

»»»» **BMV 60+**



Your Productivity Partner

Series: BMV60+ | BMV60+ TC24 | BMV60+ TC20



BMV 60+

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>>>> BMV 60+

Vertical Machining Center - Chakra +

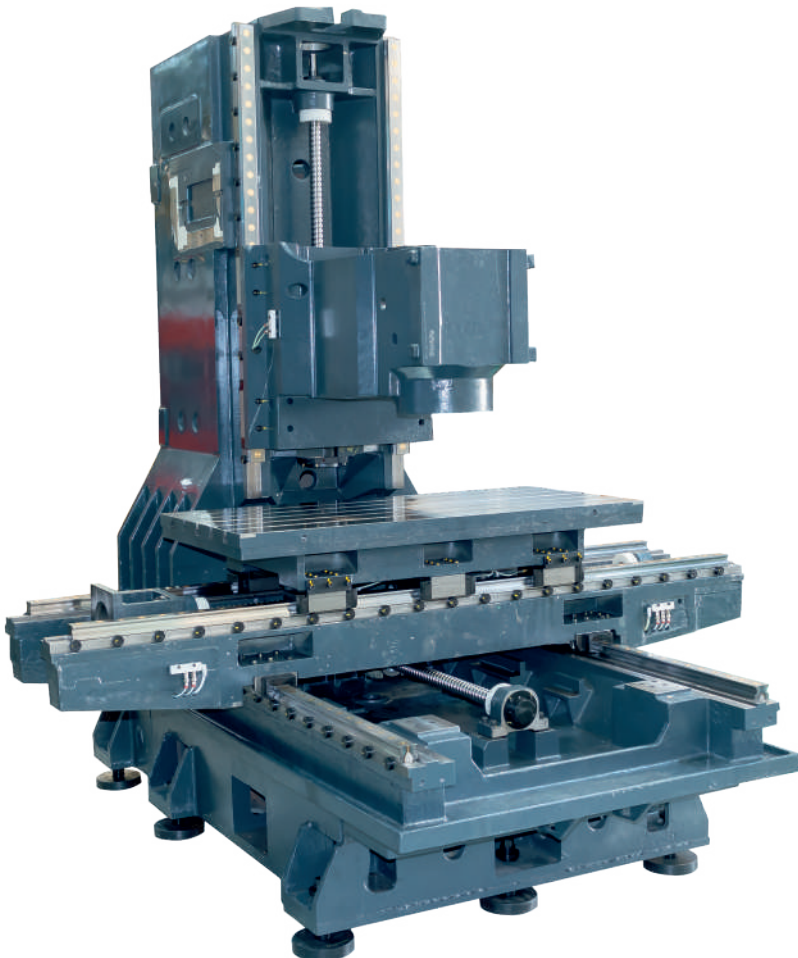
Series: BMV60+ | BMV60+ TC24 | BMV60+ TC20

Vertical 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.

BMV 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.

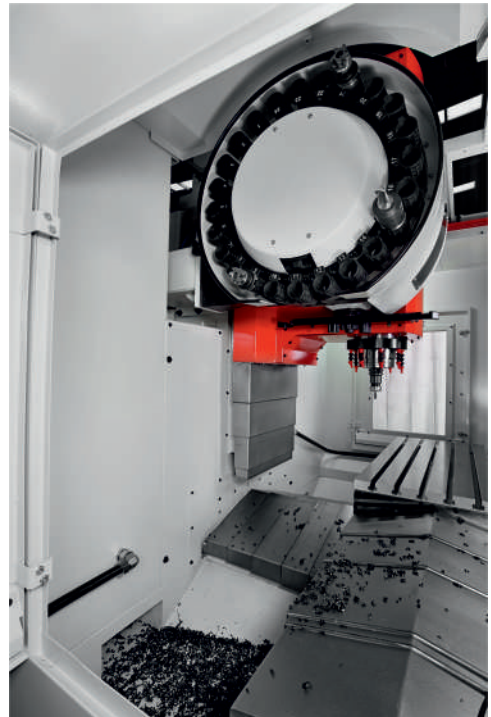
Best-in-class features listed below:

