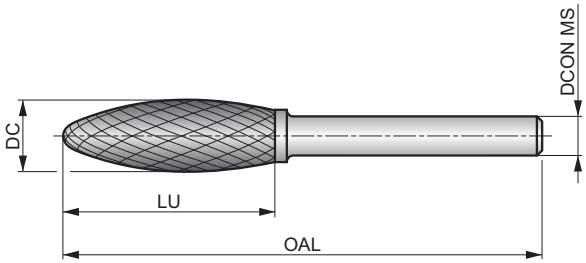
[1)] Brazed on steel shank

P815C

DORMER

Rotary Burr – Flame, Shape H, TiAlN Coating

DC double cut flute style with close spaced edges for round edge contouring and welding preparation. Carbide head with toughened and hardened steel shank. TiALN coating for increased tool life, reduced friction and improved swarf evacuation.



HM | H | TiAlN

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1 ■	P1.2 ■	P1.3 ■	P2.1 ■	P2.2 ■	P2.3 ■	P3.1 ■	P3.2 ■	P3.3 ■	P4.1 ■	P4.2 ■	P4.3 ■	M1.1 ■	M1.2 ■
M2.1 ■	M2.2 ■	M2.3 ■	M3.1 ■	M3.2 ■	M3.3 ■	M4.1 ■	M4.2 ■	K1.1 ■	K1.2 ■	K1.3 ■	K2.1 ■	K2.2 ■	K2.3 ■
K3.1 ■	K3.2 ■	K3.3 ■	K4.1 ■	K4.2 ■	K4.3 ■	K4.4 ■	K4.5 ■	K5.1 ■	K5.2 ■	K5.3 ■	N3.1 ■	N3.2 ■	N3.3 ◪
S1.1 ■	S1.2 ■	S1.3 ■	S2.1 ■	S2.2 ■	S3.1 ■	S3.2 ■	S4.1 ■	S4.2 ■	H1.1 ■	H2.1 ■	H2.2 ■	H3.1 ■	H3.2 ■
H4.1 ■	H4.2 ■												

Brazed on Steel Shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P815C8.0X6.0 [1]	8.00	6.00	19.00	64.0
P815C12.7X6.0 [1]	12.70	6.00	32.00	77.0

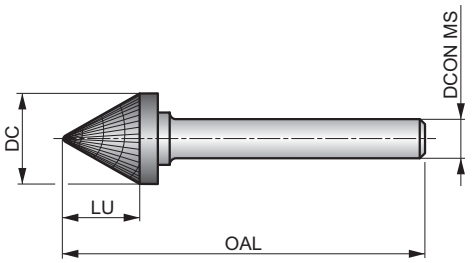
[1] Brazed on steel shank

P817

DORMER

Rotary Burr – 60° Countersink, Shape J

DC double cut flute style with close spaced edges for chamfering, making v-cuts and welding preparation. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank.



HM | J | Bright

60° | DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1 ■	P1.2 ■	P1.3 ■	P2.1 ■	P2.2 ■	P2.3 ■	P3.1 ■	P3.2 ■	P3.3 ■	P4.1 ■	P4.2 ■	P4.3 ■	M1.1 ■	M1.2 ■
M2.1 ■	M2.2 ■	M2.3 ■	M3.1 ■	M3.2 ■	M3.3 ■	M4.1 ■	M4.2 ■	K1.1 ■	K1.2 ■	K1.3 ■	K2.1 ■	K2.2 ■	K2.3 ■
K3.1 ■	K3.2 ■	K3.3 ■	K4.1 ■	K4.2 ■	K4.3 ■	K4.4 ■	K4.5 ■	K5.1 ■	K5.2 ■	K5.3 ■	N3.1 ■	N3.2 ■	N3.3 ◪
S1.1 ■	S1.2 ■	S1.3 ■	S2.1 ■	S2.2 ■	S3.1 ■	S3.2 ■	S4.1 ■	S4.2 ■	H1.1 ■	H2.1 ■	H2.2 ■	H3.1 ■	H3.2 ■
H4.1 ■	H4.2 ■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.

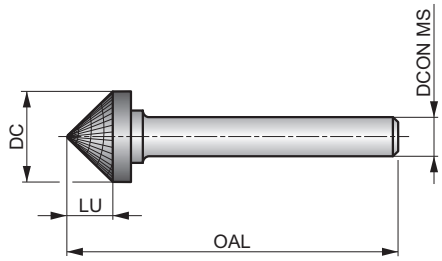
Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8173.0X3.0	3.00	3.00	2.50	38.0
P8176.0X6.0	6.00	6.00	4.00	50.0
P8179.6X6.0 [1)]	9.60	6.00	8.00	56.0
P81712.7X6.0 [1)]	12.70	6.00	11.00	59.0
P81716.0X6.0 [1)]	16.00	6.00	14.50	63.0

[1)] Brazed on steel shank

P819

Rotary Burr – 90° Countersink, Shape K

DC double cut flute style with close spaced edges for chamfering, making v-cuts and welding preparation. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank.



HM | K | Bright

90° | DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■

M2.1	M2.2	M2.3	M3.1	M3.2	M3.3	M4.1	M4.2	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3
■	■	■	■	■	■	■	■	■	■	■	■	■	■

K3.1	K3.2	K3.3	K4.1	K4.2	K4.3	K4.4	K4.5	K5.1	K5.2	K5.3	N3.1	N3.2	N3.3
■	■	■	■	■	■	■	■	■	■	■	■	■	◪

S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2	H1.1	H2.1	H2.2	H3.1	H3.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■

H4.1	H4.2
■	■

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8193.0X3.0	3.00	3.00	1.50	38.0
P8196.0X6.0	6.00	6.00	3.00	50.0
P8199.6X6.0 [1)]	9.60	6.00	4.70	53.0
P81912.7X6.0 [1)]	12.70	6.00	6.30	55.0
P81916.0X6.0 [1)]	16.00	6.00	8.00	57.0

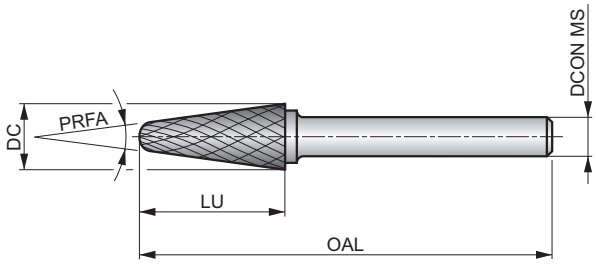
[1)] Brazed on steel shank

P821

DORMER

Rotary Burr – Ball Nosed Cone, Shape L, Bright Finish

DC double cut flute style with close spaced edges for enlarging holes, rounding edges and surface finishing in tight narrow angles or other hard to reach areas. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank.



HM | L | Bright

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1 ■	P1.2 ■	P1.3 ■	P2.1 ■	P2.2 ■	P2.3 ■	P3.1 ■	P3.2 ■	P3.3 ■	P4.1 ■	P4.2 ■	P4.3 ■	M1.1 ■	M1.2 ■
M2.1 ■	M2.2 ■	M2.3 ■	M3.1 ■	M3.2 ■	M3.3 ■	M4.1 ■	M4.2 ■	K1.1 ■	K1.2 ■	K1.3 ■	K2.1 ■	K2.2 ■	K2.3 ■
K3.1 ■	K3.2 ■	K3.3 ■	K4.1 ■	K4.2 ■	K4.3 ■	K4.4 ■	K4.5 ■	K5.1 ■	K5.2 ■	K5.3 ■	N3.1 ■	N3.2 ■	N3.3 ◪
S1.1 ■	S1.2 ■	S1.3 ■	S2.1 ■	S2.2 ■	S3.1 ■	S3.2 ■	S4.1 ■	S4.2 ■	H1.1 ■	H2.1 ■	H2.2 ■	H3.1 ■	H3.2 ■
H4.1 ■	H4.2 ■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880 or P890.

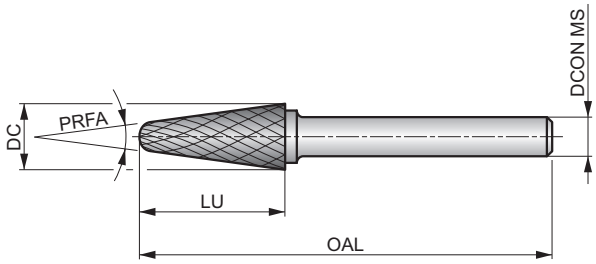
Product	DC	DCON MS	LU	OAL	PRFA
	(mm)	(mm)	(mm)	(mm)	(°)
P8213.0X3.0	3.00	3.00	14.00	38.0	8
P8216.0X6.0	6.00	6.00	18.00	50.0	14
P8218.0X6.0 [1]	8.00	6.00	25.40	70.0	14
P8219.6X6.0 [1]	9.60	6.00	30.00	76.0	14
P82112.7X6.0 [1]	12.70	6.00	32.00	77.0	14
P82116.0X6.0 [1]	16.00	6.00	33.00	78.0	14

[1] Brazed on steel shank

P821C

Rotary Burr – Ball Nosed Cone, Shape L, TiAlN Coating

DC double cut flute style with close spaced edges for enlarging holes, rounding edges and surface finishing in tight narrow angles or other hard to reach areas. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. TiALN coating for increased tool life.



HM | L | TiAlN

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■	■	■	■	■	■	■	■	■	■	■	■	■	■
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**N3.3**
■	■	■	■	■	■	■	■	■	■	■	■	■	◪
S1.1	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H2.1**	**H2.2**	**H3.1**	**H3.2**
■	■	■	■	■	■	■	■	■	■	■	■	■	■
H4.1	**H4.2**												
■	■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)	PRFA (°)
P821C3.0X3.0	3.00	3.00	14.00	38.0	8
P821C12.7X6.0 [1]	12.70	6.00	32.00	77.0	14

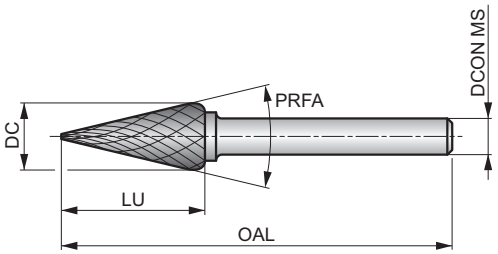
[1] Brazed on steel shank

P823

DORMER

Rotary Burr – Cone, Shape M

DC double cut flute style with close spaced edges for enlarging holes, surface finishing and cutting narrow angles in hard to reach areas. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank.



HM | M | Bright

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■
M2.1	**M2.2**	**M2.3**	**M3.1**	**M3.2**	**M3.3**	**M4.1**	**M4.2**	**K1.1**	**K1.2**	**K1.3**	**K2.1**	**K2.2**	**K2.3**
■	■	■	■	■	■	■	■	■	■	■	■	■	■
K3.1	**K3.2**	**K3.3**	**K4.1**	**K4.2**	**K4.3**	**K4.4**	**K4.5**	**K5.1**	**K5.2**	**K5.3**	**N3.1**	**N3.2**	**N3.3**
■	■	■	■	■	■	■	■	■	■	■	■	■	◪
S1.1	**S1.2**	**S1.3**	**S2.1**	**S2.2**	**S3.1**	**S3.2**	**S4.1**	**S4.2**	**H1.1**	**H2.1**	**H2.2**	**H3.1**	**H3.2**
■	■	■	■	■	■	■	■	■	■	■	■	■	■
H4.1	**H4.2**												
■	■												

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC	DCON MS	LU	OAL	PRFA
	(mm)	(mm)	(mm)	(mm)	(°)
P8233.0X3.0	3.00	3.00	11.00	38.0	14
P8236.3X3.0 [1]	6.30	3.00	12.70	49.0	22
P8236.0X6.0	6.00	6.00	20.00	50.0	14
P8239.6X6.0 [1]	9.60	6.00	16.00	64.0	28
P82312.7X6.0 [1]	12.70	6.00	22.00	71.0	28
P82316.0X6.0 [1]	16.00	6.00	25.00	71.0	31

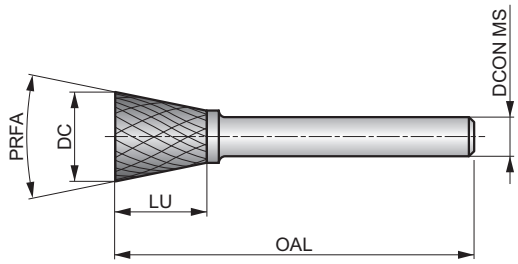
[1] Brazed on steel shank

P825

DORMER

Rotary Burr – Inverted Cone, Shape N

DC double cut flute style with close spaced edges for making inverted v-cuts and rear side chamfering. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank.



HM | N | Bright

DC | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3	M1.1	M1.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■

M2.1	M2.2	M2.3	M3.1	M3.2	M3.3	M4.1	M4.2	K1.1	K1.2	K1.3	K2.1	K2.2	K2.3
■	■	■	■	■	■	■	■	■	■	■	■	■	■

K3.1	K3.2	K3.3	K4.1	K4.2	K4.3	K4.4	K4.5	K5.1	K5.2	K5.3	N3.1	N3.2	N3.3
■	■	■	■	■	■	■	■	■	■	■	■	■	◪

S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2	H1.1	H2.1	H2.2	H3.1	H3.2
■	■	■	■	■	■	■	■	■	■	■	■	■	■

H4.1	H4.2
■	■

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)	PRFA (°)
P8253.0X3.0	3.00	3.00	4.00	38.0	10
P8256.3X3.0 [1)]	6.30	3.00	6.00	39.0	12
P8256.0X6.0	6.00	6.00	8.00	50.0	10
P8259.6X6.0 [1)]	9.60	6.00	9.50	55.0	16
P82512.7X6.0 [1)]	12.70	6.00	12.70	58.0	28
P82516.0X6.0 [1)]	16.00	6.00	19.00	64.0	18

[1)] Brazed on steel shank

Material code (BMC)	HM	HM	HM	HM	HM	HM	HM	HM	HM				
Burr Type Code (BTC)	ST	ST	ST	ST	ST	ST	ST	ST	ST				
Burr Shape	A	B	C	D	E	F	G	H	L				
Coating	Bright	Bright	Bright	Bright	Bright	Bright	Bright	Bright	Bright				
Basic standard group (BSG)	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER				
Burr end shot													
Product Family Code	P701	P703	P705	P707	P709	P711	P713	P715	P721				
PSF cutting diameters range	6.00 – 12.70	6.00 – 12.70	6.00 – 12.70	6.00 – 12.70	12.70	6.00 – 12.70	6.00 – 12.70	8.00 – 12.70	9.60 – 12.70				
	204	205	206	207	208	209	210	211	212				
P	P1	■	■	■	■	■	■	■	■	■				
	P2	■	■	■	■	■	■	■	■	■				
	P3	■	■	■	■	■	■	■	■	■				
	P4	■	■	■	■	■	■	■	■	■				
M	M1													
	M2													
	M3													
	M4													
K	K1													
	K2													
	K3													
	K4													
	K5													
N	N1													
	N2													
	N3													
	N4													
	N5													
S	S1													
	S2													
	S3													
	S4													
H	H1													
	H2													
	H3													
	H4													

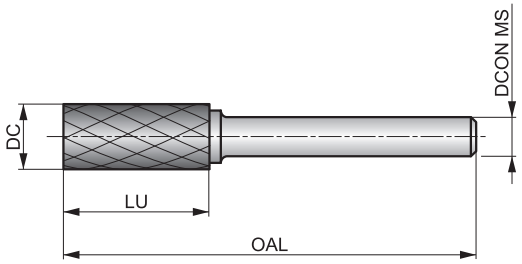
■ Primary use ◪ Possible use

P701

DORMER

Rotary Burr – Cylinder without endcut, Shape A

ST single cut flute style with chipbreakers and medium spaced edge for trimming and deburring surfaces. Carbide design for cutting diameter equal to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for steels.



HM	A	Bright
ST	DORMER	

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3
■	■	■	■	■	■	■	■	■	■	■	■

DC = 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P7016.0X6.0	6.00	6.00	18.00	50.0
P7018.0X6.0 [1)]	8.00	6.00	19.00	64.0
P7019.6X6.0 [1)]	9.60	6.00	19.00	64.0
P70112.7X6.0 [1)]	12.70	6.00	25.00	70.0

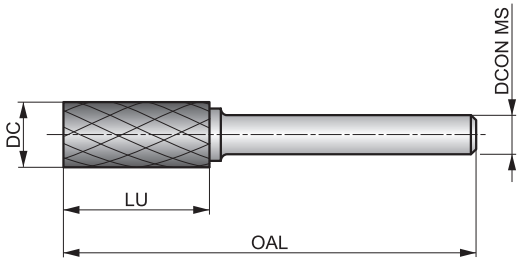
[1)] Brazed on steel shank

P703

DORMER

Rotary Burr – Cylinder with endcut, Shape B

ST single cut flute style with chipbreakers and medium spaced edge for trimming and deburring surfaces and right-angled corners. Carbide design for cutting diameter equal to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for steels.



HM | B | Bright | ST | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3
■	■	■	■	■	■	■	■	■	■	■	■

DC = 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC	DCON MS	LU	OAL
	(mm)	(mm)	(mm)	(mm)
P7036.0X6.0	6.00	6.00	18.00	50.0
P7038.0X6.0 [1)]	8.00	6.00	19.00	64.0
P7039.6X6.0 [1)]	9.60	6.00	19.00	64.0
P70312.7X6.0 [1)]	12.70	6.00	25.00	70.0

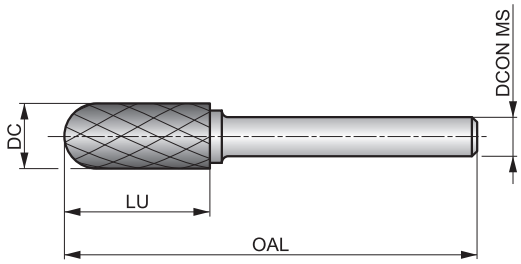
[1)] Brazed on steel shank

P705

DORMER

Rotary Burr – Ball Nosed Cylinder, Shape C

ST single cut flute style with chipbreakers and medium spaced edge for trimming and deburring contours and circular arcs. Carbide design for cutting diameter equal to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for steels.



HM | C | Bright

ST | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3
■	■	■	■	■	■	■	■	■	■	■	■

DC = 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC	DCON MS	LU	OAL
	(mm)	(mm)	(mm)	(mm)
P7056.0X6.0	6.00	6.00	18.00	50.0
P7058.0X6.0 [1)]	8.00	6.00	19.00	64.0
P7059.6X6.0 [1)]	9.60	6.00	19.00	64.0
P70512.7X6.0 [1)]	12.70	6.00	25.00	70.0

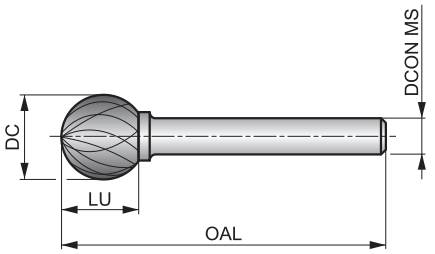
[1)] Brazed on steel shank

P707

DORMER

Rotary Burr – Ball, Shape D

ST single cut flute style with chipbreakers and medium spaced edge for intricate carving, metal engraving and welding preparation. Carbide design for cutting diameter equal to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for steels.



HM | D | Bright

ST | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3
■	■	■	■	■	■	■	■	■	■	■	■

DC = 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC	DCON MS	LU	OAL
	(mm)	(mm)	(mm)	(mm)
P7076.0X6.0	6.00	6.00	4.70	50.0
P7078.0X6.0 [1)]	8.00	6.00	6.00	52.0
P7079.6X6.0 [1)]	9.60	6.00	8.00	54.0
P70712.7X6.0 [1)]	12.70	6.00	11.00	56.0

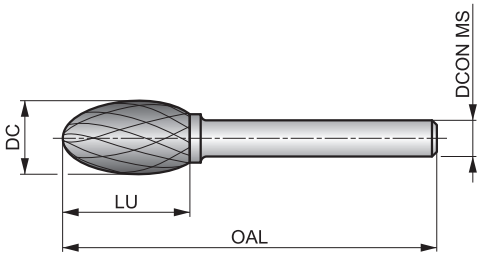
[1)] Brazed on steel shank

P709

DORMER

Rotary Burr – Oval, Shape E

ST single cut flute style with chipbreakers and medium spaced edge for round edge contouring. Carbide head with toughened and hardened steel shank. First choice for steels.



