ABOUT US

Established in 1973, Micromatic Grinding Technologies Ltd (MGT) have been manufacturing a wide range of External, Internal, Universal and Special Purpose Cylindrical Grinders in CNC, PLC, and Hydraulic versions. These machines are built to the exacting requirements of our customers from its 4 plants in Ghaziabad near New Delhi and Bangalore in South India. Production CNC Centreless Grinders, Internal Grinders & Crankshaft Journal Grinders have also been added to expand the range of new machines being offered from the 4th new plant at Bangalore started in 2008. Since 2005, MGT has emerged as the market leader with nearly 50% market share in India.

Five decades of building an organisation Culture of ethical & transparent working, combined with the pursuit of excellence, drives Team MGT towards its vision of "Becoming the Best." We at MGT are constantly seeking new avenues to partner, acquire latest technology, skills, and quality-centric processes to cocreate value & your success. 4000 machines delivered worldwide with many repeat references from a Global customer list, stand as a testimony to customer's preference for Micromatic Grinding machines.

Micromatic Grinding
Becoming The Best
Since 1973 — 50 Years — Precision & Performance

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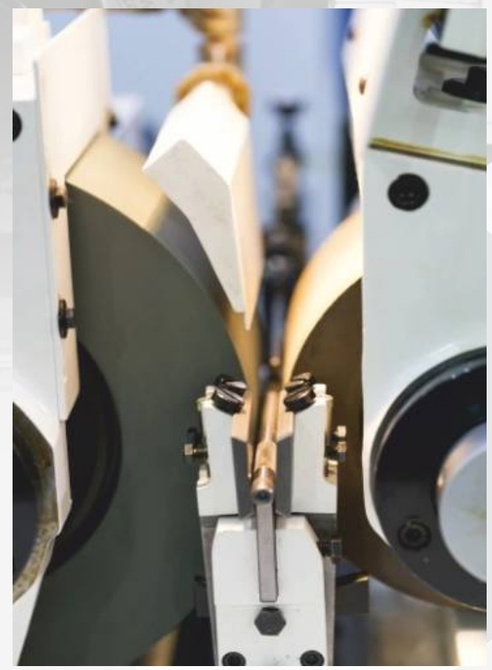
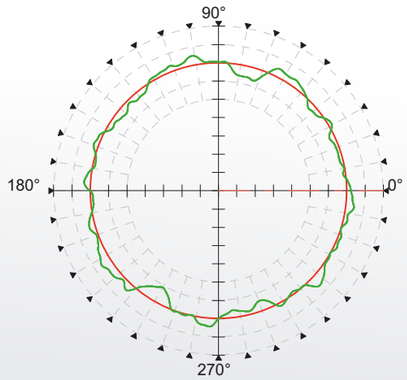
CNC CENTERLESS GRINDERS



AceMicromatic® Group

ULTIMATE PRECISION & FLEXIBILITY IN GRINDING

Work sample	Hydraulic Spool
Size Tolerance	±1µ
Roundness	1µ
Cylindricity	2µ
Surface Roughness	0.15Ra



Work sample	Pins (Thrufeed)
Roundness	0.5µm
Cylindricity	1 µm
Surface Roughness	0.2 µm Ra
Thru Feed rate	1.2M/min

CNC CENTERLESS GRINDERS

- These machines are suitable for higher productivity and accuracy.
- The process is ideal for large batch production.
- The machine is configured for both through-feed & In-feed grinding.
- Various types of automation can be integrated with the machine for parts such as Engine Valve, U-J Cross, Piston Pin.
- Shocker Tube, Hydraulic Valve Spool etc.

CLG 4015

CLG-5020/6015

CLG 6025 / CLG 6030 (TG)

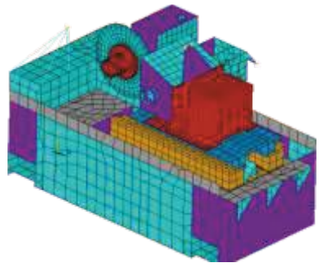
FEATURES

- The ribbed structure of bed ensures better static, dynamic rigidity & vibration damping.
- Rigid out board support bearing for regulating wheel spindle.
- Heavy duty, pre-loaded high precision roller guide ways for In-feed movement
- Grinding Wheel & Regulating Wheel spindles are provided with Antifriction bearing and has undergone FEA analysis for maximum load in dynamic condition.
- Two axes CNC Grinding wheel dresser for any profile.

