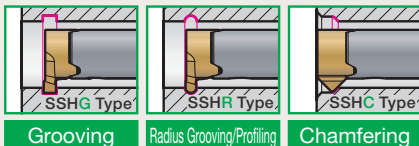


# SEC-Grooving Tool Holders **SSH** Series

Outstanding chip control performance  
 Suppresses chatter with tough carbide body  
 New small-diameter grooving tools available  
 (I.D. ø8mm up)



Sumi Small



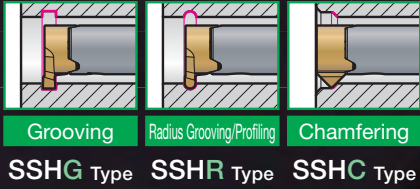
- Width of Cut ... 0.74 to 3.00mm
- Min. Bore Diameter ... ø8.0mm
- Max. Groove Depth ... to 4.0mm
- Holder ... Carbide body (internal coolant supply)
- Insert ... Grade: AC1030U (all 58 items)



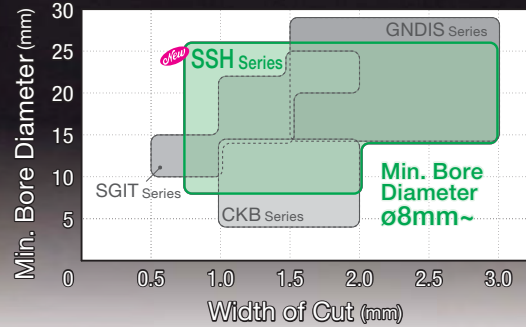
# Internal Grooving Tool Holder

# SSH Series

Internal coolant supply for outstanding chip evacuation  
 Adopts AC1030U for excellent machined surface quality  
 In addition to grooving applications, we have a lineup of 12 items for circlip groove machining

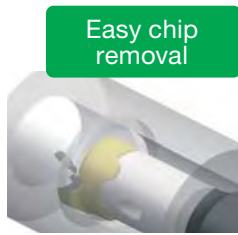


## Application Range



Tough carbide body for stable machining even with small diameters

## Chip Control



Stable and smooth evacuation of curled chips even on small bore diameters

Evacuation from grooves is poor, inviting sudden breakage

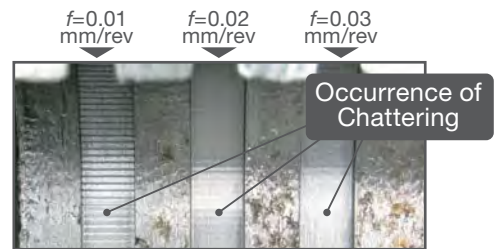
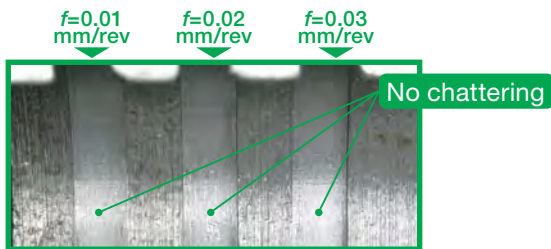
SSH Series

Competitor's

Work Material: S45C Cutting Diameter:  $\phi 13\text{mm}$  Cutting Conditions:  $v_c=50\text{m/min}$ ,  $f=0.02\text{mm/rev}$ ,  $a_p=1.0\text{mm}$  Wet (Oil-based)

## Chatter Resistance

Outstanding sharpness and carbide shank suppress chatter



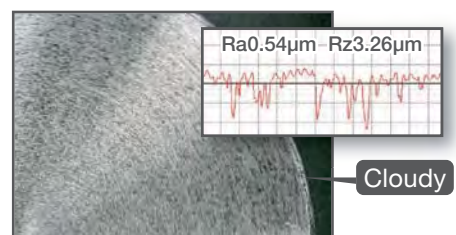
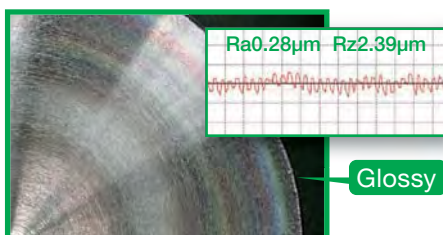
SSH Series

Competitor's

Work Material: S45C Cutting Diameter:  $\phi 13\text{mm}$  Cutting Conditions:  $v_c=100\text{m/min}$ ,  $f=0.01, 0.02, 0.03\text{mm/rev}$ ,  $a_p=0.2\text{mm}$  Wet (Oil-based)

