

# Aluminum Series

Light Weight Angle Heads



T90cn-1.5M



T90cn-2.5M

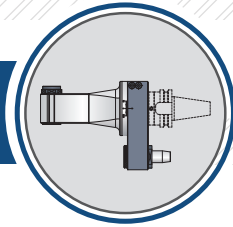


TCUcn-0.5M



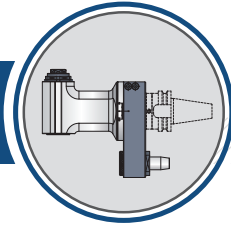
20 Thompson Rd | East Windsor | CT 06088  
1.800.249.5662 | 860.623.4132 Fax  
[www.komaprecision.com](http://www.komaprecision.com) | [info@komaprecision.com](mailto:info@komaprecision.com)

## ISO30 DIN-69871 / BT-30



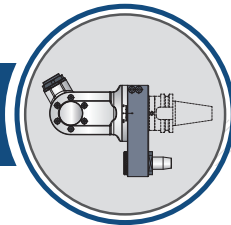
**T90cn-0.5M**

page 3



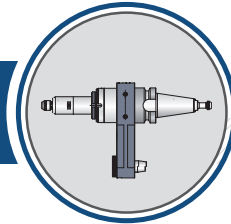
**T90cn-1.5M**

page 4



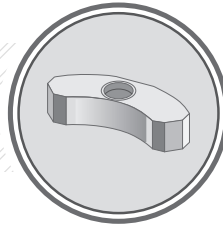
**TCUcn-0.5M**

page 5



**TURBODRILL**

page 6

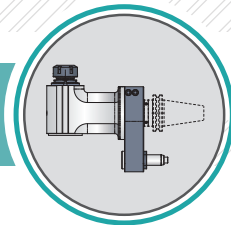


**STOPBLOCK**

page 7

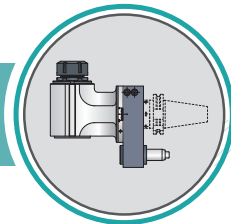


## ISO40 DIN-69871 / BT-40



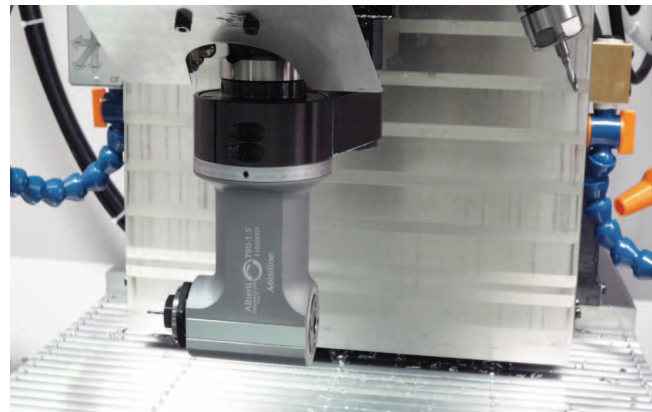
**T90cn-2.5M**

page 8



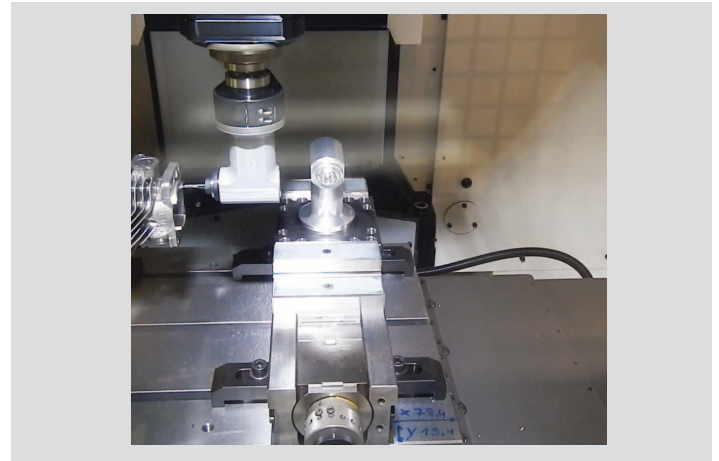
**T90cn-3.5M**

page 9



The heads of the series Aluminum have been developed with lighter materials and reduced overall dimensions compared to the standard offering, in order to reduce the weight as much as possible, thus keeping the same characteristics of quality and reliability. The line of heads are suitable for all those lighter and smaller machines with ISO BT 30 and 40 whose toolchanger can only handle limited weight (i.e. Fanuc Robodrill, Brother, Haas..). For the BT 30 heads, Alberti can also offer an air driven unit, Turbodrill, capable of 60,000RPM, while on the BT 40 heads customer can mount our new quick change system, Smart change.

