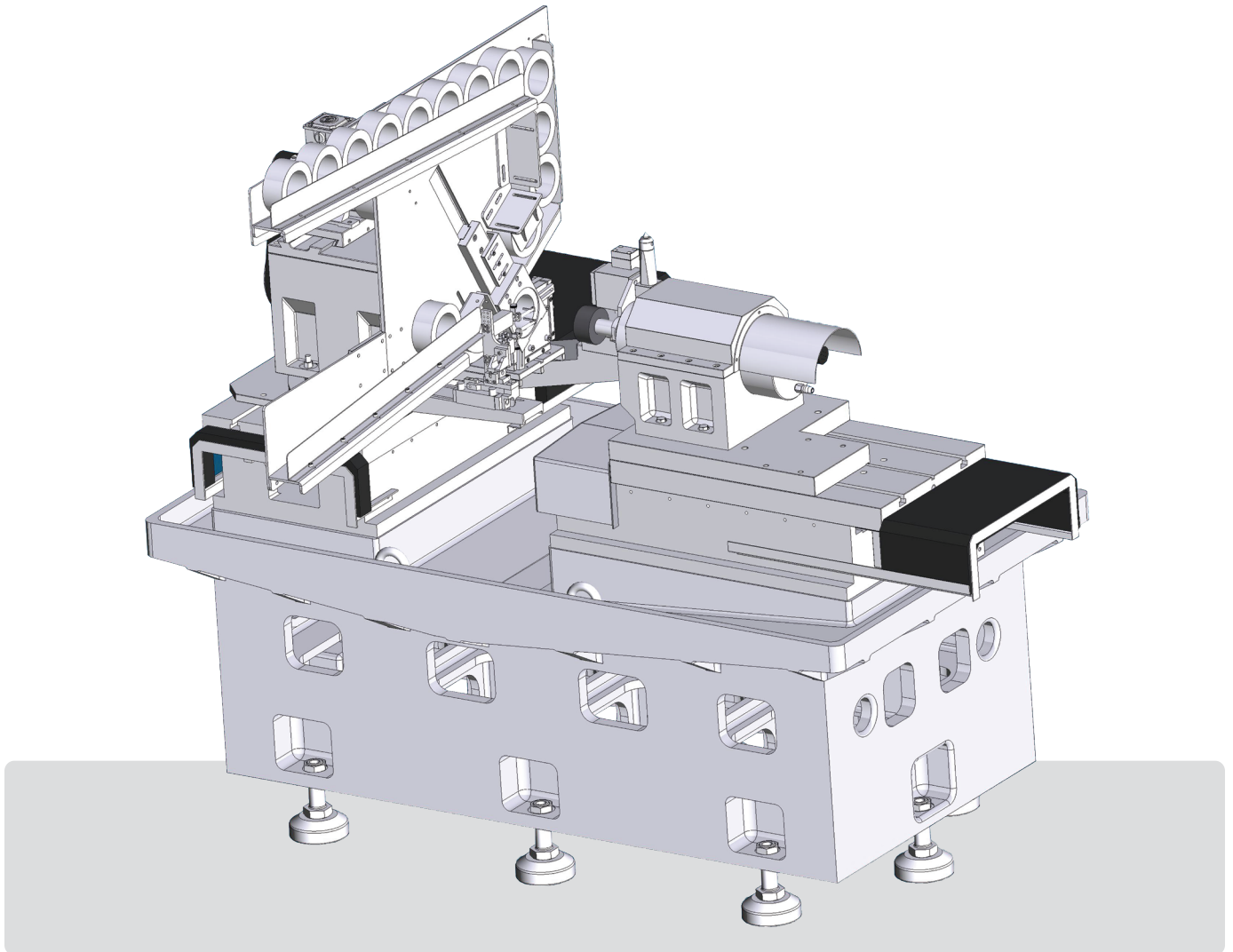


**KIYA**

**IG SERIES**  
**CNC Internal**  
**Cylindrical Grinder**



## OVERVIEW



### MACHINE BED

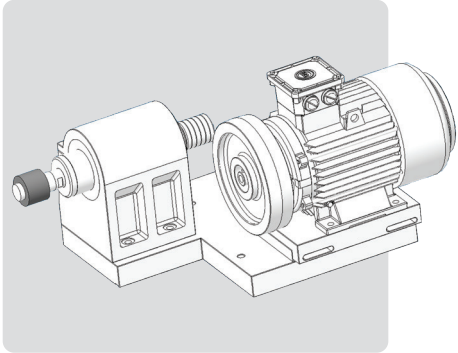
The Machine bed is made of one piece close special graded grain cast iron box structure design with optimum ribbing provides high static and vibration free dynamic rigidity to the machine. Artificial Stress relieving process carried for more dimensional stability.

The Precision hand scraped V-Flat guide ways for X & Z-axis with centralised lubrication system as standard.

Cross roller linear guideways available as optional.

# IG SERIES

CNC Internal Cylindrical Grinder



## WHEEL HEAD

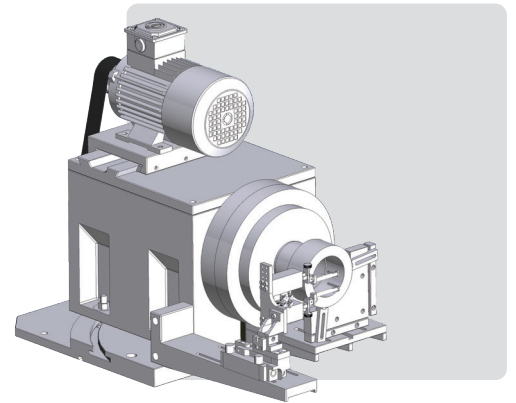
Machine is provided with cartridge type wheel spindle with two match pair sets of angular bearing for smooth performance while material cutting. Spindle is driven by induction motor and transmitted by flat belt.

Optional frequency spindle available.

## WORK HEAD

Work head spindle is made of case hardened alloy steel and runs with precision angular contact bearing. The drive to the work head is by induction motor via VFD to control job rpm for grinding. Machine is provided with magnetic shoe center less type work holding attachment. The work head can be swivelled for taper grinding.

Optional hydraulic chuck for job holding.



## COOLANT

Generous coolant supply is provided with electrical pump fitted on separate tank. Different filtration system available as additional accessory.

## ELECTRICALS

The machine is supplied with all electrical suitable for 3Ø, 415 V Ac, 50 Hz cycle. The motors are approved & reputed brand make with IE2 standard. The electrical panel with A.C. is mounted on one side of the machine. Operating panel is located nearest to working area for easy reach of the operator.

**APPLICATIONS**



## STANDARD FEATURES

- Two Axis CNC Internal Grinder with Siemens 808D as standard controller options.
- Dedicated Programs with Plunge, Travers Grinding and Dressing Cycles.
- Laser calibrated axis for high precise positioning Accuracy and Repeatability.
- Smooth Oscillation of Wheel Table for jerk free operation.
- Circular Interpolation Dressing Cycle for Crowning Profile.
- G code / M code compatibility with other NC builders.
- Skip Dressing Cycles.
- Pitch error & Back Lash compensation.
- Electronic hand wheel.
- Inch/Metric switchable.
- Auto Programmable Centralise Lubrication Unit.
- Dia 120 mm belt driven Internal Grinding spindle.
- Ø 300 mm Magnetic Shoes chuck.
- Machine with close enclosure.

