

HSS SUPER HARDENED END MILLS

Designed to provide excellent toughness and wear resistance, outperforming standard HSS end mills in terms of performance

◎ : Excellent ○ : Good

SERIES
FLUTE
HELIX ANGLE
CUTTING EDGE SHAPE
SIZE MIN
SIZE MAX
PAGE
**ESH570
EHC570**
**ESH571
EHC571**
**ESH573
EHC573**
2
2
3
 $\approx 30^\circ$
 $\approx 30^\circ$
 $\approx 30^\circ$

SQUARE

SQUARE

SQUARE

D2.0

D2.0

D2.0

D32.0

D32.0

D32.0

6
7
8

SHORT LENGTH

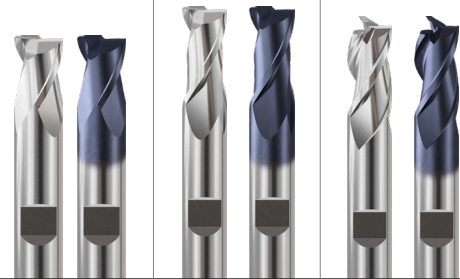
LONG LENGTH

SHORT LENGTH

Bright / TiAIN

Bright / TiAIN

Bright / TiAIN



ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc			
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	Malleable cast iron	Ferritic		130				
	20		Pearlitic		230	21			
N	21	Aluminum-wrought alloy	Not Curable		60		○	○	○
	22		Curable	Hardened	100		○	○	○
	23	Aluminum-cast, alloyed	$\leq 12\%$ Si, Not Curable		75		○	○	○
	24		$\leq 12\%$ Si, Curable	Hardened	90		○	○	○
	25		$> 12\%$ Si, Not Curable		130		○	○	○
	26	Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%		110				
	27		CuZn, CuSnZn (Brass)		90				
	28	Non Metallic Materials	CuSn, lead-free copper and electrolytic copper		100				
	29		Duroplastic, Fiber Reinforced Plastic						
	30		Rubber, Wood, etc.						
S	31	Heat Resistant Super Alloys	Fe Based	Annealed	200	15			
	32			Cured	280	30			
	33		Ni or Co Based	Annealed	250	25			
	34			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			

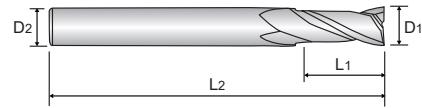
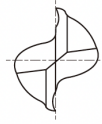
Recommended cutting conditions : p.19~31

SUPER HARDENED END MILLS



HSS, 2 FLUTE HELIX SHORT LENGTH

► Designed to machine carbon steels, alloyed steels.



Tolerances according to DIN 7160 & 7161

Tolerance range in μm						
Nominal-Diameter in μm						
	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



p. 19~20

ESH570 | EHC570 SERIES

Unit : mm

EDP No.		Mill Diameter	Shank Diameter	Length of Cut	Overall Length
Bright	TiAlN	D1	D2	L1	L2
ESH570020	EHC570020	2.0	6	4	48
ESH570030	EHC570030	3.0	6	5	49
ESH570040	EHC570040	4.0	6	7	51
ESH570050	EHC570050	5.0	6	8	52
ESH570060	EHC570060	6.0	6	8	52
ESH570070	EHC570070	7.0	10	10	60
ESH570080	EHC570080	8.0	10	11	61
ESH570090	EHC570090	9.0	10	11	61
ESH570100	EHC570100	10.0	10	13	63
ESH570110	EHC570110	11.0	12	13	70
ESH570120	EHC570120	12.0	12	16	73
ESH570130	EHC570130	13.0	12	16	73
ESH570140	EHC570140	14.0	12	16	73
ESH570150	EHC570150	15.0	12	16	73
ESH570160	EHC570160	16.0	16	19	79
ESH570170	EHC570170	17.0	16	19	79
ESH570180	EHC570180	18.0	16	19	79
ESH570190	EHC570190	19.0	16	19	79
ESH570200	EHC570200	20.0	20	22	88
ESH570210	EHC570210	21.0	20	22	88
ESH570220	EHC570220	22.0	20	22	88
ESH570230	EHC570230	23.0	25	22	88
ESH570240	EHC570240	24.0	25	26	102
ESH570250	EHC570250	25.0	25	26	102
ESH570280	EHC570280	28.0	25	26	102
ESH570300	EHC570300	30.0	25	26	102
ESH570320	EHC570320	32.0	32	32	112