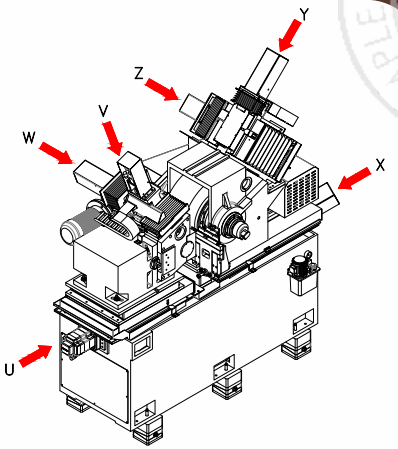
OUR VALUED CUSTOMERS

OTHER ACTIVITIES

We are manufacture of high precision CARBIDE WORK REST BLDES THICKNESS FROM 1.5 MM TO 30 MM

length upto 1500 mm

We also manufacturer of high class job loading/unloading systems for various components.



MIC MACHINETOOLS INDUSTRIES

(MANUFACTURERS OF CENTRELESS GRINDING & SPECIAL PURPOSE GRINDING MACHINES)

C-71/2, B.S.R. Industrial Area, Site-1, Ghaziabad - 201 009 (U.P)

Tele-: 0120 4102843, 9810474900 E-Mail : micmachinetools@gmail.com

CNC CENTRELESS GRINDING SERIES

CNC CENTRELESS GRINDING MACHINES

MIC MACHINE TOOLS INDUSTRIES

COMPANY INTRODUCTION

Grinding technology has evolved along the continuous development and rationalization of production engineering. MIC has strived to develop an unique CNC Centerless Grinder utilizing basic research know-how of grinding operations in order to meet the requirements for elimination of manual operations.

Established in 1994, MIC Machine Tools Industries has specialized in the production of high quality centerless grinding machines. A wide verity of centerless grinders to meet the high accuracy requirements of different work pieces both small or large diameter and quantities.

All CNC Centerless Machine model covered in the catalogue has following features-

TYPE OF MACHINE

We manufacture-

A. Fixed center type centerless grinder (Both head adjustable)

B. Triple slide system type centerless grinder (grinding wheel fixed on the machine Bed)

AUTOMATIC IN-FEED CYCLE

The infeed slide is moved by ball screw. It is driven by AC Servo Motor. The automatic plunge feed cycle operates as follow-

1. Rapid forward
2. Coarse Feed
3. Fine Feed
4. Spark Out
5. Rapid Retract

CNC SYSTEM

- Simultaneously controlled axes
- Back ground editing
- Circular interpolation
- RS 232 port
- Absolute / Incremental programming
- Alarm / Operation message
- Part programming storage and editing
- Inch/ Metric switchable
- Direct drawing dimension programming
- Backlush compensation
- Part counter / Run hour display

MEASUREMENT DEVICE

System integration-capable In process & Post process gauges have been developed. The measurement figures pass through the correction process of the CNC control on the grinding machine.

WHEEL HEAD

The nitride and super finished spindle is supported at both ends by super precision cylindrical roller bearings with combination of angular contact bearings is driven by suitable electric motor in different models. This arrangement provides highest rigidity during grinding to insure accurate & uniform work piece finish tolerance.

REGULATING WHEEL HEAD

Regulating wheel head is mounted on the slide. It can be traversed by Hand/Automatic on high precision antifriction linear guideways ensuring stick slip free movement, high sensivity and accurate positioning and high rigidity.

WORK REST STAND

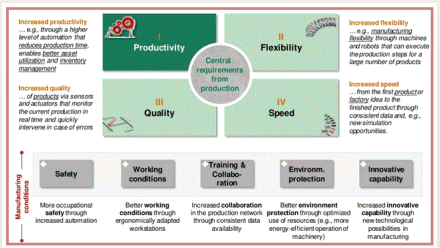
Work rest stand is fitted on RW. Carriage / Machine Bed. It can be adjusted vertically. The upper portion of the stand is interchangeable for through or plunge grinding operation.

OPTIONAL FEATURES/ ACCESSORIES

Filteration system Magnetic/ Paper cum Magnetic etc. Dynamic wheel balancing systems

Dia roll dressing arrangements

Automatic wheel cover opening for easy wheel change over.