- Compact foot print
- Superior aesthetics
- High metal removal rate
- Easy coolant and chip management
- Powerful spindle with various power & torque options



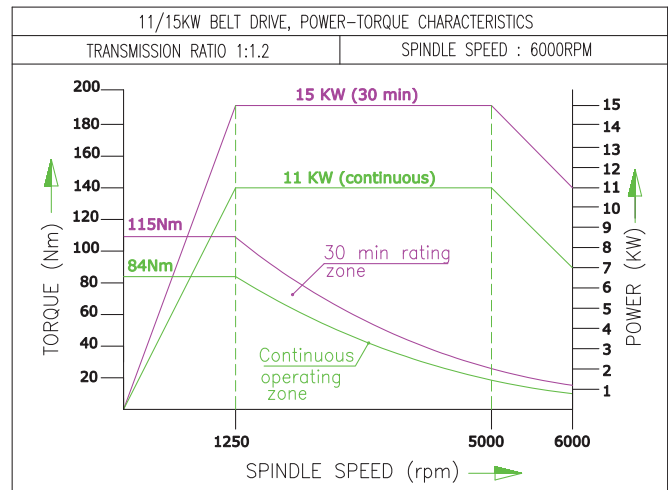
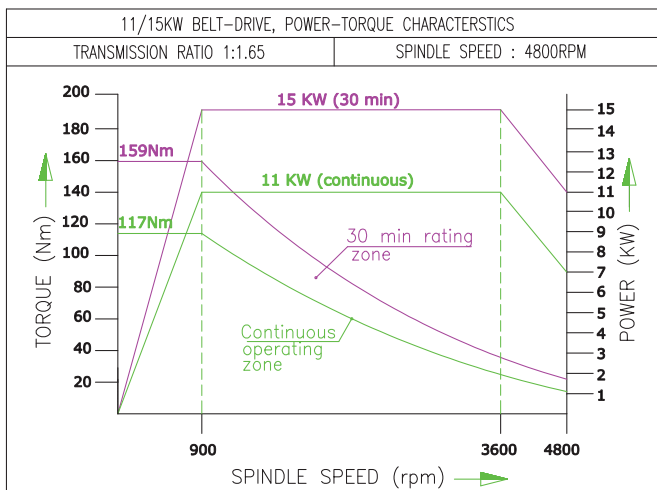
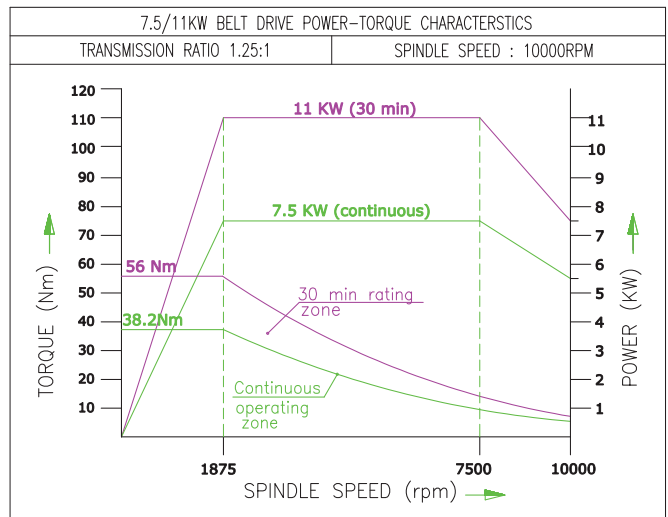
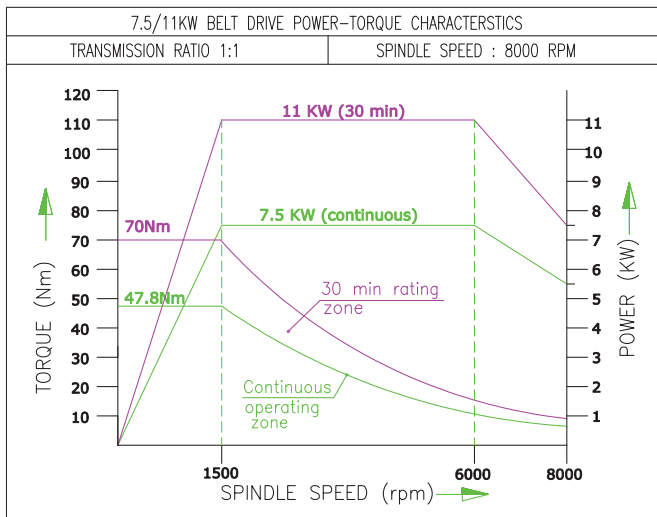
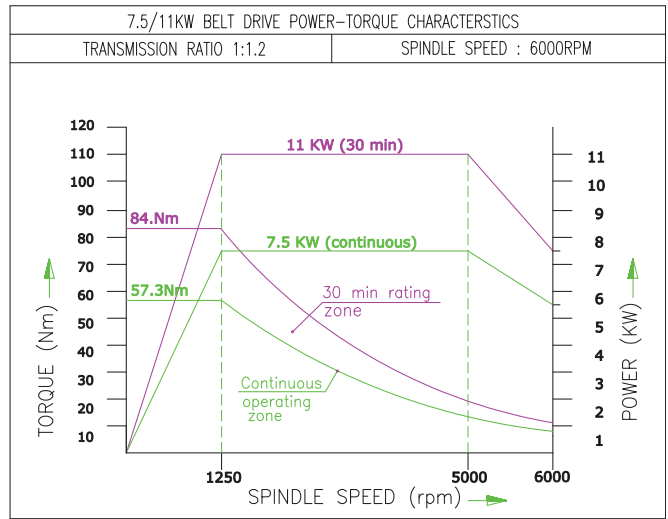
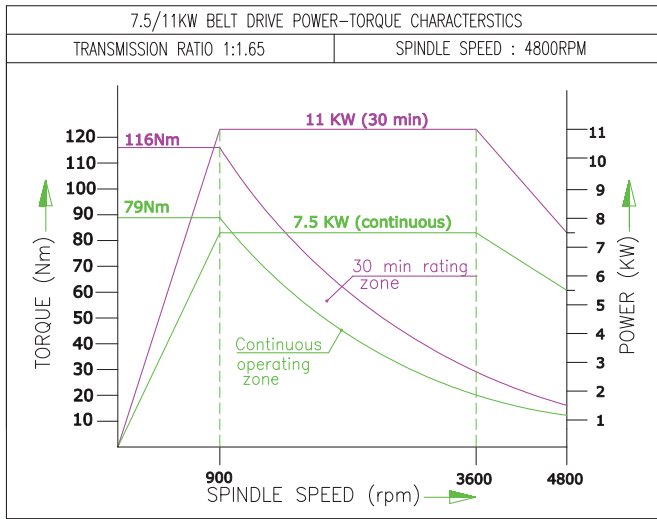
Structure

