



**BR650-1000** | Conrod Boring and Grinding Machines

**BR**

# BR650 - BR1000

Adjusting plate wheel for connecting rod support

- 1 Electric control panel
- 2 Grinding spindle
- 3 Handwheel for the rotation eccentricity setting of the wheel spindle
- 4 Handwheel with diamond-holder tube for the grinding wheels dressing
- 5 Handwheel with tubes for the lateral clamping of the conrod
- 6 Handwheel for the transversal placement of the conrod holder column
- 7 Lever for the inversion of the table automatic feed
- 8 Boring spindle
- 9 Handwheel for the manual rotation of the boring spindle
- 10 Boring tool setting device
- 11 Nozzle with cock for coolant
- 12 Expansible spindle for the conrod clamping
- 13 Plate for the conrod holding
- 14 Handwheel for the manual feed of the table
- 15 Motor for the vertical placement of the holding plate of the conrod

- A Table feed with variable speed motor
- B Variable speed of boring shaft

Handwheel with centesimal nonius for the vertical placement of the holding plate of the conrod

Push-button panel for plate up-down control for connecting rod support





## BR650 - BR1000

## STANDARD EQUIPMENT

Centering device



Calibrating device



Square



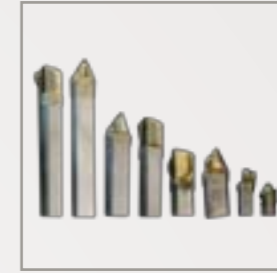
Tool setting device



Grinding wheel



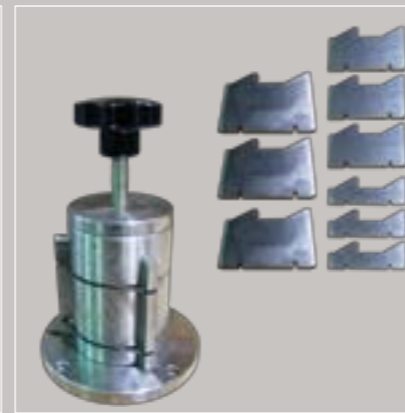
Tools



Grinding wheel dresser



## SPINDLES



EXPANDING SPINDLES

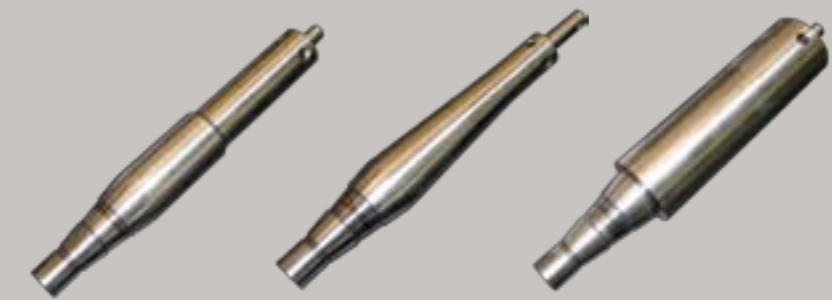
## STANDARD -BR650

- Low voltage electric control 24 V
- Coolant system
- Set of no. 12 grinding wheels for cast iron and steel
- Set of no. 8 tools
- Grinding wheel dresser (diamond excluded)
- Set of centering cones (No.5)
- No. 3 expanding spindles, 23-38 mm. dia. 37-77 mm. dia. 75-160 mm. dia.
- No. 2 grinding spindles, 30-65 mm. dia. and 65-165 mm. dia.
- No. 3 boring spindles, 14-29 mm. dia, 38 mm. dia. and 58 mm. dia.
- Tool setting device
- Centering device with centesimal dial gauge
- Calibrating device for tools complete with instrument (AZ721)
- Square with mounted pin for clamping connecting rods
- 3 liters of coolant additive
- Service tools
- Operating manual