- Aluminum body for significant weight reduction
- Reduced overall dimensions to be mounted on smaller machines
- Possibility of internal coolant
- High speed up to 10,000RPM for mechanical heads and up to 60,000RPM for air driven units
- Customized stop block for different machine type for an easy installation



# T90cn-0.5M



Ratio  
1:1



RPM  
10,000



Max. axial load  
120 N



Torque  
8 Nm



Weight  
6 lb



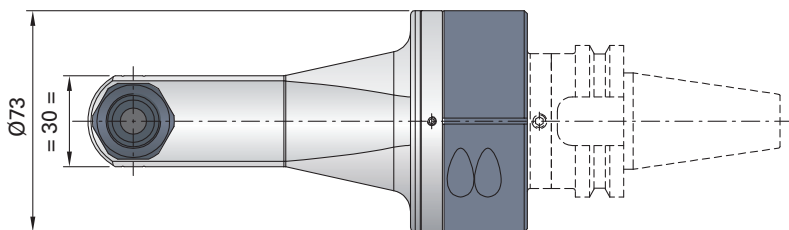
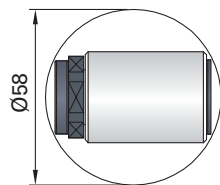
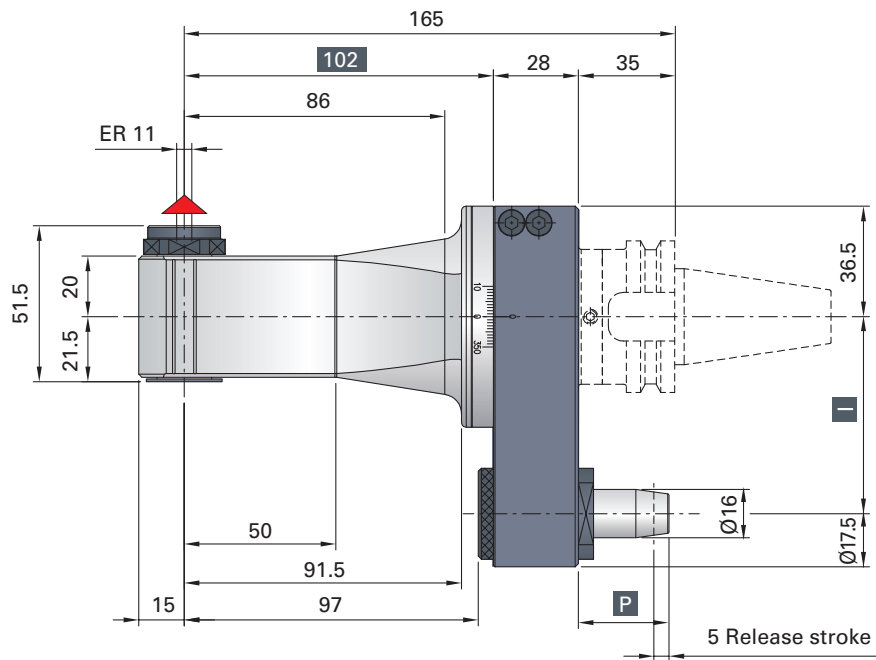
Collet  
ERAX-11  
(0.5-7 mm)



