

# SHRINK FIT TECHNOLOGY



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MADE IN ITALY



**MICKROS**  
**GRIPPLUS**  
SHRINK FIT TECHNOLOGY

# SFU332

**NEW**

## INDUCTION COIL

Application field

Ø 3-32 mm HM

Ø 6-32 mm HSS

Shank tolerance h6

## PNEUMATIC VERTICAL ROD

No need for manual support of the induction coil.

## LEVER COMMAND "UP/DOWN"

Allows to control the position of the coil on the shrinking-on point.

## POWER CONTROL

Minimal heating due to manual operation.

TOOLHOLDERS SUPPORT  
BUSHINGS

COOLING START

## POWER GENERATOR

AC - 3 x 400V 50Hz  
16 Ampere  
13 Kw



## FIELD OF WORK

Maximum reel rod coil: h=600 mm

Maximum cooling height: h=500 mm

## Dimensions:

approx. 920 x 800 x 1950 mm

## Weight:

approx. 175 Kg

# FAST & SAFE

The **SFU.332.FS - Fast & Safe** made by Mickros Plus, represents the evolution and synthesis between the Magnetic Induction Shrinking Unit MCT 332 EVO and URR.01 Rapid Cooling Unit.

## TECHNICAL FEATURES AND ADVANTAGES

### SHRINK FIT

The device is equipped with:

- a pneumatic rod which allows to operate by disengaging from manually supporting the **magnetic induction coil**,
- the positioning of the magnetic induction coil on the shrinking point can be controlled with the utmost precision by means of an up / down control lever located on the operating surface of the machine,
- the shrinking is done in a simple and intuitive way. By means of a Start button, power is supplied to the coil and the toolholder is heated.

How it works:

- The process takes place in a few seconds with a variable time according to the different mass of steel present on the walls of the coupling hole of the toolholder used.
- As soon as the tool is inserted into the hole of the toolholder, the power supply is suspended.
- Within a few seconds the Grip phase for tool tightening begins.



Shrink fit machine  
with pneumatic vertical rod



### COOLING

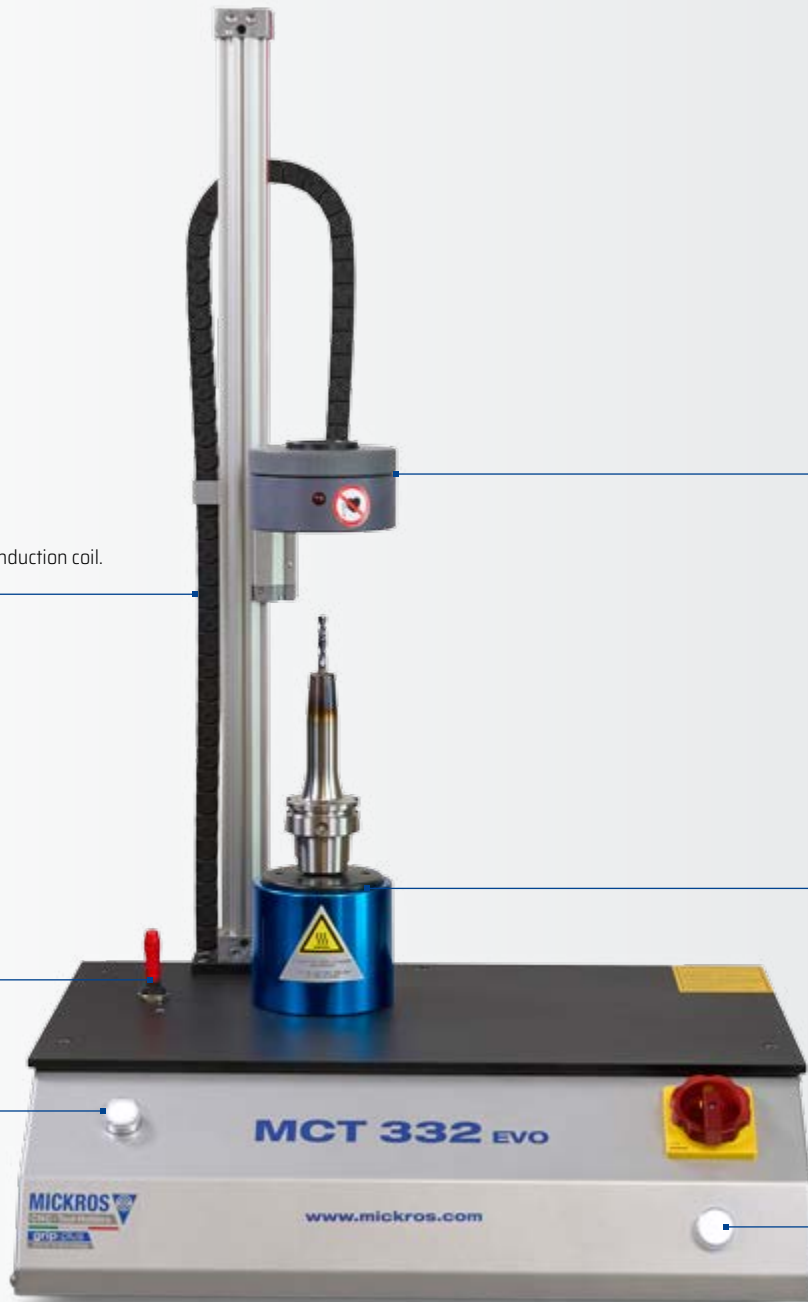
Safety:

