



Storm VMC Series

Vertical Machining Centres

STORM Vertical Machining Centers

The STORM vertical machining center (VMC) adds to the vast range of CNC machining products available from Clausing Industrial Inc.



Model	S600LF	S850LF	S850LFH	S1050LF	S1050LFH	S2090SF	S3220LF
Table Size (in)	35.43 x 16.14	37.4 x 19.68		45.27 x 19.68		90.55 x 38.18	125.98 x 70.8
Max. Table load (lbs)	660	1,100		1,540		6,160	22,000
Tool Storage Capacity	20 (arm)	24 (arm)		24 (arm)		32 (arm)	32 (arm)
Spindle Power (Hp)	10	15		15		25	25
Spindle Speed (rpm)	12,000	10,000	12,000	10,000	12,000	6,000	6,000
Spindle Taper	CAT 40					CAT 50	

Side Mounted ATC

Arm type ATC with 20 or 24 or 32 tool capacity provides reliable and fast tool changing times, maintaining shop-floor efficiency at all times.

Rigid roller type linear guideways

All axes are fitted with large diameter roller type linear guideways, ensuring rigidity, accuracy and high speed cutting.

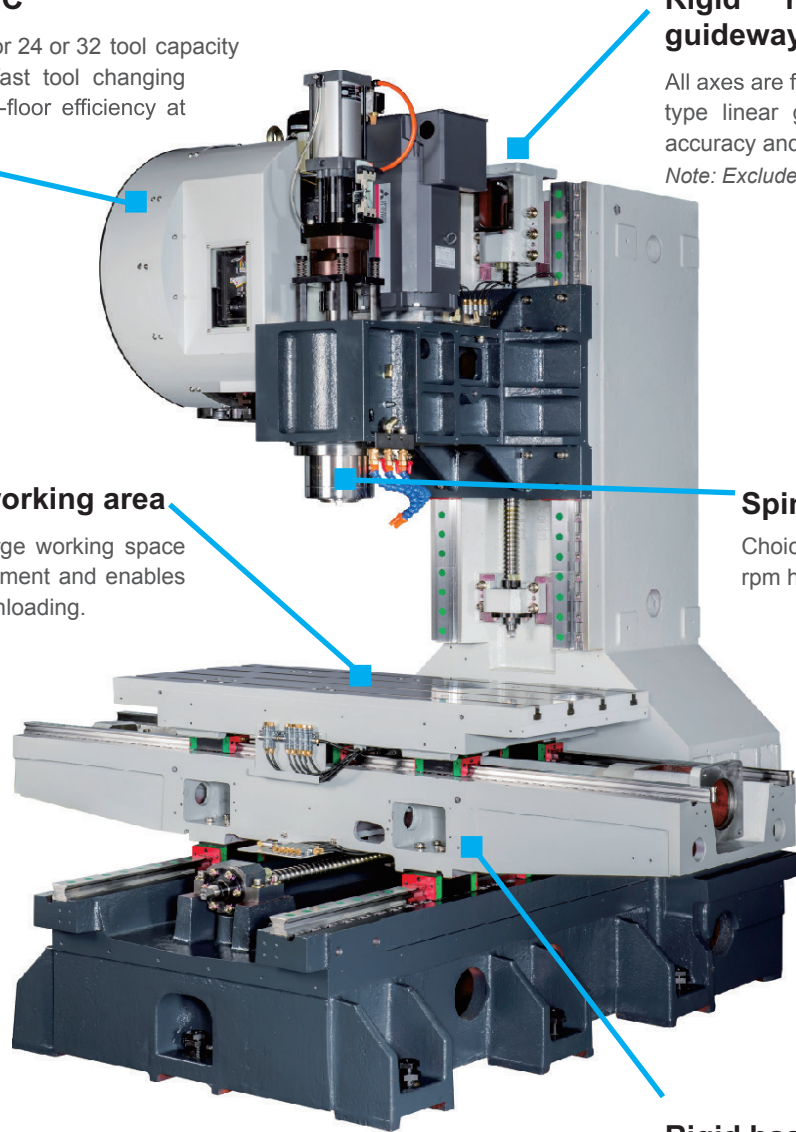
Note: Excludes S2090SF

Large capacity working area

The STORM VMC's large working space ensures plenty of movement and enables easy part loading and unloading.