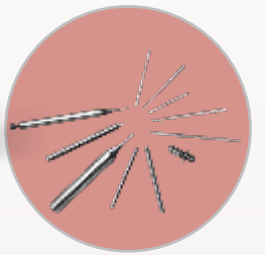


This machine is Industry 4.0 enabled offers multiple benefits enhanced productivity is just the beginning

GCL 63 CNC (3 AXES)

GCL -63

Sample Component



TECHNICAL SPECIFICATIONS

MAIN SPECIFICATION		ITEM	SPECIFICATION
Grinding Capacity		Work piece diameter Length of in-feed grinding	2mm. 63mm. 145mm.
Wheel Sizes	Grinding wheel	Max. OD.x Width x ID.	400x150x127mm. (16" x 6" x5")
	Regulating wheel	Max. OD.x Width x ID.	300x150x127mm. (12" x 6" x 5")
Spindle Speed	Grinding wheel	Infinitely variable (Optional)	For constant surface speed
	Regulating wheel	Infinitely variable	10-400RPM.
		Dressing	400 RPM.
Peripheral Speed	Grinding wheel	Grinding Wheel (400mm.) with frequency converter Infinitely variable	33m/sec, 45m/sec, 50m/sec
	Regulating wheel	Infinitely variable	9-377 M / Min.
		Dressing	377 M /Min.
Slides	**X-Axis** -Regulating Wheel Slide (Feed slide)		110mm.
	Servo Controlled (working stroke)		
G.Wheel	**Y-Axis** –Diamond in-feed working stroke		65mm.
Dressing Device	**Z-Axis** –Traverse movement (stroke)		170mm.
R.Wheel	Diamond in-feed manual by feed knob stroke		40mm.
Dressing Device	Traverse movement Hydraulic Controlled (Stroke)		170mm.
Smallest Programmable Step			0.001mm.
Motor Power		G.W.Spindle (AC. Induction Motor)	11 Kw.
		R.W.Spindle (AC. Induction Motor)	1.5 Kw.
		X-Axis -(AC Servo Motor)	1.5 Kw.
		Y-Axis -(AC Servo Motor)	0.8 Kw.
		Z-Axis -(AC Servo Motor)	0.8 Kw.
		Hyd.Power Pack (AC Induction Motor)	0.75 Kw.
		Lubrication GW. (AC Induction Motor)	0.75 Kw.
		Coolant Pump (AC Induction Motor)	0.25 Kw.
Total power			**17.35Kw.**
Floor Space (LxWxH)			2.1 x 1.6 x 1.6 Mtr.
Machine Weight (Approx)			4500 Kgs.

Note:-All Specification & Designs are subject to alteration without notice.

GCL-100 CNC (5 AXES)

Sample Component

GCL-100

TECHNICAL SPECIFICATIONS

MAIN SPECIFICATION		ITEM	SPECIFICATION
Grinding Capacity		Work piece diameter Length of in-feed grinding	2mm. - 80mm. 195mm.
Wheel Sizes	Grinding wheel	Max. OD.x Width x ID.	500/610x200x304.8mm. (20"/24" x 8" x12")
	Regulating wheel	Max. OD.x Width x ID.	300/350x200x152.4mm. (12"/14" x 8" x 6")
Spindle Speed	Grinding wheel	Infinitely variable (Optional)	For constant surface speed
	Regulating wheel	Infinitely variable	10-400RPM.
		Dressing	400 RPM.
Peripheral Speed	Grinding wheel	Grinding Wheel with frequency converter Infinitely variable	33-45m/sec
	Regulating wheel	Infinitely variable	9-377 M / Min.
		Dressing	377 M /Min.
Slides	**X-Axis** -Regulating Wheel Slide (Feed slide)		110mm.
	Servo Controlled (working stroke)		
G.Wheel	**Y-Axis** –Diamond in-feed working stroke		65mm.
Dressing Device	**Z-Axis** –Traverse movement (stroke)		230mm.
R.Wheel	**U-Axis** –Diamond in-feed working stroke		45mm.
Dressing Device	**V-Axis** –Traverse movement (stroke)		230mm.
Smallest Programmable Step			0.001mm.
Motor Power		G.W.Spindle (AC. Induction Motor)	15 Kw.
		R.W.Spindle (AC. Induction Motor)	3.7 Kw.
		X-Axis -(AC Servo Motor)	3.3 Kw.
		Y-Axis -(AC Servo Motor)	0.8 Kw.
		Z-Axis -(AC Servo Motor)	0.8 Kw.
		U-Axis -(AC Servo Motor)	0.8 Kw.
		V-Axis -(AC Servo Motor)	0.8 Kw.
		Hyd.Power Pack (AC Induction Motor)	0.75 Kw.
		Coolant Pump (AC Induction Motor)	0.25 Kw.
Total power			**26.2Kw.**
Floor Space (LxWxH)			3.0 x 1.5 x 2.2 Mtr.
Machine Weight (Approx)			6000 Kgs.

Note:-All Specification & Designs are subject to alteration without notice.

