

BMV 70

Vertical Machining Center - Astra

End-to-end Range of Machining Centers



Sustained Quality Performance over the Years

Rigidity | Modularity | Productivity

BMV 70

Series: BMV70 | BMV70 TC24 | BMV 70 TC20

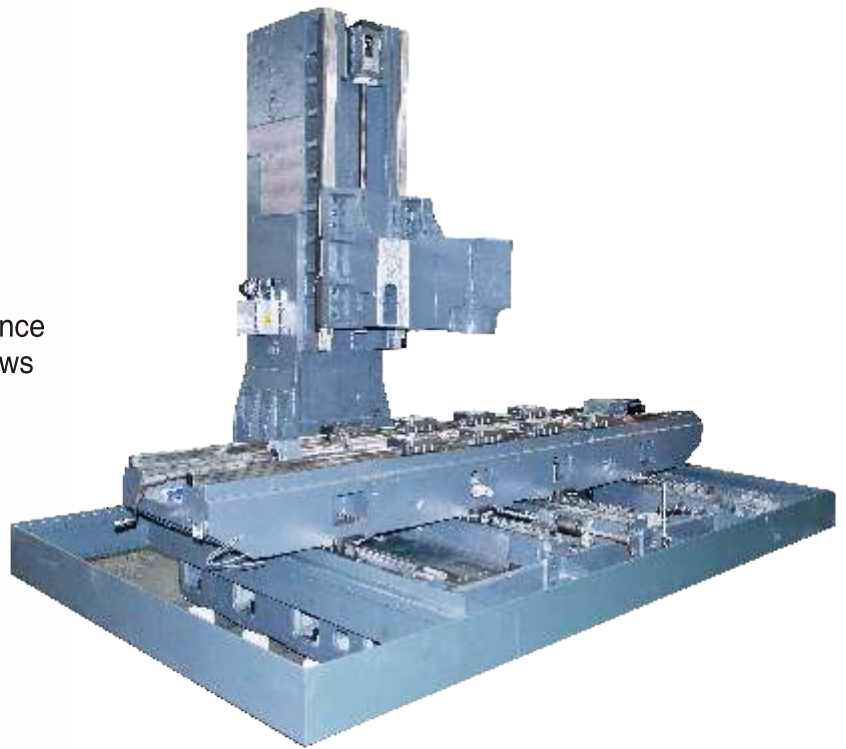
The CE marked Astra stands true to international standards. The rigid structure of the Astra has been created specially for your long run with profits. The optimally designed Astra is your best choice for cost effective machining.

The arm type tool magazine uses variable pocket coding.

Linear motion guide ways, variable speed AC spindle drives, CNC system with digital drive are some useful features of this BMV series vertical machining center.

Structure

Cast iron with a high mechanical performance which maximizes structure rigidity and allows optimum harmonic stability and maximum damping during demanding cutting conditions on BMV70, linear guide-ways on all axis allowing high feed-rates.



ATC

TC 24 - high speed 24 pocket tool magazine with arm reduces the non-cutting time (Optional)



BMV 70

CNC Features & Functions

CNC FUNCTIONS	FANUC Oi MF	Siemens 828D PPU24X	Mitsubishi M80A
Display	8.4" colour LCD	8.4" colour TFT	8.4" 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°	0.001 mm, 0.001°	0.001 mm, 0.001°
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 %)		
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	512 KB (2 MB)	1 MB (3 MB with PPU 26X)	500 KB (2 MB)
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	40 (200 with AICC-II) (400 with spl H/W)	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	RS232C/ 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	S
Machining condition selection system	O	S	S
Remote diagnosis	S	O	NA
High speed skip or probe function	S	S	S
Dynamic graphic display	O	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 (306) 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

