





## WHY MACPOWER ?

- Totally In-house Manufacturing Capability
- Wide range of products to choose from
- Effective "Cost to Performance" solution provider
- Believing in partnership with customers and not as buyer and seller
- Efficient after sales service back up
- Availability of spares
- Emphasis on continuous R & D & Training
- Flexibility & Openness to manufacture customized machines
- Fast decision making process
- Macpower is a company with a modern outlook – giving you contemporary solutions through time-tested expertise.

## COMPANY PROFILE

Macpower CNC Machines Limited (Macpower) welcomes to the world of machining excellence. More than one and half decades of experience and the vision towards creating a niche has transformed Macpower into India's fastest growing CNC Manufacturing Company. This meteoric growth is a result of Macpower's vision of par excellence to manufacture state of the art products, adopting the best in technology.

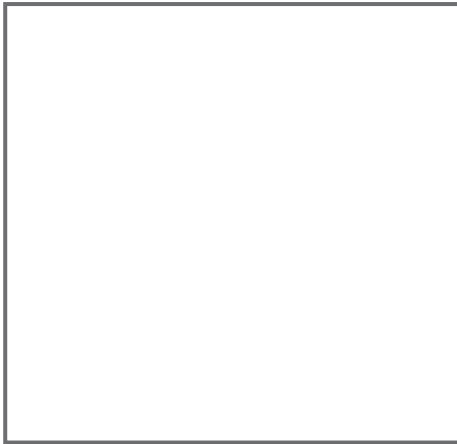
In 2003, Macpower Group started Macpower CNC Machines Limited, CNC Machines manufacturing unit in an area of around 4 acres and has grown to almost double thereafter with 2 units in operation at present situated at Metoda G. I. D.C., Rajkot (India). Macpower is registered to ISO 9001(Design), a universally accepted quality assurance designation and MSE-1 certification for highest financial strength and operational ability by CRISIL.

The modern headquarters contains a spacious State of the Art Machine Shop, Totally Equipped Assembly Shops, All Modern Measuring and Testing Equipments, Technologically Advanced Sheet Metal Unit and One of it's Kind Powder Coating Plant make Macpower Totally In-House Manufacturing Company.

Macpower is currently offering widest range of 9 different product categories namely Turning Center, Twin Spindle Turning Center, VMC, Twin Spindle VMC, TurnMill Center, HMC, VTL, DTC, Grinder with 27 versions and 60+ different models serving 27 industry segment world wide with 8000+ installations.

Sales & Service Team presence in 37 cities across the country with 107 qualified engineers and 9 business associates; establishment of multiple regional offices and technology centers across the country to have better connect with our valued customers.



