

MCH-630

MCV-720

5-AXIS VERTICAL MACHINING CENTER

MCV-1020A

# DMX-320

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**®

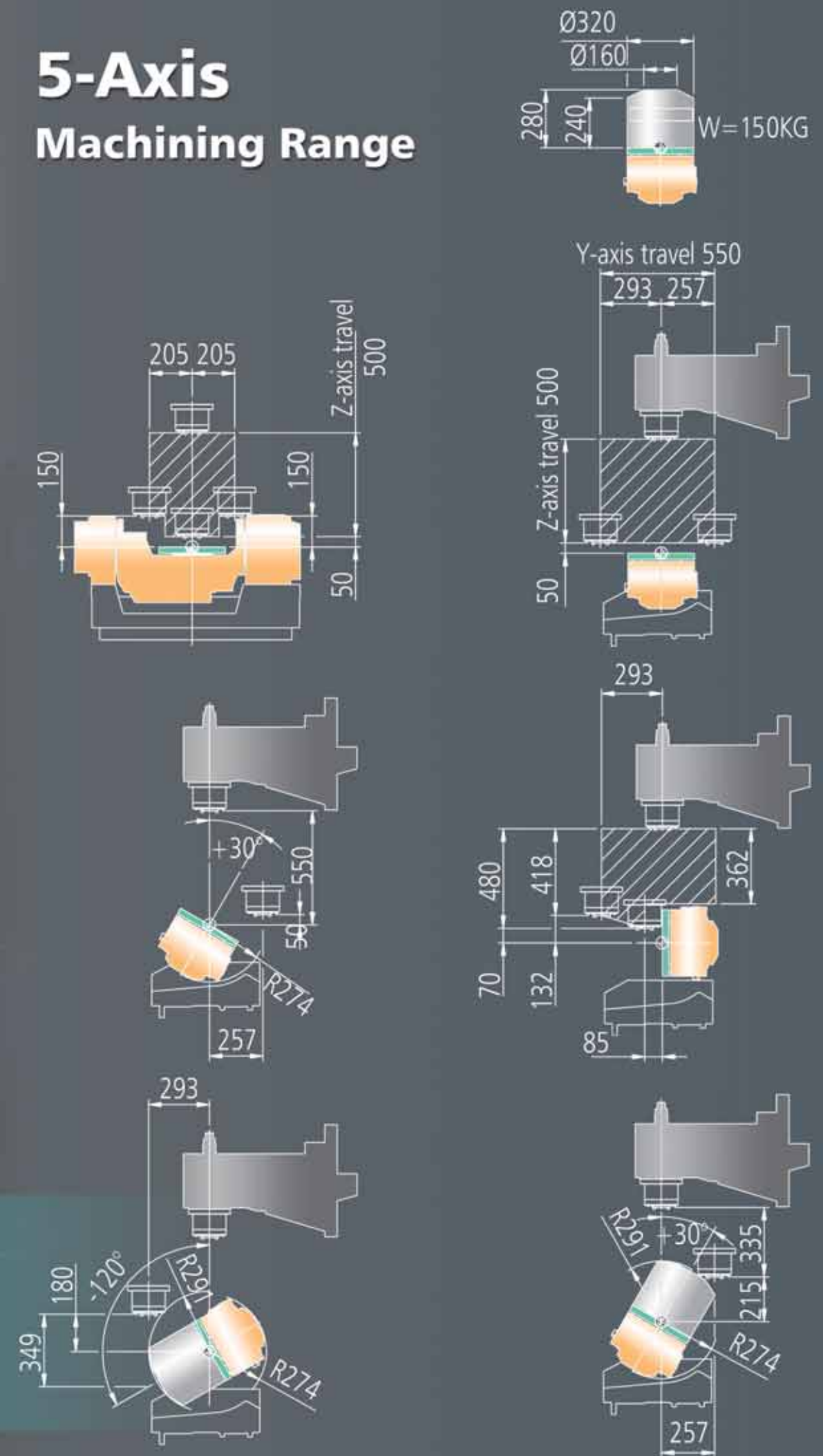
# Maximize Rigidity and Stability with Unique Structural Design

**Tilting**  
 $+30^{\circ} \sim -120^{\circ}$

## Tilting with Rotating Table ( $0.001^{\circ}$ )

- » The brake mechanism employs a hydraulic brake. The design of air/hydraulic intensifier eliminates the use of a hydraulic power unit. It requires only air power to produce braking force.
- » The tilting axis utilizes a double-sided expansion brake for increased brake force, while minimizing vibration.
- » Tilting axis allows for  $+30^{\circ} \sim -120^{\circ}$  tilting angle.

