



DAHLIH



Machines That Create Value



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The Latest and Best Quality Machinery.

DAHLIH®

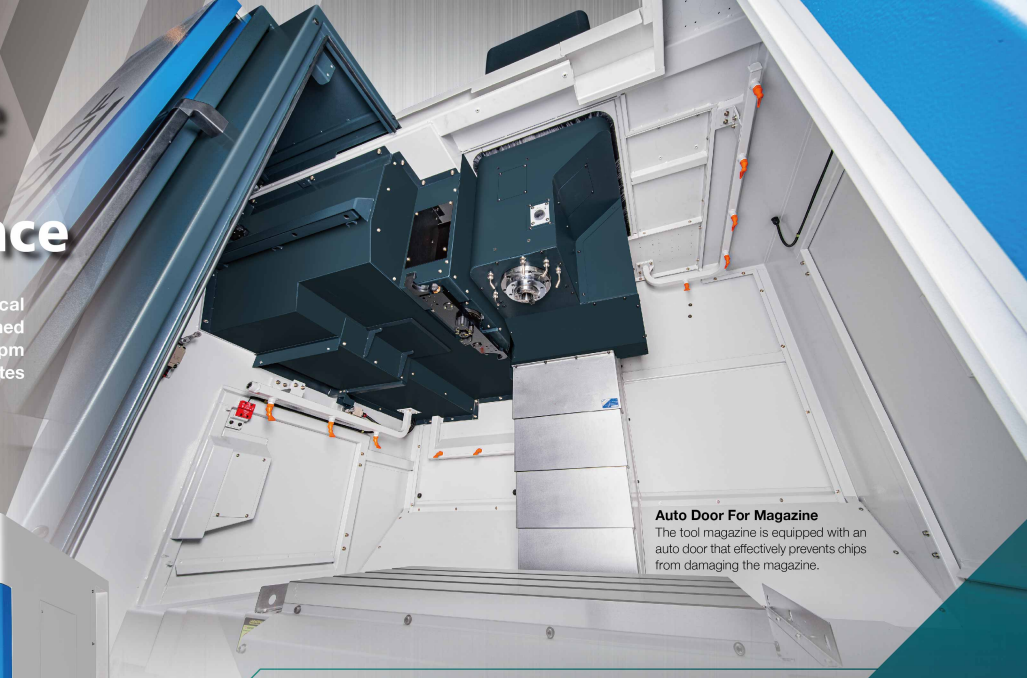
VERTICAL MACHINING CENTER MCV-700F



DAH LIH MACHINERY INDUSTRY CO., LTD.

Rugged Structure High Rigidity Elegant Appearance

Dah Lih's MCV-700F is a compactly constructed vertical machining center that offers large operation space. Designed for machining, the MCV-700F is equipped with a 10,000 rpm direct-drive spindle, linear guideways on 3 axes and integrates many advanced features. features.



Auto Door For Magazine

The tool magazine is equipped with an auto door that effectively prevents chips from damaging the magazine.

MCV-700F

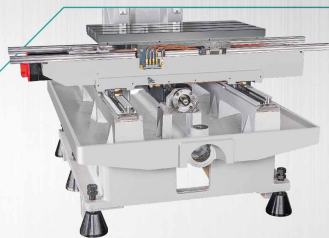
VERTICAL MACHINING CENTER

Key Features:

- » X, Y, Z-axis travel: 700 x 400 x 600 mm.
- » Linear guideways on 3 axes.
- » Rapid traverse rates on X, Y, Z-axis: 48 m/min.
- » 10,000 rpm direct-drive spindle is standard.
- » 12,000 rpm or 15,000 rpm direct-drive spindle is optional.
- » 24 tools arm type ATC is standard.
- » 30 tools arm type ATC is optional.
- » Fully enclosed splash guard.

Rugged Structure Assures Superb Rigidity and Stability

- » Major structural parts of the machine are manufactured from high quality cast iron for superior stability.
- » Linear Guideways on X, Y, Z-axis.
- » Servo motors on 3 axes directly drive high precision ball screws for accurate feed and high positioning accuracy.
- » A chip auger, located at the center of the base, delivers chips to the rear of the machine.



640 mm Large Span On Y-axis

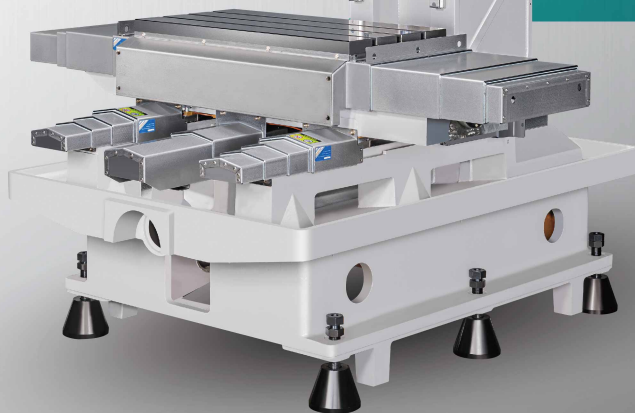
Extra large span between linear guideways on Y-axis avoids overhang problem when the table travels in X-axis.



Coolant Tank

Coolant tank with 200 liter capacity is located at the back of the machine. It can be easily removed for cleaning the inside of the coolant tank.