Shank  
ISO 30DIN-  
69871/BT-30

**\* STANDARD EQUIPMENT INCLUDES:**

- Instruction book
- wrenches
- special bag



**!** For the application on the machine please refer to page 7

**▲** Direction of rotation opposite to machine spindle

Option



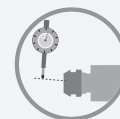
AIR/OIL

Oil lubrication



bar max  
12

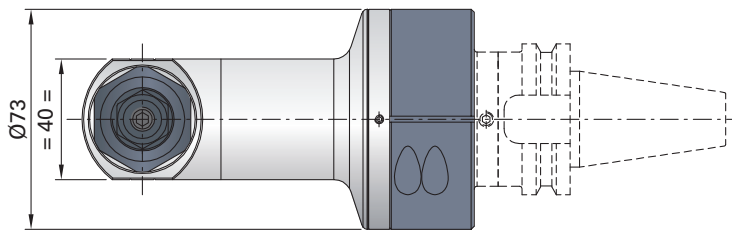
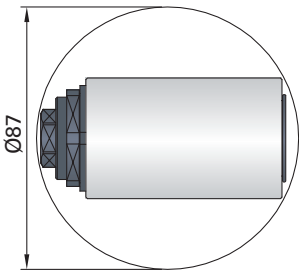
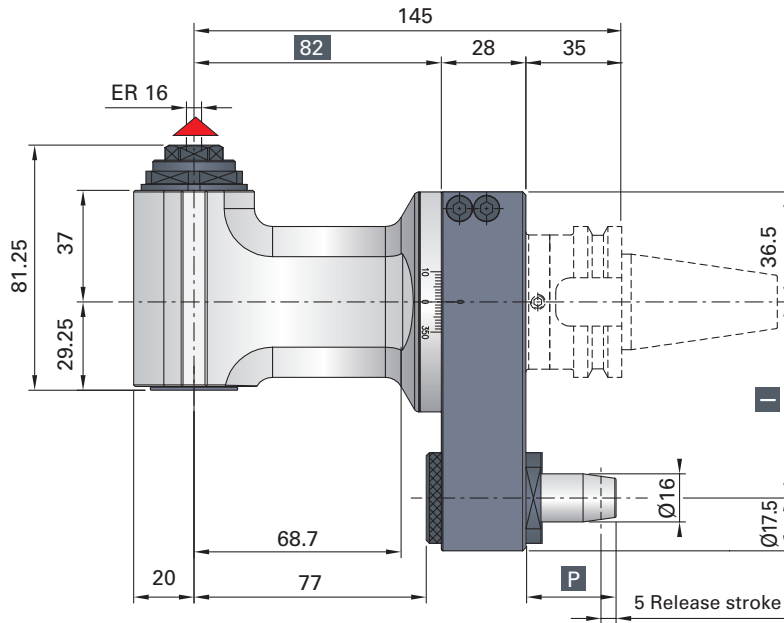
Coolant through pin



Spindle precision

0.002 mm / 0.00008 in

# T90cn-1.5M



- Ratio 1:1
- RPM 8,000 min<sup>-1</sup>
- Max. axial load 250 N
- Torque 15 Nm
- Weight 6.4 lb
- Collet ER 16 (1-10 mm)
- Shank ISO 30DIN-69871/BT-30

