

ONE-CUT 70

SEH Type

One-Cut 70

UP TO 70HRC

Feature 1

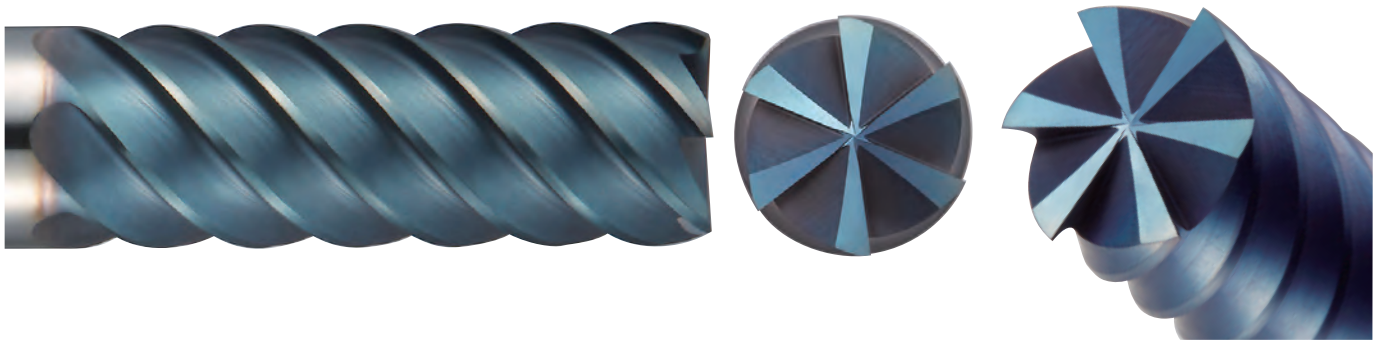
High Speed & High Efficiency Machining on High Hardened Materials.

Feature 2

High Precision Machining from Semi-finishing to Finishing.

Feature 3

Outstanding tool life with combination of newly developed DH coating & Super-micro grain carbide



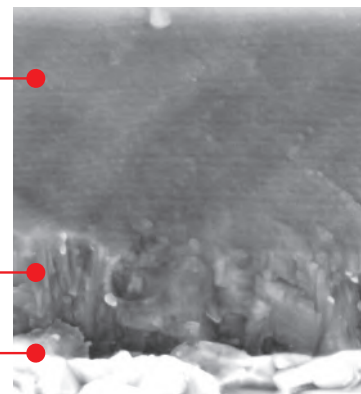
DH COATING

● Properties of DIJET PVD coating

	DH coating	DV coating	DZ coating (TiAlN)
Hardness (Hv)	3,500~3,700	3,300~3,500	2,800~2,900
Oxidation temperature (°C)	1,100~1,200	1,000~1,100	700~800
Coefficient of friction	0.5	0.65	0.6

- Greatly improved for higher hardness and heat resistance.
- Super multi layer coating that has high thermal shock resistance suppress sudden chipping.
- Achieves excellent tool life from semi-finishing to finishing.

Layer with high hardness & heat resistance
 Layer with high adhesion & fracture resistance
 Super micro-grain carbide



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● Helix angle 50°

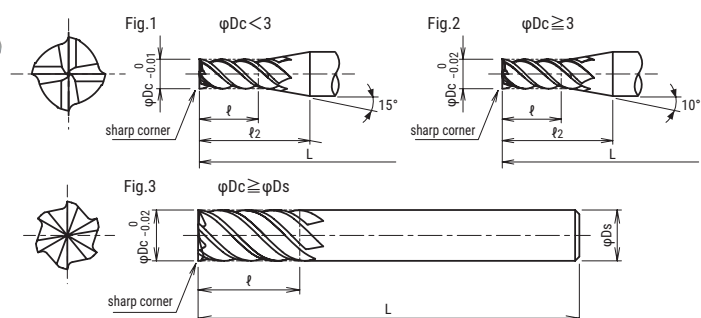
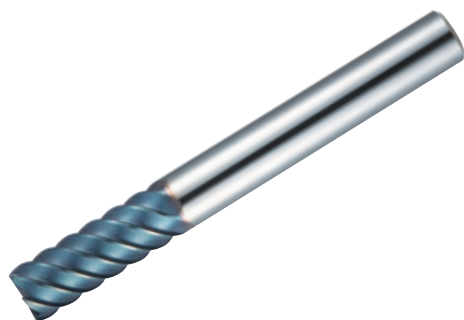
Semi-finishing

