

# HSK-F80PD TOOLING SYSTEM

# 焼ばめホルダ スリムライン

## SHRINK-FIT HOLDER SLIMLINE

- ▶ 1.5mm
  - ▶ SLIM
  - ▶ 最短 Shortest
  - ▶  $\phi 3 \sim \phi 25$
- ... 極薄の先端部肉厚  
Very thin tip
  - ... 干渉領域が少ない  
Minimized interfering portion
  - ... 刃物突出し量 最短  
The shortest tool overhang
  - ... 豊富なバリエーション  
A wide range of diameters



高速アルミ加工  
High speed aluminium  
machining

MAG シリーズは、  
中、大物の航空機構造部品（軽合金材）  
の加工能率を飛躍的に向上させるニュー  
コンセプトマシンです。  
33,000min<sup>-1</sup>、80kW の大出力主軸に  
よる高速加工は、従来機に比べ 3 倍の切  
りくず除去量を可能にし、高い生産性を  
実現します。



The MAG series offers  
new-concept machines that are  
designed to dramatically improve  
the machining efficiency of medium  
to large-sized aircraft structural  
parts (light alloy materials).  
High-speed machining by a spindle  
with large output of 80 kw at  
33,000min<sup>-1</sup> allows for the removal  
of 3 times more chip volume than  
previous machines, leading to  
higher productivity.

## 株式会社 牧野フライス製作所

5 軸制御マシニングセンタ

MAKINO MILLING MACHINE CO.,LTD.  
5-Axis Control Machining Centers



MAKINO MAG

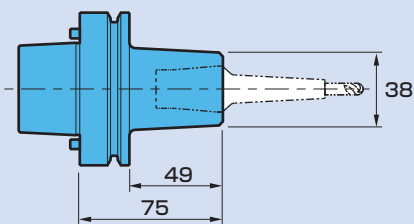
5AXIS



MST corporation

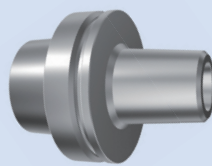
0704

本体  
Master Holder



CODE  
F80PD-SLK12- 75

本体 Master Holder



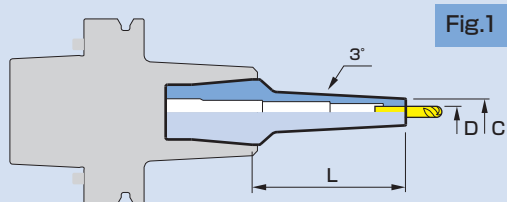
コレット Collet



コレット  
Collet

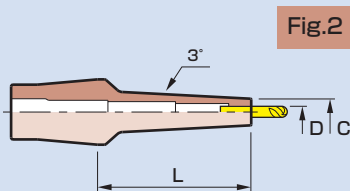
CS

スリム型 [Slim type]



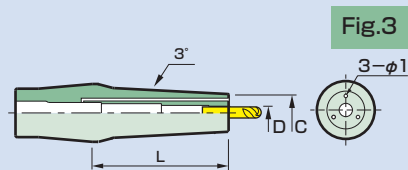
CR

レギュラー型 [Regular type]



CF

フラッシュ型 [Flush type]

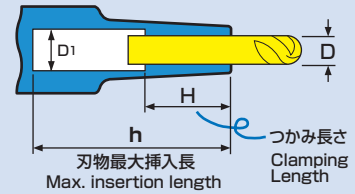
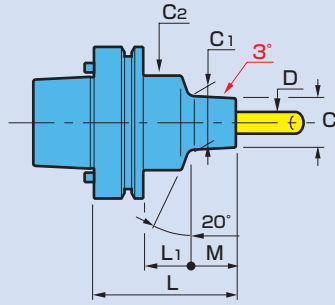


CODE	φD	φC	L	Fig.
CS12- 3- 35	3	6	35	1
- 55			55	
- 80			80	
-110			110	
CS12-3 <sub>.175</sub> - 35	3 <sub>.175</sub>	6 <sub>.175</sub>	35	
- 55			55	
- 80			80	
-110			110	
CS12- 4- 35	4	7	35	
- 55			55	
- 80			80	
-110			110	
CS12- 5- 35	5	8	35	
- 55			55	
- 80			80	
-110			110	
CS12- 6- 35	6	9	35	
- 55			55	
- 80			80	
-110			110	
CS12- 7- 35	7	10	35	
- 55			55	
- 80			80	
-110			110	
CS12- 8- 35	8	11	35	
- 55			55	
- 80			80	
-110			110	
CS12- 9- 35	9	12	35	
- 55			55	
- 80			80	
-110			110	
CS12-10- 35	10	13	35	
- 55			55	
- 80			80	
-110			110	
CS12-11- 35	11	14	35	
- 55			55	
- 80			80	
-110			110	
CS12-12- 35	12	15	35	
- 55			55	
- 80			80	
-110			110	

