



## CG - CRANKSHAFT GRINDING MACHINES

AZ spa | MACHINE TOOLS

**model**  
**CG270-2000**  
**CG300-2200**  
**CG360-3300**



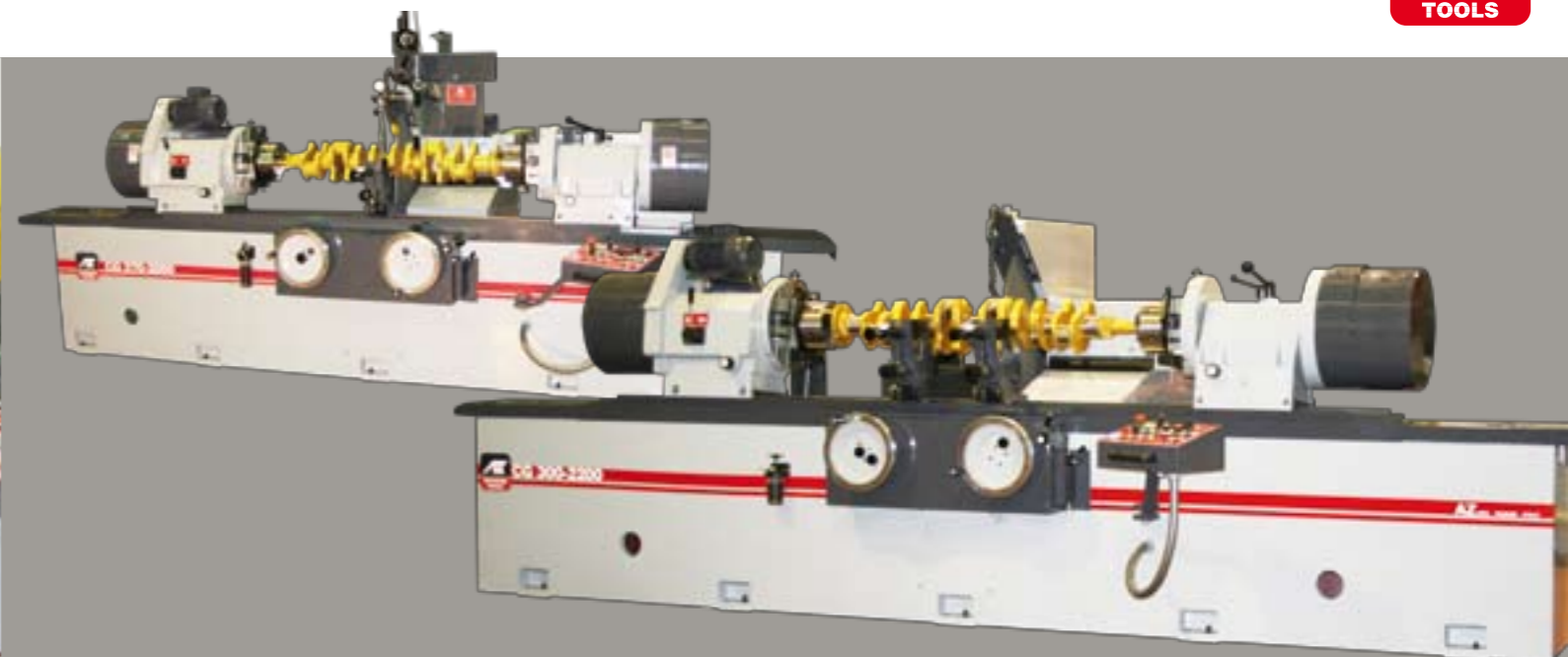


**HIGH SPEED AND WORKING QUALITY**

The crankshaft grinding machines model CG have peculiar characteristics that permit easy and quick set-up and operating of the crankshaft.

These qualities have been reached after a particular design and realisation of the headstock and the relative tailstock.

- the precise connection between the prismatic and flat guides of the basement and the table permit high stability and a perfect perpendicularity with the wheelhead.
- big base to permit the working of big crankshaft without extending the table beyond the base for more than 10% of its length.
- group of leveling points for a better leveling and for the corrections of possible distortions of the machine.



