



SHIN-YAIN INDUSTRIAL CO., LTD.  
SHINTEK MACHINERY CO., LTD.

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# MACHINE ACCESSORIES

Machining Center | Milling Machine | Lathe | Mill-turn machines

**NO.55-1611A**

HEAD-  
QUARTER  
TAIWAN

## ABOUT US

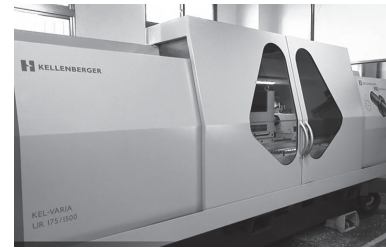
Shin-Yain Industrial Company was established in 1979. Presently, we have nine factories, which specialize in manufacturing precise tool holders, cutting tools, and accessories for lathes, milling machines, CNC machining centers, mill-turn machines, etc. For more than 30 years, SYIC sticks to upgrade the industry and holds a principle, "Quality creates reputation; reputation ensures quality" to pass the accreditation of ISO-9001 Quality Management System and ISO14001 Environmental Management System. With the establishment of ISO-9001 Quality Management System and ISO14001 Environmental Management System, it helps us to ensure and raise the quality of our company's products and make them improve steadily. Our goal is to promote SYIC to countries worldwide and make SYIC an international brand.

SYIC has produced 120 different kinds of products, which include 10,000 types. With nine factories, we have very sufficient stock. Now we have over 450 professional technicians. Also, we have set up professional examination department and precise instrument department to be in charge of examining the taper, concentricity, surface roughness, roundness and balancing of tool holders, cutting tools and other machine accessories.

## ADVANCED MANUFACTURING CAPABILITIES

Concerning the manufacturing equipment, we have CNC computer lathes, Mill-turn machines and 5-axis machining centers from Mazak, an universal external and internal cylindrical grinding machine from Switzerland, CNC internal grinding machines and CNC external grinding machines from Japan, also threading machines, surface grinding machines and precision cylindrical grinding machines made domestically.

With all the equipment, SYIC supplies high quality and precision products to countries worldwide.



# COMPANY INTRODUCTION



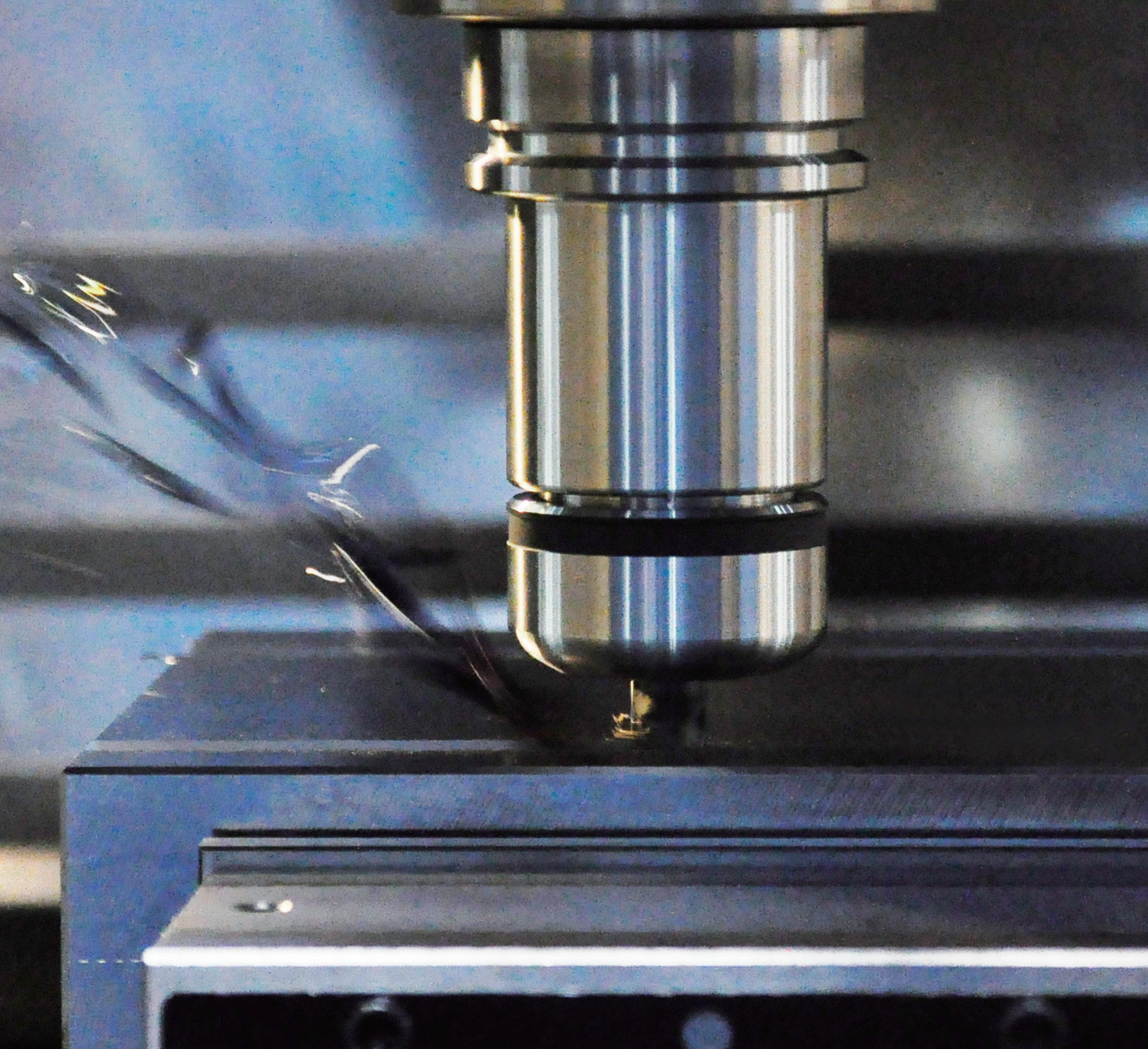




# NY DUCTION







## R&D TEAM EXPERTISE

SYIC have set up design dept. and R&D dept., which focus on developing and improving products. Each year we release new and advanced products. At present, we own 132 domestic patents and 152 overseas patents. Our products can be categorized into tool holder for milling machine (NT, MT), tool holder for machining centers like BT (JIS B6339), DAT (DIN69871), CAT (ANSI B5.50), HSK (DIN69893), PSC (ISO26623-1), VDI (DIN ISO10889), also angle head holder, cutting tool, and other accessories such as boring head, edge finder, Z axial preset gauge and OEM products.

