



Grinding with Precision

**“GRINDING SOLUTIONS  
FOR EVERY CHALLENGE”**



**IPG50 | IPG100 | IPG150 | IPG200 | OPG3250S | OPG3280S**



## COMPANY INTRODUCTION WITH EXPERIENCE :

Established in 2016 in Pune, Maharashtra, M/S Grind Tech Systems Pvt. Ltd, formerly known as Shree Enterprises, stands as a beacon of technological advancement in the realm of machine tools. Specializing in CNC Cylindrical, Internal, and Surface Grinding Machines, our journey over the past 9 years has been marked by relentless dedication to the development of India's machine tool industries.

Under the leadership of our MD, Mr. Prakash Shetake, with over 25 years of experience, we have been pivotal in reconditioning various CNC machines, including Gear Grinding and Raishur Gear Grinding. With a product portfolio spanning three categories and over 20 specifications, our extensive services cater to traditional machinery, automotive, railway, defense, aerospace, engineering, as well as mold and tool manufacturing industries. With a widespread presence across India and selfoperated export qualifications, our commitment to excellence resonates through our products and services, ensuring precision and reliability for our esteemed clientele.

## OUR VISION :

"Our vision is to be the global leader in precision grinding solutions, revolutionizing industries with cutting-edge technology, unparalleled quality, and unwavering commitment to customer satisfaction. We aim to empower our clients to achieve exceptional results, driving innovation, efficiency, and excellence across every facet of their operations. Through continuous research, development, and collaboration, we strive to shape the future of manufacturing, setting new standards for precision, reliability, and sustainability. Guided by our passion for engineering excellence and dedication to service, we envision a world where precision grinding is not just a process, but a cornerstone of progress and prosperity."

## OUR MISSION :

Our mission is to design, produce, and distribute state-of-the-art grinding solutions that meet the specific needs of our customers in various industries. We are dedicated to achieving this through a focus on continuous improvement, technological innovation, and precision engineering. Our aim is to provide our clients with machines that ensure optimal performance, reliability, and cost efficiency. By maintaining a customer-first approach, we prioritize timely delivery, thorough technical support, and exceptional after-sales service. We commit to sustainable practices in all our operations, striving to reduce our environmental impact while maintaining the highest safety standards for our employees and clients. In essence, our mission is to empower our customers' success by providing superior grinding solutions that drive their productivity and profitability.

## NATURE OF BUSINESS

1. Reconditioning / Retro fittment of all types of CNC & VMC Machines, Hobbing Machine, Grinding Machine, Gear Grinding Machine, Lathe machine, Shaping Machine, Shaving Machine, All types machine Work & We can also provide Machine PM Work etc.
2. Design solutions for multi axes, multipath custom built SPMs, having more than five axes.
3. Design and manufacture of spindles as per customer requirement up 15000 rpm.
4. Up gradation of any conventional machine to CNC machine.
5. System integration with PLC's and CNC systems.
6. Material handling automation

## BUSINESS PHILOSOPHY



As a high precision grinding machine manufacture in India since 2016, GRIND TECH's founders came from mechanical background and lead the team members to build a complete product line for fulfill various grinding demand. Our service tenet "Quality, Responsibility, Innovation capability" is to make a remarkable experience for all customers. We put every effort in stabilization technology and process control. We pay close attention to all users and respond to their requests promptly. "Exceeding The Pursuit Of Excellence". We'll continuously invest to the improvements of products, and sincerely hope can be your trustworthy partner of grinding solution.

