

# SHRINK-FIT CHUCKING SYSTEM

SOLID TYPE SERIES

## SLIMLINE

Tool holders for  
**HIGH SPEED**

Tool holders for  
**HEAVY DUTY**



SHRINK-FIT CHUCKING



MST Corporation

0109

# SLIMLINE



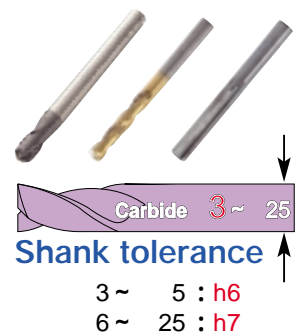
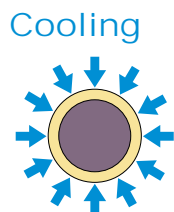
## SOLID TYPE SERIES

The **MST Slimline Solid Type** provides outstanding accuracy, rigidity, gripping torque, and balance. The optimal Shrink Fit Tool Holder System handles parts with complex shapes such as die and mold deep cavity applications and processes by the 5-Axis Machining Center, as well as high-speed machining of, for example, aluminum materials typically used in aircraft parts.

### Features

- Slim Line chucks the shank securely, and with high accuracy, by employing a thermally Induced shrink-fit. It utilizes the difference in coefficient of thermal expansion between the holder (made of special metal) and the cutter shank (carbide).
- Slim Line heats and cools the holders within a limited range and does not modify their composition. As a result, the physical properties of the holder metal remain unchanged and the design performance is maintained.
- This shrink-fit chucking system boasts a simple, compact holder shape requiring no parts. This makes possible extremely stable chucking of the cutter.

1. Slim Line minimizes vibration and provides excellent balance, making it ideally suited for use at high rotation speeds.
2. Slim Line minimizes cutter vibration, greatly extends cutter life, and contributes to highly accurate machining.
3. The strong and stable chucking force makes possible high-speed machining with high efficiency.



Heating

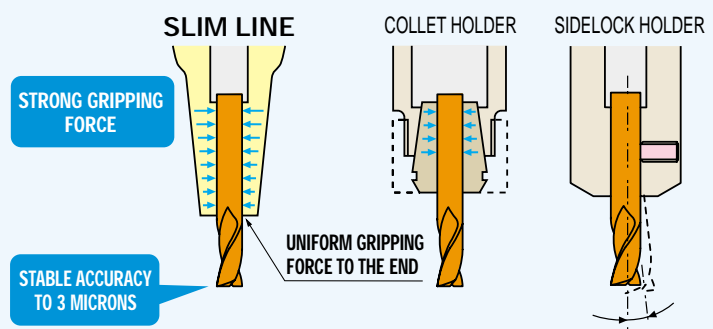
HSK-standard

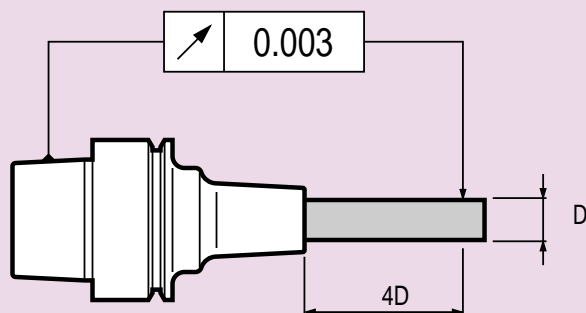
Length Variation  
75L ~ 180L (BT40, A63, DIN40)  
90L ~ 240L (BT50, A80, A100, DIN50)

3 ~ 25

### SECURE CHUCKING MECHANISM FOR HIGH ACCURACY AND STRONG GRIPPING FORCE

Conventional holders grip the cutter through the application of an external force, such as a tightened nut. This can distort metal parts, such as the collet. The Slim Line heats the holder to induce thermal expansion of the hole. The hole then contracts as it cools to ambient temperature, returning to its original state. The result is a secure, even force gripping the cutter.





## NEW CONCEPT

### SLIMMER THAN EVER

The Slim Line allows you to perform modification (turning or grinding), leaving a wall thickness 1.5mm.

CUSTOM  
PROCESSING



## BALANCE FOR HIGH SPEED ROTATION

This tooling system readily accommodates high-speed rotation thanks to two innovations: extensive precision grinding on the internal and external circumferences of the unit combined with a compact and highly balanced structure that requires no additional parts.

**G** OVERALL  
GRINDING



## HEAT ROBO Baby HRB-03

A simplified model that offers excellent value. Recommended as a starter kit. AC200V-3KW



## HIGH SPEED AND HEAVY DUTY APPLICATIONS

Cutter and holder are integrated.