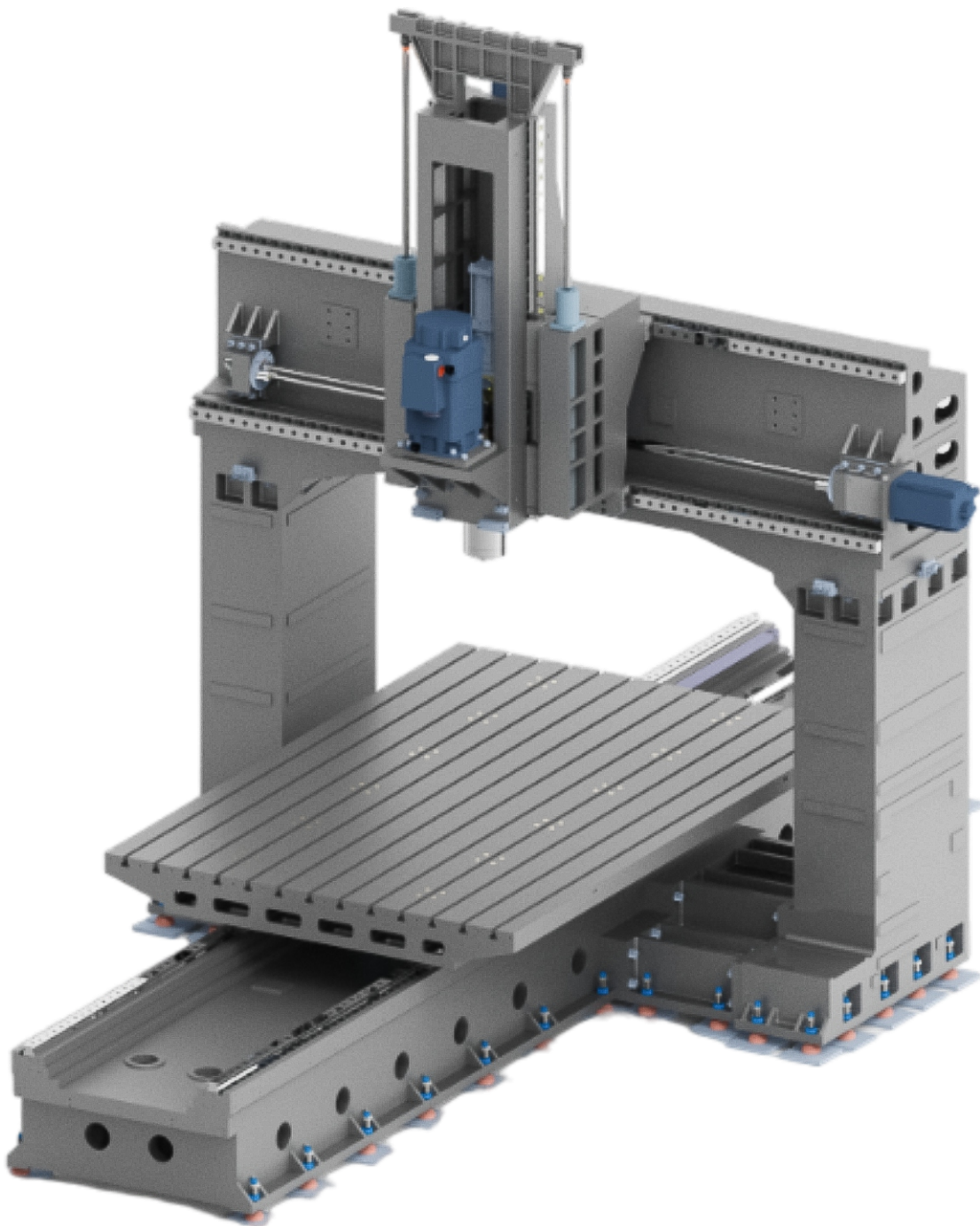


# OVERVIEW

In today's competitive market, you need robust Double column machine with un-compromised performance and specifications to produce world class products quickly accurately and with minimum non productive time.

## Structure & Frame

The rigid bed and step up structure are made out of grade 25 cast iron for more stability. It is ribbed to provide more rigidity and less distortion during cuts and faster production, with virtually no vibration. A totally revamped ergonomic structure and frame helps stabilise different machining operations with requisite precision.



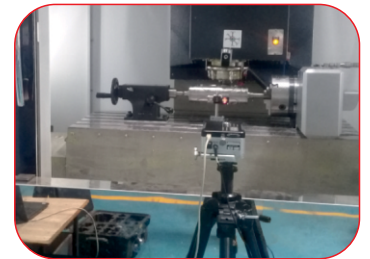
## **HIGH CAPACITY ACCURATE SPINDLE**

The precision cartridge spindle unit having three super precise angular contact bearings at front and two at rear end, this combination ensures higher stiffness. Bearings are perfectly aligned and grease packed for long life. Spindle is indirectly driven by high speed AC spindle motor with reduced pulley ratio, to achieve high spindle torque and optimal performance of machine.



## **ADVANCE INSPECTION TECHNOLOGY**

Laser Calibration is carried out to insure the linear accuracy, providing accurate compensation for pitch and backlash. The machine facilitates the attainment of positional accuracy up to 0.01 mm / 300 mm and repeatability accuracy up to 0.007 mm.



## **PRECISE ROLLER GUIDEWAYS**

All axes are furnished with precise and heavy load capacity recirculating roller guide ways for better rigidity & sustained accuracies.