## CORE VALUES PROFESSIONAL

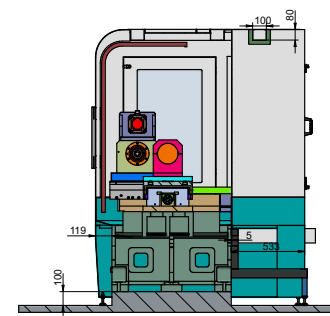
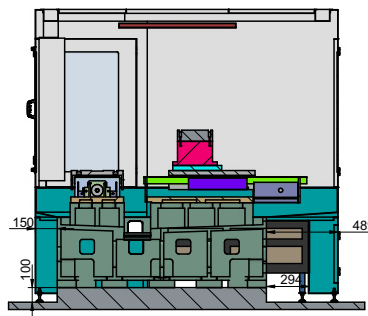
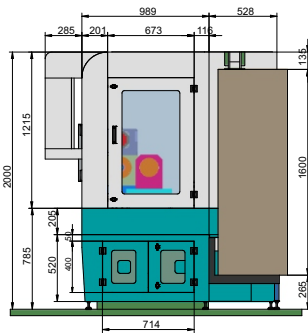
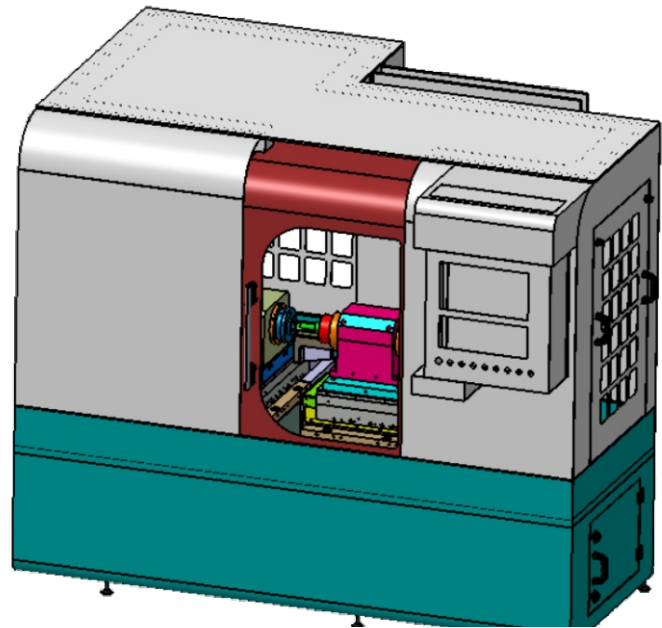
GRIND TECH Machine owns 09 year's of entrepreneurial and about 25 years personnel experience has develop a completely machine series to fulfill various grinding request. There is a widely used of grinding machines , such as: precision aerospace and other transportation industry, cutting tools, medical parts and consumer goods...etc. We all have successful cases of customized solution with different industries.

## STABILITY & RELIABILITY

GRIND TECH's machine series were designed and in-house manufactured by our senior R&D and technical team to make sure the quality is strictly under controlled. The integration of pre-sale/after-sale services ensures a stable operation of machines at customer's factory.

## MODEL IPG 50

Precision internal grinding IPG50 CNC is compact machine delivering high productivity at very competitive price. This machine is ideally suitable for precision grinding application of components with small bores. Machine can be offered with High frequency spindles or Belt Driven grinding spindles as per application requirement



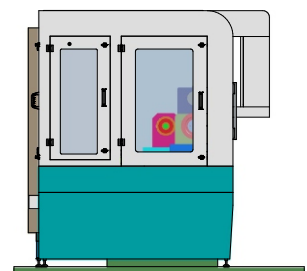
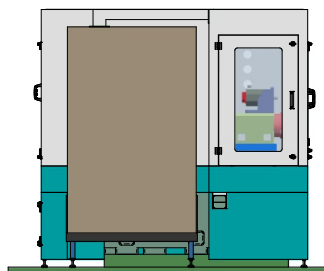
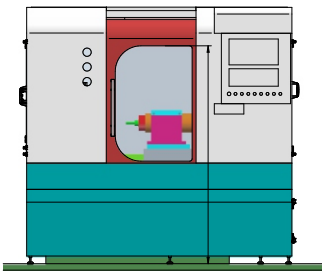
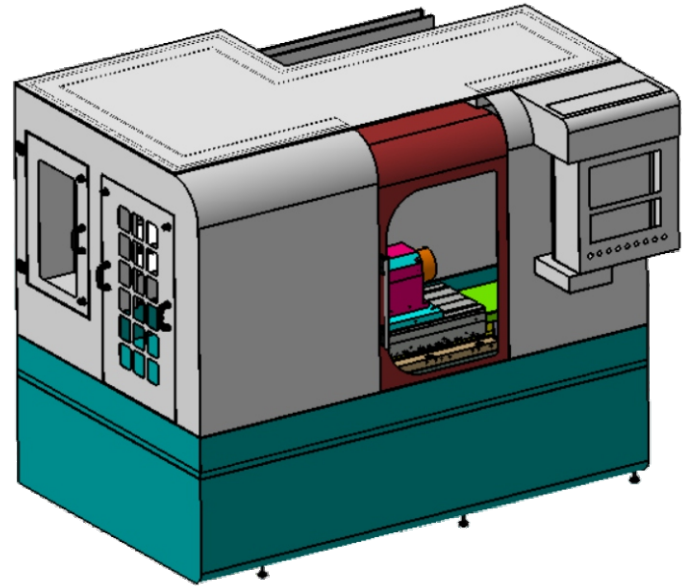
## MACHINE WISE SPECIFICATION - IPG50

MODEL	TYPE	IPG50
Max grinding bore dia	MM	50
Chuck size max	MM	220
H.F wheel spindle speed	RPM	45000
Axes X/Z stroke	MM	150/300 or 400
Rapid X/Z	M/ MIN	10
Machine floor area*	MM	2500 x 1600
Machine weight	KG	4000



## MODEL IPG 100

This is a compact and Medium machine for high precision internal bore & face grinding of components in medium to High Production volumes. Suitable for small components like connecting rods, bushes, fuel injection parts etc. The machine is capable for grinding with CBN or conventional abrasives, tooled up with High Frequency Spindles for optimum productivity.