HM	E	Bright
ST	DORMER	

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3
■	■	■	■	■	■	■	■	■	■	■	■

Brazed on Steel Shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P70912.7X6.0 [1]	12.70	6.00	22.00	67.0

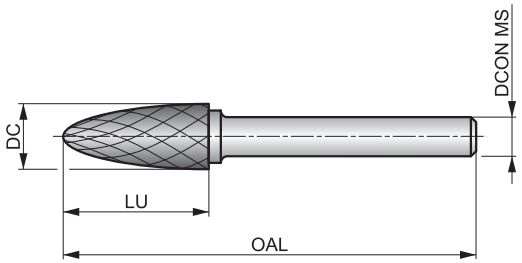
[1] Brazed on steel shank

P711

DORMER

Rotary Burr – Ball Nosed Tree, Shape F

ST single cut flute style with chipbreakers and medium spaced edge for multi-angle contouring, rounding of edges and cutting into hard to reach areas. Carbide design for cutting diameter equal to 6 mm; above 6 mm carbide head with toughend and hardened steel shank. First choice for steels.



HM | F | Bright

ST | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3
■	■	■	■	■	■	■	■	■	■	■	■

DC = 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

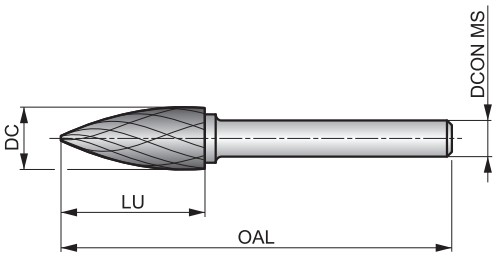
Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P7116.0X6.0	6.00	6.00	18.00	50.0
P7118.0X6.0 [1)]	8.00	6.00	20.00	65.0
P7119.6X6.0 [1)]	9.60	6.00	19.00	64.0
P71112.7X6.0 [1)]	12.70	6.00	25.00	70.0

[1)] Brazed on steel shank

P713

Rotary Burr – Pointed Tree, Shape G

ST single cut flute style with chipbreakers and medium spaced edge for multi-angle contouring and cutting narrow angles in hard to reach areas. Carbide design for cutting diameter equal to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for steels.



HM | G | Bright

ST | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3
■	■	■	■	■	■	■	■	■	■	■	■

DC = 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P7136.0X6.0	6.00	6.00	18.00	50.0
P7138.0X6.0 [1)]	8.00	6.00	19.00	64.0
P7139.6X6.0 [1)]	9.60	6.00	19.00	64.0
P71312.7X6.0 [1)]	12.70	6.00	25.00	70.0

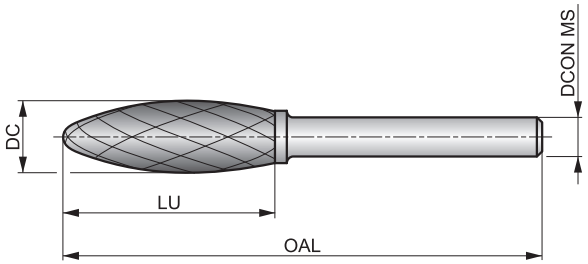
[1)] Brazed on steel shank

P715

DORMER

Rotary Burr – Flame, Shape H

ST single cut flute style with chipbreakers and medium spaced edge for round edge contouring and welding preparation. Carbide head with toughened and hardened steel shank. First choice for steels.



HM | H | Bright

ST | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3
■	■	■	■	■	■	■	■	■	■	■	■

Brazed on Steel Shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P7158.0X6.0 [1]	8.00	6.00	19.00	64.0
P71512.7X6.0 [1]	12.70	6.00	32.00	77.0

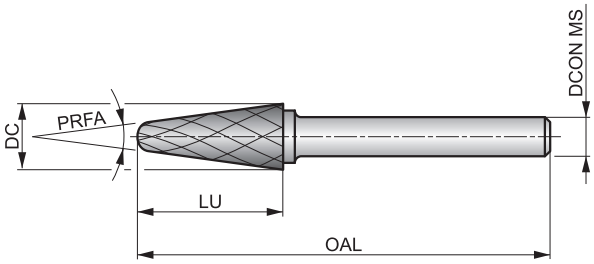
[1] Brazed on steel shank

P721

DORMER

Rotary Burr – Ball Nosed Cone, Shape L

ST single cut flute style with chipbreakers and medium spaced edge for enlarging holes, rounding edges and surface-finishing in tight narrow angles or other hard to reach areas. Carbide head with toughened and hardened steel shank. First choice for steels.



HM | L | Bright

ST | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	P4.3
■	■	■	■	■	■	■	■	■	■	■	■

Brazed on Steel Shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC	DCON MS	LU	OAL	PRFA
	(mm)	(mm)	(mm)	(mm)	(°)
P72110.0X6.0 [1]	10.00	6.00	20.00	65.0	14
P7219.6X6.0 [1]	9.60	6.00	30.00	76.0	14
P72112.7X6.0 [1]	12.70	6.00	32.00	77.0	14

[1] Brazed on steel shank

Material code (BMC)		HM	HM	HM	HM	HM	HM	HM	HM				
Burr Type Code (BTC)		VA	VA	VA	VA	VA	VA	VA	VA				
Burr Shape		A	C	D	E	F	G	H	L				
Coating		Bright	Bright	Bright	Bright	Bright	Bright	Bright	Bright				
Basic standard group (BSG)		DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER				
													
Product Family Code		P601	P605	P607	P609	P611	P613	P615	P621				
PSF cutting diameters range		3.00 – 12.70	3.00 – 12.70	3.00 – 12.70	8.00 – 12.70	3.00 – 12.70	6.00 – 12.70	8.00 – 12.70	8.00 – 12.70				
		214	215	216	217	218	219	220	221				
P	P1												
	P2												
	P3												
	P4												
M	M1	■	■	■	■	■	■	■	■				
	M2	■	■	■	■	■	■	■	■				
	M3	■	■	■	■	■	■	■	■				
	M4	■	■	■	■	■	■	■	■				
K	K1							◪					
	K2												
	K3												
	K4	◪	◪	◪	◪	◪	◪	◪	◪				
	K5												
N	N1												
	N2												
	N3												
	N4												
	N5												
S	S1												
	S2												
	S3												
	S4												
H	H1												
	H2												
	H3												
	H4												

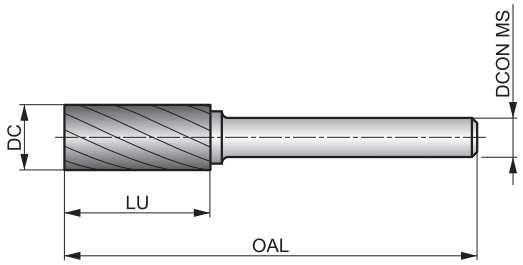
■ Primary use ◪ Possible use

P601

DORMER

Rotary Burr – Cylinder without endcut, Shape A

VA single cut flute style with medium spaced edges for trimming and deburring surfaces. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for stainless steels.



HM	A	Bright
VA	DORMER	

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M1.1	M1.2	M2.1	M2.2	M2.3	M3.1	M3.2	M3.3	M4.1	M4.2	K4.1	K4.2
■	■	■	■	■	■	■	■	■	■	◪	◪

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC	DCON MS	LU	OAL
	(mm)	(mm)	(mm)	(mm)
P6013.0X3.0	3.00	3.00	14.00	38.0
P6016.3X3.0 [1)]	6.30	3.00	12.70	45.0
P6016.0X6.0	6.00	6.00	18.00	50.0
P6018.0X6.0 [1)]	8.00	6.00	19.00	64.0
P6019.6X6.0 [1)]	9.60	6.00	19.00	64.0
P60112.7X6.0 [1)]	12.70	6.00	25.00	70.0

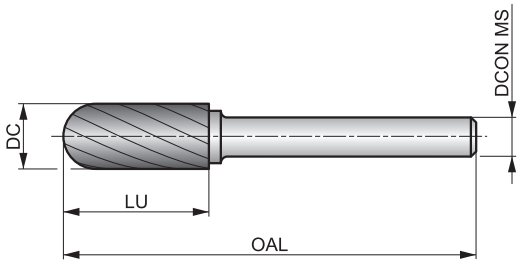
[1)] Brazed on steel shank

P605

DORMER

Rotary Burr – Ball Nosed Cylinder, Shape C

VA single cut flute style with medium spaced edges for trimming and deburring contours and circular arcs. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for stainless steels.



HM | C | Bright

VA | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M1.1	M1.2	M2.1	M2.2	M2.3	M3.1	M3.2	M3.3	M4.1	M4.2	K4.1	K4.2
■	■	■	■	■	■	■	■	■	■	◪	◪

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

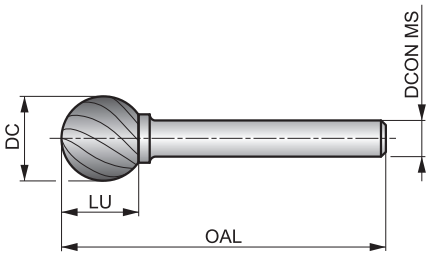
Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P6053.0X3.0	3.00	3.00	14.00	38.0
P6056.3X3.0 [1)]	6.30	3.00	12.70	45.0
P6056.0X6.0	6.00	6.00	18.00	50.0
P6058.0X6.0 [1)]	8.00	6.00	19.00	64.0
P6059.6X6.0 [1)]	9.60	6.00	19.00	64.0
P60512.7X6.0 [1)]	12.70	6.00	25.00	70.0

[1)] Brazed on steel shank

P607

Rotary Burr – Ball, Shape D

VA single cut flute style with medium spaced edges for intricate carving, metal engraving and welding preparation. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for stainless steels.



HM | D | Bright

VA | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M1.1	M1.2	M2.1	M2.2	M2.3	M3.1	M3.2	M3.3	M4.1	M4.2	K4.1	K4.2
■	■	■	■	■	■	■	■	■	■	◪	◪

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC	DCON MS	LU	OAL
	(mm)	(mm)	(mm)	(mm)
P6073.0X3.0	3.00	3.00	2.50	38.0
P6076.3X3.0 [1)]	6.30	3.00	5.00	38.0
P6076.0X6.0	6.00	6.00	4.70	50.0
P6078.0X6.0 [1)]	8.00	6.00	6.00	52.0
P6079.6X6.0 [1)]	9.60	6.00	8.00	54.0
P60712.7X6.0 [1)]	12.70	6.00	11.00	56.0

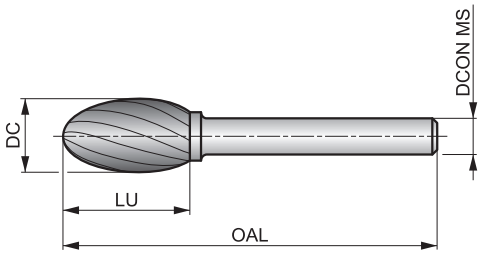
[1)] Brazed on steel shank

P609

DORMER

Rotary Burr – Oval, Shape E

VA single cut flute style with medium spaced edges for round edge contouring. Carbide head with toughened and hardened steel shank. First choice for stainless steels.



HM | E | Bright

VA | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M1.1	M1.2	M2.1	M2.2	M2.3	M3.1	M3.2	M3.3	M4.1	M4.2	K4.1	K4.2
■	■	■	■	■	■	■	■	■	■	◪	◪

Brazed on Steel Shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P6098.0X6.0 [1]	8.00	6.00	15.00	60.0
P6099.6X6.0 [1]	9.60	6.00	16.00	60.0
P60912.7X6.0 [1]	12.70	6.00	22.00	67.0

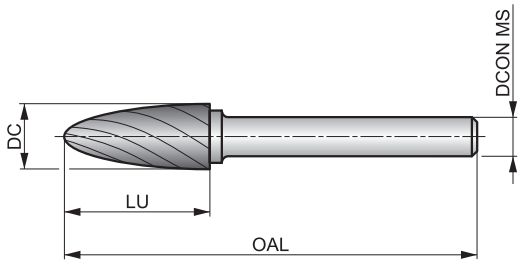
[1] Brazed on steel shank

P611

DORMER

Rotary Burr – Ball Nosed Tree, Shape F

VA single cut flute style with medium spaced edges for multi-angle contouring, rounding of edges and cutting into hard to reach areas. Carbide design for cutting diameter up to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for stainless steels.



HM | F | Bright

VA | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M1.1	M1.2	M2.1	M2.2	M2.3	M3.1	M3.2	M3.3	M4.1	M4.2	K4.1	K4.2
■	■	■	■	■	■	■	■	■	■	◪	◪

DC ≤ 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P6113.0X3.0	3.00	3.00	14.00	38.0
P6116.3X3.0 [1)]	6.30	3.00	12.70	45.0
P6116.0X6.0	6.00	6.00	18.00	50.0
P6118.0X6.0 [1)]	8.00	6.00	20.00	65.0
P6119.6X6.0 [1)]	9.60	6.00	19.00	64.0
P61112.7X6.0 [1)]	12.70	6.00	25.00	70.0

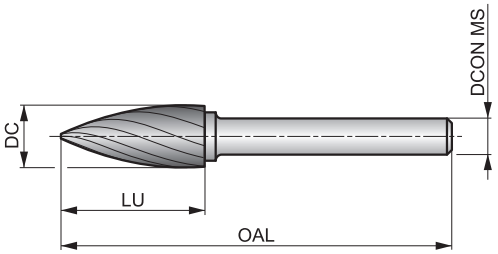
[1)] Brazed on steel shank

P613

DORMER

Rotary Burr – Pointed Tree, Shape G

VA single cut flute style with medium spaced edges for multi-angle contouring and cutting narrow angles in hard to reach areas. Carbide design for cutting diameter equal to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for stainless steels.



HM | G | Bright

VA | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M1.1	M1.2	M2.1	M2.2	M2.3	M3.1	M3.2	M3.3	M4.1	M4.2	K4.1	K4.2
■	■	■	■	■	■	■	■	■	■	◪	◪

DC=6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P6136.0X6.0	6.00	6.00	18.00	50.0
P6138.0X6.0 [1)]	8.00	6.00	19.00	64.0
P6139.6X6.0 [1)]	9.60	6.00	19.00	64.0
P61312.7X6.0 [1)]	12.70	6.00	25.00	70.0

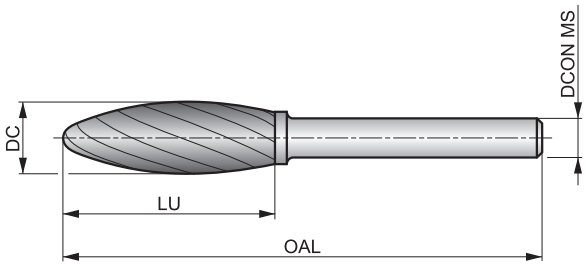
[1)] Brazed on steel shank

P615

DORMER

Rotary Burr – Flame, Shape H

VA single cut flute style with medium spaced edges for round edge contouring and welding preparation. Carbide head with toughened and hardened steel shank. First choice for stainless steels.



HM	H	Bright
VA	DORMER	


Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M1.1	M1.2	M2.1	M2.2	M2.3	M3.1	M3.2	M3.3	M4.1	M4.2	K4.1	K4.2
■	■	■	■	■	■	■	■	■	■	◪	◪

Brazed on Steel Shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P6158.0X6.0 [1]	8.00	6.00	19.00	64.0
P6159.6X6.0 [1]	9.60	6.00	19.00	65.0
P61512.7X6.0 [1]	12.70	6.00	32.00	77.0

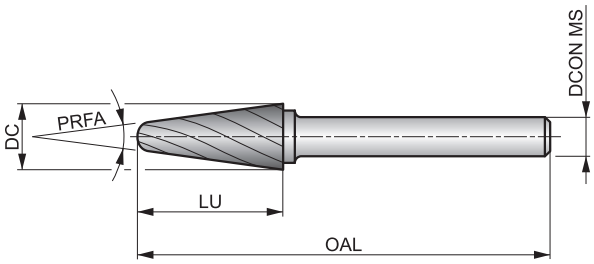
[1] Brazed on steel shank

P621

DORMER

Rotary Burr – Ball Nosed Cone, Shape L

VA single cut flute style with medium spaced edges for enlarging holes, rounding edges and surface finishing in tight narrow angles or other hard to reach areas. Carbide head with toughened and hardened steel shank. First choice for stainless steels.



HM | L | Bright

VA | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M1.1	M1.2	M2.1	M2.2	M2.3	M3.1	M3.2	M3.3	M4.1	M4.2	K4.1	K4.2
■	■	■	■	■	■	■	■	■	■	◪	◪

Brazed on Steel Shank with DCON MS tolerance h7.
Products from this series are also available in set. Please see P880.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)	PRFA (°)
P6218.0X6.0 [1]	8.00	6.00	25.40	70.0	14
P62110.0X6.0 [1]	10.00	6.00	20.00	65.0	14
P62112.7X6.0 [1]	12.70	6.00	32.00	77.0	14

[1] Brazed on steel shank

Material code (BMC)	HM	HM	HM	HM	HM	HM	HM	HM					
Burr Type Code (BTC)	AL	AL	AL	AL	AL	AL	GRP	GRP					
Burr Shape	A	B	C	D	F	L							
Coating	Bright	Bright	Bright	Bright	Bright	Bright	Bright	Bright					
Basic standard group (BSG)	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER					
Application angle							135°	180°					
Burr end shot													
Product Family Code	P831	P833	P835	P837	P841	P842	P843	P844					
PSF cutting diameters range	6.00 – 12.70	6.00 – 12.70	6.00 – 12.70	6.00 – 12.70	6.00 – 12.70	6.00 – 12.70	3.00 – 8.00	3.00 – 8.00					
	224	225	226	227	228	229	230	231					
P	P1												
	P2												
	P3												
	P4												
M	M1												
	M2												
	M3												
	M4												
K	K1												
	K2												
	K3												
	K4												
	K5												
N	N1	■	■	■	■	■	■						
	N2	■	■	■	■	■	■						
	N3	◪	◪	◪	◪	◪	◪						
	N4	■	■	■	■	■	■	■	■				
	N5												
S	S1	◪	◪	◪	◪	◪	◪						
	S2												
	S3												
	S4												
H	H1												
	H2												
	H3												
	H4												

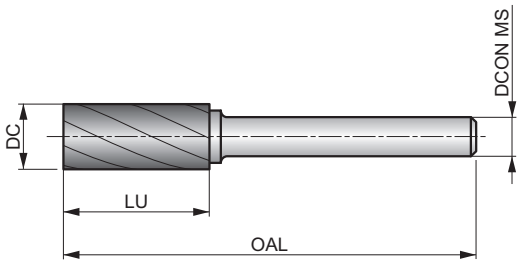
■ Primary use ◪ Possible use

P831

DORMER

Rotary Burr – Cylinder without endcut, Shape A

AL single cut flute style with wide spaced edges for trimming and deburring surfaces. Carbide design for cutting diameter equal to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for non-ferrous materials and plastics.



HM | A | Bright

AL | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N4.1	N4.2	N4.3	S1.1
■	■	■	■	■	■	◪	◪	■	■	◪	◪

DC = 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8316.0X6.0	6.00	6.00	18.00	50.0
P8319.6X6.0 [1)]	9.60	6.00	19.00	64.0
P83112.7X6.0 [1)]	12.70	6.00	25.00	70.0

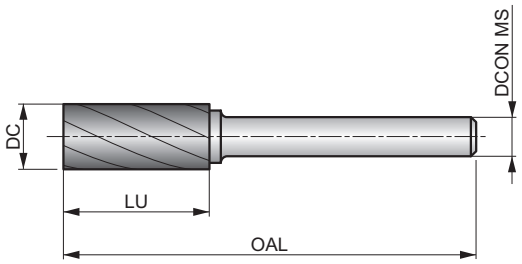
[1)] Brazed on steel shank

P833

DORMER

Rotary Burr – Cylinder with endcut, Shape B

AL single cut flute style with wide spaced edges for trimming and deburring surfaces and right-angled corners. Carbide design for cutting diameter equal to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for non-ferrous materials and plastics.



HM | B | Bright | AL | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N4.1	N4.2	N4.3	S1.1
■	■	■	■	■	■	◪	◪	■	■	◪	◪

DC = 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8336.0X6.0	6.00	6.00	18.00	50.0
P8339.6X6.0 [1)]	9.60	6.00	19.00	64.0
P83312.7X6.0 [1)]	12.70	6.00	25.00	70.0

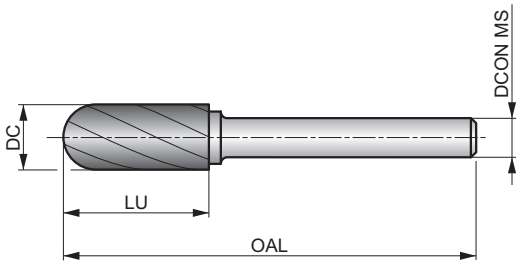
[1)] Brazed on steel shank

P835

DORMER

Rotary Burr – Ball Nosed Cylinder, Shape C

AL single cut flute style with wide spaced edges for for trimming and deburring contours and circular arcs. Carbide design for cutting diameter equal to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for non-ferrous materials and plastics.