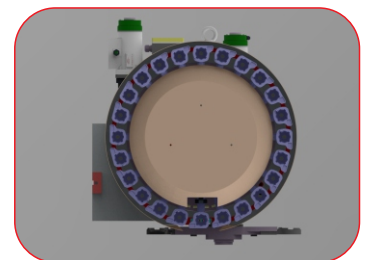
## **DOUBLE - ANCHORED BALL SCREWS**

Ball Screws are directed by direct coupled AC servo motor with flexible coupling. This greatly improves positioning accuracy, and provides more accurate threading and contouring. Ball Screws are anchored at both ends and inspected for parallelism with axis guide. Pre-loaded ball nuts eliminate backlash.



## **RELIABLE ATC**

Twin arm type side mounted ATC driven by screw and cam speed up tool changing time with random access and resulted in reduce cycle time and higher productivity. Each subsystem is tested for innumerable cycle at every stage to enhance reliability.



## **PRODUCTIVITY ENHANCEMENT OPTIONS**

### **90° MILLING HEAD (AUTOMATIC/MANUAL)**

An Automatic 90° Milling head is a tool used in milling machines that allows for precise machining operations at a right angle ( 90°) to the workpiece surface. this type of milling head is typically used when milling horizontal surfaces or performing vertical milling operations.



### **AC SWIVELING HEAD (AUTOMATIC/MANUAL)**

an automatic change swiveling milling head enhances the versatility and productivity of milling machines by automating tool changes and enabling multi-axis machining operations.



### **COOLANT THROUGH SPINDLE (CTS)**

This option provides high pressure filtered coolant directly to the cutting edge minimizing heat distractions, ensuring maximum productivity with today's high performance tooling. High recommended for jobs demanding deep boring and tapping.



### **GEAR BOX**

For application requiring high cutting for harder material or high cutting speed for soft materials, 2-speed gearbox need to be opted. These gearbox provide higher cutting torque at lower RPM with auto shifting mechanism keeping power constant. Such gearbox get directly coupled to main spindle motor giving production flexibility without disturbing precision.

