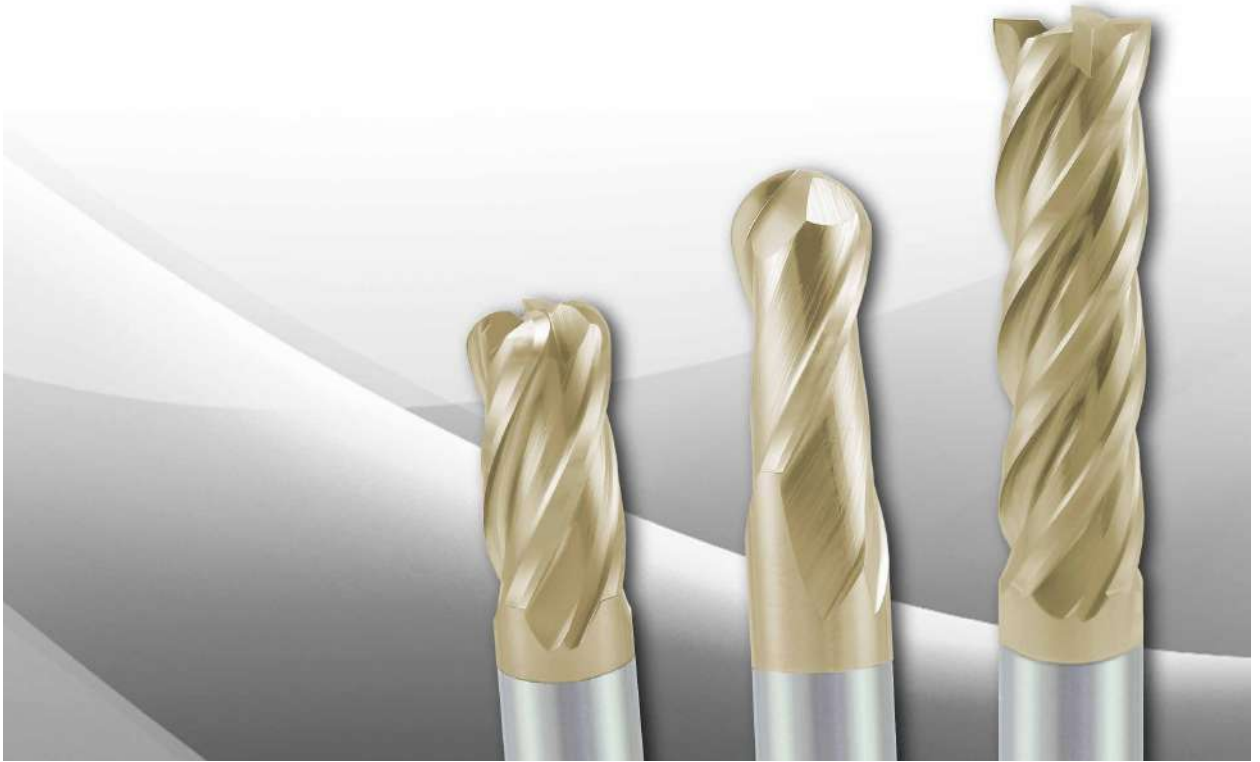


H600 Series for general milling (Hardened steel HRC 40~68)



- For wide range material and more economical cutting.
- For general cutting in hardened steel HRC 40 ~ 60.
- For high speed cutting in alloy steel HRC 30 ~ 40.

Index

Appearance	Series	Code No.		Num of Teet	Helix Ang	Coating	Working Materials						Page
							P	M	K	N	S	H	

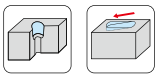
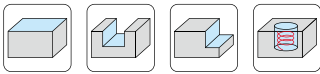
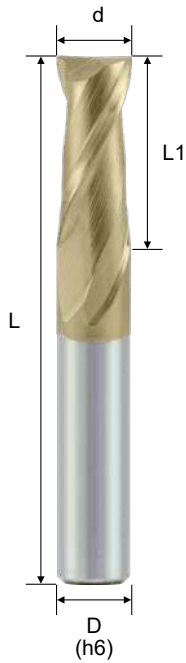
H600 Series for general milling (Hardened steel HRC 40~68)

	Square · 2F	EHSSC	Ø1~Ø20	2	30°	SICO	●	○	●		○	●	A062
	Square · 4F	EHSSC	Ø3~Ø25	4	30°	SICO	●	○	●		○	●	A063
	High Helix · Square · 4F	EHSSD	Ø1~Ø16	4	45°	SICO	●	○	●		○	●	A064
	Short Flute · Square · 4F	EHS HC	Ø1~Ø6	4	30°	SICO	●	○	●		○	●	A065
	Long Shank · Square · 4F	EHS LC	Ø4~Ø16	4	30°	SICO	●	○	●		○	●	A066
	Long Flute · Square · 4F	EHSCC	Ø3~Ø20	4	35°	SICO	●	○	●		○	●	A067
	Extra Long Flute · Square · 4F	EHSCH	Ø6~Ø12	4	45°	SICO	●	○	●		○	●	A068
	Ball Nose · 2F	EHBSC	1.5R~10R	2	30°	SICO	●	○	●		○	●	A069
	Long Shank · Ball Nose · 2F	EHBLC	2R~10R	2	30°	SICO	●	○	●		○	●	A070
	Spherical Ball Nose · 2F	EHRRC	1R~3R	2	15°	SICO	●	○	●		○	●	A071
	Corner Radius · 4F	EHSCC	Ø1~Ø16	4	30°	SICO	●	○	●		○	●	A072
	Long Shank · Corner Radius · 4F	EHCLC	Ø4~Ø16	4	30°	SICO	●	○	●		○	●	A073

H600 - Square · 2F

- SICO coating with anti-high temperature & anti-oxidation.
- Suitable for HRC 30 to HRC 60 Alloy Steel, Cast Iron, Prehardened steel, Hardened Steel, etc.
- Strong geometry design has excellent cutting ability of cutting edges.
- Universal geometry design is suitable for most materials.