Rugged thermo symmetrical structure for superior cutting performance

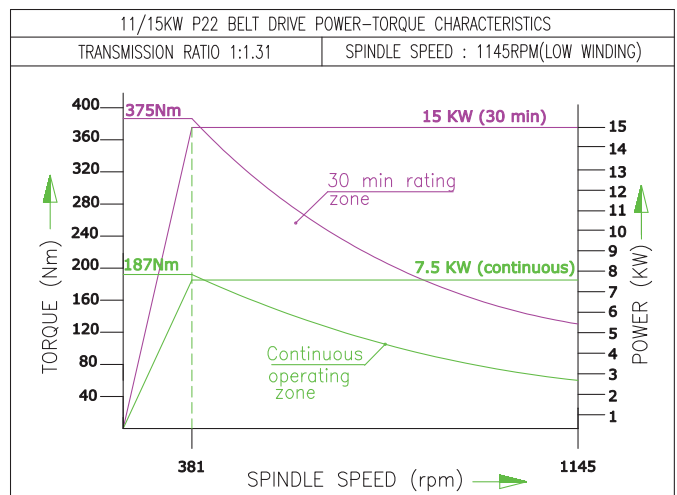
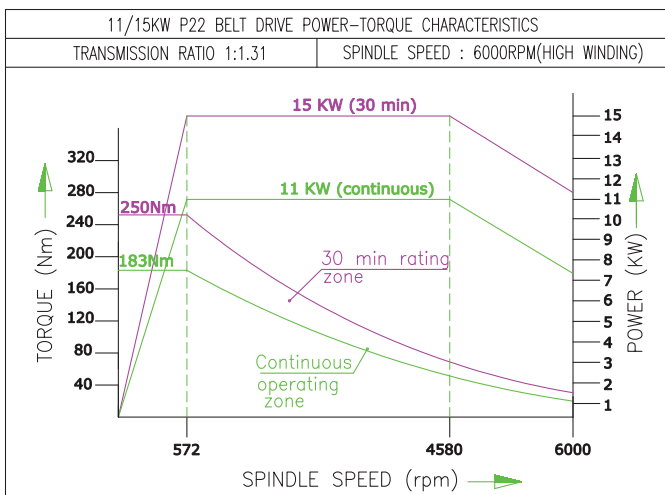
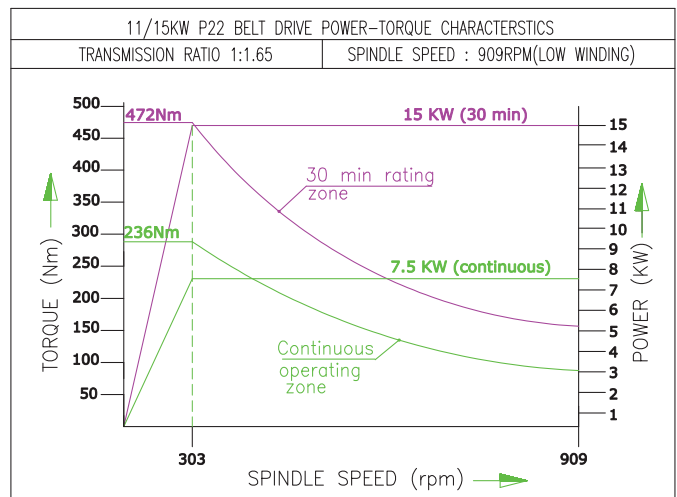
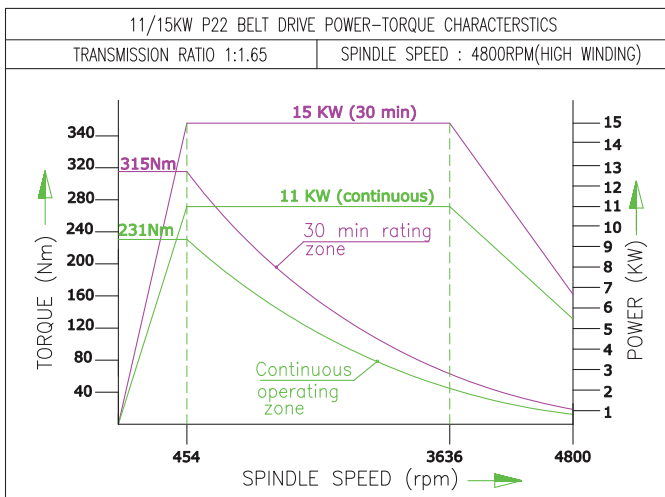
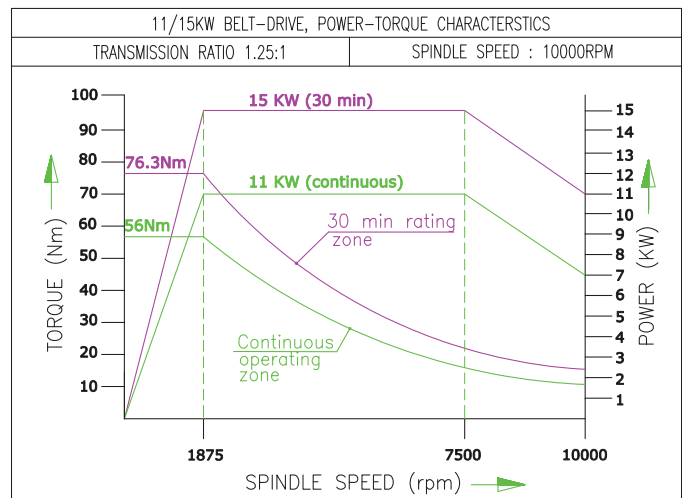
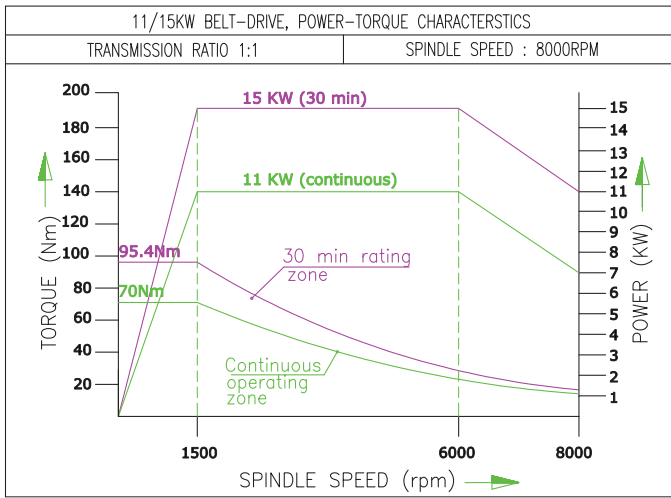