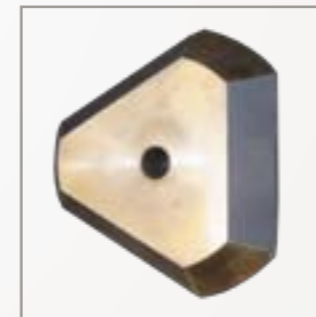
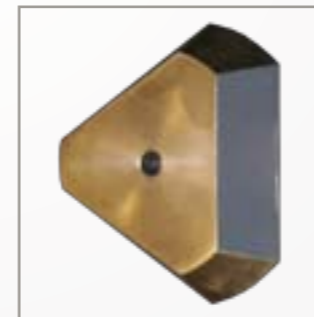
## STANDARD -BR1000

- Low voltage electric control 24 V.
- Coolant system
- Set of 12 grinding wheels for steel and for cast iron
- Set of no. 8 tools
- Set of centering cones (No.5)
- Grinding wheel dresser (diamond excluded)
- Expanding spindle for con-rods clamping from 160 to 250 mm. dia.
- Expanding spindle for con-rods clamping from 75 to 160 mm. dia.
- Expanding spindle for con-rods clamping from 37 to 76 mm. dia.
- Expanding spindle for con-rods clamping from 23 to 37 mm. dia.
- Boring spindle 59 mm. dia.
- Boring spindle 38 mm. dia.
- Boring spindle from 14 to 29 mm. dia.
- Boring Head da 110 to 160 mm. dia.
- Boring Head from 160 to 210 mm. dia. and from 210 to 250 mm. dia.
- Grinding spindle from 30 to 65 mm. dia.
- Grinding spindle from 65 to 250 mm. dia.
- Tool setting device
- Centering device with dial gauge
- Calibrating device for tools complete with instrument
- Square with mounted pin for clamping connecting rods
- 3 liters of coolant additive
- Service tools and Oper