**\* STANDARD EQUIPMENT INCLUDES:**

- Instruction book
- wrenches
- special bag

For the application on the machine please refer to page 7

Direction of rotation opposite to machine spindle

Option



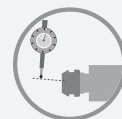
**AIR/OIL**

Oil lubrication



bar max  
**40**

Coolant through spindle



**Spindle precision**

0.002 mm / 0.00008 in

# TCUcn-0.5M



Ratio  
1.5:1



RPM  
6,000



Max. axial load  
215 N



Torque  
8 Nm



Weight  
6.2 lb



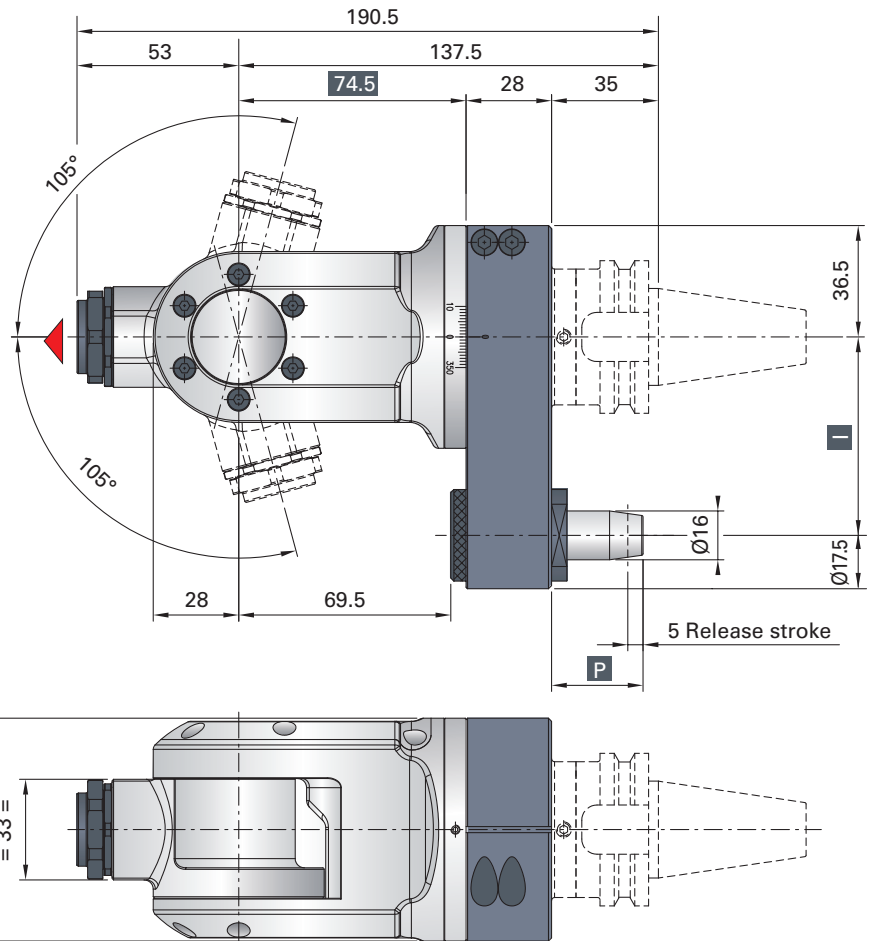
Collet  
ERAX-11  
(0.5-7 mm)



Shank  
ISO 30DIN-  
69871/BT-30

**\* STANDARD EQUIPMENT INCLUDES:**

- Instruction book
- wrenches
- special bag



**!** For the application on the machine please refer to page 7

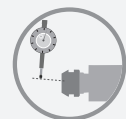
**▲** Direction of rotation opposite to machine spindle

