

PRECISION ROTARY SURFACE GRINDER WITH VERTICAL & HORIZONTAL SPINDLE



50 Years Of
Grinding Excellence

ALEX
Machine Tools Pvt. Ltd.

www.alexmachinetools.com

ROTARY

ROTARY SURFACE GRINDER WITH VERTICAL SPINDLE (RR)

DESCRIPTION

- This series is designed for flat grinding of one side of the job at a time for each table load.
- Rotary work table operates on large, circular ways-well lubricated by means of an oil sump. It carries an electro magnetic chuck with circular poles.



- Wheel Spindle Head is of extremely rigid construction, with precision bearings duly preloaded. Segmented wheel is directly mounted at lower end.
- Column has oversize vertical vee and flat ways fully protected from grinding dust and coolant by sliding steel guards. Wheel feed can be applied by hand or power. Precision Screw gives positive down feed on the head for accurately controlling small increments of feed.



- Access to work table is unique, in that a greater proportion of the work table is opened for easier and safer work handling. Being a fixed centre table, the initial accuracies are maintained for the entire life of the machine.



- Segmental Wheel or Ring Wheel Holder is provided as Standard Equipment



TECHNICAL SPECIFICATIONS

MODEL		R20	R30	R40	R50	R60
Magnet Table Diameter	mm (inch)	500 (20)	750 (30)	1000 (40)	1250 (50)	1500 (60)
Segmental Wheel Diameter	mm (inch)	350 (14)	450 (18)	550 (22)	700 (28)	810 (32)
Segments per set		8	8	10	12	16
Maximum Wheel Clearance	mm (inch)	150 (6)	250 (10)	250 (10)	300 (12)	500 (20)
Spindle Speed	rpm	1200	960	750	500	460
Table Speed	rpm	10 & 20	7.5 & 15	6 & 12	5 & 10	4 & 8
Automatic Feeds per min (infinitely variable)	mm (inch)	0.05 - 1.0 (0.002-0.04)	0.05 - 1.0 (0.002 - 0.04)	0.05 - 1.0 (0.002 - 0.04)	0.05 - 1.0 (0.002 - 0.4)	0.05 - 1.0 (0.002 - 0.4)
Spindle Motor	hp (KW)	7.5 (5.5)	25 (18.5)	30 (22)	60 (45)	75 (55)
Table Motor	hp (KW)	1/1.5 (0.75/1.1)	2/3 (1.5/2.2)	3/4 (2.2/3)	4/5 (3/3.7)	5/7.5 (3.7/5.5)
Machine Size	mm	1750 x 1200 x 1500	2000 x 1600 x 1900	2300 x 1700 x 1900	2900 x 2200 x 2400	3200 x 3200 x 2700
Length x Width x Height	(inch)	(69 x 47 x 59)	(80 x 63 x 75)	(90 x 67 x 75)	(115 x 87 x 95)	(126 x 126 x 106)
Net weight of machine	Kg (Lb)	2000 (4400)	5000 (11000)	6500 (14500)	9000 (20000)	13000 (29000)
Gross Weight of machine	Kg (Lb)	3000 (6500)	6000 (13000)	7500 (17000)	10500 (23000)	15000 (33000)

CONTROLS AS OPTIONAL

■ Electronic Sizing Unit

Automatic electronic gauging can be provided. It gives continuous measurement of work during grinding cycle and visual indications that the work is approaching size.

When work reaches a preset dimension grinding stops, the machine sparks out and the Head retracts. Since the job is directly probed, wheel wear is directly compensated.

■ CNC Control

CNC controls for Vertical axis with servo drives via precision ball screw is also available as optional equipment.



CNC Control Provide Full Automatic Grinding Cycle. One Touch Push Button and the sequence of operation is as follows.