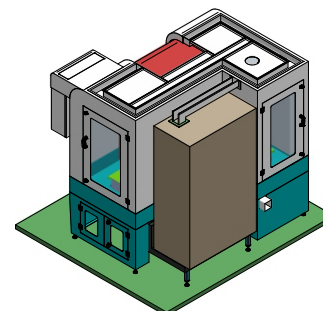
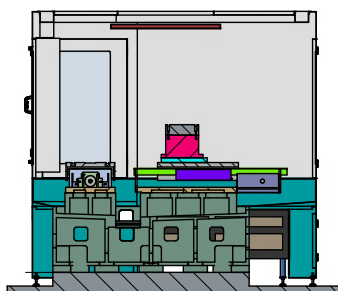
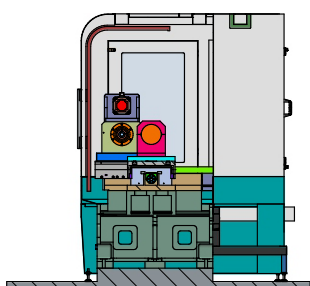
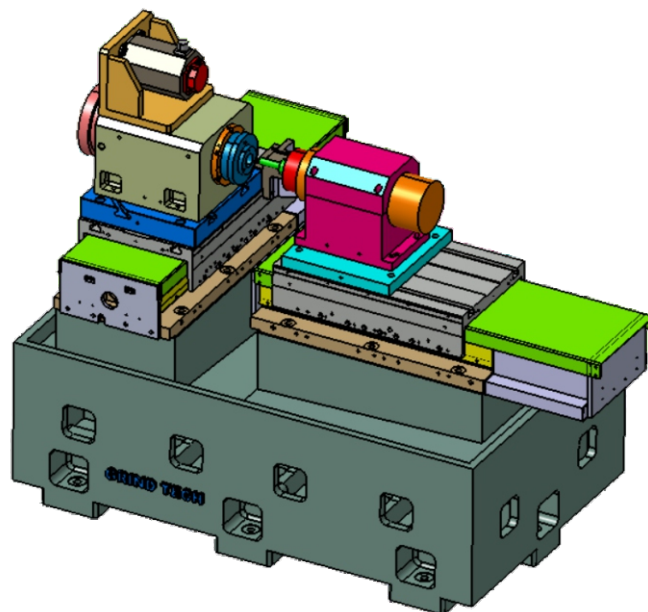


## MACHINE WISE SPECIFICATION - IPG100

MODEL	TYPE	IPG100
Max grinding bore dia	MM	100
Chuck size max	MM	300
H.F wheel spindle speed	RPM	45000
Axes X/Z stroke	MM	150/300 or 400
Rapid X/Z	M/ MIN	10
Machine floor area*	MM	2500 x 1800
Machine weight	KG	5000

## MODEL IPG 150

This is a compact and Medium machine for high precision internal bore & face grinding of components in medium to High Production volumes. Suitable for small components like connecting rods, bushes, fuel injection parts etc. The machine is capable for grinding with CBN or conventional abrasives, tooled up with High Frequency Spindles for optimum productivity.

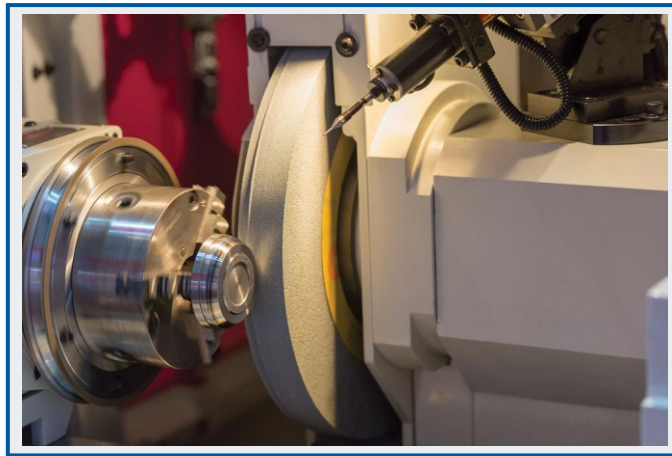


## MACHINE WISE SPECIFICATION - IPG150

MODEL	TYPE	IPG150
Max grinding bore dia	MM	150
Chuck size max	MM	350
H.F wheel spindle speed	RPM	45000
Axes X/Z stroke	MM	500
Rapid X/Z	M/ MIN	10
Machine floor area*	MM	2500 x 1800
Machine weight	KG	5500

