

Kaizen



“Instead of focusing
on the competition,
focus on the **CUSTOMER**”

www.kaizenmachines.co.in

ENGINEERING | EXCELLENCE | LEADERSHIP | EXPERTISE | RELIABILITY

MMD

CNC SERIES

**Vertical Machining Center
Provides State-of-the-art Efficiency
For Increased Profitability**

OUR MISSION & VISION

To exceed our customers expectations in quality, delivery, and cost through continuous improvement and customer interaction.

To become a global leader in the development of highly sophisticated & technologically advanced machines and engineering components.



Whether you require in high precision parts machining or general mold making, vertical machining central offers unbeatable dependability.

The VMC-Series is a well-engineered high precision-unit, ideal for various precision industrial requirements. It promises dramatic productivity gains with many integrated features. Its rugged structure, manufactured from high quality cast iron, assures optimum rigidity and stability for years of dependable operation.



STRUCTURE

Kaizen

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Base Casting Built using a wide-base, cast-iron frame, yields rigidity and damping beyond that of machines using fabricated or weldment-type frames

Massive Cast-iron Construction Built cast-iron components, which provide up to ten times the damping capacity of steel. Castings are internally reinforced with numerous heavy ribs to resist flex and damp vibrations, and each one is thoroughly inspected to ensure it is free of flaws.

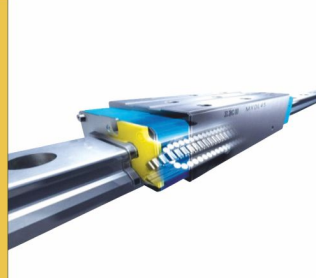
- The entire machine construction is subjected to ANSYS and NASTRAN Finite Element Analysis to achieve optimum rigidity and stability.
- The column bottom is specially designed with A-shaped structure.



**CARTRIDGE
TYPE SPINDLE**



**HIGH PRECISION C3
CLASS BALL SCREW**



**ROLLER TYPE
LINEAR GUIDE WAY**



**ARM TYPE AUTOMATIC
TOOL CHANGER**

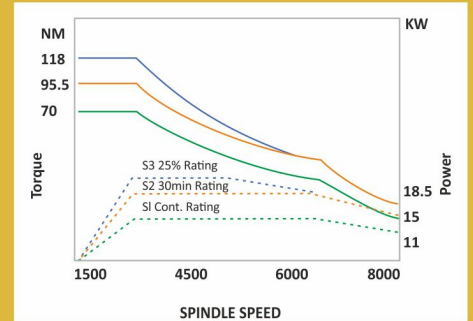
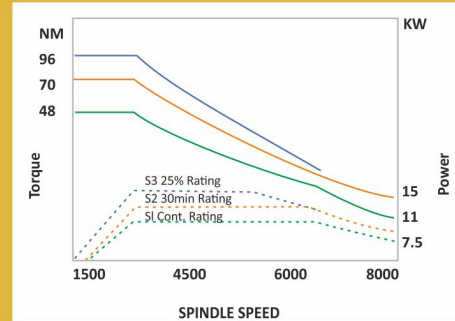
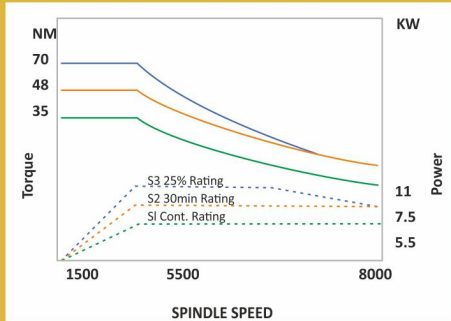
TORQUE POWER DIGRAM STANDARD SPINDLE MOTORS