Spindle

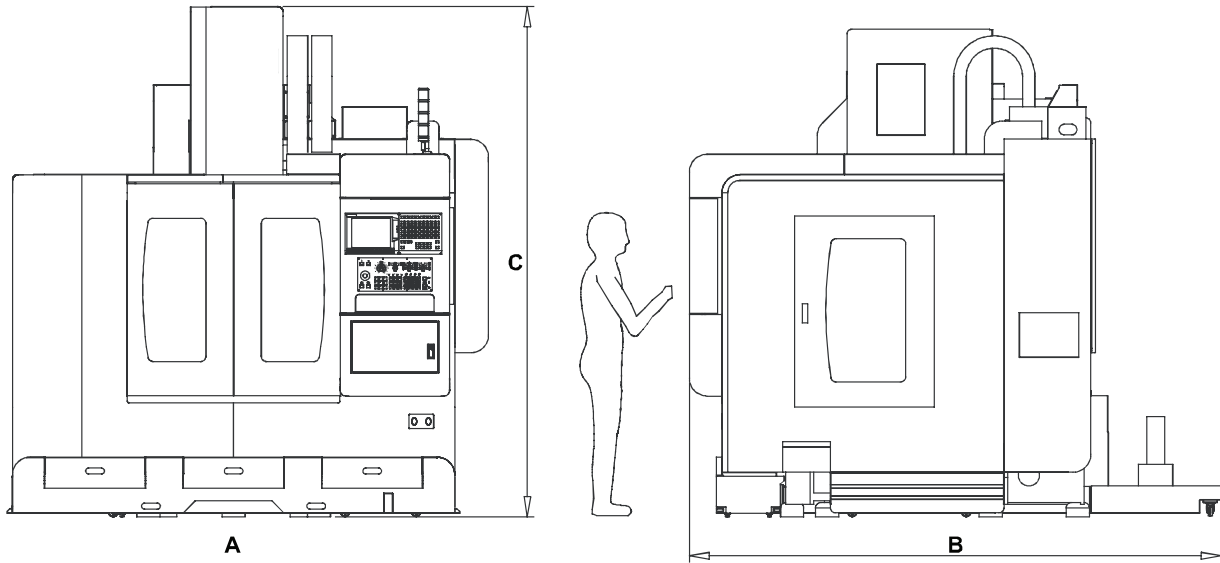
Choice of 10,000, 12,000 or 15,000 rpm high speed spindles available.



Rigid base construction

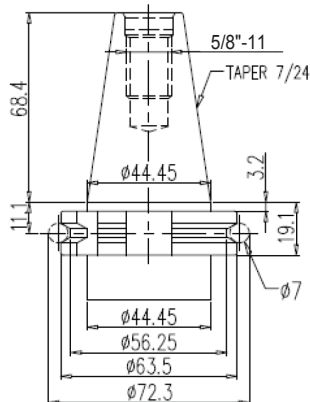
The Meehanite cast machine base gives high stability and accuracy, preventing vibration, which ensures maximum accuracy every time.

STORM VMC Floorplans & Dimensions

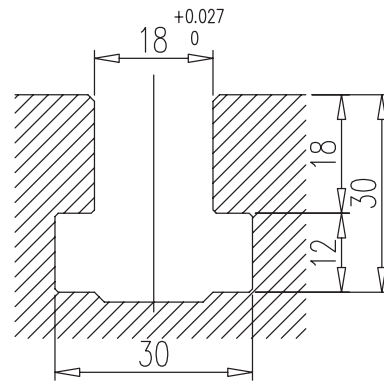


Model	S600	S850	S1050	S2090	S3220
Dimension A	74.8"	106.3"	112.2"	221"	346.45"
Dimension B	89"	118.1"	118.1"	164"	186.4"
Dimension C	102.3"	113"	113"	137.7"	178.5"

Toolholder & Pull Stud Specification (CAT 40)



T-Slot Sizes (S600-S1050)



Static accuracy inspection:

(Test depends on our standard operation and conditions)

Right angle	Surface	Standard Value ($\mu\text{m} / 300\text{m}$)	Testing Value ($\mu\text{m} / 300\text{m}$)
	X-Y / Y-Z / Z-X	0.015 / 0.015 / 0.015	0.007 / 0.010 / 0.011
Roundness cutting accuracy	Surface	Standard value (μm)	Testing value (μm)
	X-Y	0.015	0.01