## 5-Axis Machining Range





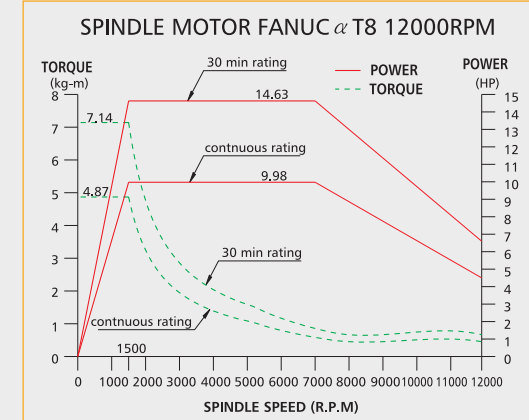


## DMX-320

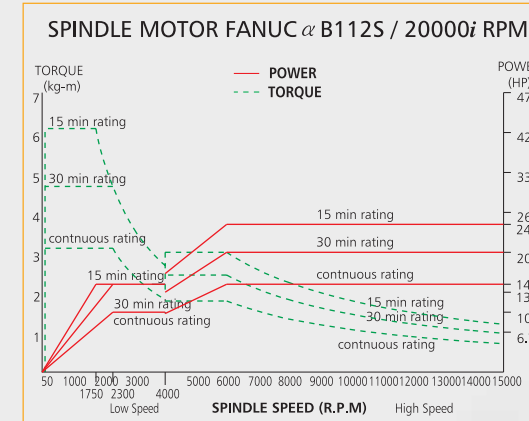
### Quality and Efficiency The Perfect Solution from DAHLIH

- » Extra wide column base provides a solid foundation for precision machining.
- » All major castings are designed through "Finite Element Analysis" software that ensures excellent machine rigidity and cutting accuracy.
- » The feed system on three axes is by a separate construction for reducing ball screw length, while ensuring excellent rotational inertia during high speed cutting.
- » The three axes slideways are mounted with ball/roller type linear guide ways.
- » Span on Z-axis linear way is increased to 370 mm for guaranteed stability.
- » Span on Y-axis linear way is increased to 760 mm.

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



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



## Direct Drive Spindle Designed and Engineered with Speed and Precision in Mind!



## Powerful Controllers and optional features for wide selection

### LATEST ADVANCED CNC CONTROLLER

Equipped with Fanuc, Heidenhain and other CNC controllers.



AUTOMATIC TOOL LENGTH MEASURING DEVICE (RENISHAW or BLUM)

# SPECIFICATIONS, ACCESSORIES AND DIMENSIONS

## SPECIFICATIONS

MODEL		DMX-320
<b>TABLE</b>		
Table size	Ø320 mm	
T-Slots (Size x Number)	12H7 x 4	
Max. workpiece weight	150 kg	
<b>TRAVEL</b>		
X axis / Y axis / Z axis	600 mm / 550 mm / 500 mm	
Table top surface to spindle nose	50~550 mm	
Slideway type (X, Y & Z axis)	Linear Guideway	
<b>FEED</b>		
Rapid traverse rate	X axis	40 m/min
	Y axis	40 m/min
	Z axis	30 m/min
Cutting feed rate	18000 mm/min	
Minimum Input Increment	0.001 mm	
<b>SPINDLE</b>		
Driving system	Direct Drive	
Spindle motor (30 min.rating/continuous rating)	7.5kW (10HP) / 5.5kW (7.5HP)	
Type of tool shank	N.T.40	
Spindle speed	10000 rpm	
Spindle bearing bore diameter	Ø70 mm	
Spindle max. torque	47N-m	
Cooling / Lubrication	Oil / Grease	
<b>A.T.C</b>		
Tool magazine capacity	24T	
Tool holder	BT40	
Pull stud	45°	
Max. tool weight	7 kg	
Max. tool length	265 mm	
Max. tool Dia.	Ø95 mm	
Max. tool Dia. (adjacent pockets empty)	Ø185 mm	
Tool selection	Random	
<b>MOTORS</b>		
X axis drive motors	4kW (5.3HP)	
Y axis drive motors	4kW (5.3HP)	
Z axis drive motors	4kW (5.3HP)	
<b>4<sup>th</sup> / 5<sup>th</sup> Axis</b>		
Max. work piece size	Ø320 x 280 mm	
Torque	25kg-m	
Direction	Rotating Axis	Tilting Axis
Brake type	Drum Type	Double Drum Type
Angles	360°	+30°~-120°
Max. speed	16 rpm	16 rpm
<b>OTHER</b>		
Power	36KVA	
Pneumatic pressure	6 kg/cm <sup>2</sup>	
Coolant Pump	3/4 HP	
Coolant tank capacity	280 L	
Net weight	7000 kgf	