SYIC make efforts in providing quality guaranteed products and solutions to customers. With yearly released advanced products, SYIC help customers improve the machining process and move forward together with them.

# PRODUCT CATEGORY

7:24 SERIES | HSK SERIES | PSC SERIES | PRODUCT ACCESSORIES

**01** SMU BLACK KNIGHT FINISH BORING HEAD

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**02** PNER & PTER COLLET CHUCK SYSTEM

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**03** UT COLLET CHUCK SYSTEM

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**04** STA SYNCHRONIZED TAPPING HOLDER

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**05** SKX COLLET CHUCK SYSTEM

---

**06** HBL COLLET CHUCK + HLB FACE CONTACT TYPE CUTTING TOOLS

---

**07** SAF RUNOUT ADJUSTABLE HOLDER

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**08** MLD MULTI-LOCK MILLING CHUCK SERIES

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**09** QHL SYSTEM FOR LATHE (EXTERNAL SERIES | INTERNAL SERIES)

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**10** ROUGH BORING | FINISH BORING

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**11** ANGLE HEAD HOLDER SERIES

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**12** SMALL TOOL HOLDER

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**13** FNER FAN NUT

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# 7:24 SERIES

MAS 403

ANSI B5.50

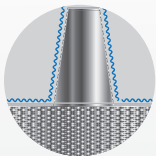
DIN 69871-A



| SPINDLE TYPE | FEATURES                                                                                                                                                                                                                    | TYPES        | AVAILABLE TAPER                                                                                                                               |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| ▶ 7:24       | <ul style="list-style-type: none"> <li>▶ TAPER 7:24</li> <li>▶ TAPER TOLERANCE &lt; AT3</li> <li>▶ SURFACE ROUGHNESS <math>R_a &lt; 0.25\mu\text{m}</math></li> <li>▶ ROUNDNESS &lt; <math>0.6\mu\text{m}</math></li> </ul> | ▶ REGULAR    | <ul style="list-style-type: none"> <li>▶ BT 15.20.30.40.50</li> <li>▶ CAT 40.50</li> <li>▶ DAT 40.50</li> <li>▶ ISO 15.20.25.30.40</li> </ul> |
|              |                                                                                                                                                                                                                             | ▶ DualDRIVE+ | <ul style="list-style-type: none"> <li>▶ SBT 30.40.50</li> <li>▶ SCAT 40.50</li> <li>▶ SDAT 40.50</li> </ul>                                  |

## 100% CONTACT

- ▶ DualDRIVE+ tool holders can be used for regular spindles and double face contact spindles. With DualDRIVE+ tool holders and spindles, 100% contact can be achieved.



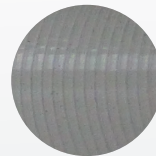
Regular Holders



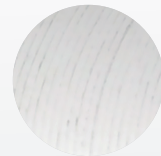
DualDRIVE+ Holders

## INCREASE RIGIDITY, IMPROVE THE MACHINING

- ▶ DualDRIVE+ tool holders improve rigidity, decrease vibration, and improve the machining capacity substantially.
- ▶ Improve the processing accuracy on workpiece surface and extend tool life.
- ▶ The surface roughness of workpiece is improved.



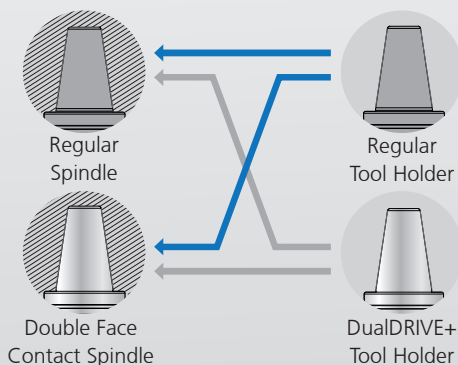
Regular Holders



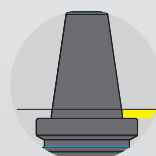
DualDRIVE+ Holders

## ECONOMICAL AND COMPATIBLE

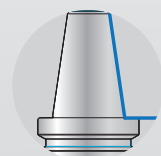
- ▶ DualDRIVE+ tool holders and spindles are compatible with regular tool holders and spindles.



- ▶ The perfect combination of DualDRIVE+ system between machine spindles and tool holders maximizes the function of double face contact. DualDRIVE+ tool holders can also be used for regular machine spindles, but without double face contact. To achieve double face contact performance, both DualDRIVE+ machine spindles as well as DualDRIVE+ tool holders are required.



Clearance



100% Contact



# HSK SERIES

DIN 69893



| SPINDLE TYPE | FEATURES                                                                                                                                                                                                                 | AVAILABLE TAPER                                                                                                                                                                                                           |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ▶ HSK        | <ul style="list-style-type: none"> <li>▶ TAPER 1:9.98</li> <li>▶ SURFACE ROUGHNESS <math>R_a &lt; 0.25\mu\text{m}</math></li> <li>▶ ROUNDNESS <math>&lt; 0.6\mu\text{m}</math></li> <li>▶ DOUBLE FACE CONTACT</li> </ul> | <ul style="list-style-type: none"> <li>▶ TYPE A (69893-1) 32.40.50.63.80.100</li> <li>▶ TYPE E (69893-5) 25.32.40.50.63.80.100</li> <li>▶ TYPE F (69893-6) 40.50.63.80</li> <li>▶ TYPE T (ICTM) 32.40.50.63.80</li> </ul> |

## HOLLOW SHANK FOR HIGH SPEED

- ▶ Modern machining process often requires higher revolutions. The design of HSK hollow shank decreases weights by 40% compared with BT holders. With double face contact and high torque transmission in X and Z axis, HSK are ideal for high speed machining.



