



scarlo

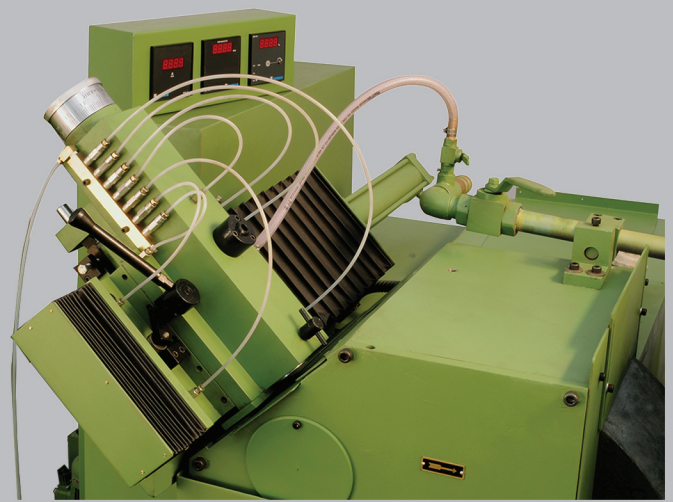
machines



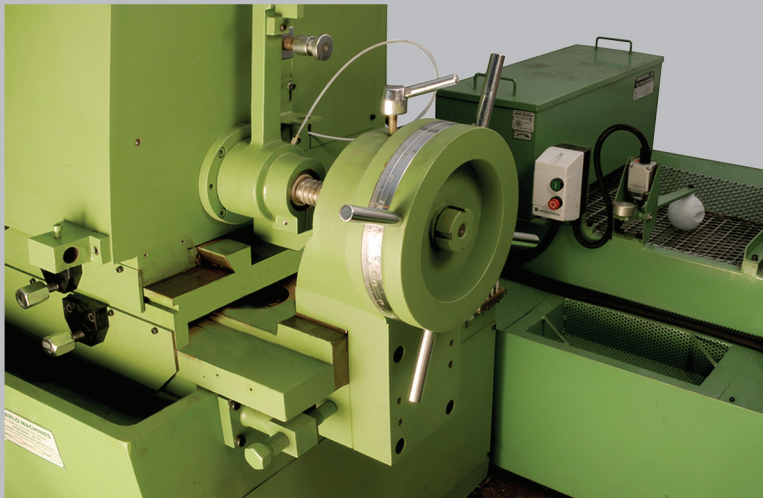
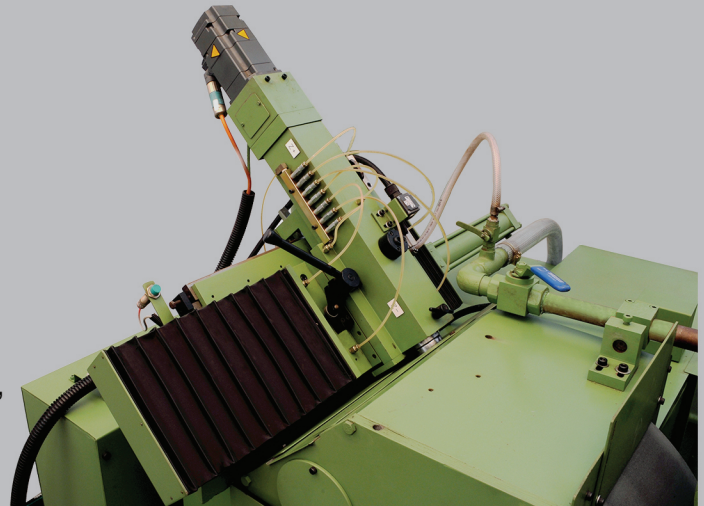
Salient Features:

- One piece rugged Machine Base casting which hosts grinding wheel spindle.
- Trouble free segment type hydrodynamic Babbitt bearings at both ends for grinding wheel spindle.
- Twin grip regulating wheel design supported on Babbitt bearings with AC variable speed drive.
- Continuous lubrication for both spindles.
- Automatic spindle oil temperature cut-off mechanism to protect spindle assemblies.
- Automatic lubrication to slide ways of upper and lower infeed slide.
- Automatic lubrication for grinding & regulating wheel truing units.
- Hydraulic or electric profile truing for both wheels.
- High precision ground ball screw for infeed axis movement.
- Swivel type regulating wheel truing unit which is independent from regulating wheel swivel.
- Air cooled heat exchanger for spindle oil.
- Separate power packs for spindle lubrication and dressing units.
- Antifriction linear bearing assembly for infeed slide ways.
- Antifriction linear bearing assembly for grinding wheel dresser slides.

