

VIBRANT SERIES



VERTICAL MACHINING CENTER



ONE NUMBER - MULTI SOLUTIONS



FOR SALES INQUIRIES & CUSTOMER CARE

7998-7998-16

W W W . M A C P O W E R C N C . C O M



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.

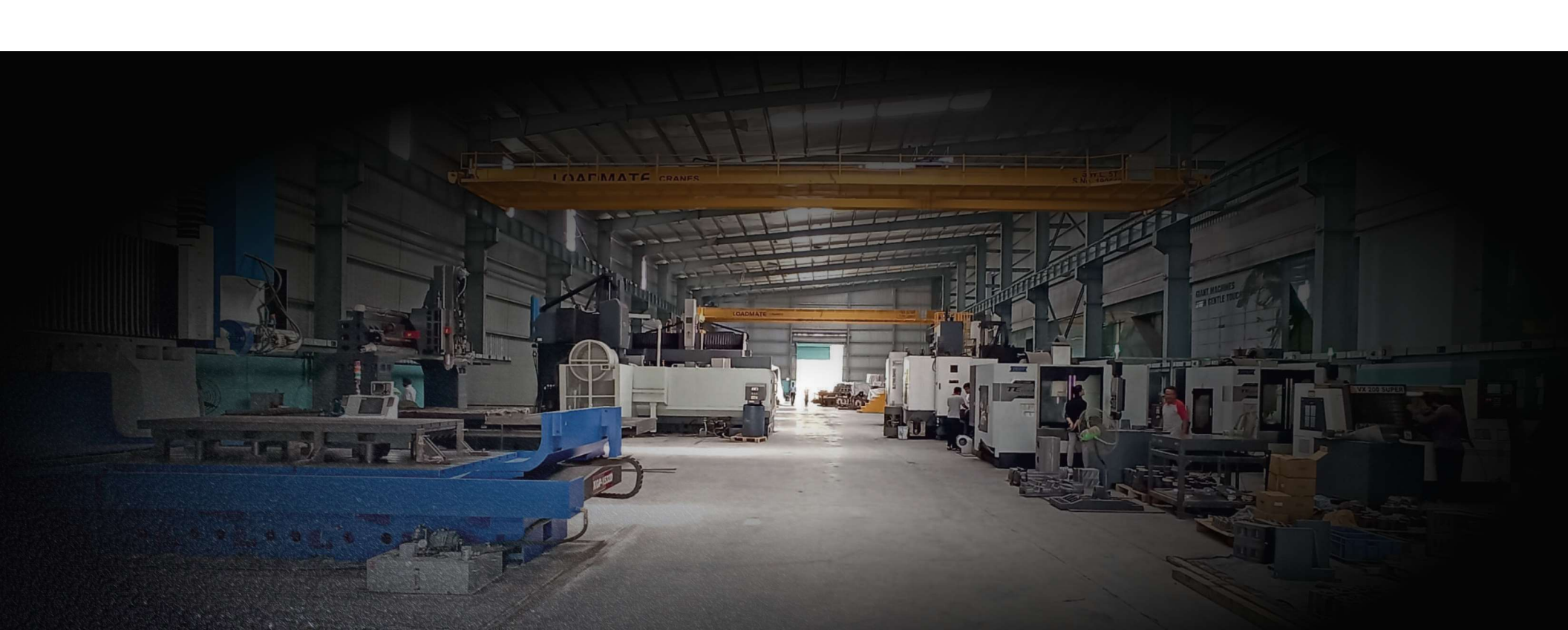
In 2003, Macpower Group started Macpower CNC Machines Limited, CNC Machines manufacturing unit in an area of around 4 acres and has grown to almost double thereafter with 2 units in operation at present situated at Metoda G. I. D.C., Rajkot (India). Macpower is registered to ISO 9001(Design), a universally 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.



COMPANY INFRASTRUCTURE

Macpower has grown multifold by accepting latest technological advancements along with developing state of the art INFRASTRUCTURE facilities like Machine Shop having range of latest mother machineries, well planned assembly lines with Ucrete flooring, modern sheet metal unit, technologically advance 11 tank hot and cold process powder coating plant and an array of latest measuring and testing equipments make Macpower deliver truly world class products through total inhouse manufacturing facilities.

The Ultra Modern machine shop hosts an a series of mother machineries like multi axes internal and external thread grinder, moving column boirng machine, multiple DCMs, tooled up HMCs, surface grinder, series of VMCs, TurnMill Center along with latest material handling facilities and all the mother machineries are equipped with latest high end toolings and separate set of measuring instruments and QC procedure is being laid down for testing of machined components.