ATC

Spindle Characteristics

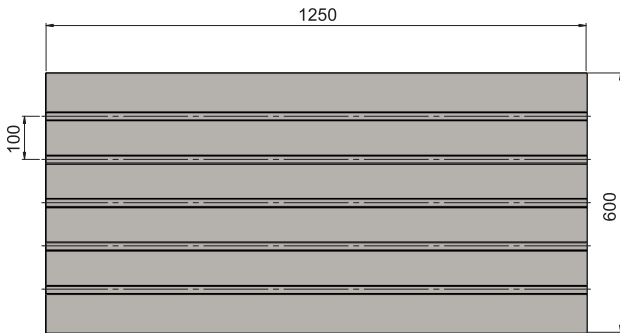


Spindle Characteristics

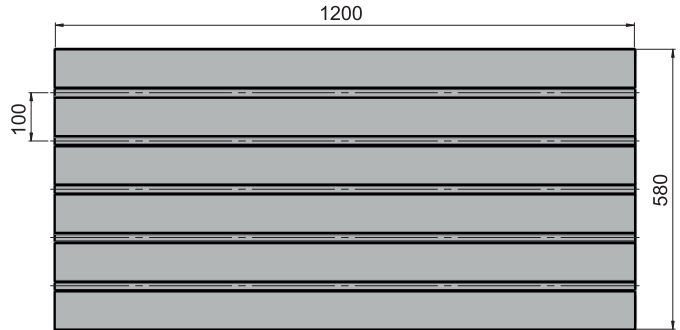


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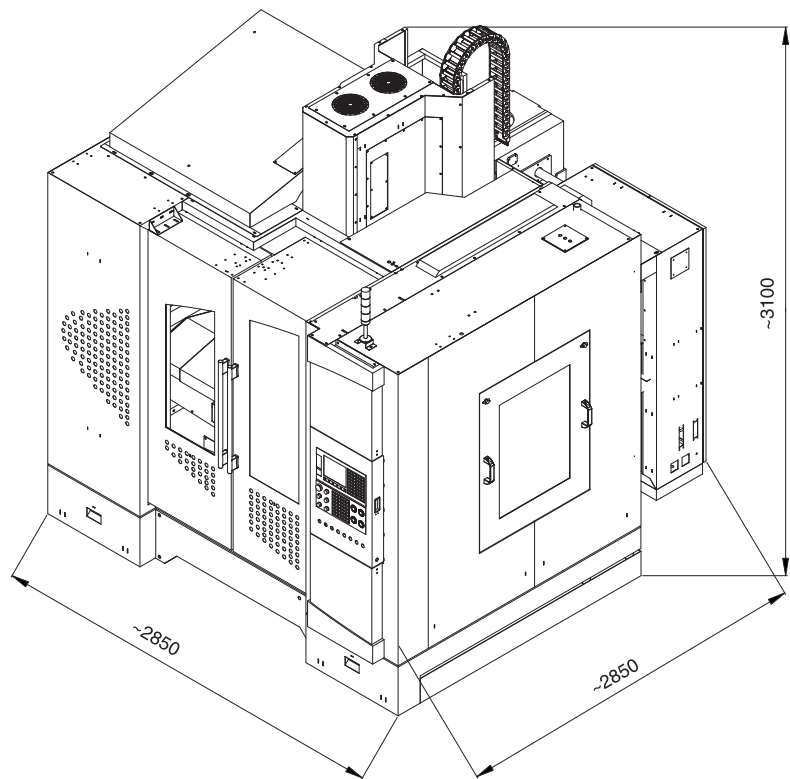
Table Top Details



