

MCH-630

MCV-720

TRAVELING COLUMN VERTICAL
MACHINING CENTER

MCV-1020A

DMV-2000

MCV-1020BA

MCV-1250

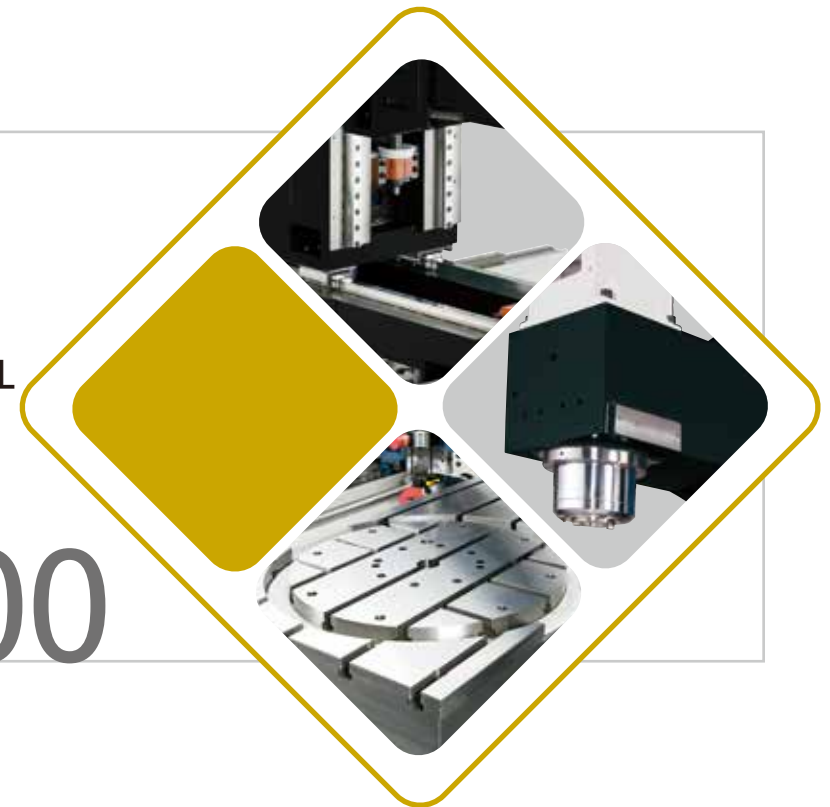
MCV-1450

MCV-1700

MCV-2100

MCV-2600

DCM-2213



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The Latest and Best Quality Machinery.
DAHLIH®

DAHLIH DMV-2000

Traveling Column Vertical Machining Center

3-axis Traveling Column!
All New Design Concepts, Unique Performance!
Upgraded Accuracy and Performance!

- » Traveling column on three axes.
- » Linear ways on three axes.
- » Three linear ways on X-axis.
- » Inserted type rotary table (4th axis) (optional)
- » Servo motor drives X-axis nut with fixed ball screw to eliminate screw oscillation problem.
- » 32 tools chain type magazine.
- » Moving control box.
- » Self-lubricated linear ways and ball screws.
- » Rapid traverse on X, Y, Z-axis 40 x 40 x 30 m/min.



DMV-2000

Unique Machine Structure Design!

A Perfect Combination of Rigidity and Stability

Nut Rotates Screw Fixed

- » The X-axis transmission system employs a servo motor to drive nut, and the ball screw is fixed, under a longer travel condition, this special design may eliminate the ball screw oscillation problem when it runs at high speed.

32 Tools Chain Type Tool Magazine

- » The magazine rotation is driven by a cylindrical cam. Bi-directional random tool selection provides highly efficient tool changing.
- » The magazine is separately mounted combined with an auto door to prevent tool from contamination by chips or coolant.

