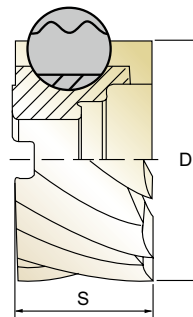
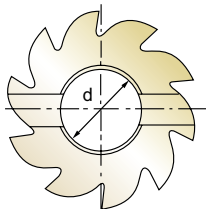


HSSCo8, MULTI FLUTE ROUGHING SHELL END MILL - COARSE

- HSSCo8, MULTI SCHNEIDEN WALZENSTIRN-SCHRUPPFÄRÄSER - GROBES
- Fraise HSSCo8, multi-dents trou lisse, ébauche, pas grossier
- FRESA CILINDRICA FRONTALE MULTI TAGLIENTE, PER SGROSSATURA



HSS Co8
DIN 841
NR
6-12
30°
UNCOATED
p.C733

Unit : mm

EDP No.	Mill Diameter	Width of Face	Internal Diameter	No. of Teeth
	D	S	d	Z
E2677401	40.0	40	● 16	6
E2677501	50.0	50	22	8
E2677600	60.0	30	27	8
E2677601	60.0	60	27	8
E2677750	75.0	35	27	10
E2677751	75.0	75	27	10
E2677900	90.0	35	27	10
E2677902	110.0	35	32	12

- Tolerance of Internal Diameter = +0.018 ~ 0
- ▶ TIN-COATING, TiCN-COATING & TiAlN-COATING is available on your request.

HSS Co8
DIN 1880
NR
6-12
30°
UNCOATED
p.C733

Unit : mm

EDP No.	Mill Diameter	Width of Face	Internal Diameter	No. of Teeth
	D	S	d	Z
E2677400	40.0	32	● 16	6
E2677500	50.0	36	22	8
E2677630	63.0	40	27	8
E2677800	80.0	45	27	10
E2677901	100.0	50	32	10
E2677903	125.0	56	40	12
E2677904	160.0	63	50	12

- Tolerance of Internal Diameter = +0.018 ~ 0
- ▶ TIN-COATING, TiCN-COATING & TiAlN-COATING is available on your request.

Mill Dia. Tolerance(mm)	Width of Face Tolerance(mm)	Internal Dia. Tolerance(mm)
+0.25 -0.15	+0.5 -0	+0.02 -0

◎ : Excellent ○ : Good

ISO	P											M			K					
	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRC	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	42	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	○	◎	◎	○	○	◎	○	◎	◎	◎	◎	◎	◎	◎	◎	◎

ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)	Non Metallic Materials	Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron							
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRC	60	100	75	90	130	110	90	100			15	30	25	38	34	55	60	55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

SELECTION GUIDE

HSS



MILLING TOOLS

SERIES	ML012, ML022 ML112, ML122	ML032, ML042 ML132, ML142	ML062 ML162
	DOVETAIL CUTTERS	DOVETAIL CUTTERS	WOODRUFF KEYSEAT CUTTERS
FLUTE	-	-	-
HELIX ANGLE	0°	0°	10°-20°
SIZE MIN	D16.0	D16.0	D10.5
SIZE MAX	D50.0	D38.0	D45.5
PAGE	C706	C707	C708

CBN
END MILLS

i-Xmill
END MILLS

i-SMART
MODULAR
END MILLS

X5070
END MILLS

4G MILL
END MILLS

X-POWER
PRO
END MILLS

TitaNox-
POWER
END MILLS

JET-POWER
END MILLS

V7 PLUS
END MILLS

ALU-POWER
HPC
END MILLS

ALU-
POWER
END MILLS

D-POWER
GRAPHITE
END MILLS

CRX S
END MILLS

K-2
END MILLS

ONLY ONE
COATED PM60
END MILLS

TANK-
POWER
END MILLS

GENERAL
HSS
END MILLS

MILLING
CUTTERS

TECHNICAL
DATA

HSS MILLING CUTTERS

General Works. Available Dovetail, Woodruff Keyseat, T-slot, Side Milling Cutters and HSS (8% cobalt) Corner Rounding, Shell End Mills



Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p. C726



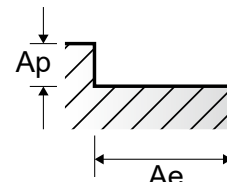
ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRc	ML012, ML022, ML112, ML122	ML032, ML042, ML132, ML142	ML062, ML162
P	1	Non-alloy steel	About 0.15% C Annealed	125		◎	◎	◎
	2		About 0.45% C Annealed	190	13	◎	◎	◎
	3		About 0.45% C Quenched & Tempered	250	25	◎	◎	◎
	4		About 0.75% C Annealed	270	28	◎	◎	◎
	5		About 0.75% C Quenched & Tempered	300	32	◎	◎	◎
	6	Low alloy steel	Annealed	180	10	◎	◎	◎
	7		Quenched & Tempered	275	29	◎	◎	◎
	8		Quenched & Tempered	300	32	◎	◎	◎
	9		Quenched & Tempered	350	38	○	○	○
	10		High alloyed steel, and tool steel	Annealed	200	15	◎	◎
	11	Quenched & Tempered		325	35	○	○	○
M	12	Stainless steel	Ferritic / Martensitic Annealed	200	15			
	13		Martensitic Quenched & Tempered	240	23			
	14		Austenitic	180	10			
K	15	Grey cast iron	Pearlitic / ferritic	180	10			
	16		Pearlitic (Martensitic)	260	26			
	17	Nodular cast iron	Ferritic	160	3			
	18		Pearlitic	250	25			
	19		Ferritic	130				
20	Malleable cast iron	Pearlitic	230	21				
N	21	Aluminum-wrought alloy	Not Curable	60		○	○	○
	22		Curable Hardened	100		○	○	○
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75		○	○	○
	24		≤ 12% Si, Curable Hardened	90		○	○	○
	25		> 12% Si, Not Curable	130		○	○	○
	26		Copper and Copper Alloys	Cutting Alloys, PB>1%	110			
	27	(Bronze / Brass)	CuZn, CuSnZn (Brass)	90				
	28		CuSn, lead-free copper and electrolytic copper	100				
	29		Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic				
	30		Rubber, Wood, etc.					
S	31	Heat Resistant Super Alloys	Fe Based Annealed	200	15			
	32		Cured	280	30			
	33		Annealed	250	25			
	34		Ni or Co Based Cured	350	38			
	35		Cast	320	34			
	36	Titanium Alloys	Pure Titanium	400 Rm				
	37		Alpha + Beta Alloys Hardened	1050 Rm				
H	38	Hardened steel	Hardened	550	55			
	39		Hardened	630	60			
	40	Chilled Cast Iron	Cast	400	42			
	41	Hardened Cast Iron	Hardened	550	55			

E2677, E2678 SERIES

MULTI FLUTE ROUGHING SHELL END MILL

Vc = m/min.
fz = mm/tooth
RPM = rev./min.
FEED = mm/min.

