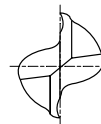




HSSCo8, 2 FLUTE 42° HELIX LONG LENGTH for ALUMINUM

- 🇩🇪 HSSCo8, 2 SCHNEIDEN 42° RECHTSSPIRALE KURZ für ALUMINIUM
- 🇫🇷 Fraise HSSCo8, 2 dents, hélice 42°, pour aluminium, longue
- 🇮🇹 2 TAGLIENTI, ELICA 42°, SERIE LUNGA - HSSCo8

for ALUMINUM
für ALUMINIUM



P.748~749

Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
UNCOATED	e8	h6		
E2509020	2.0	6	10	54
E2509030	3.0	6	12	56
E2509040	4.0	6	19	63
E2509050	5.0	6	24	68
E2509060	6.0	6	24	68
E2509070	7.0	10	30	80
E2509080	8.0	10	38	88
E2509090	9.0	10	38	88
E2509100	10.0	10	45	95
E2509110	11.0	12	45	102
E2509120	12.0	12	53	110
E2509130	13.0	12	53	110
E2509140	14.0	12	53	110
E2509150	15.0	12	53	110
E2509160	16.0	16	63	123
E2509180	18.0	16	63	123
E2509200	20.0	20	75	141

- ▶ Other shank design on your request.
- ▶ TiN and TiCN Coatings are available on your request.

Tolerances according to DIN 7160 & 7161

	Tolerance range in μm					
	Nominal-Diameter in mm					
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
e8	-14 -28	-20 -38	-25 -47	-32 -59	-40 -73	-50 -89
h6	0 -6	0 -8	0 -9	0 -11	0 -13	0 -16

◎ : Excellent ○ : Good

ISO Material Description	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	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25			
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommend	○	○				○				○											
ISO Material Description	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			
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			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
Recommend	◎	◎	◎	◎	○																



RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER

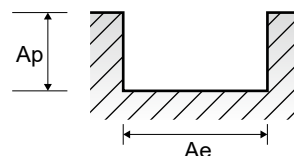
EQ570, EQ571, EQ510 SERIES 2 FLUTE TiAlN COATED - SLOTTING

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

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)								
						2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	
P	1	Non-alloy steel	1.0D	0.5D	Vc	50	45	50	50	45	50	50	45	
					fz	0.004	0.008	0.013	0.02	0.025	0.036	0.045	0.062	
					RPM	7958	4775	3979	3183	2387	1989	1592	1194	
	2		1.0D	0.5D	Vc	40	40	40	40	40	40	40	40	40
					fz	0.003	0.007	0.012	0.02	0.024	0.04	0.05	0.064	
					RPM	6366	4244	3183	2546	2122	1592	1273	1061	
	3-4		1.0D	0.5D	Vc	35	35	30	35	30	30	35	35	
					fz	0.004	0.008	0.013	0.019	0.025	0.04	0.05	0.061	
					RPM	5570	3714	2387	2228	1592	1194	1114	928	
	5		1.0D	0.5D	Vc	20	20	20	20	20	20	20	20	
					fz	0.003	0.007	0.013	0.02	0.025	0.041	0.05	0.064	
RPM		3183			2122	1592	1273	1061	796	637	531			
6	1.0D	0.5D	Vc	40	40	40	40	40	40	40	40			
			fz	0.003	0.007	0.012	0.02	0.024	0.04	0.05	0.064			
			RPM	6366	4244	3183	2546	2122	1592	1273	1061			
7	1.0D	0.5D	Vc	35	35	30	35	30	30	35	35			
			fz	0.004	0.008	0.013	0.019	0.025	0.04	0.05	0.061			
			RPM	5570	3714	2387	2228	1592	1194	1114	928			
8-9	1.0D	0.5D	Vc	20	20	20	20	20	20	20	20			
			fz	0.003	0.007	0.013	0.02	0.025	0.041	0.05	0.064			
			RPM	3183	2122	1592	1273	1061	796	637	531			
10	1.0D	0.5D	Vc	40	40	40	40	40	40	40	40			
			fz	0.003	0.007	0.012	0.02	0.024	0.04	0.05	0.064			
			RPM	6366	4244	3183	2546	2122	1592	1273	1061			
11.1	1.0D	0.5D	Vc	20	20	20	20	20	20	20	20			
			fz	0.003	0.007	0.013	0.02	0.025	0.041	0.05	0.064			
			RPM	3183	2122	1592	1273	1061	796	637	531			
N	21-22	Aluminum-wrought alloy	1.0D	0.5D	Vc	105	145	140	140	150	140	135	130	
					fz	0.007	0.011	0.018	0.025	0.028	0.049	0.064	0.076	
					RPM	16711	15385	11141	8913	7958	5570	4297	3448	
N	23-24	Aluminum-cast, alloyed	1.0D	0.5D	Vc	68	94	91	91	98	91	88	85	
					fz	0.007	0.011	0.018	0.025	0.028	0.049	0.064	0.076	
					RPM	10823	9974	7242	5793	5199	3621	2801	2255	