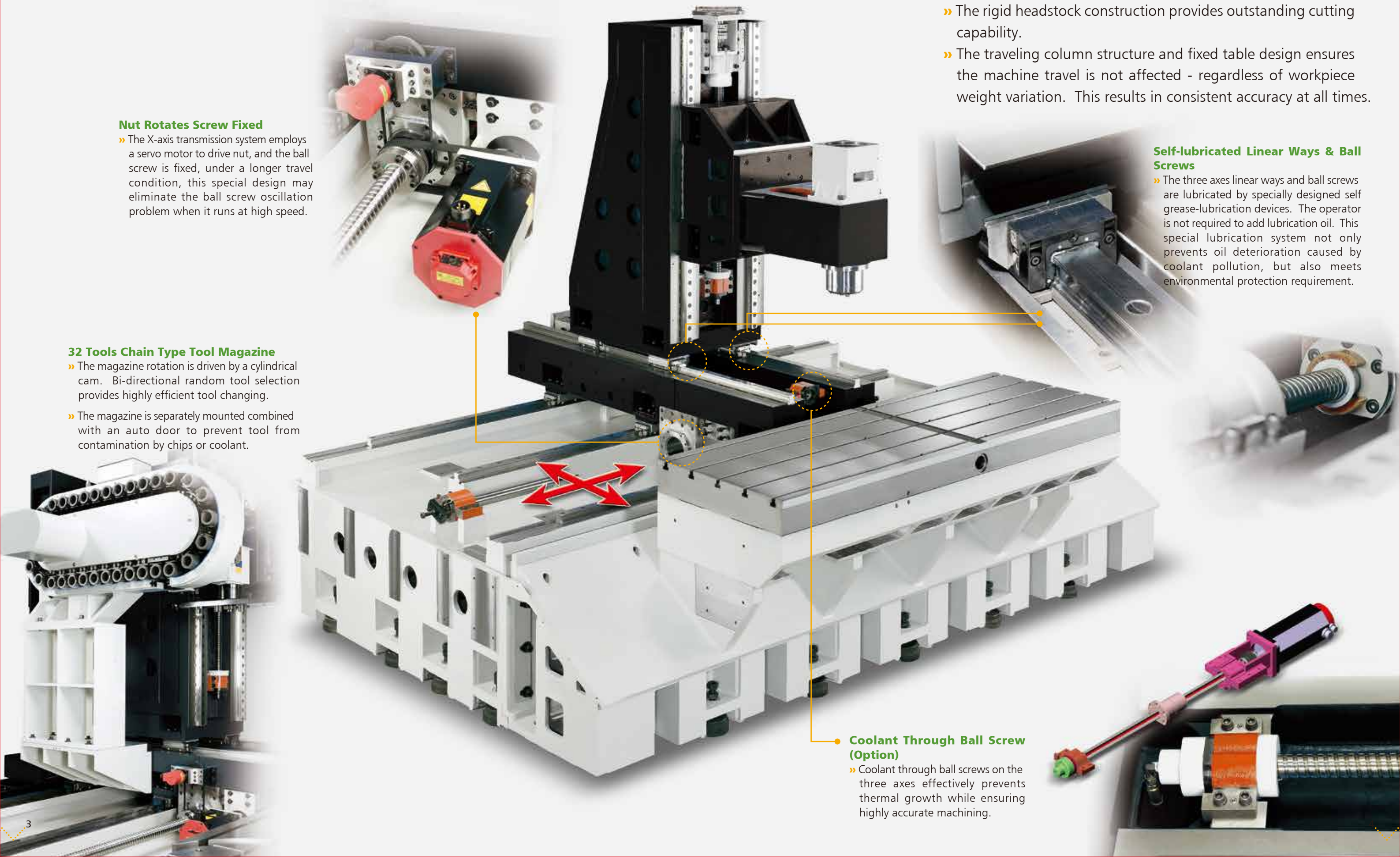
- » X-axis is mounted with 3 heavy duty linear ways, providing a solid support for column.
- » The rigid headstock construction provides outstanding cutting capability.
- » The traveling column structure and fixed table design ensures the machine travel is not affected - regardless of workpiece weight variation. This results in consistent accuracy at all times.