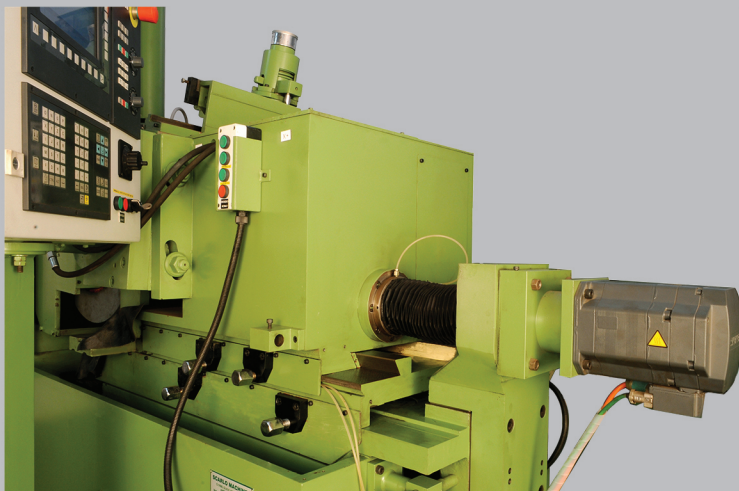
Scarlo Grinding Wheel Dresser comes with antifriction linear bearings for traverse axis which completely eliminates friction and taper. The dresser ram works on cross roller type anti-friction bearings for precision ram movement. Diamond advance least count is 0.02 mm.



Apart from the above mentioned features, the CNC/PLC variant for Grinding Wheel Dresser is equipped with precision ball screws for both axis, traverse motion and diamond ram movement. The dresser variants can be one or two axis servo as required by the end user.

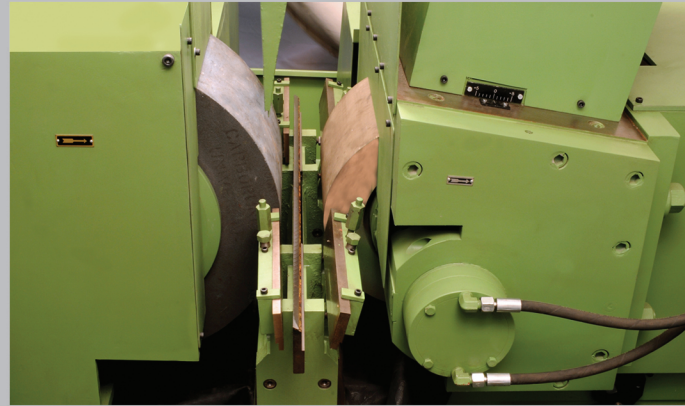


Scarlo infeed design has a swivel slide for work's taper adjustments. Antifriction bearings between the swivel and middle slide are a standard feature on all machines. All machines are fitted with high precision ground ball screws in-line with the hand wheel for infeed movement.



Scarlo CNC/PLC infeed design comes with swivel slide for work piece taper adjustments. Antifriction bearings between swivel and middle slide are a standard feature on all machines. All machines are equipped with high precision ground ball screw fitted in-line with bellow coupling and servo motor for infeed axis movement.

Scarlo's one piece rigid MS work rest saddle is equipped with spring loaded adjustable arms. The saddle arms house hardened and ground work guide plates which can independently swivel for job setting purposes.



Scarlo Regulating Wheel Dresser has dovetail slide design with hydraulic cylinder for traverse motion. The dresser ram is spring loaded and supported on a cam. The unit is a Swivel type regulating wheel truing unit which is independent from regulating wheel swivel. Diamond advance least count is 0.02mm.



