



INTERNAL GRINDING MACHINES

SEMI-AUTOMATIC - CNC

PRECISION SINCE 1936



Robbi Group srl
Via dell'Industria 7
37040 Veronella - VR
Italia
39 0442 47700
39 0442 47966
robbi@robbigroup.com
<https://rettificatrici-robbi.com>



OMICRON IGR 250



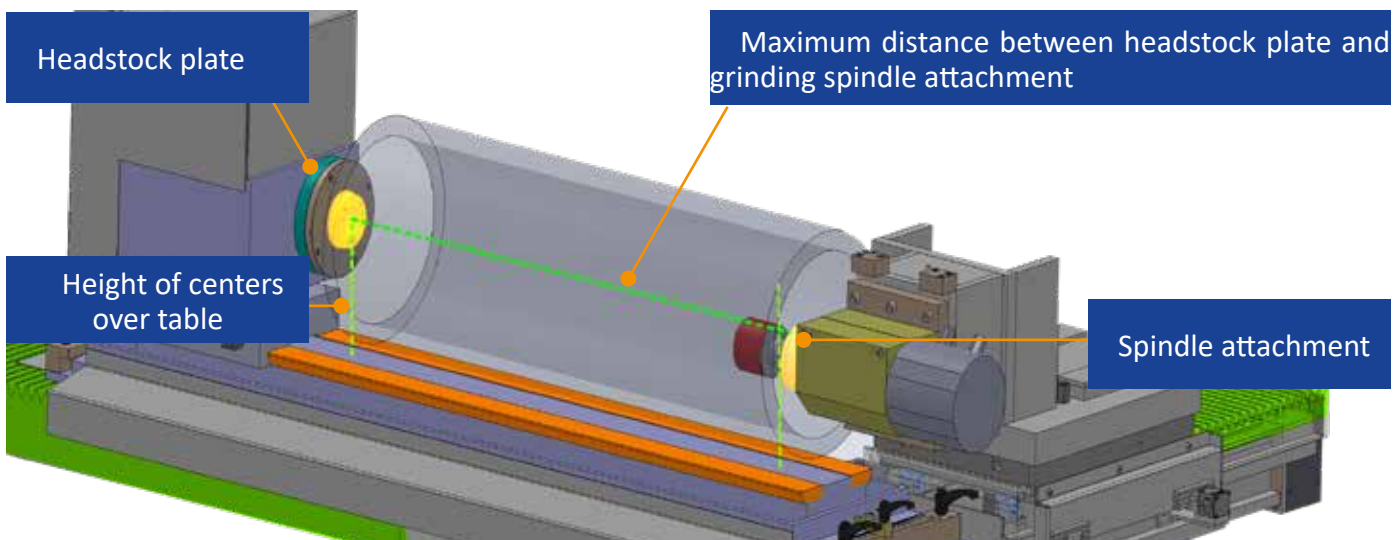
TECHNICAL SPECIFICATIONS

		IGR 250	IGR 600	
Workpiece diameter	Max	355	595	mm
Cantilever weight (150 mm from workhead spindle nose)	Max	80	400	Kg
Workpiece length including clamping device (Distance between headstock plate and grinding spindle attachment)	Max	1.200	2.300	mm
Grinding depth for internal grinding	Max		1.000	
Diameter of internal grinding spindle		120	120	mm
Table swivel		+8°	+6°	
		-4°	-2°	
Table speed		0-4	0-4	m/min
Workhead rotation speed		0-400	0-400	rpm
Workhead internal centre taper		5	6	CM
Self centering chuck diameter (on request)		250	250	mm
Wheelhead motor		4,0	11,0	kW
Workhead motor		1,5	4,0	kW
Coolant pump motor		2,2	2,2	kW

FACING GRINDING DEVICE

Maximum grinding diameter (with cup wheels)	355	mm
Grinding wheel diameter	125	mm
Maximum swivel	10°	

Maximum distance between headstock plate and grinding spindle attachment



OMICRON IGR 600



EQUIPMENT

- SIEMENS TP 700 touch screen control panel
- Wheel head and table automatic electronic feeds controlled by brushless motors
- Re-circulating ball screw with preloaded nut for wheel head and table movement
- Table manual swivelling system for taper grinding with dial gauge
- Wheelhead slides on linear motion guide with roller cage
- Incremental linear encoder for wheelhead movement
- Electric installation, in separate cabinet
- Pneumatic unit
- Centralized lubrication