## HSK-T (ICTM)

- ▶ The tolerance requirements for the key sizes on HSK-T machine spindles and tool holders are stricter to ensure the positioning accuracy of insert tips during turning process.



## HIGH PRECISION

- ▶ Small-scale machining requires revolutions higher than 40,000rpm, small holders of high precision ensure the balance and concentricity for stable processing.



## BLANK

- ▶ Make your own tool! HSK blanks allow users to process the shapes they want. Different diameters can be custom made.



# PSC SERIES

ISO 26623-1

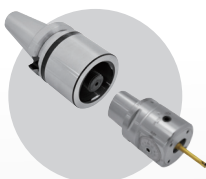


台灣精品2012  
TAIWAN EXCELLENCE

| SPINDLE TYPE                                            | FEATURES                                                                                                                                                                                                                | AVAILABLE TAPER                                                            |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>▶ PSC</li> </ul> | <ul style="list-style-type: none"> <li>▶ TAPER 1:20</li> <li>▶ FORM ACCURACY <math>\pm 2\mu\text{m}</math></li> <li>▶ SURFACE ROUGHNESS <math>R_a &lt; 0.25\mu\text{m}</math></li> <li>▶ DOUBLE FACE CONTACT</li> </ul> | <ul style="list-style-type: none"> <li>▶ PSC 32.40.50.63.80.80X</li> </ul> |

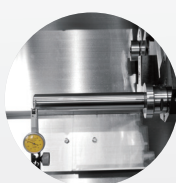
## STRENGTHENED STRUCTURE

- ▶ PSC tooling system is in triangle curve form of polygon, adapting 1/20 tapered coupling structure for two-face positioning and clamping. There is no drive key, tool life can be extended.



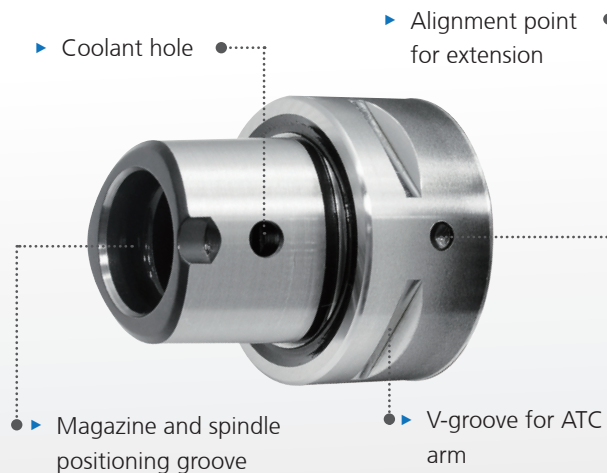
## HIGH PRECISION

- ▶ The repeat precision of coupling structure in X, Y and Z directions is  $\pm 2\mu\text{m}$ , the total runout is  $3\mu\text{m}$ .



## FEATURES

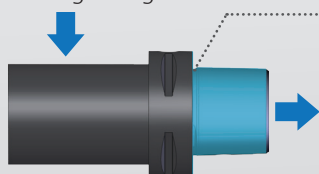
- ▶ Coolant hole
- ▶ Alignment point for extension
- ▶ Magazine and spindle positioning groove
- ▶ V-groove for ATC arm



## HIGH TORQUE TRANSMISSION AND HIGH RIGIDITY

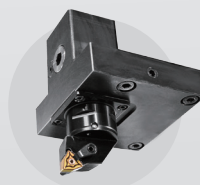
- ▶ Ultra-high torque transmission and bending strength of PSC tooling system increase production efficiency.

- ▶ High bending strength
- ▶ Double faced positioning and clamping.



## PROMOTE EFFICIENCY

- ▶ Quick tool change system is applicable for lathes, easy to operate and quick for changing tools. The modular design enhances machine utilization rate and decreases machine downtime.



QUICK TOOL  
CHANGE  
<30sec.

# PRODUCT ACCESSORIES

## COLLET TYPE



PNER



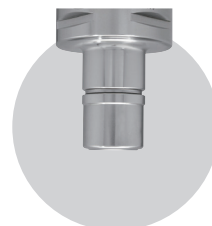
PT



UT



ER



SKX

## SHRINK TYPE



SFC

## DRAW BOLT TYPE



SBL



HBL

## MILLING CHUCK



MLD

## SYNCHRON



STA

## BORING TYPE



SCK



SBJ



SMB



FMA / FMB



SLN



SPU



OSL



SCA



KFM



END MILL



# 01

ADJUSTABLE  
BALANCE

COOLANT  
THROUGH

1 $\mu$ m

## SMU BLACK KNIGHT FINISH BORING HEAD

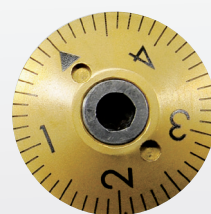


► The design of grooves helps drain coolant fluid away and absorb vibrations.

► Coolant hole design can effectively remove the metal chips and durable for coolant pressure 1300PSI.



► Move the insert seat to the specific interval and then do micro-adjustment.



► Precision adjustment.

► Balance adjustment according to the boring diameter can be done; the max. balance grade: 1,200rpm.



| MODEL NO.    | TYPE  | BORING RANGE | SCK NO. |
|--------------|-------|--------------|---------|
| ► SYIC-19590 | SMU32 | 32~42        | SCK3    |
| ► SYIC-19591 | SMU41 | 41~54        | SCK4    |
| ► SYIC-19592 | SMU53 | 53~70        | SCK5    |
| ► SYIC-19593 | SMU68 | 68~100       | SCK6    |

02

HEAVY  
DUTY  
MACHINING

HIGH  
RIGIDITY

HIGH  
PRECISION

3 $\mu$ m

## PNER & PTER COLLET CHUCK SYSTEM



### FEATURES

- ▶ Standard balanced at G2.5 25,000rpm with inspection report.
- ▶ PNER collet is well covered in PNER tool holder, improving overall runout accuracy and the machining stability.
- ▶ PNER improves the surface finish of workpiece, reduces the total processing time, extends the tool use life and prolongs the durability of machine spindle precision. Therefore, PNER system reduces the total production cost and improves the efficiency.