Finishing

Gash land

DH
Coating

Shoulder Milling



Type	Cat.No.	Stock	No.of Flutes	Dimensions (mm)					Fig.	
				φDc	ℓ	ℓ2	L	φDs		
Short	SEHS4010	●	4	1	2	12	60	6	1	
	SEHS4020	●		2	4					
	SEHS4030	●		3	7	17				
	SEHS4040	●	4	9	16	2				
	SEHS4050	●	5	12						
	SEHS6060	●	6	6	13	—			3	
Regular	SEHH4010	●	4	1	3.5	13	60	6	1	
	SEHH4015	●		1.5	5					14
	SEHH4020	●		2	7					15
	SEHH4025	●		2.5	8	20			2	
	SEHH4030	●		3	10					
	SEHH4035	●		3.5	12	19				
	SEHH4040	●		4		19				
	SEHH4045	●		4.5		20				
	SEHH4050	●		5	15	19				
	SEHH4055	●		5.5		18				
	SEHH6060	●		6		—			3	
	SEHH6065	●		6.5	20	25			75	8
	SEHH6070	●	7	24						
	SEHH6075	●	7.5	22						
	SEHH6080	●	8	—	—	3				
	SEHH6085	●	8.5	30						
	SEHH6090	●	9	25	29	80	10			
	SEHH6095	●	9.5		27					
	SEHH6100	●	10		—			3		
	SEHH6105	●	10.5	30	35	100	12			
	SEHH6110	●	11		34					
	SEHH6120	●	12		—			3		
	SEHH6130	●	13	35	45	105	16			
	SEHH6140	●	14		42					
SEHH6150	●	15	44							
SEHH6160	●	16	40	—	110	3				
SEHH6180	●	18		47						
SEHH6200	●	20		—			120			
							125	20	3	

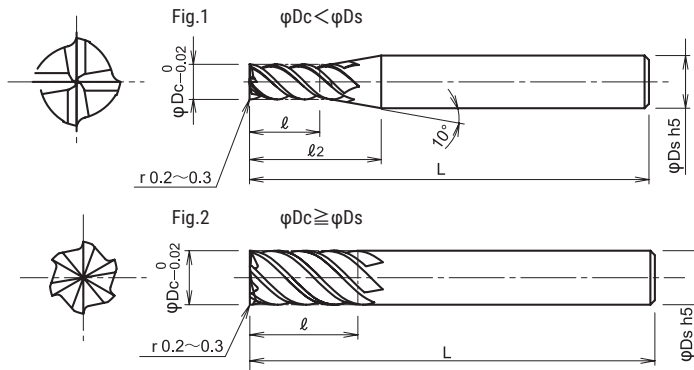
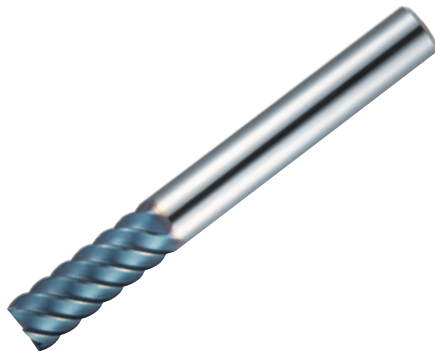
ONE-CUT 70 **SEH Type**



SEH-R
TYPE

For High hardened materials up to 70HRC

- Helix angle 50°
- Corner radius R0.2



Cat.No.	Stock	No.of Flutes	Dimensions (mm)					Fig.
			ϕDc	ℓ	ℓ_2	L	ϕDs	
SEHH4030-R02	●	4	3	10	20	60	6	1
SEHH4040-R02	●		4	12	19			
SEHH4050-R02	●		5	15	-			
SEHH6060-R02	●	6	6	20	-	75	8	2
SEHH6070-R02	●		7		24			1
SEHH6080-R02	●		8		-			2
SEHH6090-R02	●		9	29	1			
SEHH6100-R02	●		10	-	80	10	2	
SEHH6120-R02	●		12					30
SEHH6160-R02	●		16					40
SEHH6200-R02	●		20					45
					100	12		
					110	16		
					125	20		