## MODEL OPG3250S / OPG3280S

- 1.CNC external grinding machine for medium to longer components.
- 2.Suitable to 4 wheeler and commercial vehicles part production
- 3.Wheel spindle – belt driven.
- 4.Customized tooling & fixtures.
- 5.Wheel spindle bearing – Antifriction or hydro dynamic
- 6.Integrated machine panel, glass scale, coolant system, and hydraulic unit..



## MACHINE WISE SPECIFICATION - OPG 3250S / OPG3280S

MODEL	TYPE	OPG3250S	OPG3280S
Swivel Over Table	MM	Dia 320	
Distance Between Center	MM	500	800
Max. External Grinding Dia.	MM	180	
Max. Load of Center	KG	80	
Work head & Tail stock Center	MT	4 OR 5 OR 6	
X/Z Stroke	MM	500	800
Rapid X/Z Axes	M/MIN	10	
M/C Weight	KG	5500	
Wheel Speed	RPM	3000	

## MODEL WISE SPECIFICATION

MODEL	IPG 50	IPG 100	IPG 150	IPG
No of CNC Controlled Axis	3	3	3	3
Grinding Bore Dia Min to Max (mm) with suitable wheel Spindle	5-50	15-100	15-150	30 -
Grinding Depth Max - with suitable wheel Spindle	50	100	150	
Max Chuck Dia	220	300	350	500
Work Head Nose	A2-4/A2-5 (OPT)	Dia 118/Metric 70/A2-6 (OPT)	118/Metric 70/ A2-6 OPT/A2-8	A2-11/A2
RPM – Work Head Speed	10-1000	10-500	10-450	10-
X-Axis Travel Max – mm	150	400	500	800
Glass Scale	Standred Accsesories – Heidenhain	Standred Accsesories – Heidenhain	Standred Accsesories – Heidenhain	Standred – Heidenhain
Z-Axis Travel Max	300	400	400	500
Glass Scale – Z Axis – Opt	Heidenhain	Heidenhain	Heidenhain	Heide-
Types of Internal Grinding Wheel Spindle	High Frequency Spindle GMN	High Frequency Spindle GMN	High Frequency Spindle GMN	High Spindle
Number of Spindles can be Mounted on Machine	1	1	1	1
Maximum RPM	Upto 45000	Upto 45000	Upto 45000	Upto
Types of Internal Grinding spindle lubrication	Oil Air / Oil Mist	Oil Air / Oil Mist	Oil Air / Oil Mist	Oil Air /
Drive Through	HF Converter	HF Converter	HF Converter	HF Con-
HF Spindle Cooling systems	Chiller	Chiller	Chiller	Chiller
Paper band cum magnetic Filtration systems	SPAN / LOSMA	SPAN / LOSMA	SPAN / LOSMA	SPAN /
Stander Machine Grinding	Fully Enclosed	Fully Enclosed	Fully Enclosed	Fully
Fume Extractor	Optional Accessories	Optional Accessories	Optional Accessories	Optional
Fixture and Tooling Can be provided	As per Application (OPT)	As per Application (OPT)	As per Application (OPT)	As per (OPT)
Electrical Controller	Fanuc	Fanuc	Fanuc	Fanuc