FEATURES

Finite element analysis

- FEA was done for all critical parts and sub assembly
- Dynamic and static analysis was conducted
- Prototype testing - stringent regulation test related to quality & reliability done as per Global Standards



Machine Base

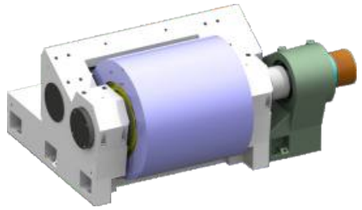
- High quality cast iron machine base is heat treated and stress relieved before machining
- Ribbed structure (Honeycomb pattern) is designed for better static, dynamic rigidity and vibration damping

Regulating Wheel Head

- Wheel spindle runs on grease packed precision roller bearings
- Rigid outboard support is provided for maximum rigidity and life
- Speed can be varied with inverter drive
- Power transmission is through worm & worm wheel
- RW tilting with respect to horizontal axis: +5°~-3° for through feed grinding
- RW horizontal adjustment ±5mm for finer job setting
- CLG 6050/6060 (TG) is provided with Twin Grip

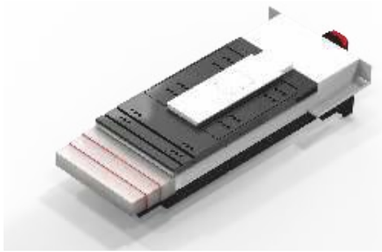
Grinding Wheel Head

- Fixed type wheel head on machine bed ensures maximum rigidity
- Wheel spindle runs on grease packed high precision antifriction / hydro-dynamic bearings
- Special labyrinth and seal arrangement avoids coolant & dust entry inside the wheel head
- Pulleys are dynamically balanced to reduce vibration
- Spindle type auto dynamic balancer is provided as optional
- CLG 6030/6050/6060 (TG) is provided with twin grip spindle for high rigidity and better part quality



Main in-feed axis Slide

- Robust construction with pre-loaded LM guide ways for rigidity, accurate and precision positioning
- The pre-loaded Ø63 ball screw for higher rigidity, accurate and precision drive system

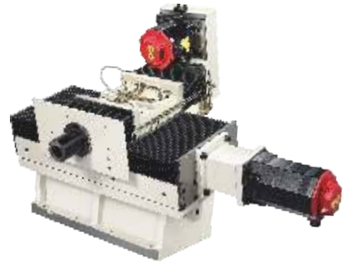


Regulating Wheel in-feed axis

- Micro feed adjustment unit is 0.001 mm to meet high accuracy requirement & accurate job setting
- Dovetail slide way on the upper slide ensures smooth and accurate movement. It is lubricated by a centralized lubricator
- The slide ways on the slide unit are coated with Turcite lining to ensure stick-slip free movement

2 Axes Grinding Wheel Dresser

- Two axis CNC Dresser for Grinding Wheel
- Anti-friction M/V guide ways for traverse axis and LM guide ways for In-feed axis for better rigidity & accuracy
- Maximum profile accuracy through CNC Dresser
- Diamond roll for profile dressing (Optional)
- Rotary disc dresser (Optional)



Regulating Wheel Dresser

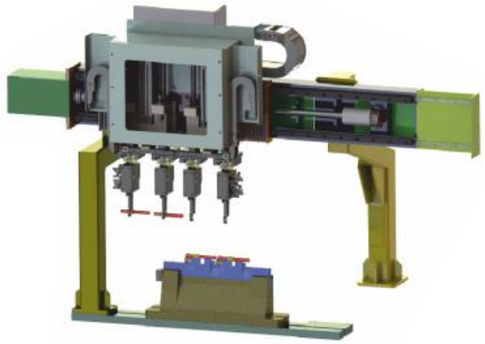
- Hydraulic template type profile dresser for regulating wheel dressing
- 2 axes CNC dresser (optional)

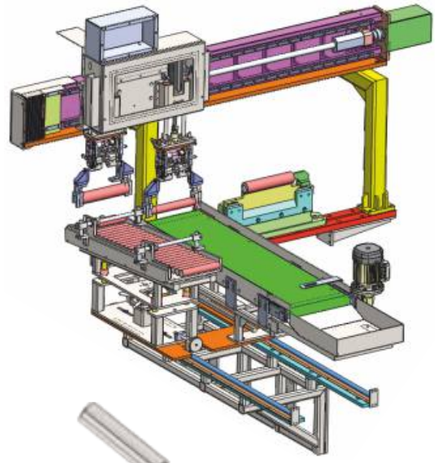
Work rest

- Easy to set, adjust and replace work rest blade
- Blade is provided with carbide tips

AUTOMATION

- Auto loading/unloading equipment for in-feed grinding (Optional)
- Engine valve Automation
- Gantry type loading/ unloading system
- Auto loading/unloading equipment for Thru feed grinding (Optional)
  - Vibratory bowl feeder for small work pieces
  - Roller/Belt conveyor for round tubes and bar