3 Axis Large Scale Linear Guide
Bigger Roller Type Linear Guide (35 mm)



Convenient Maintenance

The pneumatic parts and automatic lubricator are centralized in the compartment for added convenience in maintenance and adjustment.



Air Accumulator

The use of accumulator air accumul ensures stable air pressure supply to the air circuit at all times.



Swiveling Control Box

The control panel can be swiveled by the operator, providing convenience in setup.

Coolant tank placed at the rear.
Keeps the face width compact.

Exclusive Design

Oil skimmer with stainless steel wiper. Simple, effective and eco-friendly. (Optional)

Independent Coolant Tank of C.T.S. System

Excellent filtering system with space-saving integrated design.

Standard: 20 Bar

Up to 70 Bar (Optional)

Coolant & Flushing 2 independent Pumps

High pressure and intensive water flow. Increased coolant efficiency.

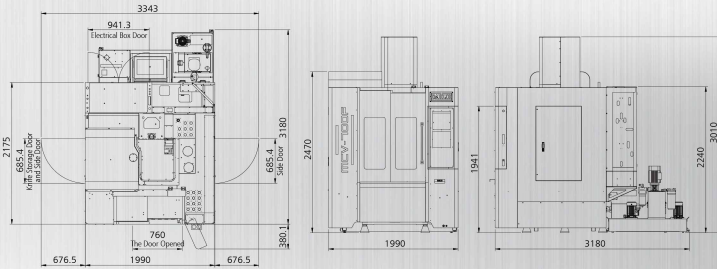
Multilayer Filter System

Decreases chips flushed into coolant tank. Extends pump's service life.



Machine Dimensions

MCV-700F



Tool Magazine

The cam type magazine rotation is driven by a cylindrical cam for fast and dependable tool changing. Random tool selection provides efficient tool changing.

Cam Mechanism ATC		24 / 30
Max. Tool Dia. x Length	Ø x mm	Ø75 x 250
	Ø x inch	Ø2.95 x 11.81
Max. Tool Weight	kg	7
	lbs	15
Max. Tool Dia. of Adjacent Pots Empty	Ømm	Ø150
	Øinch	Ø5.9

More Powerful and Efficient Operations with Extra Optional Accessories



Automatic Tool Length Measuring Device includes air blast device



Automatic Tool Length Measuring Device (Renishaw Or Blum)



4TH Axis Rotary Table



5-Axis Rotary Table

Specifications, Accessories and Dimensions

SPECIFICATIONS

MODEL	MCV-700F
TRAVEL	
X-Axis	700 mm (27.5")
Y-Axis	400 mm (15.7")
Z-Axis	600 mm (23.5")
Distance from spindle nose to table	150~750 mm (5.9~29.5")
TABLE	
Table size	800 x 400 mm (31.5~15.7")
Distance from table to floor	883 mm (34.76")
Max. table loading capacity	250 kg (551lbs)
T-slot (number x width x pitch)	3 x 18 x 100 mm (3 x 0.7 x 3.93")
Spindle center to column	500 mm (19.68")
FEED	
Rapid traverse speed	X / Y / Z: 48 / 48 / 48 M/min
Feed motor (FANUC)	X / Y: 1.8 kW, Z: 3 kW
Ball screw diameter & pitch	X / Y / Z: Ø32 mm / 16mm (1.26 / 0.63")
Cutting feed rate	1~10,000 mm/min
Type of transmission	Direct Drive
SPINDLE	
Type of tool shank	BBT40 / BT 40 / CAT 40 / DIN 69871A
Max. spindle speed	10,000 rpm / 12,000 or 15,000 rpm (Optional)
Spindle motor	7.5 / 11 kW
Type of transmission	Direct Drive
ATC (Automatic Tool Changer)	
Tool magazine capacity	24T / 30T (Optional)
ATC type	Arm type
Max. tool diameter	75 mm (2.95")
Max. tool diameter (without adjacent tool)	Ø150 mm (5.9")
Max. tool length	250 mm (9.84")
Max. tool weight	7 kg (14.14lbs)
Tool changing time (Tool to Tool)	1.87 sec
Tool changing time (Chip to Chip)	4.6 sec
Tool selection	Random selection / Bi-directional magazine rotation
Special tool management	Yes
COOLANT SYSTEM	
Coolant tank size	200 L
Coolant capacity	130 L/min
Chip Flush capacity	130 L/min
MACHINE SIZE	
Machine height	3,010 mm
Floor space	1,990 x 3,180 mm (78.3' x 125.2")
Machine weight	4,000 kg (8,815 lbs)
POWER SOURCE	
Electrical power supply	20 kVA/3PH, 220V 50/60 HZ
Compressed air supply	6.0 kgf/cm ² (85psi) (0.6Mpa)

STANDARD

- Electrical Box Heat Exchanger
- Fully Enclosed Protective Cover
- Automatic Lubrication Device
- Automatic Power-Off Function
- Tools and Toolbox
- RS-232 Interface
- Spindle Cooler
- Circular Spray Device
- Rigid Tapping Tool
- Warning Light
- Work Light

OPTIONS

- Electrical Box Air Conditioning Cooler
- Cutting Fluid and Air Spray Gun
- Spindle Through-Cooling Device
- Automatic Tool Length Measuring Device
- Automatic Workpiece Measuring Device
- Tracked Chip Conveyor
- Upward-Moving Chip Conveyor
- Oil-Water Separator
- Fourth Axis

■ Specifications are subject to change without prior notice.