200	IPG 2X2 50	IPG 2X2 100	IPG 2X2 150	IPG 2X2 200
	3	3	3	3
200	5-50	15-100	15-150	30-200
200	50	100	150	200
	500	300	350	500
-15 Opt	A2-4/A2-5 (OPT	Dia 118/Metric 70/A2-6 (OPT)	118/Metric 70/ A2-6 OPT/A2-8	A2-11/A2-15 Opt
400	10-1000	10-500	10-500	10-400
	150	400	500	800
Accsesories	Standred Accsesories – Heidenhain	Standred Accsesories – Heidenhain	Standred Accsesories – Heidenhain	Standred Accsesories – Heidenhain
	400	500	500	600
nhain	Heidenhain	Heidenhain	Heidenhain	Heidenhain
Frequency GMN	High Frequency Spindle GMN	High Frequency Spindle GMN	High Frequency Spindle GMN	High Frequency Spindle GMN
	2	2	2	2
45000	Upto 45000	Upto 45000	Upto 45000	Upto 45000
Oil Mist	Oil Air / Oil Mist	Oil Air / Oil Mist	Oil Air / Oil Mist	Oil Air / Oil Mist
verter	HF Converter	HF Converter	HF Converter	HF Converter
	Chiller	Chiller	Chiller	Chiller
LOSMA	SPAN / LOSMA	SPAN / LOSMA	SPAN / LOSMA	SPAN / LOSMA
Enclosed	Fully Enclosed	Fully Enclosed	Fully Enclosed	Fully Enclosed
Accessories	Optional Accessories	Optional Accessories	Optional Accessories	Optional Accessories
Application	As per Application (OPT)	As per Application (OPT)	As per Application (OPT)	As per Application (OPT)
	Fanuc	Fanuc	Fanuc	Fanuc

## MACHINE STRUCTURE:

Base, Slides, Heads (Work head and Spindle Head) made of high durable wear resistance cast iron Structural design offers vibration less operation.

Machine is incorporated with a high pressure coolant flushing system to wash off any dust particles over job, or any vital parts of machine which will prevent to lead a major break down issue Also machine is provided with to separate high pressure hand guns with coolant and air for extra cleaning.

## SAFETY



Easy Lifting Provision  
For Machine



Door Interlock For  
Operator Safety

## IMPORTED PART USED IN MACHINE



### Imported Precision Ball Screw

- Ball Screw
- Shuton and Korta Make
- Precision Ground Ball Screw class – C0
- For Better Accuracy And Enhanced Life Of Machine With High Productivity And Repeatability



### Cross Roller Guide way

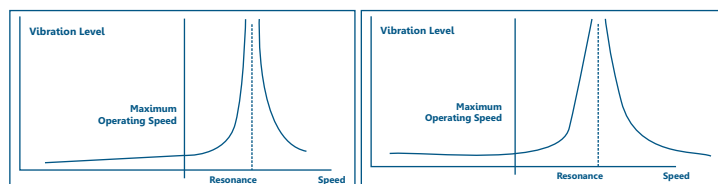
- Schneeberger Make
- Frictionless movement for better life of slides
- This guideway offers the same dimensions, but due to the larger contact surfaces of the guideway tracks it offers a higher performance level. The reduced gap width between the guide rails also provides better protection against contamination.
- Reduced Lateral stability and consequent loss of operating speed



### Glass Scale – Heidenhain

- Glass Scale is used for measurement of the slide position, the position control loop includes the complete feed mechanics. This is referred to as Closed Loop operation. Transfer errors from the mechanics can be detected by the linear encoder on the feed axis, and corrected by the control electronics. This makes it possible to eliminate a number of potential error
- Positioning error due to thermal changes in the recirculating ball screw
- Kinematic error through the ball-screw pitch error

## IMPORTED PART USED IN MACHINE



### GMN Spindle – HV11 – 45000 RPM

- Spindle Lubrication Unit – GMN Make
- Spindle cooling Unit
- Highest machining quality during the production of GMN spindles ensures precise mass distribution and minimal unbalance vibrations at maximum speeds.
- The own frequencies of rotating systems cause critical speeds in which extreme vibrations can occur. The use of different tools can reduce the critical speed range of the spindle tool system, leading to a reduction in the optimum speed required for machining.

### Filtration System

- LOSMA Filtration system is specialized in air filters for oil mists, oil smoke and dust separation, and in depurators for neat oil and emulsion.
- Keep Fume free working environment and happy worker situation
- Protect oil fume inhaling by workers and keeping health safety.
- Oil and dust deposition avoided in costly circuit boards (PCB) and cooling fans. Because it is most important device.
- Oil mist affect air condition system filters, so keeping mist collectors it is prevented.
- Keeping shop floor safety from oil sticking in floors and walls.

### FANUC – oi- TF/G Plus

- Control system made for specifically grinding machines.
- Bio matrix program safety feature for enhanced safety of important operational programs.
- I Operation – Machine's operational information on the go.
- G code System
- M code System
- Running hours of controller
- Speed & Feed rate
- Tool data
- Work Co ordination
- Machining Hours
- Function Display
- Date & Time
- In process Gauging System –Defining material stock (Available Material stock) and center axis of the job in automated way to reduced/eliminate in process rejection



## Our Valuable Client :



**Grind Tech Systems Pvt. Ltd.**

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