## OPTIONAL ACCESSORIES

- Siemens 828D Advance / Fanuc Oi-TF Controller
- Mitsubishi / Delta PLC
- Servo Controlled C axis (Work Head).
- Linear Glass Scale (for single or both axis). \*\*
- Magnetic Separator.
- Paper band with Magnetic Coolant Separator.
- Ø 100 mm belt driven Internal Grinding spindle in lieu of standard.
- Ø 80 mm belt driven Internal Grinding spindle in lieu of standard.
- Ø 60 mm belt driven Internal Grinding spindle in lieu of standard.
- Ø 200 mm Magnetic Shoes chuck.
- Ø 150 mm Magnetic Shoes chuck.
- Cross roller linear guide ways for both axis.
- Frequency Spindle with Drive, lubrication Unit and Spindle Chiller Unit.
- Roll Dressing attachment with Spindle (without Diamond Roll).
- Servo controlled Radius Dresser
- Rotary Disc type Dresser.
- Hydraulic chucking system (Based on component).
- 7.5 hp Induction motor for Wheel head.
- VFD for Wheel head with manual potentiometer
- To maintain CSS, VFD required for Wheel head and Work Head with Servo as 3rd Axis in lieu of standard.
- In-Process Gauge.
- Hydraulic operated Auto loading system (Based on Component).
- Hydraulic Operated Arm type Dresser unit.
- 25 KVa Servo Voltage Stabilizer.

**SPECIFICATION**

<b>MODEL</b>		
<b>DESCRIPTION</b>	<b>UNIT</b>	<b>IG-30</b>
<b>CAPACITY</b>		
MAX ROTATING DIAMETER	mm	300
MIN. GRINDING DIAMETER	mm	16
MAX. GRINDING DIAMETER	mm	280
GRINDING DEPTH MAX.	mm	80
MAXIMUM JOB WEIGHT	kg	50
WORK CENTER HEIGHT FROM FLOOR	mm	1100
MAX. CHUCKING DIA.	mm	300
CENTRE HEIGHT FROM SLIDE	mm	212
<b>CROSS TABLE (X-AXIS)</b>		
X-AXIS STROKE	mm	200
RAPID FEED RATE	mtr / min	5
MINIMUM RESOLUTION	mm	0.001
FEED SERVOMOTOR TORQUE	Nm	8
BALL SCREW	mm	Ø 32 x 5
<b>LONGITUDUNAL TABLE (Z-AXIS)</b>		
Z-AXIS STROKE	mm	200
RAPID FEED RATE	mtr/min	10
MINIMUM RESOLUTION	mm	0.001
FEED SERVOMOTOR TORQUE	Nm	8
BALL SCREW	mm	Ø 32 X 10
<b>WORK HEAD</b>		
SPINDLE SPEED RANGE	rpm	50 - 500
SPINDLE MOTOR POWER	kw/hp	0.75/1
SPINDLE NOSE		MT - 4
MAXIMUM SWIVEL	deg(°)	±15°

**SPECIFICATION**

**MODEL**

DESCRIPTION	UNIT	IG-30
<b>INTERNAL GRINDING HEAD</b>		
SPINDLE SIZE-120 MM X 250 MM MAX. RPM	rpm	8000
SPINDLE SIZE-100 MM X 250 MM MAX. RPM (OPTIONAL)	rpm	12500
SPINDLE SIZE-80 MM X 250 MM MAX. RPM (OPTIONAL)	rpm	14500
SPINDLE SIZE-60 MM X 250 MM MAX. RPM (OPTIONAL)	rpm	18000
SPINDLE MOTOR POWER	kw/hp	3.75 / 5 (5.5 / 7.5)
SPINDLE MOTOR SPEED	rpm	2800
FREQUENCY SPINDLE (OPTIONAL)	rpm	12000~51000
<b>GENERAL</b>		
OPERATION VOLTAGE	volts	415, 3PH, AC, 50HZ
TOTAL POWER REQUIRED	kw/hp	7.5/10
FLOOR SPACE	mm	2250 X 2700*
MACHINE WEIGHT (APPROX.)	kg	3250*

**NOTE:**

Minimum and Maximum grinding diameter as specified above may vary based on specific requirement.  
 Work head spindle is with Live center operating provision.  
 Features and Specification may vary as specific job requirement.  
 Colour as shown in picture may not match with actual machine colour.  
 Machine Guard May Change as per Job Specification and Accessory used.  
 ( ) Optional Accessories, \*May Vary

*As per Grinding length, Wheel utilisation will change depending upon swivel angle. Please discuss suitability to your requirement before ordering to us.*

*As a part of Continuous Improvement Process, design and specification subjected to change without prior notice and information*



**KIYA**

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