TOTALLY IN-HOUSE MANUFACTURING FACILITIES

Set up in a constructed area of around 1 lakh sq. feet.

Consists of series of multiple mother machineries, state of the art assembly lines, sheet metal units,

powder coating plant along with technologically advanced measuring and testing equipments.

- 5 axes double column machining centers with universal head
- Synchronous Multiple HMCs
- State of the art Boring Machine



BORING MACHINE

MULTIPLE DOUBLE COLUMN MULTI TASKING MACHINES

- State of The Art Multiple Double Column Machining Centers.
- In House Machining of High Accuracy Components.
- Accomplished With High End Fixtures & Angular Heads.



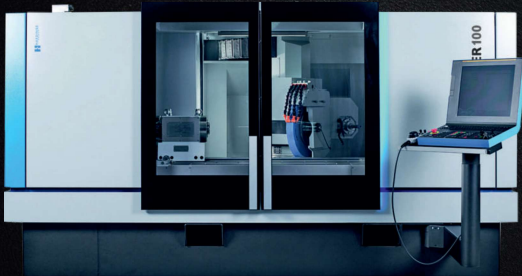
DCM FOUR STAR



DCM SIGMA

IN-HOUSE SPINDLE MANUFACTURING

- Kellenberger KEL 100 Universal Cylindrical Grinder with Thread Grinding Facility
- Controlled Temperature Precision Room for spindle assembly.
- Hitech Spindle Balancing System



KELLENBERGER

SLIDE WAY GRINDING FACILITY

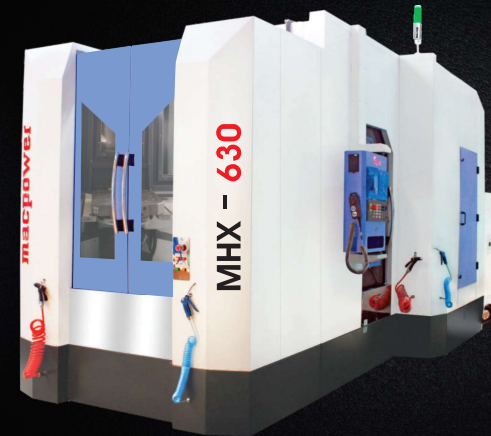
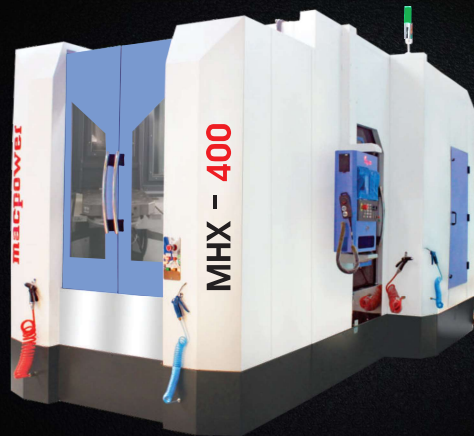
- Slide Way Grinding Machine With 2 Servo Heads
- Direct LM Guide Way Mounting Without Scraping



KENT

TOOLED UP MULTIPLE HMCs

- High end multiple HMCs with specialized tooling enables multi face machining in single set up with desired accuracy.



TURNING CENTER **ASSEMBLY**



MACHINING CENTER **ASSEMBLY**



- Ucrete flooring.
- Hitech assembly instruments.
- Total dust free working environment.



- Separate Assembly areas have been set up accordingly for product categories like Turning Centers, Machining Centers, TurnMill Centers, Multi Axes Machines.

ASSEMBLY
AREAS

SHEET METAL UNIT



AMADA



SLTL LASER CUTTING

- 8 Axes AMADA Press Brake with Auto Angle correction.
- Separate Storage Area for ready to use Sheet Metal Enclosures.
- SAHAJANAND fiber laser profile cutting machine.
- Modular welding and Assembly set up.

POWDER COATING PLANT

- With 11 Tank PT Hot and Cold Process System – 1st of It's Kind in Machine Tool Industry.
- GEMA Automatic Powder Coating Gun System
- With Advanced Lab Testing Equipments



ARRAY OF HITECH INSTRUMENTS

Portable CMM
Faro Edge



Laser Belt Alignment Unit



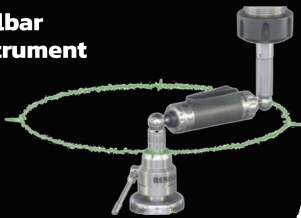
Condition
Analyser



Belt Tension
Meter



Ballbar
Instrument



Induction
Heater



MPM In-Situ
Balancing Kit



Wyler
Electronic
Level



Renishaw Laser
Instrument



Tool Presetter



Toolings & Fixtures



HIGH END SOFTWARES



ERP



Creo



Solid Edge



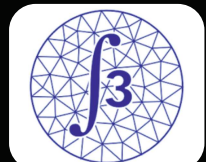
Solid Works



Master Cam



E Plan



FEA

*Logos shown above belongs to respective organizations.