**view of the machine**

CRANKSHAFT ROTATION CLUTCH

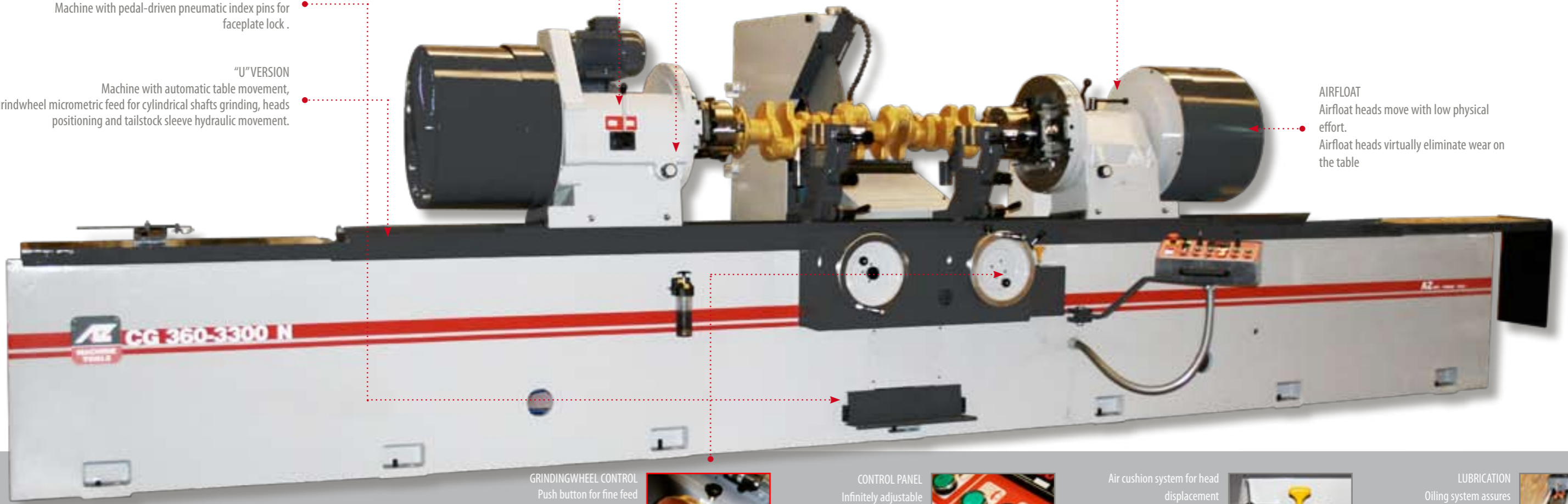
FACEPLATE LOCK KNOB

PNEUMATIC SLEEVE OF TAILTOCK QUILL LOCK

VERSIONS  
"N" VERSION  
Machine with pedal-driven pneumatic index pins for faceplate lock.

"U" VERSION  
Machine with automatic table movement, grindwheel micrometric feed for cylindrical shafts grinding, heads positioning and tailstock sleeve hydraulic movement.

AIRFLOAT  
Airfloat heads move with low physical effort.  
Airfloat heads virtually eliminate wear on the table



GRINDINGWHEEL CONTROL  
Push button for fine feed  
Zero stop for fine feed  
Scale ring for fine feed  
Locking handle for scale ring  
Handwheel for grinding wheel fine feed



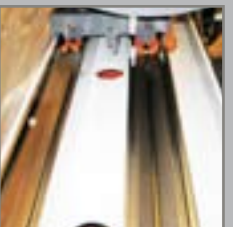
CONTROL PANEL  
Infinitely adjustable workpiece speeds extend grinding wheel life

