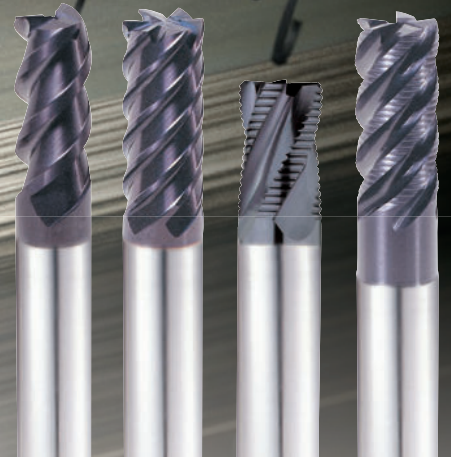




Leading Through Innovation

A close-up photograph of a solid carbide end mill cutting through a piece of metal. The tool is positioned vertically, and a large volume of dark, curly metal chips is being ejected from the cutting zone. The background is blurred, showing the industrial setting.

SOLID CARBIDE



JET-POWER END MILLS

JET - POWER VHM - FRÄSERFRÄSER

- For Exotic materials like Stainless Steels, Nickel Alloys and Titanium
- Für Sonderwerkstoffe wie rostfreie Stähle, Nickellegierungen und Titan.

EH915 EH916	EH831 EH841	EH917 EH918	EH919 EH920	EH921 EH942
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[illegible]



PLAIN SHANK **EH911** SERIES
FLAT SHANK **EH912** SERIES

CARBIDE, 2 FLUTE 35° HELIX SHORT LENGTH

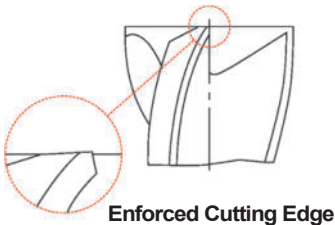
● **VOLLHARTMETALL, 2 SCHNEIDEN 35° RECHTSSPIRALE KURZ**
● **Fraise carbure, 2 dents, hélice 35°, courte**
● **2 TAGLIENTI, ELICA 35°, CORTA**

- ▶ Ultra micro grain carbide
 - ▶ Reduces chipping of corner edges
 - ▶ Suitable for low hardness materials(under HRC45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc
- ▶ Ultra Feinstkorn - Vollhartmetall.
 - ▶ Verstärkte Schneidkante.
 - ▶ zur Bearbeitung von: Werkstoffen bis 45 HRC, rostfreien Stählen, Titan und Nickellegierungen.



EDP No.		Mill Diameter	Shank Diameter	Length of Cut	Overall Length
PLAIN	FLAT	D1	D2	L1	L2
EH911010	-	1.0	4	2.5	40
EH911901	-	1.0	6	2.5	40
EH911015	-	1.5	4	4	40
EH911902	-	1.5	6	4	40
EH911020	-	2.0	4	6	40
EH911903	-	2.0	6	6	40
EH911025	-	2.5	4	8	40
EH911904	-	2.5	6	8	40
EH911030	-	3.0	6	8	45
EH911035	-	3.5	6	10	45
-	EH912040	4.0	6	11	45
EH911045	EH912045	4.5	6	11	45
EH911050	EH912050	5.0	6	13	50
EH911055	-	5.5	6	13	50
EH911060	-	6.0	6	13	50
EH911065	-	6.5	8	16	60
EH911070	EH912070	7.0	8	16	60
EH911075	-	7.5	8	16	60
EH911080	-	8.0	8	19	60
EH911085	-	8.5	10	19	70

Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
0 ~ - 0.03	h5



Enforced Cutting Edge

▶ NEXT PAGE

ISO															◎ : Excellent ○ : Good						
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		21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommend	○	○	◎	◎	◎	○	◎	◎	◎	○	◎	○	○	◎							
ISO	N										S					H					
Material Description	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
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323											15	30	25	38	34			55	60	42	55
HRC	60	100	75	90	130	110	90	100			200	280	250	350	320			550	630	400	550
HB																					
Recommend																◎	◎		○		



PLAIN SHANK **EH911** SERIES
FLAT SHANK **EH912** SERIES

CARBIDE, 2 FLUTE 35° HELIX SHORT LENGTH

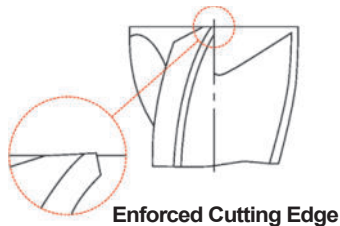
● **VOLLHARTMETALL, 2 SCHNEIDEN 35° RECHTSSPIRALE KURZ**
● **Fraise carbure, 2 dents, hélice 35°, courte**
● **2 TAGLIENTI, ELICA 35°, CORTA**

- ▶ Ultra micro grain carbide
 - ▶ Reduces chipping of corner edges
 - ▶ Suitable for low hardness materials(under HRC45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc
- ▶ Ultra Feinstkorn - Vollhartmetall.
 - ▶ Verstärkte Schneidkante.
 - ▶ zur Bearbeitung von: Werkstoffen bis 45 HRC, rostfreien Stählen, Titan und Nickellegierungen.



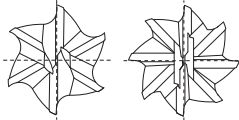
EDP No.		Mill Diameter	Shank Diameter	Length of Cut	Overall Length
PLAIN	FLAT	D1	D2	L1	L2
EH911090	-	9.0	10	19	70
EH911095	-	9.5	10	19	70
EH911100	-	10.0	10	22	70
EH911110	EH912110	11.0	12	22	75
EH911120	-	12.0	12	26	75
EH911140	-	14.0	16	26	85
EH911160	-	16.0	16	32	100
EH911180	-	18.0	16	32	100
EH911250	-	25.0	25	45	120

Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
0 ~ - 0.03	h5



Enforced Cutting Edge

ISO	P											M				K						◎ : Excellent ○ : Good	
Material Description	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		21			
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230			
Recommend	○	○	◎	◎	◎	○	◎	◎	◎	○	◎	○	○	◎									
ISO	N									S						H							
Material Description	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																◎	◎			○			