**Option**



bar max  
12

Coolant through pin



Spindle precision

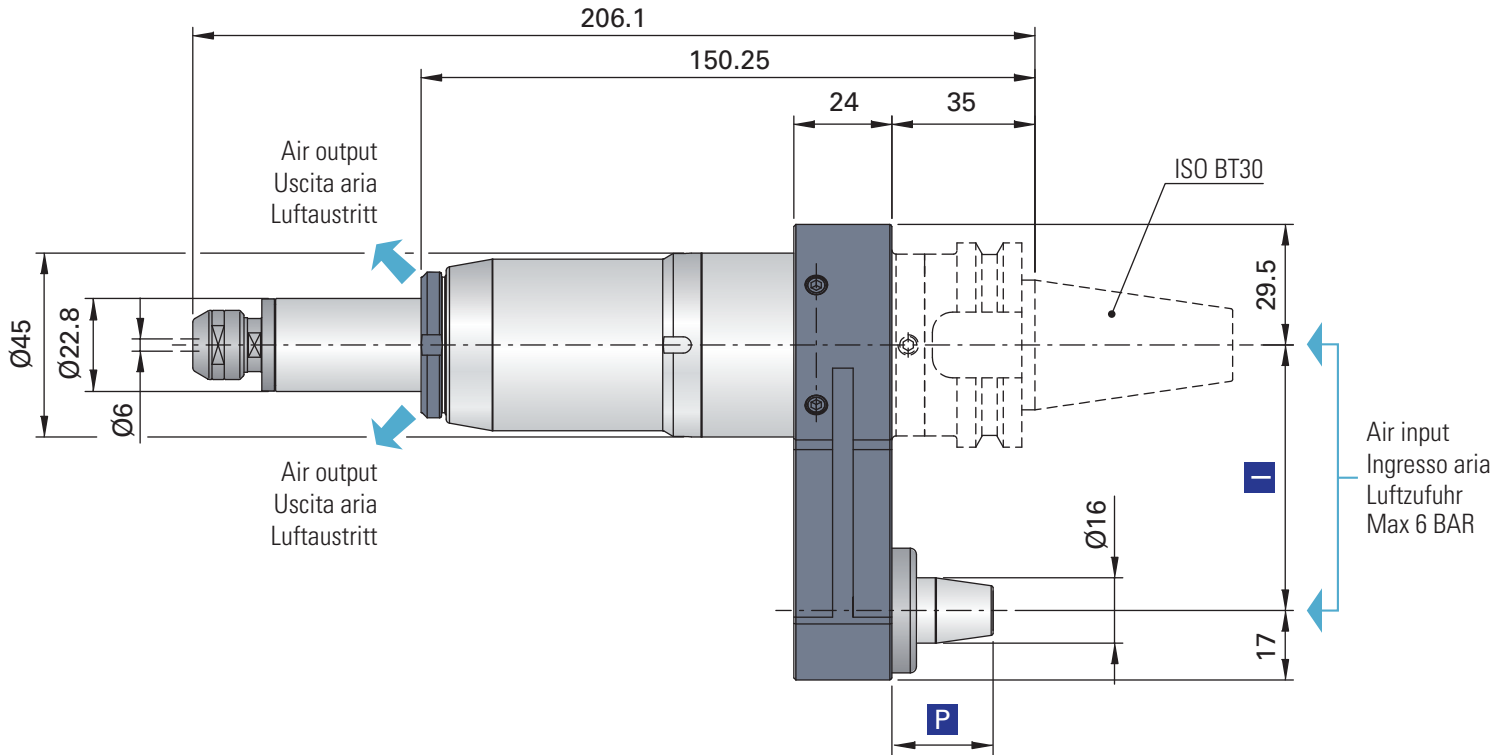
0.002 mm / 0.00008 in

# TURBODRILL NR-2351

Driven through air motor



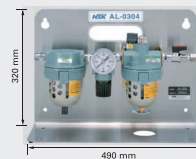
Machine spindle must not rotate



Possibility of order TURBODRILL without flange and pin with air through spindle

- Per other applications with air motor with ISO/BT40-50 please refer to Slimline Catalogue

### Air line kit



### STANDARD EQUIPMENT INCLUDES:

- NAKANISHI Kit
- Angle head
- Collet Ø 3 mm
- Wrenches
- Instruction book
- Case

### Performance

#### Technical Data

|                 |       |                      |
|-----------------|-------|----------------------|
| RPM max         |       | 58,000               |
| Type motor      |       | AM-600               |
| Type spindle    |       | NR-2351              |
| Power           | W     | 76                   |
| Air pressure    | Bar   | max. 6 (max. 90 Psi) |
| Air consumption | l/min | 160                  |
| Weight          | lb    | 4.4                  |



CHK Ø 0.5 - max 6mm  
every 0.1 mm

Collet



Collant option

It is possible to use coolant external during the machining.

# MINILINE STOP BLOCK

## FANUC ROBODRILL



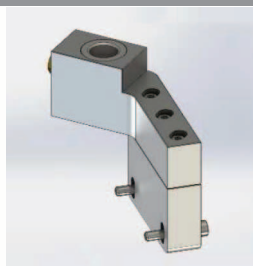
|   |    |
|---|----|
| I | 65 |
| P | 24 |

## BROTHER S2D



|   |    |
|---|----|
| I | 80 |
| P | 24 |

## BROTHER TC-32



|   |    |
|---|----|
| I | 80 |
| P | 30 |

## BROTHER R450X1



|   |    |
|---|----|
| I | 50 |
| P | 24 |

## BROTHER S500 S700 S1000



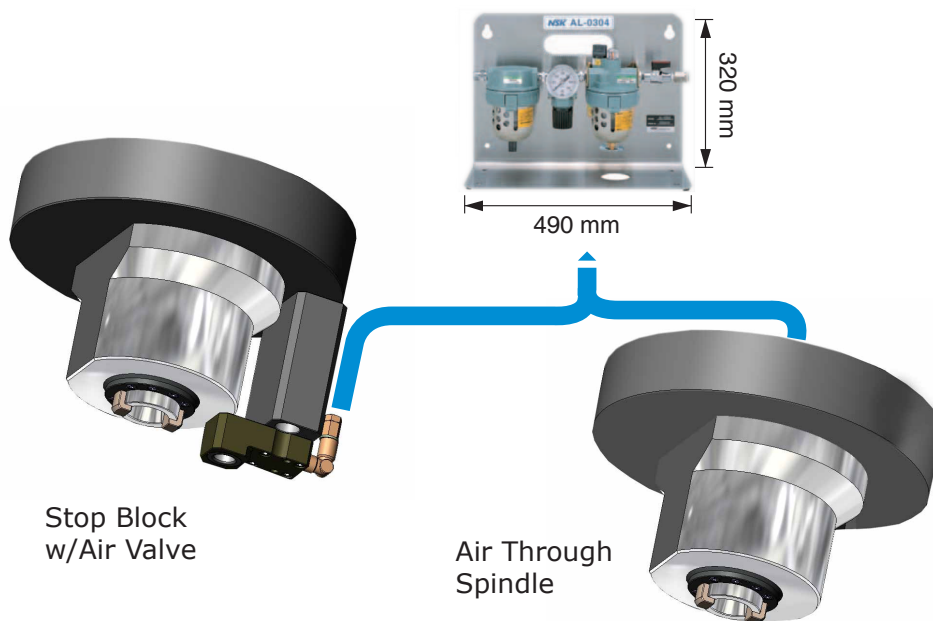
|   |       |
|---|-------|
| I | 80    |
| P | 25,75 |