W W W . M A C P O W E R C N C . C O M



RESEARCH AND DEVELOPMENT

Decades of experience and the vision towards creating a niche have what transformed Macpower into India's fastest growing CNC Machines Manufacturing Company.

To Prepare For Tomorrow, We Have To Be Ready Today

Our state-of-the-art Research & Development Department is backbone of our Manufacturing activity and provide foundation. At Macpower, we believe that Strong R&D and innovation is the need.

At Macpower R&D department, we have intelligent minds with diverse backgrounds to develop technology that is not just effective today, but also tomorrow.

As our machine development process afforded by the incorporation of digital design techniques, we were able to take an idea and turn it into a prototype in just under one to two months.

At Macpower, CREO 4 of PTC- 3 D Modelling and Finite Element Analysis (FEA) digital design tools allow our designers to achieve maximum accuracy and flexibility.

At Macpower R & D Performs : New Product Research, New Product Development, Existing Product Updates, New Process development, Innovation



INDUSTRY 4.0 & IOT

- We Provide Full Machine Remote Monitoring.
- Analysis of Utilization Rate of Machine.
- Machine Alarm Analysis.
- CNC Programme Upload / Download.
- Analysis of Down Time.
- Machine Status History.
- Single to Multiple Machine Connectivity.
- Operated on PC & Mobile.
- Customized Application Development.

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.

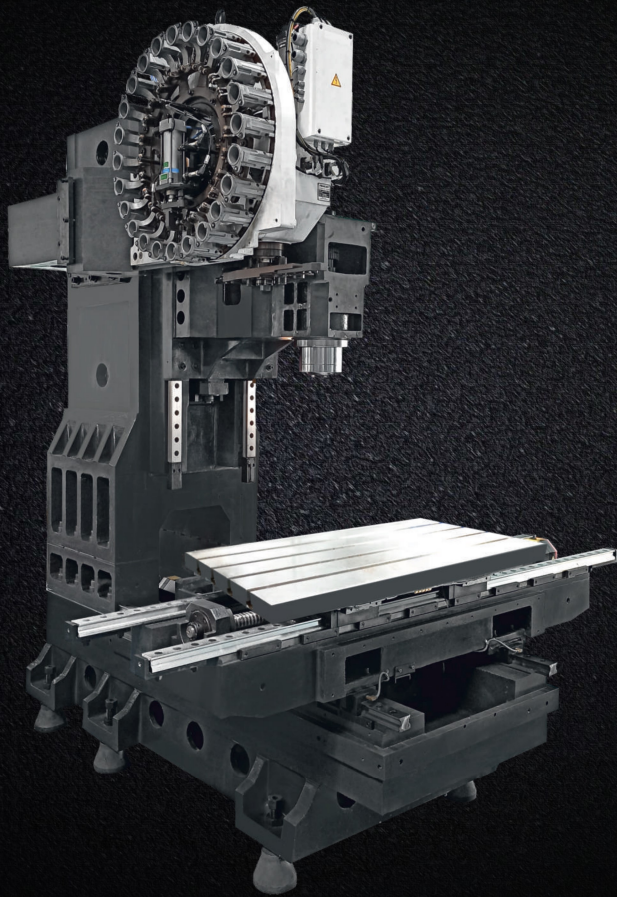
macpower

OVERVIEW

Our new generation Vertical Machining Centers are incorporate a wide range of enhancements and available with a myriad of options to choose from.

The modular machine portfolio and sophisticated engineering knowledge that enables us to deliver optimized solutions with optimal performance that make Macpower VMCs better than ever before.

RIGID STRUCTURE



Sturdiness of the foundation determined the soundness of the structure. The major construction parts are based on FG260 grade cast iron, to ensure optimum harmonic stability and maximum damping during cutting. Base and column are reinforced with heavy ribs for stability and least distortion. The uniform dense, fine graded casting distributed stress and heat throughout the machine structure.

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.

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.