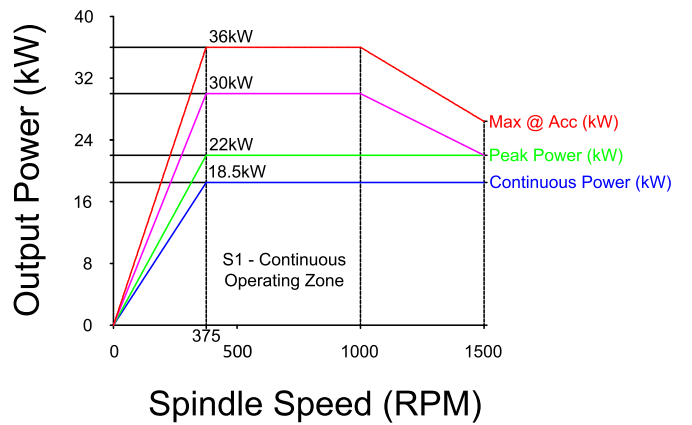
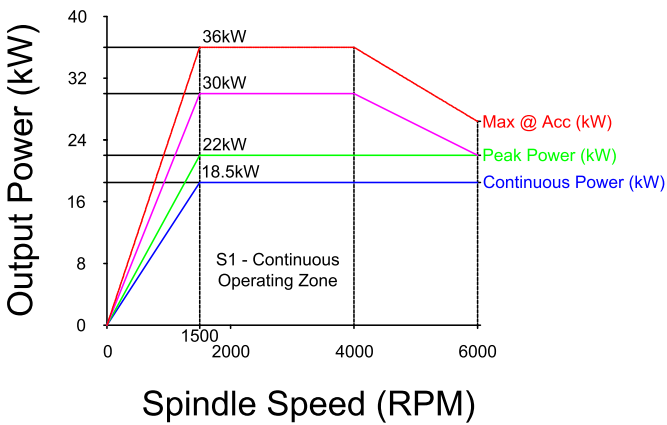
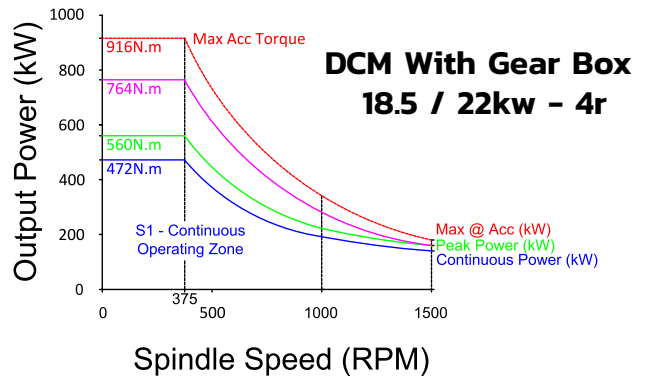
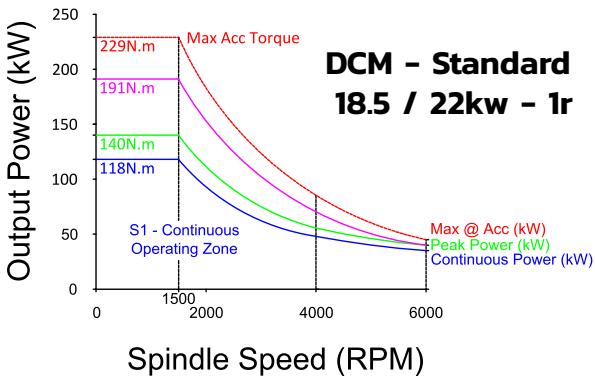
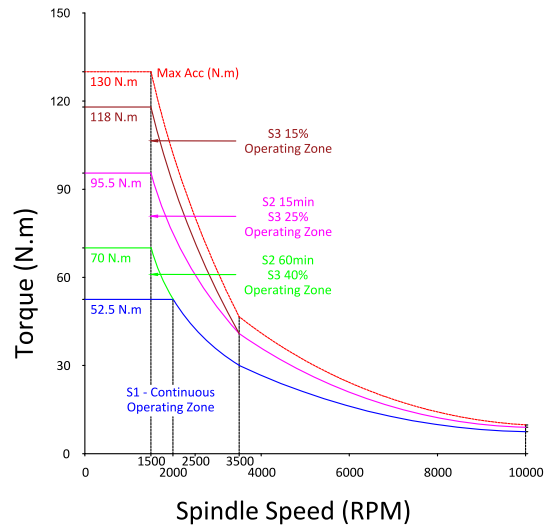
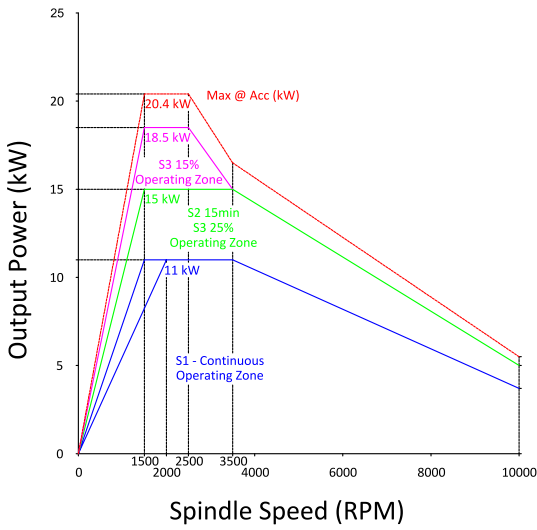