- The Rapid Cooling Device is integrated into the machine, allows you to activate the cooling cycle in complete safety **without manual movement of the toolholder** and is activated by means of a manual start button.
- At the end of the **timed** cooling cycle, the toolholder will be automatically repositioned on the completely cooled machine surface and in a condition to be handled in **TOTAL SAFETY**.
- The cooling time, predefined by a timer, is calibrated to cool the toolholders with more critical mass in the heating zone and to obtain maximum safety in the subsequent removal operation.

Advantages:

- The Rapid Cooling device is completely pneumatic, everything is managed by a pneumatic control unit which is located inside the machine.
- The obvious characteristics of ease of use and maintenance, economy and safety guarantee cooling effectiveness and unique reliability over time.

# MCT332



**INDUCTION COIL**  
Application field

Ø 3-32 mm HM

Ø 6-32 mm HSS

Shank tolerance h6

**PNEUMATIC VERTICAL ROD**

No need for manual support of the induction coil.

**LEVER COMMAND "UP/DOWN"**

Allows to control the position of the coil on the shrinking-on point.

**POWER CONTROL**

Minimal heating due to manual operation.

**TOOLHOLDERS SUPPORT  
BUSHINGS**

**POWER GENERATOR**

AC - 3 x 400V 50Hz

16 Ampere

13 Kw

**FIELD OF WORK**

Maximum stroke of the vertical rod: h=600 mm



**Dimensions:**

approx. 600 x 550 x 990 mm

**Weight:**

approx. 31 Kg

The **MCT 332 EVO** is the fastest heat shrinking appliance for HSS and HM tools. The shrinking-on system is currently considered the best tool-holder system available on the market.

## TECHNICAL FEATURES AND ADVANTAGES

The device is equipped with:

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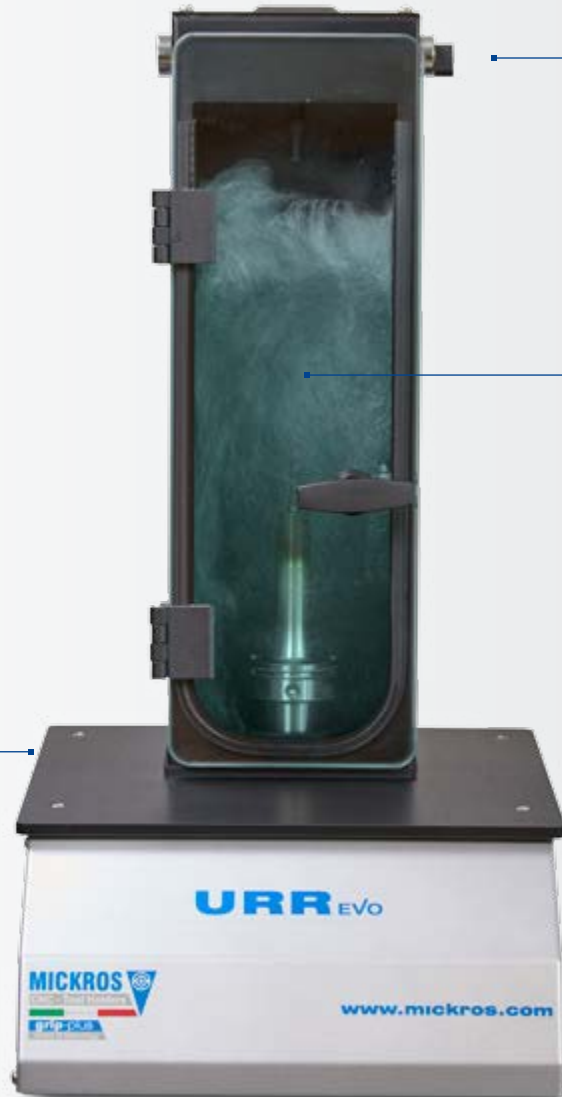