CODE	φD	φC	L	Fig.
CR12- 3-35	3	7.5	35	2
-55			55	
-80			80	
-110			110	
CR12- 4-35	4	10	35	
-55			55	
-80			80	
-110			110	
CR12- 6-35	6	12	35	
-55			55	
-80			80	
-110			110	
CR12- 8-35	8	14	35	
-55			55	
-80			80	
-110			110	
CR12-10-35	10	16	35	
-55			55	
-80			80	
-110			110	
CR12-12-35	12	20	35	
-55			55	
-80			80	
-110			110	
CF12- 3-35	3	9.5	35	3
-55			55	
-80			80	
-110			110	
CF12- 4-35	4	12	35	
-55			55	
-80			80	
-110			110	
CF12- 6-35	6	14	35	
-55			55	
-80			80	
-110			110	
CF12- 8-35	8	16	35	
-55			55	
-80			80	
-110			110	
CF12-10-35	10	18	35	
-55			55	
-80			80	
-110			110	
CF12-12-35	12	20	35	
-55			55	
-80			80	
-110			110	

80種類  
Kinds

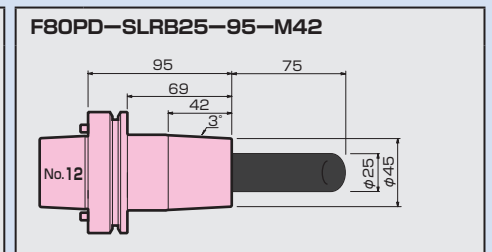
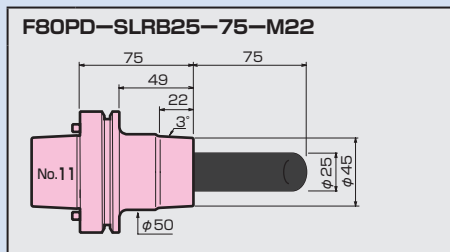
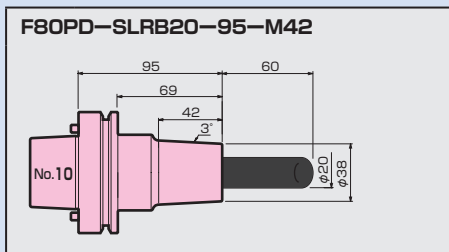
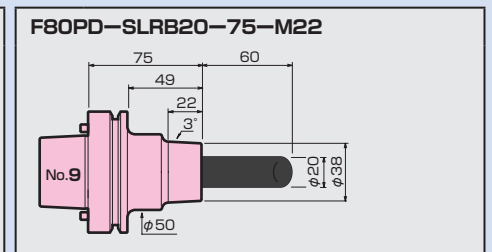
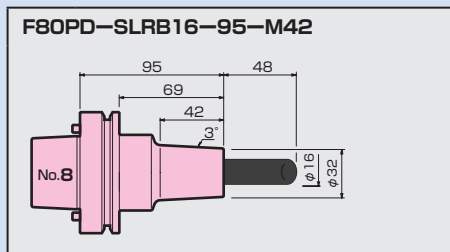
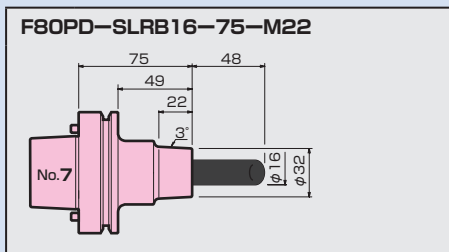
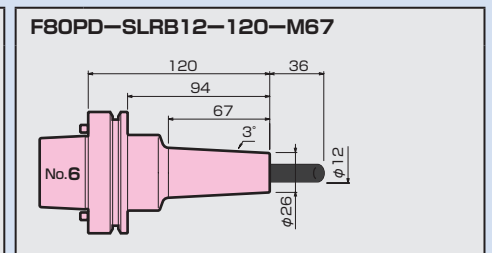
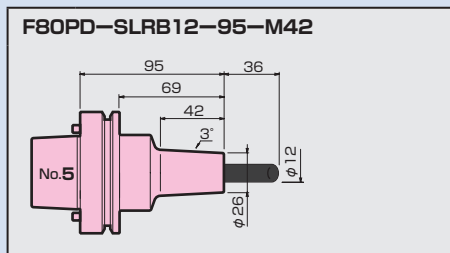
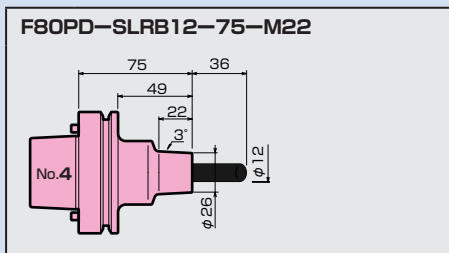
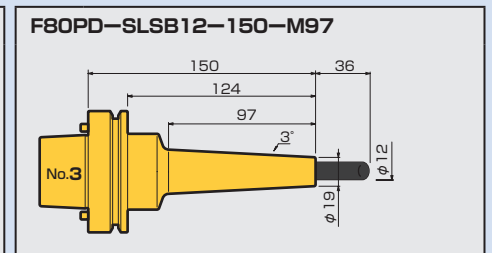
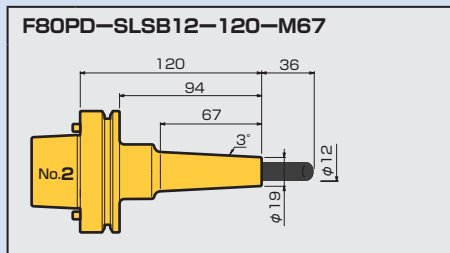
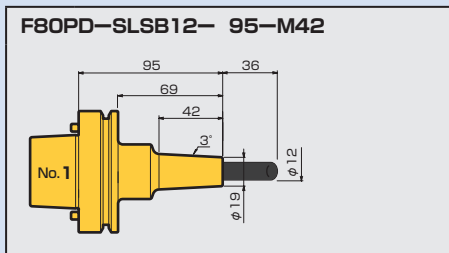
■オプション ●クーラントダクト  
■Option ●Coolant duct



