

# FAM/SAM Type

Rake angle	Radial direction	+4°	+6°	5.8mm 65°	5.7mm 90°
	Axial direction	+13°	+10°		
		(FAM type)	(SAM type)	(FAM type)	(SAM type)

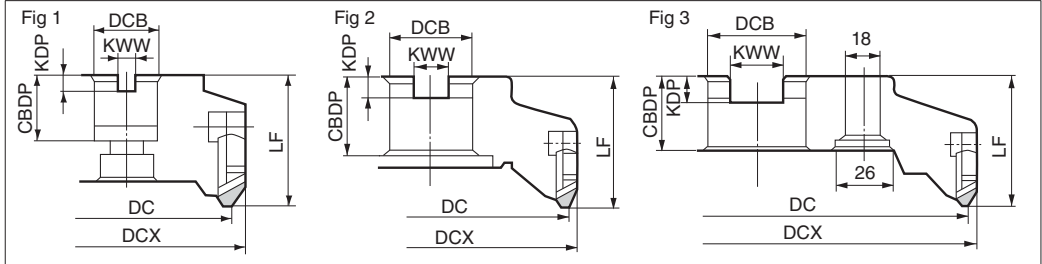
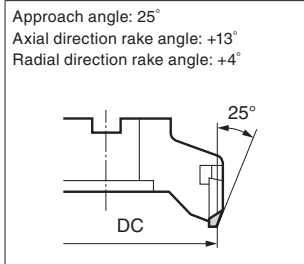
P	M	K	N	S	H
Steel	Aluminum	Cut tool	Nonferrous	Aluminum	Exotic alloy
×	×	×	○	○	×



- Achieves excellent cutting performance with a cutting edge shape design that is optimized for machining aluminum alloys and non-ferrous metal materials.
- Improves the quality of finished surfaces with adjustment for high precision cutting edge runout.
- Also handles rough machining due to having a highly rigid body and blades that are sturdily attached with double clamps.

## Body (FAM Type)

Inch

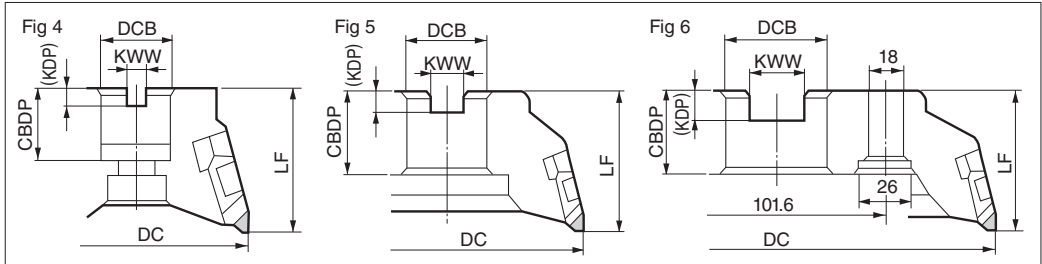
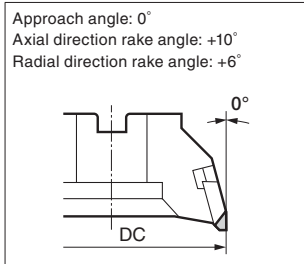


Cat. No.	Stock		Cutting diameter	Max. cutting dia.	Height	Hole size	Attaching depth	Groove width	Groove depth (KDP)	No. of teeth	Weight (kg)	Fig
	R	L										
<b>FAM080 R/L</b>	●		<b>80</b>	92	50	<b>25.4</b>	25	9.5	6	4	2.1	1
<b>FAM100 R/L</b>	●		<b>100</b>	112	50	<b>31.75</b>	32	12.7	8	4	2.9	2
<b>125 R/L</b>	●		<b>125</b>	137	63	<b>38.1</b>	38	15.9	10	5	3.8	2
<b>160 R/L</b>	●		<b>160</b>	171	63	<b>50.8</b>	38	19.1	11	6	6.6	2
<b>FAM200 R/L</b>	●		<b>200</b>	210	63	<b>47.625</b>	38	25.4	14	8	9.9	3
<b>250 R/L</b>			<b>250</b>	260	63	<b>47.625</b>	40	25.4	14	10	16.0	3
<b>315 R/L</b>			<b>315</b>	325	63	<b>47.625</b>	40	25.4	14	12	25.1	3

Dimensions (mm) The body does not include inserts.