MITSUBISHI CONTROLLER

Power 5.5/7.5/11 kw | Torque 70 Nm | 10000 Rpm

Power 7.5/11/15 kw | Torque 96 Nm | 10000 Rpm

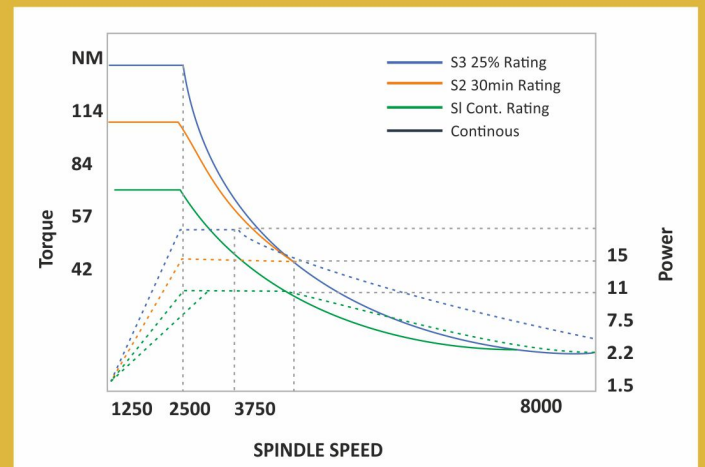
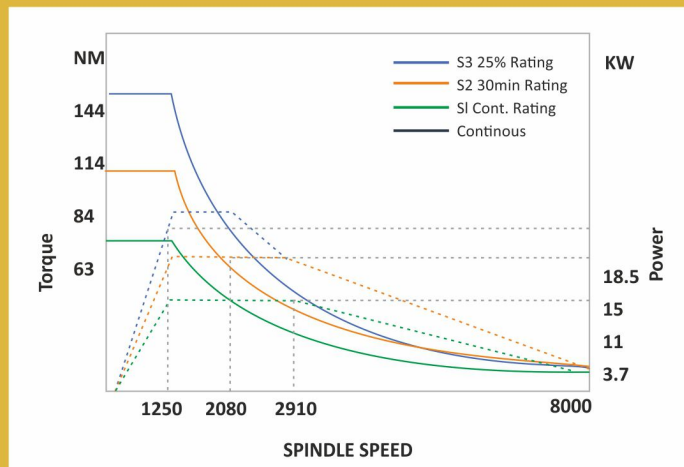
Power 11/15/18.5kw | Torque 118 Nm | 8000 Rpm



FANUC CONTROLLER

Power 7.5/11/15kw | Torque 95 Nm | 10000 Rpm

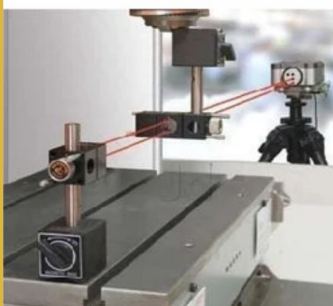
Power 11/15/18.5 kw | Torque 118 Nm | 10000 rpm



QUALITY ASSURANCE

LASER CALIBRATION

100 % Laser calibration of all machines We use State-of-the-art equipment for used by leading world manufacturers We assure you repeatability with accuracy.



Positioning Accuracy within **10** micron
Repeatability within **±3** micron

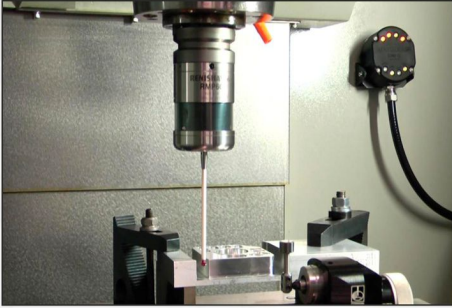
BALLBAR CALIBRATION

100 % Ballbar calibration of all machines . We ensure servo motors are perfectly tuned for perfect simultaneous movement. Resulting in Circularity of below 10 Micron