## Machined Surface Quality

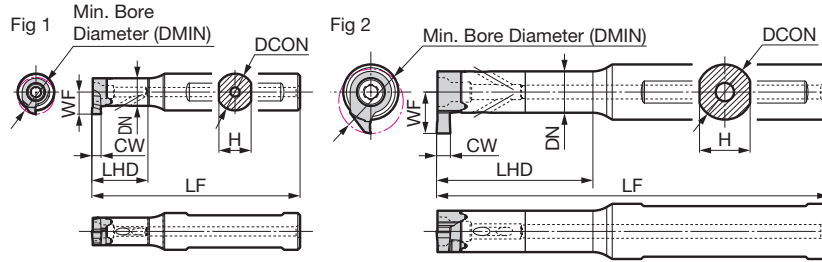
Glossy, Beautiful Surface Finish



SSH Series

Competitor's

Work Material: SCM440 Cutting Diameter:  $\phi 30\text{mm}$  Cutting Conditions:  $v_c=180\text{m/min}$ ,  $f=0.02\text{mm/rev}$ ,  $a_p=0.2\text{mm}$  Wet (Oil-based)



**Holder**

**Parts**

Dimensions (mm)

Cat. No.	Stock	Diameter	Head Dia.	Height	Overall Length	Head LHD	Min. Bore Diameter	Width of Cut	Applicable Insert	Fig	Flat Screw		Wrench
											DCON	DN	H
<b>E08D-SSH M N125-08</b>	●	8	6	7	60	12.5	8	<b>0.74 to 2.00</b>	SSH□ R/L 08...	1	BFTX02608IPS	<b>1.2</b>	TRX08IP
<b>E08E-SSH M N210-08</b>	●	8	6	7	70	21.0	8	<b>0.74 to 2.00</b>		1			
<b>E12E-SSH M N125-08</b>	●	12	6	11	70	12.5	8	<b>0.74 to 2.00</b>		1			
<b>E12F-SSH M N210-08</b>	●	12	6	11	80	21.0	8	<b>0.74 to 2.00</b>		1			
<b>E12G-SSH M N300-08</b>	●	12	6	11	90	30.0	8	<b>0.74 to 2.00</b>		1			
<b>E12H-SSH M N420-08</b>	●	12	6	11	100	42.0	8	<b>0.74 to 2.00</b>		1			
<b>E12X-SSH M N195-14</b>	●	12	9	11	75	19.5	14	<b>0.74 to 3.00</b>	SSH□ R/L 14...	2	BFTX0412IPS	<b>5.0</b>	LT15IP
<b>E12H-SSH M N340-14</b>	●	12	9	11	100	34.0	14	<b>0.74 to 3.00</b>		2			
<b>E12J-SSH M N450-14</b>	●	12	9	11	110	45.0	14	<b>0.74 to 3.00</b>		2			
<b>E12X-SSH M N640-14</b>	●	12	9	11	130	64.0	14	<b>0.74 to 3.00</b>		2			
<b>E16F-SSH M N195-14</b>	●	16	9	14	80	19.5	14	<b>0.74 to 3.00</b>		2			
<b>E16H-SSH M N340-14</b>	●	16	9	14	100	34.0	14	<b>0.74 to 3.00</b>		2			
<b>E16J-SSH M N450-14</b>	●	16	9	14	110	45.0	14	<b>0.74 to 3.00</b>	2	BFTX0412IPS	<b>5.0</b>	LT15IP	
<b>E16X-SSH M N640-14</b>	●	16	9	14	130	64.0	14	<b>0.74 to 3.00</b>	2				

\*The LF dimensions above are dimensions with SSHG/SSHR type insert mounted. Refer to the Insert Stock Table for WF dimensions.

**Insert** ( Coated Carbide)

Dimensions (mm)