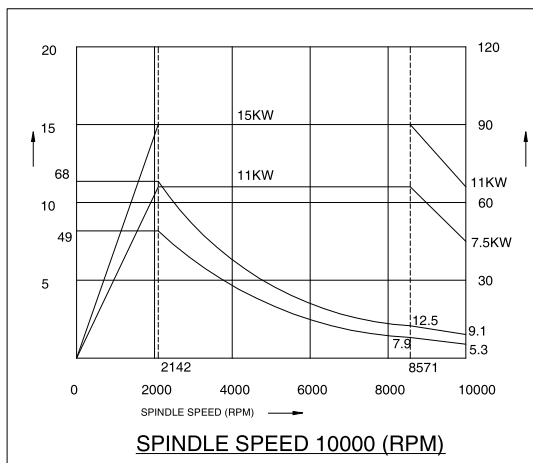
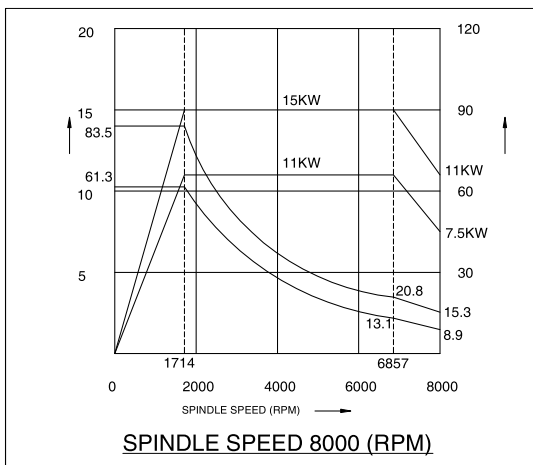
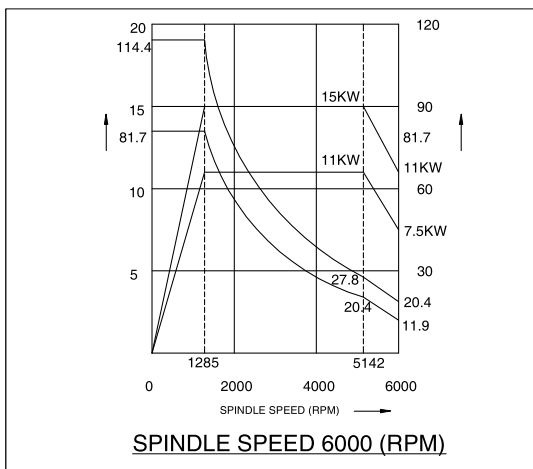
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Spindle

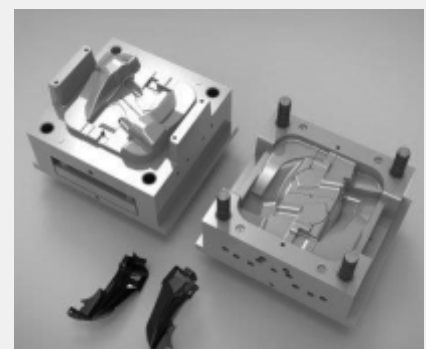
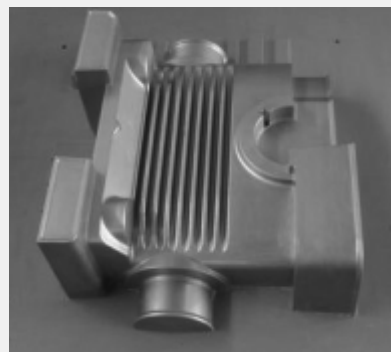
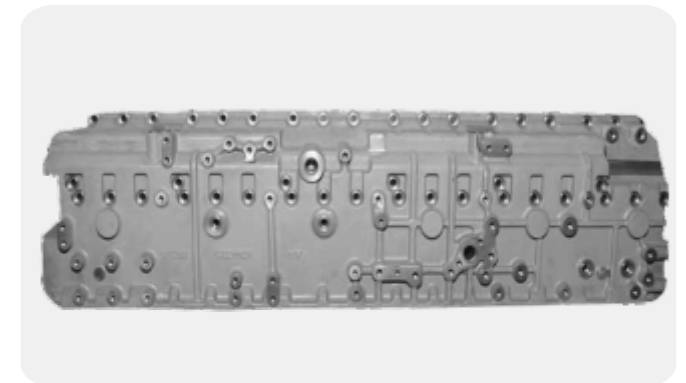


TC 24 - high speed 24 pocket tool magazine with arm reduces the non-cutting time

Spindle Characteristics



Applications



Many more.....