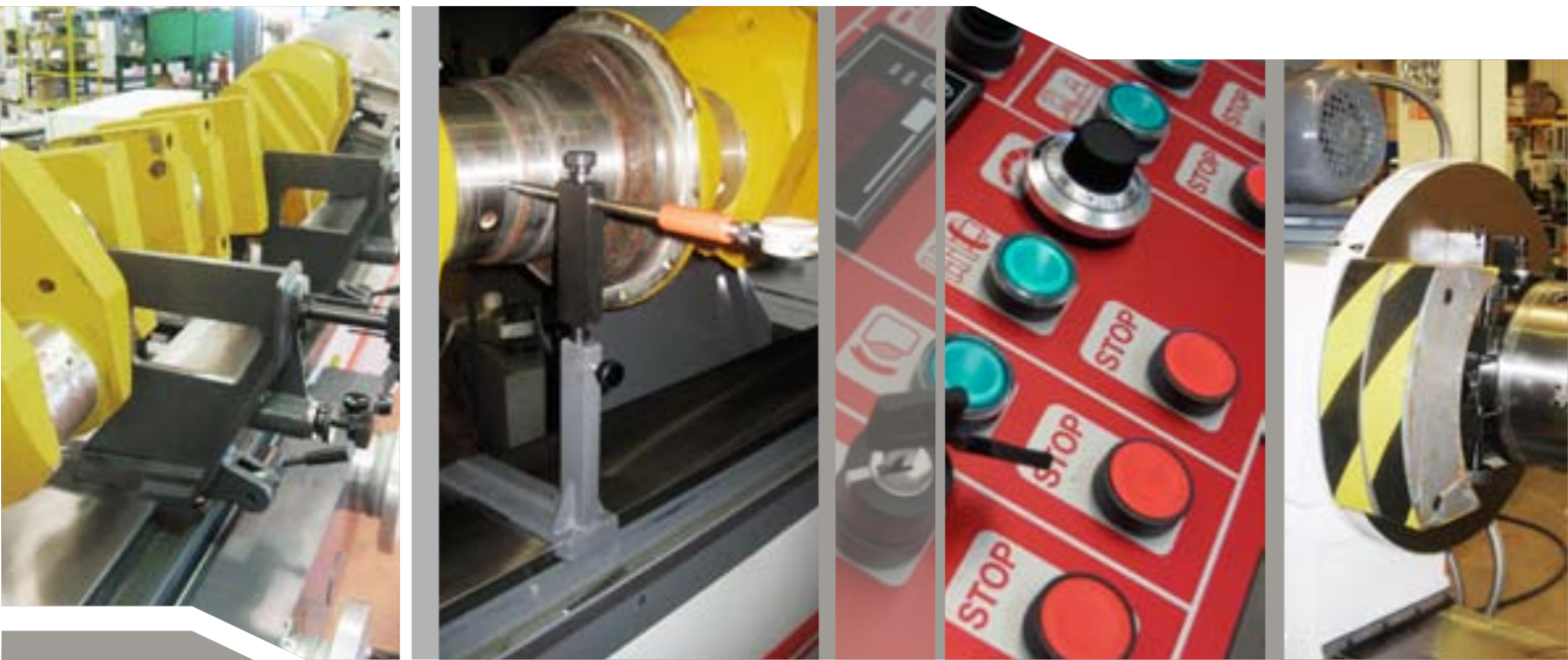


Air cushion system for head displacement

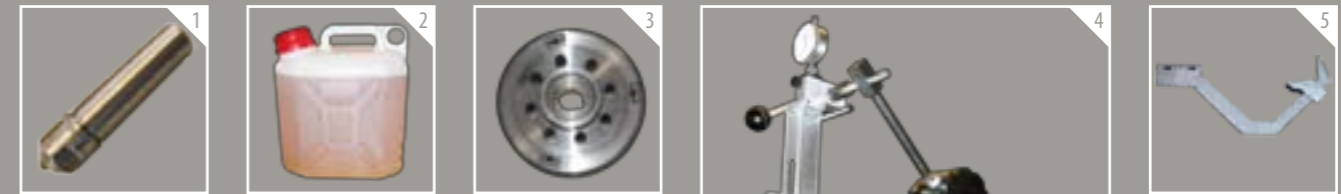


LUBRICATION  
Oiling system assures continuous and complete lubrication.