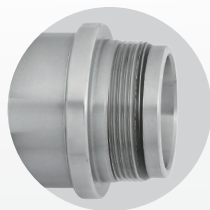
### ▶ PTER:



MINI TYPE



- ▶ PNER nuts without slots reduce the wind shear at high speed, avoiding tools from vibrating due to the audio frequency arisen by wind shear.



- ▶ There's a design of straight parts above and below the thread, which correspond to the nut, on the front of PNER tool holder. After the nut is locked with the tool holder it makes the tolerance more accurate which improves the runout of tool holder and machining stability.



- ▶ Use PNER coolant nut and coolant ring for coolant through cutters.

- ▶ Runout accuracy at 4D: within 0.003mm.



0.003 mm



4D

- ▶ Roundness < 0.6  $\mu$ m
- ▶ Surface roughness Ra < 0.2  $\mu$ m

- ▶ Recommended clamping range of tool shank: h7

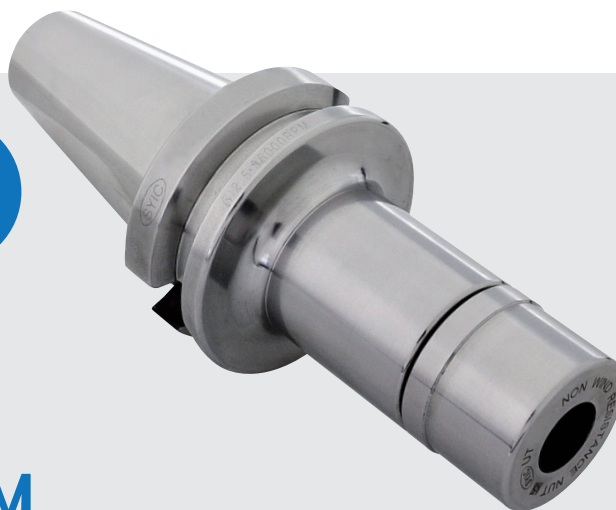
# 03

OVERALL  
WELL-  
COVERED

HIGH  
STABILITY

HIGH  
CLAMPING  
POWER

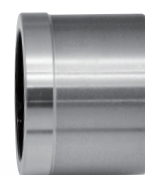
## UT COLLET CHUCK SYSTEM



- ▶ The design with O-ring on the front of holders prevents chips and coolant from entering holders.



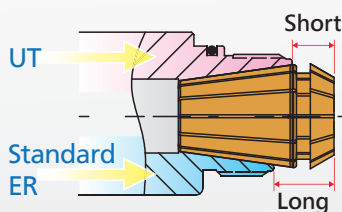
- ▶ Use with standard ER collet for specific diameter.



- ▶ The design of UT Nuts without slots reduces the wind shear during high speed machining and avoids vibration, which need to use with roller bearing wrenches.



- ▶ The deeper gauge lines accommodate standard ER collet in holders more, achieve better coverage, and increase stability.



### ▶ Cutting Data

Tool Holder BT40 x UT20 - 100

Collet ER20-8mm

8mm End Mill Cutter

Material SKD61

S: 3100rpm

F: 600mm/min

Ap: 15mm



UT



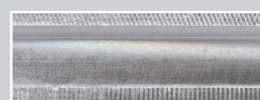
Standard ER

- ▶ Surface Roughness  
**Ra: 0.654μm**

Better



- ▶ Surface Roughness  
**Ra: 1.039μm**





# 04

COMPENSATION  
FOR  
INACCURACY

BETTER TAP  
USE LIFE

COOLANT  
THROUGH

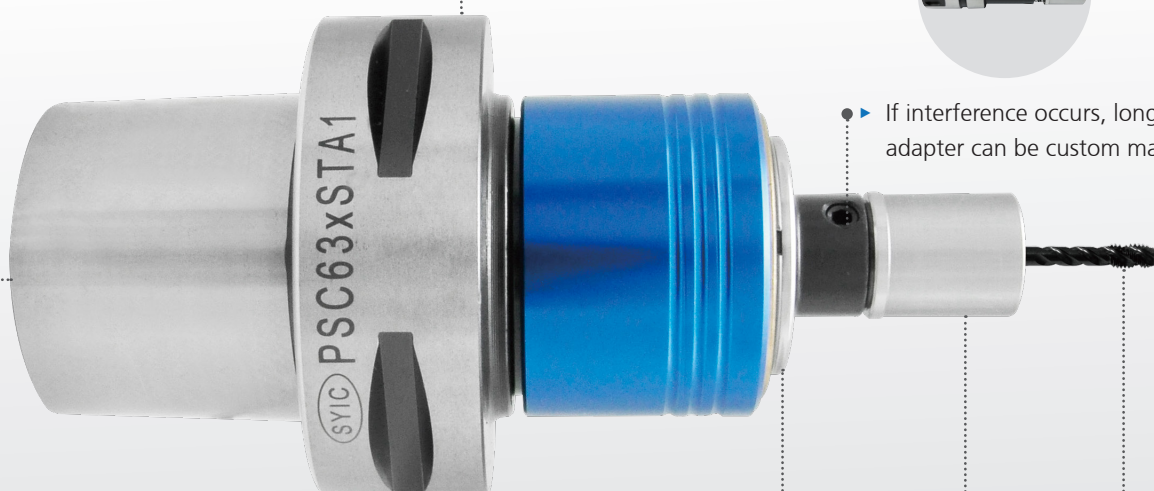
## STA SYNCHRONIZED TAPPING HOLDER



- ▶ BT / SBT, CAT / SCAT, DAT / SCAT, HSK and PSC are available.

- ▶ Modular design: tap holder body with adapter is modular design, lowering purchase cost.

- ▶ The special structure design provides compensation for the axial inaccuracy when tapping, improving the thread surface roughness.



- ▶ If interference occurs, longer adapter can be custom made.

- ▶ Can be used for coolant-through tap.

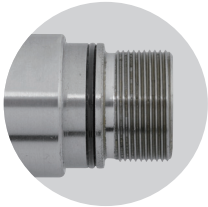
- ▶ The tap use life is increased by at least 2 times compared to traditional tapping system.

- ▶ Tap capacity:  
M3~M10, M3~M12 ,  
M3~M16, M10~M24.