Optional features & equipment:

Precision ground work blade to suit job.

Machine mounted Jib Crane for model SG2 and above.

Spare collet and flange sets.

Magnetic type coolant filter with paper band and coolant chilling device.

Automatic hydro-pneumatic feed attachment for plunge feed applications with part ejector.

Automatic (CNC/PLC) programmable truing units and infeed system upto 5 axes plus 2 spindles.

Automatic balancing unit for grinding wheel which can run independently or through CNC logic.

Constant cutting speeds for grinding wheel spindle upto 45 mtrs./sec.

Refrigerant type Spindle Oil chilling unit to maintain oil temperature at higher grinding speeds.

Micrometer hand wheel for infeed slide movement with least count of 0.002mm.

Special work saddles for smaller diameter jobs.

Job height centre fixture.

Automatic & semi-automatic feeding devices such as valve feeders, shaft feeders, ring feeders, etc.

Transfer lines between Scarlo Centreless Grinding Machines for thru feed grinding applications.

Belt type conveyors for workpiece. Magazine, hopper type feeding systems.

AC drive for grinding wheel spindle.

Energy efficient and/or higher power motor available for grinding wheel spindle.

Scarlo Centreless Grinding Model	Unit	SG1	SG2	SG300	SG500
Grinding Range (Dia)	mm	1 to 100	1 to 150	1 to 150	1 to 150
Max length for throughfeed grinding	mm	300	450	600	750
Max length for infeed grinding	mm	150	250	300	500
Grinding Wheel size (Dia x Width x ID)	mm	400x150x228.6	600x250x304.8	600x300x304.8	600x500x304.8
Regulating Wheel size (Dia x Width x ID)	mm	230x150x101.6	350x250x152.4	350x300x152.4	350x500x152.4
Grinding Wheel Peripheral Speed	m/sec	33 or 45 (opt)	33 or 45 (opt)	33 or 45 (opt)	33 or 45 (opt)
Regulating Wheel Speed Range	rpm	0 to 200	0 to 200 / 300	0 to 300	0 to 300
Grinding Wheel motor power	hp	15	20	30	40
Regulating Wheel motor power	hp	3	5	7.5	7.5
Spindle Lubrication pump motor	hp	0.25	0.25	0.25	0.25
Spindle Lift motor	hp	na	na	1	1
Dresser actuation pump motor	hp	1	1	1	1
One shot slide lubrication motor	hp	0.125	0.125	0.125	0.125
Coolant pump motor	hp	0.25	0.5	0.5	1
Coolant pump displacement capacity	lpm	70	150	250	250
Heat Exchanger pump motor	hp	0.1	0.1	0.1	0.1
Lower Slide feed graduation	mm	0.02	0.02	0.02	0.02
Lower Slide micro feed graduation	mm	0.002	0.002	0.002	0.002
Infeed Slide graduation with servo (opt)	mm	0.001	0.001	0.001	0.001
AC inverter for grinding Wheel spindle (opt)	hp	15	20	30	40
AC inverter for regulating Wheel spindle (standard)	hp	3	5	7.5	7.5
Regulating Wheel tilt angle	deg	0 to + 5	0 to + 5	0 to + 5	0 to + 5
Regulating Wheel dresser diamond offset range	mm	0 to 15	0 to 15	0 to 15	0 to 15
Grinding Wheel dresser least count (diamond)	mm	0.02	0.02	0.02	0.02
Grinding Wheel diamond advance (servo)	mm	0.001	0.001	0.001	0.001
Infeed slide movement servo motor (size)	Nm	11	16	19	19
Servo rating for Grinding Wheel dresser traverse	Nm	3	3	3	3
Servo rating for Grinding Wheel ram advance	Nm	3	3	3	3
Total Peak Power consumption	hp	20	27	41	51
Machine overall size approximate (WxLxH)	mtrs	2.0 X 3.0 X 3.0	3.0 X 4.0 X 3.0	5.0 X 4.0 X 3.0	5.5x5.0x3.0
Machine total weight - approximate	kgs	3000	5000	6500	10000



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