### **CHIP CONVEYOR**

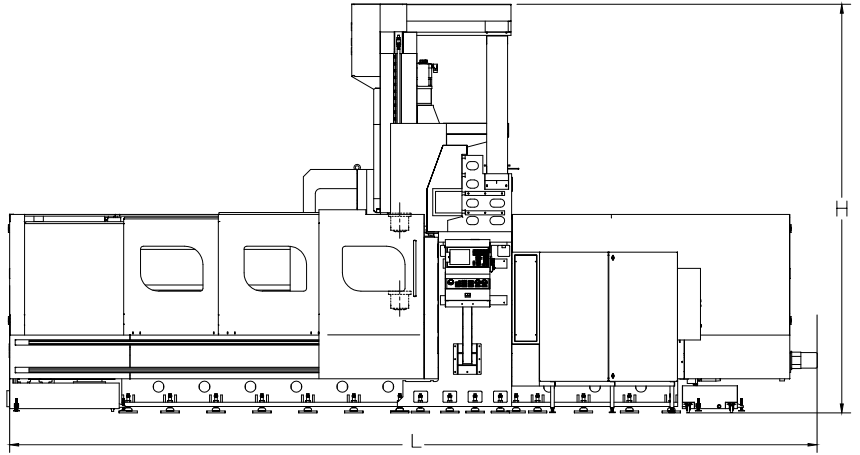
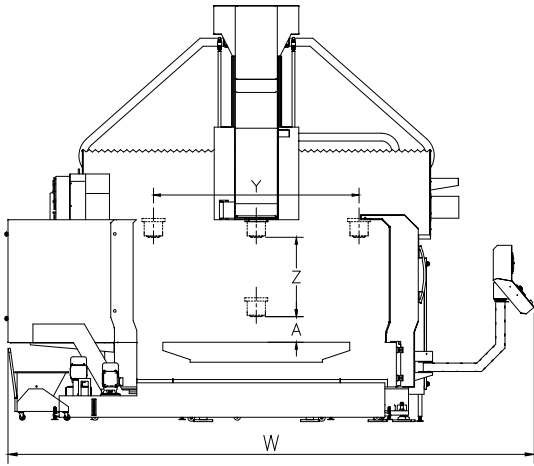
Machine can be mounted with chip conveyor option for efficient Swarf removal for entire series. such type of arrangements is very much useful for applications requiring continues machining hours having much metal removal. with help of downtime can be reduce drastically.



# POWER DIAGRAM



# MACHINE LAYOUT & DIMENSION



MODEL	Y AXIS STROKE	SPINDLE NOSE TO TABLE TOP	Z AXIS STROK	DIST. BETWEEN COLUMNS
	Y	A	Z	W
DCM - 1512	1200	150	750	1150
DCM - 2112	1200	150	750	1350
DCM - 2216	1600	200	800(1000)	1700
DCM - 2618	1850	200	800(1000)	1950
DCM - 3216	1600	200	800(1000)	1700
DCM - 3222	2760	200	800(1000)	2500
DCM - 4222	2760	200	800(1000)	2500
DCM - 5227	2760	200	800(1000)	2500

# MACHINE CONFIGURATIONS

<b>AXIS CAPACITY</b>	<b>UNIT</b>	<b>DCM 1512</b>	<b>DCM 2112</b>	<b>DCM 2216</b>
Travel X	mm	1500	2100	2200
Travel Y	mm	1200	1200	1600
Travel Z	mm	750	750	800 (1000)
Distance Between Column	mm	1150	1350	1700
Rapid X/Y/Z	m/min.	20/20/20	20/20/20	15/20/15
Distance Table - Spindle Face	mm	150 - 900	150 - 900	200 - 1000 (200 - 1200)
<b>TABLE</b>				
Size	mm	1600 x 1000	2200 x 1200	2200X1300
T Slot No	-	7	7	9
T Slot CD	mm	125	160	125
T Slot Width	mm	22	22	22
Max. Safe Load on Table	Kg	2200	4000	6000
<b>SPINDLE</b>				
Taper	-	BT-40 / BT-50	BT-40 / BT-50	BT - 50
RPM	-	8000 / 6000	8000 / 6000	80 - 6000
Cutting Feed Rate	mm/min.	0 - 10000	0 - 10000	1 - 10000
Spindle Motor - Fanuc	Kw	11	11	18.5 / 22 / 30
Spindle Motor - Siemens	Kw	15	15	21.5 / 32.3
Spindle Motor - Mitsubishi				18.5 / 22 / 30
<b>AUTOMATIC TOOL CHANGER</b>				
No. of Tools (Std/Opt)	-	24/20 (30/40)	24/20 (30/40)	20(24/30/40)
Max. Tool Dia. (All pocket full)	mm	250/400	250/400	125
Max. Tool Dia. (Adj. pocket empty)	mm	125/200	125/200	220
Tool Length Max.	mm	250/400	250/400	400
Tool Weight Max.	Kg	7/20	7/20	20
<b>ACCURACY</b>				
Positional Accuracy	mm	0.020	0.020	0.020
Repeatability	mm	0.015	0.015	0.015
<b>CHIP REMOVAL</b>				
Chip Removal	-	Screw	Screw	Screw Conveyor + Chip Tray
Machine Weight	Kg	15000	20000	23000
<b>SYSTEMS</b>				
Fanuc	-	Oi MF Plus	Oi MF Plus	Oi MF Plus
Siemens	-	828D	828D	828D
Mitsubishi	-	M80V	M80V	M80V