Self-lubricated Linear Ways & Ball Screws

- » The three axes linear ways and ball screws are lubricated by specially designed self grease-lubrication devices. The operator is not required to add lubrication oil. This special lubrication system not only prevents oil deterioration caused by coolant pollution, but also meets environmental protection requirement.

Coolant Through Ball Screw (Option)

- » Coolant through ball screws on the three axes effectively prevents thermal growth while ensuring highly accurate machining.



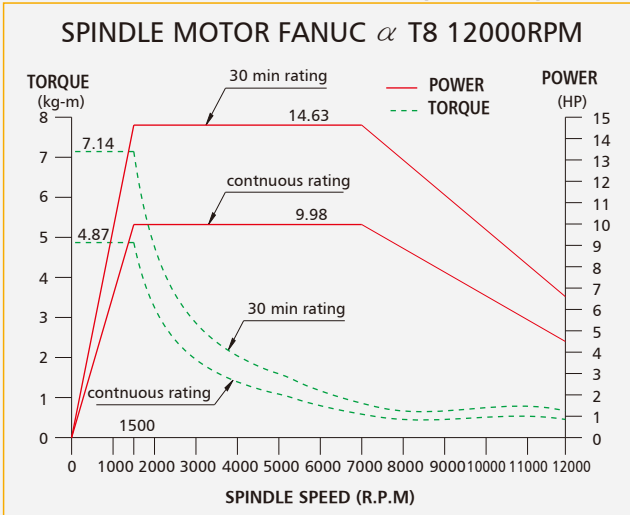
Direct Drive Spindle

Designed and Engineering with Speed and Precision in Mind!

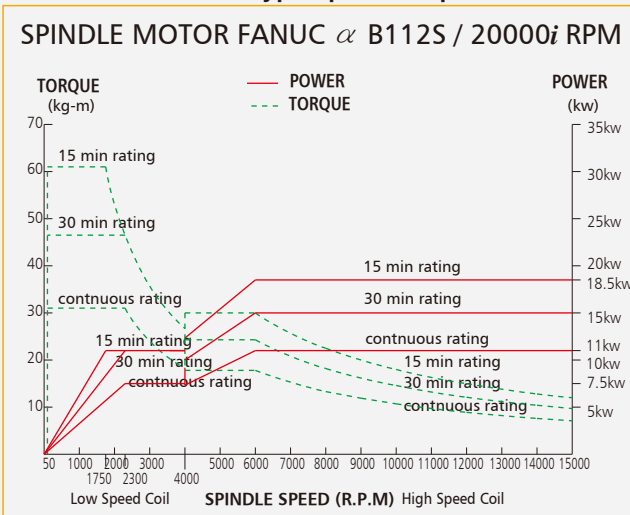
Dah Lih's All New DMV-2000...
A Precise Performer with Advanced Control.

12,000 RPM Direct Drive Spindle (Option)

10,000 / 15,000 RPM Direct Drive Spindle (Optional)



15,000 RPM Built-in Type Spindle (Optional)



High Speed
High Precision

Vibration Dampening

Nurbs Interpolation

High Speed Spindle

High Torque Servo Drive System

Extremely Rigid Structure

Extra Long Table

- » The fixed type extra long table measures 2100 x 700 mm, making it suitable for loading slender with long workpiece.
- » The table can be divided into two areas, featuring twin-table function. It saves spindle's waiting time during loading and unloading workpiece, while increasing machining efficiency.

Inserted Type Rotary Table (4th Axis) (Option)

- » Exclusively designed inserted type rotary table makes the machine suitable for flexible parts machining, and saves space.
- » The rotary table is driven by a servo motor combine4d with the use of external encoder to guarantee high indexing accuracy.