EHSSC



d Tolerance	
d ≤ 6	0 ~ -0.02
6 < d ≤ 12	0 ~ -0.03
d > 12	0 ~ -0.04

Order No.	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Flutes (F)
* EHSSC241000S	1	3	50	4	2
* EHSSC242000S	2	5	50	4	2
* EHSSC243000S	3	8	50	4	2
* EHSSC203000S	3	8	50	6	2
* EHSSC244000S	4	10	50	4	2
EHSSC204000S	4	10	50	6	2
EHSSC205000S	5	13	50	6	2
EHSSC206000S	6	15	50	6	2
EHSSC208000S	8	20	60	8	2
EHSSC210000S	10	25	75	10	2
EHSSC212000S	12	30	75	12	2
EHSSC216000S	16	35	100	16	2
EHSSC220000S	20	45	100	20	2

Milling

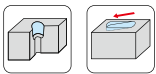
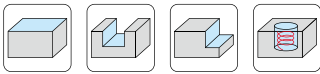
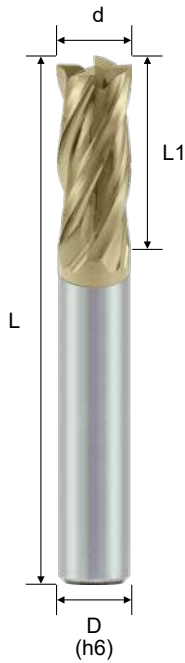
Solid Carbide Endmills

Cutting conditions : Table 025

H600 - Square · 4F

- SICO coating with anti-high temperature & anti-oxidation.
- Suitable for HRC 30 to HRC 60 Alloy Steel, Cast Iron, Prehardened steel, Hardened Steel, etc.
- Strong geometry design has excellent cutting ability of cutting edges.
- Universal geometry design is suitable for most materials.

EHSSC



Order No.	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Flutes (F)
* EHSSC441000S	1.0	3	50	4	4
* EHSSC441500S	1.5	4	50	4	4
* EHSSC442000S	2.0	5	50	4	4
* EHSSC442500S	2.5	6	50	4	4
* EHSSC433000S	3.0	8	50	3	4
* EHSSC443000S	3.0	8	50	4	4
* EHSSC444000S	4.0	10	50	4	4
EHSSC405000S	5.0	13	50	6	4
EHSSC406000S	6.0	15	50	6	4
EHSSC408000S	8.0	20	60	8	4
EHSSC410000S	10.0	25	75	10	4
EHSSC412000S	12.0	30	75	12	4
EHSSC414000S	14.0	30	75	14	4
EHSSC416000S	16.0	40	100	16	4
EHSSC420000S	20.0	45	100	20	4
EHSSC425000S	25.0	45	100	25	4

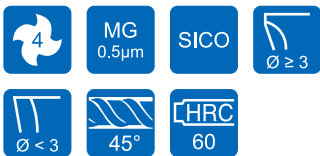
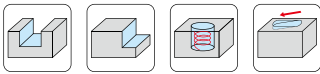
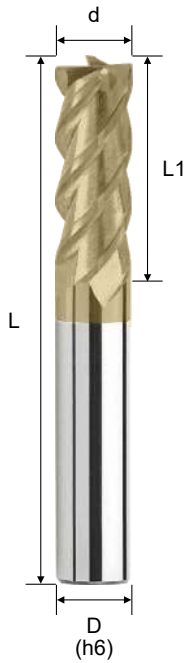
Cutting conditions : Table 026

d Tolerance	
d ≤ 6	0 ~ -0.02
6 < d ≤ 12	0 ~ -0.03
d > 12	0 ~ -0.04

H600 - High Helix · Square · 4F

- SICO coating with anti-high temperature & anti-oxidation.
- Suitable for HRC 30 to HRC 60 Alloy Steel, Cast Iron, Prehardened steel, Hardened Steel, etc.
- Strong geometry design has excellent cutting ability of cutting edges.
- Universal geometry design is suitable for most materials.

EHSSD



d Tolerance	
d ≤ 6	0 ~ -0.02
6 < d ≤ 12	0 ~ -0.03
d > 12	0 ~ -0.04

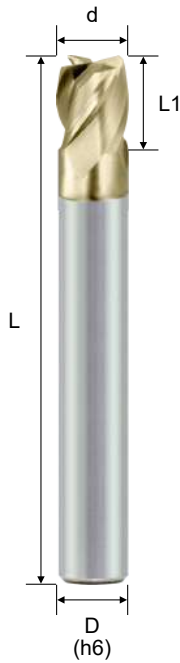
Order No.	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Flutes (F)
* EHSSD441000S	1	3	50	4	4
* EHSSD441500S	1.5	4	50	4	4
* EHSSD442000S	2	5	50	4	4
* EHSSD442500S	2.5	6	50	4	4
* EHSSD443000S	3	8	50	4	4
* EHSSD444000S	4	10	50	4	4
EHSSD406000S	6	15	50	6	4
EHSSD408000S	8	20	60	8	4
EHSSD410000S	10	25	75	10	4
EHSSD412000S	12	30	75	12	4
EHSSD414000S	14	30	75	14	4
EHSSD416000S	16	35	100	16	4

Cutting conditions : Table 027

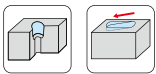
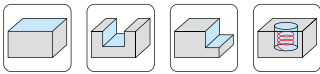
H600 - Short Flute · Square · 4F

- SICO coating with anti-high temperature & anti-oxidation.
- Suitable for HRC 30 to HRC 60 Alloy Steel, Cast Iron, Prehardened steel, Hardened Steel, etc.
- Strong geometry design has excellent cutting ability of cutting edges.
- Universal geometry design is suitable for most materials.

EHSHC



Order No.	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Flutes (F)
EHSHC441000S	1	1	50	4	4
EHSHC441500S	1.5	1.5	50	4	4
EHSHC442000S	2	2	50	4	4
EHSHC442500S	2.5	2.5	50	4	4
EHSHC403000S	3	3	50	6	4
EHSHC404000S	4	4	50	6	4
EHSHC405000S	5	5	50	6	4
EHSHC406000S	6	6	60	6	4



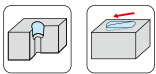
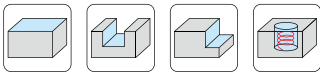
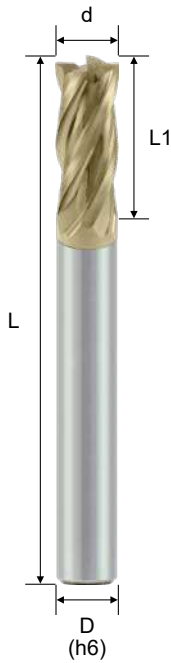
d Tolerance	
d ≤ 6	0 ~ -0.02
6 < d ≤ 12	0 ~ -0.03
d > 12	0 ~ -0.04

Cutting conditions : Table 026

H600 - Long Shank · Square · 4F

- SICO coating with anti-high temperature & anti-oxidation.
- Suitable for HRC 30 to HRC 60 Alloy Steel, Cast Iron, Prehardened steel, Hardened Steel, etc.
- Strong geometry design has excellent cutting ability of cutting edges.
- Universal geometry design is suitable for most materials.

