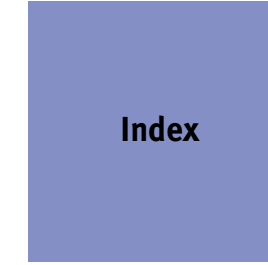




## **AUTORADIAL**

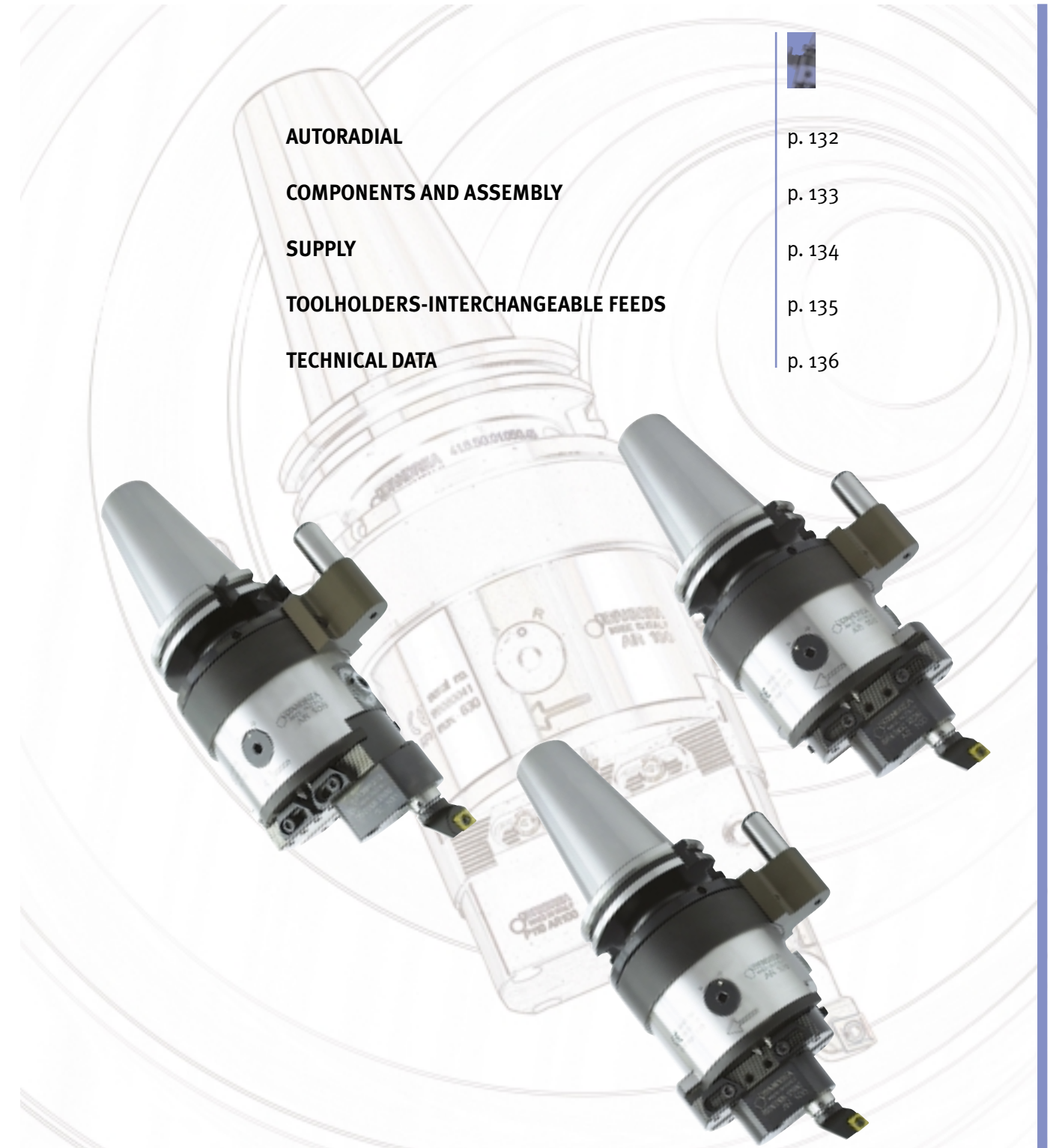
Automatic facing heads



Index

## **AUTORADIAL**

Automatic facing heads



**AUTORADIAL**

**COMPONENTS AND ASSEMBLY**

**SUPPLY**

**TOOLHOLDERS-INTERCHANGEABLE FEEDS**

**TECHNICAL DATA**



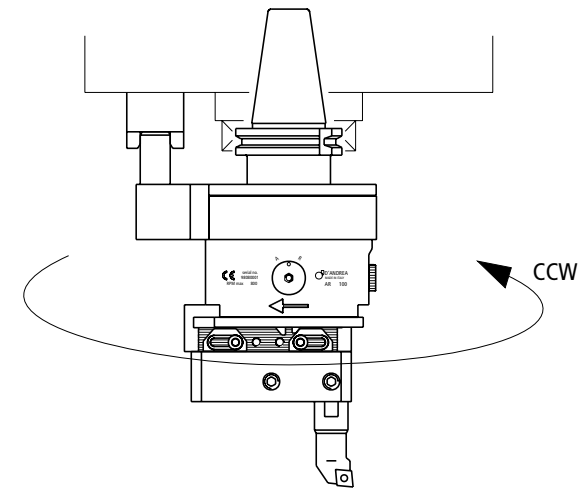
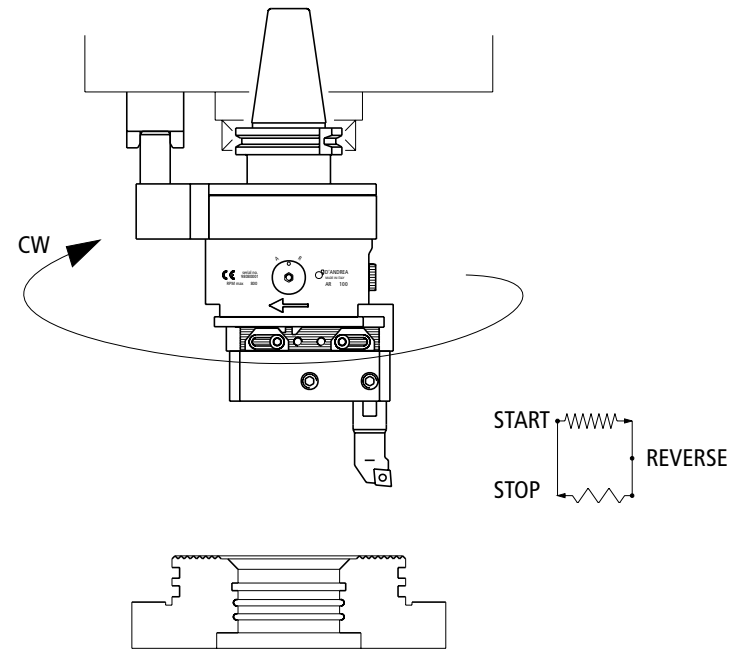
p. 132

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p. 134

p. 135

p. 136



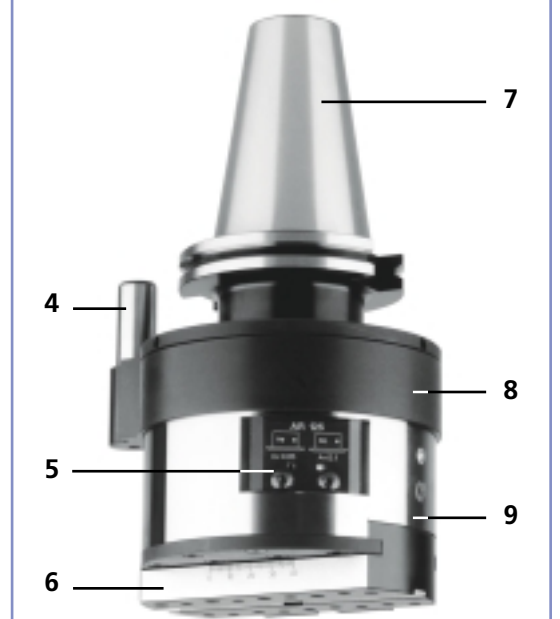
Facing heads with automatic feed and quick return of the slide without having stop or reverse the spindle of the machine tool. Available in 3 models: AR 100, AR 125 and AR 160; they have got a feed and quick return. To change the feed, some interchangeable, optional, gear blocks (F) are available, for feeds in mm/rev. of: 0.05; 0.10; 0.20; 0.40; 0.60 and a quick return of 0.08 mm/rev. The interchangeable arbor uses the same locking system used in the MHD' modular system. A simple attachment of the toolholders to the slide favours the manufacturing of special toolholders. The AUTORADIAL heads are applicable on machining centres and on N.C. machines and, without the need of any electronic interface, they can execute automatically a working cycle of:

- Facing
- Backfacing
- Internal or external grooving for spring washers and O-rings
- Record spiral cutting on flanges.