Pallet Top Details



Machine Dimensions



Applications



Many more ...

CNC Features & Functions

CNC FUNCTIONS	FANUC Oi MF ⁺	Siemens 828D PPU24X	Mitsubishi M80A
Display	10.4 Inch colour LCD	10.4 Inch colour TFT	10.4 Inch colour LCD
Maximum feed axes	5(7)	5	8
Number of simultaneously controllable axis	4	4	4
Minimum input increment	0.001 mm, 0.001 deg	0.001 mm, 0.001 deg	0.001 mm, 0.001 deg
Spindle speed function	5-digit S code	5-digit S code	5-digit S code
Spindle speed override	50 % - 120 % (in steps of 10 %)		
Feed override	200 % (in steps of 10 %) 0-120 % in Siemens		
Feed rate command	4-digit F code	4-digit F code	4-digit F code
Inch- mm conversion	S	S	S
Part program storage length	2 MB	1 MB (3 MB with PPU 26X)	500 KB
Number of part programs	400 (1000)	750	1000
Number of sub-program call levels	10	11	10
Number of tool off sets	400	160	400
Program number/ sequence number search	S	S	S
Number of look-ahead function blocks	200 with AICC-II (400 with spl hardware)	150 (300 with PPU 26X) (450 with *PPU28X)	1350
Single block, Exact stop, Dry run	S	S	S
DNC operations	RS232C/ PCMCIA/ Embedded Ethernet	Ethernet/ CF/Pendrive	Pendrive/ SD
Run hour and part count	S	S	S
Help function	S	S	S
Graphic display	S	S	S
Nurbs	NA	S	NA
Embedded ethernet, Front USB interface	S	S	S
Fast ethernet/ data server	O	S	NA
Machining condition selection system	S	S	S
Remote diagnosis	O	O	NA
High speed skip or probe function	S	S	S
Dynamic graphic display	S	O	NA
CNC FEATURES			
Linear interpolation	S	S	S
Circular interpolation	S	S	S
Helical interpolation	S	S	S
Absolute/ incremental programming	S	S	S
Tool radius compensation	S	S	S
Canned cycles for drilling and milling	S	S	S
Work piece co-ordinate system	54 (300) pairs	51 pairs	54 pairs
Background editing	S	Any time edit	S
Backlash compensation	S	S	S
Pitch error compensation	S	S	S
Bi-directional pitch error compensation	O	O	S
Polar co-ordinate, Scaling, mirroring	S	S	S
History of operator alarms and messages	S	S	S
Look-ahead function	S	S	S
Custom macro B/ parameter programming	S	S	S
Simple tool life management	S	S	S
Multi language display	S	S	S
Program restart/ block search in CF card	S	S	S
Program edit in CF card, Nano interpolation	S	S	S
Manual pulse generator	S	S	S
Automatic data backup	S	in CF card	S
Cylindrical interpolation	O	O	S
Spline interpolation	O	O	S
Cutter compensation	S	S	S
4 th axis	O	O	O
4 th & 5 th axis	O	Not possible with PPU 24x (possible with PPU 26x)	O