EHSLC



Order No.	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Flutes (F)
* EHSLC444006S	4	10	60	4	4
* EHSLC444007S	4	10	75	4	4
* EHSLC444010S	4	10	100	4	4
* EHSLC406006S	6	15	60	6	4
* EHSLC406007S	6	15	75	6	4
* EHSLC406010S	6	15	100	6	4
* EHSLC408007S	8	20	75	8	4
* EHSLC408010S	8	20	100	8	4
* EHSLC410010S	10	25	100	10	4
* EHSLC412010S	12	30	100	12	4
* EHSLC416015S	16	40	150	16	4

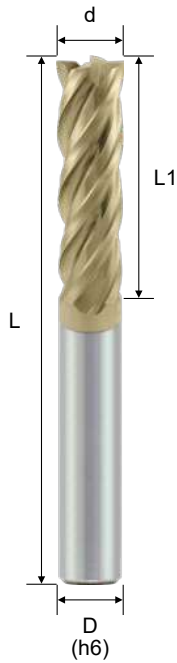
Cutting conditions : Table 031

d Tolerance	
d ≤ 6	0 ~ -0.03
6 < d ≤ 12	0 ~ -0.04
d > 12	0 ~ -0.05

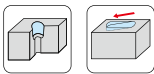
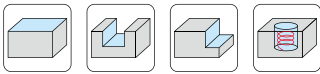
H600 - Long Flute · Square · 4F

- SICO coating with anti-high temperature & anti-oxidation.
- Suitable for HRC 30 to HRC 60 Alloy Steel, Cast Iron, Prehardened steel, Hardened Steel, etc.
- Strong geometry design has excellent cutting ability of cutting edges.
- Universal geometry design is suitable for most materials.

EHSCC



Order No.	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Flutes (F)
EHSCC403000S	3	15	60	6	4
EHSCC404000S	4	20	60	6	4
EHSCC406000S	6	30	75	6	4
EHSCC408000S	8	35	100	8	4
EHSCC410000S	10	45	100	10	4
EHSCC410015S	10	50	150	10	4
EHSCC412000S	12	45	100	12	4
EHSCC412015S	12	50	150	12	4
EHSCC414000S	14	70	150	14	4
EHSCC416000S	16	70	150	16	4
EHSCC420000S	20	75	150	20	4



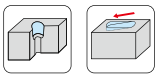
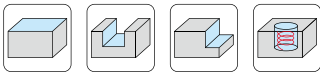
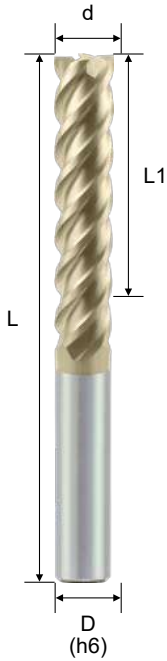
d Tolerance	
d ≤ 6	0 ~ -0.03
6 < d ≤ 12	0 ~ -0.04
d > 12	0 ~ -0.05

Cutting conditions : Table 028

H600 - Extra Long Flute · Square · 4F

- SICO coating with anti-high temperature & anti-oxidation.
- Suitable for HRC 30 to HRC 60 Alloy Steel, Cast Iron, Prehardened steel, Hardened Steel, etc.
- Suitable for deep side milling and finishing.
- Special geometry design, outstanding anti-vibrations and high surface finish quality.

EHSCH



Order No.	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Flutes (F)
EHSCH406035S	6	35	100	6	4
EHSCH408040S	8	40	100	8	4
EHSCH410035S	10	35	75	10	4
EHSCH410050S	10	50	100	10	4
EHSCH412035S	12	35	75	12	4
EHSCH412055S	12	55	100	12	4



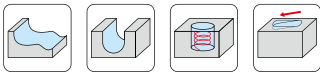
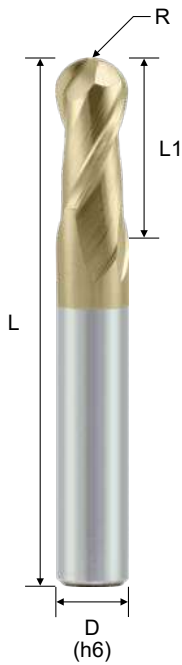
Cutting conditions : Table 028

d Tolerance	
d ≤ 6	0 ~ -0.03
6 < d ≤ 12	0 ~ -0.04
d > 12	0 ~ -0.05

H600 - Ball Nose · 2F

- SICO coating with anti-high temperature & anti-oxidation.
- Suitable for HRC 30 to HRC 60 Alloy Steel, Cast Iron, Prehardened steel, Hardened Steel, etc.
- Strong geometry design has excellent cutting ability of cutting edges.
- Universal geometry design is suitable for most materials.

EBHSC



Order No.	Radius (R)	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Flutes (F)
* EHBSC241000S	0.5R	1	2	50	4	2
* EHBSC241500S	0.75R	1.5	3	50	4	2
* EHBSC242000S	1.0R	2	4	50	4	2
* EHBSC233000S	1.5R	3	6	50	3	2
* EHBSC243000S	1.5R	3	6	50	4	2
* EHBSC244000S	2.0R	4	8	50	4	2
EHBSC204000S	2.0R	4	8	50	6	2
EHBSC206000S	3.0R	6	12	50	6	2
EHBSC208000S	4.0R	8	16	60	8	2
EHBSC210000S	5.0R	10	20	75	10	2
EHBSC212000S	6.0R	12	24	75	12	2
EHBSC216000S	8.0R	16	32	100	16	2
EHBSC220000S	10.0R	20	40	100	20	2

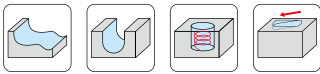
Cutting conditions : Table 035

R Tolerance	
R ≤ 3	±0.015
R > 3	±0.020

H600 - Long Shank · Ball Nose · 2F

- SICO coating with anti-high temperature & anti-oxidation.
- Suitable for HRC 30 to HRC 60 Alloy Steel, Cast Iron, Prehardened steel, Hardened Steel, etc.
- Strong geometry design has excellent cutting ability of cutting edges.
- Universal geometry design is suitable for most materials.