The cycle is composed of the working feed and of the quick return of the slide without ever stopping or reversing the rotation of the spindle. To reset the cycle, merely reverse the spindle rotation for a few revolutions.

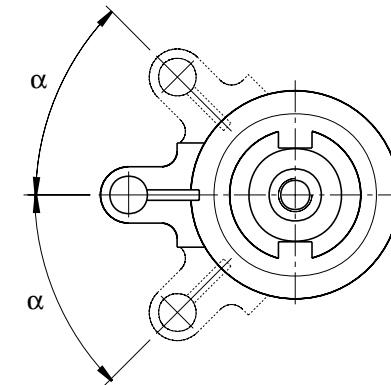
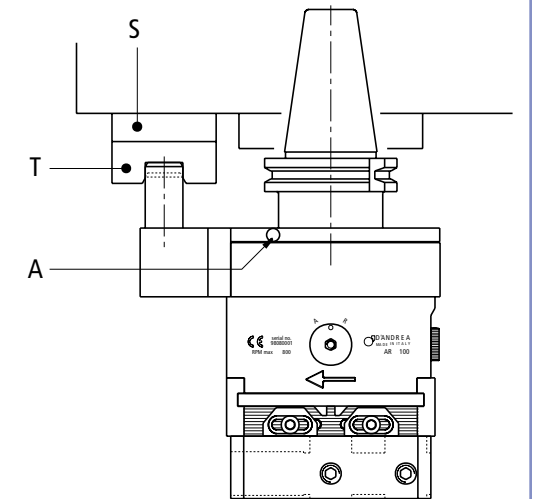
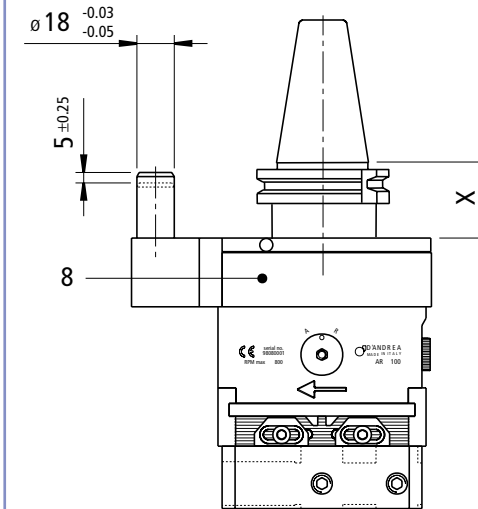
### COMPONENTS

1. Override (A), return (R)
2. Limit blocks
3. Control screw
4. Check pin
5. Interchangeable forward block
6. Tool slide
7. Interchangeable arbor
8. Drive flange
9. Rotating body




### ASSEMBLY

In the AUTORADIAL the slide is moved forward by holding back the drive flange 16 while the spindle is rotating. The T-block supplied with the K-NC KIT is to be applied to a fixed part around the spindle, observing the measurements indicated. If the stroke of the check pin is not  $5 \pm 0.25$ , you must adjust the position of the T-block using the spacer S. The angle  $\alpha$  is freely adjustable by loosening the 3 screws A, turning the flange 16 to the desired angle and tightening the screws A.

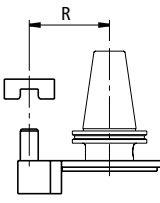


**K02**



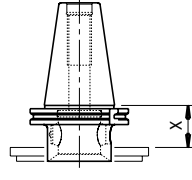
| REF.                | F    |        | COD.             |                  |                  |
|---------------------|------|--------|------------------|------------------|------------------|
|                     | mm/° | inch/° | K02 AR 100       | K02 AR 125       | K02 AR 160       |
| K02 AR... - F. 0.05 | 0.05 | .002"  | 50 06 100 20 050 | 50 06 125 20 050 | 50 06 160 20 050 |
| K02 AR... - F. 0.1  | 0.1  | .004"  | 50 06 100 20 100 | 50 06 125 20 100 | 50 06 160 20 100 |
| K02 AR... - F. 0.2  | 0.2  | .0078" | 50 06 100 20 200 | 50 06 125 20 200 | 50 06 160 20 200 |
| K02 AR... - F. 0.3  | 0.3  | .012"  | 50 06 100 20 300 | 50 06 125 20 300 | 50 06 160 20 300 |
| K02 AR... - F. 0.4  | 0.4  | .0157" | 50 06 100 20 400 | 50 06 125 20 400 | 50 06 160 20 400 |
| K02 AR... - F. 0.6  | 0.6  | .024"  | 50 06 100 20 600 | 50 06 125 20 600 | 50 06 160 20 600 |