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)							
						40.0	50.0	63.0	80.0	100.0	125.0	160.0	
P	1-2	Non-alloy steel	0.75D	0.25D	Vc	30	30	30	30	30	30	30	30
					fz	0.069	0.078	0.092	0.1	0.115	0.12	0.153	
	RPM		239	191	152	119	95	76	60				
	FEED		99	119	112	119	110	110	110				
	3-4		0.75D	0.25D	Vc	25	25	25	25	25	25	25	30
					fz	0.071	0.077	0.091	0.1	0.119	0.113	0.139	
	RPM		199	159	126	99	80	64	60				
	FEED		85	98	92	99	95	86	100				
	5		0.75D	0.25D	Vc	20	20	20	20	20	20	20	20
					fz	0.071	0.078	0.09	0.094	0.117	0.108	0.135	
	RPM		159	127	101	80	64	51	40				
FEED	68	79	73	75	74	66	64						
6	0.75D	0.25D	Vc	30	30	30	30	30	30	30	30		
			fz	0.069	0.078	0.092	0.1	0.115	0.12	0.153			
RPM	239	191	152	119	95	76	60						
FEED	99	119	112	119	110	110	110						
7	0.75D	0.25D	Vc	25	25	25	25	25	25	25	30		
			fz	0.071	0.077	0.091	0.1	0.119	0.113	0.139			
RPM	199	159	126	99	80	64	60						
FEED	85	98	92	99	95	86	100						
8	0.75D	0.25D	Vc	20	20	20	20	20	20	20	20		
			fz	0.071	0.078	0.09	0.094	0.117	0.108	0.135			
RPM	159	127	101	80	64	51	40						
FEED	68	79	73	75	74	66	64						
9	0.75D	0.25D	Vc	10	10	10	10	10	10	10	10		
			fz	0.073	0.08	0.1	0.1	0.117	0.146	0.146			
RPM	80	64	51	40	32	25	20						
FEED	35	41	40	40	37	45	35						
10	0.75D	0.25D	Vc	30	30	30	30	30	30	30	30		
			fz	0.069	0.078	0.092	0.1	0.115	0.12	0.153			
RPM	239	191	152	119	95	76	60						
FEED	99	119	112	119	110	110	110						
11.1	0.75D	0.25D	Vc	20	20	20	20	20	20	20	20		
			fz	0.071	0.078	0.09	0.094	0.117	0.108	0.135			
RPM	159	127	101	80	64	51	40						
FEED	68	79	73	75	74	66	64						



E2679 SERIES

MULTI FLUTE ROUGHING & FINISHING SHELL END MILL

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)							
						40.0	50.0	63.0	80.0	100.0	125.0	160.0	
P	1-2	Non-alloy steel	0.75D	0.25D	Vc	30	30	30	30	30	30	30	
					fz	0.069	0.078	0.092	0.1	0.115	0.12	0.153	
	RPM		239	191	152	119	95	76	60				
	FEED		99	119	112	119	110	110	110				
	3-4		0.75D	0.25D	Vc	25	25	25	25	25	25	25	30
					fz	0.071	0.077	0.091	0.1	0.119	0.113	0.139	
	RPM		199	159	126	99	80	64	60				
	FEED		85	98	92	99	95	86	100				
	5		0.75D	0.25D	Vc	20	20	20	20	20	20	20	20
					fz	0.071	0.078	0.09	0.094	0.117	0.108	0.135	
	RPM		159	127	101	80	64	51	40				
FEED	68	79	73	75	74	66	64						
6	0.75D	0.25D	Vc	30	30	30	30	30	30	30	30		
			fz	0.069	0.078	0.092	0.1	0.115	0.12	0.153			
RPM	239	191	152	119	95	76	60						
FEED	99	119	112	119	110	110	110						
7	0.75D	0.25D	Vc	25	25	25	25	25	25	25	30		
			fz	0.071	0.077	0.091	0.1	0.119	0.113	0.139			
RPM	199	159	126	99	80	64	60						
FEED	85	98	92	99	95	86	100						
8	0.75D	0.25D	Vc	20	20	20	20	20	20	20	20		
			fz	0.071	0.078	0.09	0.094	0.117	0.108	0.135			
RPM	159	127	101	80	64	51	40						
FEED	68	79	73	75	74	66	64						
9	0.75D	0.25D	Vc	10	10	10	10	10	10	10	10		
			fz	0.073	0.08	0.1	0.1	0.117	0.146	0.146			
RPM	80	64	51	40	32	25	20						
FEED	35	41	40	40	37	45	35						
10	0.75D	0.25D	Vc	30	30	30	30	30	30	30	30		
			fz	0.069	0.078	0.092	0.1	0.115	0.12	0.153			
RPM	239	191	152	119	95	76	60						
FEED	99	119	112	119	110	110	110						
11.1	0.75D	0.25D	Vc	20	20	20	20	20	20	20	20		
			fz	0.071	0.078	0.09	0.094	0.117	0.108	0.135			
RPM	159	127	101	80	64	51	40						
FEED	68	79	73	75	74	66	64						