# MACHINE CONFIGURATIONS

<b>AXIS CAPACITY</b>	<b>UNIT</b>	<b>DCM 2618</b>	<b>DCM 3216</b>	<b>DCM 3222</b>
Travel X	mm	2650	3200	3200
Travel Y	mm	1850	1600	2760
Travel Z	mm	800 (1000)	800 (1000)	800 (1000)
Distance Between Column	mm	1950	1700	2500
Rapid X/Y/Z	m/min.	20/20/15	15/15/15	15/15/15
Distance Table - Spindle Face	mm	200- 1000 (1200)	200 - 1000 (200 - 1200)	200 - 1000 (200 - 1200)
<b>TABLE</b>				
Size	mm	2600 x 1600	3000X1300	3000X2000
T Slot No	-	9	9	12
T Slot CD	mm	160	125	160
T Slot Width	mm	22	22	22
Max. Safe Load on Table	Kg	7000	8000	9000
<b>SPINDLE</b>				
Taper	-	BT-50	BT - 50	BT - 50
RPM	-	80 / 6000	80 - 6000	80 - 6000
Cutting Feed Rate	mm/min.	1 - 10000	1 - 10000	1 - 10000
Spindle Motor - Fanuc	Kw	18.5 / 22	18.5 / 22 / 30	18.5 / 22 / 30
Spindle Motor - Siemens	Kw	21.5 /32.3	21.5 / 32.3	21.5 / 32.3
Spindle Motor - Mitsubishi	Kw		18.5 / 22 / 30	18.5 / 22 / 30
<b>AUTOMATIC TOOL CHANGER</b>				
No. of Tools (Std/Opt)	-	20 (24/30/40)	20 (24/30/40)	20 (24/30/40)
Max. Tool Dia. (All pocket full)	mm	250/400	125	125
Max. Tool Dia. (Adj. pocket empty)	mm	125/220	220	220
Tool Length Max.	mm	250/400	400	400
Tool Weight Max.	Kg	7/20	20	20
<b>ACCURACY</b>				
Positional Accuracy	mm	0.020	0.020	0.025
Repeatability	mm	0.015	0.015	0.020
<b>CHIP REMOVAL</b>				
Chip Removal	-	Screw	Screw Conveyor + Chip Tray	Screw Conveyor + Chip Tray
Machine Weight	Kg	22500	24500	33000
<b>SYSTEMS</b>				
Fanuc	-	Oi MF Plus	Oi MF Plus	Oi MF Plus
Siemens	-	828D	828D	828D
Mitsubishi	-	M80V	M80V	M80V

# MACHINE CONFIGURATIONS

<b>AXIS CAPACITY</b>	<b>UNIT</b>	<b>DCM 4222</b>	<b>DCM 5227</b>
Travel X	mm	4200	5200
Travel Y	mm	2760	2760
Travel Z	mm	800 (1000)	800 (1000)
Distance Between Column	mm	2500	2500
Rapid X/Y/Z	m/min.	15/15/15	15/15/15
Distance Table - Spindle Face	mm	200 - 1000 (200 - 1200)	200 - 1000 (200 - 1200)

<b>TABLE</b>			
Size	mm	3500X2000	4500X2000
T Slot No	-	12	12
T Slot CD	mm	160	160
T Slot Width	mm	22	22
Max. Safe Load on Table	Kg	10000	12000

