

# HIGH PERFORMANCE

## Vertical Machining Centers

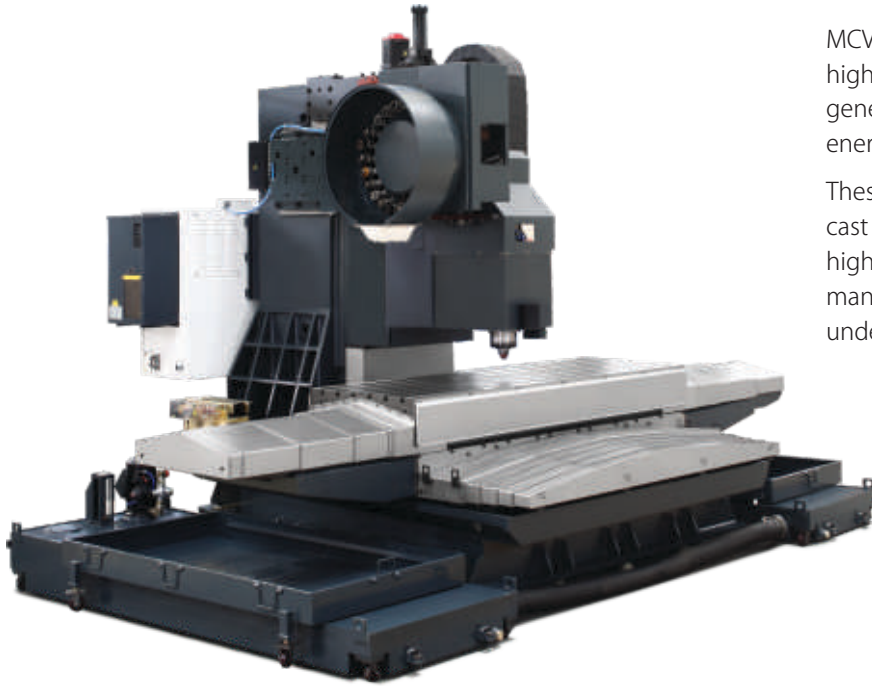


MCV-700 N

MCV-700

MCV-800

# Vertical Machining Centers



MCV-700N, MCV-700 & MCV-800 machines are rigid & high performance machines suitable for Automotive, general engineering, die Mould, Aerospace, defence & energy sector.

These machines have structural components made of cast iron which are machined to provide and retain high built in accuracies. The machines are designed, manufactured, assembled and tested to perform under very demanding working conditions.

## High Speed Spindles

These machines equipped with high rigid spindle designed for wide range of applications. AMS follows a stringent procedure in assembling and mounting the spindle on to the machine. These machines can be equipped with either BT-40 or BT-50.



BT-40



BT-50

## Accuracy

	VDI DGQ 3441	ISO 230-2
Positioning	0.015 mm	0.010 mm
Repeatability	± 0.005 mm	± 0.003 mm

## Tooled up Solutions

The application engineering team of AMS has wide experience in identifying the process for machining and providing suitable work holding and tooling solutions. This ranges across the markets from high speed & productivity solutions for the automotive industry to the high precision and accuracy solutions for the aerospace or mould making industry. This not only includes support in selection of the most suitable machines but also designing the fixtures and identification of the ideal cutting tool for the selected process. The entire prove out of the components to meet the desired cycle time can be undertaken when solutions are opted for.

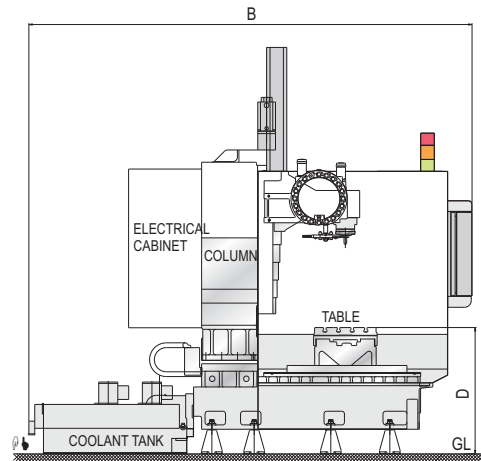
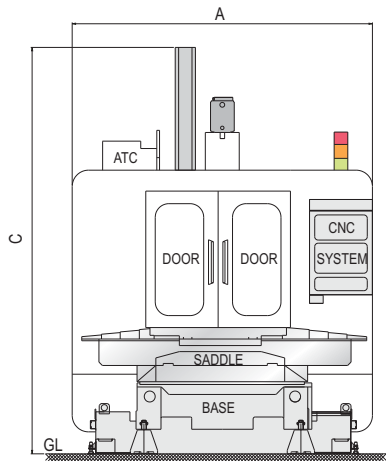


## Automation Solutions

It is a constant endeavor to provide better productivity on our products. Our machines are made suitable for automation interface of different types. With the experience of providing machining solutions AMS is capable of augmenting the manufacturing process with integration of automation solutions. Either semi-automated with auto-unloading or fully automated with unmanned operations there are myriad of options to choose from suiting the machining process and layout. Our automation solutions provide enhanced productivity, output consistency and minimized dependency on man power.