ONE-CUT 70

SEH Type

SEH-R
TYPE

For High hardened materials up to 70HRC

- Helix angle 50°
- Corner radius type

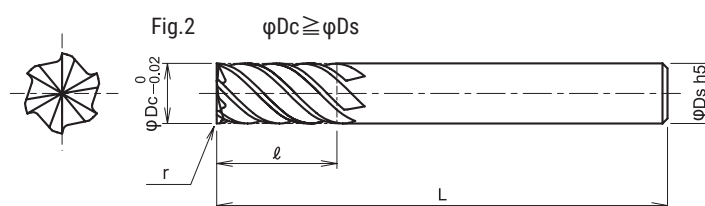
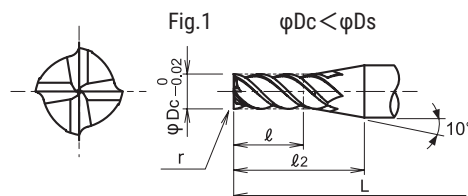
Semi-finishing

Finishing

Corner radius

DH
Coating

Shoulder Milling



Cat.No.	Stock	No. of Flutes	Dimensions (mm)						Fig.	
			r	ϕDc	l	l_2	L	ϕDs		
SEHH4030-R03	●	4	0.3	3	10	20	60	6	1	
SEHH4030-R05	●		0.5							
SEHH4040-R03	●		0.3	4	12	19				
SEHH4040-R05	●		0.5							
SEHH4050-R03	●		0.3	5	15	19				
SEHH4050-R05	●		0.5							
SEHH6060-R03	●	6	0.3	6	15	75	8	2		
SEHH6060-R05	●		0.5							
SEHH6060-R10	●		1							
SEHH6080-R03	●		0.3	8	20				75	
SEHH6080-R05	●		0.5							
SEHH6080-R10	●		1							
SEHH6100-R03	●	0.3	10	25	80	10				
SEHH6100-R05	●	0.5								
SEHH6100-R10	●	1								
SEHH6100-R15	●	1.5								
SEHH6120-R03	●	6	0.3	12	30	100	12	2		
SEHH6120-R05	●		0.5							
SEHH6120-R10	●		1							
SEHH6120-R15	●		1.5							
SEHH6160-R03	●		0.3	16	40				110	16
SEHH6160-R05	●		0.5							
SEHH6160-R10	●	1								
SEHH6160-R15	●	1.5								
SEHH6200-R03	●	6	0.3	20	45	125	20	2		
SEHH6200-R05	●		0.5							
SEHH6200-R10	●		1							
SEHH6200-R15	●		1.5							

ONE-CUT 70 **SEH Type**

SEHM
TYPE

For High hardened materials up to 70HRC

- Helix angle 50°
- Medium length of cut

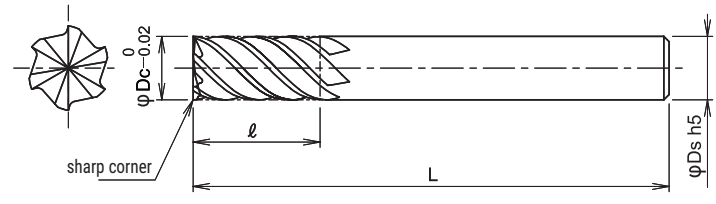
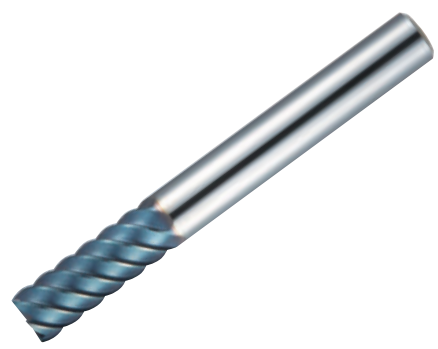
Semi-finishing