12種類  
Kinds

CODE		$\phi D$	$\phi C$	L	M	$L_1$	$\phi C_1$	$\phi C_2$	$\phi D_1$	H	h	Scale model
スリム型 Slim type	F80PD-SLSB12- 95-M42	12	19	95	42	27	23.4	36	14	30	68	1
	-120-M67			120	67		26				93	2
	-150-M97			150	97		29.2	50			123	3
レギュラー型 Regular type	F80PD-SLRB12- 75-M22	12	26	75	22	27	28.3	42	14	30	48	4
	- 95-M42			95	42		30.4	50			68	5
	-120-M67			120	67		33				93	6
	-SLRB16- 75-M22	16	32	75	22		34.3	42	17	31	49	7
	- 95-M42			95	42		36.4	50	18	32	68	8
	-SLRB20- 75-M22	20	38	75	22		40.3		21	40	49	9
	- 95-M42			95	42		42.4		22		68	10
	-SLRB25- 75-M22	25	45	75	22		47.3		26	42	49	11
	- 95-M42			95	42		49.7			45	68	12

■オプション ●クーラントダクト  
■Option ●Coolant duct



## 焼ばめホルダは 5 軸加工に有効 The shrink-fit holder is effective for 5-axis machining.

5 軸加工においては、主軸とワークが様々な姿勢で位置する為、コラムや主軸とワークやテーブルとの干渉が発生します。

干渉をさける為には 3 軸加工に比べ、より長いツーリングが必要になります。

一搬に使用されるコレットチャックではホルダの先端部が大きくて干渉しやすいので、刃物の突き出し量を長くして干渉を回避する以外に方法がありませんでした。しかしスリムラインはボディがスリムで先端が極めて細く、ホルダ自体がワークの奥深くまで入り込むことにより刃物の突き出し量を極限まで短くする事ができます。