**K-NC**




| REF.               | COD.             |                  |                  |
|--------------------|------------------|------------------|------------------|
|                    | R.65             | R.80             | R.110            |
| K-NC R... - AR 100 | 39 41 100 065 02 | 39 41 100 080 02 | -                |
| K-NC R... - AR 125 | -                | 39 41 125 080 02 | 39 41 125 110 02 |
| K-NC R... - AR 160 | -                | 39 41 160 080 02 | 39 41 160 110 03 |

**MHD' ARBOR**




| MHD'                 | AR 100            |            | AR 125            |            | AR 160            |            |
|----------------------|-------------------|------------|-------------------|------------|-------------------|------------|
|                      | COD.              | X          | COD.              | X          | COD.              | X          |
|                      |                   | mm inch    |                   | mm inch    |                   | mm inch    |
| DIN 69871 - A40      | 41 6 50 01 040 20 | 36.5 1.44" | 41 6 63 01 040 20 | 68.5 2.7"  | -                 | -          |
| DIN 69871 - A50      | 41 6 50 01 050 20 | 36.5 1.44" | 41 6 63 01 050 20 | 44.5 1.75" | 41 6 80 01 050 20 | 50.5 2"    |
| MAS 403 BT 40        | 41 6 50 01 040 30 | 36.5 1.44" | 41 6 63 01 040 30 | 54.5 2.15" | -                 | -          |
| MAS 403 BT 50        | 41 6 50 01 050 30 | 54.5 2.15" | 41 6 63 01 050 30 | 63.5 2.5"  | 41 6 80 01 050 30 | 63.5 2.5"  |
| CAT 40 UNC           | 41 6 50 01 040 45 | 54.5 2.15" | 41 6 63 01 040 45 | 88.5 3.48" | -                 | -          |
| CAT 50 UNC           | 41 6 50 01 050 45 | 36.5 1.44" | 41 6 63 01 050 45 | 44.5 1.75" | 41 6 80 01 050 45 | 50.5 2"    |
| HSK - A63            | 41 6 50 15 063 20 | 54.5 2.15" | 41 6 63 15 063 20 | 63.5 2.5"  | -                 | -          |
| HSK - A100           | 41 6 50 15 100 20 | 60.5 2.38" | 41 6 63 15 100 20 | 70.5 2.77" | 41 6 80 15 100 20 | 76.5 3"    |
| DIN 2080 - A40 'OTT' | 41 6 50 01 040 00 | 36.5 1.44" | 41 6 63 01 040 00 | 48.5 1.9"  | -                 | -          |
| DIN 2080 - A50 'OTT' | 41 6 50 01 050 00 | 36.5 1.44" | 41 6 63 01 050 00 | 44.5 1.75" | 416 80 01 050 00  | 44.5 1.75" |

