

The Latest and Best Quality Machinery.
DAHLIH®

VERTICAL MACHINING CENTER

MCV-720
Vertical
Machining Center



DMV-800
Traveling Column
Vertical Machining
Center



PT-128
Portal Type
Machining Center



MCH-630
Horizontal
Machining Center



MCV-1250



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002-D2-00-001

MCV-1250

For **E**xcellent **P**erformance in **M**old and **P**arts **M**achining,
Take a **C**lose **L**ook at Dah Lih's MCV-1250



The quality-built Dah Lih MCV-1250 Vertical Machining Center is designed for versatile machining applications, such as medium-sized parts machining, injection mold machining and general precision machining. The MCV-1250 is a precision-engineered machine incorporating all the advanced features that have been asked for by industry. Ruggedly constructed throughout, it provides heavy duty machining with ease. Advanced Finite Element Analysis is applied for the structure to achieve the best possible rigidity and stability. The nitrogen gas counter-balancing system guarantees extremely stable motions. A powerful spindle drive makes the machine ideal for heavy duty machining. When you need a VMC with precision and heavy duty to help your machining to be competitive, look into the Dah Lih MCV-1250. All this is backed by Dah Lih's reputation for quality and the latest technology.

***Strength, High Rigidity
and Perfect Accuracy at All Times.***

VERTICAL MACHINING CENTER



Rigid, Massive Constructed Design for Lifetime Accuracy.

- Major machine parts are manufactured from rigid cast iron for maximum structural stability.
- Double wall box type structure for column, bed and saddle. Scientifically rib reinforced for added rigidity, while reducing thermal strain to a minimum.
- Symmetric and well counter-balanced design on the column assures precision machining.
- Pre-tension ball screws on the 3 axes reduce thermal growth.



EXCELLENT PERFORMANCE SPINDLE

- High torque and performance is achieved from the two step (low and high gear) spindle.
- Accuracy is assured at both high and low speeds.



PRECISE CUTTING HEADSTOCK

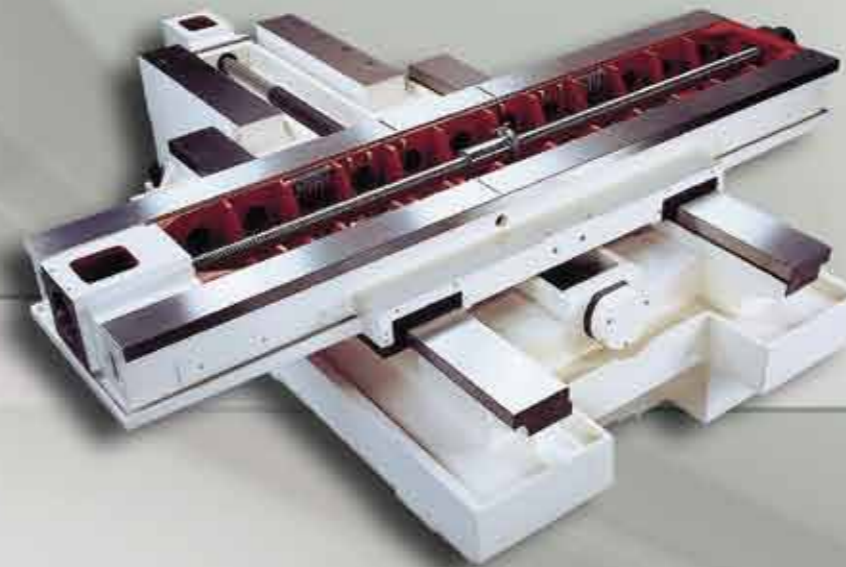
- Spindle through can be equipped with a coolant device which is ideal for deep hole drilling.
- Easy chip removal. Specially-designed spindle is adaptable to all speeds and requirements.
- Spindle bearing life is extended through the floating design of the tool unclamp unit.
- Superior rigidity is achieved through the box-type construction of the headstock.
- The specially-designed longer

spindle makes using smaller tools much easier.



RUGGED CONSTRUCTION

- ★ The machine structure is designed and analyzed by advanced "Finite Element Analysis" to achieve the highest stability and rigidity, high speed travel and light weight.
- ★ Ball screws are pre-tensioned to reduce thermal deformation to a minimum.
- ★ Base, saddle and column structures are reinforced by V-shaped ribs with shortened stress lines. This fully eliminates rib deformation while assuring the maximum rigidity of the machine.



EXCELLENT TECHNOLOGY AND OUTSTANDING PRODUCTS - SURELY, THE BEST MACHINE FROM TAIWAN.



LATEST ADVANCED CNC CONTROLLER

Equipped with Fanuc, Heidenhain and other CNC controllers.



CAM TYPE MAGAZINE

- The CAM type magazine rotation is driven by a cylindrical cam for fast and dependable tool change. Tool loading capacity is 24 tools. Random tool selection provides highly efficient tool changing.