- Rapid down feed from home position
- Slow rapid during air cutting
- Coarse feeding
- Automatic wheel dressing with wheel wear compensation system
- Fine Feed
- Dwell Period
- Auto Retraction to home position



STANDARD EQUIPMENT

- Segmental Chuck with two sets of grinding segments
- Built-in Wheel Dressing Unit
- Table Guard
- Set of Wrenches
- All Electric Motors
- Internal Wiring and Control Gear
- Electro Magnetic Chuck
- Complete Coolant Equipment

OPTIONAL EQUIPMENT

- Dial Caliper
- Vertical Position Indicator
- Cylinder Wheel Holder
- Demagnetiser Platten Type or Aperture Type
- Dimmerstat (For variable magnet power)
- Built-in Table Demagnetiser (For easy removal of jobs)
- Electronic Sizing Unit
- CNC Control
- Auto Lubrication System
- Coolant Filtration Systems



ROTARY SURFACE GRINDER WITH HORIZONTAL SPINDLE - RH SERIES

DESCRIPTION

This series features our well proven program of surface grinders with rotary tables. These machines are particularly suitable for High Precision Surface grinding of thin parts of high accuracy & Circular parts where one piece is to be ground at a time flat or with a radial taper. Besides, in applications where batches of small parts are to be ground with a high degree of parallelism & high surface finish this type of machine is a better alternative to a reciprocating machine as production time will be much less. This is because the grinding wheel is in constant touch with the grinding pieces, the operating speed of the work pieces is higher and the work pieces move constantly in one direction only.

TECHNICAL SPECIFICATIONS

MODEL		RH-500	RH-650	RH-1000
CAPACITY				
Magnetic Chuck Diameter	mm (inch)	500 (20)	650 (25)	1000 (40)
Swing inside Waterguard	mm (inch)	600 (24)	750 (29)	1100 (44)
Vertical Range Upto	mm (inch)	200 (8)	250 (10)	300 (12)
SPEEDS AND FEEDS				
Table Speed (Infinitely Variable)	rpm	10-50	8-40	5-25
Automatic Cross Feed (Infinitely Variable)	mm/min (inch/min)	50-200 (2-8)	100-500 (4-20)	100-500 (4-20)
Each Revolution of Hand Wheel (Vertical Feed)	mm (inch)	0.200 (0.008)	0.200 (0.008)	0.200 (0.008)
Each Gradation of Hand Wheel (Vertical Feed)	mm (inch)	0.002 (0.0001)	0.002 (0.0001)	0.002 (0.0001)
Power Elevation	mm/min (inch/min)	100 (4)	100 (4)	100 (4)
GRINDING WHEEL				
Wheel size OD x H x ID	mm (inch)	250 x 25 x 76.2 (10 x 1 x 3)	250 x 25 x 76.2 (10 x 1.6 x 3)	350 x 50 x 127 (14 x 2 x 5)
Wheel Speed	rpm	1500	1500	1500
MOTORS				
Grinding Wheel	hp (KW)	5 (3.7)	5 (3.7)	10 (7.5)
Table Rotation	hp (KW)	1 (0.75)	3 (2.2)	5 (3.7)
Cross Feed	hp (KW)	0.5 (0.37)	1 (0.75)	1 (0.75)
Power Elevation	hp (KW)	0.25 (0.18)	0.25 (0.18)	0.75 (0.55)
Coolant Pump	hp (KW)	0.15 (0.12)	0.25 (0.18)	0.25 (0.18)
GENERAL				
Machine Size	mm	1400 x 1400	1700 x 1400	2700 x 1500
Length x Width x Height	(inch)	(55 x 55 x 65)	(67 x 55 x 77)	(107 x 60 x 79)
Net Weight of Machine	Kg (Lb)	1900 (4180)	2500 (5500)	5500 (12100)
Gross Weight of Machine	Kg (Lb)	2600 (5720)	3200 (7040)	6300 (13860)



As Alex Machine Tools is constantly improving the design of its machines the appearances, specification, dimensions and weight are subject to change without notice.



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