STANDARD ACCESSORIES

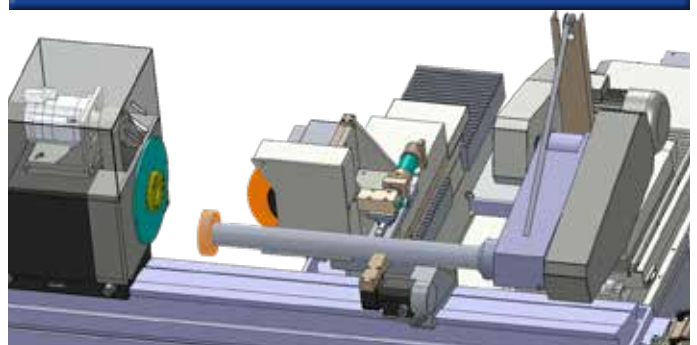
- Internal grinding attachment
- Facing device grinding wheel \varnothing 125 mm
- Wheel Head spindle motor inverter driven
- Coolant equipment complete with pump, tank, pipes and nozzle
- Straight wheel dressing unit (without diamond) mounted on hydraulic plant
- Oil for guide lubricating 5 Kg.
- Instructions manual

FACING GRINDING DEVICE

CUP WHEEL



PERIFERICAL WHEEL



OMICRON IGU



INCREMENTAL LINEAR ENCODER ON BOTH AXIS

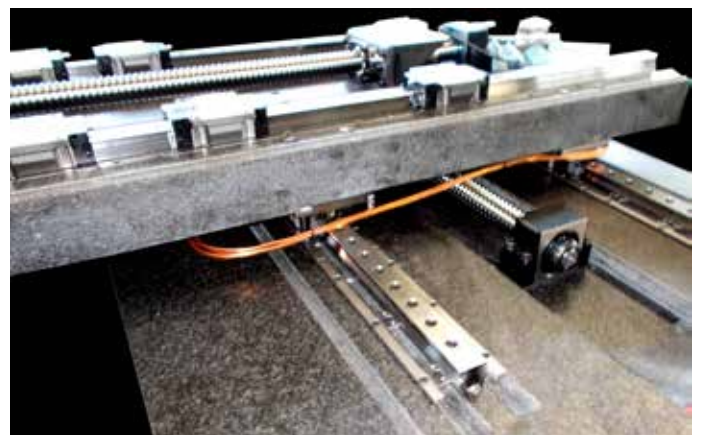
- Maximum positioning accuracy and repeatability
- Excellent performance during the working in interpolation

ROLLER LINEAR GUIDES

- Maximum rigidity
- Speed and acceleration over the very low speed
- Elimination of stick slip.

GRANITE BASE

- Low thermal expansion
- Excellent rigidity
- Absorption of the vibrations



UP TO 4 GRINDING SPINDLES ON ROTATING TURRET

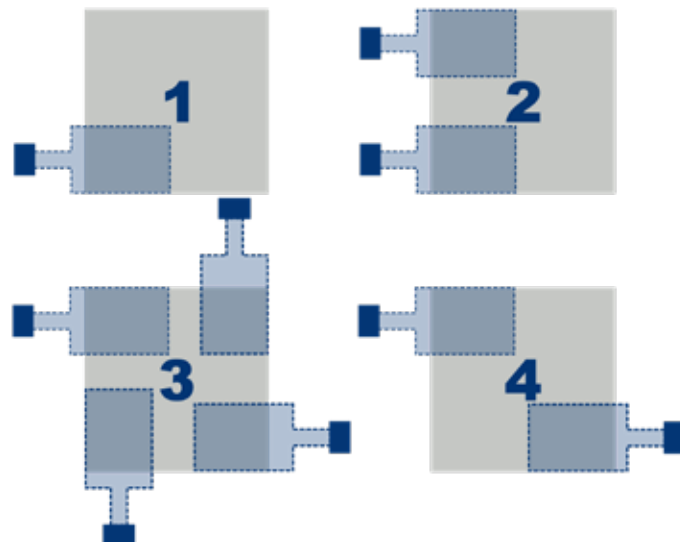
An important component of the IGU 400 is represented by the spindle turret that, in the maximum configuration, can be equipped with:

- 4 spindles (one of which for external)
- 4-spindles for internal grinding
- tailstock to facilitate the grinding borecentering

The tower has an integrated swivel axis that runs automatically and allows you to use up to 4 grinding spindles.