Finishing

Gash land

DH
Coating

Shoulder Milling



Type	Cat.No.	Stock	No. of Flutes	Dimensions (mm)			
				φDc	ℓ	L	φDs
Medium	SEHM6060	●	6	6	20	65	6
	SEHM6080	●		8	28	80	8
	SEHM6100	●		10	35	90	10
	SEHM6120	●		12	45	110	12
	SEHM6160	●		16	55	120	16
	SEHM6200	●		20	60	140	20

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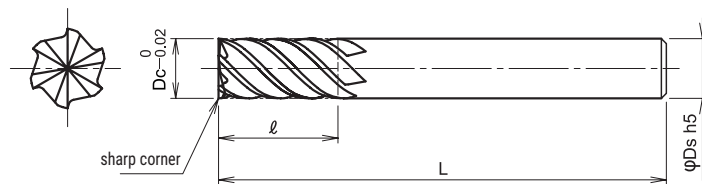
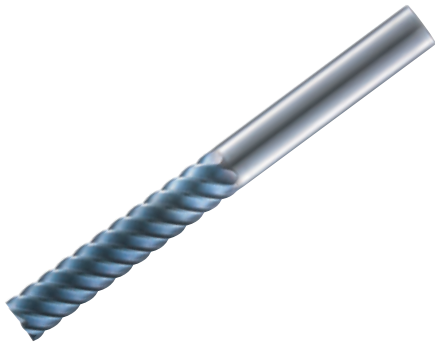
SEH Type



SEHL
TYPE

For High hardened materials up to 70HRC

- Helix angle 50°
- Long length of cut



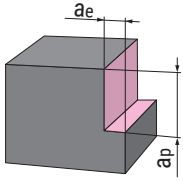
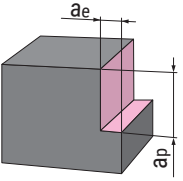
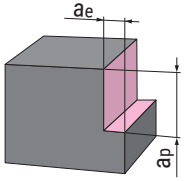
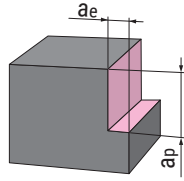
Type	Cat.No.	Stock	No.of Flutes	Dimensions (mm)			
				φDc	l	L	φDs
Long	SEHL6060	●	6	6	26	70	6
	SEHL6080	●		8	36	90	8
	SEHL6100	●		10	46	100	10
	SEHL6120	●		12	56	120	12
	SEHL6160	●		16	66	135	16
	SEHL6200	●		20	76	155	20

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SEH Type

■ SEHS / SEHH / SEHH-R02 / SEHH-R type Recommended cutting conditions

● SIDE CUTTING

Material	Mold steel (NAK80, HPM1, P21) 38~43HRC		Hardened steel (SKD61, DAC, DHA) 42~52HRC		Hardened steel (SKD11, SLD, DC11) 55~62HRC		HSS (SKH, HAP) 63~70HRC	
Type of machining	 $a_p \leq 1.5D_c$ $a_e \leq 0.05D_c$		 $a_p \leq 1.5D_c$ $a_e \leq 0.04D_c$		 $a_p \leq 1.5D_c$ $a_e \leq 0.04D_c$ (MAX. 0.6mm)		 $a_p \leq 1.5D_c$ $a_e \leq 0.02D_c$ (MAX. 0.4mm)	
ϕD_c (mm)	n (min ⁻¹)	Vf (mm/min)	n (min ⁻¹)	Vf (mm/min)	n (min ⁻¹)	Vf (mm/min)	n (min ⁻¹)	Vf (mm/min)
1	40,000	700	25,000	410	20,000	320	10,000	130
2	24,000	950	15,000	560	12,000	430	6,400	220
3	24,000	1,300	15,000	800	12,000	600	6,000	250
4	18,000	1,800	12,000	1,100	9,500	800	5,100	300
6	12,000	2,200	8,000	1,400	6,500	1,100	3,500	420
8	10,000	2,200	6,000	1,400	5,000	1,100	2,500	420
10	8,000	2,200	5,000	1,400	4,000	1,100	2,000	420
12	6,500	1,900	4,000	1,200	3,300	900	1,700	350
16	5,000	1,480	3,000	930	2,500	700	1,300	260
20	3,800	1,150	2,300	730	2,000	550	1,000	200