05

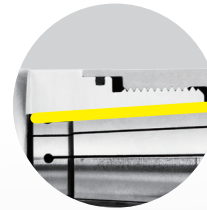
HIGH  
SPEEDHIGH  
RIGIDITYHIGH  
PRECISION5 $\mu$ m

## SKX COLLET CHUCK SYSTEM



- ▶ Dust proof  
The front end is equipped with O-ring to prevent metal chips and coolant from entering tool holders.

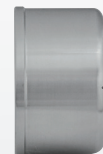
- ▶ Accuracy 5 $\mu$ m  
Taper angle 4° of SKX collet enhances the rigidity and stability.



- ▶ Less interference  
Slim design of front ends decreases interference.

- ▶ Use SKX sealed collet for coolant through tool.

- ▶ Use Roller Bearing Wrenches  
The nuts are without slots to eliminate the wind shear at high speed.



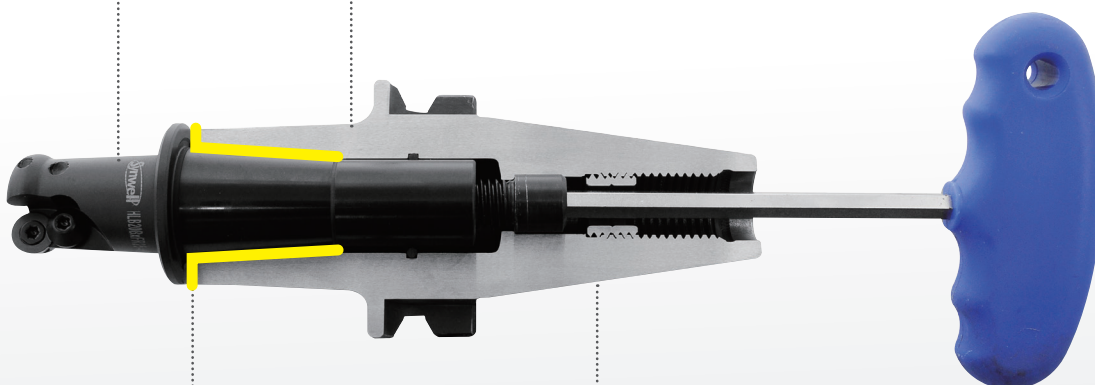
MODULAR  
SYSTEMTWO FACE  
CONTACTDRAWBAR  
CLAMPING  
DESIGN

# HBL COLLET CHUCK + HLB FACE CONTACT TYPE CUTTING TOOLS



- ▶ Modular design reduces the purchase cost of tool holder. Applicable for various kinds of processing.

- ▶ HLB CUTTING TOOL-ONE PIECE DESIGN WITH SLC COLLET TAPER  
Eliminate the gap between HLB cutter and HBL tool holder.  
The taper of HLB cutter remains 4° slanted design, which improves holding power, concentricity and rigidity.



- ▶ Two-face contact between collet taper, collet flange and the end of HBL tool holder, increases the rigidity of machining.

- ▶ HLB drawbar clamping design strengthens the axial clamping force.

## HBL & HLB SYSTEM

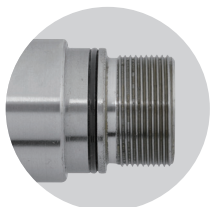




07

PRECISION  
ADJUSTABLE5 $\mu$ m

# SAF RUNOUT ADJUSTABLE HOLDER



## ► DUST PROOF

The front end is equipped with O-ring to prevent metal chips and coolant from entering tool holders.

► Output choices: SKX, PNER, UT and SFC.



0.005 mm

► BT/GBT, CAT/SCAT, DAT/SDAT, HSK and PSC are available.

► Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 5  $\mu$ m.



08

HEAVY DUTY  
MACHININGHIGH  
STABILITY5 $\mu$ m

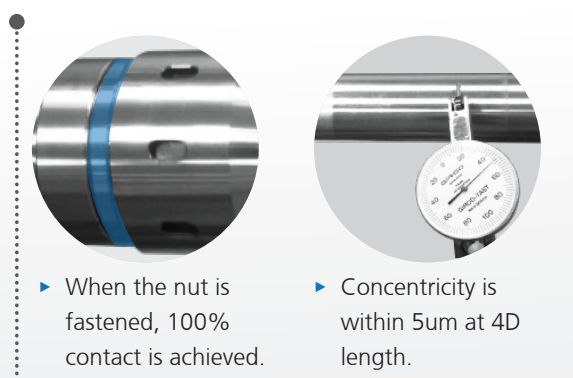
# MLD MULTI-LOCK MILLING CHUCK SERIES

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## HIGH RIGIDITY AND DUST PROOF

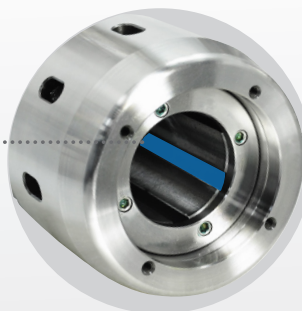
- ▶ After clamping tools (the requirement of shank tolerance is less than h6), the nut and the flange contact firmly to prevent the needle bearing cage from deforming, rigidity is increased and achieves the function of dust proof is provided.
- ▶ Featured with high precision and easy-to-fasten, vibrations do not occur in high speed machining or heavy duty machining.

## CONCENTRICITY WITHIN 5 $\mu$ m



## NEEDLE BEARING CAGE

- ▶ Special slotted design of internal hole increases the clamping force and decreases vibration.