CARBIDE	 JET-POWER END MILLS PLAIN SHANK FLAT SHANK EH915 SERIES EH916 SERIES				
HSS	CARBIDE, 6&8 FLUTE 45° HELIX LONG LENGTH (Positive Rake Angle)  VOLLHARTMETALL, 6&8 SCHNEIDEN 45° RECHTSSPIRALE LANG  Fraise carbure, 6&8 dents, hélice 45°, longue (Angle de coupe positif)  6&8 TAGLIENTI, ELICA 45°, LUNGA (Tagliente positivizzato) ▶ Ultra micro grain carbide ▶ Reduces chipping of corner edges ▶ Suitable for low hardness materials(under HRC45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc ▶ Ultra Feinstkorn - Vollhartmetall ▶ Verstärkte Schneidkante. ▶ zur Bearbeitung von: Werkstoffen bis 45 HRC, rostfreien Stählen, Titan und Nickellegierungen.   CARBIDE 6&8 45° PLAIN FLAT TiAlN  p.C453				
CBN END MILLS	EDP No. Mill Diameter Shank Diameter Length of Cut Overall Length No. of Flute				Unit : mm
i-Xmill END MILLS	PLAIN FLAT D1 D2 L1 L2				
i-SMART MODULAR END MILLS	EH915060 EH916060 6.0 6 13 57 6				
X1-EH END MILLS	EH915070 EH916070 7.0 8 16 63 6				
X5070 END MILLS	EH915080 - 8.0 8 19 63 6				
4G MILL END MILLS	EH915090 EH916090 9.0 10 19 72 6				
X-POWER PRO END MILLS	EH915100 EH916100 10.0 10 22 72 6				
TitaNox-POWER END MILLS	EH915120 - 12.0 12 26 83 6				
JET-POWER END MILLS	EH915140 - 14.0 14 26 83 6				
V7 PLUS END MILLS	EH915160 - 16.0 16 32 92 6				
ALU-POWER HPC END MILLS	EH915180 EH916180 18.0 18 32 92 8				
ALU-POWER END MILLS	EH915200 EH916200 20.0 20 38 104 8				
D-POWER GRAPHITE END MILLS	EH915250 EH916250 25.0 25 44 104 8				
CRX S END MILLS	Mill Dia. Tolerance (mm) Shank Dia. Tolerance 0 ~ - 0.03 h5				
K-2 END MILLS	 Enforced Cutting Edge				
ONLY ONE COATED PM60 END MILLS					
TANK POWER END MILLS					
GENERAL HSS END MILLS					
MILLING CUTTERS					



JET-POWER
END MILLS

PLAIN SHANK

EH831 SERIES

FLAT SHANK

EH841 SERIES

CARBIDE, MULTI FLUTE LONG LENGTH ROUGHING - FINE

VOLLHARTMETALL, MULTI SCHNEIDEN LANG SCHRUPPFRÄSER - FEIN

Fraise carbure, multi-dents ébauche, pas fin, longue

3 - 4 - 5 TAGLIENTI, PER SGROSSATURA, LUNGA - Bombato fine

► Suitable for low hardness materials(under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc.

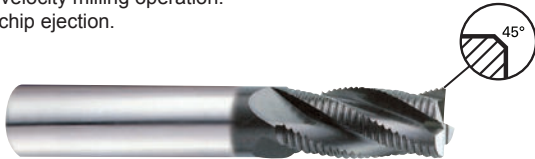
► High velocity milling operation.

► Fast chip ejection.

► zur Bearbeitung von: Werkstoffen bis 45 HRc, rostfreien Stählen, Titan und Nickellegierungen..

► Hochgeschwindigkeitsfräsen.

► Schnelle Spanausfuhr.




CARBIDE

HR

3-5

30°

PLAIN

FLAT

C x 45°

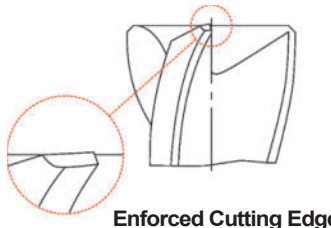
TiAlN

p.C458~C459

EDP No.		Mill Diameter	Shank Diameter	Length of Cut	Overall Length	No. of Flute	Chamfer
PLAIN	FLAT	h10	h5				
EH831060	EH841060	6.0	6	16	57	3	0.38
EH831070	EH841070	7.0	8	16	63	3	0.38
EH831080	EH841080	8.0	8	16	63	3	0.38
EH831090	-	9.0	10	19	72	4	0.38
EH831100	EH841100	10.0	10	22	72	4	0.38
EH831120	EH841120	12.0	12	26	83	4	0.55
EH831140	EH841140	14.0	14	26	83	4	0.55
EH831160	EH841160	16.0	16	32	92	4	0.55
EH831180	EH841180	18.0	18	32	92	4	0.55
EH831200	EH841200	20.0	20	38	104	4	0.55

Tolerances according to DIN 7160 & 7161

Tolerance range in μ m					
Nominal-Diameter in mm					
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 - 40	0 - 48	0 - 58	0 - 70	0 - 84
h5	0 - 4	0 - 5	0 - 6	0 - 8	0 - 9



JET-POWER
END MILLS

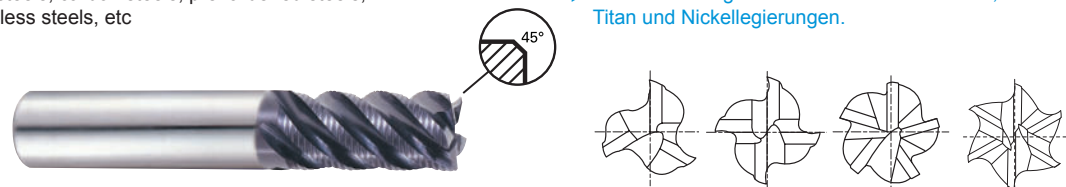
PLAIN SHANK **EH919** SERIES

FLAT SHANK **EH920** SERIES

CARBIDE, MULTI FLUTE 45° HELIX LONG LENGTH ROUGHING - FINE

 **VOLLHARTMETALL, MULTI SCHNEIDEN 45° RECHTSSPIRALE LANG SCHRUPPFRÄSER - FEIN**
 **Fraise carbure, multi-dents ébauche, hélice 45°, pas fin, longue**
 **MULTITAGLIENTI, ELICA 45°, PER SGROSSATURA, LUNGA - Bombato fine**

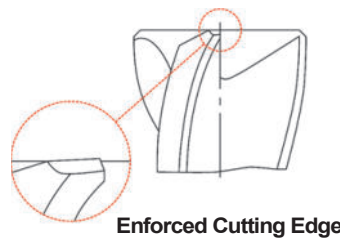
- ▶ Ultra micro grain carbide
 - ▶ High chip removal and minimizing breakages of cutting edges.
 - ▶ Suitable for low hardness materials(under HRC45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc
- ▶ Ultra Feinstkorn - Vollhartmetall
 - ▶ Schnelle Spanausfuhr und Minimierung von Abbrechen von Schneidkanten.
 - ▶ zur Bearbeitung von: Werkstoffen bis 45 HRC, rostfreien Stählen, Titan und Nickellegierungen.