EHBLC



Order No.	Radius (R)	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Flutes (F)
* EHBLC244006S	2R	4	8	60	4	2
* EHBLC244007S	2R	4	8	75	4	2
* EHBLC244010S	2R	4	8	100	4	2
* EHBLC206006S	3R	6	12	60	6	2
* EHBLC206007S	3R	6	12	75	6	2
* EHBLC206010S	3R	6	12	100	6	2
* EHBLC208007S	4R	8	16	75	8	2
* EHBLC208010S	4R	8	16	100	8	2
* EHBLC210010S	5R	10	20	100	10	2
* EHBLC212010S	6R	12	24	100	12	2
* EHBLC216015S	8R	16	32	150	16	2
* EHBLC220015S	10R	20	40	150	20	2

Milling

Solid Carbide Endmills

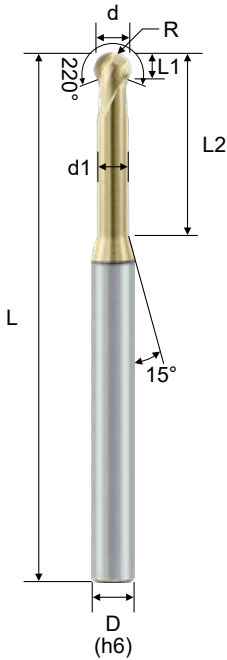
Cutting conditions : Table 037

R Tolerance	
R ≤ 3	±0.020
R > 3	±0.025

H600 - Spherical Ball Nose · 2F

- Designed for undercutting & deburring applications.
- It provides an excellent surface finishing of vertical machining.
- SICO Nano coating provides a superior wear and heat resistance.
- Suitable for Steel, Alloy steel, Stainless steel, Cast iron, & Hardened steel.

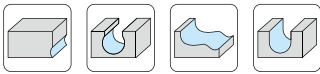
EHRRC



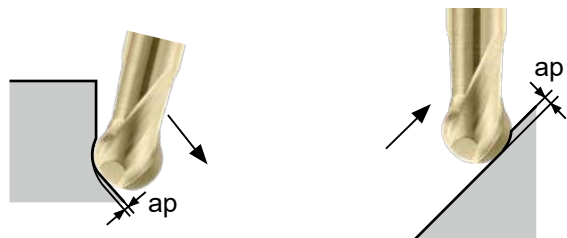
Order No.	Radius (R)	Dia. (d)	ND (d1)	CL (L1)	EFF-L (L2)	OAL (L)	Shank (D)	Flutes (F)
EHRRC2020221S	1.0R	2	1.7	1.4	5	60	6	2
EHRRC2020222S	1.0R	2	1.7	1.4	10	60	6	2
EHRRC2030221S	1.5R	3	2.6	2.0	8	75	6	2
EHRRC2030222S	1.5R	3	2.6	2.0	15	75	6	2
EHRRC2040221S	2.0R	4	3.4	2.7	10	75	6	2
EHRRC2040222S	2.0R	4	3.4	2.7	20	75	6	2
EHRRC2050221S	2.5R	5	4.3	3.4	12	75	6	2
EHRRC2050222S	2.5R	5	4.3	3.4	25	75	6	2
EHRRC2060221S	3.0R	6	5.1	4.3	15	75	6	2
EHRRC2060222S	3.0R	6	5.1	4.3	30	75	6	2

Recommended Cutting Conditions

Material	Carbon Steel / Alloy Steel / Cast iron	Alloy Steel / Tool Steel / Pre-Hardened Steel (SCM, SKT, SKD)			Stainless Steel (SUS304, SUS316)			Hardened Steel				
Hardness	HRC < 30	HRC 30 ~ 45			-			HRC 45 ~ 60				
VC	220 ~ 300 m/min			150 ~ 220 m/min			70 ~ 150 m/min			130 ~ 150 m/min		
R (mm)	RPM	Feed (mm/min)	ap (mm)	RPM	Feed (mm/min)	ap (mm)	RPM	Feed (mm/min)	ap (mm)	RPM	Feed (mm/min)	ap (mm)
1.0R	40,000	1,600	0.04	30,000	1,200	0.04	24,000	960	0.04	24,000	960	0.04
1.5R	32,000	1,920	0.06	23,000	1,380	0.06	16,000	960	0.06	16,000	960	0.06
2.0R	24,000	1,920	0.08	17,000	1,360	0.08	12,000	960	0.08	12,000	960	0.08
2.5R	19,200	1,920	0.10	14,000	1,400	0.10	9,600	960	0.10	9,600	960	0.10
3.0R	16,000	1,920	0.12	12,000	1,440	0.12	8,000	960	0.12	8,000	960	0.12



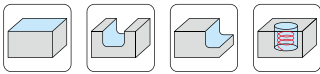
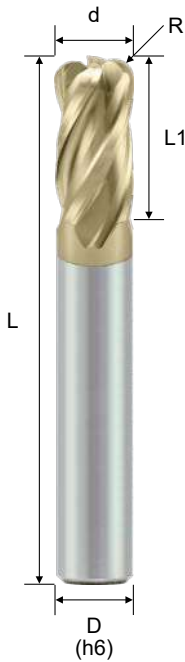
R Tolerance	
R ≤ 3	±0.015
R > 3	±0.020



H600 - Corner Radius · 4F

- SICO coating with anti-high temperature & anti-oxidation.
- Suitable for HRC 30 to HRC 60 Alloy Steel, Cast Iron, Prehardened steel, Hardened Steel, etc.
- Strong geometry design has excellent cutting ability of cutting edges.
- Universal geometry design is suitable for most materials.

