

SHRINK FIT TECHNOLOGY



www.mickros.com

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

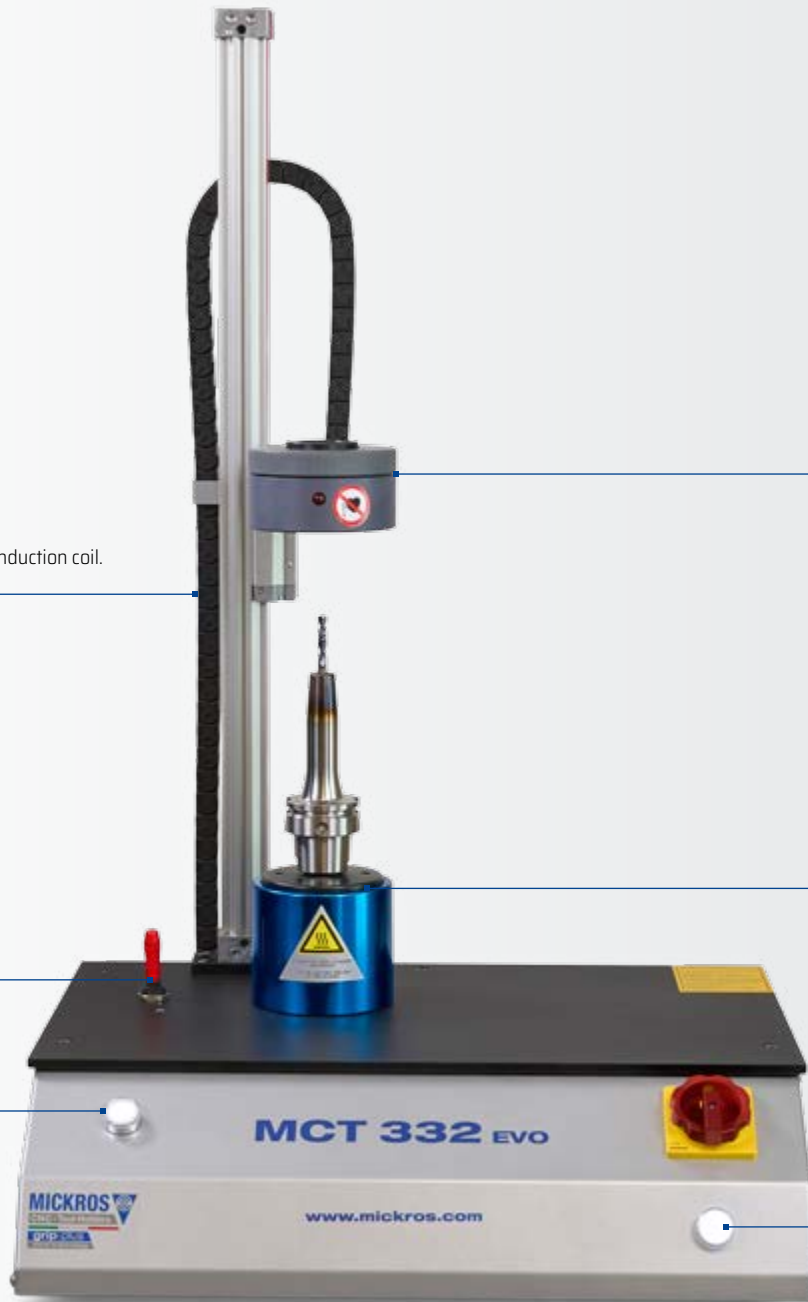
Safety:

- 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



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Application field

Ø 3-32 mm HM

Ø 6-32 mm HSS

Shank tolerance h6

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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.

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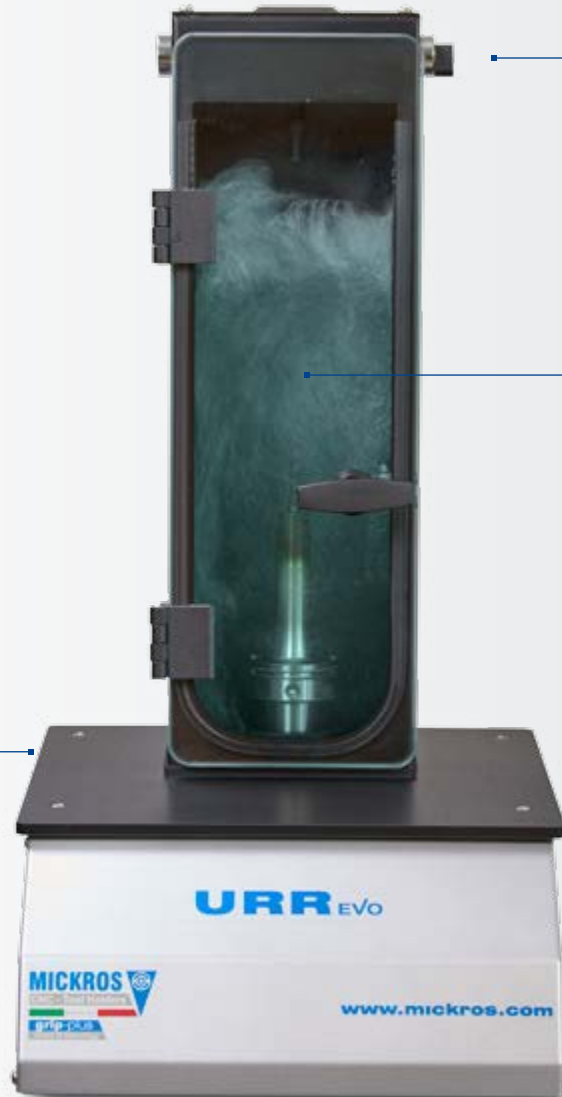


Shrink fit machine
with pneumatic vertical rod



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

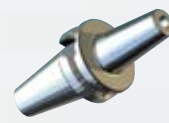
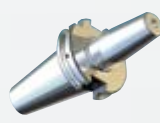
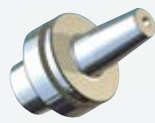
Spiral hose for main
air connection
(for URR EVO)

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	-	-

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



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ISO 7388-1
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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

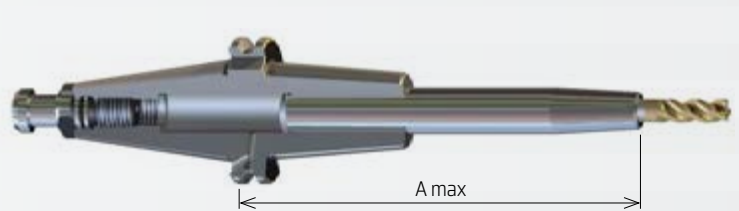
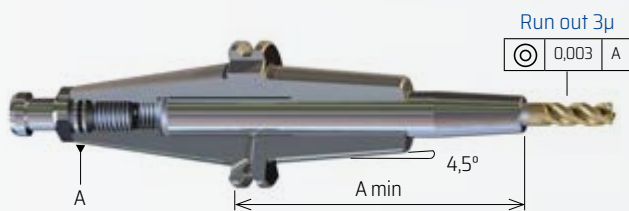


ISO 7388-2
MAS 403 BT-JIS B 6339



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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