## DMG MORI MILLTAP 700



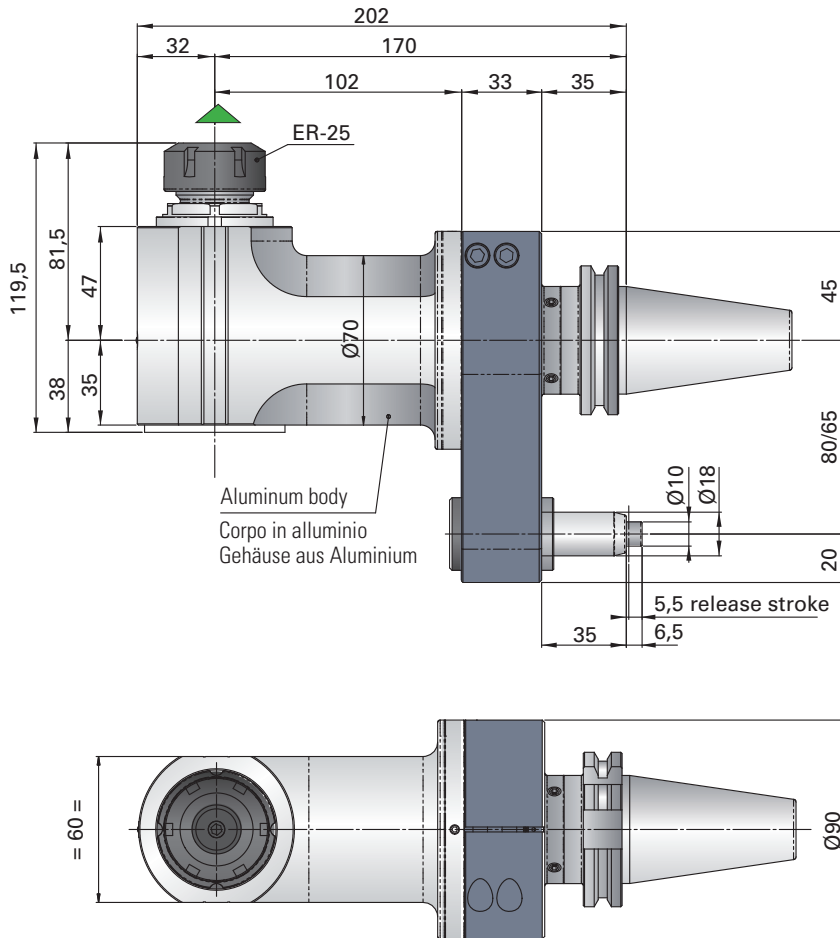
|   |    |
|---|----|
| I | 65 |
| P | 24 |

## AIR LINE KIT *For Turbodrill only reference page 6*





# T90cn-2.5M



- Ratio 1:1
- RPM 6,000
- Max. axial load 510 N
- Torque 20 Nm
- Weight 10.8 lb
- Collet ER 25 (Ø1-16 mm)
- Shank ISO40 DIN-69871/BT-40