HM | C | Bright

AL | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N4.1	N4.2	N4.3	S1.1
■	■	■	■	■	■	◪	◪	■	■	◪	◪

DC = 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8356.0X6.0	6.00	6.00	18.00	50.0
P8359.6X6.0 [1)]	9.60	6.00	19.00	64.0
P83512.7X6.0 [1)]	12.70	6.00	25.00	70.0

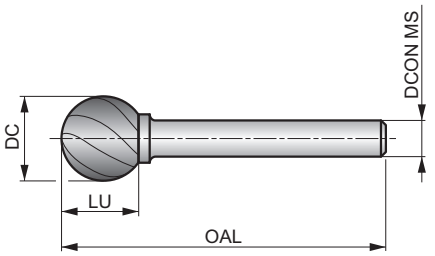
[1)] Brazed on steel shank

P837

DORMER

Rotary Burr – Ball, Shape D

AL single cut flute style with wide spaced edges for intricate carving, metal engraving and welding preparation. Carbide design for cutting diameter equal to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for non-ferrous materials and plastics.



HM | D | Bright

AL | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N4.1	N4.2	N4.3	S1.1
■	■	■	■	■	■	◪	◪	■	■	◪	◪

DC = 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8376.0X6.0	6.00	6.00	4.70	50.0
P8379.6X6.0 [1)]	9.60	6.00	8.00	54.0
P83712.7X6.0 [1)]	12.70	6.00	11.00	56.0

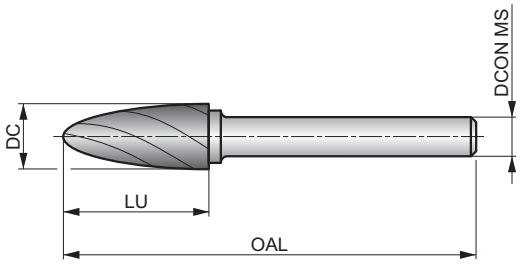
[1)] Brazed on steel shank

P841

DORMER

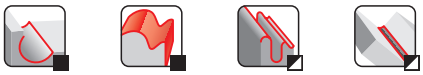
Rotary Burr – Ball Nosed Tree, Shape F

AL single cut flute style with wide spaced edges for multi-angle contouring, rounding of edges and cutting into hard to reach areas. Carbide design for cutting diameter equal to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for non-ferrous materials and plastics.



HM | F | Bright

AL | DORMER



Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N4.1	N4.2	N4.3	S1.1
■	■	■	■	■	■	◪	◪	■	■	◪	◪

DC = 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8416.0X6.0	6.00	6.00	18.00	50.0
P8419.6X6.0 [1)]	9.60	6.00	19.00	64.0
P84112.7X6.0 [1)]	12.70	6.00	25.00	70.0

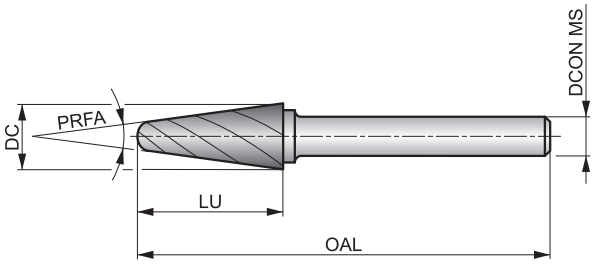
[1)] Brazed on steel shank

P842

DORMER

Rotary Burr – Ball Nosed Cone, Shape L

AL single cut flute style – wide spaced edges for enlarging holes, rounding edges and surface finishing in tight narrow angles or other hard to reach areas. Carbide design for cutting diameter equal to 6 mm; above 6 mm carbide head with toughened and hardened steel shank. First choice for non-ferrous materials and plastics.



HM | L | Bright

AL | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

N1.1	N1.2	N1.3	N2.1	N2.2	N2.3	N3.1	N3.2	N4.1	N4.2	N4.3	S1.1
■	■	■	■	■	■	◪	◪	■	■	◪	◪

DC = 6.00 mm: DCON MS tolerance h6; DC > 6.00 mm: Brazed on steel shank with DCON MS tolerance h7.

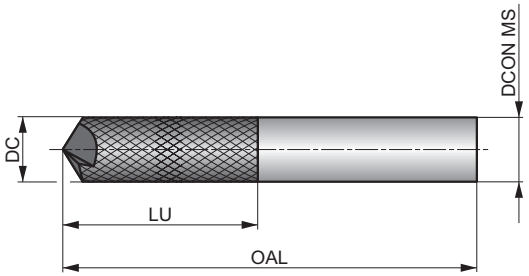
Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)	PRFA (°)
P8426.0X6.0	6.00	6.00	18.00	50.0	14
P8429.6X6.0 [1)]	9.60	6.00	30.00	76.0	14
P84212.7X6.0 [1)]	12.70	6.00	32.00	77.0	14

[1)] Brazed on steel shank

P843

Diamond Cut Router – 135° Drill Point

GRP diamond cut flute style with medium spaced edges for contouring, making cut-out shapes and holes. Solid carbide shank for rigidity. First choice for fibreglass and composite materials.



HM | Bright | 135° | GRP

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

N4.3

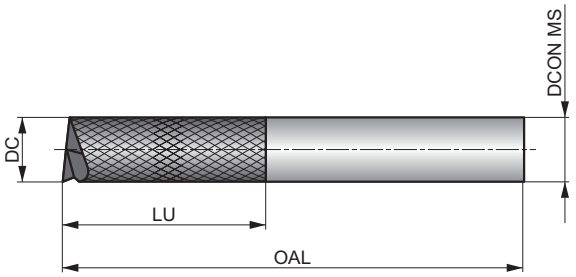
DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8433.0X3.0	3.00	3.00	13.00	45.0
P8436.0X6.0	6.00	6.00	19.00	63.0
P8438.0X8.0	8.00	8.00	25.00	63.0

P844

Diamond Cut Router – End Mill

GRP diamond cut flute style with medium spaced edges for contouring, groove and pocket milling and making cut-out shapes. Solid carbide shank for rigidity. First choice for fibreglass and composite materials.



HM | Bright | 180° | GRP | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

N4.3

DCON MS tolerance h6.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P8443.0X3.0	3.00	3.00	13.00	45.0
P8446.0X6.0	6.00	6.00	19.00	63.0
P8448.0X8.0	8.00	8.00	25.00	63.0

Material code (BMC)	HM	HM	HM	HM	HM	HM	HM	HM	HM				
Burr Type Code (BTC)	AS	AS	AS	AS	AS	AS	AS	AS	AS				
Burr Shape	A	C	D	E	F	G	H	L	M				
Coating	Bright	Bright	Bright	Bright	Bright	Bright	Bright	Bright	Bright				
Basic standard group (BSG)	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER	DORMER				
Product Family Code	P501	P505	P507	P509	P511	P513	P515	P521	P523				
PSF cutting diameters range	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00				
	234	235	236	237	238	239	240	241	242				
P	P1												
	P2												
	P3												
	P4												
M	M1												
	M2												
	M3	◪	◪	◪	◪	◪	◪	◪	◪	◪				
	M4	◪	◪	◪	◪	◪	◪	◪	◪	◪				
K	K1												
	K2												
	K3												
	K4												
	K5												
N	N1												
	N2												
	N3												
	N4												
	N5												
S	S1	■	■	■	■	■	■	■	■	■				
	S2	■	■	■	■	■	■	■	■	■				
	S3	■	■	■	■	■	■	■	■	■				
	S4	■	■	■	■	■	■	■	■	■				
H	H1												
	H2												
	H3												
	H4												

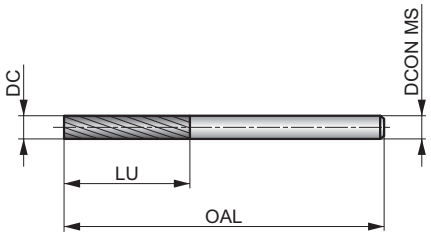
■ Primary use ◪ Possible use

P501

DORMER

Rotary Burr – Cylinder without endcut, Shape A

AS single cut flute style with light left-hand cross cut for trimming and deburring surfaces. Solid carbide shank for rigidity. First choice for superalloys.



HM	A	Bright
AS	DORMER	

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M3.1	M3.2	M3.3	M4.1	M4.2	S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2
◪	◪	◪	◪	◪	■	■	■	■	■	■	■	■	■

DCON MS tolerance h6.
Products from this series are also available in set. Please see P880.

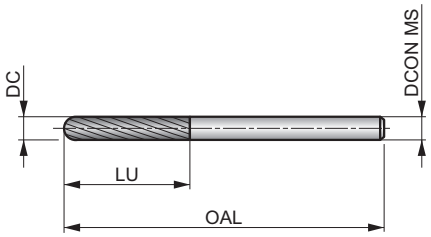
Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P5013.0X3.0	3.00	3.00	12.00	38.0

P505

DORMER

Rotary Burr – Ball Nosed Cylinder, Shape C

AS single cut flute style with light left-hand cross cut for trimming and deburring contours and circular arcs. Solid carbide shank for rigidity. First choice for superalloys.



HM	C	Bright
AS	DORMER	

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M3.1	M3.2	M3.3	M4.1	M4.2	S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2
◪	◪	◪	◪	◪	■	■	■	■	■	■	■	■	■

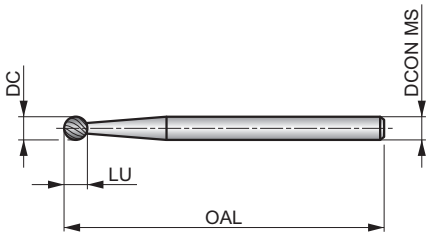
DCON MS tolerance h6.
Products from this series are also available in set. Please see P880.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P5053.0X3.0	3.00	3.00	14.00	38.0

P507

Rotary Burr – Ball, Shape D

AS single cut flute style with light left-hand cross cut for intricate carving, metal engraving and welding preparation. Solid carbide shank for rigidity. First choice for superalloys.



HM | D | Bright

AS | DORMER



Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M3.1	M3.2	M3.3	M4.1	M4.2	S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2
◪	◪	◪	◪	◪	■	■	■	■	■	■	■	■	■

DCON MS tolerance h6.
Products from this series are also available in set. Please see P880.

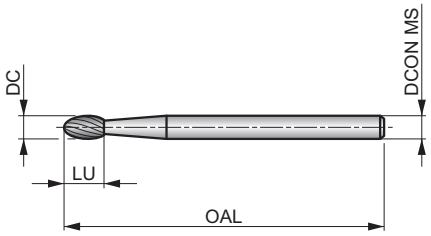
Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P5073.0X3.0	3.00	3.00	2.50	38.0

P509

DORMER

Rotary Burr – Oval, Shape E

AS single cut flute style with light left-hand cross cut for round edge contouring. Solid carbide shank for rigidity. First choice for superalloys.



HM	E	Bright
AS	DORMER	

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M3.1	M3.2	M3.3	M4.1	M4.2	S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2
◪	◪	◪	◪	◪	■	■	■	■	■	■	■	■	■

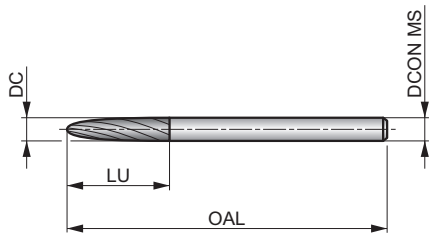
DCON MS tolerance h6.
Products from this series are also available in set. Please see P880.

Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P5093.0X3.0	3.00	3.00	6.00	38.0

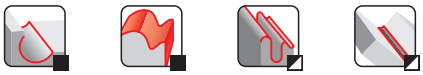
P511

Rotary Burr – Ball Nosed Tree, Shape F

AS single cut flute style with light left-hand cross cut for multi-angle contouring, rounding of edges and cutting into hard to reach areas. Solid carbide shank for rigidity. First choice for superalloys.



HM	F	Bright
AS	DORMER	



Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M3.1	M3.2	M3.3	M4.1	M4.2	S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2
◪	◪	◪	◪	◪	■	■	■	■	■	■	■	■	■

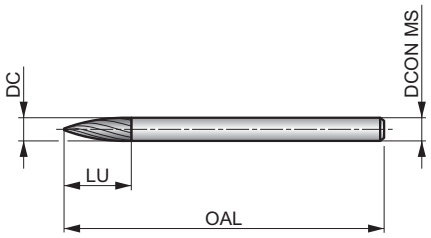
DCON MS tolerance h6.
Products from this series are also available in set. Please see P880.

Product	DC	DCON MS	LU	OAL
	(mm)	(mm)	(mm)	(mm)
P5113.0X3.0	3.00	3.00	14.00	38.0

P513

Rotary Burr – Pointed Tree, Shape G

AS single cut flute style with light left-hand cross cut for multi-angle contouring and cutting narrow angles in hard to reach areas. Solid carbide shank for rigidity. First choice for superalloys.



HM | G | Bright

AS | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M3.1	M3.2	M3.3	M4.1	M4.2	S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2
◪	◪	◪	◪	◪	■	■	■	■	■	■	■	■	■

DCON MS tolerance h6.
Products from this series are also available in set. Please see P880.

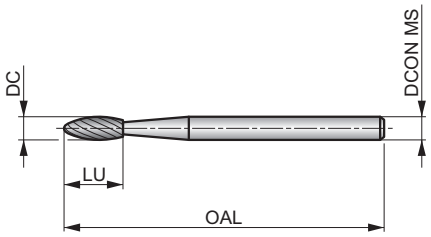
Product	DC	DCON MS	LU	OAL
	(mm)	(mm)	(mm)	(mm)
P5133.0X3.0X8.0	3.00	3.00	8.00	38.0
P5133.0X3.0X14.0	3.00	3.00	14.00	38.0

P515

DORMER

Rotary Burr – Flame, Shape H

AS single cut flute style with light left-hand cross cut for round edge contouring and welding preparation. Solid carbide shank for rigidity. First choice for superalloys.



HM | H | Bright

AS | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M3.1	M3.2	M3.3	M4.1	M4.2	S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2
◪	◪	◪	◪	◪	■	■	■	■	■	■	■	■	■

DCON MS tolerance h6.
Products from this series are also available in set. Please see P880.

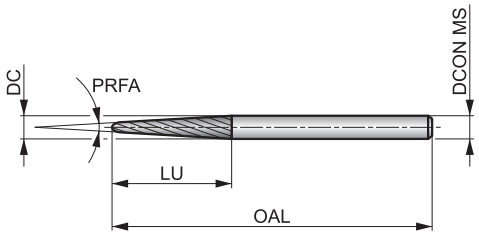
Product	DC (mm)	DCON MS (mm)	LU (mm)	OAL (mm)
P5153.0X3.0	3.00	3.00	6.00	38.0

P521

DORMER

Rotary Burr – Ball Nosed Cone, Shape L

AS single cut flute style with light left-hand cross cut for enlarging holes, rounding edges and surface-finishing in tight narrow angles or other hard to reach areas. Solid carbide shank for rigidity. First choice for superalloys.



HM | L | Bright

AS | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M3.1	M3.2	M3.3	M4.1	M4.2	S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2
◪	◪	◪	◪	◪	■	■	■	■	■	■	■	■	■

DCON MS tolerance h6.
Products from this series are also available in set. Please see P880.

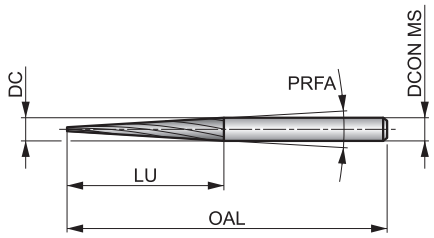
Product	DC	DCON MS	LU	OAL	PRFA
	(mm)	(mm)	(mm)	(mm)	(°)
P5213.0X3.0	3.00	3.00	14.00	38.0	8

P523

DORMER

Rotary Burr – Cone, Shape M

AS single cut flute style with light left-hand cross cut for enlarging holes, surface finishing and cutting narrow angles in hard to reach areas. Solid carbide shank for rigidity. First choice for superalloys.



HM	M	Bright
AS	DORMER	


Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

M3.1	M3.2	M3.3	M4.1	M4.2	S1.1	S1.2	S1.3	S2.1	S2.2	S3.1	S3.2	S4.1	S4.2
◪	◪	◪	◪	◪	■	■	■	■	■	■	■	■	■

DCON MS tolerance h6.
Products from this series are also available in set. Please see P880.

Product	DC	DCON MS	LU	OAL	PRFA
	(mm)	(mm)	(mm)	(mm)	(°)
P5233.0X3.0	3.00	3.00	15.00	38.0	7

Material code (BMC)	HM	HM	HM	HM						
Burr Type Code (BTC)			BR	BR						
Coating			Bright	Bright						
Basic standard group (BSG)			DORMER	DORMER						
Application angle				150°						
Burr end shot										
										
Product Family Code	P880	P890	P100	P101	M902					
PSF cutting diameters range	Set	Set	4.90 – 10.70	4.90 – 10.70	Set					
	244	245	246	247	248					
P	P1			■	■						
	P2			■	■						
	P3			■	■						
	P4			■	■						
M	M1			■	■						
	M2			■	■						
	M3			■	■						
	M4										
K	K1										
	K2										
	K3										
	K4										
	K5										
N	N1										
	N2										
	N3										
	N4										
	N5										
S	S1										
	S2										
	S3										
	S4										
H	H1										
	H2										
	H3										
	H4										

■ Primary use ◪ Possible use

P880

Rotary Burr Set

Set of different rotary burrs in various shapes, sizes and forms.

A = Styles in Set, B = No. in Set, C = Rotary Burrs in Set.

Product	Nr.	A	B	C
P88001	Nr01	P803 + P805 + P807 + P809 + P813	5	P8039.6X6.0; P8059.6X6.0; P8079.6X6.0; P8099.6X6.0; P8139.6X6.0
P88002	Nr02	P803C + P805C + P807C + P811C + P813C	5	P803C9.6X6.0; P805C9.6X6.0; P807C9.6X6.0; P811C9.6X6.0; P813C9.6X6.0
P88003	Nr03	P601 + P605 + P607 + P611 + P621	5	P6019.6X6.0; P6059.6X6.0; P6079.6X6.0; P6119.6X6.0; P62110.0X6.0
P88004	Nr04	P703 + P705 + P707 + P711 + P721	5	P7039.6X6.0; P7059.6X6.0; P7079.6X6.0; P7119.6X6.0; P72110.0X6.0
P88006	Nr06	P501 + P505 + P507 + P509 + P511 + P513 + P515 + P521 + P523	10	P5013.0×3.0; P5053.0×3.0; P5073.0×3.0; P5093.0×3.0; P5113.0×3.0; P5133.0×3.0×8.0; P5133.0×3.0×14.0; P5153.0×3.0; P5213.0×3.0; P5233.0×3.0

P890

DORMER

Rotary Burrs Display

Display of 40 pieces of solid burrs of the P8xx serie. DC double cut flute style with close spaced edges. Bright finish.

A = Styles in Set, B = No. in Set, C = Rotary Burrs in Set.

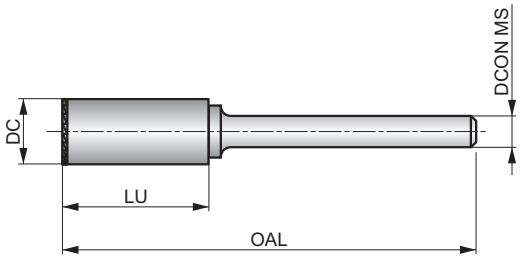
Product	Nr.	A	B	C
P89001EMPTY	–	–	–	–
P89001	Nr01	P803 + P805 + P811 + P813 + P821	40	P803(6.0X6.0; 8.0X6.0; 9.6X6.0; 12.7X6.0) X 2; P805(6.0X6.0; 8.0X6.0; 9.6X6.0; 12.7X6.0) X 2; P811(6.0X6.0; 8.0X6.0; 9.6X6.0; 12.7X6.0) X 2; P813(6.0X6.0; 8.0X6.0; 9.6X6.0; 12.7X6.0) X 2; P821(6.0X6.0; 8.0X6.0; 9.6X6.0; 12.7X6.0) X 2

P100

DORMER

1st Stage Rotary Burr for Broken Bolt Removal, Cylinder with End Cut

First stage broken bolt removal solid carbide burr. When a bolt is broken and needs to be extracted, first use P100 to flatten the broken bolt surface. Secondly use P101. This series of burrs makes sure the threaded hole is not damaged when removing the broken piece.