## Body (SAM Type)

Inch



Cat. No.	Stock		Cutting diameter	Height	Hole size	Attaching depth	Groove width	Groove depth (KDP)	No. of teeth	Weight (kg)	Fig
	R	L									
<b>SAM080 R/L</b>	●		<b>80</b>	50	<b>25.4</b>	25	9.5	6	4	1.6	4
<b>SAM100 R/L</b>	●		<b>100</b>	50	<b>31.75</b>	32	12.7	8	4	2.3	5
<b>125 R/L</b>			<b>125</b>	63	<b>38.1</b>	38	15.9	10	5	3.7	5
<b>160 R/L</b>			<b>160</b>	63	<b>50.8</b>	38	19.1	11	6	5.9	5
<b>SAM200 R/L</b>			<b>200</b>	63	<b>47.625</b>	38	25.4	14	8	8.5	6
<b>250 R/L</b>			<b>250</b>	63	<b>47.625</b>	40	25.4	14	10	14.3	6
<b>315 R/L</b>			<b>315</b>	63	<b>47.625</b>	40	25.4	14	12	30.3	6

Dimensions (mm) The body does not include inserts.

● See the page on the right (M41) for blades, parts, and recommended cutting conditions.

We can also manufacture 2 flutes/inch multi flute type for both FAM type and SAM type.

# SUMIDIA Cutters SAM-E Type

Rake angle	Radial direction	0°~2°
	Axial direction	+10°

5.7mm 90°

P	M	K	N	S	H
Steel	Cast iron	Non-ferrous	Aluminum	Exotic alloy	Hardmetal
×	×	×	○	○	×

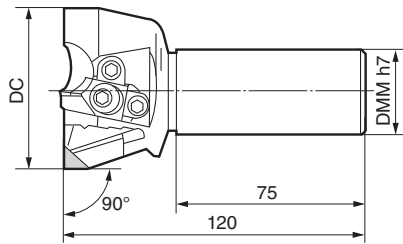


## Small Hole Type SUMIDIA Cutters With Handle

- Excellent cutting performance and wear resistance
  - Uses a new cutting edge shape that has excellent cutting performance and high cutting edge strength
- High accuracy cutting edge runout
  - Fine adjustment protrusion mechanism using a fine pitched screw
- High rigidity body design
  - Improves rigidity of the blade seating surface with shallow flutes

## Body (SAM-E Type)

Cat. No.	Stock		Cutting diameter		No. of teeth	Axial rake	Radial rake
	R	L	DC	DMM			
	SAM050E R/L	●		50			
063E R/L	●		63	32	3	10°	1°
080E R/L	●		80	32	4	10°	2°



The body does not include inserts.

## Blade

Cat. No.	DA150		DA2200		Fig	Applicable cutter
	R	L	R	L		
FAB R/L	●		●		1	FAM
SAB R/L	●		●		2	SAM

## Parts

						Applicable cutter Cat. No.
FADR	FAWR	FAAR*	WB7-15T	WB7F-15T	TT25	

Note: The adjustment wedge for SAM050E R/L and SAM063E R/L is SAAR.

## Recommended Cutting Conditions

ISO	Work material	Machining details	Cutting Speed $v_c$ (m/min)		Feed rate $f_z$ (mm/t)		Insert Grade
			Lower limit - Recommended - Upper limit	Lower limit - Recommended - Upper limit	Lower limit - Recommended - Upper limit	Lower limit - Recommended - Upper limit	
N	Aluminum alloy (AC)	Rough	400 to 1700 to 3000	0.05 to 0.13 to 0.20	DA150 DA2200		
	Aluminum alloy (ADC)	Finishing	400 to 1700 to 3000	0.04 to 0.10 to 0.15	DA150 DA2200		
	Aluminum alloy (A390)	Finishing	300 to 450 to 600	0.04 to 0.10 to 0.15	DA150 DA2200		

**Warning** The cutting conditions above are an approximation. Adjustment may be necessary depending on the machine rigidity, work rigidity, and depth of cut.

## Performance