※The FEED, in long & extra long types, should be reduced by around 50%

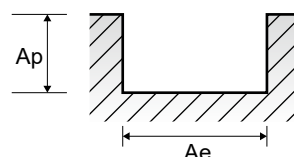
▶ NEXT PAGE



E2464, E2509 SERIES 2 FLUTE - SLOTTING

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)								
						3.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0
N	21-22	Aluminum-wrought alloy	1.0D	0.5D	Vc	75	130	150	155	190	155	175	130	145
					fz	0.035	0.05	0.071	0.12	0.12	0.177	0.177	0.283	0.283
					RPM	7958	6897	5968	4934	5040	3524	3482	2299	2308
N	23-24	Aluminum-cast, alloyed	1.0D	0.5D	Vc	49	85	98	101	124	101	114	85	94
					fz	0.035	0.05	0.071	0.12	0.12	0.177	0.177	0.283	0.283
					RPM	5199	4509	3899	3215	3289	2296	2268	1503	1496
					FEED	364	451	554	772	789	813	803	851	847

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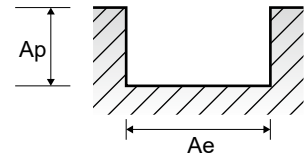


EQ570, EQ571, EQ510 SERIES

2 FLUTE TIALN COATED - SLOTTING

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

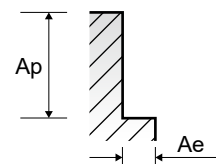
VDI 3323	Parameter	Diameter (Ø)										
		14.0	16.0	18.0	20.0	22.0	25.0	28.0	30.0	32.0	36.0	40.0
1	Vc	50	50	50	50	50	50	50	45	50	50	50
	fz	0.07	0.078	0.078	0.088	0.1	0.096	0.1	0.1	0.1	0.094	0.106
	RPM	1137	995	884	796	723	637	568	477	497	442	398
2	Vc	45	40	40	40	45	45	45	40	40	40	40
	fz	0.063	0.078	0.089	0.096	0.096	0.1	0.1	0.094	0.094	0.1	0.117
	RPM	1023	796	707	637	651	573	512	424	398	354	318
3-4	Vc	35	35	30	35	35	35	35	30	30	35	30
	fz	0.069	0.077	0.091	0.091	0.1	0.094	0.094	0.1	0.108	0.092	0.11
	RPM	796	696	531	557	506	446	398	371	298	309	239
5	Vc	20	20	20	20	20	20	20	20	20	15	20
	fz	0.07	0.081	0.093	0.108	0.108	0.1	0.1	0.1	0.1	0.117	0.117
	RPM	455	398	354	318	289	255	227	212	199	133	159
6	Vc	45	40	40	40	45	45	45	40	40	40	40
	fz	0.063	0.078	0.089	0.096	0.096	0.1	0.1	0.094	0.094	0.1	0.117
	RPM	1023	796	707	637	651	573	512	424	398	354	318
7	Vc	35	35	30	35	35	35	35	30	30	35	30
	fz	0.069	0.077	0.091	0.091	0.1	0.094	0.094	0.1	0.108	0.092	0.11
	RPM	796	696	531	557	506	446	398	371	298	309	239
8-9	Vc	20	20	20	20	20	20	20	20	20	15	20
	fz	0.07	0.081	0.093	0.108	0.108	0.1	0.1	0.1	0.1	0.117	0.117
	RPM	455	398	354	318	289	255	227	212	199	133	159
10	Vc	45	40	40	40	45	45	45	40	40	40	40
	fz	0.063	0.078	0.089	0.096	0.096	0.1	0.1	0.094	0.094	0.1	0.117
	RPM	1023	796	707	637	651	573	512	424	398	354	318
11.1	Vc	20	20	20	20	20	20	20	20	20	15	20
	fz	0.07	0.081	0.093	0.108	0.108	0.1	0.1	0.1	0.1	0.117	0.117
	RPM	455	398	354	318	289	255	227	212	199	133	159
21 - 22	Vc	135	140	140	140	135	135	135	145	140	140	140
	fz	0.079	0.088	0.098	0.1	0.108	0.115	0.123	0.123	0.12	0.124	0.127
	RPM	3069	2785	2476	2228	1953	1719	1535	1538	1393	1238	1114
23 - 24	Vc	88	91	91	91	88	88	88	94	91	91	91
	fz	0.079	0.088	0.098	0.1	0.108	0.115	0.123	0.123	0.12	0.124	0.127
	RPM	2001	1810	1609	1448	1273	1120	1000	997	905	805	724
	FEED	316	319	315	290	275	258	246	245	217	200	184