HEAT EXCHANGER FOR CONTROL CABINET

The high performance heat exchanger ensures a constant temperature inside the control cabinet. It provides protection for electronic components, controller and motor driver.



WORK LIGHT

Two quartz work lights provide lighting for the working area. They feature soft illumination without being irritating to the operator's eyes.

SPINDLE OIL COOLER

High speed and accurate machining is assured because of the spindle oil cooler. It prevents the spindle from getting variation and thermal deformation.



COOLANT AROUND SPINDLE

The coolant jets around the spindle effectively remove heat from the cutting tool and the workpiece ensuring high cutting accuracy.



TOOL KNOCKING DEVICE

- The tool knocking device with floating design features a buffering function which not only fully avoids damage to the spindle and bearings during tool release, but it also extends the service life of the spindle.
- Tool knocking motion is actuated by an air cylinder for efficient tool release.



NITROGEN GAS COUNTER-BALANCE

- The newly designed nitrogen gas counter-balancing system employs an accumulator which does not require additional power.
- No hydraulic power unit is required.
- No noise, extremely stable motion, no resonance and greatly upgrades machining efficiency.
- Easy to adjust servo parameters.



CHIP AUGER

During machining, chips are flushed and fall down to the chip auger for delivering to the chip conveyor. It efficiently removes chips to eliminate being affected by chip heat and keeps work area clean at all times.

Optional utmost BT40# Direct Drive Spindle

Designed and Engineering with Speed and Precision in Mind!

DAHLI

More Powerful and Efficient Operations with Extra Optional Accessories



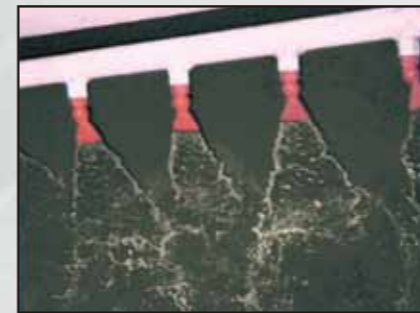
Automatic Tool Length Measuring Device



Rotary Table With 4th Axis Control



4th Axis Connector



Coolant Wash



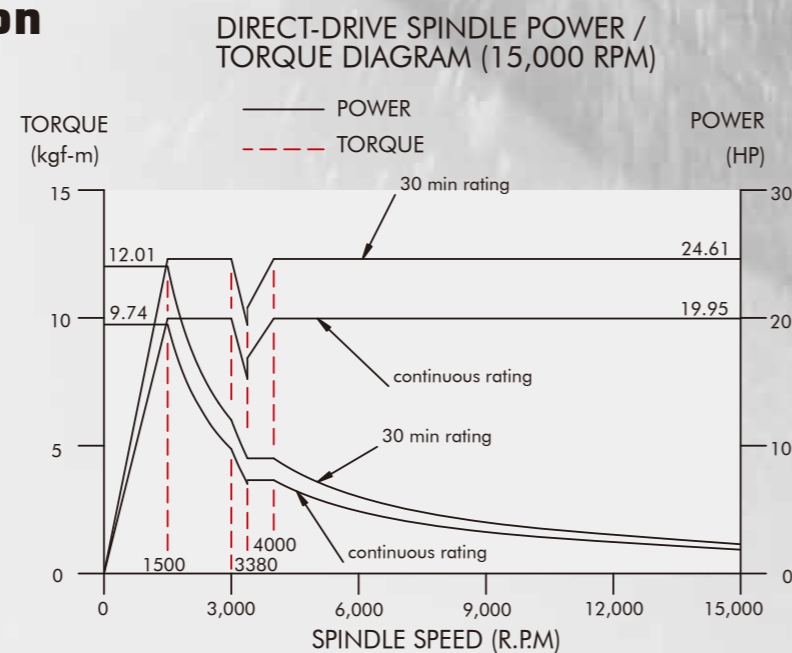
Coolant Through Spindle Device



Coolant Through Tool

High Speed High Precision

- Vibration Dampening
- Nurbs Interpolation
- High Speed Spindle
- High Torque Servo Drive System
- Extremely Rigid Structure
- ACC/DEC Speed Control
- High Precision Contour Control
- Quadrant Change Offset
- Data Server



Coolant and Air Gun



SCREW TYPE CHIP CONVEYOR

FLAT TYPE CHIP CONVEYOR

Cutting Shape	Material	Steelbelt Chip Conveyor	Screw Type Conveyor
Metallic Chip		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cast Chip		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Curly Aluminum Chip		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Aluminum Chip		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Non-Metallic Chip		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

SPECIFICATIONS:

MODEL		MCV-1250	MCV-1250B
TABLE			
Working Surface	mm (inch)	1,400 x 820 (55 x 32.3)	
T-Slots (Size x Number)	mm (inch)	22 x 5 (0.86 x 5)	
Max. Table Load	kgw (lbs)	1,500 (3300)	
TRAVEL			
Longitudinal Travel (X)	mm (inch)	1,250 (49.2)	
Cross Travel (Y)	mm (inch)	650 (25.6)	
Headstock Travel (Z)	mm (inch)	700 (27.6)	
Distance Between Spindle End and Table Top	mm (inch)	200-900 (7.8-35.4)	
Distance Between Spindle Center and Column Surface	mm (inch)	710 (28)	
SPINDLE			
Spindle Nose		N.T. 50	N.T. 40
Spindle Speeds	R.P.M.	6,000	8,000
Spindle Speed Range		Two Gears Variable	Infinite Variable
FEED			
Cutting Feed	mm/min (inch/min)	10,000 (393.7)	10,000 (393.7)
Rapid Traverse	m/min (inch/min)	20/20/12 (787/787/787)	
Minimum Input Increment	mm (inch)	0.001 (0.0001)	
ATC (Automatic Tool Changer)			
Tool Holder		BT 50	BT 40
Tool Storage Capacity	Tools	24	
Max. Tool Dia. x Length	Ø x mm (inch)	105 x 300 (4.1 x 11.8)	95 x 185 (3.7 x 7.2)
Max. Tool Weight	kgw (lbs)	15 (33)	7 (15.4)
Tool Selection		Random	
MOTORS			
Spindle Drive	Continuous Rating Kw (HP)	11 (14.7)	7.5 (10)
Motor	Rated Output for 30 Minutes Kw (HP)	15 (20)	11 (14.7)
Drive Motors	X, Y, Z Axis Kw (HP)	4 (5.4), 4 (5.4), 3 (4)	
MACHINE WEIGHT SPACE AND PACKING			
Floor Space	mm (inch)	5,006 x 4,256 (197.09 x 167.56)	
Net Weight	Kgw (lbs)	10,500 (23,100)	

Specifications are subject to change without prior notice.

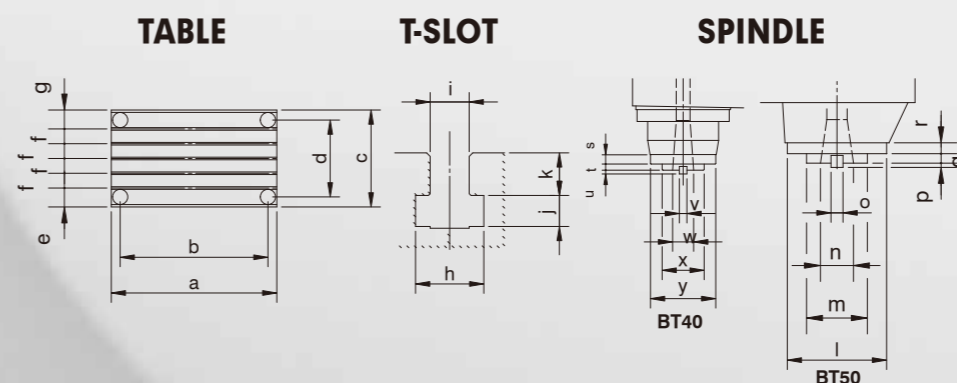
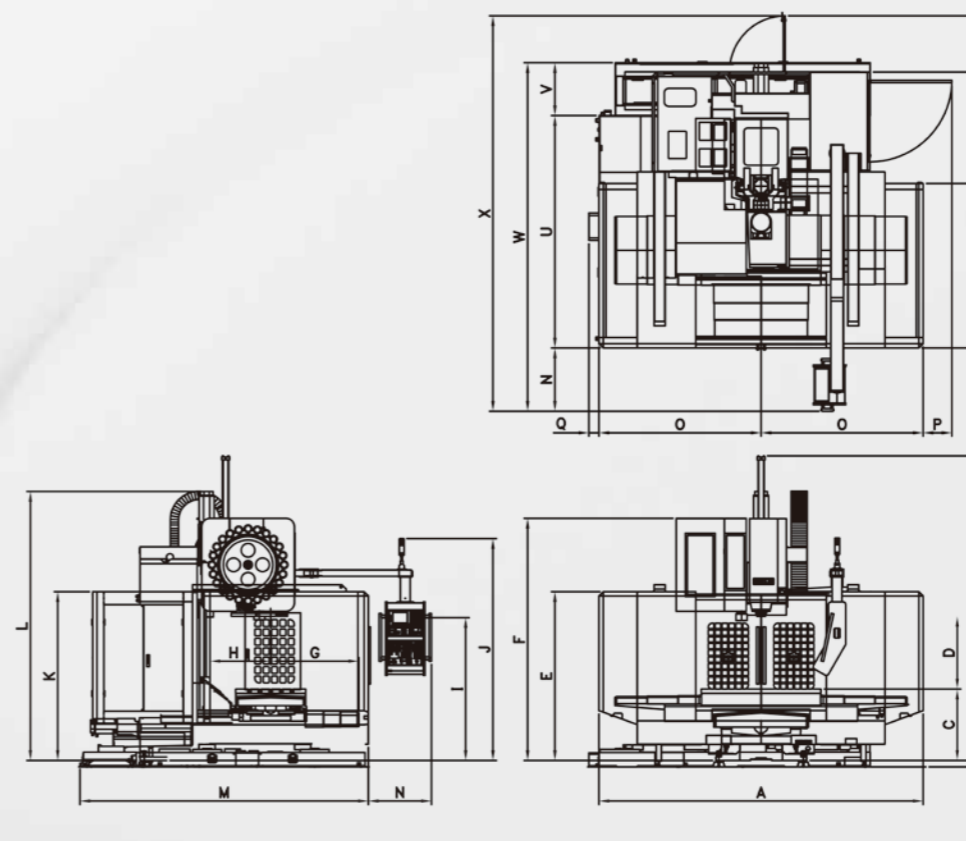
STANDARD ACCESSORIES:

- Heat Exchanger
- Removable Manual Pulse Generator
- Coolant Around Spindle
- Spiral Type Chip Conveyor
- Semi-enclosed Splash Guard
- RS-232 Interface
- Automatic Power Off
- Call Light
- Automatic Lubrication Equipment
- Work Light
- Tool Kit
- Spare Fuses
- Pendant Type Operator Panel
- Spindle Cooler
- Rigid Tapping

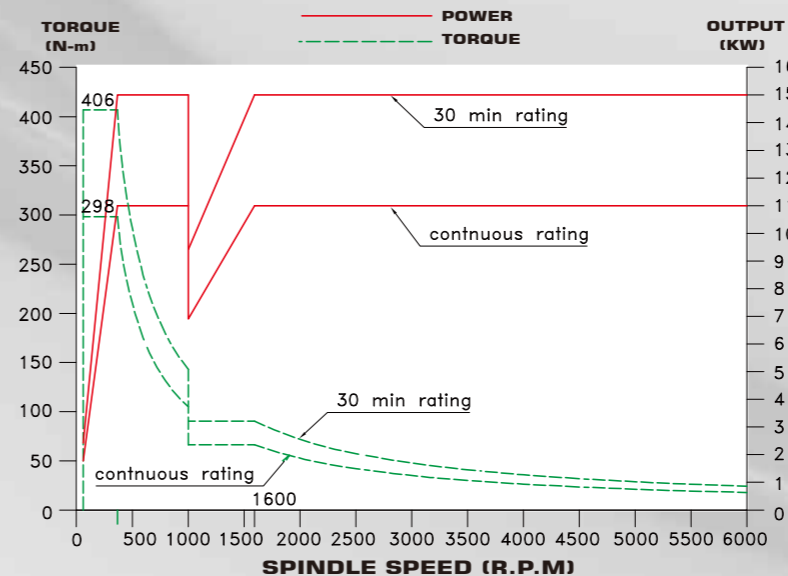
SPECIAL ACCESSORIES:

- Enclosed Splash Guard
- Flat Type Chip Conveyor and Chip Wagon
- Rotary Table With 4th Axis Control
- 4th Axis Connector
- Coolant Through Tool
- Coolant Through Spindle With Filter
- Coolant Wash
- Automatic Tool Length Measuring Device
- Automatic Centering Device (Renishaw MP-10)
- Cam Mechanism ATC (40 Tools)

MACHINE DIMENSIONS:



SPINDLE POWER / TORQUE DIAGRAM (6000 RPM)



EXTERNAL DIMENSIONS

Model	Unit	mm	inch
A		3800	149.6
B		3565	140.35
C		835	32.87
D		200-900	7.8-35.4
E		1975	77.76
F		2834	111.57
G		1035	40.75
H		710-1035	27.95-40.74
I		1670	65.75
J		2595	102.17
K		1975	77.76
L		3150	124.02
M		3378	133
N		740	29.13
O		1900	74.80
P		336	13.23
Q		120	4.72
R		1925	75.79
S		1305	51.38
T		660	25.98
U		2720	107.89
V		620	24.41
W		4080	160.63
X		4630	182.28

TABLE & T-SLOT & SPINDLE

Model	Unit	mm	inch
a		1400	55.12
b		1250	49.21
c		820	32.28
d		650	25.59
e		160	6.29
f		125	4.92
g		160	6.29
h		38.5	1.52
i		22	0.87
j		17.5	0.69
k		24	0.94
l		210	8.27
m		128.6	5.06
n		69.85	2.75
o		25.4	1
p		9	0.35
q		20	0.79
r		23	0.91