



HYDRAULIC SURFACE GRINDING MACHINES



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TECHNICAL SPECIFICATION

The Surface Grinding Machine of ROBBI Group are characterized by significant power, rigidity and precision: these are intended for reconditioning of engines but can also be employed for flattening jobs

The automatic reciprocating movement of the table is hydraulically controlled or ball screw : in the hydraulic version the control unit is located at the outside of the machine in order to eliminate even the smallest defects of processing arising from the heat or vibrations from the pump unit.

The grinding head, sliding on column guides, is equipped with 3 possibilities of movement:

- fast motorized
- manual fine
- automatic with adjustable pulse.

On the head of the grinding wheel there are applied

the devices, for the dressing of the grinding wheel and for checking the straightness of the surface characteristics.

ALPHA (Hydraulic Version) are equipped with coolant unit (On request it can be supplied with a magnetic separator).

The electrical equipment is contained in a separate cabinet

All controls are low voltage, as required by current safety standards.

Possibility to operate upon grinding wheel abrasive segments or indexable milling cutting tools. The inserts can be rotated or replaced, without necessity of registration, by simply loosening and locking of a single screw for each insert.

SPINDLE SEPARATED FROM WHEEL MOTORS

Best spindle cooling reduction of the thermal elongation of the spindle

ROBBI PLC PROGRAM

Robbi PLC Program work in the ball screw version and it is very useful during CBN and PCD grinding at the end of the process the spindle stop rotation and it is oriented: in this way the tools are not on direct contact with the machined surface.
table returns to the start position without the need to raise the head

ROBUST AND STABLE BED

Made in normalized and stabilized cast iron with large ground guides .

HEAD

The head slides on rollers Guides (available on ALPHA 17-18-23)
In this way the thousandth movements are very precise and highly accurate without jamming .
The spindle , hardened steel , is housed on roller bearings.
The spindle motor rotates at variable speed controlled by inverter

BRUSHLESS MOTORS (BALL SCREW VERSION)

Extremely precise adjustment of the speed of table feed , without jamming at very slow speeds

CUSTOMIZATION

The ALPHA (Surface Grinding Machine) can be customized in many ways

2 VERSIONS

HYDRAULIC

High speed of table moving

BALL SCREW

More constant speeds

SEGMENTED GRINDING WHEEL

Surfacing of workhead with pre-chambre or bimetallic inserts

CBN AND PCD TOOLS

High precision grinding machining (without coolant) in a reduced processing times.

SEGMENTED GRINDING WHEEL

Surfacing of workhead with pre-chambre or bimetallic inserts



ALPHA 12



Hydraulic table movement with variable translation speed

Spindle is supported by adjustable taper roller bearings

Transmission motor to spindle by special belt

Separated cooling installation with decantation tank

Segmented grinding wheel with coupling for tool holder bar for aluminum surfacing

Head movement control device

Multicult Hydraulic Surface Grinder

These models of hydraulic surface grinders for heads and blocks in cast iron, aluminium and particulars in steel, have been purposely designed for working with a 12 inserted tools milling cutter

STANDARD EQUIPMENT

Coolant tank, electro-pump, with electric system

Complete hydraulic installation

Head movement control device (without dial gauge)

Set of splash guard

Segmented Grinding Wheel with Abrasive Segments

Toolholder complete with 2 tools, with brazed tool tip for aluminium alloys

Wheel Dresser

2 Parallel Supports 100 mm high with bolts

4 locking clamps with bolts

Set of Service Spanners

Operating Manual

EXTRA EQUIPMENT

044R	Powered rotary table for grinding flywheels and clutch pressure plates
045R	Wheelhub aasy, complete with flaring cup wheel for cast iron, ø 125 mm, to be used with rotary table
185B	3 clamps (to be used with powered rotary table)
157B	Universal fixture for clamping V-cylinder blocks
262R	Tool plate ø 350 mm with cutting tools
024R	Coolant magnet cleaner
041R	
057R	Electrical equipment with low-voltage controls
017M	Dial gauge ø 58 mm (for head movement control device)
025R	Coolant paper roll cleaner
021R	Balamncing stand for grinding wheels and other totating parts, blade type
FA	Arbor for wheel balancing
	Clamping support for Fiat, Golf, Peugeot, Ford, heads
SP4520	Couple setting up supports 200 mm high with bolts
	Couple swinging supports for fast head clamping
055R	Magnetic chuck for industrial grindings 750x250 mm
069R	Magnetic chuck for industrial grindings 800x250 mm