HM | Bright

BR | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■	■	■	■	■	■	■	■	■	■	■	■	■	■

M2.2	M2.3	M3.1	M3.2	M3.3
■	■	■	■	■

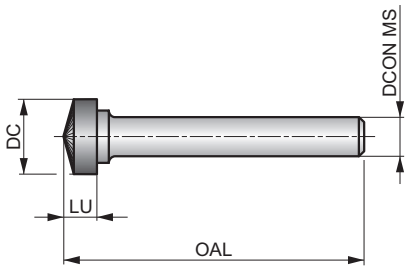
Product	DC	DCON MS	LU	OAL	
	(mm)	(mm)	(mm)	(mm)	
P1004.9	4.90	6.00	20.00	50.0	1/4-20; 24; 28; M6
P1006.4	6.40	6.00	5.00	50.0	5/16-18; 24; 32; M8
P1007.8	7.80	6.00	19.00	65.0	3/8-16; 24; M10
P1009.3	9.30	6.00	19.00	65.0	7/16-14; 20; M12
P10010.7	10.70	6.00	25.00	70.0	1/2-13; 20; M14

P101

DORMER

2nd Stage Rotary Burr for Broken Bolt Removal, 150° Countersink

Second stage broken bolt removal solid carbide burr. When a bolt is broken and needs to be extracted, P101 creates a centerpoint into the flattened broken bolt. Prepare it for the 3rd stage, drilling the broken piece with a drill.



HM | Bright | 150°

BR | DORMER

Workpiece material group suitability. Recommended operating speed (RPM) on page 277.

P1.1	P1.2	P1.3	P2.1	P2.2	P2.3	P3.1	P3.2	P3.3	P4.1	P4.2	M1.1	M1.2	M2.1
■	■	■	■	■	■	■	■	■	■	■	■	■	■

M2.2	M2.3	M3.1	M3.2	M3.3
■	■	■	■	■

Product	DC	DCON MS	LU	OAL	
	(mm)	(mm)	(mm)	(mm)	
P1014.9	4.90	6.00	20.00	50.0	1/4-20; 24; 28; M6
P1016.4	6.40	6.00	5.00	50.0	5/16-18; 24; 32; M8
P1017.8	7.80	6.00	5.00	50.0	3/8-16; 24; M10
P1019.3	9.30	6.00	5.00	50.0	7/16-14; 20; M12
P10110.7	10.70	6.00	5.00	50.0	1/2-13; 20; M14

M902

Bolt Removal Kit

Tools for removing broken right-handed bolts come in a set of four. First, use the P100 burr to flatten the bolt. Second, use the P101 burr to create a starting cone. Third, use the HSS-E stub drill A117 to drill a hole for the extractor. Finally, use the screw extractor in a counter-clockwise motion to remove the broken bolt without damaging the threads.

A = Styles in Set, B = No. in Set, C = Diameters in Set.

Product	Nr.	A	B	C
M902M6-M8	M6 – M8	M900, P100, P101, A117	4	P1004.9, P1014.9, A1173.0, M9002
M902M8-M10	M8 – M10	M900, P100, P101, A117	4	P1006.4, P1016.4, A1174.0, M9003
M902M10-M12	M10 – M12	M900, P100, P101, A117	4	P1007.8, P1017.8, A1174.2, M9003
M902M12-M14	M12 – M14	M900, P100, P101, A117	4	P1009.3, P1019.3, A1176.0, M9004
M902M14-M16	M14 – M16	M900, P100, P101, A117	4	P10010.7, P10110.7, A1178.0, M9005

INSTRUCTIONS

1 **S771HB**

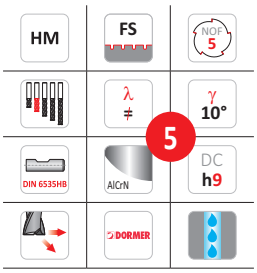
DORMER

2

5-Flute Solid Carbide End Mill, Chip Dividers and Through Coolant

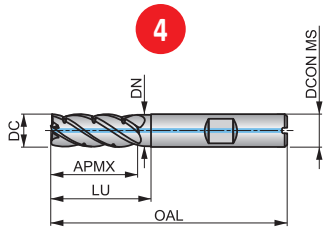
Short cut length, 5-flute design with neck recess and unequal helix helps to reduce vibrations especially when using the cutter in dynamic milling strategies. AlCrN coating improves performance and extends the tool life. Chip divider and through coolant improve chip evacuation in pocketing operation.

3



5

4



6

Workpiece material group suitability, starting values for cutting speed (m/min) and Alpha Code. Tables with feed per tooth and correction factors can be found starting from page 266.

P1.1 ■222 J	P1.2 ■248 J	P1.3 ■255 J	P2.1 ■189 J	P2.2 ■166 J	P2.3 ■147 J	P3.1 ■153 J	P3.2 ■123 J	P3.3 ■104 J	P4.1 ■90 J	P4.2 ■78 J	M1.1 ■128 J	M1.2 ■108 J	M2.1 ■113 J
M2.2 ■93 J	M3.1 ■105 J	M3.2 ■90 J	K1.1 ■218 J	K1.2 ■162 J	K1.3 ■122 J	K2.1 ■225 J	K2.2 ■183 J	K2.3 ■146 J	K3.1 ■198 J	K3.2 ■152 J	K3.3 ■123 J	K4.1 ■185 J	K4.2 ■139 J
K4.3 ■102 J	K4.4 ■87 J	K4.5 ■72 J	K5.1 ■209 J	K5.2 ■156 J	K5.3 ■122 J	S1.2 ■76 J	S2.1 ■59 J	S3.1 ■44 G	S4.1 ■35 G				

7

DCON MS tolerance h6; RE ±0.01 mm.

Product	DC (mm)	RE (mm)	DCON MS (mm)	APMX (mm)	OAL (mm)	NOF	LU (mm)	DN (mm)
S771HB10.0	10.00	0.20	10.00	25.00	72.0	5	30.00	9.70
S771HB12.0	12.00	0.20	12.00	30.00	83.0	5	38.00	11.70
S771HB16.0	16.00	0.30	16.00	39.00	92.0	5	44.00	15.70
S771HB20.0	20.00	0.30	20.00	48.00	104.0	5	54.00	19.70

8

9

Pos.	Description
1	Designation of solid mills
2	Product description
3	Illustrative picture
4	Schematic drawing of tool
5	Product features

Pos.	Description
6	Milling operations
7	Material group recommendations incl. speed and feed guidance
8	Product code
9	Product dimensions

Typical page with solid mill displayed – specific page details will differ.

ICONS OVERVIEW

General Icons

■	Primary use
◪	Possible use

Mill Profile

N	General Purpose Cutter Type for Low to High Resistance Materials
FS	Semi-finishing Profile Chipbreaker
HRA	Fine Pitch Asymmetrical Rounded Profile Chipbreaker
NF	Coarse Pitch Flat Profile Chipbreaker
NRA	Coarse Pitch Asymmetrical Rounded Profile Chipbreaker
NR	Coarse Pitch Rounded Profile Chipbreaker
W	Non-ferrous Cutter Type for Soft Malleable Materials
W NRA	Non-ferrous Cutter Type with Coarse Pitch Asymmetrical Rounded Profile Chipbreaker
	Fine Pitch
	Coarse Pitch

Number of flutes (NOF)

NOF 1	Number of Flutes = 1 (single tooth)
NOF 2	Number of Flutes = 2 (teeth)
NOF 3	Number of Flutes = 3 (teeth)
NOF 3≠	Number of Flutes = 3 (teeth) differential pitch
NOF 3-4	Number of Flutes = 3 – 4 (teeth)
NOF 3-5	Number of Flutes = 3 – 5 (teeth)
NOF 3-6	Number of Flutes = 3 – 6 (teeth)
NOF 4	Number of Flutes = 4 (teeth)
NOF 4≠	Number of Flutes = 4 (teeth) differential pitch
NOF 4-5	Number of Flutes = 4 – 5 (teeth)
NOF 4-6	Number of Flutes = 4 – 6 (teeth)
NOF 5	Number of Flutes = 5 (teeth)
NOF 6-12	Number of Flutes = 6 – 12 (teeth)
NOF 6-8	Number of Flutes = 6 – 8 (teeth)
NOF 8	Number of Flutes = 8 (teeth)
NOF 10-12	Number of Flutes = 10 – 12 (teeth)

Cut length

	Cut Length, Short
	Cut Length, Medium
	Cut Length, Long
	Cut Length, Extra Short
	Cut Length, Extra long

Flute helix angle (FHA)

λ 0°	0° Helix Angle (Straight Flute)
λ 10°	10° Helix Angle (Flute)
λ 15°	15° Helix Angle (Flute)
λ 25°	25° Helix Angle (Flute)
λ 28°	28° Helix Angle (Flute)
λ 30°	30° Helix Angle (Flute)
λ 34°	34° Helix Angle (Flute)
λ 35°	35° Helix Angle (Flute)
λ 40°	40° Helix Angle (Flute)
λ 45°	45° Helix Angle (Flute)
λ 50°	50° Helix Angle (Flute)
λ ≠	Unequal (Variable) Helix

ICONS OVERVIEW

Radial rake angle (GAMF)

γ -26°	-26° Radial Rake Angle (cutting)
γ -10°	-10° Radial Rake Angle (cutting)
γ -6°	-6° Radial Rake Angle (cutting)
γ 0°	0° Radial Rake Angle (Neutral)
γ 3°	3° Radial Rake Angle (cutting)
γ 4°	4° Radial Rake Angle (cutting)
γ 5°	5° Radial Rake Angle (cutting)
γ 7°	7° Radial Rake Angle (cutting)
γ 8°	8° Radial Rake Angle (cutting)
γ 9°	9° Radial Rake Angle (cutting)
γ 10°	10° Radial Rake Angle (cutting)
γ 12°	12° Radial Rake Angle (cutting)
γ 13°	13° Radial Rake Angle (cutting)
γ 20°	20° Radial Rake Angle (cutting)
γ 15°	15° Radial Rake Angle (cutting)
γ 18°	18° Radial Rake Angle (cutting)

Shank

DIN 1835B	DIN 1835B Weldon Shank
DIN 6535HB	DIN 6535 HB Weldon Shank
DIN 6535HA	DIN 6535 HA Cylindrical Shank
D B DIN 1835	DIN 1835 – B (Weldon) or D (Threaded) Shank
DIN 1835A	DIN 1835A Cylindrical Shank

Cutting diameter tolerance class (TCDC)

DC d11	d11 – Industry Standard Tool Tolerance Zone (based on diameter range)
DC e8	e8 – Industry Standard Tool Tolerance Zone (based on diameter range)
DC h9	h9 – Industry Standard Tool Tolerance Zone (based on diameter range)
DC h10	h10 – Industry Standard Tool Tolerance Zone (based on diameter range)
DC h11	h11 – Industry Standard Tool Tolerance Zone (based on diameter range)
DC h12	h12 – Industry Standard Tool Tolerance Zone (based on diameter range)
DC js14	js14 – Industry Standard Tool Tolerance Zone (based on diameter range)
DC js16	js16 – Industry Standard Tool Tolerance Zone (based on diameter range)
DC k10	k10 – Industry Standard Tool Tolerance Zone (based on diameter range)
DC k12	k12 – Industry Standard Tool Tolerance Zone (based on diameter range)

Direction

	Radial, Diagonal, Axial
	Radial, Diagonal
	Radial
	Radial

Cooling (CSP)

	Through Tool Coolant

ICONS OVERVIEW

Basic standard group (BSG)

DORMER	Dormer Standards
DIN 327D	DIN 327 D – Slot Drill Standards
DIN 844L	DIN 844 L – HSS End Mills Standards
DIN 844K	DIN 844 K – End Mill Standards
DIN 6527L	DIN 6527 L – Carbide End Mill Standards
DIN 6527K	DIN 6527 K – Carbide End Mill Standards
DIN 1880	DIN 1880 – Shell Mill Standards
DIN 1837	DIN 1837 – Fine Slitting Saw Standards
DIN 1838	DIN 1838 – Coarse Slitting Saw Standards
DIN 850	DIN 850 – Keyseat Cutter Standards
DIN 851	DIN 851 – T-Slot Cutter Standards
DIN 885A	DIN 885 A – Side & Face Mill Standards
DIN 1833C	DIN 1833 C – Dovetail Cutter Standards

Application angle

60°	60° Countersink
90°	90° Countersink
135°	Drill point 135°
180°	Drill point 180°
150°	Spot drill point 150°

Burr end shot

	End Mill Burr End
	End Cut Burr End
	Drill Point Burr End

Burr Shape

A	Cylinder Shape without endcut
B	Cylinder Shape with endcut
C	Ball Nosed Cylinder Shape
D	Ball Shape
E	Oval Shape
F	Ball Nosed Tree Shape
G	Pointed Tree Shape
H	Flame Shape
J	60° Countersink Shape
K	90° Countersink Shape
L	Ball Nosed Cone Shape
M	Cone Shape
N	Inverted Cone Shape

Burr Type Code (BTC)

ST	Steel Cut Geometry
VA	Stainless Steel Cut Geometry
DC	Double Cut Geometry
AL	Aluminium Cut Geometry
GRP	Fibreglass and Composite Materials Cut Geometry
AS	Superalloy Cut Geometry
BR	Bolt Removal Cut Geometry

ICONS OVERVIEW

Material code (BMC)

HSS	High Speed Steel Tool Material
HSS-E	High Speed Cobalt Steel Tool Material
HSS-E PM	High Speed Cobalt Powder Metal Tool Material
HM	Hard Material (Solid Carbide)

Coating

Bright	Bright (uncoated)
Hi	Polished Bright Surface Finish
ST	Steam Tempered (Steam Oxide) Surface Treatment
X-CEED	Special AlTiN Coating (with highest oxidation resistance)
TiSiN	Titanium Silicon Nitride Coating
TiCN	Titanium Carbonitride Coating
TiAlN	Titanium Aluminium Nitride Coating
Diamond	Diamond Like Coating
AlTiN	Aluminium Titanium Nitride Coating
Alcrona	Aluminium Chromium Nitride Coating
AlCrN	Aluminium Chromium Nitride Coating

Operations deburring

	Bolt removal operation 1
	Bolt removal operation 2
	Closed groove deburring and carving
	Composite fibre routing
	Curved surface deburring and carving
	Fillet radii deburring
	Free hand deburring and carving
	Chamfer deburring
	Inverted back deburring
	Plain surface deburring
	Shoulder deburring
	V-groove deburring

Other icons

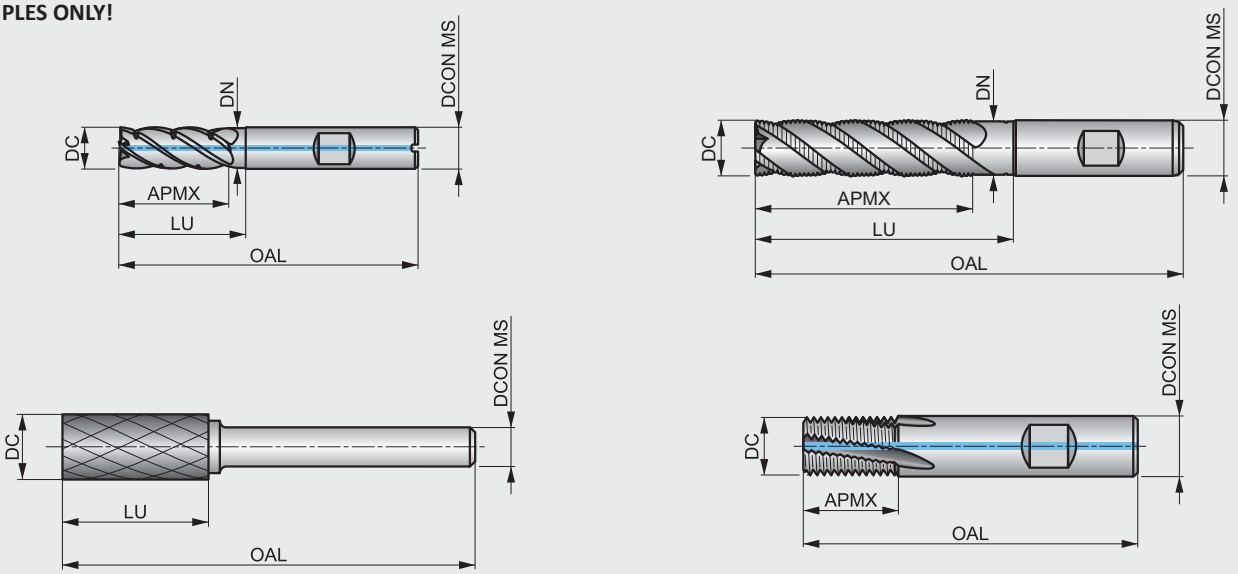
	Bolt size

CUTTING TOOL PARAMETERS ACCORDING TO ISO 13399

All cutting tools are defined by a number of parameters according to the standard ISO 13399. This list contains all the parameters used in this catalogue and their definitions.

ISO 13399 is an international cutting tool information standard. It provides dimensions and parameters in a neutral format that is independent of any particular system or company nomenclature. When cutting tools are clearly defined according to a global standard, all types of software can process the electronic data more quickly, improving the quality of communication and helping to make the exchange of information run smoothly. Supporting a common language in our cutting tool descriptions this will assist system to system communication. It will save you a significant amount of time, providing an easier gathering of high-quality data across our 40,000 solid and indexable tools. By using an ISO 13399 compliant system, there will be no need to manually interpret data and key-enter it into your system.

EXAMPLES ONLY!



ISO 13399 code	Description
APMX	Depth of cut maximum
BD	Body diameter
BDX	Body diameter maximum
BCH	Corner chamfer length
BS	Wiper edge length
CBDP	Connection bore depth
CDI	Insert cutting diameter
CDX	Cutting depth maximum
CW	Cutting width
CZC MS	Connection size code machine side
D1	Fixing hole diameter
DAH4	Diameter access hole
DAH5	Diameter access hole
DAH6	Diameter access hole
DBC1	Diameter bolt circle 1
DBC2	Diameter bolt circle 2
DBC4	Diameter bolt circle
DBC5	Diameter bolt circle
DBC6	Diameter bolt circle
DC	Cutting diameter
DCB	Connection bore diameter
DCCB	Counterbore diameter connection bore

ISO 13399 code	Description
DCN	Cutting diameter minimum
DCON MS	Connection diameter
DCX	Cutting diameter maximum
DHUB	Hub diameter
DN	Neck diameter
GAMF	Radial rake angle
GAMP	Axial rake angle
CHW	Corner chamfer width
IC	Inscribed circle diameter
INSD	Insert diameter
INSL	Insert length
KAPR	Tool cutting edge angle
KWD	Keyway depth
KWW	Keyway width
L	Cutting edge length
LB	Body length
LE	Cutting edge effective length
LF	Functional length
LH	Head length
LU	Usable length
LUX	Usable length maximum
M	M-dimension
NOF	Number of flutes

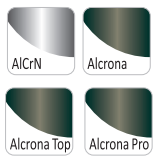
ISO 13399 code	Description
OAL	Overall length
P	Pitch of the blade
PRFA	Profile angle
PRFRAD(2)	Profile radius
RE	Radius
S	Insert thickness
S1	Insert thickness total
TDZ	Thread diameter size
TP	Thread pitch
TPI	Threads per inch
W1	Insert width
ZNP	Number of peripheral edges in the tool

MATERIALS AND COATING

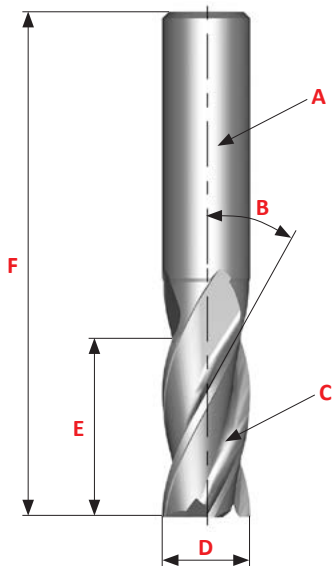
Materials

High Speed Steel	HSS	A medium-alloyed high speed steel that has good machinability and good performance. HSS exhibits hardness, toughness and wear resistance characteristics that make it attractive in a wide range of applications, for example in drills and taps.
Cobalt High Speed Steel	HSS-E	This high speed steel contains cobalt for increased hot hardness. The composition of HSCo is a good combination of toughness and hardness. It has good machinability and good wear resistance, which makes it usable for drills, taps, milling cutters and reamers.
Sintered Cobalt High Speed Steel	HSS-E PM	Sintered Cobalt High Speed Steel (HSCo powder metal) is a substrate produced using powder metallurgy technology. Tools using substrates produced by this method exhibit superior toughness and grindability.
Carbide Materials (or Hard Materials)	HM	A sintered powder metallurgy substrate, consisting of a metallic carbide composite with binder metal. The most central raw material is tungsten carbide (WC). Tungsten carbide contributes to the hardness of the material. Tantalum carbide (TaC), titanium carbide (TiC) and niobium carbide (NbC) complements WC and adjusts the properties to what is desired. These three materials are called cubic carbides. Cobalt (Co) acts as a binder and keeps the material together.