Unit : mm							
EDP No.		Mill Diameter	Shank Diameter	Length of Cut	Overall Length	No. of Flute	Chamfer
PLAIN	FLAT	h10	h5				
EH919040	EH920040	4.0	6	11	57	3	0.1
EH919050	EH920050	5.0	6	13	57	4	0.13
EH919060	EH920060	6.0	6	16	57	4	0.15
EH919070	EH920070	7.0	8	16	63	4	0.15
EH919080	EH920080	8.0	8	16	63	4	0.18
EH919090	EH920090	9.0	10	19	72	4	0.18
EH919100	EH920100	10.0	10	22	72	4	0.2
EH919120	EH920120	12.0	12	26	83	4	0.2
EH919140	EH920140	14.0	14	26	83	5	0.2
EH919160	EH920160	16.0	16	32	92	5	0.2
EH919200	EH920200	20.0	20	38	104	6	0.2
EH919250	EH920250	25.0	25	45	121	6	0.2

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
h10	0 - 40	0 - 48	0 - 58	0 - 70	0 - 84
h5	0 - 4	0 - 5	0 - 6	0 - 8	0 - 9



Enforced Cutting Edge

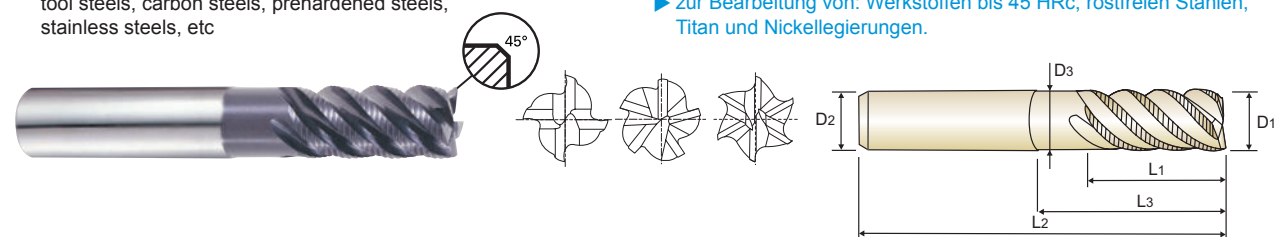
◎ : Excellent ○ : Good

ISO	P										M				K					
Material Description	Non-alloy steel					Low alloy steel				High alloy 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		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	○	○	◎	◎	◎	○	◎	◎	◎	○	◎	○	○	◎						
ISO	N										S							H		
Material Description	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
HRC											31	32	25	38	34			55	60	42
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400
Recommend											○	○	○	○	○	◎	◎			○

CARBIDE, MULTI FLUTE 45° HELIX LONG REACH ROUGHING - FINE

 **VOLLHARTMETALL, MULTI SCHNEIDEN 45° RECHTSSPIRALE GROÙE REICHWEITE SCHRUPPFRAÖER - FEIN**
 **Fraise carbure, multi-dents ébauche longue portée, hélice 45°, pas fin**
 MULTITAGLIENTI, ELICA 45° SCARICATA, PER SGROSSATURA, LUNGA - Bombato fine

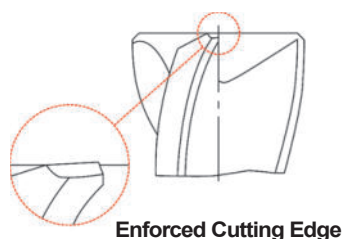
- ▶ Ultra micro grain carbide
 - ▶ High chip removal and minimizing breakages of cutting edges.
 - ▶ Suitable for low hardness materials(under HRC45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc
-
- ▶ Ultra Feinstkorn - Vollhartmetall
 - ▶ Schnelle Spanausfuhr und Minimierung von Abbrechen von Schneidkanten.
 - ▶ zur Bearbeitung von: Werkstoffen bis 45 HRC, rostfreien Stählen, Titan und Nickellegierungen.



EDP No.		Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter	No. of Flute	Chamfer
PLAIN	FLAT	D1(h10)	D2(h5)	L1	L3	L2	D3		
EH921060	EH942060	6.0	6	16	20	57	5.5	4	0.15
EH921080	EH942080	8.0	8	16	26	63	7.5	4	0.18
EH921100	EH942100	10.0	10	22	31	72	9.5	4	0.2
EH921120	EH942120	12.0	12	26	37	83	11.5	4	0.2
EH921160	-	16.0	16	32	51	100	15.5	5	0.2
EH921200	EH942200	20.0	20	38	59	110	19.2	6	0.2

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
h10	0 - 40	0 - 48	0 - 58	0 - 70	0 - 84
h5	0 - 4	0 - 5	0 - 6	0 - 8	0 - 9



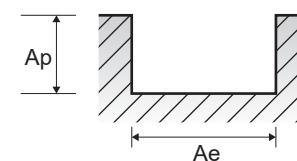
◎ : Excellent ○ : Good

ISO	P										M					K							
Material Description	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	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21			
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230			
Recommend	○	○	◎	◎	◎	○	◎	◎	◎	○	◎	○	○	◎									
ISO	N										S										H		
Material Description	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	550	630	400	550		
Recommend											○	○	○	○	○	◎	◎			○			

EH911, EH912 SERIES 2 FLUTE - **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	16.0	20.0	25.0		
P	1-4	Non-alloy steel	1.0D	0.5D (up to Ø3:0.2D)	Vc	75	85	95	100	105	105	100	105	110	105	105		
					fz	0.008	0.012	0.02	0.025	0.031	0.045	0.051	0.051	0.05	0.051	0.048		
					RPM	11937	9019	7560	6366	5570	4178	3183	2785	2188	1671	1337		
	5		1.0D	0.5D (up to Ø3:0.2D)	FEED	191	216	302	318	345	376	325	284	219	170	128		
					Vc	50	50	60	60	65	65	65	65	70	65	65		
					fz	0.008	0.013	0.019	0.025	0.033	0.04	0.04	0.039	0.04	0.038	0.042		
	6-7	1.0D	0.5D (up to Ø3:0.2D)	RPM	7958	5305	4775	3820	3448	2586	2069	1724	1393	1035	828			
				FEED	127	138	181	191	228	207	166	134	111	79	70			
				Vc	75	85	95	100	105	105	100	105	110	105	105			
	8-9	1.0D	0.5D (up to Ø3:0.2D)	fz	0.008	0.012	0.02	0.025	0.031	0.045	0.051	0.051	0.05	0.051	0.048			
				RPM	11937	9019	7560	6366	5570	4178	3183	2785	2188	1671	1337			
				FEED	191	216	302	318	345	376	325	284	219	170	128			
	10	1.0D	0.5D (up to Ø3:0.2D)	Vc	50	50	60	60	65	65	65	65	70	65	65			
				fz	0.008	0.013	0.019	0.025	0.033	0.04	0.04	0.039	0.04	0.038	0.042			
RPM				7958	5305	4775	3820	3448	2586	2069	1724	1393	1035	828				
11.1 11.2	1.0D	0.5D (up to Ø3:0.2D)	FEED	127	138	181	191	228	207	166	134	111	79	70				
			Vc	75	85	95	100	105	105	100	105	110	105	105				
			fz	0.008	0.012	0.02	0.025	0.031	0.045	0.051	0.051	0.05	0.051	0.048				
M	14.1	Stainless steel	1.0D	0.5D (up to Ø3:0.2D)	RPM	11937	9019	7560	6366	5570	4178	3183	2785	2188	1671	1337		
					FEED	191	216	302	318	345	376	325	284	219	170	128		
					Vc	50	50	60	60	65	65	65	65	70	65	65		
	36-37		1.0D	0.5D (up to Ø3:0.2D)	fz	0.008	0.013	0.019	0.025	0.033	0.04	0.04	0.039	0.04	0.038	0.042		
					RPM	7958	5305	4775	3820	3448	2586	2069	1724	1393	1035	828		
					FEED	127	138	181	191	228	207	166	134	111	79	70		
	40	Chilled Cast Iron	1.0D	0.5D (up to Ø3:0.2D)	Vc	40	45	50	50	55	55	55	50	55	55	55		
					fz	0.007	0.013	0.019	0.025	0.032	0.043	0.048	0.048	0.052	0.048	0.044		
					RPM	6366	4775	3979	3183	2918	2188	1751	1326	1094	875	700		
	S	36-37	Titanium Alloys	1.0D	0.5D (up to Ø3:0.2D)	FEED	89	124	151	159	187	188	168	127	114	84	62	
						Vc	40	45	50	50	55	55	55	50	55	55	55	55
						fz	0.007	0.013	0.019	0.025	0.032	0.043	0.048	0.048	0.052	0.048	0.044	
	H	40	Chilled Cast Iron	1.0D	0.5D (up to Ø3:0.2D)	RPM	6366	4775	3979	3183	2918	2188	1751	1326	1094	875	700	
						FEED	89	124	151	159	187	188	168	127	114	84	62	
Vc						50	50	60	60	65	65	65	65	70	65	65		
fz	0.008	0.013	0.019	0.025	0.033	0.04	0.04	0.039	0.04	0.038	0.042							
RPM	7958	5305	4775	3820	3448	2586	2069	1724	1393	1035	828							
FEED	127	138	181	191	228	207	166	134	111	79	70							