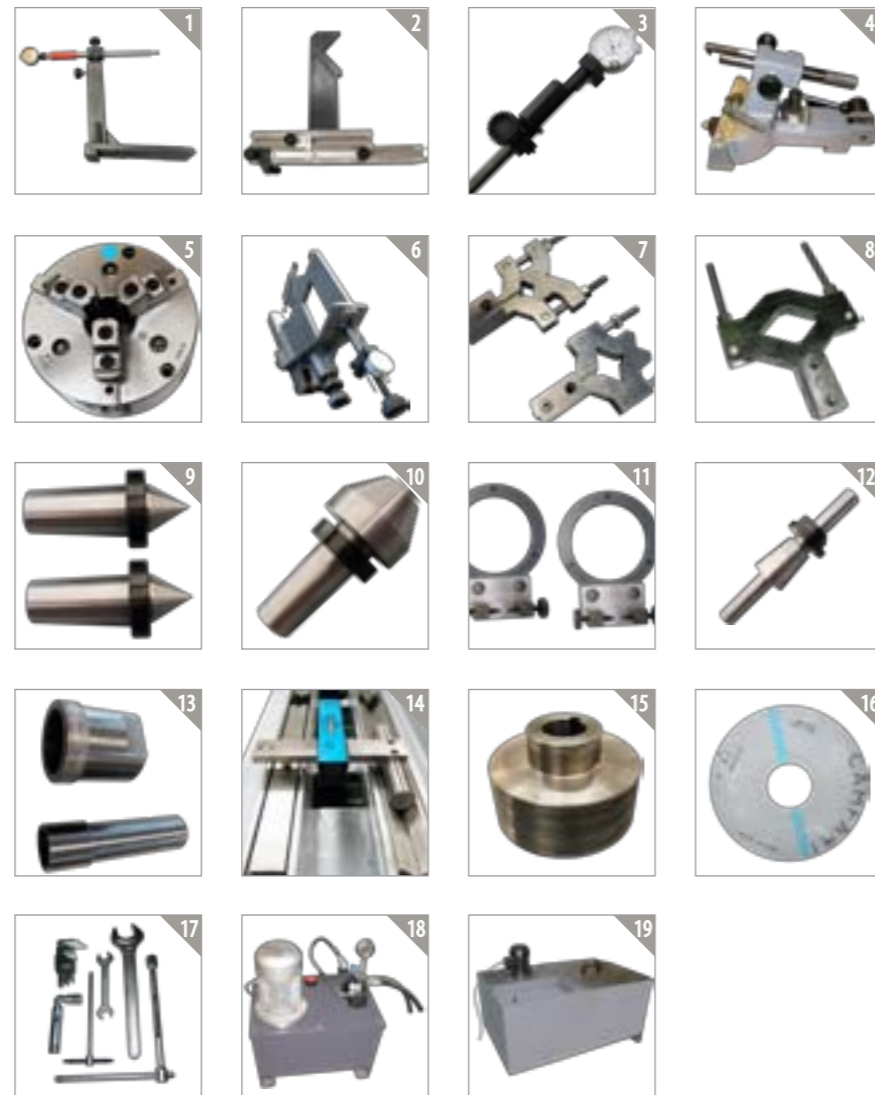
RECOMMENDED EQUIPMENT



1. AZ410 Diamond and rest 1,5 kt
2. AZ390 Grinding coolant (5 liters)
3. AZ420 Pair of flanges - AZ431 for CG360
4. AZ770 Continuous journal sizing gauge (25-110 mm diameter capacity)
5. AZ771 Measuring fork, range from 100 to 200 mm for AZ 770

STANDARD EQUIPMENT

- Crankshaft centering fixture with dial indicator (1)
- Crankshaft journal checking square (2)
- Head offset measuring device with indicator (3)
- Wheel face, side and radius dresser (diamond excluded)(4)
- N. 2 precision self centering chucks 200 mm. dia. for CG270-300 and 225 mm. dia. for CG360 (5)
- N. 1 steady rest with dial indicator(6)
- N. 2 driving dog capacity from 20 to 75 mm(7)
- N.1 driving dogs capacity from 70 to 140 mm (8)
- N. 2 driving plates for drivers (11)
- N. 2 conic centers (9)
- N. 1 blunt center (10)
- Wheel balancing arbor (12)
- Grindwheel hub puller (13)
- Template for levelling the machine (14)
- Motor pulley for reduced grinwheel (15)