EHCSC



d Tolerance	
d ≤ 6	0 ~ -0.02
6 < d ≤ 12	0 ~ -0.03
d > 12	0 ~ -0.04

R Tolerance	
R < 2	±0.015
R ≥ 2	±0.020

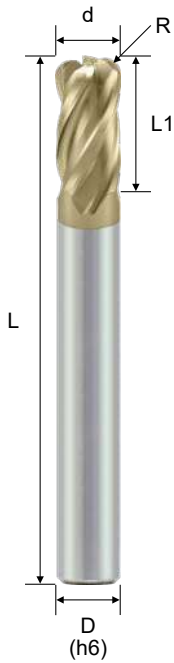
Order No.	Dia. (d)	Corner Radius (R)	CL (L1)	OAL (L)	Shank (D)	Flutes (F)
* EHCSC441002S	1	0.2R	2	50	4	4
* EHCSC441003S	1	0.3R	2	50	4	4
* EHCSC441502S	1.5	0.2R	3	50	4	4
* EHCSC441503S	1.5	0.3R	3	50	4	4
* EHCSC441505S	1.5	0.5R	3	50	4	4
* EHCSC442002S	2	0.2R	4	50	4	4
* EHCSC442003S	2	0.3R	4	50	4	4
* EHCSC442005S	2	0.5R	4	50	4	4
* EHCSC443002S	3	0.2R	6	50	4	4
* EHCSC443003S	3	0.3R	6	50	4	4
* EHCSC443005S	3	0.5R	6	50	4	4
* EHCSC443010S	3	1.0R	6	50	4	4
* EHCSC444002S	4	0.2R	8	50	4	4
* EHCSC444003S	4	0.3R	8	50	4	4
* EHCSC444005S	4	0.5R	8	50	4	4
* EHCSC444010S	4	1.0R	8	50	4	4
EHCSC406002S	6	0.2R	12	50	6	4
EHCSC406003S	6	0.3R	12	50	6	4
EHCSC406005S	6	0.5R	12	50	6	4
EHCSC406010S	6	1.0R	12	50	6	4
EHCSC408005S	8	0.5R	16	60	8	4
EHCSC408010S	8	1.0R	16	60	8	4
EHCSC410005S	10	0.5R	20	75	10	4
EHCSC410010S	10	1.0R	20	75	10	4
EHCSC410015S	10	1.5R	20	75	10	4
EHCSC412005S	12	0.5R	24	75	12	4
EHCSC412010S	12	1.0R	24	75	12	4
EHCSC412015S	12	1.5R	24	75	12	4
EHCSC416010S	16	1.0R	32	100	16	4

Cutting conditions : Table 042

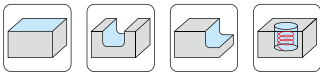
H600 - Long Shank · Corner Radius · 4F

- SICO coating with anti-high temperature & anti-oxidation.
- Suitable for HRC 30 to HRC 60 Alloy Steel, Cast Iron, Prehardened steel, Hardened Steel, etc.
- Strong geometry design has excellent cutting ability of cutting edges.
- Universal geometry design is suitable for most materials.

EHCLC



Order No.	Dia. (d)	Corner Radius (R)	CL (L1)	OAL (L)	Shank (D)	Flutes (F)
*EHCLC44400507S	4	0.5R	8	75	4	4
*EHCLC44400510S	4	0.5R	8	100	4	4
*EHCLC40600507S	6	0.5R	12	75	6	4
*EHCLC40601007S	6	1.0R	12	75	6	4
*EHCLC40600510S	6	0.5R	12	100	6	4
*EHCLC40800507S	8	0.5R	16	75	8	4
*EHCLC40800510S	8	0.5R	16	100	8	4
*EHCLC40801010S	8	1.0R	16	100	8	4
*EHCLC41000510S	10	0.5R	20	100	10	4
*EHCLC41001010S	10	1.0R	20	100	10	4
*EHCLC41200510S	12	0.5R	24	100	12	4
*EHCLC41201010S	12	1.0R	24	100	12	4
*EHCLC41601015S	16	1.0R	32	150	16	4



d Tolerance	
d ≤ 6	0 ~ -0.03
6 < d ≤ 12	0 ~ -0.04
d > 12	0 ~ -0.05

R Tolerance	
R < 2	±0.020
R ≥ 2	±0.025

Cutting conditions : Table 044

Recommended Cutting Conditions

Table 025

H600 Seires EHSSC2 (H600 Series, vc, rpm and feed increase 20%)

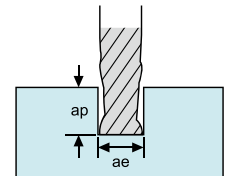
G550 Seires EPSSC2

G450 Seires EPSSA2

Material	CARBON STEEL / ALLOY STEEL				ALLOY STEEL / TOOL STEEL SCM, SKT, SKD				PREHARDENED STEEL NAK80 CENA1			
Hardness	HB180~250				HRC25~35				HRC35~45			
Vc	120(m/min)				95(m/min)				79(m/min)			
Dia	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
3mm	12700	380	1.5	3	10000	300	0.9	3	8386	251	0.15	3
4mm	9550	382	2	4	7560	302	1.2	4	6290	251	0.2	4
6mm	6370	445	3	6	5040	352	1.8	6	4200	294	0.3	6
8mm	4770	333	4	8	3780	264	2.4	8	3140	220	0.4	8
10mm	3820	230	5	10	3020	181	3	10	2515	150	0.5	10
12mm	3180	190	6	12	2520	151	3.6	12	2100	126	0.6	12

Material	HARDENED STEEL SKD61, SKD11				STAINLESS STEEL SUS304 316				CAST IRON FC / FCD			
Hardness	HRC 40~55)											
Vc	48(m/min)				79(m/min)				120(m/min)			
Dia	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
3mm	5095	152	0.15	3	8386	251	0.15	3	12700	380	1.5	3
4mm	3820	152	0.2	4	6290	251	0.2	4	9550	382	2	4
6mm	2548	178	0.3	6	4200	294	0.3	6	6370	445	3	6
8mm	1910	133	0.4	8	3140	220	0.4	8	4770	333	4	8
10mm	1528	92	0.5	10	2515	150	0.5	10	3820	230	5	10
12mm	1274	76	0.6	12	2100	126	0.6	12	3180	190	6	12

1. Use as highly rigid and accurate machine as possible.
2. If the rpm available is lower than the recommend condition, please reduce the feed rate to the same ratio.
3. Use long shank type please reduce the rpm and feed rate.
4. The Feed and RPM may be changed depending on the M/C conditions ,lubricating and cooling system.