NEW !! NO LIMIT with the DAHLI 2000/5 axes

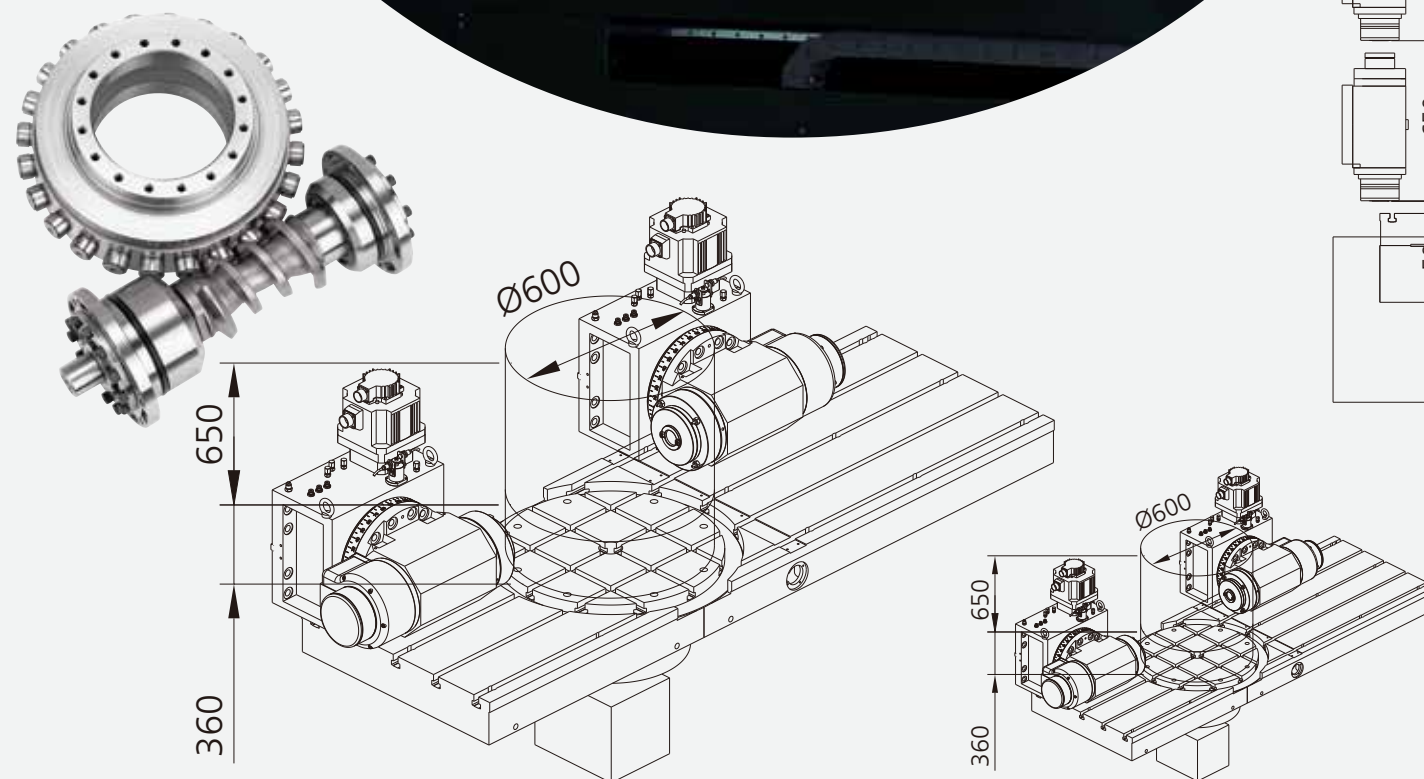
Parts become easy to make

AEROSPACE, PROTOTYPE, MOLD MACHINING, ...

5 AXES travelling machine



B-axis V2 (Option)
Roller Cam Driver



Available Controllers

FANUC

31iMB with RTCP and 4 controlled simultaneously
31iMB-5 with RTCP and 5 controlled simultaneously
You can use your ISO code functions G68.2, G68.3, G68.4, G53.1 and G53.6

HEIDENHAIN

iTNC-530 with RTCP functions
iTNC-640 with RTCP functions

SIEMENS

On request

OPTION

Kinematic functions to periodically control and recover the accuracy of your machine.