**TOOLHOLDERS P110**

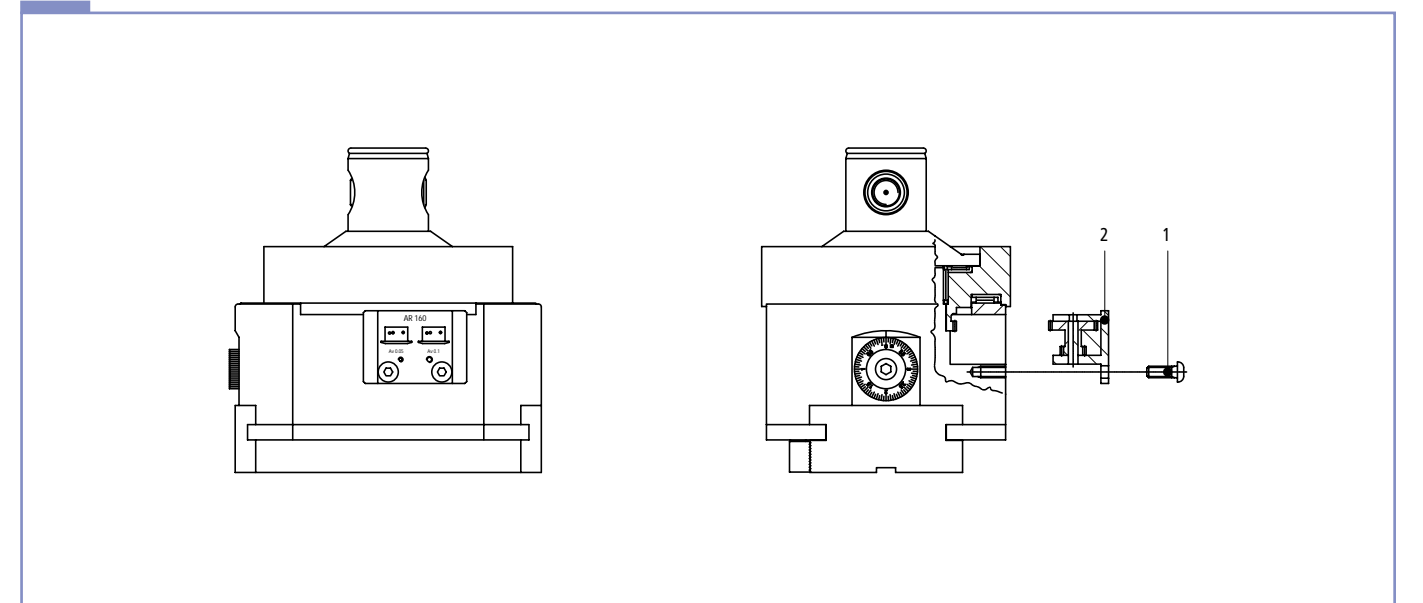


| REF.          | COD.              | G   |       | H  |       | Ø  |       |
|---------------|-------------------|-----|-------|----|-------|----|-------|
|               |                   | mm  | inch  | mm | inch  | mm | inch  |
| P110 - AR 100 | 43 30 50 30 096 0 | 96  | 3.78" | 30 | 1.18" | 20 | .79"  |
| P110 - AR 125 | 43 30 56 38 120 0 | 121 | 4.76" | 39 | 1.53" | 25 | .98"  |
| P110 - AR 160 | 43 30 63 48 160 0 | 164 | 6.46" | 49 | 1.93" | 32 | 1.26" |

