

ENGINE REBUILDING
CONROD BORING AND GRINDING MACHINES

BR



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



BR650-1000

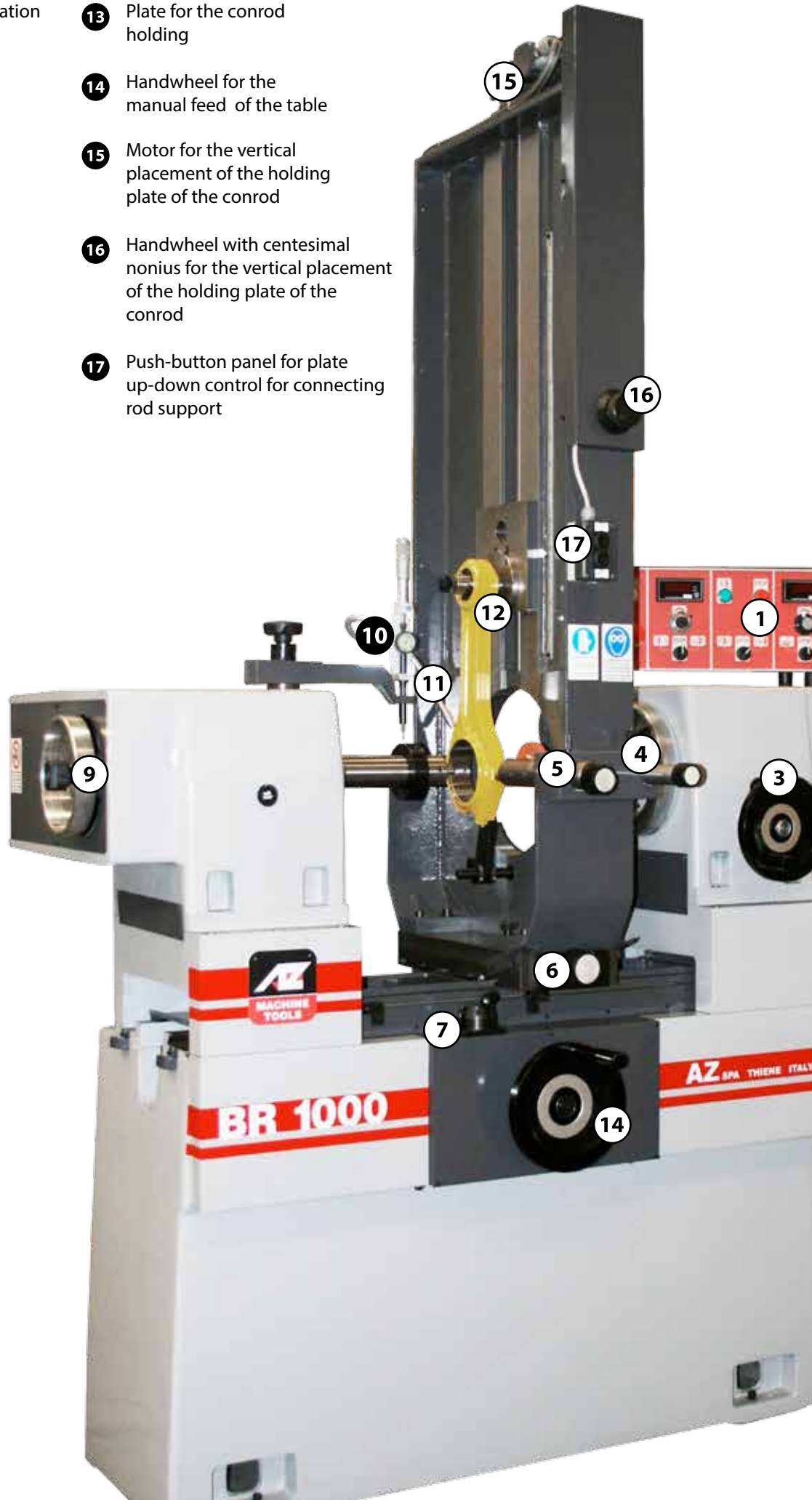
■ VARIABLE SPEED FOR:

- FEED TABLE
- BORING
- GRINDING

■ LOW VOLTAGE ELECTRIC CONTROL 24 V

- 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
- 16 Handwheel with centesimal nonius for the vertical placement of the holding plate of the conrod
- 17 Push-button panel for plate up-down control for connecting rod support



STANDARD EQUIPMENT

■ BR650

AZ252 Set of no. 7 grinding wheels for cast iron and steel

AZ935 Set of no. 8 tools

Grinding wheel dresser (diamond excluded)