iTNC-640



Description 5-axis

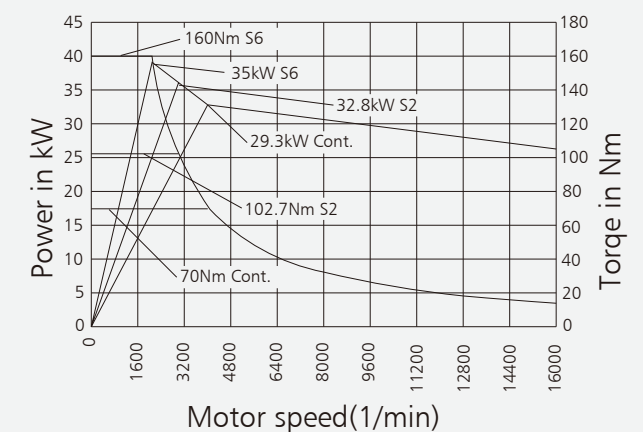
C- AXIS :

Diameter: 600 mm
Max load: 500 Kg
encodeur +/- 5", minimum incrément 0.001°
Clamping torque: 170 Kg
Max admissible cutting torque: 180Kg/m

B-Axis (standard) :

Tilting angle Range: -110° ~ 110°
encodeur: +/- 2", minimum incrément: 0.001°
Clamping torque: 153 Kg.m
Max admissible cutting torque: 100Kg.m
Speed: 16.7 RPM

Description spindle: 15000 RPM



B-Axis v2 (OPTION) :

ROLLER CAM DRIVER
Speed: 33 RPM
Tilting angle Range: -120° ~ 120°
encodeur: +/- 2", minimum incrément: 0.001°
Clamping torque: 245 Kg.m
Max admissible cutting torque: 160Kg.m
No Backlash, High acceleration, High speed

Your parts are more smooth than ever !

SPECIFICATIONS, ACCESSORIES AND DIMENSIONS

SPECIFICATIONS

MODEL		DMV-2000
TABLE		
Table work surface area (X-axis x Y-axis)		2100 x 700 mm
T-Slots (Size x Number x Distance)		18 x 5 x 150 mm
Max. workpiece weight loadable on table		3000 kg
TRAVEL		
X-axis / Y-axis / Z-axis		2000 mm / 700 mm / 650 mm
Table top surface to spindle nose		150~800 mm
Distance between spindle center and column		870 mm
Rail type (X, Y, Z axis)		Linear Guideway
X, Y, Z axis transmission	X, Y, Z axis	Flexible
FEED		
Rapid traverse rate	X-axis	40 m/min
Rapid traverse rate	Y-axis	40 m/min
Rapid traverse rate	Z-axis	30 m/min
Cutting feed rate		10000 mm/min
Minimum Input Increment		0.001mm
SPINDLE		
Spindle drives		Belt Type
Spindle motor (30 min.rating/continuous rating)(kW(HP))		α 8/8000i, 11(14.7) / 7.5(10)
Type of tool shank		N.T.40
Spindle speed		8000 rpm
Spindle bearing diameter		$\varnothing$ 70 mm
Spindle max. torque		47 N-m
Cooling / Lubrication		Oil / Grease
A.T.C		
Tool magazine capacity		32T
Tool holder		BT40
Pull stud		BT40-45°
Max. tool weight		7 kg
Max. tool length		300 mm
Max. tool dia.(No adjacent tool)		$\varnothing$ 76 ($\varnothing$ 127 mm)
Tool selection		Random
MOTORS		
X-axis drive motors kW(HP)		α 30/3000i 7.0 KW (9.4 HP)
Y-axis drive motors kW(HP)		α 22/3000i 4.0 KW (5.4 HP)
Z-axis drive motors kW(HP)		α 30B/3000i 7.0 KW (9.3 HP)
CNC CONTROLLER		
		FANUC OiMD
OTHERS		
Power		40 KVA
Pneumatic pressure (Supply)		6 kg/cm ²
Cutting pump		3/4 HP
Coolant tank capacity (Total Volumn/ Actual Volumn)		400 L
Net weight		16000 kgf
Floor space		5000 x 4440 mm