- GRINDING WHEELS: (16)
- CG270-2000: 710-203 mm. dia 25 mm. thickness
  - CG300-2200: 815-203 mm dia 25 mm. thickness
  - CG360-3300: 915-305 mm. dia. 32 mm. thickness

- Service tools (17) and Operating manual
- Centralized lubricant system
- Oil-hydraulic system (18)
- Coolant system (19)
- Air cushion system for head displacement
- Low voltage electric controls (24V)
- Electronical variable speed of the headstock

OPTIONAL EQUIPMENT

AZ780 Electronic in process grinding gauge 1 axe (for AZ 770) (1)

Set of auxiliary counter weights :

- AZ401 for CG270
- AZ402 for CG300
- AZ403 for CG360

AZ490 Magnetic coolant cleaner 50 Liters (2)

AZ491 Paper roll coolant cleaner 50 Liters (3)

AZ385 Combined paper roll and magnetic coolant cleaner 50 Lt. (4)

AZ415 Wheel balancing stand (for static balancing) (5)

AZ416 Portable belt superfinisher (6)

Wheel side tapering dresser (7) :

- AZ350 for CG270
- AZ422 for CG300

Hydraulic wheel dresser (without diamond)(8):

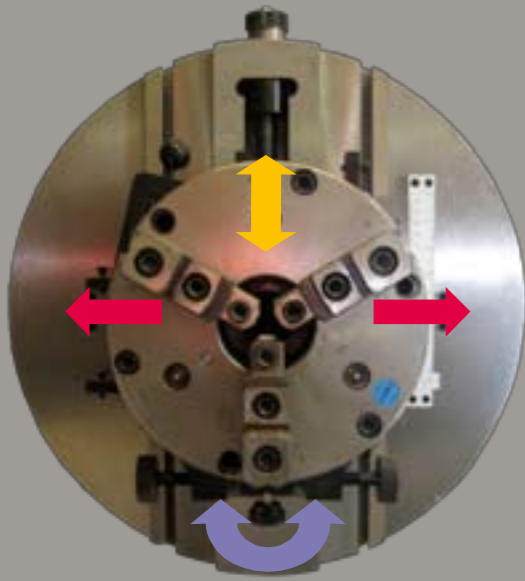
- AZ430 for CG270
- AZ426 for CG300
- AZ427 for CG360

Narrow steady rest :

- AZ480 for CG270
- AZ481 for CG300
- AZ488 for CG360



		GRINDING WHEELS		
		CG270-2000	CG300-2200	CG360-3300
DIAMETER	THICKNESS			
660-203 mm	20 mm	AZ460	-	-
660-203 mm	25 mm	AZ461	-	-
660-23 mm	32 mm	AZ462	-	-
660-203 mm	40mm	AZ463	-	-
660-203 mm	50 mm	AZ464	-	-
815/203 mm	20 mm	-	AZ450	-
815/203 mm	25 mm	-	AZ451	-
815/203 mm	32 mm	-	AZ452	-
815/203 mm	40 mm	-	AZ453	-
815/203 mm	50 mm	-	AZ454	-
815/203 mm	60 mm	-	AZ455	-
915-305 mm.	25 mm	-	-	AZ440
915-305 mm	32 mm	-	-	AZ441
915-305 mm	40 mm	-	-	AZ442
915-305 mm	50 mm	-	-	AZ443
915-305 mm	60 mm	-	-	AZ444
915-305 mm	70 mm	-	-	AZ445



