BMV 60+
STANDARD

Unleash efficiency with cutting edge performance!

Series: BMV60+ I BMV60+ TC24

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Bharat Fritz Werner

BMV 60+
STANDARD

Vertical Machining Center - Chakra +

eries: BMV60+ I BMV60+ TC24

ertical machining centre BMV 60+ promises unrevealed quality, precision and productivity. These machines are of C-Frame construction with rigid base, robust spindle, and high precision feed mechanism with our state -of-the-art technologies. Heavy-duty machining combined with superior accuracies is the hallmark of these machines

BM V 60+ series catering to the requirements of machining small to medium size applications for batch production with diverse range of options, we can adapt our machining centers to meet specific application requirements for your competitive manufacturing.

Best-in-class features listed below:

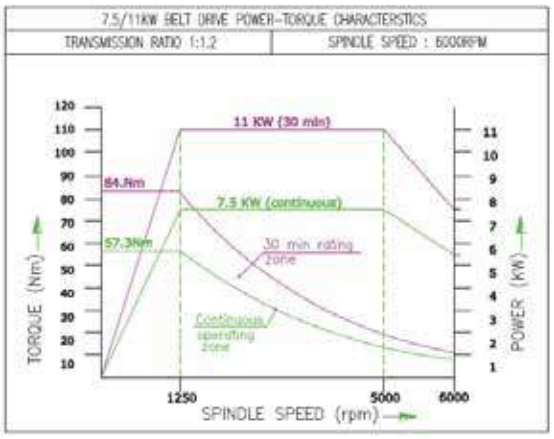
- Compact foot print
- Superior aesthetics
- High metal removal rate
- Easy coolant and chip management
- Powerful spindle with optional RPM change Kit, 4th axis readiness, Rotary table etc.

Structure
Rugged thermo symmetrical structure for superior cutting performance

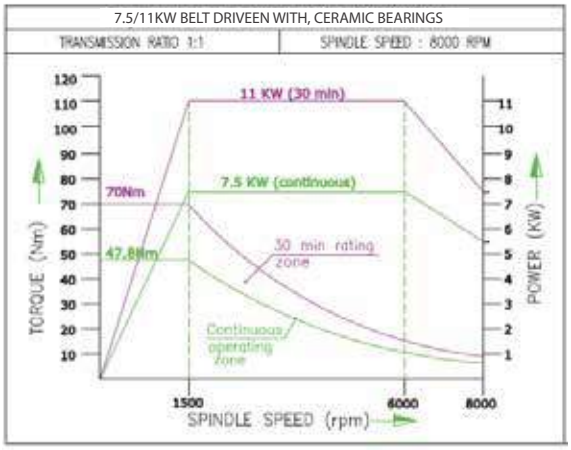
Automatic tool changing system with 24 tool pockets

Spindle Characteristics

Mitsubishi, Fanuc



Mitsubishi



Fanuc (V package)

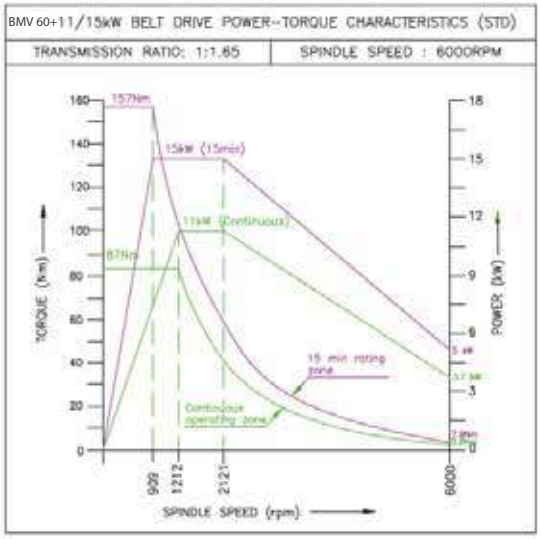
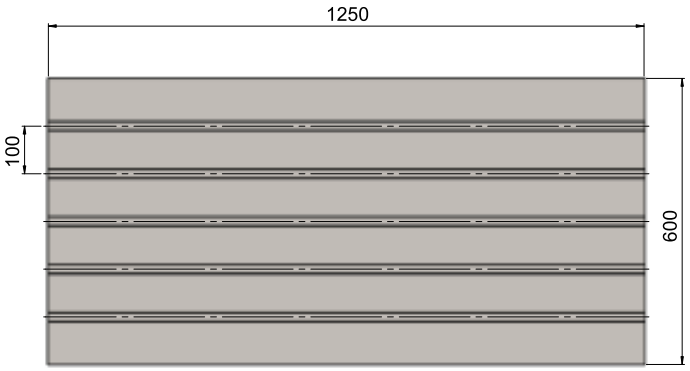