TECHNICAL SPECIFICATION

		12	
Grinding Length	Max	1200	mm
Grinding width	Max	360	mm
Surface milling width	Max	350	mm
Working surface of table		1200	mm
		300	mm
Distance centre of spindle to column guides	Max	750	mm
Distance centre of spindle to column guides	Min	130	mm
		200÷1800	rpm
Longitudinal table travel	Max	1380	mm
Automatic table feed per minute		0÷5000	mm
		0÷2000	mm/min
		0÷3000	mm/min
		310	mm
Vertical wheel head feed		620	mm
		370	mm
		420	mm
Diamaterof milling cutter		350	mm
Spindle rotation motor 50Hz		3,75	kW
Spindle rotation motor 60Hz		4,5	kW
Wheel speed rotation		700-1400	rpm
Cutter Speed Rotation		180-360	rpm
Spindle motor		0,8-1,3	
Hydraulic pump motor		1	
		0,12	
Dimensions			
Lenght		3000	
Width		1370	
Machine height		2050	
Workspace rewuiired			
Lenght		4380	
Width		1370	
Approx. Net weght		1700	

ALPHA 15-17



Hydraulic table movement with variable translation speed

Spindle is supported by adjustable taper roller bearings

Transmission motor to spindle by special belt

Separated cooling installation with decantation tank

Segmented grinding wheel with coupling for tool holder bar for aluminum surfacing

Head movement control device

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STANDARD EQUIPMENT

Coolant tank, electro-pump, with electric system

Complete hydraulic installation

Head movement control device (without dial gauge)

Set of splash guard

Segmented Grinding Wheel with Abrasive Segments

Toolholder complete with 2 tools, with brazed tool tip for aluminium alloys

Wheel Dresser

2 Parallel Supports 100 mm high with bolts

4 locking clamps with bolts

Set of Service Spanners

Operating Manual

EXTRA EQUIPMENT

044R	Powered rotary table for grinding flywheels and clutch pressure plates
045R	Wheelhub aasy, complete with flaring cup wheel for cast iron, ø 125 mm, to be used with rotary table
077R	3 clamps (to be used with powered rotary table)
157B	Universal fixture for clamping V-cylinder blocks
047R	Tool plate ø 380 mm with 12 cutting tools
024R	Coolant magnet cleaner
041R	
057R	Electrical equipment with low-voltage controls
017M	Dial gauge ø 58 mm (for head movement control device)
025R	Coolant paper roll cleaner
021R	Balamncing stand for grinding wheels and other totating parts, blade type
FA	Arbor for wheel balancing
	Clamping support for Fiat, Golf, Peugeot, Ford, heads
SP4731	Couple setting up supports 300 mm high with bolts
	Couple swinging supports for fast head clamping
051R	Magnetic chuck for industrial grindings 800x300 mm
052R	Magnetic chuck for industrial grindings 1000x300 mm

TECHNICAL SPECIFICATION

		15	17	
Grinding Length	Max	1300	1650	mm
Grinding width	Max	410	410	mm
Surface milling width	Max	400	400	mm
Working surface of table		1300	1500	mm
		360	400	mm
Distance centre of spindle to column guides	Max	850	950	mm
Distance centre of spindle to column guides	Min	150	200	mm
		200÷1800	200÷1800	rpm
Longitudinal table travel	Max	1500	1850	mm
Automatic table feed per minute				mm
		0÷2000	0÷2000	mm/min
		0÷3000	0÷3000	mm/min
		420	420	mm
Vertical wheel head feed		700	750	mm
		420	420	mm
				mm
Diamaterof milling cutter		320	350	mm
Spindle rotation motor 50Hz		6.5	6.5	kW
Spindle rotation motor 60Hz		7.5	7.5	kW
Wheel speed rotation		180-360-1400	180-360-1400	rpm
Cutter Speed Rotation				rpm
Spindle motor				
		0,75	0,75	
Hydraulic pump motor		1	1,25	
		0,12	0,12	
Dimensions				
Lenght		3200	3600	
Width		1350	1350	
Machine height		2030	2130	
Workspace rewuiired				
Lenght		4700	5500	
Width		1300	1300	
		2350	2450	
Approx. Net weght		2200	2800	

ALPHA 18-23



Hydraulic table movement with variable translation speed

Spindle is supported by adjustable taper roller bearings

Transmission motor to spindle by special belt

Separated cooling installation with decantation tank

Segmented grinding wheel with coupling for tool holder bar for aluminum surfacing

Head movement control device

Multicult Hydraulic Surface Grinder

These models of hydraulic surface grinders for heads and blocks in cast iron, aluminium and particulars in steel, have been purposely designed for working with a 12 inserted tools milling cutter