**MOTION AND ADJUSTMENT OF CHUCKING FIXTURES**

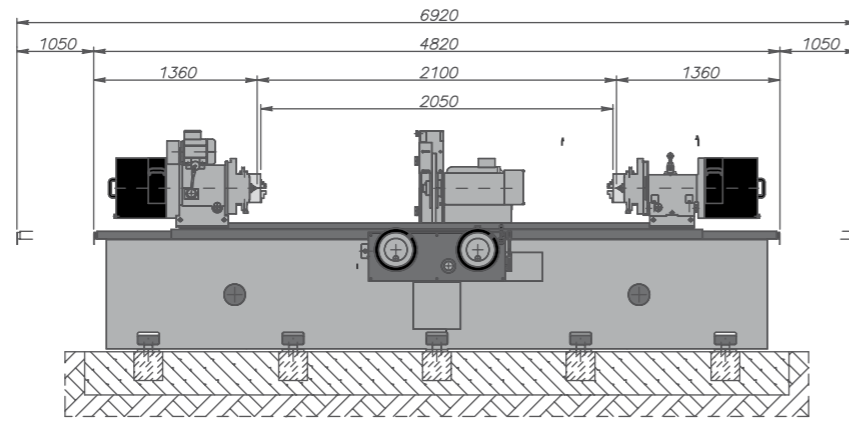
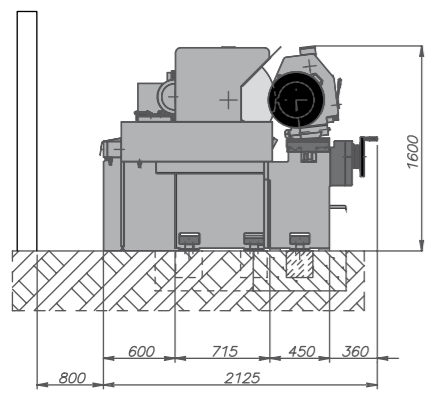
*Sturdy universal chucking fixtures of latest design, guarantee the highest machining precision, fast centering and easy operating.*

- Radial adjustment
- Cross adjustment
- Micrometric angular adjustment
- 360° rotation with twelve 30° chock stops to obtain immediate selection of centering angle.
- Three indexing locations to avoid measurements rechecking and the consequent waste of time.
- If required, these locking pins can also be pneumatic.
- Possibility of adjusting the axis of central heads
- Trim adjust for rapid and fine radial adjustments.
- Possibility of micrometric rotation of the workpiece chuck.

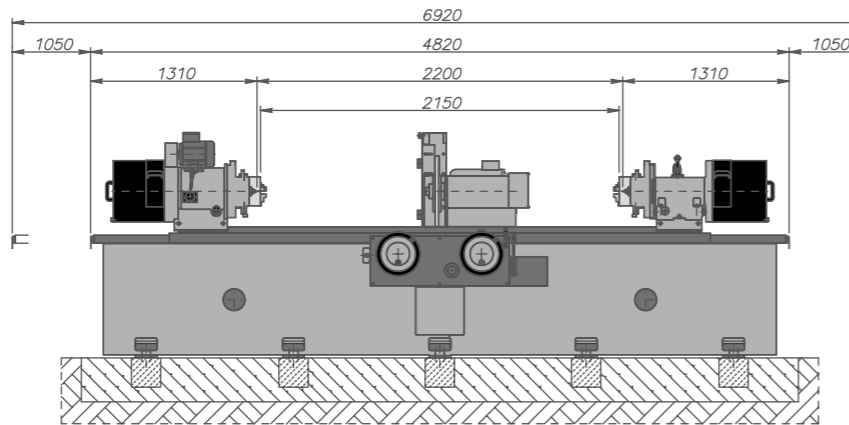
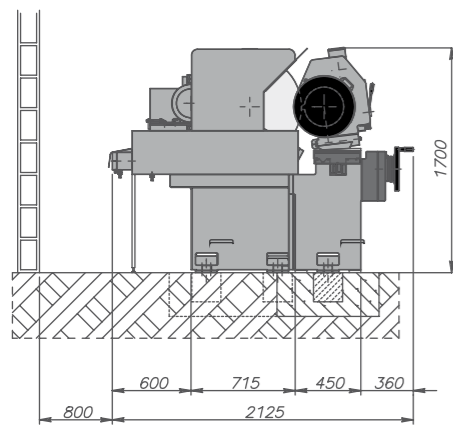


**DIMENSIONS**

**CG270-2000**



**CG300-2200**



**WORKING CAPACITY**

	CG360-3300	CG300-2200	CG270-2000
Height of centres on table	360 mm	300 mm	270 mm
Max distance between centers	3300 mm	2200 mm	2000 mm
Max. distance between self-centring chucks	3250 mm	2150 mm	1550 mm
Swing over table	720 mm	600 mm	540 mm
Max head offset (stroke/2)	170 mm	140 mm	120 mm
Max diameter admitted on std steady rests	180 mm	180 mm	130 mm
Max workpiece diameter-new wheel	270 mm	270 mm	270 mm
Max weight admitted between centers	600 kg	300 kg	300 kg
Max weight admitted with steady rests	1200 kg	600 kg	600 kg