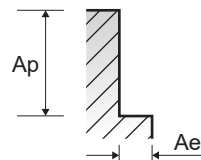


RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDPARAMETER

EH913, EH914 SERIES 4 FLUTE - **SIDE CUTTING**

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	16.0	20.0	25.0
P	1-4	Non-alloy steel	0.05D	1.0D	Vc	75	85	95	100	105	105	100	105	110	105	105
					fz	0.006	0.009	0.019	0.024	0.03	0.042	0.047	0.047	0.048	0.046	
					RPM	11937	9019	7560	6366	5570	4178	3183	2785	2188	1671	1337
					FEED	286	325	575	611	668	702	598	524	411	321	246
	5	0.05D	1.0D	Vc	50	50	60	60	65	65	65	65	70	65	65	
				fz	0.006	0.009	0.019	0.024	0.031	0.038	0.038	0.037	0.037	0.038	0.039	
				RPM	7958	5305	4775	3820	3448	2586	2069	1724	1393	1035	828	
				FEED	191	191	363	367	428	393	314	255	206	157	129	
	6-7	Low alloy steel	0.05D	1.0D	Vc	75	85	95	100	105	105	100	105	110	105	105
					fz	0.006	0.009	0.019	0.024	0.03	0.042	0.047	0.047	0.048	0.046	
					RPM	11937	9019	7560	6366	5570	4178	3183	2785	2188	1671	1337
					FEED	286	325	575	611	668	702	598	524	411	321	246
	8-9	0.05D	1.0D	Vc	50	50	60	60	65	65	65	65	70	65	65	
				fz	0.006	0.009	0.019	0.024	0.031	0.038	0.038	0.037	0.037	0.038	0.039	
				RPM	7958	5305	4775	3820	3448	2586	2069	1724	1393	1035	828	
				FEED	191	191	363	367	428	393	314	255	206	157	129	
10	High alloyed steel, and tool steel	0.05D	1.0D	Vc	75	85	95	100	105	105	100	105	110	105	105	
				fz	0.006	0.009	0.019	0.024	0.03	0.042	0.047	0.047	0.048	0.046		
				RPM	11937	9019	7560	6366	5570	4178	3183	2785	2188	1671	1337	
				FEED	286	325	575	611	668	702	598	524	411	321	246	
11.1 - 11.2	0.05D	1.0D	Vc	50	50	60	60	65	65	65	65	70	65	65		
			fz	0.006	0.009	0.019	0.024	0.031	0.038	0.038	0.037	0.037	0.038	0.039		
			RPM	7958	5305	4775	3820	3448	2586	2069	1724	1393	1035	828		
			FEED	191	191	363	367	428	393	314	255	206	157	129		
M	14.1	Stainless steel	0.05D	1.0D	Vc	40	45	50	50	55	55	55	50	55	55	55
					fz	0.006	0.009	0.018	0.024	0.029	0.042	0.045	0.044	0.047	0.045	0.044
					RPM	6366	4775	3979	3183	2918	2188	1751	1326	1094	875	700
					FEED	153	172	286	306	338	368	315	233	206	158	123
S	36-37	Titanium Alloys	0.05D	1.0D	Vc	40	45	50	50	55	55	55	50	55	55	55
					fz	0.006	0.009	0.018	0.024	0.029	0.042	0.045	0.044	0.047	0.045	0.044
					RPM	6366	4775	3979	3183	2918	2188	1751	1326	1094	875	700
					FEED	153	172	286	306	338	368	315	233	206	158	123
H	40	Chilled Cast Iron	0.05D	1.0D	Vc	50	50	60	60	65	65	65	65	70	65	65
					fz	0.006	0.009	0.019	0.024	0.031	0.038	0.038	0.037	0.037	0.038	0.039
					RPM	7958	5305	4775	3820	3448	2586	2069	1724	1393	1035	828
					FEED	191	191	363	367	428	393	314	255	206	157	129



RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDPARAMETER

EH915, EH916 SERIES **6&8 FLUTE - SIDE CUTTING**

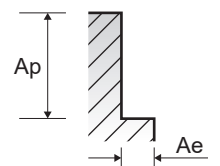
Vc = m/min.
fz = mm/tooth
RPM = rev./min.
FEED = mm/min.