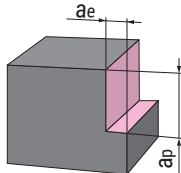
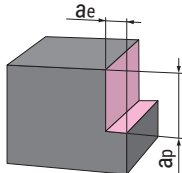
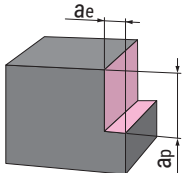
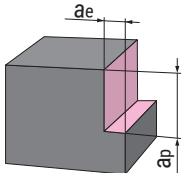
Note

1. These cutting conditions are for general guidance.
2. The figures should be adjusted according to machining shape, purpose and rigidity of machine and work clamping.
3. Recommend to down cut with air blow or mist coolant.

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SEH Type

SEHM type Recommended cutting conditions

Material	Mold steel (NAK80, HPM1, P21) 38~43HRC		Hardened steel (SKD61, DAC, DHA) 42~52HRC		Hardened steel (SKD11, SLD, DC11) 55~62HRC		HSS (SKH, HAP) 63~70HRC	
Type of machining	 $a_p \leq 2.25D_c$ $a_e \leq 0.03D_c$		 $a_p \leq 2.25D_c$ $a_e \leq 0.025D_c$		 $a_p \leq 2.25D_c$ $a_e \leq 0.025D_c$		 $a_p \leq 2.25D_c$ $a_e \leq 0.01D_c$	
ϕD_c (mm)	n (min ⁻¹)	V_f (mm/min)	n (min ⁻¹)	V_f (mm/min)	n (min ⁻¹)	V_f (mm/min)	n (min ⁻¹)	V_f (mm/min)
6	10,600	1,900	6,400	1,200	5,300	1,000	2,700	320
8	8,000	1,900	4,800	1,200	4,000	1,000	2,000	360
10	6,400	1,900	3,800	1,200	3,200	1,000	1,600	380
12	5,300	1,600	3,200	1,000	2,700	800	1,300	240
16	4,000	1,200	2,400	700	2,000	600	1,000	180
20	3,200	1,000	1,900	600	1,600	500	800	140

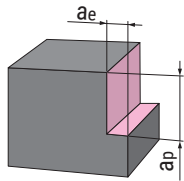
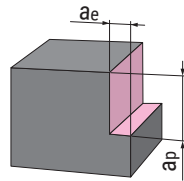
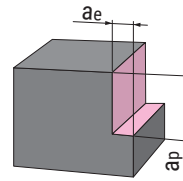
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2. The figures should be adjusted according to machining shape, purpose and rigidity of machine and work clamping.
3. Recommend to down cut with air blow or mist coolant.

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SEH Type

■ SEHL type Recommended cutting conditions

Material	Mold steel (NAK80, HPM1, P21) 38~43HRC		Hardened steel (SKD61, DAC, DHA) 42~52HRC		Hardened steel (SKD11, SLD, DC11) 55~62HRC	
Type of machining	 $a_p \leq 3D_c$ $a_e \leq 0.01D_c$		 $a_p \leq 3D_c$ $a_e \leq 0.01D_c$		 $a_p \leq 3D_c$ $a_e \leq 0.01D_c$	
ϕD_c (mm)	n (min ⁻¹)	V_f (mm/min)	n (min ⁻¹)	V_f (mm/min)	n (min ⁻¹)	V_f (mm/min)
6	3,180	760	2,650	480	2,100	380
8	2,390	720	1,990	480	1,590	380
10	1,910	690	1,590	480	1,270	380
12	1,590	670	1,330	480	1,060	380
16	1,190	570	1,000	420	800	340
20	950	510	800	380	640	310

Note

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2. The figures should be adjusted according to machining shape, purpose and rigidity of machine and work clamping.
3. Recommend to down cut with air blow or mist coolant.