Shrink fit machine  
with pneumatic vertical rod



Advantages:

- It allows higher concentricity precision
- Stronger clamping force between the tool and the toolholder
- Shrink fit in a very short time
- Excellent cost effectiveness
- Short amortization period
- Use of all tapers due to simple adapter system
- Clear operating panel
- suitable for use in maximum safety
- No heating of the taper
- No heating of the tool
- Minimal heating due to manual operation
- Long life of the toolholder
- Short cooling time
- No problems with data chips (Balluff)
- No magnetizations of tools



#### HAND LEVER

The maximum cooling time of 30 seconds, can be stopped manually.

Uses a mixture of air/protective emulsion.  
Rapidly cool the tool-holder.  
It is not damaged by corrosive agents after every shrinking cycles.

No electrical power.  
It uses only compressed air (6 bars).  
Easy to use, cheap and safe.  
Maintenance operations can be easily performed on it.

#### Dimensions:

approx. 360 x 480 x 690 mm

#### Weight:

approx. 27 Kg



# EVO

The **URR EVO** represents the unique cooling technology that allows to keep the structure and characteristics of the toolholders constant over time and without structural deformations.

## TECHNICAL FEATURES AND ADVANTAGES

How it works:

- No electrical power
- It uses only compressed air (6 bars)
- Easy to use, cheap and safe. Maintenance operations can be easily performed on it
- Uses a mixture of air-protective emulsion
- Rapidly cool the tool-holder
- It is not damaged by corrosive agents after every shrinking cycles

Cooling the tool-holder does not involve the shrink fit

- Safe and clean cooling

- **It does not engage the shrink fit machine in cooling operation**
- **Can therefore be used for a higher number of shrinking cycles in time unit**



Rapid cooling unit

# URR EVO

## Shrink fit machine accessories



### RCT DIS ...

Shrink fit  
shelding disks



### ACT BSP ...

Toolholders support  
bushings



### ACT GUA

Protective gloves  
for high temperature



### ACT PBM

Half-round longnose  
pliers bent to a 45°  
angle



### ACT 16A

Reducer plug  
From 4 pole 16 Ampere  
To 5 pole 16 Ampere

## Cooling unit accessories



### AUR LPR

Protective  
cooling liquid



### AUR HSK

HSK toolholders  
support bushing  
(for URR EVO)



### AUR TSP

Spiral hose  
with gun  
(for URR EVO)



### AUR TSA

Spiral hose for main  
air connection  
(for URR EVO)

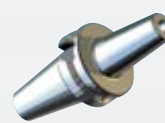


## SHRINK FIT TOOLHOLDERS



- Chuck Body Fine Balanced  
G 2,5 - 25.000 Rpm - Or U < 1 gmm
- Run Out < 3 micron

### CTO standard Similar to Din 69882-8



HSK DIN 69893

ISO 7388-1  
DIN 69871

ISO 7388-2  
MAS 403 BT-JIS B 6339

Similar ISO 7388-2  
FACE CONTACT

HSK-A (A+C)	HSK-E	HSK-F	SKB (AD+AF)	BTB (JD+JF)	BTC (JD)
HSK-A40	HSK-E40	-	SKB-40	BTB-40	BTC-40
HSK-A50	HSK-E50	-	SKB-50	BTB-50	-
HSK-A63	HSK-E63	HSK-F63	-	-	-
HSK-A100	-	-	-	-	-