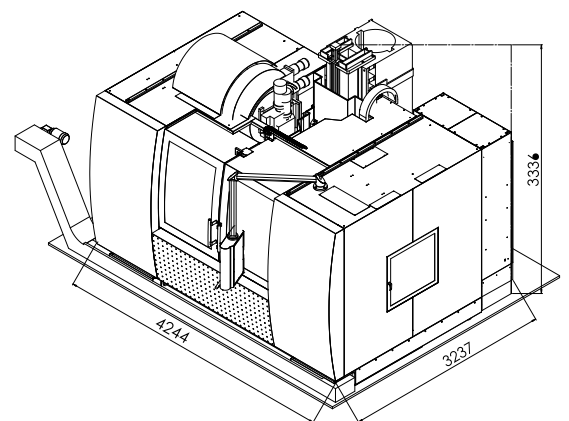
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Specifications	Unit	BMV70	BMV70 TC24	BMV70 TC20
Capacity:				
Table Longitudinal travel (X-Axis)	mm	1500	1500	1500
Table cross travel (Y - Axis)	mm	810	810	810
Head stock travel (Z - Axis)	mm	710	710	710
Spindle nose face to table top	mm	150 - 860	150 - 860	150 - 860
Increased daylight area with column height block (Optional)	mm	530 - 1240	530 - 1240	530 - 1240
Distance from floor to table	mm	1150	1150	1150
Spindle center - column front distance	mm	825	825	825
Table:				
Table size	mm	1700 x 710	1700 x 710	1700 x 710
T - slot (No./ size/ pitch)	mm	5/18/125	5/18/125	5/18/125
Maximum load on table standard	kg	2000	2000	2000
Spindle & Axes:				
Taper		BT-40	BT-40	BT-50
Speed standard	rpm	6000	6000	6000
Speed optional - I	rpm	8000	8000	8000
Spindle Power - Standard:				
Fanuc/ Mitsubishi, Cont./ 30 min. rating	kW	11/ 15	11/ 15	11/ 15
Siemens, Cont./ S6-40% rating	kW	12/18	12/18	12/18
Spindle power - Optional (High power)				
Fanuc/ Mitsubishi, Cont./ 30 min. rating	kW	15/ 18.5	15/ 18.5	15/ 18.5
Siemens, Cont./ S6-40% rating	kW	15/ 22.5	15/ 22.5	15/ 22.5
Rapid traverse - X/Y/Z - standard	m/ min	15	15	15
Feed rate	mm/ min	1-10,000	1-10,000	1-10,000
Guide ways	Type	LM	LM	LM
Accuracy ISO 10791-14 [ISO 230 - 2]				
Positioning	mm	0.022	0.022	0.022
Repeatability	mm	0.018	0.018	0.018
Automatic Tool Changer				
Tool change system		NA	Twin Arm	Twin Arm
Tool storage capacity - Standard	Nos.	NA	24	20
Pull stud		MAS 403 - P40T-1		MAS 403 - P50T-
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	4.8
Automatic Pallet Changer (Optional)				
Type of APC		NA	Chain type	Chain type
Number of pallets	Nos.	NA	2	2
Pallet size	mm x mm	NA	1400 x 630	1400 x 630
Maximum safe load per pallet	kgs	NA	1200	1200
Installation Data				
Floor space (L x B)	mm x mm	4300 x 3500	4300 x 3500	4300 x 3500
Machine height (H)	mm	3500	3500	3500
Basic machine weight	kgs	14500	14800	15100
Total connected load (basic std machine)	kVA	40	43	42
Total connected load (basic standard machine with high power spindle)	kVA	50	53	52

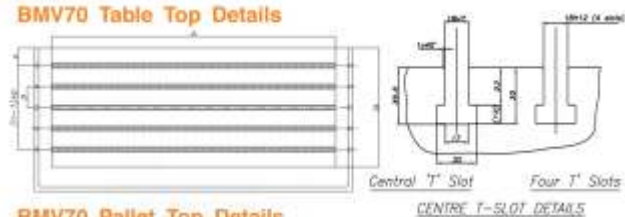
Standard & Optional Features

Specifications	BMV70
AC servo drives	S
AC variable speed spindle motor	S
Hardened and ground LM guides & ball screws	S
Feedback through absolute encoder	S
Automatic tool clamping-unclamping	S
Centralised automatic -lubrication	S
Spindle taper air blow	S
Telescopic covers with wipers	S
Full machine guard	S
Manual pulse generator, Leveling pads	S
RS 232 serial/ USB interface	S
Maintenance tool kit	S
Coolant gun, Air gun, 3 tier lamp, Rear chip disposal	O
Ring coolant around spindle	O
Edge finder, AC for electrical cabinet	O
Front chip disposal	S
30 tool ATC	O
Chip conveyor in lieu of coolant tank with chip tray	O
2/ 3 axes with linear glass scale feedback	O
Chain type automatic pallet changer with twin pallets	O
16 / 25 / 40 - bar coolant through spindle	O
Provision for 4th and 5th axis rotary table	O
4th axis rotary table	O
Voltage stabiliser	O
Ultra isolation transformer	O
Increased Day-Light area through column raiser block	O
Half machine guard with base mounted pendant	O
Spindle mounted probe	O
Table mounted probe	O
Hard part probing (Fanuc, Siemens, Mitsubishi)	O
HSK A 63 spindle Taper	O

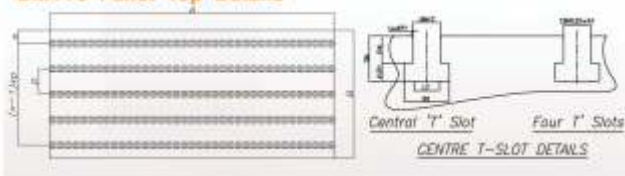
Machine Dimensions



BMV70 Table Top Details



BMV70 Pallet Top Details



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 Ernakulam: Prompt Machine Tools, 9846056446
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 Indore: Alif Industrial Sales, 9329842594
 Jalandhar: GRD Innovation Solutions, 9780153601

Jamshedpur: IMTS, 9334804275
 Kanpur: Response Engineers, 9838070906
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