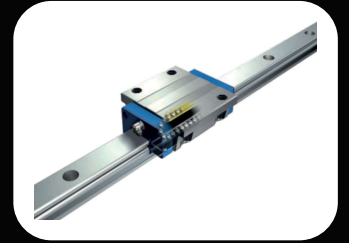
ADVANCE INSPECTION **TECHNOLOGY**



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

HEAVY DUTY ROLLER LM **GUIDEWAYS**

All axes are furnished with precise and heavy load capacity re-circulating roller guide ways enabling high acceleration-de acceleration and hence better rigidity.



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

4TH & 5TH AXIS CAPABILITY



For maximum application and cutting flexibility, usage of 4th Axis or 5th Axis rotary table with high resolution feedback system can be opted. These rotary tables can be programmed through the control system, that can be used to increase productivity by multiple side workpiece in single setting

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.

FLUSH COOLANT SYSTEM

Efficient chip remove is one of the important factor for better productivity with un-interrupted machining operations can be efficiently enhanced by selections of flush coolant system, high pressure coolant splash via flexible nozzles can be targeted to area of maximum chip accumulation. such a system enhance reduction in machining down time to operate and hence positively effecting productivity.

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.



PROBES

A wide choice pf spindle and surface-sensing probes as tool & job probes with infrared / radio laser transmission technology are available for increased spindle utilization, work piece setup and work piece measurement.



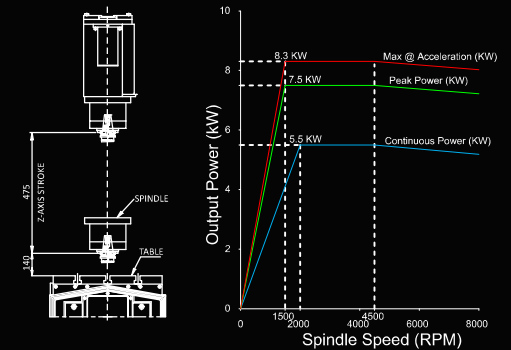
VIBRANT 500

VERTICAL MACHINING CENTER



TABLE SIZE	MM	450x650
AXIS STROKE (X / Y / Z)	MM	520 / 475 / 475
LOAD CAPACITY	KG	300
SPINDLE	-	BT 40
SPINDLE POWER (FANUC)	KW	5.5 / 7.5
WEIGHT (APPROX)	KG	3500
DIMENSIONS (APPROX) (WxDXH)	MM	2330x2760x2583