GCL 150 CNC (6 AXES)

Sample Component

GCL-150

TECHNICAL SPECIFICATIONS

MAIN SPECIFICATION		ITEM	SPECIFICATION
Grinding Capacity		Work piece diameter Length of in-feed grinding	2mm.- 100mm. 295mm.
Wheel Sizes	Grinding wheel	Max. OD.x Width x ID.	610x305x304.8 mm. (24"x12"x12")
	Regulating wheel	Max. OD.x Width x ID.	350x305x152.4 mm. (14" x 12" x 6")
Spindle Speed	Grinding wheel	Infinitely variable	For constant surface speed
	Regulating wheel	Infinitely variable	10-400RPM.
		During Dressing	400 RPM.
Peripheral Speed	Grinding wheel	Grinding Wheel (610mm.) with frequency converter Infinitely variable	33m/sec, 45m/sec, 50m/sec
	Regulating wheel	Infinitely variable	9/377 M/Min.
		Dressing	377M/Min.
Slides	**X-Axis -**Grinding Wheel Slide (Feed slide) working stroke		160mm.
	U-Axis -Regulating Wheel Slide working stroke		95mm.
G.Wheel	**Y-Axis –**Diamond in-feed working stroke		80mm.
Dressing Device	**Z-Axis –**Traverse movement (stroke)		330mm.
R.Wheel	**V-Axis –**Diamond in-feed working stroke		60mm.
Dressing Device	**W-Axis –**Traverse movement (stroke)		330mm.
Smallest Programmable Step			0.001mm.
Motor Power		G.W.Spindle (AC. Induction Motor)	22 Kw.
		R.W.Spindle (AC. Induction Motor)	3.7 Kw.
		X-Axis -(AC Servo Motor)	3.3 Kw.
		U-Axis -(AC Servo Motor)	3.3 Kw.
		Y-Axis -(AC Servo Motor)	0.8 Kw.
		Z-Axis -(AC Servo Motor)	0.8 Kw.
		V-Axis -(AC Servo Motor)	0.8 Kw.
		W-Axis -(AC Servo Motor)	0.8 Kw.
		Coolant Pump (AC Induction Motor)	0.75 Kw.
Total power			**37Kw.**
Floor Space (LxWxH)			2.6 x 1.5 x 2.3 Mtr.
Machine Weight (Approx)			7500 Kgs.

Note:-All Specification & Designs are subject to alteration without notice.

GCL-200 CNC (3 AXES)

GCL -200

Sample Component

TECHNICAL SPECIFICATIONS

MAIN SPECIFICATION		ITEM	SPECIFICATION
Grinding Capacity		Work piece diameter Length of in-feed grinding	5mm. - 150mm. 500mm.
Wheel Sizes	Grinding wheel	Max. OD.x Width x ID.	610x510x304.8 mm. (24"x20"x12")
	Regulating wheel	Max. OD.x Width x ID.	350x510x152.4 mm. (14"x20"x6")
Spindle Speed	Grinding wheel	Infinitely variable	For constant surface speed 45m/Sec
	Regulating wheel	Infinitely variable	10-400RPM.
		During Dressing	400 RPM.
Peripheral Speed	Grinding wheel (AC Frequency Controlled)	Grinding Wheel (610mm.) with frequency converter Infinitely variable	45m/Sec
	Regulating wheel (AC Frequency Controlled)	Infinitely variable Dressing	9/377 M/Min. 377M/Min.
Slides	**X-Axis –**Regulating Wheel Slide (Feed slide) working stroke		160mm.
G.Wheel	**Y-Axis –**Diamond in-feed working stroke		80mm.
Dressing Device	**Z-Axis –**Traverse movement (stroke)		530mm.
R.Wheel	Diamond in-feed manual by feed knob stroke		60mm.
Dressing Device	Traverse movement Hydraulic Controlled (Stroke)		530mm.
Smallest Programmable Step			0.001mm.
Motor Power		G.W.Spindle (AC. Induction Motor)	30 Kw.
		R.W.Spindle (AC. Induction Motor)	5.5 Kw.
		X-Axis -(AC Servo Motor)	3.3 Kw.
		Y-Axis -(AC Servo Motor)	0.8 Kw.
		Z-Axis -(AC Servo Motor)	0.8 Kw.
		Hydraulic Pump Motor	0.75 Kw.
		Coolant Pump Motor	0.75 Kw.
Total power			42 Kw.
Floor Space (LxWxH)			3.3x2.0x2.0Mtr.
Machine Weight (Approx)			8500kgs.

Note:-All Specification & Designs are subject to alteration without notice.

OPTIONAL FEATURES/ACCESSORIES

Measuring Gauge

Vibratory Feeder

Small Shaft Feeder

Long Bar Feeder

Transfer Line

Small job Pick & Place

In-feed Job Loading

Note:-All Specification & Designs are subject to alteration without notice.