Recommended Cutting Conditions

Table 026

H600 Seires EHSSC4, ESHC4 (H600 Series, vc, rpm and feed increase 20%)

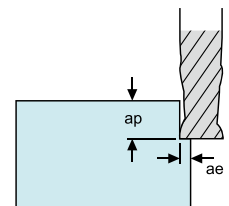
G550 Seires EPSSC3, EPSSC4, EPSSA4

G450 Seires EPSSA4

Material	CARBON STEEL / ALLOY STEEL				ALLOY STEEL / TOOL STEEL SCM, SKT, SKD				PREHARDENED STEEL NAK80 CENA1			
Hardness	HB180~250				HRC25~35				HRC35~45			
Vc	120 (m/min)				95 (m/min)				79 (m/min)			
Dia	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
3mm	12700	762	3	0.15	10000	600	3	0.15	8386	503	3	0.15
4mm	9550	764	4	0.2	7560	604	4	0.2	6290	503	4	0.2
6mm	6370	890	6	0.3	5040	705	6	0.3	4200	588	6	0.3
8mm	4770	668	8	0.4	3780	529	8	0.4	3140	440	8	0.4
10mm	3820	458	10	0.5	3020	362	10	0.5	2515	301	10	0.5
12mm	3180	380	12	0.6	2520	302	12	0.6	2100	252	12	0.6

Material	HARDENED STEEL SKD61, SKD11				STAINLESS STEEL SUS304 316				CAST IRON FC / FCD			
Hardness	HRC 40~55)											
Vc	48 (m/min)				79 (m/min)				120 (m/min)			
Dia	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
3mm	5095	305	3	0.15	8386	503	3	0.15	12700	503	3	0.15
4mm	3820	305	4	0.2	6290	503	4	0.2	9550	503	4	0.2
6mm	2548	356	6	0.3	4200	588	6	0.3	6370	588	6	0.3
8mm	1910	267	8	0.4	3140	440	8	0.4	4770	440	8	0.4
10mm	1528	183	10	0.5	2515	301	10	0.5	3820	301	10	0.5
12mm	1274	152	12	0.6	2100	252	12	0.6	3180	252	12	0.6

1. Use as highly rigid and accurate machine as possible.
2. If the rpm available is lower than the recommend condition, please reduce the feed rate to the same ratio.
3. Use long shank type please reduce the rpm and feed rate.
4. The Feed and RPM may be changed depending on the M/C conditions ,lubricating and cooling system.



Recommended Cutting Conditions

Table 027

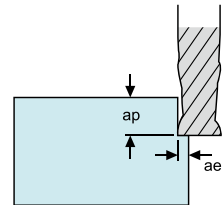
H600 Seires EHSSD4 (H600 Series, vc, rpm and feed increase 20%)

G550 Seires EPSSH4, EPSCH6

Material	CARBON STEEL / ALLOY STEEL				ALLOY STEEL / TOOL STEEL SCM, SKT, SKD				PREHARDENED STEEL NAK80 CENA1			
Hardness	HB180~250				HRC25~35				HRC35~45			
Vc	120 (m/min)				95 (m/min)				79 (m/min)			
Dia	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
3mm	12700	762	4.5	0.15	10000	600	4.5	0.15	8386	503	4.5	0.15
4mm	9550	764	6	0.2	7560	604	6	0.2	6290	503	6	0.2
6mm	6370	890	9	0.3	5040	705	9	0.3	4200	588	9	0.3
8mm	4770	668	12	0.4	3780	529	12	0.4	3140	440	12	0.4
10mm	3820	458	15	0.5	3020	362	15	0.5	2515	301	15	0.5
12mm	3180	380	18	0.6	2520	302	18	0.6	2100	252	18	0.6

Material	HARDENED STEEL SKD61, SKD11				STAINLESS STEEL SUS304 316				CAST IRON FC / FCD			
Hardness	HRC 40~55)											
Vc	48 (m/min)				79 (m/min)				120 (m/min)			
Dia	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
3mm	5095	305	4.5	0.15	7430	743	4.5	0.15	12700	503	4.5	0.15
4mm	3820	305	6	0.2	5570	577	6	0.2	9550	503	6	0.2
6mm	2548	356	9	0.3	3720	595	9	0.3	6370	588	9	0.3
8mm	1910	267	12	0.4	2780	556	12	0.4	4770	440	12	0.4
10mm	1528	183	15	0.5	2230	535	15	0.5	3820	301	15	0.5
12mm	1274	152	18	0.6	1860	484	18	0.6	3180	252	18	0.6

1. Use as highly rigid and accurate machine as possible.
2. If the rpm available is lower than the recommend condition, please reduce the feed rate to the same ratio.
3. Use long shank type please reduce the rpm and feed rate.
4. The Feed and RPM may be changed depending on the M/C conditions ,lubricating and cooling system.



Recommended Cutting Conditions

Table 028

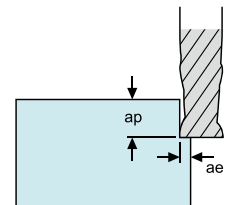
H600 Seires EHSCC4, EHSC4 (H600 Series, vc, rpm and feed increase 20%)

G550 Seires EPSCC4

Material	CARBON STEEL / ALLOY STEEL				ALLOY STEEL / TOOL STEEL SCM, SKT, SKD				PREHARDENED STEEL NAK80 CENA1			
Hardness	HB180~250				HRC25~35				HRC35~45			
Vc	96 (m/min)				76 (m/min)				63 (m/min)			
Dia	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
3mm	10160	610	3	0.15	8000	480	3	0.15	6708	402	3	0.15
4mm	7640	610	4	0.2	6048	483	4	0.2	5032	402	4	0.2
6mm	5096	712	6	0.3	4032	564	6	0.3	3360	470	6	0.3
8mm	3816	534	8	0.4	3024	423	8	0.4	2512	352	8	0.4
10mm	3056	366	10	0.5	2416	290	10	0.5	2012	240	10	0.5
12mm	2544	304	12	0.6	2016	242	12	0.6	1680	202	12	0.6

Material	HARDENED STEEL SKD61, SKD11				STAINLESS STEEL SUS304 316				CAST IRON FC / FCD			
Hardness	HRC 40~55)											
Vc	38 (m/min)				63 (m/min)				96 (m/min)			
Dia	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
3mm	4076	244	3	0.15	6708	402	3	0.15	10160	610	3	0.15
4mm	3056	244	4	0.2	5032	402	4	0.2	7640	610	4	0.2
6mm	2038	285	6	0.3	3360	470	6	0.3	5096	712	6	0.3
8mm	1528	214	8	0.4	2512	352	8	0.4	3816	534	8	0.4
10mm	1222	146	10	0.5	2012	240	10	0.5	3056	366	10	0.5
12mm	1016	122	12	0.6	1680	202	12	0.6	2544	304	12	0.6

1. Use as highly rigid and accurate machine as possible.
2. If the rpm available is lower than the recommend condition, please reduce the feed rate to the same ratio.
3. Use long shank type please reduce the rpm and feed rate.
4. The Feed and RPM may be changed depending on the M/C conditions, lubricating and cooling system.