MACHINING RANGE & POWER DIAGRAM



COMPONENTS

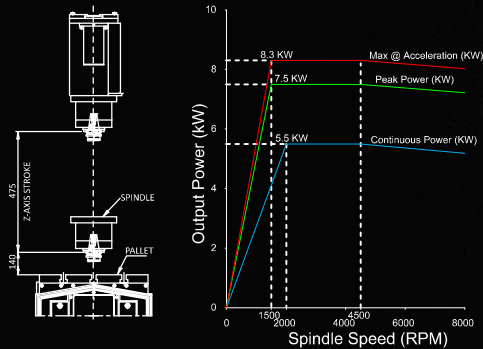


VIBRANT 500 APC

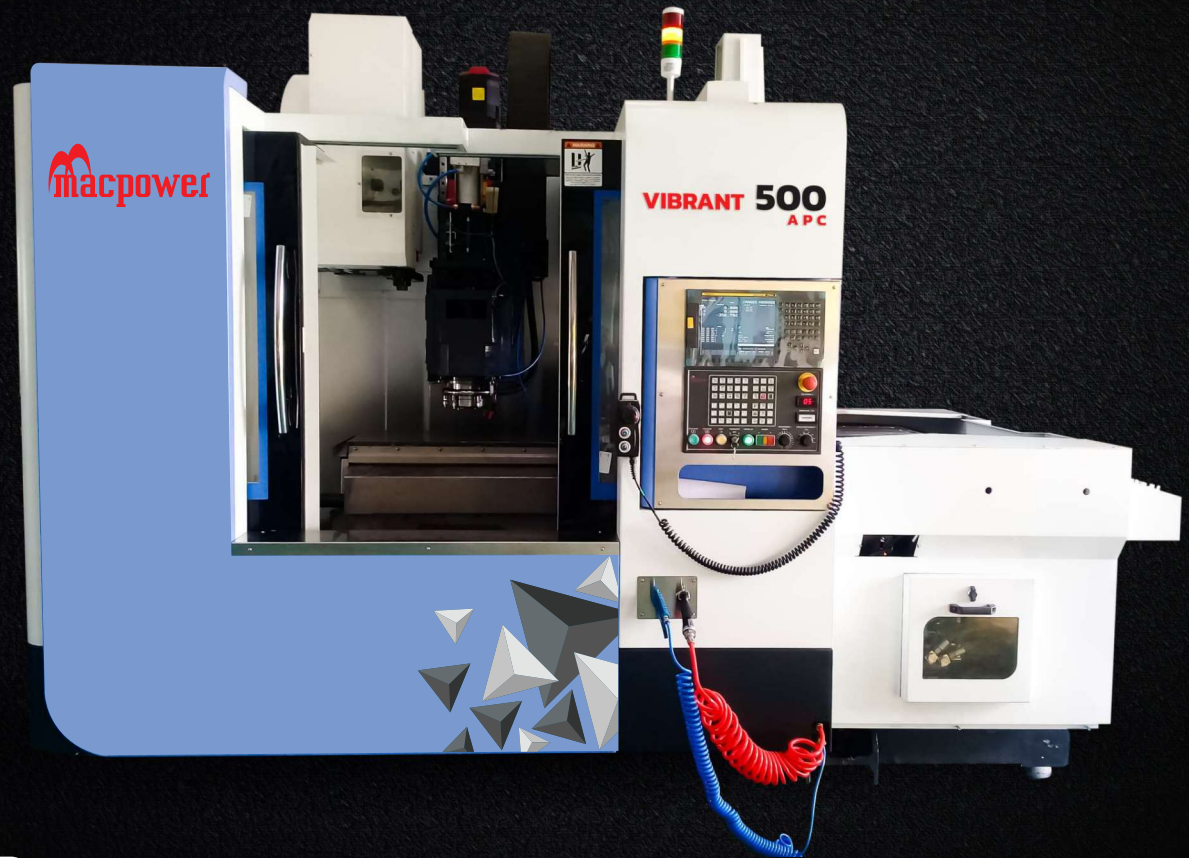
VERTICAL MACHINING CENTER

PALLET SIZE (APPROX)	MM	390x495
AXIS STROKE (X / Y / Z)	MM	520 / 475 / 475
LOAD CAPACITY	KG	300
SPINDLE	-	BT 40
SPINDLE POWER (FANUC)	KW	5.5 / 7.5
WEIGHT (APPROX)	KG	4500
DIMENSIONS (APPROX) (WxDxH)	MM	3475x3190x2793

MACHINING RANGE & POWER DIAGRAM



COMPONENTS



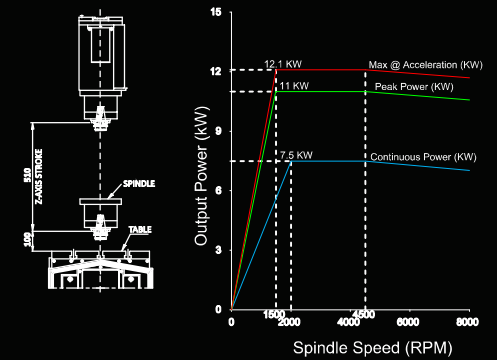
VIBRANT 800

VERTICAL MACHINING CENTER



TABLE SIZE	MM	500x1050
AXIS STROKE (X / Y / Z)	MM	820 / 510 / 510
LOAD CAPACITY	KG	500
SPINDLE	-	BT 40
SPINDLE POWER (FANUC)	KW	7.5 / 11
WEIGHT (APPROX)	KG	4900
DIMENSIONS (APPROX) (WXDXH)	MM	2604x2782x2995