Applications	Cat. No.	AC1080U		Width of Cut	Max. Groove Depth	Nose Radius	Cutting Edge Distance	Cutting Edge Distance	Thickness	Cutting Edge Distance	Applicable Holder	Fig	
		R	L										CW
Grooving	<b>SSHG R/L 0807400</b>	●	●	<b>0.74</b>	<b>1.0</b>	—	3.2	4.80	3.6	0.4	E08□-SSHMN○○○-08 E12□-SSHMN○○○-08	1	
	<b>R/L 0808400</b>	●	●	<b>0.84</b>	<b>1.0</b>	—	3.2	4.80	3.6	0.4		1	
	<b>R/L 0809400</b>	●	●	<b>0.94</b>	<b>1.0</b>	—	3.2	4.80	3.6	0.4		1	
	<b>R/L 0810000</b>	●	●	<b>1.00</b>	<b>1.0</b>	—	3.2	4.80	3.1	—		1	
	<b>R/L 0811900</b>	●	●	<b>1.19</b>	<b>1.0</b>	—	3.2	4.80	3.1	—		1	
	<b>R/L 0813900</b>	●	●	<b>1.39</b>	<b>1.0</b>	—	3.2	4.80	3.0	—		1	
	<b>R/L 0815000</b>	●	●	<b>1.50</b>	<b>1.0</b>	—	3.2	4.80	3.0	—		1	
	<b>R/L 0816900</b>	●	●	<b>1.69</b>	<b>1.0</b>	—	3.2	4.80	3.0	—		1	
	<b>R/L 0820000</b>	●	●	<b>2.00</b>	<b>1.0</b>	—	3.2	4.80	3.0	—		1	
Radius Grooving/Profiling	<b>SSHR R/L 08080</b>	●	●	<b>0.80</b>	<b>1.0</b>	0.40	3.2	4.80	3.1	—	E12□-SSHMN○○○-14 E16□-SSHMN○○○-14	2	
<b>R/L 08120</b>	●	●	<b>1.20</b>	<b>1.0</b>	0.60	3.2	4.80	3.1	—	2			
<b>R/L 08180</b>	●	●	<b>1.80</b>	<b>1.0</b>	0.90	3.2	4.80	3.0	—	2			
Chamfering	<b>SSHC R/L 08454502</b>	●	●	—	<b>1.4</b>	0.20	1.8	4.65	3.6	—	E12□-SSHMN○○○-14 E16□-SSHMN○○○-14	3	
Grooving	<b>SSHG R/L 1407400</b>	●	●	<b>0.74</b>	<b>1.2</b>	—	5.3	9.00	5.5	0.2		E12□-SSHMN○○○-14 E16□-SSHMN○○○-14	1
	<b>R/L 1408400</b>	●	●	<b>0.84</b>	<b>1.3</b>	—	5.3	9.00	5.5	0.2			1
	<b>R/L 1409400</b>	●	●	<b>0.94</b>	<b>1.5</b>	—	5.3	9.00	5.5	0.2			1
	<b>R/L 1410000</b>	●	●	<b>1.00</b>	<b>1.6</b>	—	5.3	9.00	5.5	0.2			1
	<b>R/L 1411900</b>	●	●	<b>1.19</b>	<b>4.0</b>	—	5.3	9.00	5.2	—			1
	<b>R/L 1413900</b>	●	●	<b>1.39</b>	<b>4.0</b>	—	5.3	9.00	5.1	—			1
	<b>R/L 1415000</b>	●	●	<b>1.50</b>	<b>4.0</b>	—	5.3	9.00	5.1	—			1
	<b>R/L 1416900</b>	●	●	<b>1.69</b>	<b>4.0</b>	—	5.3	9.00	5.1	—			1
	<b>R/L 1420000</b>	●	●	<b>2.00</b>	<b>4.0</b>	—	5.3	9.00	5.1	—			1
Radius Grooving/Profiling	<b>R/L 1425000</b>	●	●	<b>2.50</b>	<b>4.0</b>	—	5.3	9.00	5.1	—		E12□-SSHMN○○○-14 E16□-SSHMN○○○-14	1
	<b>R/L 1430000</b>	●	●	<b>3.00</b>	<b>4.0</b>	—	5.3	9.00	5.1	—			1
	<b>SSHR R/L 14120</b>	●	●	<b>1.20</b>	<b>4.0</b>	0.60	5.3	9.00	5.2	—			2
	<b>R/L 14180</b>	●	●	<b>1.80</b>	<b>4.0</b>	0.90	5.3	9.00	5.1	—			2
	<b>R/L 14200</b>	●	●	<b>2.00</b>	<b>4.0</b>	1.00	5.3	9.00	5.1	—			2
	<b>R/L 14220</b>	●	●	<b>2.20</b>	<b>4.0</b>	1.10	5.3	9.00	5.1	—	2		
<b>R/L 14300</b>	●	●	<b>3.00</b>	<b>4.0</b>	1.50	5.3	9.00	5.1	—	2			

\*Refer to the Holder Stock Table for the DMIN dimensions above.

**Recommended Cutting Conditions**

Work Material	<b>P</b> Carbon Steel / Alloy Steel	<b>M</b> Stainless Steel	<b>K</b> Cast Iron
Cutting Speed $v_c$ (m/min)	20-200	15-80	20-160
Feed Rate $f$ (mm/rev)	0.01-0.03	0.01-0.03	0.01-0.03

**(N·m)** Recommended Tightening Torque (N·m) ● mark: Standard stocked item



- Very hot or lengthy chips may be discharged while the machine is in operation. Therefore, machine guards, safety goggles or other protective covers must be used. Fire safety precautions must also be considered.

**< SAFETY NOTES >**

- Please handle with care as this product has sharp edges.
- Improper cutting conditions or mis-handling of the tool may result in breakages or projectiles. Therefore, please use the tool within its recommended conditions.

- When using non-water soluble cutting oil, precautions against fire must be taken and please ensure that a fire extinguisher is placed near the machine.

 **Sumitomo Electric Industries, Ltd.**

**Hardmetal Division**

Global Marketing Department : 1-1-1, Koyakita, Itami, Hyogo 664-0016, Japan

Tel: +81-72-772-4535 Fax: +81-72-771-0088

<https://www.sumitool.com/global>