Table top Details

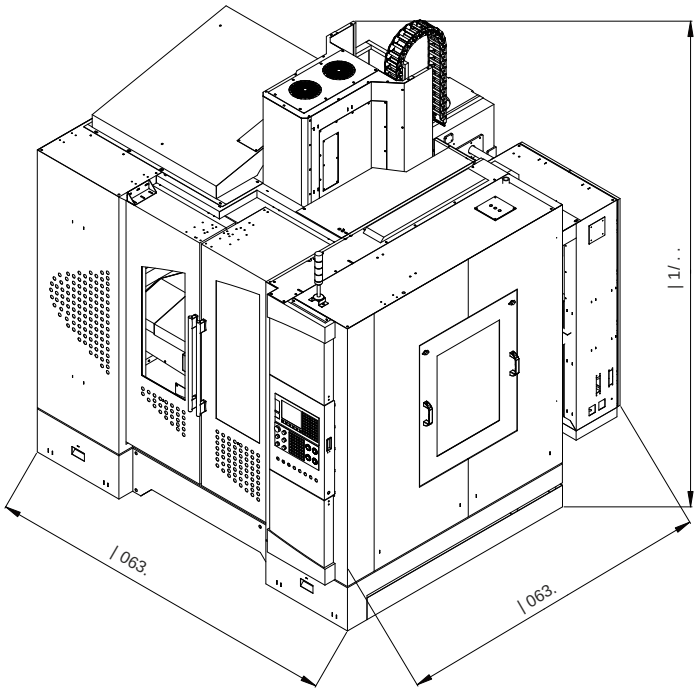


T-SLOT DETAILS

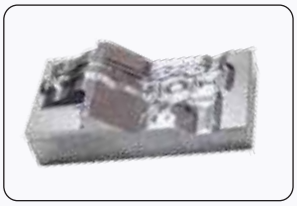
Model	Nos	Pitch	Size
Table	5	100	18mm

Machine Dimensions

(The machine image)



Applications



Many more...

CNC Features & Functions

CNC FUNCTIONS	FANUC Oi MF+	Mitsubishi M80V
Display	10.4" colour LCD	10.4" colour LCD (touch type - Std.)
Maximum feed axes	5	5
Number of simultaneously controllable axis	4	4
Minimum input increment	0.01 mm, 0.001°	0.01 mm, 0.001°
Spindle speed function	5-digit S code	5-digit S code
Spindle speed override	S - 50-120% (in steps of 120%)	S - 50-120% (in steps of 10%)
Feed override	0-200% (in steps of 10%)	0-200% (in steps of 10%)
Feed rate command	4-digit F code	4-digit F code
Inch-mm conversion	S	S
Part program storage length	2 MB	2 MB
Number of part programs	400	1000
Number of sub-program call levels	10	10
Number of tool off sets	400	400
Program number/ sequence number search	S	S
Number of look-ahead function blocks	200	S - 2020
Single block, Exact stop, Dry run	S	S
DNC operations	PCMCIA / Embedded Ethernet	SD
Run hour and part count	S	S
Help function	S	S
Graphic display	S	S
Embedded ethernet, Front USB interface	S	S
Machining condition selection system	S	S
Remote diagnosis	S	NA
High speed skip or probe function	S	S
Dynamic graphic display, direct robot control	S	S
CNC FEATURES		
Linear interpolation	S	S
Circular interpolation	S	S
Helical Interpolation	S	S
Absolute/incremental programming	S	S
Tool radius compensation	S	S
Canned cycles for drilling and milling	S	S
Work plece co-ordinate system	54 pairs	54 pairs
Background editing	S	S
Backlash compensation	S	S
Pitch error compensation	S	S
Polar co-ordinate, Scaling, mirroring	S	S
History of operator alarma and messages	S	S
Look-ahead function	S	S
Custom macro B/ parameter programming	S	S
Simple tool life management	S	S
Multi language display	S	S
Program edit in CF card, Nano interpolation	S	S (* in SD / USB)
Manual pulse generator	S	S
Automatic dala backup	S	S
Cylindrical interpolation	S	S
Cutter compensation	S	S
4th axis : 3+1 AXES	O	O