MACHINING RANGE & POWER DIAGRAM



COMPONENTS

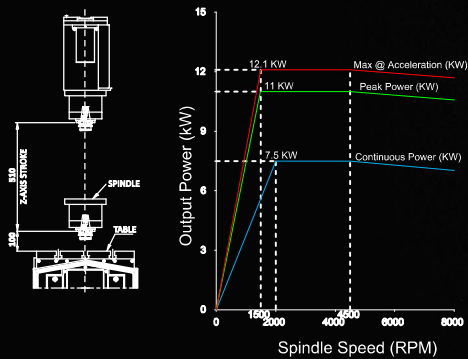


VIBRANT 800 APC

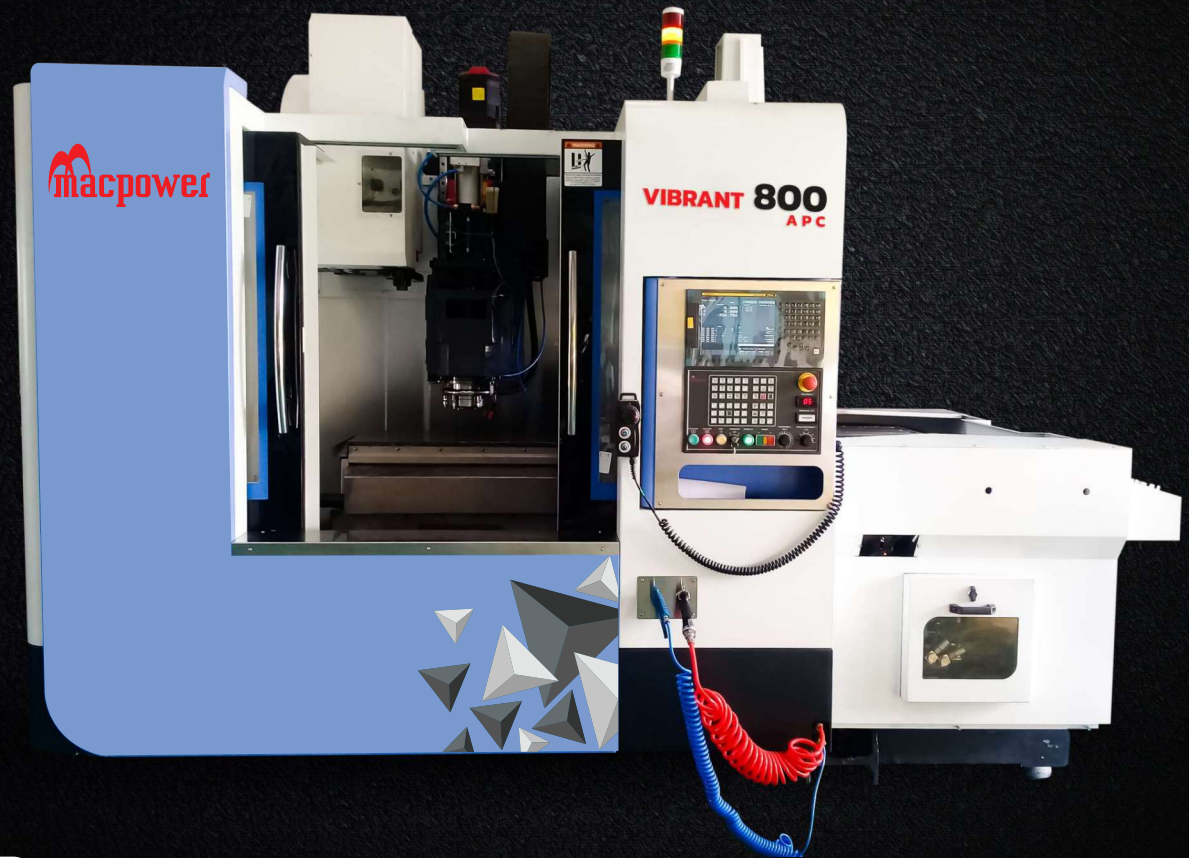
VERTICAL MACHINING CENTER

PALLET SIZE (APPROX)	MM	430x800
AXIS STROKE (X / Y / Z)	MM	820 / 510 / 510
LOAD CAPACITY	KG	500
SPINDLE	-	BT 40
SPINDLE POWER (FANUC)	KW	7.5 / 11
WEIGHT (APPROX)	KG	4900
DIMENSIONS (APPROX) (WxDxH)	MM	3750x3399x3102

MACHINING RANGE & POWER DIAGRAM



COMPONENTS



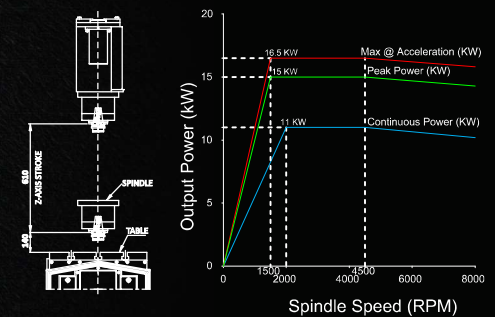
VIBRANT 1066/1066 SUPER

VERTICAL MACHINING CENTER



		VIBRANT 1066	VIBRANT 1066 SUPER
TABLE SIZE	MM	600x1120	600x1120
AXIS STROKE (X / Y / Z)	MM	1020 / 610 / 610	1020 / 610 / 610
LOAD CAPACITY	KG	1000	1200
SPINDLE	-	BT 40 / BT 50	BT 40 / BT 50
SPINDLE POWER (FANUC)	KW	11 / 15	11 / 15
WEIGHT (APPROX)	KG	6800	8000/8500
LM GUIDEWAYS	NOS	2	4
DIMENSIONS (APPROX) (WXDXH)	MM	2882x3368x3358	2882x3368x3358