<b>SPINDLE</b>			
Taper	-	BT - 50	BT - 50
RPM	-	80 - 6000	80 - 6000
Cutting Feed Rate	mm/min.	1 - 10000	1 - 10000
Spindle Motor - Fanuc	Kw	18.5 / 22 / 30	18.5 / 22 / 30
Spindle Motor - Siemens	Kw	21.5 / 32.3 18.5 / 22 / 30	21.5 / 32.3 18.5 / 22 / 30

<b>AUTOMATIC TOOL CHANGER</b>			
No. of Tools (Std/Opt)	-	20(24/30/40)	20(24/30/40)
Max. Tool Dia. (All pocket full)	mm	125	125
Max. Tool Dia. (Adj. pocket empty)	mm	220	220
Tool Length Max.	mm	400	400
Tool Weight Max.	Kg	20	20

<b>ACCURACY</b>			
Positional Accuracy	mm	0.025	0.025
Repeatability	mm	0.020	0.020

<b>CHIP REMOVAL</b>			
Chip Removal	-	Screw Conveyor + Chip Tray	Screw Conveyor + Chip Tray
Machine Weight	Kg	35900	38000

<b>SYSTEMS</b>			
Fanuc	-	Oi MF Plus	Oi MF Plus
Siemens	-	828D	828D
Mitsubishi	-	M80V	M80V