Recommended Cutting Conditions

Table 031

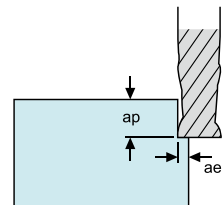
H600 Seires EHSLC4 (H600 Series, vc, rpm and feed increase 20%)

G550 Seires EPSLC4

Material	CARBON STEEL / ALLOY STEEL				ALLOY STEEL / TOOL STEEL SCM, SKT, SKD				PREHARDENED STEEL NAK80 CENA1			
Hardness	HB180~250				HRC25~35				HRC35~45			
Vc	102 (m/min)				80 (m/min)				67 (m/min)			
Dia	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
3mm	10800	647	3	0.15	8500	510	3	0.15	7128	427	3	0.15
4mm	8118	649	4	0.2	4626	513	4	0.2	5346	427	4	0.2
6mm	5414	756	6	0.3	4284	600	6	0.3	3570	500	6	0.3
8mm	4054	568	8	0.4	3210	450	8	0.4	2670	340	8	0.4
10mm	3248	389	10	0.5	2568	307	10	0.5	2138	255	10	0.5
12mm	2700	323	12	0.6	2142	256	12	0.6	1785	214	12	0.6

Material	HARDENED STEEL SKD61, SKD11				STAINLESS STEEL SUS304 316				CAST IRON FC / FCD			
Hardness	HRC 40~55)											
Vc	40 (m/min)				67 (m/min)				102 (m/min)			
Dia	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
3mm	4330	260	3	0.15	7128	427	3	0.15	10800	647	3	0.15
4mm	3247	260	4	0.2	5346	427	4	0.2	8118	649	4	0.2
6mm	2165	302	6	0.3	3570	500	6	0.3	5414	756	6	0.3
8mm	1624	226	8	0.4	2670	340	8	0.4	4054	568	8	0.4
10mm	1298	155	10	0.5	2138	255	10	0.5	3248	389	10	0.5
12mm	1082	129	12	0.6	1785	214	12	0.6	2700	323	12	0.6

1. Use as highly rigid and accurate machine as possible.
2. If the rpm available is lower than the recommend condition, please reduce the feed rate to the same ratio.
3. Use long shank type please reduce the rpm and feed rate.
4. The Feed and RPM may be changed depending on the M/C conditions ,lubricating and cooling system.



Recommended Cutting Conditions

Table 035

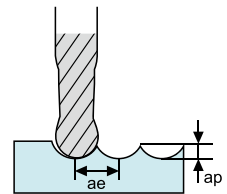
H600 Seires EHBSC2 (H600 Series, vc, rpm and feed increase 20%)

G550 Seires EPBSC2

Material	CARBON STEEL / ALLOY STEEL				ALLOY STEEL / TOOL STEEL SCM, SKT, SKD				PREHARDENED STEEL NAK80 CENA1			
Hardness	HB180~250				HRC25~35				HRC35~45			
Vc	120 (m/min)				95 (m/min)				79 (m/min)			
Radius	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
1R	37470	936	0.14	0.2	29660	740	0.14	0.2	24660	616	0.14	0.2
2R	18730	1120	0.28	0.4	14830	890	0.28	0.4	12330	740	0.28	0.4
3R	12490	936	0.42	0.6	9890	740	0.42	0.6	8220	616	0.42	0.6
4R	9366	750	0.56	0.8	7415	593	0.56	0.8	6170	494	0.56	0.8
5R	7490	636	0.7	1	5930	504	0.7	1	4930	420	0.7	1
6R	6244	560	0.84	1.2	4940	444	0.84	1.2	4110	370	0.84	1.2

Material	HARDENED STEEL SKD61, SKD11				STAINLESS STEEL SUS304 316				CAST IRON FC / FCD			
Hardness	HRC 40~55)											
Vc	48 (m/min)				79 (m/min)				120 (m/min)			
Radius	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
1R	14990	374	0.14	0.2	24660	616	0.14	0.2	37470	936	0.14	0.2
2R	7490	450	0.28	0.4	12330	740	0.28	0.4	18730	1120	0.28	0.4
3R	4995	374	0.42	0.6	8220	616	0.42	0.6	12490	936	0.42	0.6
4R	3750	300	0.56	0.8	6170	494	0.56	0.8	9366	750	0.56	0.8
5R	3000	255	0.7	1	4930	420	0.7	1	7490	636	0.7	1
6R	2500	225	0.84	1.2	4110	370	0.84	1.2	6244	560	0.84	1.2

1. Use as highly rigid and accurate machine as possible.
2. If the rpm available is lower than the recommend condition, please reduce the feed rate to the same ratio.
3. Use long shank type please reduce the rpm and feed rate.
4. The Feed and RPM may be changed depending on the M/C conditions, lubricating and cooling system.