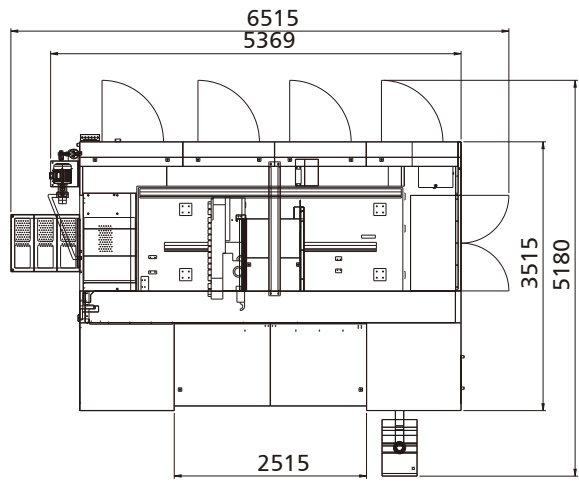
Specifications are subject to change without prior notice.

» STANDARD

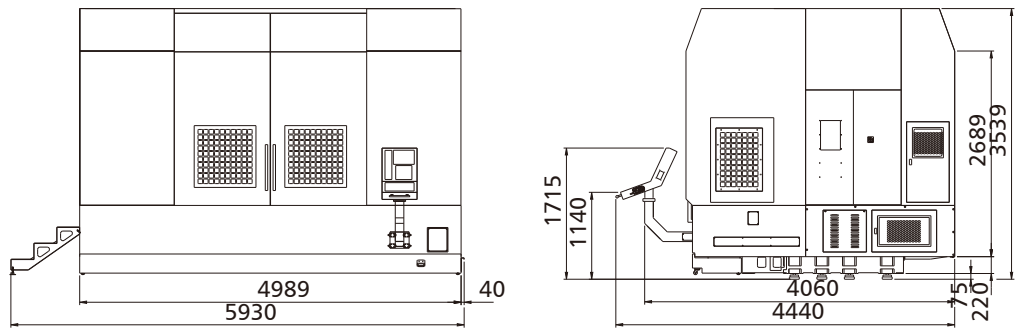
- Heat exchanger
- Removable manual pulse generator
- Enclosed splash guard
- Rs-232 interface
- Automatic power off
- Call light
- Work light
- Tool kit and tool box
- Spare fuses
- Swing type operator panel
- Spindle oil cooler
- 32 tools cam type ATC
- Rigid tapping

» OPTIONS

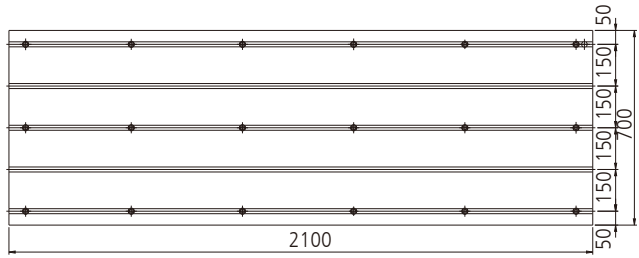
- Screw type chip conveyor
- Flat type chip conveyor
- Conventional NC rotary table
- Inserted type rotary table
- Coolant through spindle with filter
- Automatic tool length measuring device
- Automatic workpiece measuring device
- 40 tools cam type ATC
- 12,000 rpm/15,000 rpm direct drive spindle
- 15,000 rpm built-in spindle