# ACCESSORIES

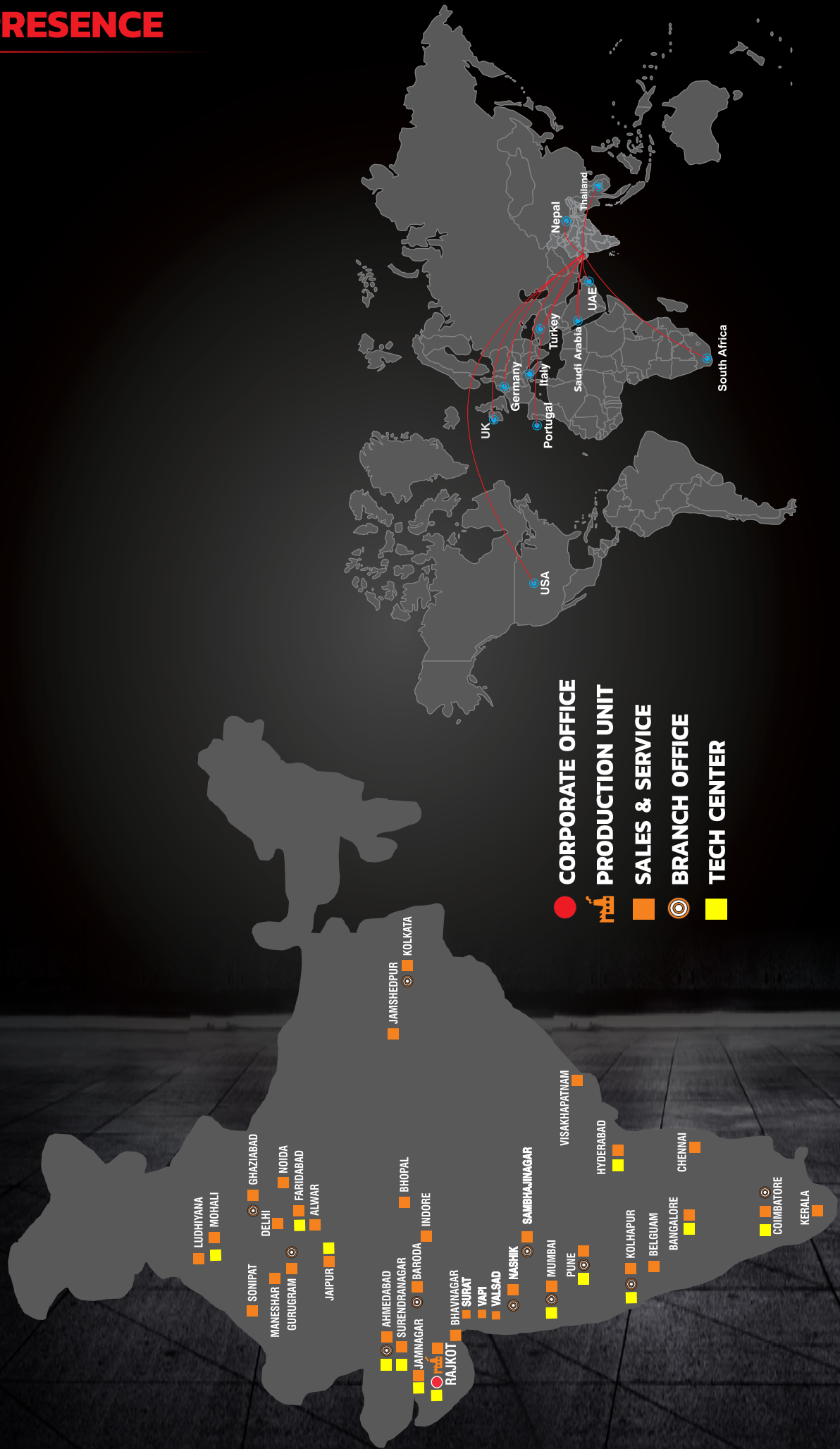
## STANDARD

- ROLLER GUIDEWAYS
- WORK LIGHT
- HAND WHEEL
- LEVELING PAD
- HEAD COOLANT
- AIR GUN
- CENTRALIZED LUBRICATION SYSTEM
- PULL STUD
- DRY AIR CUTTING
- COOLANT GUN
- SCREW CONVEYOR TWIN TYPE

## OPTIONAL

- LINEAR SCALE
- STABILIZER
- FLUSH COOLANT
- COOLANT THROUGH SPINDLE - 14 BAR & 20 BAR
- ROTARY TABLE
- ROTARY TILTING TABLE
- GEAR BOX
- HIGHER RPM SPINDLE
- SPINDLE CHILLER
- TOOL PROBE
- WORK PROBE
- TOOLED UP SOLUTIONS
- CHIP CONVEYOR
- 90° MILLING HEAD  
(AUTOMATIC & MANUAL)
- AC SWIVELING HEAD  
(AUTOMATIC & MANUAL)

# OUR PRESENCE



**FOR MORE INFORMATION PLEASE CONTACT**

**WEST ZONE**

Rajkot : 93777 87930  
Jamnagar : 74860 42366  
Surendranagar : 74860 42366  
Morbi : 93777 87930  
Bhavnagar : 93777 87930  
Ahmedabad : 93775 87930  
Sanand : 93775 87930  
Anand : 93775 87930  
Baroda : 63560 02810  
Halol : 63560 02810  
Surat : 63560 02810  
Vapi : 63560 02810  
Mumbai (C) : 70964 55955  
Mumbai (W) : 93203 87930  
Nasik : 93713 87930  
Aurangabad : 93456 87930  
Kolhapur : 70690 11499  
Pune : 93210 87930  
Ahmednagar : 93210 87930

**NORTH ZONE**

Delhi : 76000 10288  
Faridabad : 74860 29853  
Ghaziabad : 70690 75161  
Noida : 70690 75161  
Gurugram : 72111 08487  
  
Haryana : 89504 69265  
Sonipat : 89504 69265  
72111 02818  
  
Ludhiana : 99886 93302  
Mohali : 99886 93302  
  
Jaipur : 72111 88869  
Alwar : 72111 88869  
Jodhpur : 72111 88869

**EAST ZONE**

Kolkata : 93758 45361  
Jameshedpur : 93758 45361

**SOUTH ZONE**

Hyderabad : 70961 50505  
Bangalore : 72111 03869  
Chennai : 63560 02822  
  
Belgaum : 91641 02610  
  
Coimbatore : 72111 02822  
Trichy : 72111 02822  
Kerala : 72111 02822

**CENTRAL ZONE**

Indore : 99747 97756  
Bhopal : 87706 96570

*at  
your service  
anytime  
anywhere*



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Note : Technical Specifications and Colors are subject to change as a part of continuous development.