MACHINING RANGE & POWER DIAGRAM



COMPONENTS

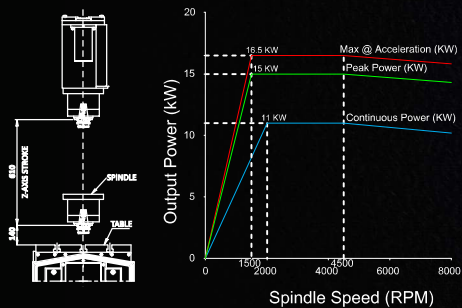


VIBRANT 1066/1066 SUPER APC

VERTICAL MACHINING CENTER

		VIBRANT 1066	VIBRANT 1066 SUPER
PALLET SIZE (APPROX)	MM	1000x500	1000x500
AXIS STROKE (X / Y / Z)	MM	1020 / 610 / 610	1020 / 610 / 610
LOAD CAPACITY	KG	1000	1200
SPINDLE	-	BT 40	BT 40 / BT 50
SPINDLE POWER (FANUC)	KW	11 / 15	11 / 15
WEIGHT (APPROX)	KG	6800	8000/8500
LM GUIDEWAYS	NOS	2	4
DIMENSIONS (APPROX) (WXDXH)	MM	4437x3848x3392	4437x3848x3392

MACHINING RANGE & POWER DIAGRAM



COMPONENTS



VIBRANT SERIES MACHINE CONFIGURATIONS

DESCRIPTION	UNIT	VIBRANT 500	VIBRANT 500 APC	VIBRANT 800	VIBRANT 800 APC
CAPACITY					
X AXIS TRAVEL	mm	520	520	820	820
Y AXIS TRAVEL	mm	475	475	510	510
Z AXIS TRAVEL	mm	475	475	510	510
RAPID FEED RATES X/Y/Z AXIS	m/min	24/24/24	24/24/24	24/24/24	24/24/24
DISTANCE FROM TABLE TO SPINDLE FACE	mm	140-615	140-615	100-610	100-610
TABLE			PALLET		PALLET
TABLE SIZE (CLAMPING AREA)	mm	450 x 650	390 x 495	500 x 1050	430 x 800
NO./WIDTH/CD OF T-SLOTS	mm	3/14/125	3/14/125	4/14/100	4/14/100
MAX. SAFE LOAD ON TABLE	Kg	300	300	500	500
MAIN SPINDLE					
TAPER	—	BT-40	BT-40	BT-40	BT-40
SPEED	rpm	80-8000	80-8000	80-8000	80-8000
CUTTING FEED RATE	mm/min	1-10000	1-10000	1-10000	1-10000
RATED POWER (FANUC)	kW	5.5/7.5	5.5/7.5	7.5/11	7.5/11
AUTO TOOL CHANGER					
TYPE	—	Twin Arm	Twin Arm	Twin Arm	Twin Arm
NO. OF TOOLS	—	24	24	24	24
TOOL SELECTION	—	Random	Random	Random	Random
MAX. TOOL DIA. (POCKET FULL/EMPTY)	mm	80/125	80/125	80/125	80/125
TOOL LENGTH	mm	250	250	250	250
TOOL WEIGHT	Kg	7	7	7	7
ACCURACY (AS PER JIS)					
POSITIONING	mm	0.01	0.01	0.01	0.01
REPEATABILITY	mm	0.007	0.007	0.007	0.007
INSTALLATION DATA					
PNEUMATIC SUPPLY	bar	6	6	6	6
MACHINE WEIGHT (APPROX)	Kg	3500	5000	4900	6800
TOTAL CONNECTED LOAD	KVA	20	20	20	20
POWER SUPPLY	—	AC 440 V,	AC 440 V,	AC 440 V,	AC 440 V,
MACHINE DIMENSIONS (WXDXH)		50HZ, 3 Ph.	50HZ, 3 Ph.	50HZ, 3 Ph.	50HZ, 3 Ph.
(APPROX)	mm	2330x2760x2583	3475x3190x2793	2604x2782x2995	3750x3399x3102
SYSTEM					
FANUC	—	Oi MF PLUS	Oi MF PLUS	Oi MF PLUS	Oi MF PLUS
SIEMENS	—	828D	828D	828D	828D
MITSUBISHI	—	M 80	M 80	M 80	M 80