**MACHINE SPECIFICATIONS**

**Z AXIS**

	CG360-3300	CG300-2200	CG270-2000
Max table speed	5000 mm/min	5000 mm/min	5000 mm/min
Table motor power	0,5 KW	0,5 KW	0,5 KW

**X AXIS**

Fast grindhead feed	210 mm	210 mm	210 mm
Micrometric grindhead feed	240 mm	240 mm	200 mm
Hydraulic unit motor power	1,2 KW	1,2 KW	0,75 KW

**WHEEL UNIT**

Diameter of grinding wheel	915 mm	815 mm	710 mm
Max grinding wheel thickness	60 mm	60 mm	50 mm
Standard grinding wheel thickness	32 mm	25 mm	25 mm
Min grinding wheel thickness	20 mm	20 mm	20 mm
Grinding wheel peripheral speed	33 m/s	33 m/s	33 m/s
Wheel rotation motor power	7,5 KW	7,5 KW	4 KW

**WORKHEAD**

Stepless rotation speed	0-80 RPM	0-90 RPM	0-90 RPM
Diameter of chucks	315 mm	200 mm	200 mm
Headstock rotation motor power	1,2 KW	1,1 KW	1,1 KW

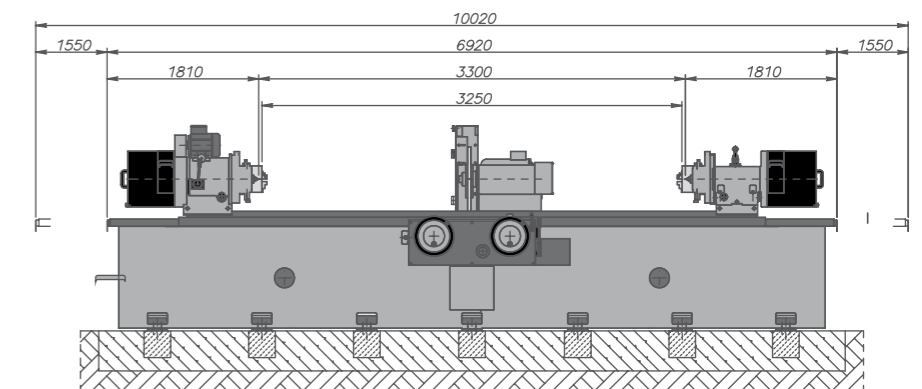
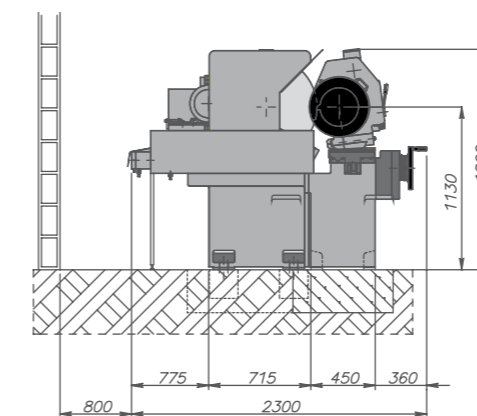
**LUBRICATION UNIT**

Operating pressure	Manuale	Manuale	Manuale
Tank capacity	1 lt	1 lt	1 lt
Pump motor power	Manuale	Manuale	Manuale

**HYDRAULIC UNIT**

Tank capacity	50 lt	50 lt	50 lt
Motor	1,2 kw	0,75 kw	0,75 kw

**CG360-3300**





CG260-1500

CG270-2000

CG300-2200

CG360-3300

CG460-4100

CG575-4100

CG500

CG650

DB8500

DB12500

up to  
**12,5 meters**  
crankshafts



## CG - CRANKSHAFT GRINDING MACHINES

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Subject to change, as of FEBRUARY 2011