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Technical Specifications

Technical Specifications of VMC, Model: CHAKRA+, BMV60+(S)	UOM	Description	
		BMV60+(S) (WO ATC)	BMV60+(S) with 24 Tools ATC
Traverses: X/Y/Z Axes	mm	1050/610/610	
Distance from spindle face to table top (Std.)	mm	150-760	
Table Size	mm	1250x600	
T-Slot Specifications	Nos. / size / pitch	5/18/100	
Max Allowable Load on Machine Table	kgs	1200	
Machine Table Height from Floor	mm	1000	
CNC Controller	-	Mitsubishi M80V / Fanuc OiMF+	
Spindle Taper	taper	BT40	
Speed (std.)	rpm	6000 rpm (std.)	6000 rpm
Speed (opt.)	rpm	8000 rpm (Opt.)*** (with ceramic bearing)	NA
Power	kW	7.5/11 kW	7.5/11 kW (11/15 kW)**
Tool Changing System	Type	WO ATC	Twin arm type
Maximum Tool Dia with all filled pots	mm	NA	75
Maximum Tool Dia with adjacent pots empty	mm	NA	140
Maximum tool length	mm	NA	250
Maximum tool weight	kgs	NA	7
Tool change time	sec	NA	2.7
Rapid Traverse	mm / min	'32/32/32	
Cutting Feed Rate	mm / min	1-10,000	
Positioning Accuracy (as per ISO 230-2)	mm	0.016	
Repeatability Accuracy (as per ISO 230-2)	mm	0.012	
MACHINE INSTALLATION DATA			
Basic Machine Dimensions (Length x Depth x Height) - With Front Chip Disposal	mm	~(2850x2850x3100)	
Basic Machine Dimensions (Length x Depth x Height) - With Rear Chip Disposal	mm	~(2850x3500x3100)	
Machine Weight (Basic Machine)	kgs	8000	
Total Connected Load (Basic Machine)	kVA	33	

* : WO ATC option available with M80V CNC only

** : V package available with OiMF+ CNC only

*** : 8K rpm with ceramic bearings available with M80V CNC only

Standard Features

- AC Servo drives
- AC variable speed spindle motor
- Feedback through absolute encoder
- Automatic tool clamping and unclamping
- Telescopic covers with wipers
- Coolant gun, Air gun
- Ring coolant around spindle
- Air nozzle with M code
- 3 tier lamp
- Front chip disposal
- SS strip near loading area
- Mobile MPG
- Machine lamps
- Roller type LM guideways
- Hardened & Ground Ball Screws in all axes
- Centralised auto lubrication system
- Electronic counter balance
- Full machine guard (std colour)
- Machine manuals (soft copies)
- Ethernet port
- Maintenance tool kit
- Packing

Optional Features

- Readiness for 4th axis
- Rotary table
- Suitable tailstock
- Rear coolant tank in lieu of front
- Pull studs
- PCMCIA/SD card
- Panel AC
- Ethernet cable (L=10m)
- Hyd. Fixture interfacing provision

Network

Bharat Fritz Werner
Off Tumkur Road, Bengaluru 560022, India
Ph: 080-39821100 | e-mail: bfwmarketing@bfw.co.in | URL: www.bfwindia.com

Regional Sales & Service Offices in India

Aurangabad:	Plot no. A-50, behind vaishnadevi temple, More chouck, MIDC waluj, Aurangabad – 431136 Email: shivabpatil@bfw.co.in Mob: 9325057300
Bengaluru:	BFW Bengalure, Off Tumkur Road, Bengalure 560022, India. email: sajjan@bfw.co.in, Mobile: 9342510359
Chennai:	D22, First Floor, First Street, Sector 3, Ambattur Industrial Estate (South) Chennai - 600058, Ph (044) 26251505, Email: bfwchennai@bfw.co.in Mob: 9513343380
Coimbatore:	7, Karayamppalayam Road, Mylampatti (PO) Coimbatore - 641 162. Ph (0422) 2626694, Email: bfwcoimbatore@bfw.co.in, Mob: 9344832442
Gurgaon:	Spaze tech park; Office no 769, 7th floor, tower B2, Sector 49, Sohna Road, Gurgaon -122018 .. Mob: 9591747722
Hyderabad:	Flat No 204, 1-11-229, Ramaveda Srisampada Apt. Near Shyamalal Bldgs, Begumpet, Hyderabad - 500016, Email: bfwhyderabad@bfw.co.in , Mob: 9347000408
Kolkata:	D-4/4, Gilander House, 8, Netaji Subhash Road, Kolkata 700001, Ph(033) 40102140 - 42, 22623387, email: bfwkolkata@bfw.co.in, Mob: 9339720408:
Mumbai:	206, Runwal Commercial Complex, LBS Marg, Mulund West, Mumbai 400080, Ph:(022) 25653362/ 58, Email: bfwmumbai@bfw.co.in, Mob: 9323256278
New Delhi:	510, Mahatta Towers, B-Block, Community Center, Janakpuri, New Delhi 110058, Ph: (011) 25522210, Mobile: 9313789300/ 9591747722
Pune:	BFW House, 124 A, H Block, MIDC, Pimpri, Pune 411018, Ph(020) 32524638, Email: bfwpune@bfw.co.in Mob: 932356278
Pune Chakan MIDC:	No. 3, Vedant Plaza, Plat No. PAP 40 & 41, Phase 1, Chakan MIDC, Near Suzlon Generatiors Ltd. Pune - 410501. email: paymal@bfw.co.in , Mob: 9371094617
Punjab:	Suite No 205, 2nd floor, E-195, Industrial Area, Phase - VIII B, S A S Nagar, Mohli (Punjab) - 160071, Mob: 9317566624
Rajkot:	85-86, 4th Floor, Samruddhi Bhavan, Opp Bombay Garage Petrol Pump, Gondal Road, Rajkot 360002, E-mail: bfwrajkot@bfw.co.in Mob: 9375883233