## MLD SYSTEM



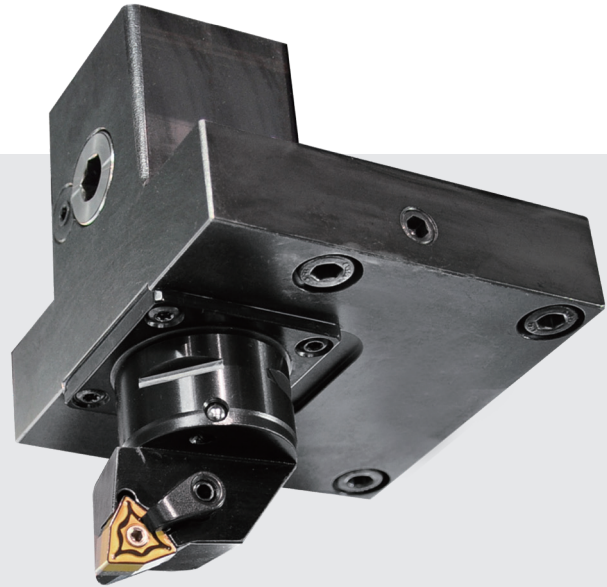
09

QUICK  
TOOL  
CHANGE

HIGH  
WATER  
PRESSURE

HIGH  
PRECISION

## QHL SYSTEM FOR LATHE (EXTERNAL SERIES)

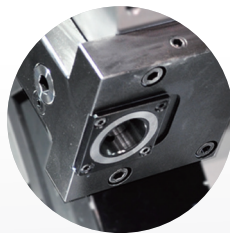


### QHL QUICK TOOL CHANGE SYSTEM FOR LATHE

- ▶ Conventional tool holders take longer time on tool change, QHL system saves time on tool change to increase the time for production.



Conventional Tool  
Holders



New Tool Holders

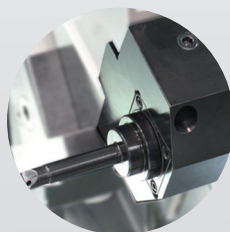
### POLYGONAL TAPER (ACCURATE POSITIONING)

- ▶ Use polygonal form from PSC as the coupling structure to achieve ultimate repeated positional precision which is  $\pm 2\mu\text{m}$ .



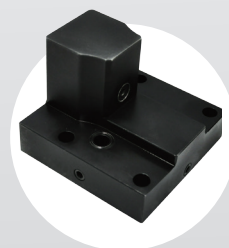
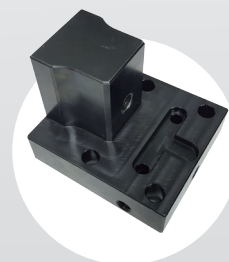
### DURABLE FOR HIGH PRESSURE COOLANT SUPPLY

- ▶ Use QHL system with high pressure coolant supply up to 70 bar can improve the efficiency and extend tool use life.

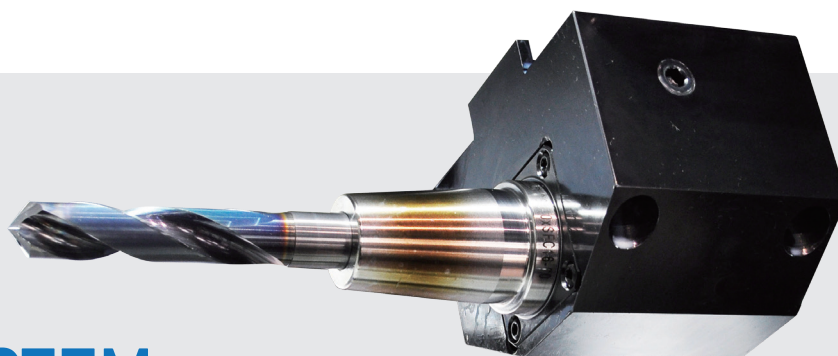


### CUSTOM MADE AVAILABLE UPON REQUEST

- ▶ The designs and dimensions of turning tool posts are varied for different brands, the new quick change system of internal and external turning tools can be custom-made upon request.







# QHL SYSTEM FOR LATHE (INTERNAL SERIES)

## APPLICATION OF SHRINK FIT CLAMPING

- ▶ With QHL system, shrink fit chucks can be used to improve the clamping power and runout accuracy.

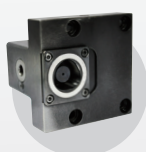


## ONE-PIECE DESIGN OF INTERNAL TURNING TOOLS AND HIGH SPEED DRILLS

- ▶ The special surface treatment on the tool holders improves cutting stability.



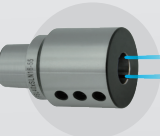
## QHL SYSTEM



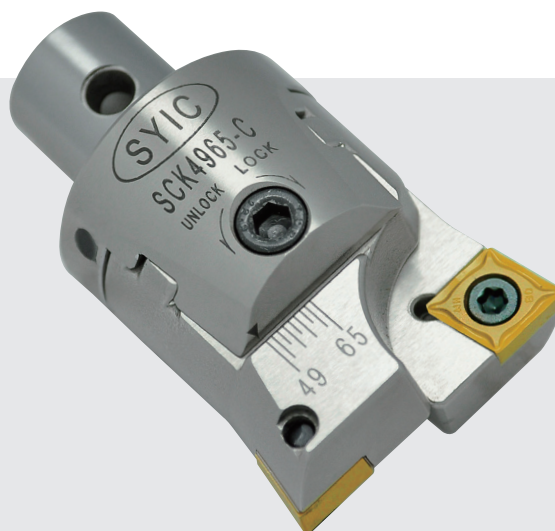
One-Piece  
Tool Post



One-Piece  
Tool Post

|                                                                                       |                                      |                                                                                       |                                                                      |                                                                                         |                                  |
|---------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------|
| ▶  | PSC / MWLN                           | ▶  | PSC / DTJN                                                           | ▶  | PSC / MDJN                       |
| ▶  | PSL / SPD<br>High Speed<br>Drill     | ▶  | PSL / SLN<br>Side Lock<br>End Mill Holder                            | ▶  | PSL / SFC<br>Shrink<br>Fit Chuck |
| ▶  | PSL / STFC<br>Internal<br>Boring Bar | ▶  | PSL / SLN<br>Side Lock End Mill<br>Holder With FID<br>Coolant Flutes | ▶  | Internal<br>Boring<br>Bar        |
| ▶  | PSL / ER<br>Collet<br>Chuck          | ▶  | ER Collet                                                            | ▶  | Nut                              |
|                                                                                       |                                      | ▶  | ER Sealed<br>Collet                                                  |                                                                                         |                                  |