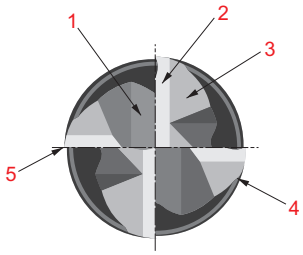
Surface Treatments/Surface Coatings

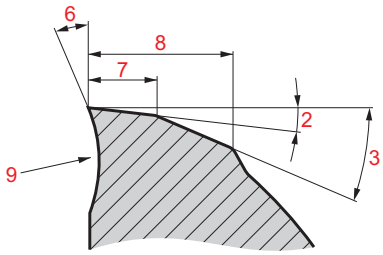
Bright (uncoated)		Bright finish (uncoated surface) improves chip flow in soft or non-ferrous materials and maintains sharp cutting edges in abrasive materials.
Steam Tempering		Steam tempering gives a strongly adhering blue oxide surface that acts to retain cutting fluid and prevent chip to tool welding, thereby counteracting the formation of a built-up edge. Steam tempering can be applied to any bright tool but is most effective on drills and taps.
Polished Bright Surface Finish		Bright polished surface finish greatly improves chip flow in soft or gummy non-ferrous materials. Polishing facilitates chip evacuation and prevents material from sticking to cutting edges and in flutes.
Titanium Carbon Nitride Coating (TiCN)		Titanium Carbon Nitride is a ceramic coating applied by PVD coating technology. TiCN is harder than TiN and has a lower coefficient of friction. Its hardness and toughness in combination with good wear resistance ensures that it finds its principal application in the field of milling to enhance the performance of milling cutters.
Titanium Aluminium Nitride Coatings (TiAlN, TiAlN-Top & X-CEED)		Titanium Aluminium Nitride is a multi layer ceramic coating applied by PVD coating technology, which exhibits high toughness and oxidation stability. These properties make it ideal for higher speeds and feeds, while at the same time improving tool life. TiAlN is used in drilling, tapping, and milling applications and can be suitable for use when machining without coolant. TiAlN-Top coating is the same as TiAlN but with a post-coating process designed to smooth out imperfections, enhance chip flow and reduce built up edge. X-CEED type TiAlN coating, also known as Futura-Nano coating is a nanolayered coating designed for higher hot hardness and higher stress applications.
Aluminium Titanium Nitride Coating (AlTiN)		Aluminium Titanium Nitride (AlTiN) is a nanolayered broad based coating technology which is an upgrade to the conventional TiAlN coatings and can offer superior toughness, high hot hardness and oxidation resistance.
Alcrona Coatings (AlCrN, Alcrona, Alcrona-Top & Alcrona-Pro)		The Alcrona (AlCrN) family of coatings are aluminium chromium nitride coatings mostly used for milling cutters. The two unique properties of these coatings are high hot hardness and high oxidation resistance. When used on tools for machining applications involving heavy mechanical and thermal stresses, these properties translate into superior wear resistance. Multiple levels or specific versions of these coatings are available and specific for various tools and applications.
Titanium Silicon Nitride Coating (TiSiN)		TiSiN is designed for extreme cutting conditions and high speed machining of hard materials. This multi-layered coating has a nano-composite outer layer with Si_3N_4 nano-crystallites in a crystalline TiN matrix and is engineered to protect the cutting edge from heat transfer, oxidation and abrasion. TiSiN coatings can perform well at minimum to zero lubrication conditions.
Diamond Like Coating (DLC)		Diamond Like Coating, also known as Diamond Like Carbon (DLC) provides the highest lubricity when used on carbide tools and avoids built up edge when machining graphite or soft non-ferrous materials.

Nomenclature



A Shank
B Helix Angle
C Flute
D Outside Diameter *DC*
E Cutting Length *AP*
F Overall Length *OAL*

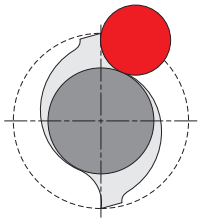
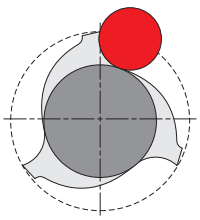
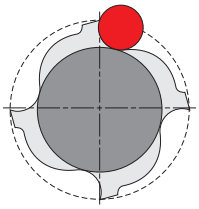




1 Gash
2 Primary Relief Angle
3 Secondary Relief Angle
4 Heel
5 Cutting Edge
6 Rake Angle
7 Width of Primary Relief Land
8 Width of Secondary Relief Land
9 Undercut Face

Features Of The End Mill – Choosing The Number Of Flutes *NOF*

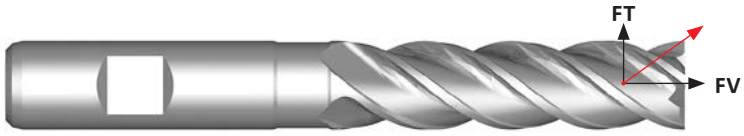
Number of flutes should be determined by:
- Milled material
- Dimension of workpiece
- Milling conditions

2 Flutes	3 Flutes	4 Flutes (or multi-flutes)
		
LOW ← **DEFLECTION STRENGTH** → **HIGH**		
BIG ← **CHIP SPACE** → **SMALL**		
• Large chip space • Easy chip ejection • Good for slot milling • Good for heavy duty milling • Less rigidity due to small section area • Lower quality surface finish	• Chip space almost as large as for 2 flutes • Larger section area – higher rigidity than 2 flutes • Improved surface finish	• Highest rigidity • Largest section area – small chip space • Gives best surface finish • Recommended for profiling, side milling and shallow slotting

Features Of The End Mill – Helix Angle

Increasing the number of flutes makes the load on the single tooth more homogeneous and consequently, this allows for a better finish. But with a high helix angle, the load *FV* along the cutter axis is increased too.

A high *FV* can give:
- Load problems on the spindle bearings
- Cutter movement along the spindle axis. To avoid this problem it is necessary to use Weldon or better Mechanical or Hydraulical Toolholder.

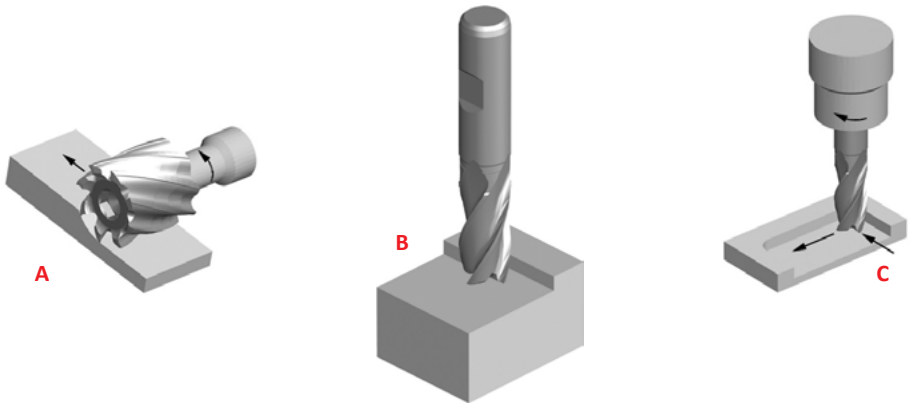


General hints on milling

Milling is a process of generating machined surfaces by progressively removing a predetermined amount of material or stock from the workpiece at a relatively slow rate of movement or feed by a milling cutter rotating at a comparatively high speed.
The characteristic feature of the milling process is that each milling cutter tooth removes its share of the stock in the form of small individual chips.

Type of milling cutters

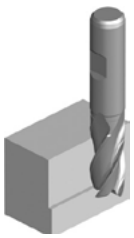
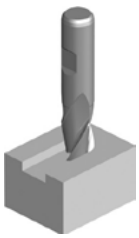
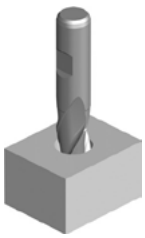
The three basic milling operations are shown below: (**A**) peripheral milling, (**B**) face milling and (**C**) end milling.



In peripheral milling (also called slab milling), the axis of cutter rotation is parallel to the workpiece surface to be machined. The cutter has a number of teeth along its circumference, each tooth acting like a single-point cutting tool called a plain mill. Cutters used in peripheral milling may have straight or helical teeth generating an orthogonal or oblique cutting action.
In face milling, the cutter is mounted on a spindle with an axis of rotation perpendicular to the workpiece surface. The milled surface results from the action of cutting edges located on the periphery and face of the cutter.
In end milling, the cutter generally rotates on an axis vertical to the workpiece. It can be tilted to machine tapered surfaces. Cutting teeth are located on both the end face of the cutter and the periphery of the cutter body.

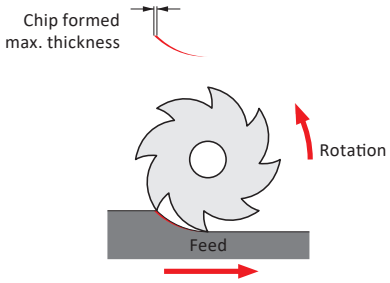
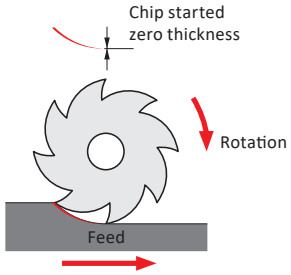
Different applications for end mills

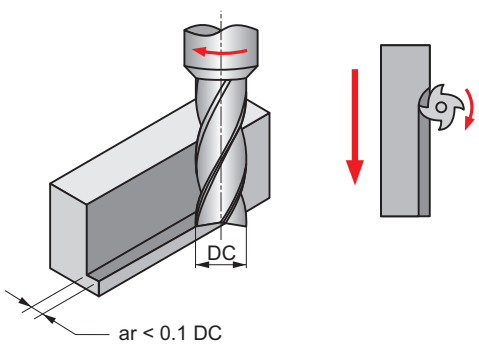
The Metal Removal Rate (MRR) and the applications are strongly related. For each different application we have a different MRR that increases with the engagement section of the cutter on the workpiece. The recent Dormer catalogue was produced with simple icons that show the different applications.

Side Milling	Face Milling	Slot Milling	Plunge Milling	Ramping
				
The radial depth of cut should be less than 0.25 of the diameter of the end mill.	The radial depth of cut should be no more than 0.9 of the diameter, axial depth of cut less than 0.1 of the diameter.	Machining of a slot for keyways. The radial depth of cut is equal to the diameter on the end mill.	It is possible to drill the workpiece with an end mill only with the cutting centre. In this operation the feed has to be halved.	Both axial and radial entering into the workpiece.

Milling Effectively

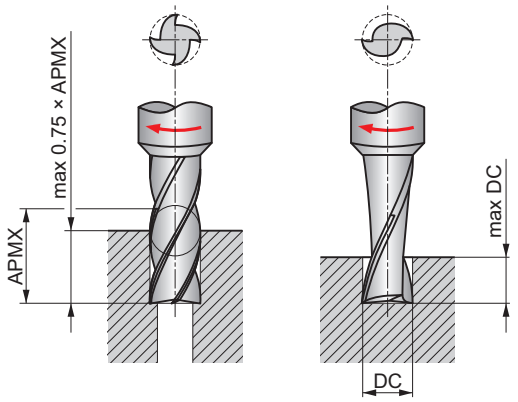
Types Of Cuts
Climb Milling Versus Conventional Milling

CLIMB MILLING	CONVENTIONAL MILLING
	
In climb milling, the cutter revolves in the same direction as the table feed. The tooth meets the work at the top of the cut, producing the thickest part of the chip first. In horizontal applications the resultant force created by climb milling can act as a clamping force, acting towards the machine table. It is important to make sure that the machine tool has no leadscrew backlash. Normally climb milling improves product surface finish and increases tool life.	In conventional milling, the cutter revolves opposite to the direction of table feed. Therefore the width of the chip starts at zero and increases to a maximum at the end of the cut. This can lead to accelerated tool wear under some conditions. Conventional milling may be advantageous when milling hot rolled steel, surface hardened and steels with a surface scale.

PERIPHERAL (CYLINDRICAL, SLAB) MILLING	
Peripheral Milling: The milling of a surface which is parallel to the end mill axis.	 The radial depth of cut should be less than 0.1 of the diameter of the mill: *ar* < 0.1 *DC*.

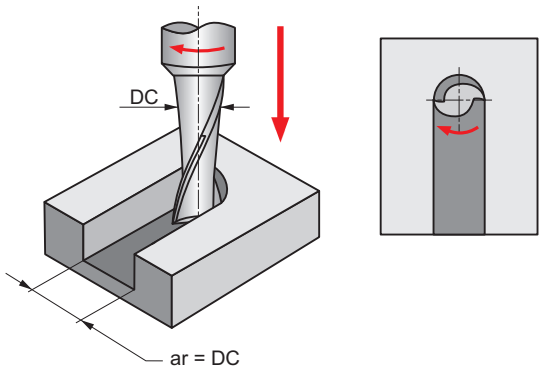
Plunge Milling

The direct movement between the workpiece and the centre line of the end mill when the end mill sinks directly into the workpiece.



In order to be able to "drill," i.e. mill with axial feed, an end mill must have an end face cutting edge that goes all the way to the centre. An example of such a solid drilling operation is keyway milling in the middle of a shaft.
In boring, the depth of a hole may be up to 75 % of the cutting edge length. In solid drilling, however, it should not exceed 0.5 – 1.0 *DC*.

Slot Milling



The radial depth of cut is equal to the diameter of the mill: *ar* = *DC*.
All slotting applications are a combination of conventional and climb milling. Refer to adjacent section.

End Mill Selection

Utilize the shortest possible tool available for the application with the largest diameter permissible and the shortest flute length as depth of cut allows. Extra length end mills have excessive overhang, thus a reduction in feed up to 25 % may be required. Stub length end mills, due to their short overall and flute length, have more rigidity, thus an increase in feed rates of up to 25 % may be required.

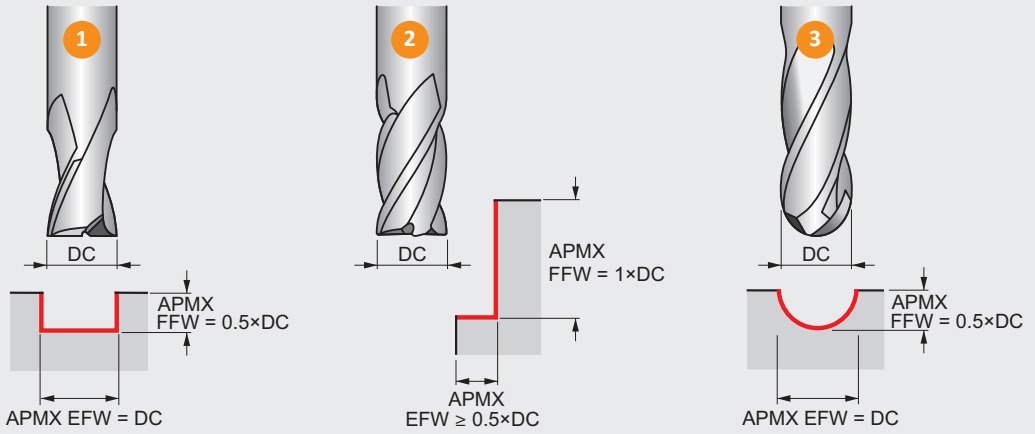
Speeds

Solid Carbide end mills must be run at higher speeds than High Speed Steel end mills. Many times, lighter cuts at higher speeds can improve the finish of the workpiece.
When the application is a slotting cut, the speed should be reduced by approximately 20 %. Speeds should be decreased when milling hard or tough materials or when taking heavy cuts. Speeds should be increased when milling softer materials or when taking lighter cuts. Speeds should also be increased for finishing cuts.

Coolants

Coolants are recommended when milling mild steel and high temperature alloys. The purpose of the coolant media is to direct the chips away from the cutting tool and workpiece. This prevents damage to the cutting edges due to recutting the chips. When machining titanium, coolant flow must be heavy and directed at the area of cut to prevent overheating and assist in chip removal.

SOLID HSS MILLS – FEED PER TOOTH TABLE



Feed per tooth f_z (mm/tooth) depending on the working conditions it might be necessary to adjust these values ±25 %.

ONLY if plunging into solid material with a centre cutting end mill the values in this table should be considered as f_n (feed per revolution).

How to use this table to find the feed per tooth f_z:
1. Find your Alpha Code on the product page (example: 48C, "**C**" is the Alpha Code).
2. Find the closest diameter for your cutting application in the top row of the table.
3. Find your Alpha Code in the left column of the table.
4. The intersection (cell) of the Diameter and Alpha Code is the feed per tooth f_z.

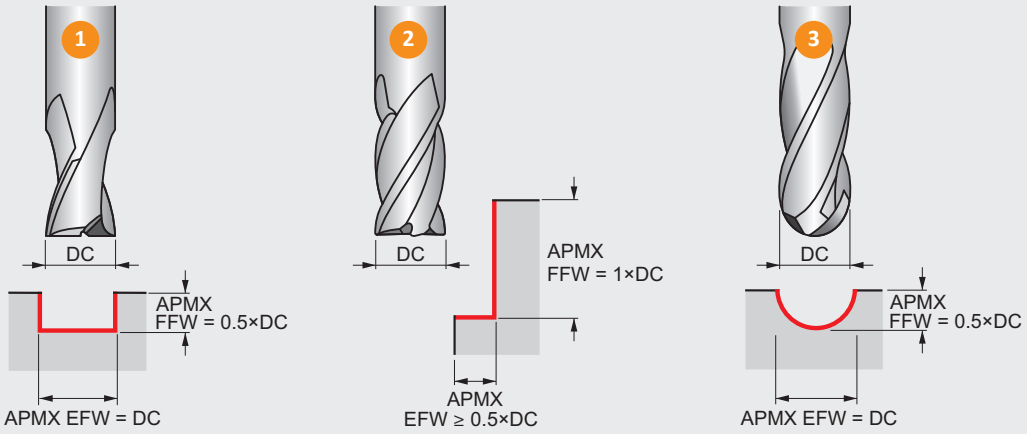
FOR HSS, HSS-E AND HSS-E-PM MILLING CUTTERS ONLY

Feed rates (mm/tooth)	ø DC (mm)																		
	1.00	2.00	3.00	4.00	5.00	6.00	8.00	10.0	12.0	16.0	20.0	25.0	28.0	32.0	36.0	40.0	63.0	80.0	100.0
A	0.002	0.003	0.003	0.005	0.005	0.005	0.007	0.009	0.011	0.015	0.018	0.023	0.027	0.030	0.033	0.034	0.043	0.045	0.042
B	0.003	0.004	0.004	0.006	0.006	0.007	0.009	0.012	0.014	0.018	0.023	0.029	0.033	0.038	0.041	0.043	0.054	0.057	0.052
C	0.004	0.004	0.005	0.007	0.008	0.008	0.011	0.015	0.017	0.023	0.029	0.036	0.042	0.047	0.051	0.054	0.067	0.071	0.065
D	0.005	0.006	0.006	0.009	0.010	0.010	0.014	0.018	0.022	0.029	0.036	0.045	0.052	0.059	0.064	0.067	0.084	0.089	0.082
E	0.006	0.007	0.008	0.011	0.012	0.013	0.017	0.023	0.027	0.036	0.045	0.056	0.065	0.074	0.080	0.084	0.105	0.111	0.102
F	0.007	0.008	0.010	0.013	0.014	0.016	0.020	0.028	0.032	0.043	0.054	0.067	0.078	0.089	0.096	0.101	0.126	0.133	0.122
G	0.009	0.010	0.012	0.016	0.017	0.019	0.024	0.033	0.039	0.052	0.065	0.081	0.094	0.107	0.115	0.121	0.151	0.160	0.147
H	0.010	0.012	0.014	0.019	0.021	0.022	0.029	0.040	0.047	0.062	0.078	0.097	0.112	0.128	0.138	0.145	0.181	0.192	0.176
I	0.012	0.015	0.017	0.023	0.025	0.027	0.035	0.048	0.056	0.075	0.093	0.116	0.135	0.153	0.166	0.174	0.218	0.230	0.212
J	0.015	0.017	0.020	0.027	0.030	0.032	0.042	0.057	0.067	0.090	0.112	0.139	0.162	0.184	0.199	0.209	0.261	0.276	0.254

This table is valid for end mills and shell mills.