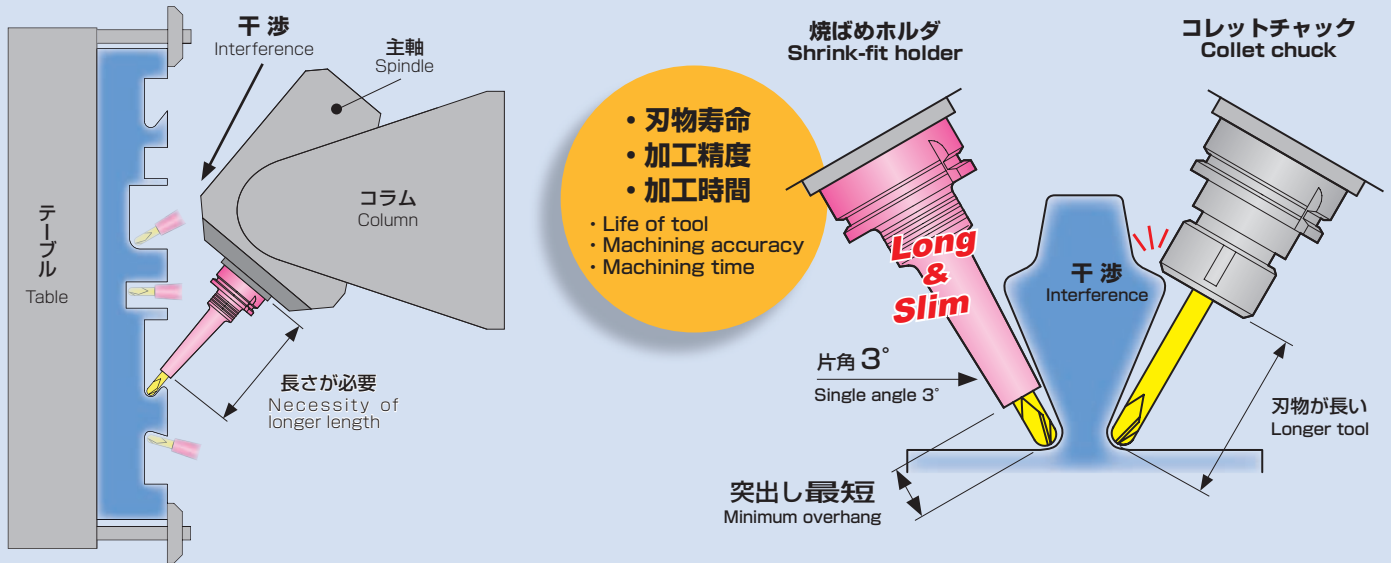
加工精度の大幅な向上と刃物寿命が飛躍的に延びる事をお約束します。

With 5-axis machining, the spindle and workpiece are positioned in various ways. This causes the column and the spindle to interfere with the workpiece and the table.

To avoid this interference, 5-axis machining requires longer tooling than 3-axis machining.

With commonly used collet chucks, the tip of the holder is larger and more likely to interfere, and until now the only way to avoid interference has been to increase the overhang of the tool. In contrast, Slimline has a slim body with a very thin tip, offering higher visibility. Therefore, the holder itself can be moved deep into a workpiece and the overhang of the tool can be minimized.

With Slimline, we promise great improvement of machining accuracy and dramatically extended tool life.



## 豊富なラインナップ A variety of types available

### 2ピースタイプ 2 PIECE MODULAR

φ3~φ12 [φ 3, 3.175, 4, 5, 6, 7, 8, 9, 10, 11, 12]

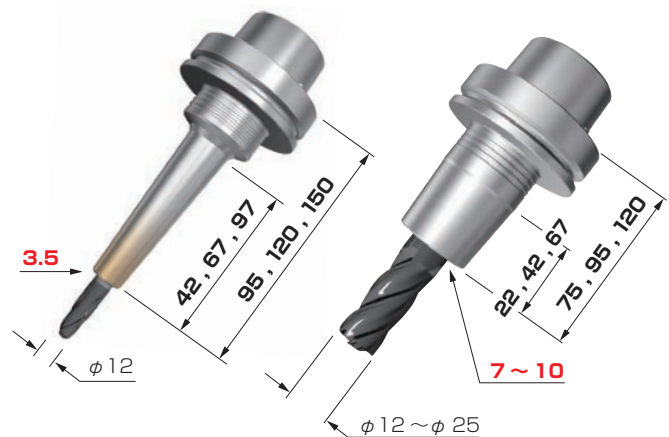


### モノシリーズ MONO SERIES

φ12~φ25 [φ 12, 16, 20, 25]

SLSB型 (スリム&ロング型)  
SLSB type for Slim and long

SLRB型 (重切削型)  
SLRB type for heavy-duty cutting



株式会社 **MST** コーポレーション

本社・工場 〒630-0142 奈良県生駒市北田原町1738 番地  
TEL : 0743-78-1184 FAX : 0743-78-3854

**MST** corporation

1738 Kitatahara Ikoma Nara 630-0142 Japan  
TEL:81-743-78-1931 FAX:81-743-78-3854