# Machine Layout

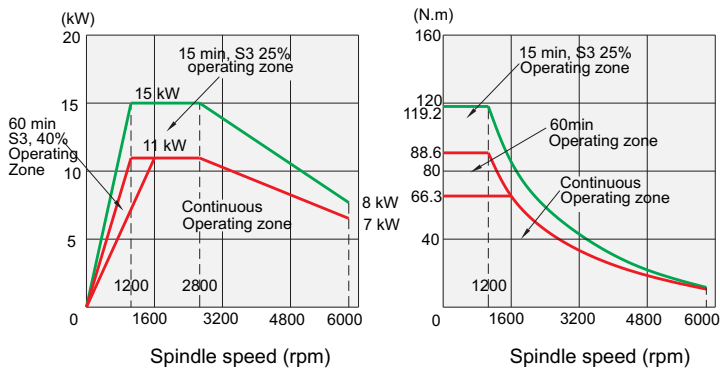


	A (Width)	B (Depth)	C (Height)	D
MCV-700 N	3500	4100	2850	1010
MCV-700 / MCV-700-50	3900	4200	3850	995
MCV-800 / MCV-800-50	5000	4000	3350	1050

\* All dimensions in mm

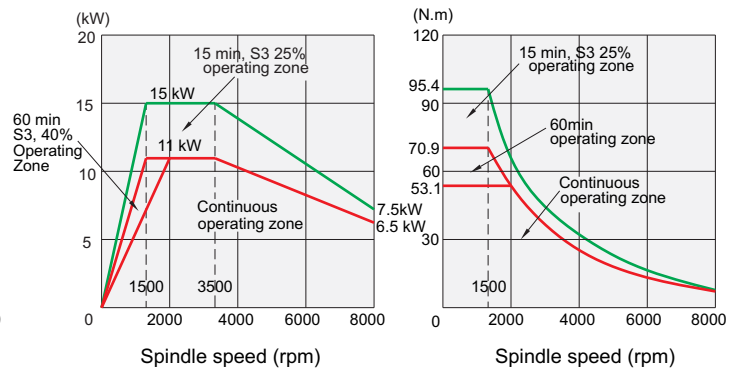
## Spindle Power Torque Diagram

MCV-700N (Std.)



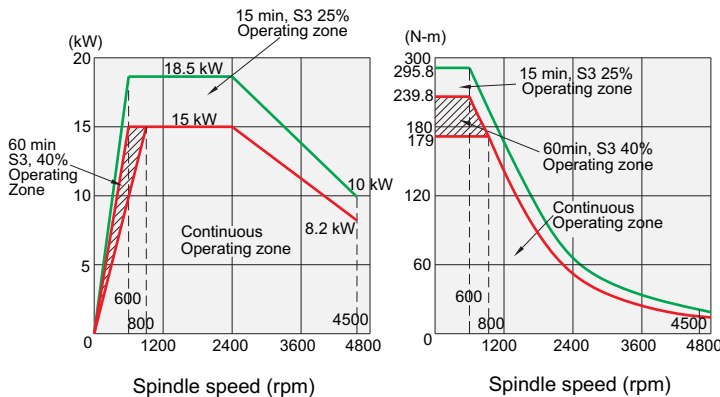
Make : Fanuc, Rated Power : 15/11 kW (Std.)  
 Max. Spindle Speed : 6000 rpm

MCV-700N (Opt.)



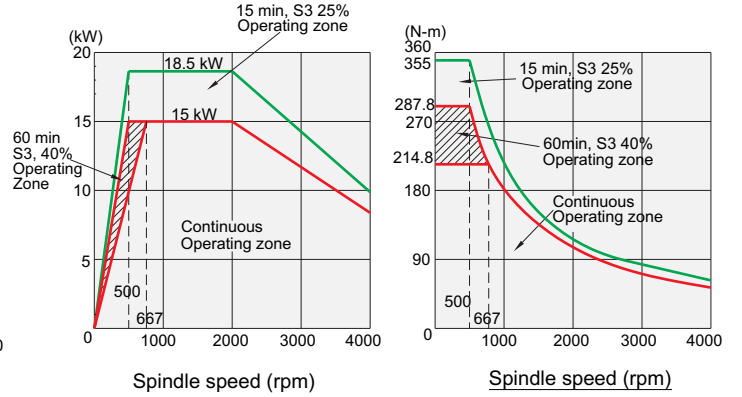
Make : Fanuc, Rated Power : 15/11 kW (Opt.)  
 Max. Spindle Speed : 8000 rpm