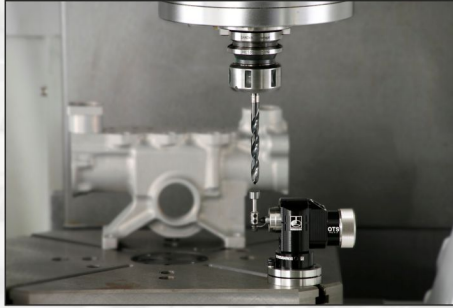


Circularity within **10** micron

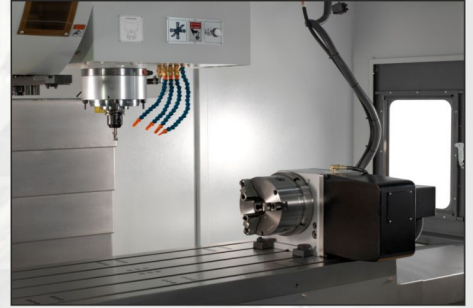
PERFORMANCE ENHANCEMENT



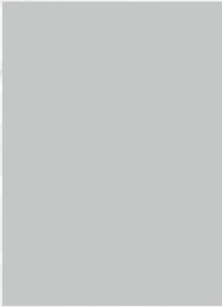
WORK PROBE



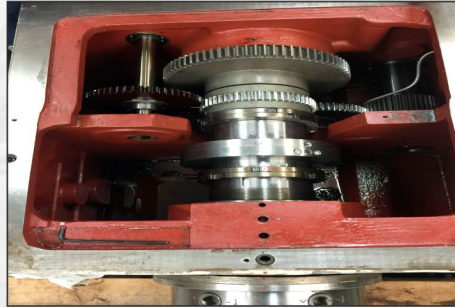
TOOL PROBE



ROTARY TABLE



CHIP AUGER



GEAR BOX

Automatic Measuring Solutions

Range of tools and work piece probes are available from Renishaw

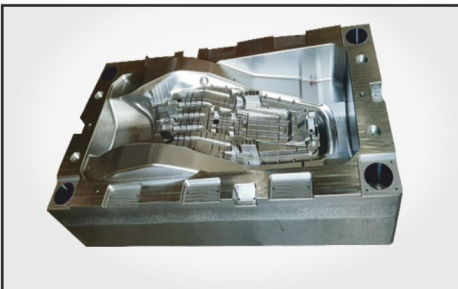
- Touch Probe for Tools Setting (without Cable)
- Automatic workpiece probes
- Laser tools prober
- Automatic lubrication system
- Separate measuring station.

Selection of Rotary Table-4th & 5th Axis Solutions

Reliable solution for demanding application

- Table size upto 320
- Worm gear / worm wheel solutions for high torque
- Production system, cradle arrangement also available
- Torque motor and roller-cam solution for higher speeds
- Separate measuring station.