AZ734 Tool setting device

AZ733 Centering device with centesimal dial gauge

AZ721 Calibrating device for tools complete with instrument

AZ390 3 liters of coolant liquid

Coolant system

+ *Service tools*

+ *Operating manual*

■ BR1000

AZ520 Boring Head from 110 to 160 mm dia

AZ530 Boring Head from 160 to 210 mm dia

AZ531 Boring Head from 210 to 250 mm dia

AZ254 Set of no. 12 grinding wheels for steel and for cast iron

AZ935 Set of no. 8 tools

Grinding wheel dresser (diamond excluded)

AZ734 Tool setting device

AZ733 Centering device with dial gauge

AZ721 Calibrating device for tools complete with instrument

AZ390 3 liters of coolant liquid

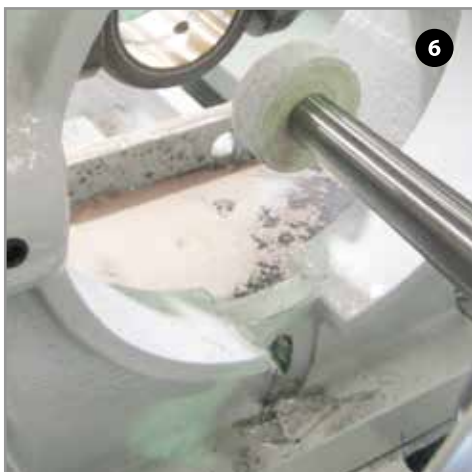
Coolant system

+ *Service tools*

+ *Operating manual*



1. AZ733 CENTERING DEVICE
2. BORING HEAD
3. WHEEL DRESSER
4. BORING HEAD (standard only in BR1000)
5. SET OF TOOLS FOR BORING
6. GRINDING WHEEL
7. AZ721 CALIBRATING DEVICE
8. AZ734 TOOL SETTING DEVICE

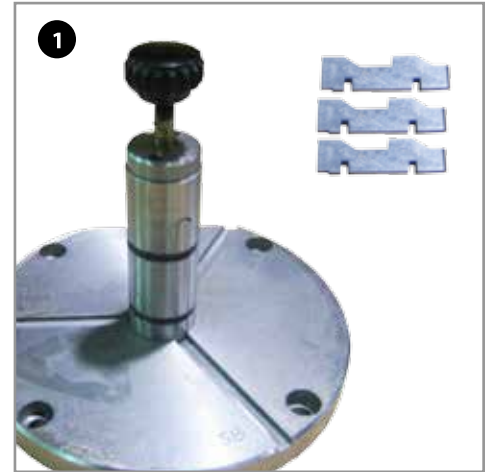


EXPANDING SPINDLES

- AZ741** Expanding mandrel for con-rods clamping from 23 to 37 mm dia
- AZ742** Expanding mandrel for con-rods clamping from 37 to 76 mm dia
- AZ743** Expanding mandrel for con-rods clamping from 76 to 160 mm dia

AZ744 Expanding arbor for con-rods clamping from 160 to 250 mm dia (only for BR1000)

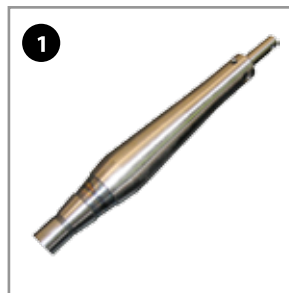
- 1. AZ741
- 2. AZ742
- 3. AZ743
- 4. AZ744



BORING SPINDLES

- AZ521** Boring spindle from 14 to 29 mm dia
- AZ536** Boring spindle 38 mm dia
- AZ537** Boring spindle 59 mm dia

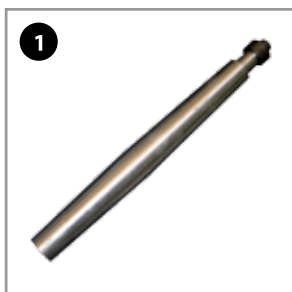
- 1. AZ521
- 2. AZ536
- 3. AZ537



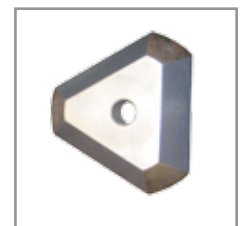
GRINDING SPINDLES

- AZ528** Grinding spindle from 30 to 65 mm dia
- AZ529** Grinding spindle from 65 to 250 mm dia