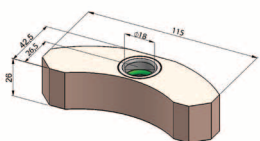
**\* STANDARD EQUIPMENT INCLUDES:**

- Instruction book
- wrenches
- special bag

Direction of rotation same as machine spindle

**Option**

STOP BLOCK for heads



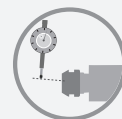
**AIR/OIL**

Oil lubrication



bar max  
**40**

Coolant through spindle



**Spindle precision**

0.002 mm / 0.00008 in

# T90cn-3.5M



Ratio  
1:1



RPM  
4,000



Max. axial load  
1250 N



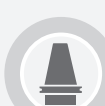
Torque  
40 Nm



Weight  
12.2 lb



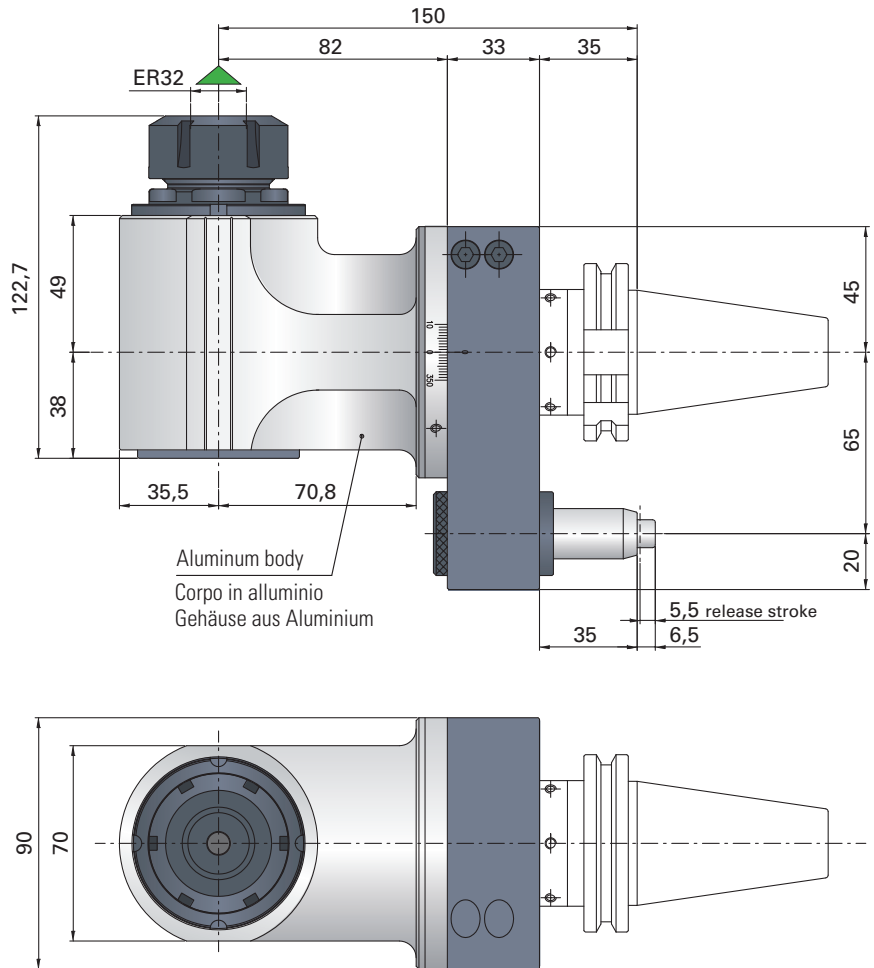
Collet  
ER 32  
(Ø2-20 mm)



Shank  
ISO40 DIN-  
69871/BT-40

**\* STANDARD EQUIPMENT INCLUDES:**

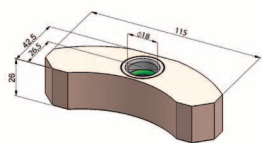
- Instruction book
- wrenches
- special bag



Direction of rotation same as machine spindle

**Option**

STOP BLOCK for heads



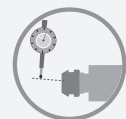
**AIR/OIL**

Oil lubrication



bar max  
**40**

Coolant through pin



**Spindle precision**

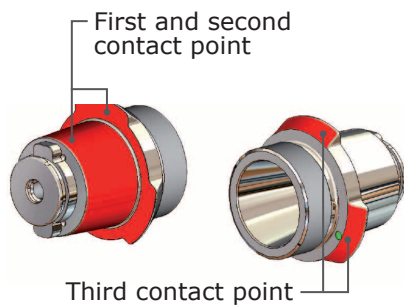
0.002 mm / 0.00008 in

# The Alberti SmartChange System

New innovative quick change system, SMART CHANGE, entirely developed and patented by Alberti. Thanks to the 3-point contacts it ensures the greatest precision and repeatability... **QUICK • EASY • PRECISE**