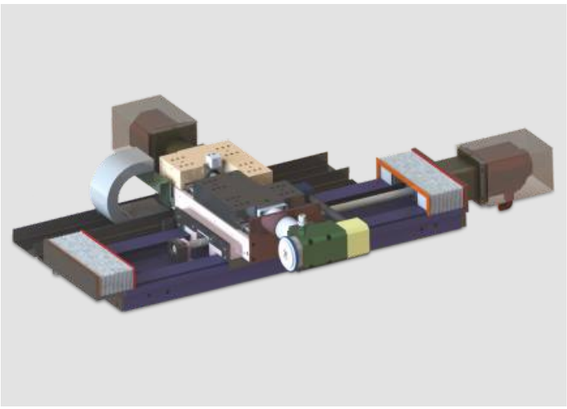




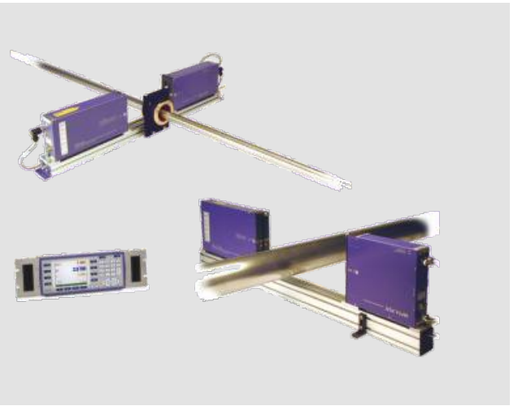
APPLICATIONS

ACCESSORIES

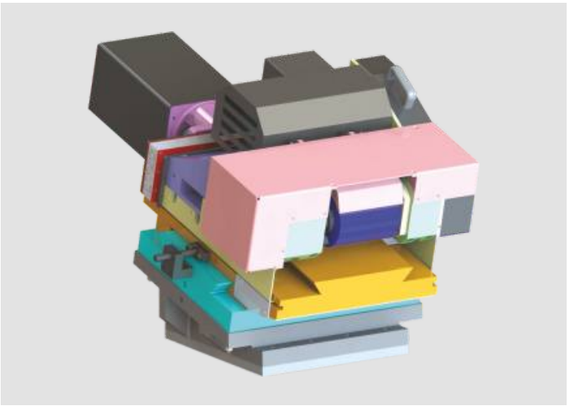
Automatic Balancer



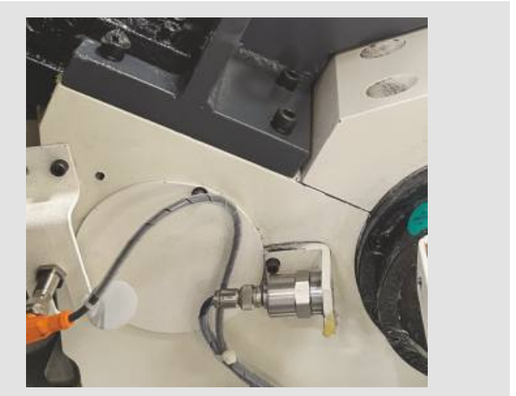
Disc Dresser



Post Process Gauging



Dia Roll Dresser-1



Semi Automatic Balancer

Linear Scale

SPECIFICATIONS

Capacities	Unit	CLG - 4015	CLG - 5020/6015/5025 (TG)*	CLG - 6025	CLG - 6030 (TG)*	CLG - 6050 (TG)*/6060 (TG)*
Machine concept	Fixed Grinding Head					
Capacity						
Minimum-Maximum	mm	2-50	2-60	3-120	3-120	5-120
Maximum length in Plunge Grinding	mm	145	195//145/245	245	295	495/595
center height of wheel from floor	mm	~ 990	~ 1050	~ 1050	~ 1100	~ 1100
Grinding Wheel Head						
			510X200X254/			
Dia. x Width x Bore	mm	405X150X203.2	610X150X304.8	610X250X304.8	610X305X304.8	610X600X304.8
			510X250X254			610X500X304.8
Minimum Diameter (d)	mm	270	370/410/370	410	410	430
Max. Wheel Surface Speed	m/sec	45	45	45	45	45
Grinding Wheel Power	Kw	7.5	11 (15)	30	30	37/45
Regulating Wheel Head						
Dia. x Width x Bore	mm	255X150X200	305X200/150/250X127	350X250X152	350X305X152	355X500/600X203.2
Minimum Diameter (d)	mm		240	270	270	270
Speed Range	rpm	10-210	10-210	10-210	10-210	270
Regulating wheel tilting	Degree	-3° ~ +5°	-3° ~ +5°	-3° ~ +5°	-3° ~ +5°	-3° ~ +5°
Motor Power	Kw/rpm	0.75/1500	1.5/1500	2.2/1500	2.2/1500	3.7/1500
In-Feed Slide						
Least Count	mm	0.001	0.0001	0.0001	0.0001	0.001
Min, increment/pulse	mm	0.0005	0.0005	0.0005	0.0005	0.0005
Swivel of infeed slide	Degree	±1°	±1°	±1°	±1°	±1°
Servo Motor	Nm	12	12	22	22	22
Guide ways	Type		Antifriction LM Guide ways			
Grinding Wheel Dresser (2 axes CNC)						
Least Count	mm	0.001	0.001	0.001	0.001	0.001
Servo Motor both axes	Nm	4	4	4	4	4
Regulating Wheel Dresser (Copying template design)						
Sleeve dia	mm	50	50	60	60	70
Feed movement increment on dia	mm	0.005	0.005	0.005	0.005	0.005
Traverse movement speed	mm/min	50- 500	50- 500	50- 500	50- 500	50- 500
General						
CNC Control System	Make		FANUC / SIEMENS			
Operation voltage	volts		415±10% AC 3 phase			
Foot print (L X W X H) all in mm						
Machine weight (Approx.)	kg	3200	6000	7000	8000	12000