Representatives at Jamshedpur (Jharkhand) - 938030800, Kolhapur (Maharastra) - 9370958107, Hosur (Tamilnadu) 7406186161

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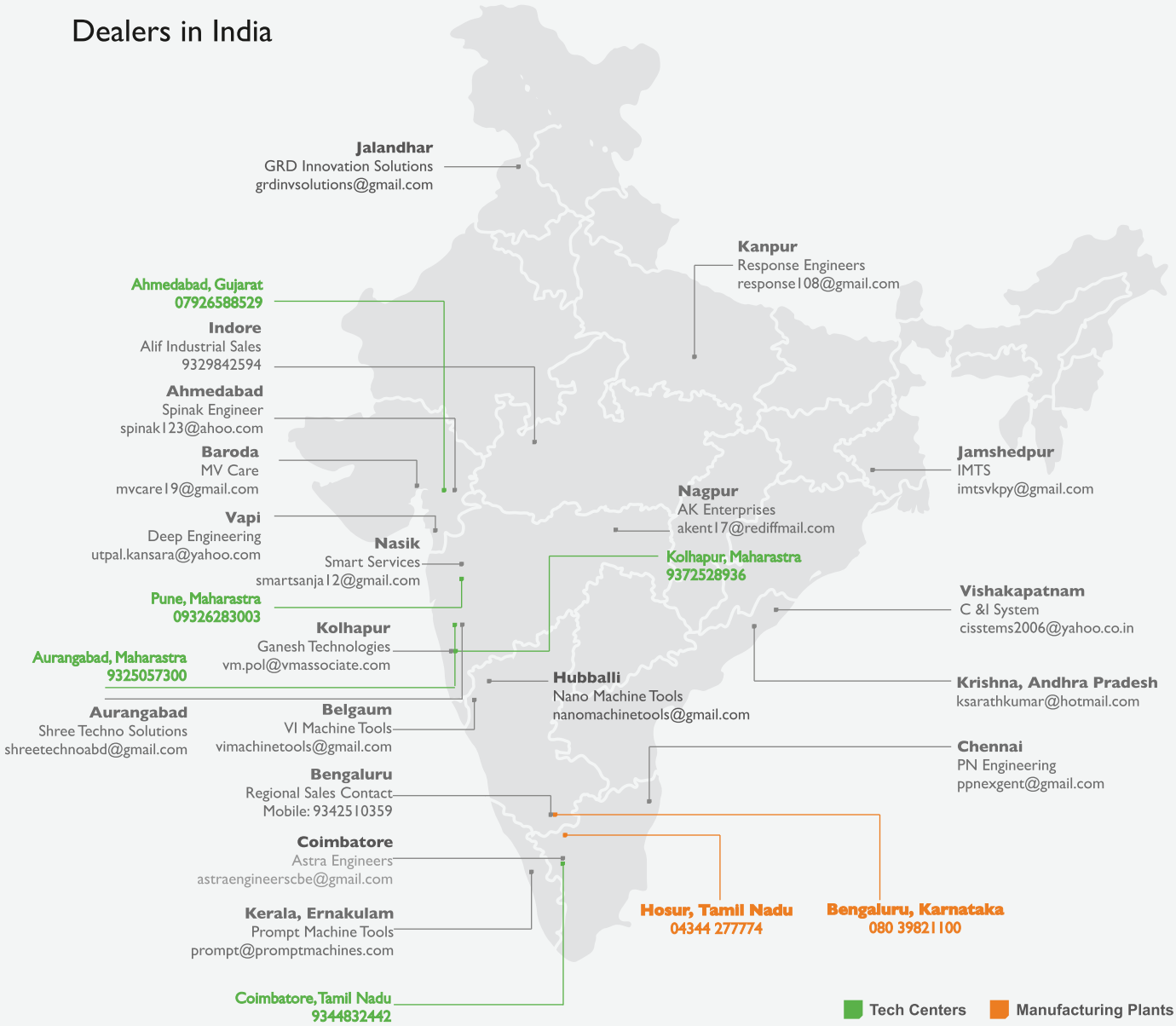

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