Formulas (Metric)			Terms			Formulas (Imperial)
$v_c = \frac{n \times DC \times \pi}{1000}$	v_c	(m/min)	**Cutting speed**	*SFM*	(ft/min)	$SFM = \frac{RPM \times DC \times \pi}{12}$
$n = \frac{v_c \times 1000}{DC \times \pi}$	n	(rev/min)	**Spindle speed**	*RPM*	(rev/min)	$RPM = \frac{SFM \times 12}{DC \times \pi}$
$V_f = f_z \times z \times n$	V_f	(mm/min)	**Feed rate**	*IPM*	(in/min)	$IPM = IPT \times T \times RPM$
$f_z = \frac{V_f}{z \times n}$	f_z	(mm/tooth)	**Feed per tooth**	*IPT*	(in/tooth)	$IPT = \frac{IPM}{T \times RPM}$
$Q = \frac{V_f \times a_p \times a_e}{1000}$	*DC*	(mm)	**Cutting diameter**	*DC*	(in)	$MRR = IPM \times DOC \times WOC$
	z	(–)	**Number of teeth**	*T*	(–)	
	a_p	(mm)	**Depth of cut**	*DOC*	(in)	
	a_e	(mm)	**Width of cut**	*WOC*	(in)	
	Q	(cm^3/min)	**Metal removal rate**	*MRR*	(in^3/min)	

SOLID HSS MILLS – FEED PER TOOTH TABLE



Feed per tooth *IPT* (inch/tooth) depending on the working conditions it might be necessary to adjust these values ±25 %.

ONLY if plunging into solid material with a centre cutting end mill the values in this table should be considered as *IPR* (feed in inch per revolution).

How to use this table to find the feed per tooth *IPT*:

1. Find your Alpha Code on the product page (example: 157C, "**C**" is the Alpha Code).
2. Find the closest diameter for your cutting application in the top row of the table.
3. Find your Alpha Code in the left column of the table.
4. The intersection (cell) of the Diameter and Alpha Code is the feed per tooth *IPT*.

FOR HSS, HSS-E AND HSS-E-PM MILLING CUTTERS ONLY

		ø DC (inch)																		
		1/16	3/32	1/8	5/32	3/16	7/32	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2
		.0625	.0938	.1250	.1563	.1875	.2188	.2500	.3125	.3750	.4375	.5000	.5625	.6250	.7500	.8750	1.0000	1.1250	1.2500	1.5000
Feed rates (mm/tooth)	A	.0001	.0001	.0001	.0002	.0002	.0002	.0002	.0003	.0004	.0004	.0005	.0006	.0006	.0007	.0008	.0009	.0011	.0012	.0013
	B	.0001	.0002	.0002	.0002	.0002	.0002	.0003	.0004	.0004	.0005	.0006	.0007	.0007	.0009	.0011	.0012	.0014	.0015	.0017
	C	.0002	.0002	.0002	.0003	.0003	.0003	.0004	.0004	.0005	.0006	.0007	.0008	.0009	.0011	.0013	.0015	.0017	.0019	.0020
	D	.0002	.0002	.0002	.0004	.0004	.0004	.0004	.0006	.0007	.0008	.0009	.0010	.0011	.0013	.0017	.0019	.0021	.0023	.0026
	E	.0002	.0003	.0003	.0004	.0005	.0005	.0006	.0007	.0008	.0010	.0011	.0013	.0014	.0017	.0020	.0023	.0027	.0029	.0032
	F	.0003	.0003	.0004	.0005	.0006	.0006	.0007	.0008	.0010	.0012	.0014	.0016	.0017	.0020	.0024	.0028	.0032	.0035	.0039
	G	.0004	.0004	.0005	.0006	.0007	.0007	.0008	.0009	.0012	.0014	.0017	.0019	.0020	.0024	.0030	.0033	.0039	.0042	.0046
	H	.0004	.0005	.0006	.0007	.0008	.0008	.0009	.0011	.0014	.0017	.0020	.0022	.0024	.0029	.0035	.0040	.0046	.0050	.0056
	I	.0005	.0006	.0007	.0009	.0010	.0010	.0011	.0014	.0017	.0020	.0024	.0027	.0030	.0035	.0043	.0048	.0056	.0060	.0067
	J	.0006	.0007	.0008	.0011	.0012	.0012	.0014	.0017	.0020	.0024	.0028	.0032	.0035	.0042	.0051	.0058	.0067	.0072	.0080

This table is valid for end mills and shell mills.

SOLID HSS MILLS – CORRECTION FACTORS

1 Slot Milling

Correction factors for cutting speed v_c and feed per tooth f_z for slot milling operations at different depths of cut.

APMX FFW / DC	25 %	50 %	100 %	150 %
X.V	1.25	1.00	0.75	0.50
X.f	1.25	1.00	0.75	0.50

2 Shoulder Milling

Correction factors for cutting speed v_c and feed per tooth f_z for square shoulder milling with < 50 % radial immersion.

APMX EFW / DC	5 %	10 %	15 %	20 %	25 %	30 %	40 %	≥ 50 %
X.V	1.48	1.35	1.27	1.22	1.19	1.16	1.11	1.00
X.f	2.29	1.67	1.40	1.25	1.15	1.09	1.02	1.00

We recommend to avoid milling with 50 % radial immersion.

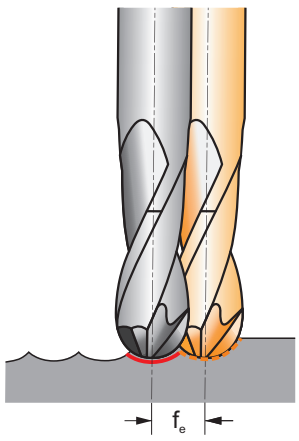
3a Plain Copy Milling (with Ball Nose Cutters)

Correction factors for cutting speed v_c for plain copy milling at different depths of cut.

APMX FFW / DC	5 %	10 %	15 %	20 %	25 %	30 %	40 %	50 %
X.V	2.29	1.67	1.40	1.25	1.15	1.09	1.02	1.00

3b

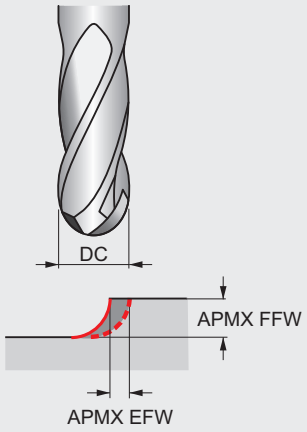
Line offset f_e (step-over distance) for achieving a theoretical surface roughness R_{th}.

DC	µm	2	4	8	16	32	63	125	250
2		0.13	0.18	0.25	0.36	0.50	0.70	0.97	1.32
3		0.15	0.22	0.31	0.44	0.62	0.86	1.20	1.66
4		0.18	0.25	0.36	0.50	0.71	1.00	1.39	1.94
5		0.20	0.28	0.40	0.56	0.80	1.12	1.56	2.18
6		0.22	0.31	0.44	0.62	0.87	1.22	1.71	2.40
8		0.25	0.36	0.51	0.71	1.01	1.41	1.98	2.78
10		0.28	0.40	0.57	0.80	1.13	1.58	2.22	3.12
12		0.31	0.44	0.62	0.88	1.24	1.73	2.44	3.43
14		0.33	0.47	0.67	0.95	1.34	1.87	2.63	3.71
16		0.36	0.51	0.72	1.01	1.43	2.00	2.82	3.97
18		0.38	0.54	0.76	1.07	1.52	2.13	2.99	4.21
20		0.40	0.57	0.80	1.13	1.60	2.24	3.15	4.44
22		0.42	0.59	0.84	1.19	1.68	2.35	3.31	4.66
25		0.45	0.63	0.89	1.26	1.79	2.51	3.53	4.97
28		0.47	0.67	0.95	1.34	1.89	2.65	3.73	5.27

Line offset dimensions shown are Metric (mm) only.

SOLID HSS MILLS – CORRECTION FACTORS

3c



How to use this table to find the correction factor for the feed per tooth (f_z or IPT) for plain copy milling:

1. Find the closest radial immersion (a_e / DC) for your cutting application in the top row of the table.
3. Find your closest axial immersion (a_p / DC) for your cutting application in the left column of the table.
4. The intersection (cell) of the radial and axial immersions is the correction factor for the feed per tooth.

Example for plain copy milling:

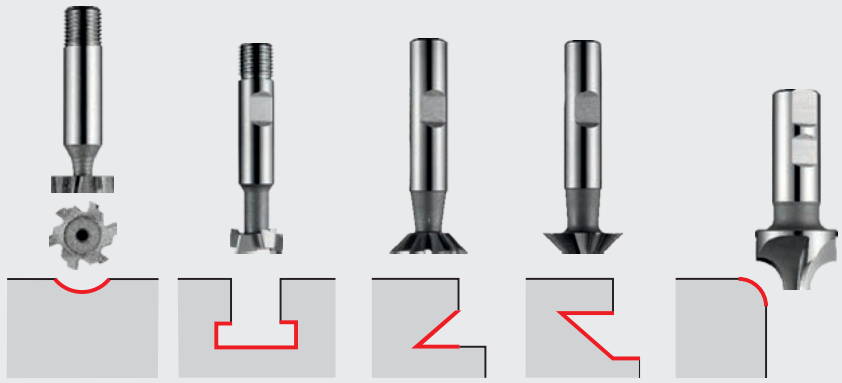
1. Applying an 8 mm ball nose cutter with a depth of cut of 0.8 mm (a_p), the aim is to achieve a theoretical surface roughness of 32 µm.
2. The correction factor for cutting speed with an axial immersion of 10 % = 1.67 can be found in table 3a.
3. The step-over distance for a R_{th} of 32 µm = 1.01 mm can be found in table 3b.
4. The correction factor for feed per tooth with an axial immersion of 10% and a radial immersion of 1.01 / 8 = 12.6 % can be found in table 3c and is in this case 2.33.

Correction factors for feed per tooth f_z for plain copy milling with a line offset < 50 % × *DC* at different of depths of cut.

APMX FFW	APMX EFW	5 %	10 %	15 %	20 %	25 %	30 %	35 %	40 %	50 %
5 %		5.26	3.82	3.21	2.87	2.65	2.50	2.40	2.34	2.29
10 %		3.82	2.78	2.33	2.08	1.92	1.82	1.75	1.70	1.67
15 %		3.21	2.33	1.96	1.75	1.62	1.53	1.47	1.43	1.40
20 %		2.87	2.08	1.75	1.56	1.44	1.36	1.31	1.28	1.25
25 %	x.f	2.65	1.92	1.62	1.44	1.33	1.26	1.21	1.18	1.15
30 %	⇨	2.50	1.82	1.53	1.36	1.26	1.19	1.14	1.11	1.09
35 %		2.40	1.75	1.47	1.31	1.21	1.14	1.10	1.07	1.05
40 %		2.34	1.70	1.43	1.28	1.18	1.11	1.07	1.04	1.02
45 %		2.31	1.68	1.41	1.26	1.16	1.10	1.05	1.03	1.01
50 %		2.29	1.67	1.40	1.25	1.15	1.09	1.05	1.02	1.00

To increase the surface quality, the tool or surface should be inclinded with a tilt angle of 10°– 15°.

SOLID HSS MILLS – FEED PER TOOTH TABLE



Feed per tooth f_z (mm).
Depended of the working conditions it might be needed to adjust these values ±25 %.

How to use this table to find the feed per tooth f_z:

1. Find your Alpha Code on the product page (example: 40V, "**V**" is the Alpha Code).
2. Find the closest diameter for your cutting application in the top row of the table.
3. Find your Alpha Code in the left column of the table.
4. The intersection (cell) of the diameter and Alpha Code is the feed per tooth f_z.

Feed rates for mills: C800, C801, C810, C820, C822, C825, C830, C835, C837, C831, C700, C710, D745, D747, D750, D751, D752, D753, D200, D763.

Feed rates (mm)	ø DC (mm)															
	10.0	12.0	16.0	20.0	25.0	32.0	38.0	50.0	63.0	80.0	100.0	125.0	160.0	200.0	300.0	350.0
P	–	–	–	–	–	0.200	–	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
Q	–	–	–	–	–	0.040	–	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040
R	–	–	–	–	–	0.600	–	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600
S	0.020	0.020	0.020	0.040	0.040	0.040	0.040	0.050	0.050	0.060	0.070	0.080	0.090	0.100	0.100	0.100
T	0.020	0.020	0.030	0.050	0.050	0.050	0.060	0.060	0.060	–	–	–	–	–	–	–
U	0.030	0.030	0.030	0.050	0.060	0.060	0.060	0.060	0.060	–	–	–	–	–	–	–
V	0.030	0.030	0.040	0.060	0.060	0.060	0.070	0.070	0.070	0.080	0.090	0.100	0.110	0.120	0.120	0.120
W	0.040	0.050	0.050	0.060	0.060	0.070	0.070	0.070	0.070	0.090	0.100	0.110	0.110	0.120	0.120	0.120
X	0.050	0.050	0.060	0.070	0.080	0.100	0.110	0.110	0.110	0.110	0.110	0.120	0.130	0.140	0.140	0.140
Y	0.060	0.060	0.070	0.090	0.100	0.110	0.130	0.130	–	–	–	–	–	–	–	–
Z	0.070	0.070	0.090	0.110	0.120	0.110	0.150	–	–	–	–	–	–	–	–	–

Feeds f_z shown are Metric (mm) only.

SOLID HSS SLITTING SAWS – TOOTH PITCH CHOICE TABLES

Tooth pitch choices for slitting saws D750, D751, D752, D753

Solid section

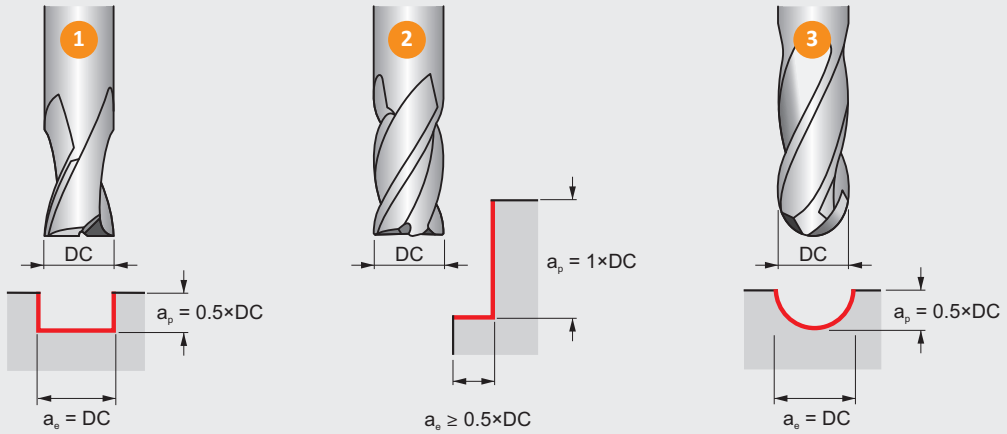
Diameter t	Saw Pitch (P)						
	2.5	3	4	5	6	8	
4		P M	N K				
6			P M	N K			
8				P M	N K		
10				P M	N K		
15					P M	N K	
20					P M	N K	
30						P M	
40							
60							

Profiles and Tubes

Wall Thickness t	Saw Pitch (P)					
	2.5	3	4	5	6	8
1		P M	N K			
1.5			P M	N K		
2				P M	N K	
3					P M	N K
> 4					P M	N K

P ISO P = Steel Workpiece Material Group (WMG)
M ISO M = Stainless Steel Workpiece Material Group (WMG)
K ISO K = Cast Iron Workpiece Material Group (WMG)
N ISO N = Non Ferrous Workpiece Material Group (WMG)

SOLID HM MILLS – FEED PER TOOTH TABLE



Feed per tooth f_z (mm) depending on the working conditions it might be necessary to adjust these values ±25 %.

ONLY if plunging into solid material with a centre cutting end mill the values in this table should be considered as f_n (feed per revolution).

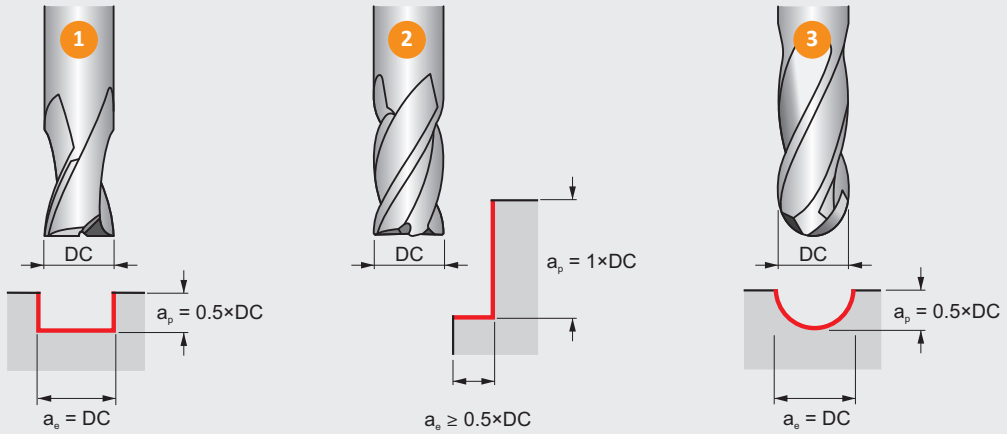
How to use this table to find the feed per tooth f_z:
1. Find your Alpha Code on the product page (example: 199K, "**K**" is the Alpha Code).
2. Find the closest diameter for your cutting application in the top row of the table.
3. Find your Alpha Code in the left column of the table.
4. The intersection (cell) of the Diameter and Alpha Code is the feed per tooth f_z.

FOR SOLID CARBIDE MILLING CUTTERS ONLY

		ø DC (mm)																
		1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.0	12.0	14.0	16.0	18.0	20.0	22.0	25.0
Feed rates (mm)	A	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009	0.010	0.011	0.014	0.015	0.017	0.019	0.021	0.025	0.028
	B	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009	0.010	0.011	0.014	0.015	0.017	0.019	0.021	0.025	0.028
	C	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009	0.010	0.011	0.014	0.015	0.017	0.019	0.021	0.025	0.028
	D	0.002	0.003	0.004	0.005	0.007	0.008	0.009	0.010	0.011	0.012	0.014	0.015	0.017	0.019	0.021	0.025	0.028
	E	0.002	0.003	0.004	0.008	0.009	0.012	0.013	0.014	0.015	0.016	0.019	0.021	0.024	0.026	0.028	0.030	0.034
	F	0.002	0.003	0.006	0.010	0.013	0.016	0.017	0.019	0.021	0.022	0.026	0.029	0.032	0.035	0.039	0.042	0.047
	G	0.002	0.005	0.008	0.014	0.018	0.022	0.024	0.026	0.028	0.031	0.035	0.040	0.044	0.048	0.053	0.057	0.064
	I	0.003	0.006	0.011	0.019	0.024	0.030	0.032	0.036	0.039	0.042	0.049	0.054	0.061	0.066	0.073	0.079	0.088
	J	0.004	0.009	0.014	0.026	0.033	0.041	0.044	0.048	0.053	0.057	0.066	0.074	0.083	0.090	0.099	0.107	0.120
	K	0.006	0.012	0.019	0.035	0.044	0.054	0.059	0.064	0.070	0.076	0.088	0.098	0.110	0.120	0.132	0.142	0.160
	N	0.008	0.016	0.025	0.047	0.058	0.072	0.078	0.086	0.094	0.101	0.117	0.131	0.146	0.160	0.175	0.189	0.212
	O	0.010	0.021	0.034	0.062	0.078	0.096	0.104	0.114	0.124	0.135	0.156	0.174	0.195	0.213	0.233	0.252	0.283
	P	0.014	0.028	0.045	0.083	0.104	0.128	0.138	0.152	0.166	0.180	0.207	0.231	0.259	0.283	0.311	0.335	0.376
	R	0.018	0.037	0.060	0.110	0.138	0.170	0.184	0.202	0.221	0.239	0.276	0.308	0.345	0.377	0.414	0.446	0.501
	S	0.024	0.049	0.080	0.147	0.183	0.226	0.245	0.269	0.294	0.318	0.367	0.410	0.459	0.502	0.550	0.593	0.667

Formulas (Metric)			Terms			Formulas (Imperial)
$v_c = \frac{n \times DC \times \pi}{1000}$	v_c	(m/min)	**Cutting speed**	*SFM*	(ft/min)	$SFM = \frac{RPM \times DC \times \pi}{12}$
$n = \frac{v_c \times 1000}{DC \times \pi}$	n	(rev/min)	**Spindle speed**	*RPM*	(rev/min)	$RPM = \frac{SFM \times 12}{DC \times \pi}$
$V_f = f_z \times z \times n$	V_f	(mm/min)	**Feed rate**	*IPM*	(in/min)	$IPM = IPT \times T \times RPM$
$f_z = \frac{V_f}{z \times n}$	f_z	(mm/tooth)	**Feed per tooth**	*IPT*	(in/tooth)	$IPT = \frac{IPM}{T \times RPM}$
$Q = \frac{V_f \times a_p \times a_e}{1000}$	*DC*	(mm)	**Cutting diameter**	*DC*	(in)	$MRR = IPM \times DOC \times WOC$
	z	(–)	**Number of teeth**	T	(–)	
	a_p	(mm)	**Depth of cut**	*DOC*	(in)	
	a_e	(mm)	**Width of cut**	*WOC*	(in)	
	Q	(cm^3/min)	**Metal removal rate**	*MRR*	(in^3/min)	

SOLID HM MILLS – FEED PER TOOTH TABLE



Feed per tooth *IPT* or (inch) depending on the working conditions it might be necessary to adjust these values ±25 %.