Cutter and holder are integrated.  
High speed and heavy duty applications for aluminum materials  
Efficient machining for steel materials  
Coolant-through methods

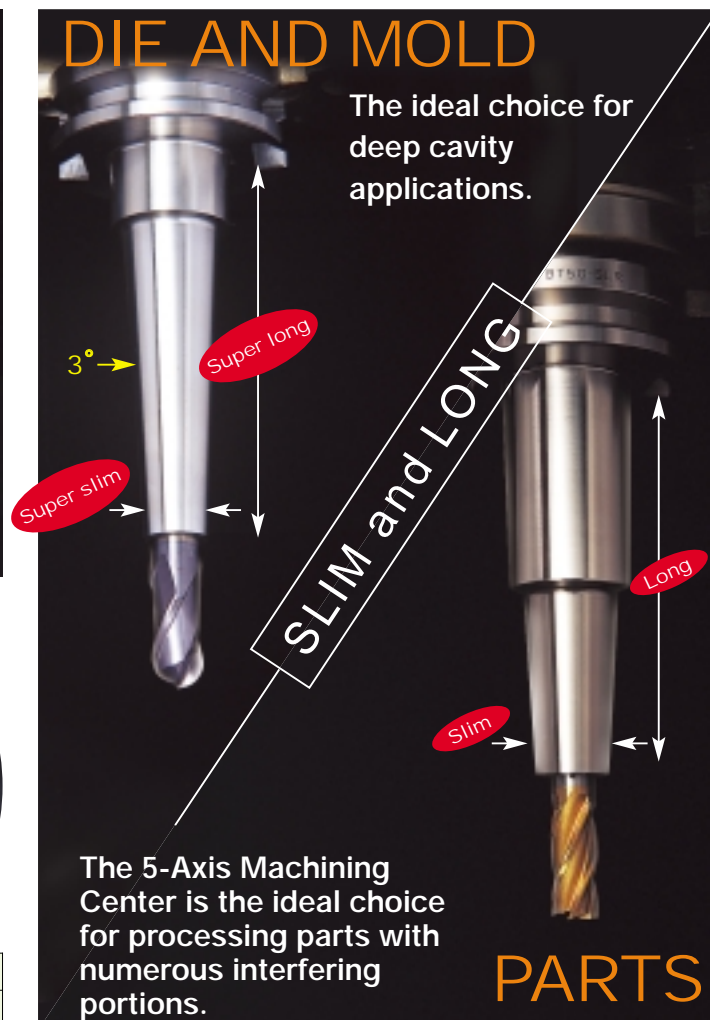
The least torque when chucking cutter with h6 shanks. (REGULAR TYPE)



Dia. ( )	6	8	10	12	16	20	25
Torque (Nm)	22.5	52.9	95.1	138.2	229.3	427.3	681.1

## DIE AND MOLD

The ideal choice for deep cavity applications.



The 5-Axis Machining Center is the ideal choice for processing parts with numerous interfering portions.

PARTS

# SHRINK-FIT HEATER

## HEAT ROBO Baby HRB-03

A simplified model that offers excellent value.  
Recommended as a starter kit.  
AC200V-3KW



Holder adapter



Standard accessories  
1. Heat-resistant gloves  
2. Timer  
3. Tweezers  
Options  
1. Stopper  
2. Holder adapter  
3. Cutter tray

Model name	Heat Robo Baby HRB-03
Rated power consumption	AC200V - 3000W
Dimensions	415 (W) x 200 (D) x 515 (H) (mm)
Weight	Approx. 5 kg

### Stopper

Options



Code	Remarks
HST - I.D.	I.D.=3/3.175/4/5/6/7/8/9/10/11/12/16/20/25 Contains 10 pieces in each size.
HST - F	3-12 mm dia. (in 1 mm increments) 10 pieces in total with each one
HST - F - L	16, 20, 25 mm dia. 3 pieces in total with each one

### Cutter tray

Options

Stand for holding hot cutters removed from the collet.  
Rapidly cools very hot cutters.



Code
SDH - 01

### Holder adapter

Options

Stand for mounting the Shrink Fit Tool Holder  
The interchangeable Holder Pot accommodates  
all type of taper shanks.



Holder adapter



Code	Notes
ADP - 40	For BT40 / HSK - A63 / DIN40AD
ADP - 80	For HSK - A80
ADP - 50	For BT50 / HSK - A100 / DIN50AD
ADP - SLK	For Slim Line collet
HBA - 01	For Holder Pot

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