MCV-800



Make : FANUC, Rated Power : 18.5/15 kW (Std.)  
 Max. Spindle Speed : 4500 rpm

MCV-700-50 & MCV-800-50



Make : FANUC, Rated Power : 18.5/15 kW (Std.)  
 Max. Spindle Speed : 4000 rpm

## Specifications

	Unit	MCV-700N	MCV 700	MCV 700 / 50	MCV 800	MCV 800 / 50
<b>CAPACITY</b>						
Table longitudinal travel (X - Axis)	mm	1250	1500	1500	2000	2000
Table cross travel (Y - Axis)	mm	700	700	700	810	810
Headstock travel (Z - Axis)	mm	600	700	700	810	810
Spindle nose face to table top	mm	120 - 720	130 - 830	130 - 830	175 - 985	175 - 985
Table height from floor	mm	1010	995	995	1050	1050
<b>TABLE</b>						
Table size	mm x mm	1450 x 700	1650 x 710	1650 x 710	2400 x 810	2400 x 810
T - slot (No. x size x pitch)		6 x 18 x 100	6 x 18 x 100	6 x 18 x 100	6 x 18 x 125	6 x 18 x 125
Max. load on table	kgf	1200	1500	1500	2000	2000
<b>SPINDLE &amp; AXES</b>						
Spindle taper		7 / 24 No.40	7 / 24 No.40	7 / 24 No. 50	7 / 24 No.40	7 / 24 No.50
Spindle speed - Std.	rpm	60 - 6000	50 - 5000	40 - 4000	50 - 5000	40 - 4000
Spindle speed - Opt.	rpm	80 - 8000	80 - 8000			
Spindle power - Std.	kW	15 / 11	15 / 11	18.5 / 15	18.5 / 15	18.5 / 15
Spindle power - Opt.	kW		18.5 / 15			
Rapid traverse - X / Y / Z	m / min	20 / 20 / 24	20 / 20 / 20	20 / 20 / 20	18 / 18 / 18	18 / 18 / 18
Feed rate	mm / min	1 - 10000	1 - 10000	1 - 10000	1 - 10000	1 - 10000
Guideways Type		LM	LM	LM	LM	LM
<b>AUTOMATIC TOOL CHANGER</b>						
Tool change system		Twin Arm	Twin Arm	Twin Arm	Twin Arm	Twin Arm
Tool storage capacity - Std. / Opt.	Nos.	24 / 30	24 / 30	20 / 30	24 / 30	20 / 30
Pull stud		DIN 69872	DIN 69872	DIN 69872	DIN 69872	DIN 69872
Max. tool dia with all pockets full	mm	80 / 75	80 / 75	125	80 / 75	125
Max. tool dia with adjacent pockets empty	mm	155 / 125	155 / 125	250	155 / 125	250
Max. tool length	mm	250	250	350	250	350
Max. tool weight	kgf	8	8	20	8	20
Chip to chip time**	sec.	8.3	8.5	10	10.5	11
Tool shank type		BT - 40	BT - 40	BT - 50	BT - 40	BT - 50
<b>CNC System Std-FANUC</b>						
Basic machine weight	kgf	10000	11000	12000	17000	18000
Power supply (Basic Machine)	kVA	25	40	40	40	40

\*\* Valid for Standard specifications \*All specifications are subject to change without prior notice

## Standard Features

- Rigid tapping
- Tool shank: BT-40
- Spindle power: 15 / 11 kW for MCV-700 N, MCV-700
- Spindle power: 18.5/15 kW for MCV-700-50, MCV-800, MCV-800-50
- Three tier indication lamp
- Work light
- Full guarding
- Coolant tank & Chip tray
- Flood coolant, chip flushing & Coolant gun
- Laser calibration & ball bar test
- 20 tool side mounted ATC (MCV-700 N)
- 24 tool side mounted ATC (MCV-700 & MCV-800)
- 20 tool side mounted ATC for BT-50 models
- Panel cooler for electrical cabinet

## Optional Features

- Increased day light area
- Tool shank: BT-50
- Through spindle coolant system
- Chip conveyor
- Coil conveyor
- 30 tool ATC
- CNC Rotary table / Index table
- TPM Friendly machine
- Tooling solutions & Automation

## AMS<sup>®</sup> ACE MANUFACTURING SYSTEMS LTD.

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