NORMAL SPEED

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)						
						6.0	8.0	10.0	12.0	16.0	20.0	25.0
P	1-4	Non-alloy steel	0.1D	1.5D	Vc	105	105	105	105	105	105	120
					fz	0.06	0.079	0.099	0.099	0.1	0.075	0.075
					RPM	5570	4178	3342	2785	2089	1671	1528
					FEED	2005	1980	1985	1654	1253	1003	917
	5		0.05D	1.5D	Vc	75	75	75	75	75	75	85
					fz	0.059	0.078	0.098	0.097	0.099	0.074	0.068
					RPM	3979	2984	2387	1989	1492	1194	1082
					FEED	1409	1397	1404	1158	886	707	589
	6-7	Low alloy steel	0.1D	1.5D	Vc	105	105	105	105	105	105	120
					fz	0.06	0.079	0.099	0.099	0.1	0.075	0.075
					RPM	5570	4178	3342	2785	2089	1671	1528
					FEED	2005	1980	1985	1654	1253	1003	917
	8-9		0.05D	1.5D	Vc	75	75	75	75	75	75	85
					fz	0.059	0.078	0.098	0.097	0.099	0.074	0.068
RPM					3979	2984	2387	1989	1492	1194	1082	
FEED					1409	1397	1404	1158	886	707	589	
10	High alloyed steel, and tool steel	0.1D	1.5D	Vc	105	105	105	105	105	105	120	
				fz	0.06	0.079	0.099	0.099	0.1	0.075	0.075	
				RPM	5570	4178	3342	2785	2089	1671	1528	
				FEED	2005	1980	1985	1654	1253	1003	917	
11.1-11.2		0.05D	1.5D	Vc	75	75	75	75	75	75	85	
				fz	0.059	0.078	0.098	0.097	0.099	0.074	0.068	
				RPM	3979	2984	2387	1989	1492	1194	1082	
				FEED	1409	1397	1404	1158	886	707	589	
M	14.1	Stainless steel	0.05D	1.5D	Vc	65	65	60	60	60	55	65
					fz	0.054	0.074	0.095	0.104	0.111	0.086	0.079
					RPM	3448	2586	1910	1592	1194	875	828
					FEED	1117	1148	1089	993	795	602	523
S	31-35	Heat Resistant Super Alloys	0.02D	1.0D	Vc	25	25	15	15	15	15	15
					fz	0.035	0.047	0.106	0.104	0.102	0.078	0.077
					RPM	1326	995	477	398	298	239	191
					FEED	279	281	304	248	183	149	118
	36-37	Titanium Alloys	0.05D	1.5D	Vc	65	65	60	60	60	55	65
					fz	0.054	0.074	0.095	0.104	0.111	0.086	0.079
					RPM	3448	2586	1910	1592	1194	875	828
					FEED	1117	1148	1089	993	795	602	523
H	40	Chilled Cast Iron	0.05D	1.5D	Vc	75	75	75	75	75	75	85
					fz	0.059	0.078	0.098	0.097	0.099	0.074	0.068
					RPM	3979	2984	2387	1989	1492	1194	1082
					FEED	1409	1397	1404	1158	886	707	589

HIGH SPEED

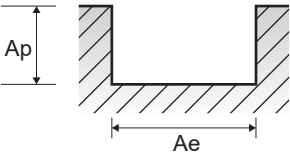
ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)						
						6.0	8.0	10.0	12.0	16.0	20.0	25.0
P	1-4	Non-alloy steel	0.1D	1.5D	Vc	420	420	420	430	420	420	470
					fz	0.060	0.079	0.100	0.099	0.100	0.075	0.075
					RPM	22282	16711	13369	11406	8356	6685	5984
					FEED	8021	7921	8021	6775	5013	4011	3591
	5		0.05D	1.5D	Vc	315	315	315	315	315	315	355
					fz	0.060	0.081	0.100	0.100	0.100	0.076	0.075
					RPM	16711	12533	10027	8356	6267	5013	4520
					FEED	6016	6091	6016	5013	3760	3048	2712
	6-7	Low alloy steel	0.1D	1.5D	Vc	420	420	420	430	420	420	470
					fz	0.060	0.079	0.100	0.099	0.100	0.075	0.075
					RPM	22282	16711	13369	11406	8356	6685	5984
					FEED	8021	7921	8021	6775	5013	4011	3591
	8-9		0.05D	1.5D	Vc	315	315	315	315	315	315	355
					fz	0.060	0.081	0.100	0.100	0.100	0.076	0.075
					RPM	16711	12533	10027	8356	6267	5013	4520
					FEED	6016	6091	6016	5013	3760	3048	2712
	10	High alloyed steel, and tool steel	0.1D	1.5D	Vc	420	420	420	430	420	420	470
					fz	0.060	0.079	0.100	0.099	0.100	0.075	0.075
					RPM	22282	16711	13369	11406	8356	6685	5984
					FEED	8021	7921	8021	6775	5013	4011	3591
	11.1 11.2		0.05D	1.5D	Vc	315	315	315	315	315	315	355
					fz	0.060	0.081	0.100	0.100	0.100	0.076	0.075
					RPM	16711	12533	10027	8356	6267	5013	4520
					FEED	6016	6091	6016	5013	3760	3048	2712
H	40	Chilled Cast Iron	0.05D	1.5D	Vc	315	315	315	315	315	315	355
					fz	0.060	0.081	0.100	0.100	0.100	0.076	0.075
					RPM	16711	12533	10027	8356	6267	5013	4520
					FEED	6016	6091	6016	5013	3760	3048	2712



EH831, EH841 SERIES MULTI FLUTES ROUGHING - **S**LOTTING

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

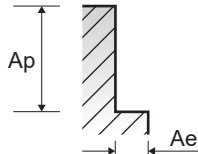
ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)								
						6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	25.0
P	1-4	Non-alloy steel	1.0D	0.5D	Vc	294	292	289	302	299	302	294	302	338
					fz	0.03	0.04	0.038	0.045	0.053	0.06	0.067	0.068	0.06
					RPM	15597	11618	9199	8011	6798	6008	5199	4806	4304
					FEED	1404	1394	1398	1442	1441	1442	1393	1307	1291
	5		1.0D	0.5D	Vc	234	231	239	226	229	241	249	226	251
					fz	0.013	0.018	0.016	0.02	0.024	0.024	0.024	0.024	0.023
					RPM	12414	9191	7608	5995	5207	4795	4403	3597	3196
					FEED	484	496	487	480	500	460	423	345	368
	6-7	Low alloy steel	1.0D	0.5D	Vc	294	292	289	302	299	302	294	302	338
					fz	0.03	0.04	0.038	0.045	0.053	0.06	0.067	0.068	0.06
					RPM	15597	11618	9199	8011	6798	6008	5199	4806	4304
					FEED	1404	1394	1398	1442	1441	1442	1393	1307	1291
	8-9		1.0D	0.5D	Vc	234	231	239	226	229	241	249	226	251
					fz	0.013	0.018	0.016	0.02	0.024	0.024	0.024	0.024	0.023
					RPM	12414	9191	7608	5995	5207	4795	4403	3597	3196
					FEED	484	496	487	480	500	460	423	345	368
	10	High alloyed steel, and tool steel	1.0D	0.5D	Vc	294	292	289	302	299	302	294	302	338
					fz	0.03	0.04	0.038	0.045	0.053	0.06	0.067	0.068	0.06
					RPM	15597	11618	9199	8011	6798	6008	5199	4806	4304
					FEED	1404	1394	1398	1442	1441	1442	1393	1307	1291
	11.1-11.2		1.0D	0.5D	Vc	234	231	239	226	229	241	249	226	251
					fz	0.013	0.018	0.016	0.02	0.024	0.024	0.024	0.024	0.023
RPM					12414	9191	7608	5995	5207	4795	4403	3597	3196	
FEED					484	496	487	480	500	460	423	345	368	
M	14.1	Stainless steel	1.0D	Ø4 ~10:0.25D Ø12~16:0.15D Ø18~25:0.1D	Vc	158	158	160	158	158	166	153	151	170
					fz	0.013	0.018	0.017	0.02	0.024	0.023	0.023	0.023	0.023
					RPM	8382	6287	5093	4191	3592	3302	2706	2403	2165
					FEED	327	339	346	335	345	304	249	221	249
S	31-35	Heat Resistant Super Alloys	1.0D	0.05D	Vc	45	45	41	45	40	40	40	41	47
					fz	0.016	0.02	0.022	0.024	0.022	0.02	0.021	0.023	0.022
					RPM	2387	1790	1305	1194	909	796	707	653	598
					FEED	115	107	115	115	80	64	59	60	66
	36-37	Titanium Alloys	1.0D	Ø4 ~10:0.25D Ø12~16:0.15D Ø18~25:0.1D	Vc	158	158	160	158	158	166	153	151	170
					fz	0.013	0.018	0.017	0.02	0.024	0.023	0.023	0.023	0.023
					RPM	8382	6287	5093	4191	3592	3302	2706	2403	2165
					FEED	327	339	346	335	345	304	249	221	249
H	40	Chilled Cast Iron	1.0D	0.5D	Vc	234	231	239	226	229	241	249	226	251
					fz	0.013	0.018	0.016	0.02	0.024	0.024	0.024	0.024	0.023
					RPM	12414	9191	7608	5995	5207	4795	4403	3597	3196
					FEED	484	496	487	480	500	460	423	345	368