E2464, E2509 SERIES

2 FLUTE - SITE CUTTING

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)								
						3.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0
N	21-22	Aluminum-wrought alloy	Ø3~Ø10=0.25D Ø12~Ø20=0.5D	1.0D	Vc	75	130	150	155	190	155	175	130	145
					fz	0.046	0.064	0.092	0.15	0.15	0.229	0.229	0.37	0.37
					RPM	7958	6897	5968	4934	5040	3524	3482	2299	2308
	23-24	Aluminum-cast, alloyed	Ø3~Ø10=0.25D Ø12~Ø20=0.5D	1.0D	Vc	49	85	98	101	124	101	114	85	94
					fz	0.046	0.064	0.092	0.15	0.15	0.229	0.229	0.37	0.37
					RPM	5199	4509	3899	3215	3289	2296	2268	1503	1496
	FEED	478	577	717	964	987	1052	1039	1112	1107				



SELECTION GUIDE



HSS

SERIES

E2464

E2509

E2572

E2573

E2516

E2553

E2SET553

FLUTE

2

2

3

3

3

3

3

HELIX ANGLE

42°

42°

≈ 30°

≈ 30°

30°

30°

30°

MILLING TOOLS

SIZE MIN

D1.0

D2.0

D1.5

D1.0

D2.0

D1.0

D2.0

SIZE MAX

D32.0

D20.0

D32.0

D40.0

D40.0

D20.0

D10.0

PAGE

696

698

699

700

702

704

705

HSS
GENERAL HSS
END MILLS

General Purpose, Non-coated,
Any Coating Available

◎ : Excellent ○ : Good

Recommended cutting conditions : P 738

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for material search



SHORT LENGTH

LONG LENGTH

STUB LENGTH

SHORT LENGTH

LONG LENGTH

SHORT LENGTH
THROW AWAY

THROW AWAY
SET

Uncoated

Uncoated

Uncoated /
TiAlN

Uncoated /
TiAlN

Uncoated /
TiAlN

Uncoated /
TiAlN

Uncoated

HSS Co8

HSS Co8

HSS Co8

HSS Co8

HSS Co8

HSS Co8

HSS Co8



ISO	VDI 3323	Material Description	HB	HRc	E2464	E2509	E2572	E2573	E2516	E2553	E2SET553	
P	1	Non-alloy steel	125		○	○	◎	◎	◎	◎	◎	
	2		190	13	○	○	◎	◎	◎	◎	◎	
	3		250	25			◎	◎	◎	◎	◎	
	4		270	28			◎	◎	◎	◎	◎	
	5		300	32			◎	◎	◎	◎	◎	
	6	Low alloy steel	180	10	○	○	◎	◎	◎	◎	◎	
	7		275	29			◎	◎	◎	◎	◎	
	8		300	32			◎	◎	◎	◎	◎	
	9		350	38			○	○	○	○	○	
	10		High alloyed steel, and tool steel	200	15	○	○	◎	◎	◎	◎	◎
	11			325	35			○	○	○	○	○
M	12	Stainless steel	200	15								
	13		240	23								
	14		180	10								
K	15	Grey cast iron	180	10								
	16		260	26								
	17	Nodular cast iron	160	3								
	18		250	25								
	19		130									
20	Malleable cast iron	230	21									
N	21	Aluminum- wrought alloy	60		◎	◎	○	○	○	○	○	
	22		100		◎	◎	○	○	○	○	○	
	23	Aluminum-cast, alloyed	75		◎	◎	○	○	○	○	○	
	24		90		◎	◎	○	○	○	○	○	
	25		130		○	○	○	○	○	○	○	
	26		110									
	27	Copper and Copper Alloys (Bronze / Brass)	90									
	28		100									
	29	Non Metallic Materials										
	30											
S	31	Heat Resistant Super Alloys	200	15								
	32		280	30								
	33		250	25								
	34		350	38								
	35		320	34								
	36	Titanium Alloys	400 Rm									
	37		1050 Rm									
H	38	Hardened steel	550	55								
	39		630	60								
	40	Chilled Cast Iron	400	42								
	41	Hardened Cast Iron	550	55								