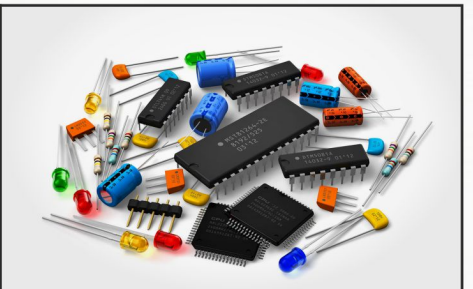
APPLICATIONS



Dies & Moulds



Medical



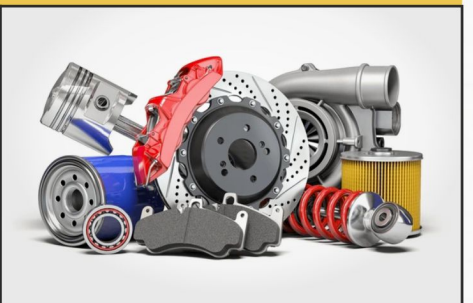
Electronics



Aero Space Component



Engineering Component



Auto Parts

MODEL	UNIT	VMC 640	VMC 740	VMC 840	VMC 850	VMC 860
Table Size	mm	930X360	800X450	900X450	1000X500	1000X550
Travel Size	mm	650X400X500	700X450X500	800X450X500	800X500X500	800X600X550
Load On Table	kg	400	600	700	800	1000
Spindle Nose To Table Top	mm	110-610	110-610	110-610	110-610	110-710
Spindle Power	kw	5.5/7.5	5.5/7.5	7.5/11	7.5/11	75/11
Spindle Taper		BT-40	BT-40	BT-40	BT-40	BT-40
Spindle Rpm		8000	8000	8000	8000	8000
Axis Rapids	m/min	30/30/30	30/30/30	30/30/30	30/30/30	30/30/30
ATC Type		Arm Type	Arm Type	Arm Type	Arm Type	Arm Type
No Of Tools		16	20	24	24	24
Maximum Tool Length	mm	250	250	250	250	250
Maximum Tool Weight	kg	8	8	8	8	8
Tool Dia. (with Adjacent Tool)		80	80	80	80	80
Tool Dia. (W/O Adjacent Tool)		130	130	130	130	130
Tool Change Time (T-T)	Sec	2.2	2.2	2.2	2.2	2.2
Cutting Feed Rate	m/min	10	10	10	10	10
Positioning Accuracy	Micron	0.01	0.01	0.01	0.01	0.01
Repeatability	Micron	0.006	0.006	0.006	0.006	0.006
Machine Weight	kg	4200	4500	5000	5800	6100
Connected Load	kva	20	20	25	25	25
Air Pressure Required	Bar	6	6	6	6	6
Machine Layout	mm	2100X2100X2400	2200X2200X2400	2400X2200X2400	2400X2400X2400	2500X2500X2500

Technical specifications and design characteristics are subject to change without prior notice

Standard Accessories

- Mitsubishi CNC System
- Roller Type LM Guides in all Axis
- 3 axis pretensioned ballscrews - C3 class
- Automatic lubrication system
- Fully enclosed machine guard
- Dust-proof electrical cabinet
- Spindle air sealing
- Rigid Tapping
- Leveling blocks and plates
- Spindle coolant nozzle
- Operation and maintenance manual
- Spindle Taper Air Blow
- Machine Lamp
- Tool Kit
- Feedback through absolute encoder
- Telescopic Covers & wipers
- Manual Pulse Generator
- RS 232 Serial / USB Interface
- Coolant Gun, Air Gun
- Air Conditioner for Electrical Cabinet

VMC 1060	VMC 1160	VMC 1270	VMC 1370	VMC 1580		VMC 1890	VMC 2090
1100X600	1200X600	1300X650	1400X700	1700X800		2000X900	2100X900
1000X600X600	1100X650X600	1200X700X600	1300X700X700	1500X800X700		1800X900X700	2000X900X800
1000	1200	1400	1500	2000		2000	2500
110-710	110-710	150-850	150-850	150-850		150-850	150-850
7.5/11	7.5/11	7.5/11	7.5/11	7.5/11	15/18	15/18	15/18
BT-40	BT-40	BT-40	BT-40	BT-40	BT-50	BT-50	BT-50
8000	8000	8000	8000	8000	6000	6000	6000
30/30/30	24/24/24	24/24/24	24/24/20	20/20/20		15/15/15	15/15/15
Arm Type	Arm Type	Arm Type	Arm Type	Arm Type		Arm Type	Arm Type
24	24	24	24	24		24	24
250	250	250	250	250		250	250
8	8	8	8	8	15	15	15
80	80	80	80	80	130	130	130
130	130	130	130	130	220	220	220
2.2	2.2	2.2	3.5	4.5		4.5	4.5
10	10	10	10	10		10	10
0.01	0.01	0.01	0.015	0.015		0.015	0.015
0.006	0.006	0.006	0.01	0.01		0.01	0.01
6800	8300	9500	10500	10500	12000	15000	16000
25	25	25	25	25	50	50	50
6	6	6	6	6	8	8	8
2700X2500X2700	2900X2500X2700	3300X2650X2800	3500X3000X3100	4000X3100X3100		4500X3300X3200	4800X3300X3300

Optional Accessories

- Coolant through spindle
- Workpiece measurement system
- Automatic tool length measurement and breakage detection
- Chip conveyor
- 10,000 rpm
- Spindle Oil Cooler
- Step Down Transformer
- 4th & 5th axis Rotary Table
- 16/20/24 Arm Type Tool Changer
- Fanuc / Siemens CNC System

Product Range

- Vertical Machining Center
- Flat Bed CNC Lathe
- Hydraulic Surface Grinder
- EDM & Wire Cut
- Hydraulic Cylindrical Grinder
- Injection Moulding machine
- Lathe Machine
- Manual Milling Machine

Our Presence

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Change for better...

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