EH831, EH841 SERIES MULTI FLUTES ROUGHING - **S**IDE CUTTING

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

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)								
						6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	25.0
P	1-4	Non-alloy steel	0.3D	1.5D	Vc	294	292	289	302	299	302	294	302	338
					fz	0.05	0.067	0.063	0.075	0.088	0.1	0.112	0.113	0.1
					RPM	15597	11618	9199	8011	6798	6008	5199	4806	4304
					FEED	2340	2335	2318	2403	2393	2403	2329	2173	2152
	5	Non-alloy steel	0.3D	1.5D	Vc	234	231	239	226	229	241	249	226	251
					fz	0.023	0.03	0.028	0.033	0.04	0.04	0.041	0.039	0.039
					RPM	12414	9191	7608	5995	5207	4795	4403	3597	3196
					FEED	857	827	852	791	833	767	722	561	623
	6-7	Low alloy steel	0.3D	1.5D	Vc	294	292	289	302	299	302	294	302	338
					fz	0.05	0.067	0.063	0.075	0.088	0.1	0.112	0.113	0.1
					RPM	15597	11618	9199	8011	6798	6008	5199	4806	4304
					FEED	2340	2335	2318	2403	2393	2403	2329	2173	2152
	8-9	Low alloy steel	0.3D	1.5D	Vc	234	231	239	226	229	241	249	226	251
					fz	0.023	0.03	0.028	0.033	0.04	0.04	0.041	0.039	0.039
					RPM	12414	9191	7608	5995	5207	4795	4403	3597	3196
					FEED	857	827	852	791	833	767	722	561	623
	10	High alloyed steel, and tool steel	0.3D	1.5D	Vc	294	292	289	302	299	302	294	302	338
					fz	0.05	0.067	0.063	0.075	0.088	0.1	0.112	0.113	0.1
					RPM	15597	11618	9199	8011	6798	6008	5199	4806	4304
					FEED	2340	2335	2318	2403	2393	2403	2329	2173	2152
	11.1 11.2	High alloyed steel, and tool steel	0.3D	1.5D	Vc	234	231	239	226	229	241	249	226	251
					fz	0.023	0.03	0.028	0.033	0.04	0.04	0.041	0.039	0.039
RPM					12414	9191	7608	5995	5207	4795	4403	3597	3196	
FEED					857	827	852	791	833	767	722	561	623	
M	14.1	Stainless steel	Ø4 ~10:0.15D Ø12~16:0.10D Ø18~25:0.05D	1.5D	Vc	158	158	160	158	158	166	153	151	170
					fz	0.023	0.03	0.028	0.034	0.04	0.039	0.039	0.038	0.038
					RPM	8382	6287	5093	4191	3592	3302	2706	2403	2165
					FEED	578	566	570	570	575	515	422	365	411
S	31-35	Heat Resistant Super Alloys	0.05D	1.0D	Vc	45	45	41	45	40	40	40	41	47
					fz	0.026	0.033	0.037	0.04	0.036	0.034	0.036	0.038	0.037
					RPM	2387	1790	1305	1194	909	796	707	653	598
					FEED	186	177	193	191	131	108	102	99	111
	36-37	Titanium Alloys	Ø4 ~10:0.15D Ø12~16:0.10D Ø18~25:0.05D	1.5D	Vc	158	158	160	158	158	166	153	151	170
					fz	0.023	0.03	0.028	0.034	0.04	0.039	0.039	0.038	0.038
					RPM	8382	6287	5093	4191	3592	3302	2706	2403	2165
					FEED	578	566	570	570	575	515	422	365	411
H	40	Chilled Cast Iron	0.3D	1.5D	Vc	234	231	239	226	229	241	249	226	251
					fz	0.023	0.03	0.028	0.033	0.04	0.04	0.041	0.039	0.039
					RPM	12414	9191	7608	5995	5207	4795	4403	3597	3196
					FEED	857	827	852	791	833	767	722	561	623





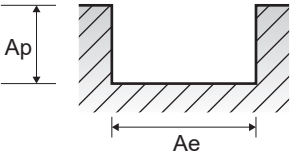
RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER

EH917, EH918 SERIES
EH921, EH942 SERIES

MULTI FLUTES ROUGHING - **S**LOTTING

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

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)					
						6.0	8.0	10.0	12.0	16.0	20.0
P	1-4	Non-alloy steel	1.0D	0.5D	Vc	294	292	289	302	302	302
					fz	0.022	0.03	0.038	0.045	0.048	0.045
					RPM	15597	11618	9199	8011	6008	4806
	5	Non-alloy steel	1.0D	0.5D	FEED	1373	1394	1398	1442	1442	1298
					Vc	234	231	239	226	241	226
					fz	0.01	0.014	0.016	0.02	0.019	0.016
	6-7	Low alloy steel	1.0D	0.5D	RPM	12414	9191	7608	5995	4795	3597
					FEED	497	515	487	480	455	345
					Vc	294	292	289	302	302	302
	8-9	Low alloy steel	1.0D	0.5D	fz	0.022	0.03	0.038	0.045	0.048	0.045
					RPM	15597	11618	9199	8011	6008	4806
					FEED	1373	1394	1398	1442	1442	1298
S	10	High alloyed steel, and tool steel	1.0D	0.5D	Vc	234	231	239	226	241	226
					fz	0.01	0.014	0.016	0.02	0.019	0.016
					RPM	12414	9191	7608	5995	4795	3597
	11.1 11.2	High alloyed steel, and tool steel	1.0D	0.5D	FEED	497	515	487	480	455	345
					Vc	294	292	289	302	302	302
					fz	0.022	0.03	0.038	0.045	0.048	0.045
	M	Stainless steel	1.0D	0.5D	RPM	15597	11618	9199	8011	6008	4806
					FEED	1373	1394	1398	1442	1442	1298
					Vc	234	231	239	226	241	226
	31-35	Heat Resistant Super Alloys	1.0D	0.5D	fz	0.01	0.014	0.016	0.02	0.019	0.016
					RPM	12414	9191	7608	5995	4795	3597
					FEED	497	515	487	480	455	345
H	14.1	Stainless steel	1.0D	0.5D	Vc	234	231	239	226	241	226
					fz	0.01	0.014	0.016	0.02	0.019	0.016
					RPM	12414	9191	7608	5995	4795	3597
	36-37	Titanium Alloys	1.0D	0.5D	FEED	372	386	487	480	455	345
					Vc	158	158	160	158	166	151
					fz	0.01	0.013	0.017	0.02	0.019	0.015
	40	Chilled Cast Iron	1.0D	0.5D	RPM	8382	6287	5093	4191	3302	2403
					FEED	335	327	346	335	314	216
					Vc	234	231	239	226	241	226
	31-35	Heat Resistant Super Alloys	1.0D	0.5D	fz	0.01	0.014	0.016	0.02	0.019	0.016
					RPM	12414	9191	7608	5995	4795	3597
					FEED	372	386	487	480	455	345
H	31-35	Heat Resistant Super Alloys	1.0D	0.5D	Vc	45	45	41	45	40	41
					fz	0.012	0.015	0.022	0.024	0.016	0.015
					RPM	2387	1790	1305	1194	796	653
	36-37	Titanium Alloys	1.0D	0.5D	FEED	115	107	115	115	64	59
					Vc	158	158	160	158	166	151
					fz	0.01	0.013	0.017	0.02	0.019	0.015
	40	Chilled Cast Iron	1.0D	0.5D	RPM	8382	6287	5093	4191	3302	2403
					FEED	335	327	346	335	314	216
					Vc	234	231	239	226	241	226
	31-35	Heat Resistant Super Alloys	1.0D	0.5D	fz	0.01	0.014	0.016	0.02	0.019	0.016
					RPM	12414	9191	7608	5995	4795	3597
					FEED	372	386	487	480	455	345
H	31-35	Heat Resistant Super Alloys	1.0D	0.5D	Vc	45	45	41	45	40	41
					fz	0.012	0.015	0.022	0.024	0.016	0.015
					RPM	2387	1790	1305	1194	796	653
	36-37	Titanium Alloys	1.0D	0.5D	FEED	115	107	115	115	64	59
					Vc	158	158	160	158	166	151
					fz	0.01	0.013	0.017	0.02	0.019	0.015
	40	Chilled Cast Iron	1.0D	0.5D	RPM	8382	6287	5093	4191	3302	2403
					FEED	335	327	346	335	314	216
					Vc	234	231	239	226	241	226
	31-35	Heat Resistant Super Alloys	1.0D	0.5D	fz	0.01	0.014	0.016	0.02	0.019	0.016
					RPM	12414	9191	7608	5995	4795	3597
					FEED	372	386	487	480	455	345



RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER

EH917, EH918 SERIES
EH921, EH942 SERIES

MULTI FLUTES ROUGHING - **S**IDE CUTTING

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

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)					
						6.0	8.0	10.0	12.0	16.0	20.0
P	1-4	Non-alloy steel	0.3D	1.5D	Vc	294	292	289	302	302	302
					fz	0.037	0.05	0.063	0.075	0.08	0.075
					RPM	15597	11618	9199	8011	6008	4806
					FEED	2308	2324	2318	2403	2403	2163
	5	Non-alloy steel	0.3D	1.5D	Vc	234	231	239	226	241	226
					fz	0.017	0.023	0.028	0.033	0.032	0.026
					RPM	12414	9191	7608	5995	4795	3597
					FEED	844	846	852	791	767	561
	6-7	Low alloy steel	0.3D	1.5D	Vc	294	292	289	302	302	302
					fz	0.037	0.05	0.063	0.075	0.08	0.075
					RPM	15597	11618	9199	8011	6008	4806
					FEED	2308	2324	2318	2403	2403	2163
	8-9	Low alloy steel	0.3D	1.5D	Vc	234	231	239	226	241	226
					fz	0.017	0.023	0.028	0.033	0.032	0.026
					RPM	12414	9191	7608	5995	4795	3597
					FEED	844	846	852	791	767	561
	10	High alloyed steel, and tool steel	0.3D	1.5D	Vc	294	292	289	302	302	302
					fz	0.037	0.05	0.063	0.075	0.08	0.075
RPM					15597	11618	9199	8011	6008	4806	
FEED					2308	2324	2318	2403	2403	2163	
11.1 11.2	High alloyed steel, and tool steel	0.3D	1.5D	Vc	234	231	239	226	241	226	
				fz	0.017	0.023	0.028	0.033	0.032	0.026	
				RPM	12414	9191	7608	5995	4795	3597	
				FEED	844	846	852	791	767	561	
M	14.1	Stainless steel	Ø4 ~10:0.15D Ø12~16:0.10D Ø18~25:0.05D	1.5D	Vc	158	158	160	158	166	151
					fz	0.017	0.023	0.028	0.034	0.031	0.025
					RPM	8382	6287	5093	4191	3302	2403
					FEED	570	578	570	570	512	360
S	31-35	Heat Resistant Super Alloys	0.05D	1.0D	Vc	45	45	41	45	40	41
					fz	0.02	0.025	0.037	0.04	0.028	0.025
					RPM	2387	1790	1305	1194	796	653
					FEED	191	179	193	191	111	98
	36-37	Titanium Alloys	Ø4 ~10:0.15D Ø12~16:0.10D Ø18~25:0.05D	1.5D	Vc	158	158	160	158	166	151
					fz	0.017	0.023	0.028	0.034	0.031	0.025
					RPM	8382	6287	5093	4191	3302	2403
					FEED	570	578	570	570	512	360
H	40	Chilled Cast Iron	0.3D	1.5D	Vc	234	231	239	226	241	226
					fz	0.017	0.023	0.028	0.033	0.032	0.026
					RPM	12414	9191	7608	5995	4795	3597
					FEED	844	846	852	791	767	561



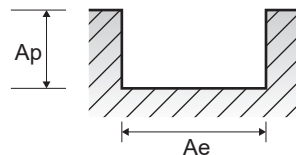
RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDPARAMETER

EH919, EH920 SERIES

MULTI FLUTES ROUGHING - **SLOTTING**

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

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)								
						4.0	6.0	8.0	10.0	12.0	14.0	16.0	20.0	25.0
P	1-4	Non-alloy steel	1.0D	0.5D	Vc	294	294	292	289	302	299	302	302	338
					fz	0.02	0.022	0.03	0.038	0.045	0.042	0.048	0.045	0.05
					RPM	23396	15597	11618	9199	8011	6798	6008	4806	4304
					FEED	1404	1373	1394	1398	1442	1428	1442	1298	1291
	5	1.0D	0.5D	Vc	234	234	231	239	226	229	241	226	251	
				fz	0.009	0.01	0.014	0.016	0.02	0.019	0.019	0.016	0.019	
				RPM	18621	12414	9191	7608	5995	5207	4795	3597	3196	
				FEED	503	497	515	487	480	495	455	345	364	
	6-7	Low alloy steel	1.0D	0.5D	Vc	294	294	292	289	302	299	302	302	338
					fz	0.02	0.022	0.03	0.038	0.045	0.042	0.048	0.045	0.05
					RPM	23396	15597	11618	9199	8011	6798	6008	4806	4304
					FEED	1404	1373	1394	1398	1442	1428	1442	1298	1291
	8-9	1.0D	0.5D	Vc	234	234	231	239	226	229	241	226	251	
				fz	0.009	0.01	0.014	0.016	0.02	0.019	0.019	0.016	0.019	
				RPM	18621	12414	9191	7608	5995	5207	4795	3597	3196	
				FEED	503	497	515	487	480	495	455	345	364	
10	High alloyed steel, and tool steel	1.0D	0.5D	Vc	294	294	292	289	302	299	302	302	338	
				fz	0.02	0.022	0.03	0.038	0.045	0.042	0.048	0.045	0.05	
				RPM	23396	15597	11618	9199	8011	6798	6008	4806	4304	
				FEED	1404	1373	1394	1398	1442	1428	1442	1298	1291	
11.1 11.2	1.0D	0.5D	Vc	234	234	231	239	226	229	241	226	251		
			fz	0.009	0.01	0.014	0.016	0.02	0.019	0.019	0.016	0.019		
			RPM	18621	12414	9191	7608	5995	5207	4795	3597	3196		
			FEED	503	497	515	487	480	495	455	345	364		
M	14.1	Stainless steel	1.0D	Ø4 ~10:0.25D Ø12~16:0.15D Ø18~25:0.10D	Vc	158	158	158	160	158	158	166	151	170
					fz	0.009	0.01	0.013	0.017	0.02	0.019	0.019	0.015	0.019
					RPM	12573	8382	6287	5093	4191	3592	3302	2403	2165
					FEED	339	335	327	346	335	341	314	216	247
S	31-35	Heat Resistant Super Alloys	1.0D	0.05D	Vc	45	45	45	41	45	40	40	41	47
					fz	0.011	0.012	0.015	0.022	0.024	0.018	0.016	0.015	0.018
					RPM	3581	2387	1790	1305	1194	909	796	653	598
					FEED	118	115	107	115	115	82	64	59	65
	36-37	Titanium Alloys	1.0D	Ø4 ~10:0.25D Ø12~16:0.15D Ø18~25:0.10D	Vc	158	158	158	160	158	158	166	151	170
					fz	0.009	0.01	0.013	0.017	0.02	0.019	0.019	0.015	0.019
					RPM	12573	8382	6287	5093	4191	3592	3302	2403	2165
					FEED	339	335	327	346	335	341	314	216	247
H	40	Chilled Cast Iron	1.0D	0.5D	Vc	234	234	231	239	226	229	241	226	251
					fz	0.009	0.01	0.014	0.016	0.02	0.019	0.019	0.016	0.019
					RPM	18621	12414	9191	7608	5995	5207	4795	3597	3196
					FEED	503	497	515	487	480	495	455	345	364



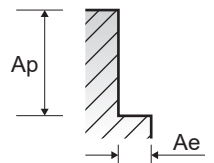
RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDPARAMETER

EH919, EH920 SERIES

MULTI FLUTES ROUGHING - SIDE CUTTING

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

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)													
						4.0	6.0	8.0	10.0	12.0	14.0	16.0	20.0	25.0					
P	1-4	Non-alloy steel	0.3D	1.5D	Vc	294	294	292	289	302	299	302	302	338					
					fz	0.033	0.037	0.05	0.063	0.075	0.071	0.08	0.075	0.083					
					RPM	23396	15597	11618	9199	8011	6798	6008	4806	4304					
					FEED	2316	2308	2324	2318	2403	2413	2403	2163	2143					
	5		0.3D	1.5D	Vc	234	234	231	239	226	229	241	226	251					
					fz	0.015	0.017	0.023	0.028	0.033	0.032	0.032	0.026	0.032					
					RPM	18621	12414	9191	7608	5995	5207	4795	3597	3196					
					FEED	838	844	846	852	791	833	767	561	614					
	6-7	Low alloy steel	0.3D	1.5D	Vc	294	294	292	289	302	299	302	302	338					
					fz	0.033	0.037	0.05	0.063	0.075	0.071	0.08	0.075	0.083					
					RPM	23396	15597	11618	9199	8011	6798	6008	4806	4304					
					FEED	2316	2308	2324	2318	2403	2413	2403	2163	2143					
	8-9		0.3D	1.5D	Vc	234	234	231	239	226	229	241	226	251					
					fz	0.015	0.017	0.023	0.028	0.033	0.032	0.032	0.026	0.032					
RPM					18621	12414	9191	7608	5995	5207	4795	3597	3196						
FEED					838	844	846	852	791	833	767	561	614						
10	High alloyed steel, and tool steel	0.3D	1.5D	Vc	294	294	292	289	302	299	302	302	338						
				fz	0.033	0.037	0.05	0.063	0.075	0.071	0.08	0.075	0.083						
RPM		23396	15597	11618	9199	8011	6798	6008	4806	4304									
FEED		2316	2308	2324	2318	2403	2413	2403	2163	2143									
11.1 11.2		0.3D	1.5D	Vc	234	234	231	239	226	229	241	226	251						
				fz	0.015	0.017	0.023	0.028	0.033	0.032	0.032	0.026	0.032						
RPM		18621	12414	9191	7608	5995	5207	4795	3597	3196									
FEED		838	844	846	852	791	833	767	561	614									
M	14.1	Stainless steel	Ø4 ~10:0.15D Ø12~16:0.10D Ø18~25:0.05D	1.5D	Vc	158	158	158	160	158	158	166	151	170					
					fz	0.015	0.017	0.023	0.028	0.034	0.032	0.031	0.025	0.032					
S	31-35	Heat Resistant Super Alloys	0.05D	1.0D	RPM	12573	8382	6287	5093	4191	3592	3302	2403	2165					
					FEED	566	570	578	570	570	575	512	360	416					
					Vc	45	45	45	41	45	40	40	41	47					
					fz	0.018	0.02	0.025	0.037	0.04	0.029	0.028	0.025	0.031					
	36-37	Titanium Alloys	Ø4 ~10:0.15D Ø12~16:0.10D Ø18~25:0.05D	1.0D	Vc	158	158	158	160	158	158	166	151	170					
					fz	0.015	0.017	0.023	0.028	0.034	0.032	0.031	0.025	0.032					
					RPM	12573	8382	6287	5093	4191	3592	3302	2403	2165					
					FEED	566	570	578	570	570	575	512	360	416					
					H	40	Chilled Cast Iron	0.3D	1.5D	Vc	234	234	231	239	226	229	241	226	251
										fz	0.015	0.017	0.023	0.028	0.033	0.032	0.032	0.026	0.032
RPM	18621	12414	9191	7608	5995	5207	4795	3597	3196										
FEED	838	844	846	852	791	833	767	561	614										





Global Cutting Tool Leader **YG-1**



MILLING