Possibility to preset the different adapters outside the machine

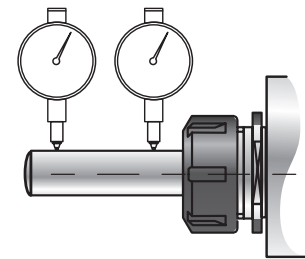
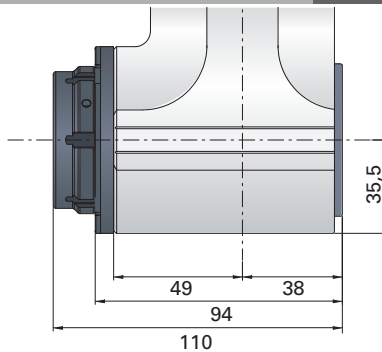
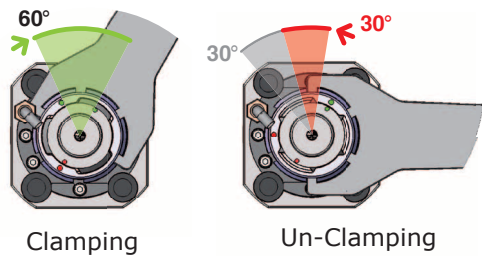
## TRIPLE CONTACT SYSTEM



## HIGHEST ACCURACY AND REPEATABILITY

|  |                       |  |
|--|-----------------------|--|
| Run-Out of the collet chuck with adapter mounted repeatability | 0.005 $\mu$ m         | Accuracy with gauge bar inserted in the collet chuck<br><br>at 40 mm = 0.008 mm (1.57 in = 0.0003 in)<br>at 120 mm = 0.01 mm (4.72 in = 0.0004 in) |
| Adapter change time  | 20 sec.               |  |
| Repeatability  | 0.003 mm<br>0.0001 in |  |

## HOW IT WORKS



## SELECTION OF ADAPTERS

|  | ER-20 ( $\varnothing$ 1/13mm) |      | ER-25 ( $\varnothing$ 1/17mm) |      | ER-32 ( $\varnothing$ 2/22mm) |      | ERC-20 ( $\varnothing$ 1/13mm) |      | ERC-25 ( $\varnothing$ 1/17mm) |      | ERC-32 ( $\varnothing$ 2/22mm) |      |
|--|-------------------------------|------|-------------------------------|------|-------------------------------|------|--------------------------------|------|--------------------------------|------|--------------------------------|------|
|  | $\varnothing$                 | A    | $\varnothing$                 | A    | $\varnothing$                 | A    | $\varnothing$                  | A    | $\varnothing$                  | A    | $\varnothing$                  | A    |
|  | 1/13                          | 28.5 | 1/17                          | 30.5 | 2/22                          | 41.5 | 1/13                           | 33.5 | 1/17                           | 35.5 | 2/22                           | 46.5 |
|  | D                             | 34   | D                             | 42   | D                             | 50   | D                              | 34   | D                              | 42   | D                              | 50   |
|  | SHELL MILL HOLDER             |      | SHELL MILL HOLDER             |      | SHELL MILL HOLDER             |      | SHELL MILL HOLDER              |      | SHELL MILL HOLDER              |      | SHELL MILL HOLDER              |      |
|  | $\varnothing$                 | 13   | $\varnothing$                 | 16   | $\varnothing$                 | 22   | $\varnothing$                  | 13   | $\varnothing$                  | 16   | $\varnothing$                  | 22   |
|  | A                             | 24.5 | A                             | 30.5 | A                             | 32.5 | A                              | 24.5 | A                              | 30.5 | A                              | 32.5 |
|  | H                             | 13   | H                             | 17   | H                             | 19   | H                              | 13   | H                              | 17   | D                              | 19   |
|  | WELDON ( $\varnothing$ 6mm)   |      | WELDON ( $\varnothing$ 8mm)   |      | WELDON ( $\varnothing$ 10mm)  |      | WELDON ( $\varnothing$ 12mm)   |      | WELDON ( $\varnothing$ 16mm)   |      |                                |      |
|  | $\varnothing$                 | 6    | $\varnothing$                 | 8    | $\varnothing$                 | 10   | $\varnothing$                  | 12   | $\varnothing$                  | 16   |                                |      |
|  | A                             | 20   | A                             | 20   | A                             | 20   | A                              | 20   | A                              | 20   |                                |      |
|  | D                             | 36.8 | D                             | 36.8 | D                             | 36.8 | D                              | 36.8 | D                              | 36.8 |                                |      |



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[www.komaprecision.com](http://www.komaprecision.com) | [info@komaprecision.com](mailto:info@komaprecision.com)