- 1. AZ528
- 2. AZ529



AZ630 CENTERING CONES



RECOMMENDED EQUIPMENT

■ BR650

AZ411 Diamond and rest 0,40 kt

AZ854 Rod alignment checking fixture

■ BR1000

AZ411 Diamond and rest 0,40 kt

AZ854 Rod alignment checking fixture

OPTIONAL EQUIPMENT

■ BR650

AZ224 Safety guard conforming to CE standard

AZ711 Inner gauge for bushing from 35 to 105 mm dia with dial gauge

AZ714 Inner gauge from 100 to 220 mm dia with dial gauge

AZ520 Boring head from 105 to 160 mm

AZ832 Grinder for tools complete with sharpening support

AZ786 1-axis digital readout for center to centerline

■ BR1000

AZ224 Safety guard conforming to CE standard

AZ711 Inner gauge for bushing from 35 to 105 mm dia with dial gauge

AZ714 Inner gauge from 100 to 220 mm dia with dial gauge

AZ832 Grinder for tools complete with sharpening support

AZ786 1-axis digital readout for center to centerline



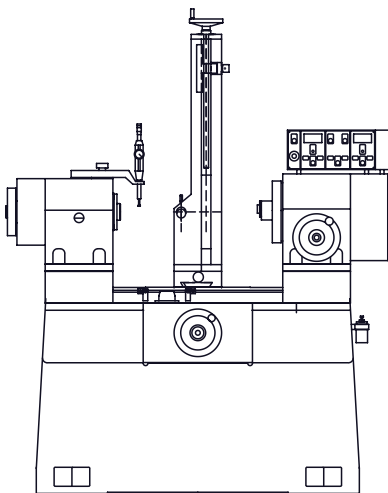
1. AZ854 ROD ALIGNMENT CHECKING FIXTURE
2. PROTECTION CONFORMING TO CE NORMS
3. INNER GAUGE
4. DIGITAL READOUT 1 AXIS
5. GRINDER FOR TOOLS
6. DIAMOND FOR WHEEL DRESSER

TECHNICAL SPECIFICATIONS

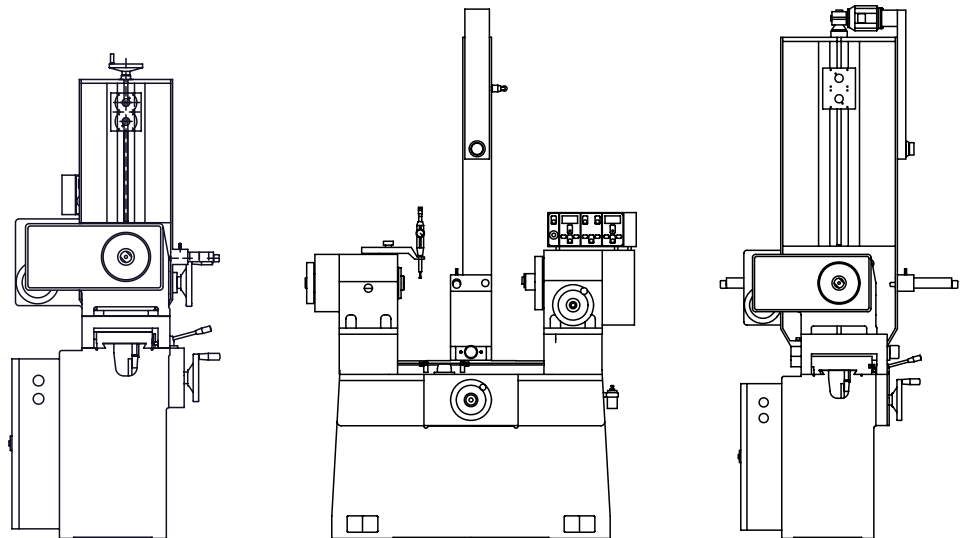
	BR650	BR1000
WORKING CAPACITY		
Boring capacity (min. and max. dia.)	15-160 mm / 0,6"-6,19"	15-250 mm / 0,6"-9,84"
Grinding capacity (min. and max. dia.)	30-160 mm / 1,19"-6,29"	30-250 mm / 1,19"-9,84"
Min. and Max. con-rod center distance	160-650 mm / 6,29"-25,59"	160-1000 mm / 6,29"-39,37"
Height of spindle C/L over table	150 mm / 5,9"	380 mm / 14,96"
SPEEDS AND FEEDS		
Boring spindle adjustable speeds	0-1200 RPM	0-1200 RPM
Grinding spindle adjustable speeds	2500-9000 RPM	2000-9500 RPM
Grinding spindle revolution speeds	80-160 RPM	80-160 RPM
Radial grinding travel (max. eccentricity of wheel C/L)	12 mm / 0,5"	12 mm / 0,5"
Max. table traverse	420 mm / 16,5"	420 mm / 16,5"
Variable automatic table speed on both sides	0-165 mm/min	0-165 mm/min
MOTOR RATINGS		
Motor, feed change	0.75 KW	0.75 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

■ BR650



■ BR1000



	BR650	BR1000
Length	1700 mm	1700 mm
Width	900 mm	1160 mm
Height	2110 mm	2610 mm



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