Recommended Cutting Conditions

Table 037

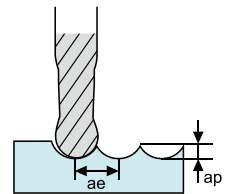
H600 Seires EHBLC2 (H600 Series, vc, rpm and feed increase 20%)

G550 Seires EPBLC2

Material	CARBON STEEL / ALLOY STEEL				ALLOY STEEL / TOOL STEEL SCM, SKT, SKD				PREHARDENED STEEL NAK80 CENA1			
Hardness	HB180~250				HRC25~35				HRC35~45			
Vc	102 (m/min)				80 (m/min)				67 (m/min)			
Radius	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
1R	31850	796	0.14	0.2	25210	629	0.14	0.2	20960	524	0.14	0.2
2R	15920	952	0.28	0.4	12606	757	0.28	0.4	10480	629	0.28	0.4
3R	10620	796	0.42	0.6	8400	629	0.42	0.6	6990	524	0.42	0.6
4R	7960	638	0.56	0.8	6300	504	0.56	0.8	5244.5	420	0.56	0.8
5R	6370	540	0.7	1	5040	428	0.7	1	4190	357	0.7	1
6R	5308	476	0.84	1.2	4200	377	0.84	1.2	3495	315	0.84	1.2

Material	HARDENED STEEL SKD61, SKD11				STAINLESS STEEL SUS304 316				CAST IRON FC / FCD			
Hardness	HRC 40~55)				HRC25~35				HRC35~45			
Vc	40 (m/min)				67 (m/min)				102 (m/min)			
Radius	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
1R	12740	318	0.14	0.2	20960	524	0.14	0.2	31850	796	0.14	0.2
2R	6370	383	0.28	0.4	10480	629	0.28	0.4	15920	952	0.28	0.4
3R	4245.8	318	0.42	0.6	6990	524	0.42	0.6	10620	796	0.42	0.6
4R	3187.5	255	0.56	0.8	5244.5	420	0.56	0.8	7960	638	0.56	0.8
5R	2550	217	0.7	1	4190	357	0.7	1	6370	540	0.7	1
6R	2125	191	0.84	1.2	3495	315	0.84	1.2	5308	476	0.84	1.2

1. Use as highly rigid and accurate machine as possible.
2. If the rpm available is lower than the recommend condition, please reduce the feed rate to the same ratio.
3. Use long shank type please reduce the rpm and feed rate.
4. The Feed and RPM may be changed depending on the M/C conditions, lubricating and cooling system.



Recommended Cutting Conditions

Table 042

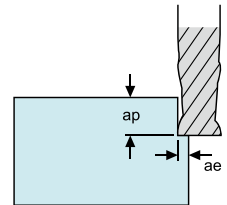
H600 Seires EHCSC4 (H600 Series, vc, rpm and feed increase 20%)

G550 Seires EPCSC4

Material	CARBON STEEL / ALLOY STEEL				ALLOY STEEL / TOOL STEEL SCM, SKT, SKD				PREHARDENED STEEL NAK80 CENA1			
Hardness	HB180~250				HRC25~35				HRC35~45			
Vc	120 (m/min)				95 (m/min)				79 (m/min)			
Dia	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
3mm	12700	762	3	0.15	10000	600	3	0.15	8386	503	3	0.15
4mm	9550	764	4	0.2	7560	604	4	0.2	6290	503	4	0.2
6mm	6370	890	6	0.3	5040	705	6	0.3	4200	588	6	0.3
8mm	4770	668	8	0.4	3780	529	8	0.4	3140	440	8	0.4
10mm	3820	458	10	0.5	3020	362	10	0.5	2515	301	10	0.5
12mm	3180	380	12	0.6	2520	302	12	0.6	2100	252	12	0.6

Material	HARDENED STEEL SKD61, SKD11				STAINLESS STEEL SUS304 316				CAST IRON FC / FCD			
Hardness	HRC 40~55)											
Vc	48 (m/min)				79 (m/min)				120 (m/min)			
Dia	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
3mm	5095	305	3	0.15	8386	503	3	0.15	12700	503	3	0.15
4mm	3820	305	4	0.2	6290	503	4	0.2	9550	503	4	0.2
6mm	2548	356	6	0.3	4200	588	6	0.3	6370	588	6	0.3
8mm	1910	267	8	0.4	3140	440	8	0.4	4770	440	8	0.4
10mm	1528	183	10	0.5	2515	301	10	0.5	3820	301	10	0.5
12mm	1274	152	12	0.6	2100	252	12	0.6	3180	252	12	0.6

1. Use as highly rigid and accurate machine as possible.
2. If the rpm available is lower than the recommend condition, please reduce the feed rate to the same ratio.
3. Use long shank type please reduce the rpm and feed rate.
4. The Feed and RPM may be changed depending on the M/C conditions ,lubricating and cooling system.



Recommended Cutting Conditions

Table 044

H600 Seires EHCLC4 (H600 Series, vc, rpm and feed increase 20%)

G550 Seires EPCLC4

Material	CARBON STEEL / ALLOY STEEL				ALLOY STEEL / TOOL STEEL SCM, SKT, SKD				PREHARDENED STEEL NAK80 CENA1			
Hardness	HB180~250				HRC25~35				HRC35~45			
Vc	102 (m/min)				80 (m/min)				67 (m/min)			
Dia	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
3mm	10800	647	3	0.15	8500	510	3	0.15	7128	427	3	0.15
4mm	8118	649	4	0.2	4626	513	4	0.2	5346	427	4	0.2
6mm	5414	756	6	0.3	4284	600	6	0.3	3570	500	6	0.3
8mm	4054	568	8	0.4	3210	450	8	0.4	2670	340	8	0.4
10mm	3248	389	10	0.5	2568	307	10	0.5	2138	255	10	0.5
12mm	2700	323	12	0.6	2142	256	12	0.6	1785	214	12	0.6

Material	HARDENED STEEL SKD61, SKD11				STAINLESS STEEL SUS304 316				CAST IRON FC / FCD			
Hardness	HRC 40~55)											
Vc	40 (m/min)				67 (m/min)				102 (m/min)			
Dia	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
3mm	4330	260	3	0.15	7128	427	3	0.15	10800	647	3	0.15
4mm	3247	260	4	0.2	5346	427	4	0.2	8118	649	4	0.2
6mm	2165	302	6	0.3	3570	500	6	0.3	5414	756	6	0.3
8mm	1624	226	8	0.4	2670	340	8	0.4	4054	568	8	0.4
10mm	1298	155	10	0.5	2138	255	10	0.5	3248	389	10	0.5
12mm	1082	129	12	0.6	1785	214	12	0.6	2700	323	12	0.6

1. Use as highly rigid and accurate machine as possible.
2. If the rpm available is lower than the recommend condition, please reduce the feed rate to the same ratio.
3. Use long shank type please reduce the rpm and feed rate.
4. The Feed and RPM may be changed depending on the M/C conditions ,lubricating and cooling system.