**INTERCHANGEABLE FEEDS F...**

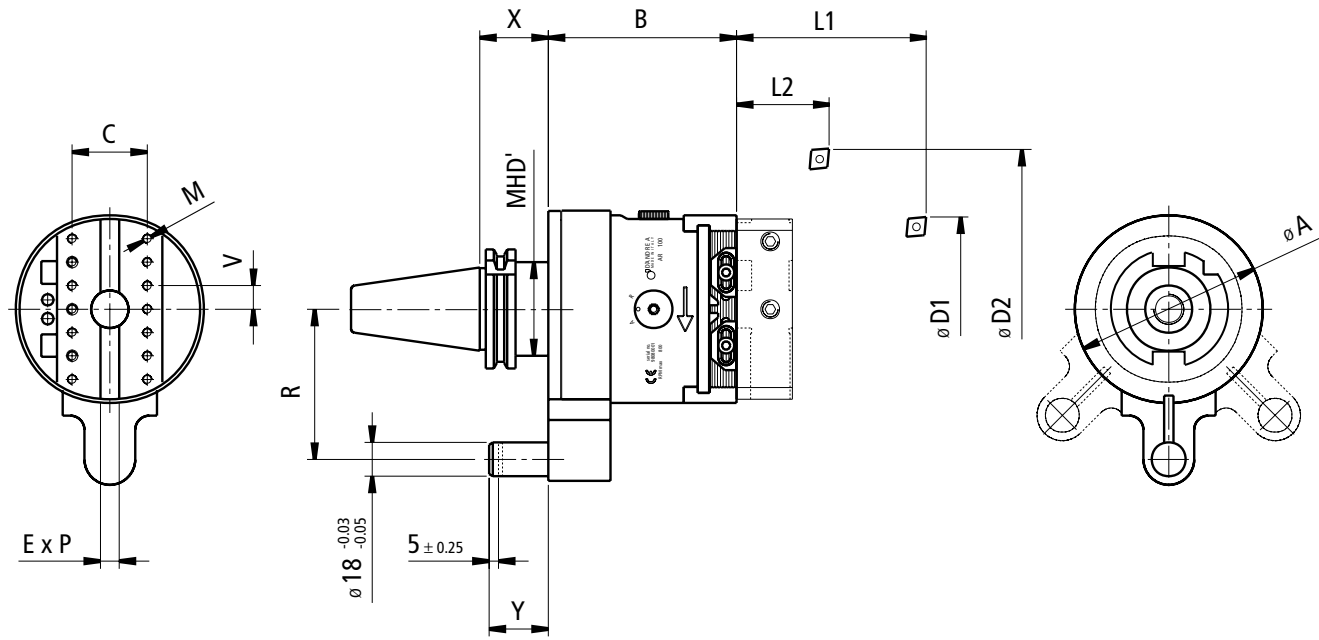


| REF.           | F    |        | COD.             |                  |                  |
|----------------|------|--------|------------------|------------------|------------------|
|                | mm/° | inch/° | AR 100           | AR 125           | AR 160           |
| F 0.05 - AR... | 0.05 | .002"  | 38 20 060 05 001 | 38 20 061 05 001 | 38 20 062 05 001 |
| F 0.1 - AR...  | 0.1  | .004"  | 38 20 060 10 001 | 38 20 061 10 001 | 38 20 062 10 001 |
| F 0.2 - AR...  | 0.2  | .0078" | 38 20 060 20 001 | 38 20 061 20 001 | 38 20 062 20 001 |
| F 0.3 - AR...  | 0.3  | .012"  | 38 20 060 30 001 | 38 20 061 30 001 | 38 20 062 30 001 |
| F 0.4 - AR...  | 0.4  | .0157" | 38 20 060 40 001 | 38 20 061 40 001 | 38 20 062 40 001 |
| F 0.6 - AR...  | 0.6  | .024"  | 38 20 060 60 001 | 38 20 061 60 001 | 38 20 062 60 001 |



**INSTRUCTIONS TO REPLACE THE FEED BLOCK**

- a. Loosen the screw 1
- b. Extract block 2
- c. Insert new block 2 lubricated with ISO-UNI XM2 grease
- d. Lock screw 1



| TECHNICAL DATA        |      |        | AR 100   |             | AR 125   |             | AR 160   |             |
|-----------------------|------|--------|----------|-------------|----------|-------------|----------|-------------|
| ø A                   | mm   | inch   | 100      | 3.94"       | 125      | 4.92"       | 160      | 6.30"       |
| B                     | mm   | inch   | 100      | 3.94"       | 110      | 4.33"       | 125      | 4.72"       |
| R                     | mm   | inch   | 65-80    | 2.56"-3.15" | 80-110   | 3.15"-4.33" | 80-110   | 3.15"-4.33" |
| Y                     | mm   | inch   | 31.5     | 1.25"       | 39.5     | 1.55"       | 45.5     | 1.79"       |
| X                     | mm   | inch   | p. 134   |             |          |             |          |             |
| D1 x L1               | mm   | inch   | 148x125  | 5.8x4.9"    | 190x160  | 7.5x6.3"    | 270x200  | 10.6x7.9"   |
| D2 x L2               | mm   | inch   | 250x31   | 9.8x1.2"    | 320x40   | 12.6x1.5"   | 400x50   | 15.7x1.2"   |
| C                     | mm   | inch   | 40       | 1.57"       | 40       | 1.57"       | 50       | 1.97"       |
| V                     | mm   | inch   | 12.5     | 0.49"       | 12.5     | 0.49"       | 15       | 0.59"       |
| M                     | mm   | inch   | M5       |             | M5       |             | M6       |             |
| E x P                 | mm   | inch   | 10 x 2.5 | 0.39x0.1"   | 10 x 2.5 | 0.39x0.1"   | 12 x 2.5 | 0.47x0.1"   |
| MHD'                  |      |        | 50       |             | 63       |             | 80       |             |
| Radial trasverse      | mm   | inch   | 25       | 1"          | 40       | 1.57"       | 70       | 2.76"       |
| Interchangeable feeds | mm/∅ | inch/∅ | p. 135   |             |          |             |          |             |
| Quick return          | mm/∅ | inch/∅ | 0.8      | .0315"      | 0.8      | .0315"      | 0.8      | .0315"      |
| Max. rotation         | RPM  | RPM    | 630      |             | 500      |             | 400      |             |
| Weight without arbor  | Kg   | pounds | 5.5      | 12          | 9        | 20          | 14       | 31          |



AR 100



AR 125



AR 160