STANDARD EQUIPMENT

Coolant tank, electro-pump, with electric system

Complete hydraulic installation

Head movement control device (without dial gauge)

Set of splash guard

Segmented Grinding Wheel with Abrasive Segments

Toolholder complete with 2 tools, with brazed tool tip for aluminium alloys

Wheel Dresser

2 Parallel Supports 100 mm high with bolts

4 locking clamps with bolts

Set of Service Spanners

Operating Manual

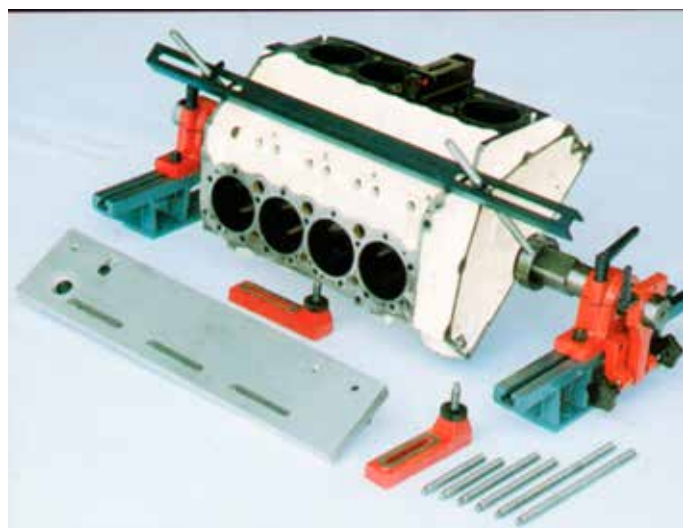
EXTRA EQUIPMENT

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077R	3 clamps (to be used with powered rotary table)
157B	Universal fixture for clamping V-cylinder blocks
047R	Tool plate ø 380 mm with 12 cutting tools
024R	Coolant magnet cleaner
041R	
057R	Electrical equipment with low-voltage controls
017M	Dial gauge ø 58 mm (for head movement control device)
025R	Coolant paper roll cleaner
021R	Balamncing stand for grinding wheels and other totating parts, blade type
FA	Arbor for wheel balancing
	Clamping support for Fiat, Golf, Peugeot, Ford, heads
SP4731	Couple setting up supports 300 mm high with bolts
	Couple swinging supports for fast head clamping
051R	Magnetic chuck for industrial grindings 800x300 mm
052R	Magnetic chuck for industrial grindings 1000x300 mm

TECHNICAL SPECIFICATION

		18	23	
Grinding Length	Max	1600	2100	mm
Grinding width	Max	470	470	mm
Surface milling width	Max	470	470	mm
Working surface of table		1400	1900	mm
		400	400	mm
Distance centre of spindle to column guides	Max	1200	1200	mm
Distance centre of spindle to column guides	Min	180	180	mm
		200÷1800	200÷1800	rpm
Longitudinal table travel	Max	1800	2300	mm
Automatic table feed per minute				mm
		0÷2000	0÷2000	mm/min
		0÷3000	0÷3000	mm/min
		480	480	mm
Vertical wheel head feed		870	870	mm
		480	480	mm
				mm
Diamaterof milling cutter		320	350	mm
Spindle rotation motor 50Hz		6.5	6.5	kW
Spindle rotation motor 60Hz		7.5	7.5	kW
Wheel speed rotation				rpm
Cutter Speed Rotation				rpm
Spindle motor				
Hydraulic pump motor				
Dimensions				
Lenght				
Width				
Machine height				
Workspace rewuiired				
Lenght				
Width				

MANDRINI ALESATORI



Levigatori	Diametri Levigabili	Portapietre		mm
L/31	31 ÷ 51	12	PA.31	76 x 5,5 x 4,0
L/40	40 ÷ 55	16	PA.40	76 x 5,5 x 4,0
L/50	51 ÷ 74	20	PA.50/6	80 x 9,5 x 6,5
			PA.50/8	80 x 9,5 x 8,5
L/60	59 ÷ 85	20	PA.60	80 x 9,5 x 6,5
L/70	70 ÷ 104	24	PA.70	80 x 9,5 x 8,5
L/80	83 ÷ 110	18	PA.80	100 x 9,5 x 8,5
L/100	102 ÷ 154	30	PA.100	125 x 9,5 x 10
L/120	120 ÷ 180	30	PA.120	125 x 9,5 x 10
L/150	150 ÷ 210	30		
L/200	200 ÷ 265	30		

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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