## 10

MODULAR  
SCK SYSTEMHIGH  
RIGIDITYHIGH  
PRECISION

## ROUGH BORING

## BORING HEAD SHANK



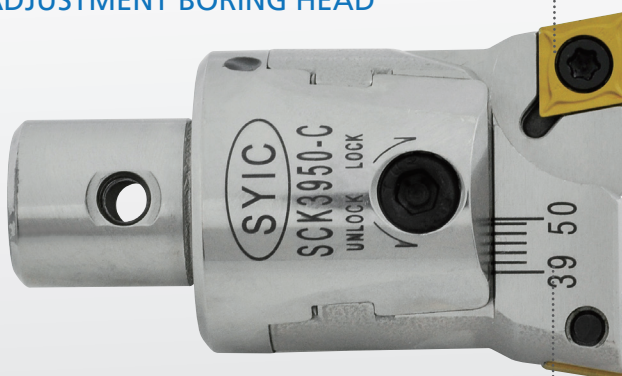
## EXTENSION SPACER



## ROUGH BORING



## FINISH BORING

ROUGH BORING  
ROUGHING TWIN ADJUSTMENT BORING HEAD

- ▶ Adjustment unit:  
0.02mm on radius.

- ▶ Dual synchronous movement.

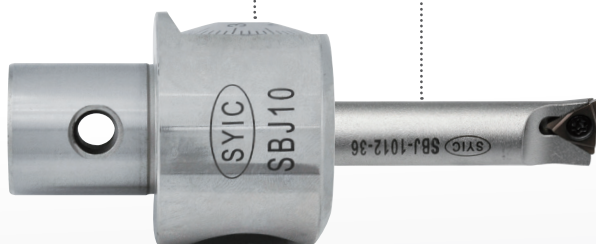
| TYPE        | BORING RANGE |      | ASSEMBLE TOOL<br>HOLDER |
|-------------|--------------|------|-------------------------|
|             | MIN.         | MAX. |                         |
| ▶ SCK2430-C | 24           | 30   | SCK2                    |
| ▶ SCK2940-C | 29           | 40   |                         |
| ▶ SCK3950-C | 39           | 50   | SCK3                    |

| TYPE         | BORING RANGE |      | ASSEMBLE TOOL<br>HOLDER |
|--------------|--------------|------|-------------------------|
|              | MIN.         | MAX. |                         |
| ▶ SCK4965-C  | 49           | 65   | SCK4                    |
| ▶ SCK6382-C  | 63           | 82   | SCK5                    |
| ▶ SCK80102-C | 80           | 102  | SCK6                    |

# FINISH BORING

## FINISH BORING SBJ BORING HEAD FOR FINISHING

- ▶ Adjustment unit: 0.005mm on radius.



- ▶ Not only work with boring bars, but also work with SBE extended boring insert seats for large diameters.



| TYPE    | BORING RANGE | ASSEMBLE TOOL HOLDER |
|---------|--------------|----------------------|
| ▶ SBJ10 | 6-22         | SCK4                 |
| ▶ SBJ12 | 6-32         | SCK5                 |
| ▶ SBJ16 | 6-50         | SCK6                 |

## SUPER MICRON EXCHANGEABLE FINISH BORING HEAD

- ▶ Adjustment unit: 0.005mm on radius.



- ▶ Exchangeable insert seats offer various boring ranges.



| TYPE    | BORING RANGE | SCK NO. | SIC NO. | TYPE    | BORING RANGE | SCK NO. | SIC NO. | TYPE    | BORING RANGE | SCK NO. | SIC NO. | TYPE     | BORING RANGE | SCK NO. | SIC NO. |
|---------|--------------|---------|---------|---------|--------------|---------|---------|---------|--------------|---------|---------|----------|--------------|---------|---------|
| ▶ SMB20 | 20~26        | SCK1    | SIC-1   | ▶ SMB32 | 32~42        | SCK3    | SIC-1   | ▶ SMB53 | 53~70        | SCK5    | SIC-1   | ▶ SMB100 | 68~100       | SCK6    | SIC-1   |
|         | 25~31        |         | SIC-2   |         | 41~51        |         | SIC-2   |         | 65~82        |         | SIC-2   |          | 94~126       |         | SIC-2   |
|         | 30~36        |         | SIC-3   |         | 50~60        |         | SIC-3   |         | 78~95        |         | SIC-3   |          | 118~150      |         | SIC-3   |
|         | 25~33        |         | SIC-1   |         | 41~54        |         | SIC-1   |         | 68~100       |         | SIC-1   |          |              |         |         |
| ▶ SMB25 | 32~40        | SCK2    | SIC-2   | ▶ SMB41 | 50~63        | SCK4    | SIC-2   | ▶ SMB68 | 94~126       | SCK6    | SIC-2   |          |              |         |         |
|         | 39~47        |         | SIC-3   |         | 61~74        |         | SIC-3   |         | 118~150      |         | SIC-3   |          |              |         |         |

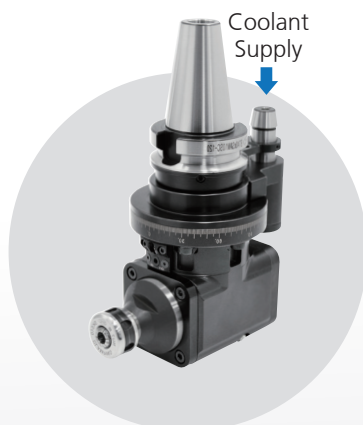
# 11

90°  
SIDE  
MACHINING

360°  
ADJUSTMENT

GEAR  
RATIO  
1:1

## ANGLE HEAD HOLDER SERIES



**SAM**

- ▶ Light Machining  
[ Suggested  $A_p \leq 2\text{mm}$  ]



**SAC**

- ▶ Middle Machining  
[ Suggested  $A_p \leq 4\text{mm}$  ]