\* With coolant channels "ON REQUEST"

### CTW with coolant channels Similar to Din 69882-8



HSK DIN 69893

ISO 7388-1  
DIN 69871

ISO 7388-2  
MAS 403 BT-JIS B 6339

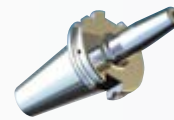
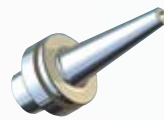
Similar ISO 7388-2  
FACE CONTACT

HSK-A (A+C)	SKB (AD+AF)	BTB (JD+JF)	BTC (JD)
HSK-A63	SKB-40	BTB-40	BTC-40
-	SKB-50	-	-



# SHRINK FIT TOOLHOLDERS

## CTF 4,5° for finishing Slim - 4,5°



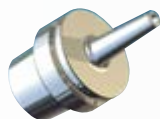
HSK DIN 69893

ISO 7388-1  
DIN 69871

ISO 7388-2  
MAS 403 BT-JIS B 6339

HSK-A (A+C)	HSK-E	HSK-F	SKB (AD+AF)	BTB (JD+JF)
-	HSK-E32	-	-	-
HSK-A40	HSK-E40	-	SKB-40	BTB-40
HSK-A50	HSK-E50	-	-	-
HSK-A63	HSK-E63	HSK-F63	-	-

## CTF 3° Slim - 3° suitable for the Mold / 3 mm wall thickness



HSK DIN 69893

ISO 7388-1  
DIN 69871

ISO 7388-2  
MAS 403 BT-JIS B 6339

Similar ISO 7388-2  
FACE CONTACT

HSK-A (A+C)	HSK-E	SKB (AD+AF)	BTB (JD+JF)	BTC (JD)
-	HSK-E40	SKB-40	BTB-40	BTC-40
-	HSK-E50	-	-	-
HSK-A63	-	-	-	-

CTP suitable to use with extensions and reductions



HSK DIN 69893



ISO 7388-1  
DIN 69871

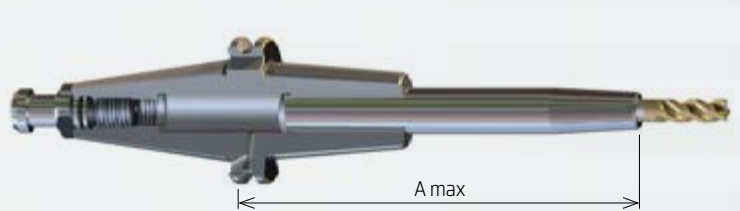
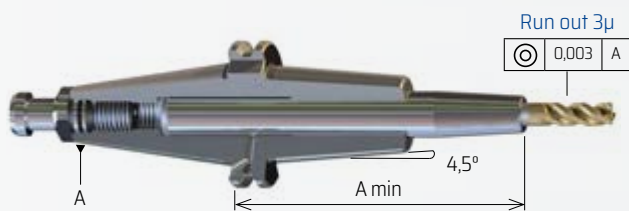


ISO 7388-2  
MAS 403 BT-JIS B 6339

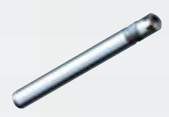


Similar ISO 7388-2  
FACE CONTACT

HSK-A (A+C)	SKB (AD+AF)	BTB (JD+JF)	BTC (JD)
HSK-A63	SKB-40	BTB-40	BTC-40
HSK-A100	SKB-50	BTB-50	-



CIL extensions and reductions



CTO standard	CTP	CTF 3°	CTR 3°	MDO - MDR	ERM
SHRINK-FIT EXTENSION	SHRINK-FIT EXTENSION • without back-up screw	SHRINK-FIT EXTENSION • 3° slope at the top • 3 mm wall thickness • suitable for the mold	LONG HEAVY DUTY REDUCTIONS • 3° slope at the top • 3 mm wall thickness • suitable for the mold	EXTENSIONS for THREADED TYPE CUTTER • special steel shrinking	EXTENSION COLLET CHUCKS ER mini DIN 6499 • special steel shrinking



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