ONLY if plunging into solid material with a centre cutting end mill the values in this table should be considered as *IPR* (feed in inch per revolution).

How to use this table to find the feed per tooth *IPT*:
1. Find your Alpha Code on the product page (example: 653K, "**K**" is the Alpha Code).
2. Find the closest diameter for your cutting application in the top row of the table.
3. Find your Alpha Code in the left column of the table.
4. The intersection (cell) of the Diameter and Alpha Code is the feed per tooth *IPT*.

FOR SOLID CARBIDE MILLING CUTTERS ONLY

		ø DC (inch)															
		1/16	3/32	1/8	5/32	3/16	7/32	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1
		.0625	.0938	.1250	.1563	.1875	.2188	.2500	.3125	.3750	.4375	.5000	.5625	.6250	.7500	.8750	1.0000
Feed rates (inch)	A	.0001	.0001	.0002	.0002	.0002	.0002	.0003	.0003	.0004	.0005	.0005	.0006	.0007	.0008	.0010	.0011
	B	.0001	.0001	.0002	.0002	.0002	.0002	.0003	.0003	.0004	.0005	.0005	.0006	.0007	.0008	.0010	.0011
	C	.0001	.0001	.0002	.0002	.0002	.0002	.0003	.0003	.0004	.0005	.0005	.0006	.0007	.0008	.0010	.0011
	D	.0001	.0001	.0002	.0002	.0002	.0003	.0004	.0004	.0004	.0005	.0006	.0006	.0007	.0008	.0010	.0011
	E	.0001	.0001	.0002	.0003	.0004	.0004	.0005	.0006	.0006	.0007	.0007	.0009	.0009	.0011	.0012	.0013
	F	.0001	.0002	.0002	.0004	.0005	.0006	.0006	.0007	.0009	.0009	.0011	.0012	.0013	.0015	.0017	.0019
	G	.0002	.0002	.0004	.0006	.0007	.0007	.0009	.0010	.0012	.0013	.0015	.0016	.0017	.0020	.0023	.0025
	I	.0002	.0003	.0005	.0007	.0009	.0011	.0012	.0014	.0016	.0018	.0020	.0022	.0024	.0028	.0031	.0035
	J	.0003	.0004	.0007	.0010	.0012	.0014	.0017	.0019	.0022	.0024	.0027	.0030	.0032	.0037	.0043	.0047
	K	.0004	.0006	.0009	.0014	.0016	.0019	.0022	.0025	.0029	.0032	.0036	.0040	.0043	.0050	.0056	.0063
	N	.0005	.0007	.0011	.0019	.0022	.0025	.0029	.0034	.0038	.0043	.0048	.0053	.0057	.0066	.0075	.0083
	O	.0006	.0010	.0015	.0024	.0029	.0034	.0039	.0045	.0051	.0057	.0063	.0070	.0076	.0088	.0100	.0111
	P	.0008	.0014	.0020	.0033	.0038	.0045	.0052	.0060	.0068	.0076	.0084	.0094	.0100	.0117	.0133	.0148
	R	.0011	.0018	.0027	.0043	.0051	.0060	.0069	.0080	.0091	.0101	.0112	.0125	.0134	.0156	.0177	.0197
	S	.0015	.0024	.0036	.0058	.0067	.0080	.0091	.0106	.0120	.0135	.0149	.0166	.0178	.0207	.0236	.0263

SOLID HM MILLS – CORRECTION FACTORS

1 Slot Milling

Correction factors for cutting speed v_c and feed per tooth f_z for slot milling operations at different depths of cut.

a_p / DC	25 %	50 %	100 %	150 %
X.V	1.25	1.00	0.75	0.50
X.f	1.25	1.00	0.75	0.50

2 Shoulder Milling

Correction factors for cutting speed v_c and feed per tooth f_z for square shoulder milling with < 50 % radial immersion.

a_e / DC	5 %	10 %	15 %	20 %	25 %	30 %	40 %	≥ 50 %
X.V	1.48	1.35	1.27	1.22	1.19	1.16	1.11	1.00
X.f	2.29	1.67	1.40	1.25	1.15	1.09	1.02	1.00

We recommend to avoid milling with 50 % radial immersion.

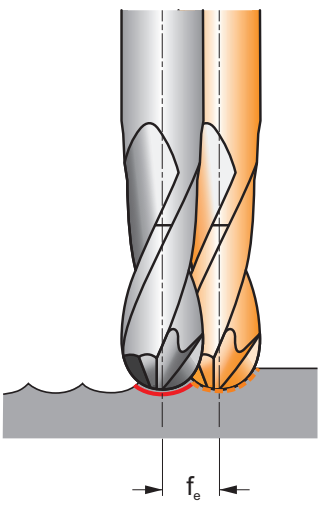
3a Plain Copy Milling (with Ball Nose Cutters)

Correction factors for cutting speed v_c for plain copy milling at different depths of cut.

a_p / DC	5 %	10 %	15 %	20 %	25 %	30 %	40 %	50 %
X.V	2.29	1.67	1.40	1.25	1.15	1.09	1.02	1.00

3b

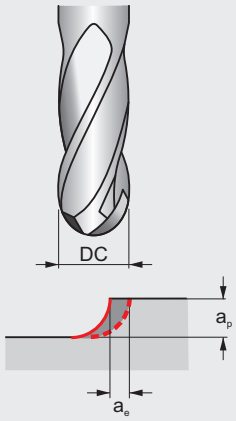
Line offset f_e (step-over distance) for achieving a theorectical surface roughness R_{th}.

DC	µm	2	4	8	16	32	63	125	250
2		0.13	0.18	0.25	0.36	0.50	0.70	0.97	1.32
3		0.15	0.22	0.31	0.44	0.62	0.86	1.20	1.66
4		0.18	0.25	0.36	0.50	0.71	1.00	1.39	1.94
5		0.20	0.28	0.40	0.56	0.80	1.12	1.56	2.18
6		0.22	0.31	0.44	0.62	0.87	1.22	1.71	2.40
8		0.25	0.36	0.51	0.71	1.01	1.41	1.98	2.78
10		0.28	0.40	0.57	0.80	1.13	1.58	2.22	3.12
12		0.31	0.44	0.62	0.88	1.24	1.73	2.44	3.43
14		0.33	0.47	0.67	0.95	1.34	1.87	2.63	3.71
16		0.36	0.51	0.72	1.01	1.43	2.00	2.82	3.97
18		0.38	0.54	0.76	1.07	1.52	2.13	2.99	4.21
20		0.40	0.57	0.80	1.13	1.60	2.24	3.15	4.44
22		0.42	0.59	0.84	1.19	1.68	2.35	3.31	4.66
25		0.45	0.63	0.89	1.26	1.79	2.51	3.53	4.97
28		0.47	0.67	0.95	1.34	1.89	2.65	3.73	5.27

Line offset dimensions shown are Metric (mm) only.

SOLID HM MILLS – CORRECTION FACTORS

3c



How to use this table to find the correction factor for the feed per tooth (f_z or IPT) for plain copy milling:

1. Find the closest radial immersion (ae / DC) for your cutting application in the top row of the table.
2. Find your closert axial immersion (a_p / DC) for your cutting application in the left column of the table.
3. The intersection (cell) of the radial and axial immersions is the correction factor for the feed per tooth.

Example for plain copy milling:

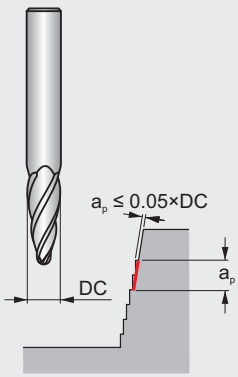
1. Applying an 8 mm ball nose cutter with a depth of cut of 0.8 mm (a_p), the aim is to achieve a theoretical surface roughness of 32 µm.
2. The correction factor for cutting speed with an axial immersion of 10 % = 1.67 can be found in table 3a.
3. The step-over distance for a R_{th} of 32 µm = 1.01 mm can be found in table 3b.
4. The correction factor for feed per tooth with an axial immersion of 10 % and a radial immersion of 1.01 / 8 = 12.6 % can be found in table 3c and is in this case 2.33.

Correction factors for feed per tooth f_z for plain copy milling with a line offset < 50 % × *DC* at different of depths of cut.

APMX FFW	APMX EFW	5 %	10 %	15 %	20 %	25 %	30 %	35 %	40 %	50 %
5 %		5.26	3.82	3.21	2.87	2.65	2.50	2.40	2.34	2.29
10 %		3.82	2.78	2.33	2.08	1.92	1.82	1.75	1.70	1.67
15 %		3.21	2.33	1.96	1.75	1.62	1.53	1.47	1.43	1.40
20 %		2.87	2.08	1.75	1.56	1.44	1.36	1.31	1.28	1.25
25 %	x.f	2.65	1.92	1.62	1.44	1.33	1.26	1.21	1.18	1.15
30 %	⇨	2.50	1.82	1.53	1.36	1.26	1.19	1.14	1.11	1.09
35 %		2.40	1.75	1.47	1.31	1.21	1.14	1.10	1.07	1.05
40 %		2.34	1.70	1.43	1.28	1.18	1.11	1.07	1.04	1.02
45 %		2.31	1.68	1.41	1.26	1.16	1.10	1.05	1.03	1.01
50 %		2.29	1.67	1.40	1.25	1.15	1.09	1.05	1.02	1.00

To increase the surface quality, the tool or surface should be inclinded with a tilt angle off 10° – 15°.

SOLID HM BARREL-SHAPE MILL – FEED PER TOOTH TABLE



Feed per tooth f_z (mm) depended on the working conditions it might be needed to adjust these values ±25 %.

How to use this table to find the feed per tooth f_z:

1. Find your Alpha Code on the product page (example: 121F, "**F**" is the Alpha Code).
2. Find the closest diameter for your cutting application in the top row of the table.
3. Find your Alpha Code in the left column of the table.
4. The intersection (cell) of the Diameter and Alpha Code is the feed per tooth f_z.

FOR HM S791
BARREL-SHAPE MILLS ONLY

		ø DC (mm)				
		6.00	**8.00**	**10.00**	**12.00**	**16.00**
Feed rates (mm)	**E**	0.030	0.039	0.053	0.067	0.096
	F	0.037	0.050	0.064	0.083	0.118
	I	0.062	0.084	0.111	0.141	0.203

THREAD MILLS – GENERAL HINTS

General hints on thread milling

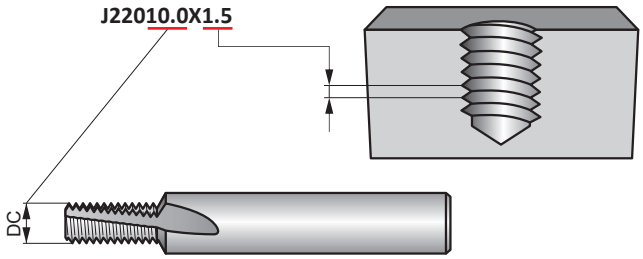
1. Thread milling is the process of generating a thread by the circular interpolation of a milling cutter with a specific thread geometry ground around it's periphery.
2. To be able to use a thread milling cutter it is necessary to have a CNC machine that can make circular paths.
3. Most modern CNC machines are equipped with machining cycles for thread milling.
4. Consult the manual or contact the machine supplier for information.

Features and benefits

1. Thread milling gives increased reliability and tool life.
2. Threadmills produce small chips resulting in problem free threading.
3. Tolerance adjustments can be made using exact co-ordinates.
4. You can generate a complete thread to the bottom of the hole.
5. Capable of machining a wide variety of materials.
6. The same cutter can produce different size threads provided the pitch is the same.
7. Both right and left hand threads can be created with the same tool.
8. Some thread mills can also machine the entry chamfer (J200 and J205).

Choosing your tool

Thread milling cutters have an item code based on the type, diameter *DC* and pitch *TP*.
The item code is the number to use when ordering your tool.
Always consult the catalogue to ensure you have the correct thread dimensions.



This thread milling cutter can be used for threads ≥ M12×1.5 (M14×1.5, M18×1.5 etc.)

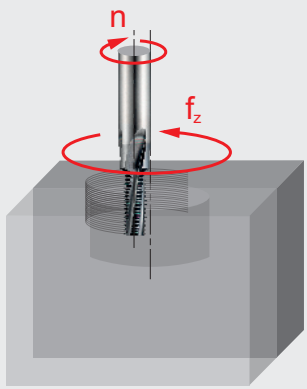
Programming with Rprg

- For easy adjustment of the thread tolerance always program with radius correction.
- The Rprg value is the start value for a new cutter and is printed on the cutter shank. This should be entered in the tool memory offset.
- Rprg is based on the theoretical zero-line of the thread meaning that when you program using Rprg the thread is never oversize, but normally tight.
- This means that with a small modification to the program co-ordinates you can create the thread to the required size.

Recommendations

- Always use the correct cutting data.
- Use the recommended drill size for the thread diameter, as for conventional taps.
- For easy adjustment of the thread tolerance always start with the Rprg value printed on the shank of the threadmill.
- Use a gauge to check the tolerance on the first thread to establish if the radius needs to be corrected. The radius can be corrected 2 or 3 times before the threadmill is worn out.
- When dry machining, compressed air is recommended to help with swarf removal.
- When threading more difficult materials, it is recommended to take multiple passes.

THREAD MILLS – FEED PER TOOTH TABLE



The specified values are the recommended starting values for machining the full thread depth in one pass.

How to use this table to find the feed per tooth f_z (mm):

1. Find your Alpha Code on the product page (example: 181B, "**B**" is the Alpha Code).
2. Select the column matching your cutter diameter in the top row of the table with the Thread pitch *P* or *TPI* (in the rows with icons on the left).
3. Find your Alpha Code in the left column of the table.
4. The intersection (cell) of the Diameter + Pitch column and Alpha Code is the feed per tooth f_z.

Correction of the feed per tooth for multiple passes:

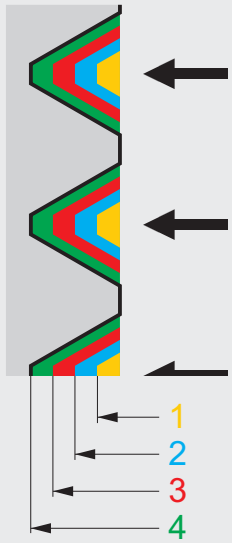
1. In case the thread is being machined in **2 passes** the feed values mentioned in the table should be increased by **30 to 40 %**.
2. In case the thread is being machined in **3 passes** the feed values mentioned in the table should be increased by **55 to 65 %**.
3. In case the thread is being machined in **4 passes** the feed values mentionedin the table should be increased by **80 to 90 %**.

(Example: J2003.2X.7 machining WMG M4.1 with feed rate A in 4-passes the $f_z = 0.017 \times 1.80 = 0.031$ mm/tooth).

Feed rates (mm)

	ø DC (mm)																											
	3.20	**4.10**	**4.50**	**4.80**	**5.50**	**6.00**	–	**6.50**	**7.50**	**7.90**	**8.00**	**8.20**	**9.50**	**9.90**	**10.00**	–	**11.60**	**12.00**	–	**13.60**	**14.00**	–	**16.00**	–	–	**19.00**	**20.00**	**25.00**
	0.70	**0.80**	**1.00**	**1.00**	–	**1.25**	–	**1.25**	**1.50**	–	–	**1.50**	**1.75**	**1.75**	**2.00**	–	**2.00**	**2.00**	–	**2.00**	–	–	–	–	–	–	–	–
A	0.017	0.022	0.023	0.024	–	0.024	–	0.029	0.036	–	–	0.040	0.044	0.047	0.053	–	0.056	0.068	–	0.071	–	–	–	–	–	–	–	–
B	0.022	0.029	0.031	0.032	–	0.032	–	0.038	0.048	–	–	0.053	0.059	0.063	0.070	–	0.075	0.090	–	0.095	–	–	–	–	–	–	–	–
C	0.028	0.036	0.039	0.040	–	0.040	–	0.048	0.060	–	–	0.066	0.074	0.079	0.088	–	0.094	0.113	–	0.119	–	–	–	–	–	–	–	–
	–	–	–	**0.50**	–	**0.75**	**1.00**	–	–	–	**1.00**	–	–	–	**1.00**	**1.50**		**1.00**	**1.50**	–	**1.00**	**1.50**	**1.50**	**2.00**	**2.50**	**3.00**	**2.00**	–
D	–	–	–	0.044	–	0.041	0.036	–	–	–	0.057	–	–	–	0.075	0.067		0.079	0.071	–	0.083	0.071	0.092	0.081	0.073	0.067	0.096	–
E	–	–	–	0.058	–	0.055	0.048	–	–	–	0.076	–	–	–	0.100	0.089	–	0.105	0.094	–	0.110	0.095	0.122	0.108	0.097	0.089	0.128	–
F	–	–	–	0.073	–	0.069	0.060	–	–	–	0.095	–	–	–	0.125	0.111	–	0.131	0.118	–	0.138	0.119	0.153	0.135	0.121	0.111	0.160	–
	–	–	–	**20**	**18**	–	–	–	**16**	–	**14**	–	–	–	**13**	**12**	–	**11**	–	–	**10**	–	–	–	–	–	–	–
G	–	–	–	0.019	0.023	–	–	–	0.030	–	0.034	–	–	–	0.053	0.051	–	0.055	–	–	0.066	–	–	–	–	–	–	–
H	–	–	–	0.025	0.030	–	–	–	0.040	–	0.045	–	–	–	0.071	0.068	–	0.073	–	–	0.088	–	–	–	–	–	–	–
I	–	–	–	0.031	0.038	–	–	–	0.050	–	0.056	–	–	–	0.089	0.085	–	0.091	–	–	0.110	–	–	–	–	–	–	–
	–	–	–	**28**	–	**24**	–	–	–	–	**20**	–	–	–	**18**	–	–	–	–	–	**16**	–	–	–	–	–	–	–
J	–	–	–	0.023	–	0.026	–	–	–	–	0.041	–	–	–	0.062	–	–	–	–	–	0.083	–	–	–	–	–	–	–
K	–	–	–	0.030	–	0.035	–	–	–	–	0.054	–	–	–	0.083	–	–	–	–	–	0.110	–	–	–	–	–	–	–
L	–	–	–	0.038	–	0.044	–	–	–	–	0.068	–	–	–	0.104	–	–	–	–	–	0.138	–	–	–	–	–	–	–
	–	–	–	–	–	**28**	–	–	–	–	–	–	–	–	**19**	–	–	–	–	–	**19**	–	**14**	–	–	–	**14**	**11**
M	–	–	–	–	–	0.029	–	–	–	–	–	–	–	–	0.064	–	–	–	–	–	0.080	–	0.083	–	–	–	0.116	0.131
N	–	–	–	–	–	0.038	–	–	–	–	–	–	–	–	0.085	–	–	–	–	–	0.106	–	0.111	–	–	–	0.155	0.175
O	–	–	–	–	–	0.048	–	–	–	–	–	–	–	–	0.106	–	–	–	–	–	0.133	–	0.139	–	–	–	0.194	0.219
	–	–	–	–	–	–	–	–	–	**27**	–	–	–	**18**	–	–	–	–	–	–	**14**	**11.5**	–	–	–	–	–	–
Q	–	–	–	–	–	–	–	–	–	0.039	–	–	–	0.044	–	–	–	–	–	–	0.079	0.115	–	–	–	–	–	–
R	–	–	–	–	–	–	–	–	–	0.052	–	–	–	0.059	–	–	–	–	–	–	0.105	0.153	–	–	–	–	–	–
S	–	–	–	–	–	–	–	–	–	0.065	–	–	–	0.074	–	–	–	–	–	–	0.131	0.191	–	–	–	–	–	–

THREAD MILLS – NUMBER OF PASSES TABLE



How to use the tables to find the depth increments per pass:

1. Select the table for your thread profile (example: "M12" is a metric thread).
2. Find the column matching your thread pitch in the top row of the table.
3. Find in that column below the recommended number of passes and for each pass the increment radial depth of cut. (example: for a pitch of 1.75 the recommended number of passes is 5 and radial depth of the 1st pass is 0.277 mm, the 2nd 0.228 mm etc.).
4. It is recommended to increase the number of passes for more difficult to machine materials.
5. For super-finishing result it is best practice to repeat the final pass.