STORM VMC Specifications

	S600LF	S850LF	S850LFH	S1050LF	S1050LFH	S2090SF	S3220LF
CONTROLLER							
FANUC 0i-MF							
TRAVEL							
X x Y x Z axis (in)	24 x 16.14 x 20.86	33.46 x 21.6 x 22	41.3 x 21.6 x 22		78.7 x 35.4 x 27.55		125.9 x 92.5 x 33.4
Spindle nose to table (in)	3.93 – 24.8	4.72 – 26.77		9.8 – 37.4		7.8 – 41.3	
Spindle center to solid column (in)	19.48	23.6		38.97			
Spindle center to bridge						21.6	
TABLE							
Working Area (in)	35.4 x 16.14	37.4 x 19.68	45.27 x 19.68		90.55 x 38.18		125.98 x 70.8
Max. loading (lbs.)	660	1,100	1,540		6,160		22,000
T-Slots (No. x Width x Pitch) (in)		3 x .71 x 4.92		5 x .866 x 5.9		12 x .866 x 5.9	
SPINDLE							
Speed (rpm)	12,000	10,000	12,000	10,000	12,000	6,000	50 – 6,000
Transmission	Direct Drive	Belt Drive			2SPD Gear Box		Gear Drive
Bearing lubrication		Grease			Oil Cooled		
Cooling system							
Spindle motor max. rating (Hp)	10	15		25			
Axis motor max. rating X,Y,Z (Hp)	2.4, 2.4, 3.3	4, 4, 4		9, 9, 9			
FEEDRATES							
Rapids (X / Y / Z) (in/min)	1889, 1889, 1889	1417, 1417, 984		393, 393, 393		787, 787, 590	
Max. cutting feedrates (in/min)		393					
TOOL MAGAZINE							
Tool storage capacity (pcs)	20	24		32			
Type of tool (optional)		CAT40		CAT50			
Max. tool diameter (in)		2.93		4.3		5.0	
Max. tool weight (lbs.)	11	15.4		33			
Max. tool length (in)	9.84			11.8			
AVERAGE CHANGING TIME (ARM)							
Tool to tool (sec)	2.5	2.7		3.8		11	
Chip to chip (50% Z axis) (sec)	3.6	6.7		11		15	
Air source required (PSI)		85					
WAY TYPE							
Ways X,Y,Z		Linear		Box		Lin, Lin, Box	
ACCURACY							
Positioning accuracy (VDI) (in)		0.00039		0.0002			
Repeatability accuracy (VDI) (in)		0.00023		0.0001			
OTHER							
Power requirements (KVA)		15		35		50	
Machine size (in)	74.8 x 89 x 102.3	106.3 x 118.1 x 113	112.2 x 118.1 x 113		221 x 164 x 137.7	346.45 x 86.4 x 178.5	
Machine weight (lbs.)	8,800	12,980	13,860		45,100	63,800	

STANDARD ACCESSORIES
Automatic Tool Changer
Full Splash Guard
Heat Exchanger for electrical cabinet
Automatic Lubricating System
Spindle Air blast system (M code)
Spindle Oil Cooler
Spindle Orientation
Coolant gun and air socket
Levelling kits
Removable manual pulse generator (MPG)
LED light
Rigid tapping
Coolant system and tank
Cycle finish indicator and alarm lights
Toolbox
Operator and maintenance manual

OPTIONAL ACCESSORIES
Coolant through spindle (6 bar)
Spindle coolant ring
Controller (FANUC / SIEMENS)
ZF Gearbox
Automatic tool length measuring device
Automatic workpiece measurement system
CNC rotary table and tailstock
Oil Skimmer

Your Single Source for Machine Tools

Clausing Precision Drills

- Clausing Belt-drive Drills
- Clausing Geared-head Drills
- Clausing Radial Drills

Clausing Precision Mills

- Clausing Bed Mills
- Clausing CNC Bed Mills
- Clausing Knee Mills
- Clausing EVS Knee Mills
- Clausing CNC Knee Mills
- Clausing Universal Mills

Clausing Precision Lathes

- Clausing/Colchester Geared Head Lathes
- Clausing/Colchester Professional V.S. Lathes
- Clausing/Colchester MAGNUM V.S. Lathes
- Clausing C Series Lathes
- Clausing Large Swing Standard Lathes
- Clausing Large Swing CNC Lathes
- Clausing Precision Toolroom Lathes

Clausing Precision Grinders

- Clausing Manual Grinders
- Clausing 2 Axes Hydraulic Grinders
- Clausing 3 Axes Hydraulic Grinders
- Clausing ASDIII Automatic Grinders
- Clausing OD/ID Grinders

Clausing Precision Cutting Machines

- Clausing/Kalamazoo Horizontal Bandsaws
- Clausing/Kalamazoo Vertical Bandsaws
- Clausing/Kalamazoo Tilt Frame Miter Bandsaws
- Clausing/Kalamazoo Cold Saws



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