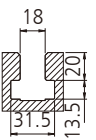
MACHINE DIMENSIONS



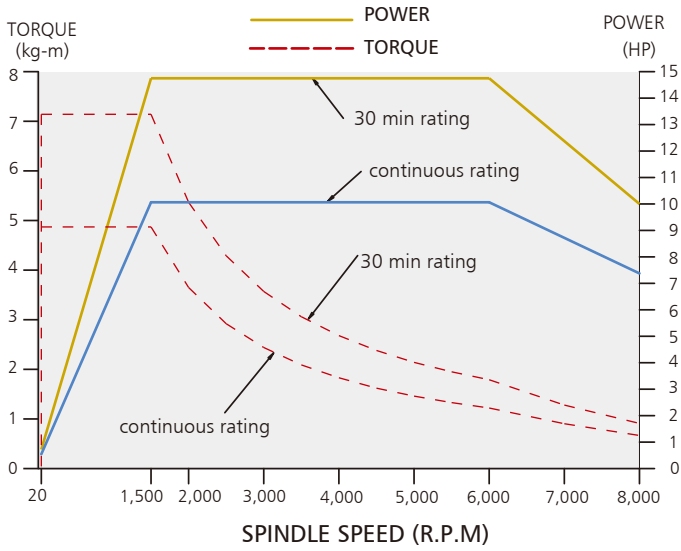
TABLE

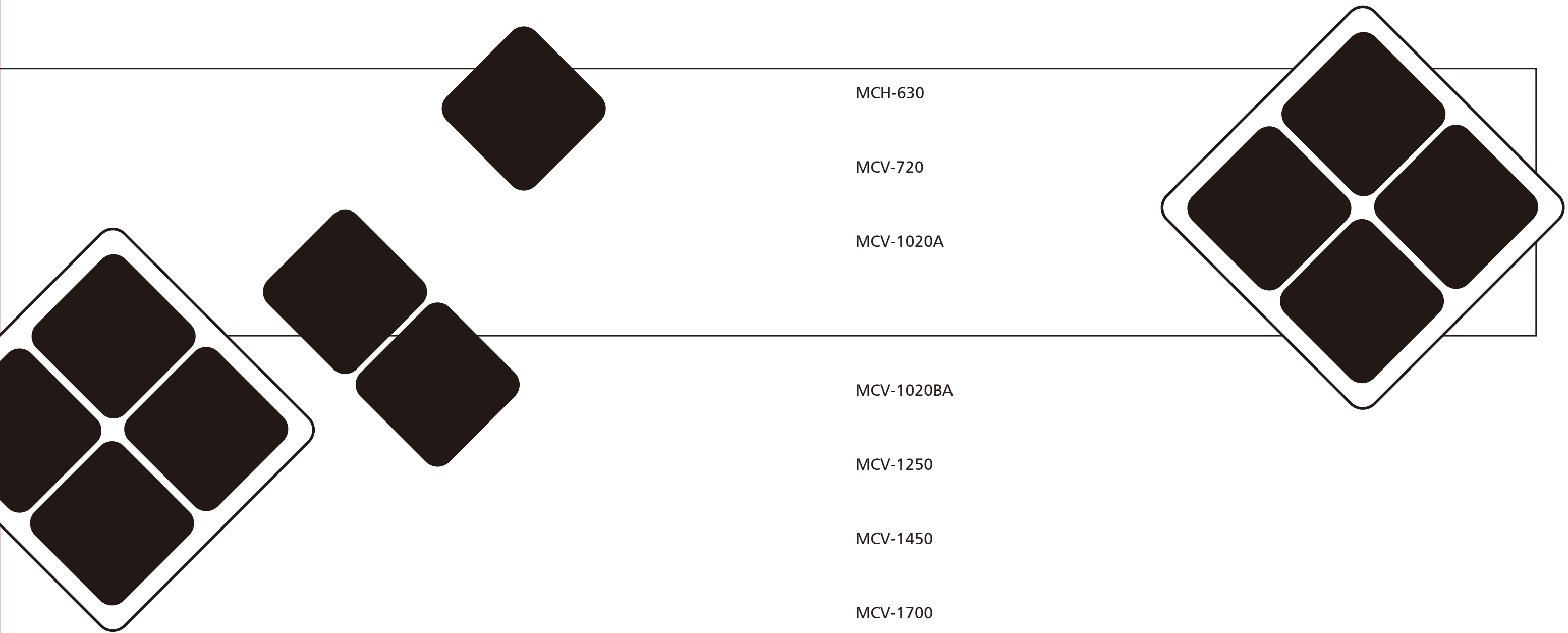


T-SLOT



SPINDLE POWER / TORQUE DIAGRAM (8000 RPM) (STANDARD)





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