BORING SPINDLES



GRINDING SPINDLES



CENTERING CONES



# BR650 - BR1000

## RECOMMENDED -OPTIONAL EQUIPMENT



AZ411



AZ711-AZ714



AZ520



AZ832



AZ854

### RECOMMENDED EQUIPMENT

- AZ411 Diamond and rest 0,40 kt
- AZ854 Rod alignment checking fixture

### OPTIONAL EQUIPMENT

- AZ711-AZ714 Inner gauge
- AZ520 Boring head
- AZ832 Grinder for tools

## SPECIFICATIONS



Two movement possibilities:  
- vertical  
- horizontal

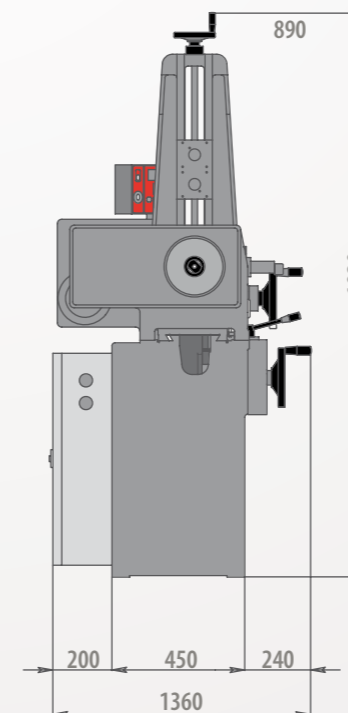
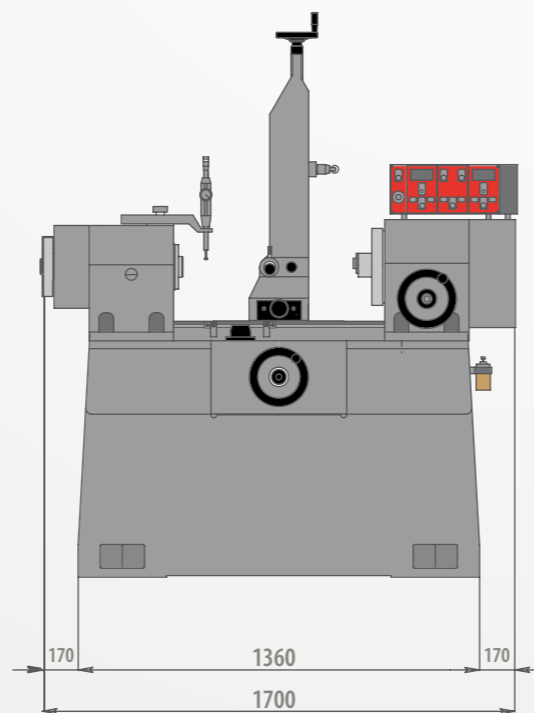
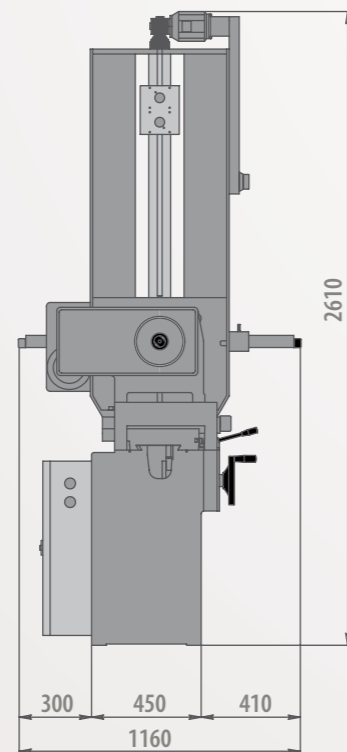
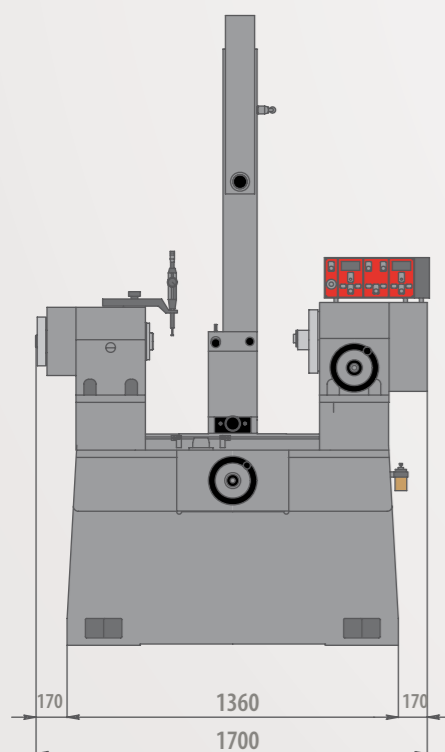
Example of conrod blocking with piston pin



AZ spa | MACHINE TOOLS

	BR650	BR1000
<b>WORKING CAPACITY</b>		
Boring capacity (min. and max. dia.)	15-160 mm	15-250 mm
Grinding capacity (min. and max. dia.)	30-160 mm	30-250 mm
Min. and Max. con-rod center distance	160-650 mm	160-1000 mm
Height of spindle C/L over table	150 mm	380 mm
<b>SPEEDS AND FEEDS</b>		
Boring spindle rotation speeds	0-1200 RPM	0-1200 RPM
Grinding spindle rotation speeds	3300 4400 5300 6300 7500 9000 RPM	3300 4400 5300 6300 7500 9000 RPM
Grinding spindle revolution speeds	80-160 RPM	80-160 RPM
Radial grinding travel (max. eccentricity of wheel C/L)	12 mm	12 mm
Max. table traverse	420 mm	420 mm
Variable automatic table speed on both sides	0-165 mm/min	0-165 mm/min
<b>MOTOR RATINGS</b>		
Motor, feed change	0,1 KW	0,1 KW
Motor, boring head	1,5 KW	1,5 KW
Motor, planetary movement of grinding head	0,5-1 KW	0,5-1 KW
Motor, spindle grinding head	1,1 KW	1,1 KW
Motor, cooling system	0,12 KW	0,12 KW

## DIMENSIONS



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