**SAR**

- ▶ Heavy-duty Machining  
[ Suggested  $A_p \geq 4\text{mm}$  ]

| TYPE  | INTERFACE                                                          | OUTPUT                                             | MAX<br>REVOLUTION | TURN CLOCKWISE OR<br>COUNTERCLOCKWISE | COOLANT<br>OUTLET                              | MAX<br>TORQUE | WEIGHT<br>(KGS) |
|-------|--------------------------------------------------------------------|----------------------------------------------------|-------------------|---------------------------------------|------------------------------------------------|---------------|-----------------|
| ▶ SAM | BT/GBT 40.50<br>CAT/SCAT 40.50<br>DAT/SDAT 40.50<br>HSK63A.HSK100A | ER. SKS<br>(Not Interchangeable)                   | 5000rpm           | COUNTERCLOCKWISE                      | Through<br>Cutting Tools<br>or Coolant<br>Hole | 20 N-m        | 5.2 ~ 8.86      |
| ▶ SAC | BT/GBT 40.50<br>CAT/SCAT 40.50<br>DAT/SDAT 40.50<br>HSK63A.HSK100A | ER. SKS. Face Mill Cutter<br>(Not Interchangeable) | 5000rpm           | COUNTERCLOCKWISE                      | N/A                                            | 25 N-m        | 6.4 ~ 8.54      |
| ▶ SAR | BT50.SBT50                                                         | BT30 Tool Holders<br>PSC50 Tool Holders            | 3000rpm           | CLOCKWISE                             | Coolant Hole                                   | 50 N-m        | 16.1            |



90°  
SIDE  
MACHINING360°  
ADJUSTMENTSLIM  
DESIGN

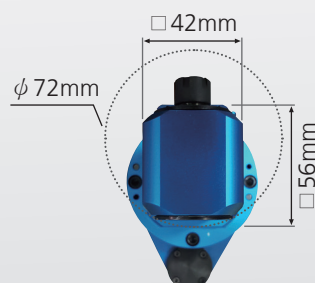
# SAG ANGLE HEAD HOLDER SLIM DESIGN



- ▶ The coolant supply goes through coolant pin and discharges from the coolant hole on the lower body. Maximum water pressure is 7kgf/cm<sup>2</sup>.



- ▶ The design of angle scale enables users to easily adjust to the processing angles.



- ▶ The material of lower body is 7075 aluminum alloy. Slim design reduces interference and can reach deep hole processing.

- ▶ The main shaft and spindle form a right angle, easy for side cutting and improves efficiency.

- ▶ BT40/ SBT40/ CAT40/ SCAT40/ DAT40/ SDAT40 are available and customization of HSK63A is available onrequest.

- ▶ Weight: 5.5 kg, suitable for ATC system. The speed can reach 6000 rpm and the maximum torque is 15 N-m.

- ▶ Gear ratio 1:1. Use precise bearing and gear to decrease the noise and the temperature rise when machining.



- ▶ Output: ER11 and SBL6.
- ▶ Suitable for light machining

# 12

HIGH  
SPEED

WITHOUT  
KEY-WAY

HIGH  
PRECISION

## SMALL TOOL HOLDER



### FEATURES

- ▶ 7:24:  
ISO 15, 20, 25, 30, 40  
BT 30, 40  
DAT 30, 40
- ▶ HSK:  
HSK 25, 32, 40
- ▶ Without key-ways.
- ▶ Light cutting.
- ▶ While tool change, spindle  
needn't be positioned.

### ER COLLET CHUCK (M TYPE)



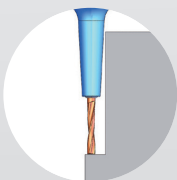
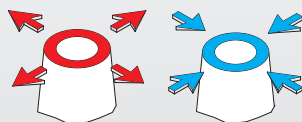
Clamping  
power  
improved by  
60%!

### SBL SLIM-FIT COLLET CHUCK

- ▶ Collet chuck designed w/o nut and with inner-holding  
collet.
- ▶ Strong rigidity & high stability!

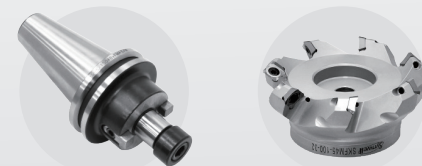


### SFC SHRINK FIT CHUCK



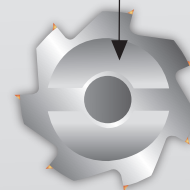
- ▶ Slim design avoids  
interference.

### FACE MILL ARBOR & FACE MILLING CUTTER



- ▶ Shrink Fit Face Milling Cutter

No Gap



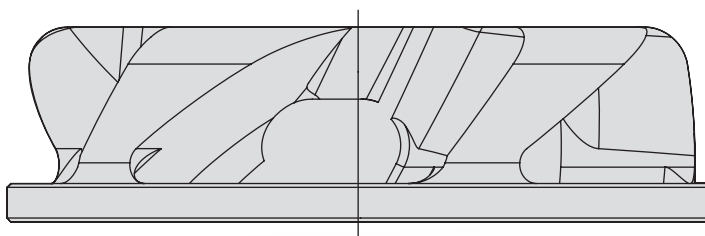
Reduced vibration &  
faster feed, speed &  
productivity. Longer tool  
& insert life!

13

GOOD  
DUST  
REMOVALFOR  
WOOD  
WORKING25,000  
rpm台灣精品2015  
TAIWAN EXCELLENCE

## FNER FAN NUT

### FEATURES



- ▶ Special design of fan blade shape facilitates dust removal to 99.8%.
- ▶ Improve the evacuation of wooden dust, extend tool life and increase efficiency.
- ▶ Can be used for standard ER collet chucks, easy to operate.
- ▶ The special surface treatment of POWER GOOD nut enhances the clamping force.
- ▶ Decrease the wooden particle in the air to maintain a healthy working environment.
- ▶ Balanced to 25,000RPM at G2.5.

### ILLUSTRATION

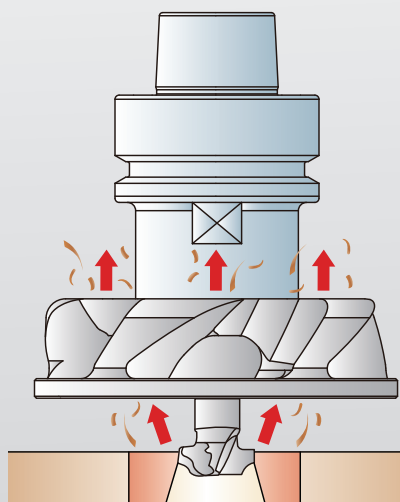
- ▶ The wood dust was lifted up through the blades.

#### TYPE

FN-ER32-A

FN-ER32-B

FN-EOC25



## MEMO

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## MEMO

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