S: standard, O: optional, NA: not available

Technical Specifications

Specifications	Unit	BMV60+	BMV60+ TC24	BMV60+ TC20
Capacity:				
Table longitudinal travel (X-axis)	mm	1050	1050	1050
Table cross travel (Y - axis)	mm	610	610	610
Head stock travel (Z - axis)	mm	610	610	610
Spindle nose face to table top	mm	150 - 760	150 - 760	150 - 760
Increased daylight area with column height block (optional)	mm	400 - 1010	400 - 1010	400 - 1010
Distance from floor to table	mm	1000	1000	1000
Spindle center - column front distance		630	630	630
Table:				
Table size	mm	1250 x 600	1250 x 600	1250 x 600
T - slot (No./ size/ pitch)	mm	5/18/100	5/18/100	5/18/100
Maximum load on table standard	kg	1200	1200	1200
Spindle & Axes:				
Taper		BT-40 (HSK A 63)	BT-40 (HSK A 63)	BT-50
Speed standard	rpm	6000	6000	6000
Speed optional - I	rpm	8000	8000	NA
Speed optional - II	rpm	10000	10000	NA
Spindle Power - standard				
Fanuc/ Mitsubishi, Cont./ 30 min rating	kW	7.5/ 11	7.5/ 11	7.5/ 11
Spindle Power - optional (high power)				
Fanuc/ Mitsubishi, Cont./ 30 min. rating	kW	11/ 15	11/ 15	11/ 15
Siemens, Cont./ S6-40% rating	kW	11/16.5	11/16.5	11/16.5
Rapid traverse - X/Y/Z - standard	m/ min	32	32	32
Feed rate	mm/ min	1-10,000	1-10,000	1-10,000
Guide ways	Type	LM	LM	LM
Accuracy (As Per ISO 230-2):				
Positioning	mm	0.016	0.016	0.016
Repeatability	mm	0.012	0.012	0.012
Automatic Tool Changer:				
Tool change system		NA	Twin Arm	Twin Arm
Tool storage capacity - Standard (opt)	Nos.	NA	24	20
Pull stud - MAS 403		MAS 403- P40T-1	MAS 403- P40T-1	MAS 403- P50T-1
Maximum tool dia with all pockets full	mm	NA	75	130
Maximum tool dia adjacent pockets empty	mm	NA	140	220
Maximum tool length	mm	NA	250	250
Maximum tool weight	kgs	NA	8	15
Tool to tool time	sec	NA	2.5 *	4.5
Automatic Pallet Changer (Optional):				
Type of APC			Ball screw	Ball screw
Number of pallets	Nos.	NA	2	2
Pallet size	mm x mm	NA	1200 x 580	1200 x 580
Maximum safe load per pallet	kgs	NA	600	600
Installation Data:				
Floor space (L x B)		2850 x 2850	2850 x 2850	2850 x 2850
Machine height (H)	mm	3100	3100	3100
Basic machine weight	kgs	7500	8000	8500
Total connected load (standard machine)	kVA	25	28	27
Total connected load (basic std machine with high power spindle)	kVA	30	33	32

NA - Not Available

Note: Floor space, weight & connected load indicated is subject to change based upon the accessories ordered along with machine.