VIBRANT SERIES MACHINE CONFIGURATIONS

DESCRIPTION	UNIT	VIBRANT 1066 / 1066 SUPER	VIBRANT 1066 / 1066 SUPER APC
CAPACITY			
X AXIS TRAVEL	mm	1020	1020
Y AXIS TRAVEL	mm	610	610
Z AXIS TRAVEL	mm	610	610
RAPID FEED RATES X/Y/Z AXIS	m/min	24/24/24	24/24/24
DISTANCE FROM TABLE TO SPINDLE FACE	mm	140-750	140-750
TABLE			PALLET
TABLE SIZE (CLAMPING AREA)	mm	600 x 1120	1000 x 500
NO./WIDTH/CD OF T-SLOTS	mm	5/18/100	5/18/100
MAX. SAFE LOAD ON TABLE	Kg	1000/1200	1000/1200
MAIN SPINDLE			
TAPER	—	BT-40/BT-50	BT-40/BT-50
SPEED	rpm	80-8000/60-6000	80-8000/60-6000
CUTTING FEED RATE	mm/min	1-10000	1-10000
RATED POWER (FANUC	kW	11/15	11/15
AUTO TOOL CHANGER			
TYPE	—	Twin Arm	Twin Arm
NO. OF TOOLS	—	24	24
TOOL SELECTION	—	Random	Random
MAX. TOOL DIA. (POCKET FULL/EMPTY)	mm	80/125-130/200	80/125-130/200
TOOL LENGTH	mm	250/400	250/400
TOOL WEIGHT	Kg	7/20	7/20
ACCURACY (AS PER JIS)			
POSITIONING	mm	0.01	0.01
REPEATABILITY	mm	0.007	0.007
INSTALLATION DATA			
PNEUMATIC SUPPLY	bar	6	6
MACHINE WEIGHT (APPROX)	Kg	8000/8500	8800
TOTAL CONNECTED LOAD	KVA	20	20
POWER SUPPLY	—	AC 440 V,	AC 440 V,
MACHINE DIMENSIONS (WXDXH)		50HZ, 3 Ph.	50HZ, 3 Ph.
(APPROX)	mm	2882x3368x3358	4437x3848x3392
SYSTEM			
FANUC	—	Oi MF PLUS	Oi MF PLUS
SIEMENS	—	828D	828D
MITSUBISHI	—	M 80	M 80

ACCESSORIES

STANDARD

- ROLLER GUIDEWAYS •
- 24 TOOL ATC •
- WORK LIGHT •
- HAND WHEEL •
- LEVELING PAD •
- RING COOLANT •
- PATROL LIGHT •
- AIR GUN •
- CENTRALIZED LUBRICATION SYSTEM •
- PULL STUD •

OPTIONAL

- COOLANT GUN •
- AUTO DOOR •
- CHIP CONVEYOR •
- LINEAR SCALE •
- STABILIZER •
- FLUSH COOLANT •
- COOLANT THROUGH SPINDLE •
- 30 TOOL ATC •
- ROTARY TABLE •
- ROTARY TILTING •
- GEAR BOX •
- HIGHER RPM SPINDLES •
- SPINDLE CHILLER •
- INDEXER •
- DRY AIR •
- TOOL PROBE •
- WORK PROBE •
- TOOLED UP SOLUTIONS •

OUR PRESENCE



FOR MORE INFORMATION PLEASE CONTACT

WEST ZONE

Rajkot : 93777 87930
Jamnagar : 63560 02819
Surendranagar : 63560 02812
Morbi : 93779 87930
Bhavnagar : 93754 87930
Ahmedabad : 93775 87930
Sanand : 93775 87930
Anand : 93775 87930
Baroda : 93770 87930
Halol : 63560 02810
Surat : 93753 87930
Vapi : 93753 87930
Mumbai : 93203 87930
Nasik : 93713 87930
Nagpur : 93210 87930
Aurangabad : 93712 87930
Kolhapur : 72858 55955
Pune : 93210 87930

NORTH ZONE

Delhi : 76000 10288
Faridabad : 88515 98788
Ghaziabad : 89504 69265
Faridabad : 76000 10288
Ghaziabad : 76000 10288
Noida : 88515 98788
Noida : 89504 69265
Noida : 76000 10288
Sonipat : 88515 98788
Sonipat : 89504 69265
Gurugram : 88515 98788
Gurugram : 89504 69265
Ludhiana : 98730 68625
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 : 99899 55887
Bangalore : 82961 87930
Belgaum : 91641 02610
Chennai : 63560 02822
Coimbatore : 99925 99961
Trichy : 99925 99961
Kerala : 99925 99961

CENTRAL ZONE

Indore : 93753 01101
Bhopal : 87706 96570




*at
your **service**
anytime
anywhere*

macpower



MACPOWER CNC MACHINES LTD.

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ONE NUMBER - MULTI SOLUTIONS



FOR SALES INQUIRIES & CUSTOMER CARE

7998-7998-16



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