Recommended number of passes and radial depth of cut per pass for female metric thread (60°).

		Radial depth of cut per pass (mm)										
		0.50	**0.70**	**0.75**	**0.80**	**1.00**	**1.25**	**1.50**	**1.75**	**2.00**	**2.50**	**3.00**
No. of passes	**1**	0.158	0.221	0.168	0.224	0.224	0.228	0.237	0.277	0.283	0.323	0.387
	2	0.131	0.183	0.138	0.185	0.185	0.188	0.196	0.228	0.234	0.267	0.320
	3	–	–	0.127	0.135	0.168	0.173	0.179	0.209	0.214	0.244	0.293
	4	–	–	–	–	–	0.133	0.138	0.161	0.164	0.187	0.225
	5	–	–	–	–	–	–	0.116	0.135	0.138	0.158	0.189
	6	–	–	–	–	–	–	–	–	0.122	0.139	0.167
	7	–	–	–	–	–	–	–	–	–	0.125	0.151
Acc. depth		0.289	0.404	0.433	0.544	0.577	0.722	0.866	1.010	1.155	1.443	1.732

Recommended number of passes and radial depth of cut per pass for female unified thread (60°).

		Radial depth of cut per pass (mm)									
		28	**24**	**20**	**18**	**16**	**14**	**13**	**12**	**11**	**10**
No. of passes	**1**	0.203	0.237	0.232	0.258	0.251	0.287	0.309	0.299	0.327	0.328
	2	0.167	0.195	0.191	0.213	0.207	0.237	0.255	0.247	0.270	0.271
	3	0.154	0.179	0.175	0.195	0.190	0.217	0.234	0.226	0.247	0.248
	4	–	–	0.135	0.149	0.146	0.166	0.179	0.174	0.189	0.190
	5	–	–	–	–	0.123	0.140	0.151	0.146	0.160	0.160
	6	–	–	–	–	–	–	–	0.130	0.140	0.141
	7	–	–	–	–	–	–	–	–	–	0.128
Acc. Depth		0.524	0.611	0.733	0.815	0.917	1.047	1.128	1.222	1.333	1.466

THREAD MILLS – NUMBER OF PASSES TABLE

Recommended number of passes and radial depth of cut per pass for female G (BSP) thread (55°).

1 2 3 / 1"		Radial depth of cut per pass (mm)			
		28	19	14	11
No. of passes	1	0.225	0.271	0.318	0.362
	2	0.186	0.224	0.263	0.299
	3	0.170	0.205	0.241	0.274
	4	–	0.156	0.185	0.210
	5	–	–	0.155	0.177
	6	–	–	–	0.157
	7	–	–	–	–
Acc. Depth		0.581	0.856	1.162	1.479

Recommended number of passes and radial depth of cut per pass for female NPT thread (60°).

1 2 3 / 1"		Radial depth of cut per pass (mm)			
		27	18	14	11.5
No. of passes	1	0.283	0.348	0.390	0.423
	2	0.233	0.287	0.322	0.349
	3	0.214	0.263	0.295	0.320
	4	–	0.202	0.226	0.246
	5	–	–	0.190	0.207
	6	–	–	–	0.183
	7	–	–	–	–
Acc. Depth		0.730	1.100	1.423	1.728

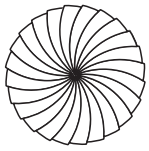
ROTARY BURRS – GENERAL HINTS

General hints on carbide burrs

Carbide Burrs are widely used for preparing and finishing components in a wide range of materials.
They are generally used by hand and mounted in air driven die-grinders.

Construction and Geometry

1. Toughened and hardened steel shanks improve rigidity and reduce the risk of bending or vibration.
2. Accurately ground shanks improve holding and reduce likelihood of spinning.
3. Special brazing elements prevent high temperature failure and also provide increased strength to withstand pressure and impact.
4. The universal Double Cut (DC) geometry is suitable for a wide range of materials and applications.
5. Material specific geometries are also available suited to Steel (ST), Stainless Steel (VA), Aluminium (AL), Super Alloys (AS) and Fibreglass (GRP).
6. Available with TiAlN coating to increase tool life in abrasive materials.
7. Ball nose burrs are ground with Skip Flute geometry. This provides active geometry towards the centre of the burr, improving the cutting action and reducing the chances of swarf build up and clogging.

Skip	Normal
	

Safety first

1. High speed rotating tools are hazardous and can be dangerous if miss-used.
2. Always disconnect the die grinder from the air supply before attempting to change the burrs.
3. Check the condition of the die grinder and if possible use low vibration versions.
4. Always use the appropriate protective equipment and ensure anyone working close by is also protected.

Personal protective equipment must be worn at all times!

ROTARY BURRS – GENERAL HINTS

Recommendations

- Always use the appropriate speed rated die grinder.
- Routine maintenance of die grinders is important, ensure they are oiled and bearings are not worn.
- Always clean the clamping nut, collet and internal taper of the die grinder when changing a burr.
- Try to avoid mechanical shock and heavy impact of the burrs.
- Try to avoid thermal shock by not allowing the burr to become overheated.
- Don’t plunge the burr too deep into the workpiece material or jam the bur into corners or channels.

Trouble shooting using burrs

Problem	Cause
Chipping of Burr Teeth	Running speed too low (revolutions per minute) can cause bouncing (chatter)
	Eccentricity (worn spindle, collet or bearings)
	Plunging and jamming the burr into the workpiece
Clogging of Burr Teeth	Flute length or overall length too long
	Incorrect geometry choice for workpiece material
Premature Wear	Running speed too high (revolutions per minute) for size of burr and workpiece material
	Eccentricity (worn spindle, collet or bearings)
Head Detaches from Shank	Running speed too high (revolutions per minute) causing overheating
	Running for prolonged periods causing overheating

ROTARY BURRS – RECOMMENDED OPERATING SPEED

AL DC

ISO		RPM						
		DC (mm)						
		3	6	8	10	12	16	20
P	min.	64 000	32 000	24 000	20 000	16 000	12 000	10 000
	max.	83 000	42 000	32 000	25 000	21 000	16 000	13 000
M	min.	45 000	23 000	17 000	14 000	12 000	9 000	7 000
	max.	64 000	32 000	24 000	20 000	16 000	12 000	10 000
K	min.	58 000	29 000	22 000	19 000	15 000	11 000	9 000
	max.	77 000	39 000	29 000	23 000	20 000	15 000	12 000
N	min.	64 000	32 000	24 000	20 000	16 000	12 000	10 000
	max.	96 000	48 000	36 000	29 000	24 000	18 000	15 000
S	min.	45 000	23 000	17 000	14 000	12 000	9 000	7 000
	max.	58 000	29 000	22 000	18 000	15 000	11 000	9 000
H	min.	51 000	26 000	20 000	16 000	13 000	10 000	8 000
	max.	71 000	36 000	27 000	22 000	18 000	14 000	11 000

ST BR

ISO		RPM				
		DC (mm)				
		3	6	8	10	12
P	min.	100 000	65 000	60 000	55 000	35 000
	max.	60 000	45 000	35 000	30 000	20 000

VA BR

ISO		RPM				
		DC (mm)				
		3	6	8	10	12
M	min.	100 000	65 000	60 000	55 000	35 000
	max.	60 000	30 000	25 000	20 000	15 000

GRP

ISO		RPM		
		DC (mm)		
		3	6	8
N4	min.	25 000	20 000	18 000
	max.	30 000	25 000	22 000

AS

ISO		RPM
		DC (mm)
		3
S	min.	60 000
	max.	80 000

WMG (WORK MATERIAL GROUP)

ISO group		WMG (Work Material Group)			Hardness (HB or HRC)	Ultimate Tensile Strength (MPa)
P	P1	P1.1	Free machining steel (carbon steels with increased machinability)	Sulfurized	< 240 HB	≤ 830
		P1.2		Sulfurized and phosphorized	< 180 HB	≤ 620
		P1.3		Sulfurized/phosphorized and leaded	< 180 HB	≤ 620
	P2	P2.1	Plain carbon steel (steels comprised of mainly iron and carbon)	Containing <0.25 % C	< 180 HB	≤ 620
		P2.2		Containing <0.55 % C	< 240 HB	≤ 830
		P2.3		Containing >0.55 % C	< 300 HB	≤ 1030
	P3	P3.1	Alloy steel (carbon steels with an alloying content ≤ 10%)	Annealed	< 180 HB	≤ 620
		P3.2		Hardened and tempered	180 – 260 HB	> 620 ≤ 900
		P3.3			260 – 360 HB	> 900 ≤ 1240
	P4	P4.1	Tool steel (special alloy steel for tools, dies and molds)	Annealed	< 26 HRC	≤ 900
		P4.2		Hardened and tempered	26 – 39 HRC	> 900 ≤ 1240
		P4.3			39 – 45 HRC	> 1240 ≤ 1450
M	M1	M1.1	Ferritic stainless steel (straight chromium non-hardenable alloys)		< 160 HB	≤ 520
		M1.2			160 – 220 HB	> 520 ≤ 700
	M2	M2.1	Martensitic stainless steel (straight chromium hardenable alloys)	Annealed	< 200 HB	≤ 670
		M2.2		Quenched and tempered	200 – 280 HB	> 670 ≤ 950
		M2.3		Precipitation-hardened	280 – 380 HB	> 950 ≤ 1300
	M3	M3.1	Austenitic stainless steel (chromium-nickel and chromium-nickel-manganese alloys)		< 200 HB	≤ 750
		M3.2			200 – 260 HB	> 750 ≤ 870
		M3.3			260 – 300 HB	> 870 ≤ 1040
	M4	M4.1	Austenitic-ferritic (DUPLEX) or super-austenitic stainless steel		< 300 HB	≤ 990
		M4.2	Precipitation hardening austenitic stainless steel		300 – 380 HB	≤ 1320
K	K1	K1.1	Gray iron or Automotive Gray iron (GG) (iron-carbon castings with a lamellar graphite microstructure)	Ferritic or ferritic-pearlitic	< 180 HB	≤ 190
		K1.2		Ferritic-pearlictic or pearlitic	180 – 240 HB	> 190 ≤ 310
		K1.3		Pearlitic	240 – 280 HB	> 310 ≤ 390
	K2	K2.1	Malleable iron (GTS/GTW) (iron-carbon castings with a graphite-free microstructure)	Ferritic	< 160 HB	≤ 400
		K2.2		Ferritic or pearlitic	160 – 200 HB	> 400 ≤ 550
		K2.3		Pearlitic	200 – 240 HB	> 550 ≤ 660
	K3	K3.1	Ductile iron (GGG) (iron-carbon castings with a nodular graphite microstructure)	Ferritic	< 180 HB	≤ 560
		K3.2		Ferritic or pearlitic	180 – 220 HB	> 560 ≤ 680
		K3.3		Pearlitic	220 – 260 HB	> 680 ≤ 800
	K4	K4.1	Austenitic gray iron (ASTM A436) (iron-carbon alloy castings with an austenitic lamellar graphite microstructure)		< 180 HB	≤ 190
		K4.2	Austenitic ductile iron (ASTM A439 or ASTM A571) (iron-carbon alloy castings with an austenitic nodular graphite microstructure)		< 240 HB	≤ 740
		K4.3	Austempered ductile iron (ASTM A897) (iron-carbon alloy castings with an ausferrite microstructure)		< 280 HB	> 840 ≤ 980
		K4.4			280 – 320 HB	> 980 ≤ 1130
		K4.5			320 – 360 HB	> 1130 ≤ 1280
	K5	K5.1	Compacted graphite iron CGI (ASTM A842) (iron-carbon castings with a vermicular graphite structure)	Ferritic	< 180 HB	≤ 400
		K5.2		Ferritic-pearlitic	180 – 220 HB	> 400 ≤ 450
		K5.3		Pearlitic	220 – 260 HB	> 450 ≤ 500
N	N1	N1.1	Commercially pure wrought aluminium		< 60 HB	≤ 240
		N1.2	Wrought aluminium alloys	Half hard tempered	60 – 100 HB	> 240 ≤ 400
		N1.3		Full hard tempered	100 – 150 HB	> 400 ≤ 590
	N2	N2.1	Cast aluminium alloys		< 75 HB	≤ 240
		N2.2			75 – 90 HB	> 240 ≤ 270
		N2.3			90 – 140 HB	> 270 ≤ 440
	N3	N3.1	Free-cutting copper-alloys materials with excellent machining properties		–	–
		N3.2	Short-chip copper-alloys with good to moderate machining properties		–	–
		N3.3	Electrolytic copper and long-chip copper-alloys with moderate to poor machining properties		–	–
	N4	N4.1	Thermoplastic polymers		–	–
		N4.2	Thermosetting polymers		–	–
		N4.3	Reinforced polymers or composites		–	–
	N5	N5.1	Graphite		–	–
S	S1	S1.1	Titanium or titanium alloys		< 200 HB	≤ 660
		S1.2			200 – 280 HB	> 660 ≤ 950
		S1.3			280 – 360 HB	> 950 ≤ 1200
	S2	S2.1	Fe-based high-temperature alloys		< 200 HB	≤ 690
		S2.2			200 – 280 HB	> 690 ≤ 970
	S3	S3.1	Ni-based high-temperature alloys		< 280 HB	≤ 940
		S3.2			280 – 360 HB	> 940 ≤ 1200
	S4	S4.1	Co-based high-temperature alloys		< 240 HB	≤ 800
		S4.2			240 – 320 HB	> 800 ≤ 1070
H	H1	H1.1	Chilled cast iron		< 440 HB	–
	H2	H2.1	Hardened cast iron		< 55 HRC	–
		H2.2			> 55 HRC	–
	H3	H3.1	Hardened steel < 55 HRC		< 51 HRC	–
		H3.2			51 – 55 HRC	–
	H4	H4.1	Hardened steel > 55 HRC		55 – 59 HRC	–
		H4.2			> 59 HRC	–

HARDNESS CONVERSION TABLE

Strength (MPa)	Hardness			
	BRINELL	VICKERS	ROCKWELL	ROCKWELL
R_m	HB	HV	HRB	HRC
285	86	**90**	1190	–
320	95	**100**	56.2	–
350	105	**110**	62.3	–
385	114	**120**	66.7	–
415	124	**130**	71.2	–
450	133	**140**	75.0	–
480	143	**150**	78.7	–
510	152	**160**	81.7	–
545	162	**170**	85.8	–
575	171	**180**	87.1	–
610	181	**190**	89.5	–
640	190	**200**	91.5	–
675	199	**210**	93.5	–
705	209	**220**	95	–
740	219	**230**	96.7	–
770	228	**240**	98.1	–
800	238	**250**	99.5	–
820	242	**255**	–	23.1
850	252	**265**	–	24.8
880	261	**275**	–	26.4
900	266	**280**	–	27.1
930	276	**290**	–	28.5
950	280	**295**	–	29.2
995	295	**310**	–	31.0
1030	304	**320**	–	32.2
1060	314	**330**	–	33.3
1095	323	**340**	–	34.4
1125	333	**350**	–	35.5
1155	342	**360**	–	36.6

Strength (MPa)	Hardness			
	BRINELL	VICKERS	ROCKWELL	ROCKWELL
R_m	HB	HV	HRB	HRC
1190	352	**370**	–	37.7
1220	361	**380**	–	38.8
1255	371	**390**	–	39.8
1290	380	**400**	–	40.8
1320	390	**410**	–	41.8
1350	399	**420**	–	42.7
1385	409	**430**	–	43.6
1420	418	**440**	–	44.5
1455	428	**450**	–	45.3
1485	437	**460**	–	46.1
1520	447	**470**	–	46.9
1555	456	**480**	–	47.7
1595	466	**490**	–	48.4
1630	475	**500**	–	49.1
1665	485	**510**	–	49.8
1700	494	**520**	–	50.5
1740	504	**530**	–	51.1
1775	513	**540**	–	51.7
1810	523	**550**	–	52.3
1845	532	**560**	–	53.0
1880	542	**570**	–	53.6
1920	551	**580**	–	54.1
1955	561	**590**	–	54.7
1995	570	**600**	–	55.2
2030	580	**610**	–	55.7
2070	589	**620**	–	56.3
2105	599	**630**	–	56.8
2145	608	**640**	–	57.3
2180	618	**650**	–	57.8

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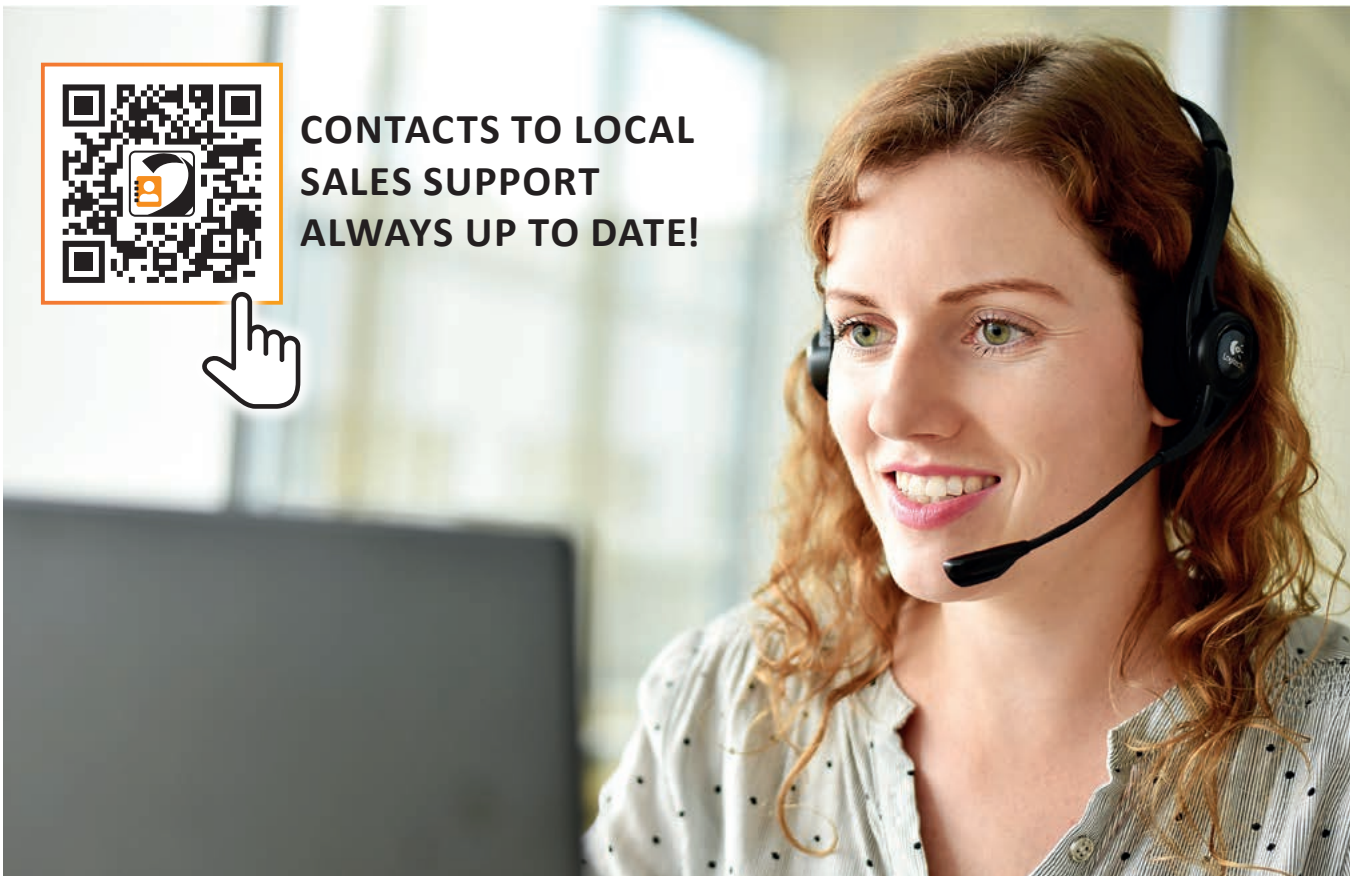

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