* with Pragati 2.7 sec

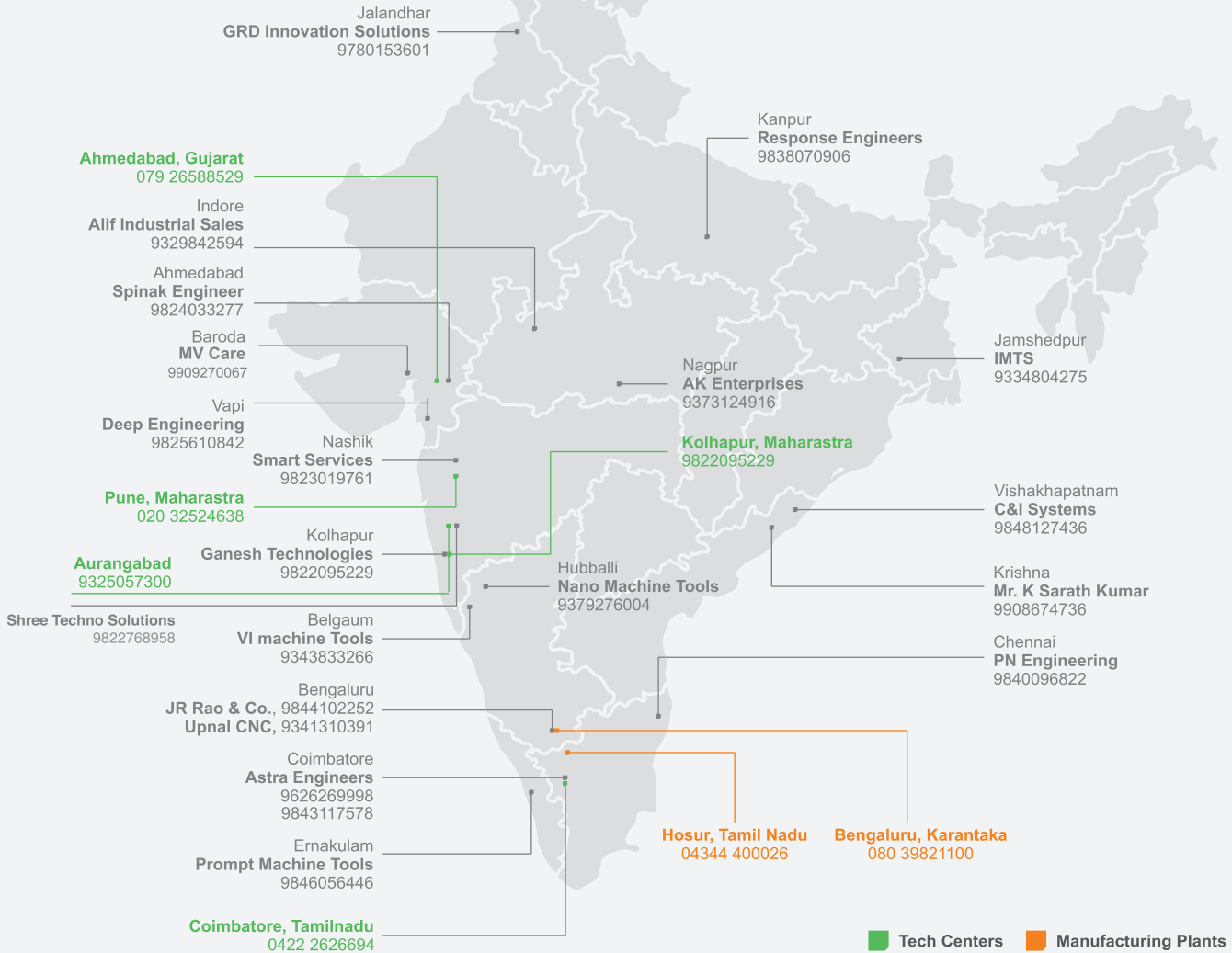
Standard Features

- AC servo drives
- AC variable speed spindle motor
- Hardened and ground ball screws
- Feedback through absolute encoder
- Automatic tool clamping-unclamping
- Centralized automatic lubrication
- Spindle taper air blow
- Telescopic covers with wipers
- Full machine guard
- RS 232 serial/ USB interface
- Levelling pads
- Maintenance tool kit
- Electronic counter balance
- Air gun, 3 Tier lamp, Air nozzle
- Rigid tapping
- AC for electrical cabinet
- Front chip disposal

Optional Features

- Rear chip disposal
- Chip conveyor in lieu of coolant tank with chip tray
- 2/ 3 axis with linear glass scale feedback
- 16/ 25/ 40 bar coolant through spindle
- Provision for 4th and 5th axis rotary table
- 4th axis rotary table
- Voltage stabilizer
- Ultra isolation transformer
- Increased day light area through column raiser block
- Spindle mounted probe
- Table mounted probe
- Hard part probing
- Edge finder
- Automatic front door
- Ball screw type auto pallet changer with twin pallets
- Higher Spindle Power
- Ring coolant around spindle
- Spindle RPM 4800
- Higher spindle RPM with chiller unit

Network



International Network

- Bangladesh
- Bahrain
- China
- France
- Germany
- Iran
- Kuwait
- Netherlands
- Oman
- Poland
- Qatar
- Russia
- Saudi Arabia
- Sri Lanka
- South Africa
- Thailand
- Turkey
- UAE



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