The rotation of the turret is automatic and the positioning is accurate and precise (the turret do not rotates in the versions numer 1 and 2)

INTERNAL GRINDING

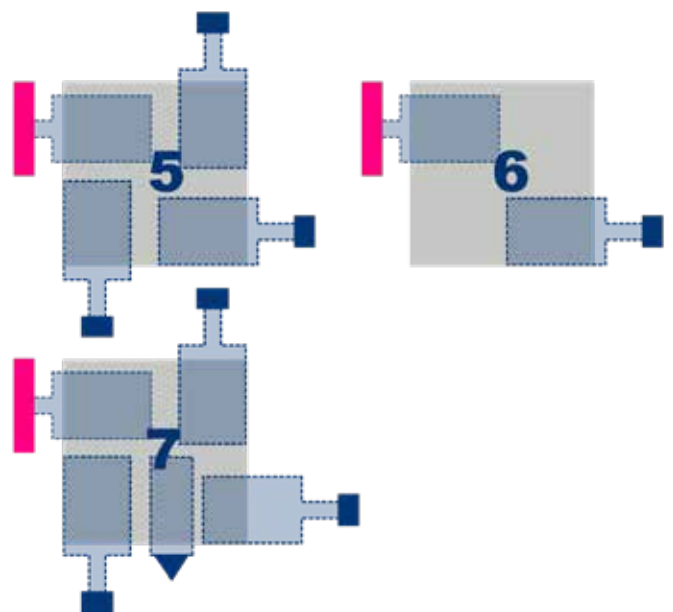


INTERNAL GRINDING WHEEL

EXTERNAL GRINDING WHEEL

TAILSTOCK

EXTERNAL INTERNAL GRINDING



TECHNICAL SPECIFICATIONS

SPINDLE TURRET POSITIONING

Number of spindles	Max	4	num
Turret spindle diameter	Max	120	mm
Swiveling range		-5° +275°	
Repetition accuracy		< 1"	
Swiveling time for 180 deg		< 10	sec
Resolution		0,001	gradi

WORK HEAD

Spindle speed	1—800 rpm
Spindle taper	6 ASA
Spindle taper	5 CM
Spindle bore diameter	35.5 mm
Driving power	1,6 kW
cantilever weight 150 mm from workhead spindle nose	80 kg

DIMENSIONS

Height	1700 mm
Lenght	2600 mm
Width	1600 mm
Weight	2600 kg

Height of centres over table	325 mm
Rotating diameter	Max 650 mm
Workpiece length	Max 300 mm
Internal grinding depth	Max 200 mm
External grinding diameter	Max 200 mm

Z AXIS

Travel	Max 650 mm
Speed	Max 10.000 mm/min
Resolution	0.0001 mm

X AXIS

Travel	Max 450 mm
Speed	Max 10.000 mm/min
Resolution	0.0001 mm

B AXIS

Swivelling range	+30° -20°
Repetition accuracy	< 1"
Resolution	0.001 mm

SIMPLE HUMAN-MACHINE INTERFACE

- Wheelhead and table position visualized on operator panel
- Possibility to program up to 12 different diameters, on the same grinding cycle
- Possibility to update the operator panel, with the correction of each diameter
- Semi automatic grinding cycle, with stop of the grinding wheel feed once the programmed diameter has been reached
- Automatic grinding wheel dressing cycle with compensation of all the grinding dimensions



WORKING CYCLES WITH EASY PARAMETERS

PASS	✓
PLUNGE	✓
FACING	✓
MULTI DIAMETER	✓



- stock removal - rough and finish
- dwell - table inversion
- sparkout time
- sparkout pass

PASS GRINDING CYCLES

Automatic increments - rough and finish

PLUNGE GRINDING CYCLES

Automatic feeds - rough and finish

Touch screen operator panel SIEMENS TP700 for easy programming of grinding cycles

AT YOUR SERVICE SINCE 1936



Robbi has operated in the machine tool market since 1936 and specialise in the manufacture of machines tailored to meet the more demanding needs of the customer's complex and more specialised demands.

Whilst maintaining competitive prices, Robbi have ensured their machines have stability and precision.



Robbi grinding machines, use the best technology and the most robust and reliable components available on the market in their build programme.

Robbi have a commitment to assist and help, proactively, its customers to ensure they maximise the efficiency of the machine.



Robbi, in fact, offers various service solutions, including the:

- *development of manufacturing processes;*
- *replacement parts spare part programme,*
- *making parts available for older models,*
- *tailored operational training programs*
- *and maintenance training to maximise the features of grinding machines and maintain the Robbi Grinders longevity.*



Understanding the needs of our customers we are offer the best solutions and services that increase their return on productivity thus improving our customers return on his investment.

Ideas that may improve our business are always appreciated from customers.

If there's anything we can do to improve your experience with Robbi, please let us know.

Robbi have a commitment to ensure all customers are completely satisfied.

Choose Robbi precision for increased productivity and a faster return on your investment.

Call us today, we've have a solution for your grinding application.



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