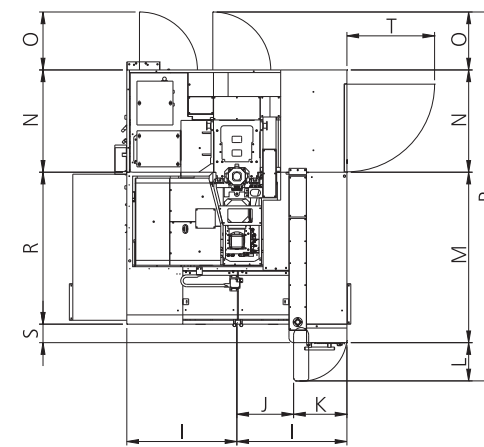
Specifications are subject to change without prior notice.

## » STANDARD

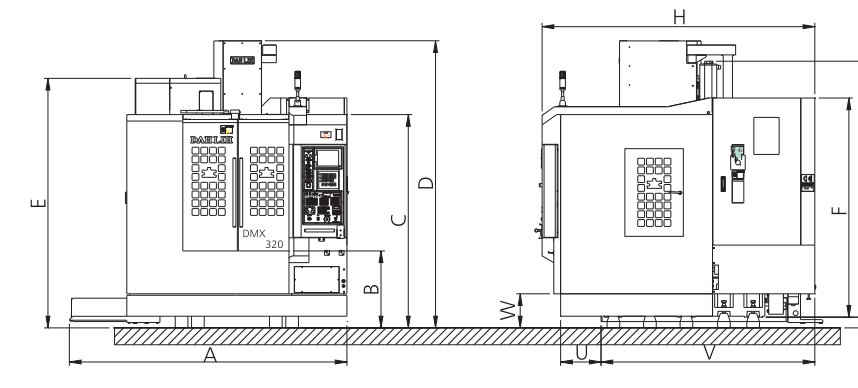
- Heat exchanger
- Removable manual pulse generator
- Enclosed splash guard
- RS-232 interface
- Embedded Ethernet
- Automatic power off
- Call light
- Automatic lubrication equipment
- Work light
- Tool kit
- Spare fuses
- Swing type operator panel
- Spindle oil cooler
- 24 tools cam type ATC
- Rigid tapping
- Chip augers on base
- 5 axes control / 4 axes simultaneous function

## » OPTIONS

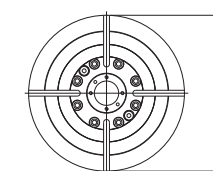
- Screw type chip conveyor with chip bins
- Flat type chip conveyor and chip bin
- Coolant through spindle with filter
- Bed coolant wash
- Automatic tool length measuring device
- Automatic workpiece measuring device
- Linear scale
- 30, 32, 40 tools cam type ATC
- 12,000 rpm/15,000 rpm direct drive spindle with 15 HP
- 15,000 rpm direct drive spindle with 25 HP
- 15,000 rpm built-in spindle with 20 HP
- Hollow ballscrew with cooling system
- 5 axes simultaneous function



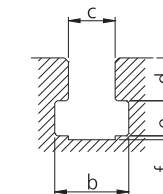
## MACHINE DIMENSIONS



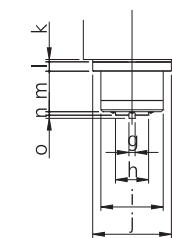
### TABLE



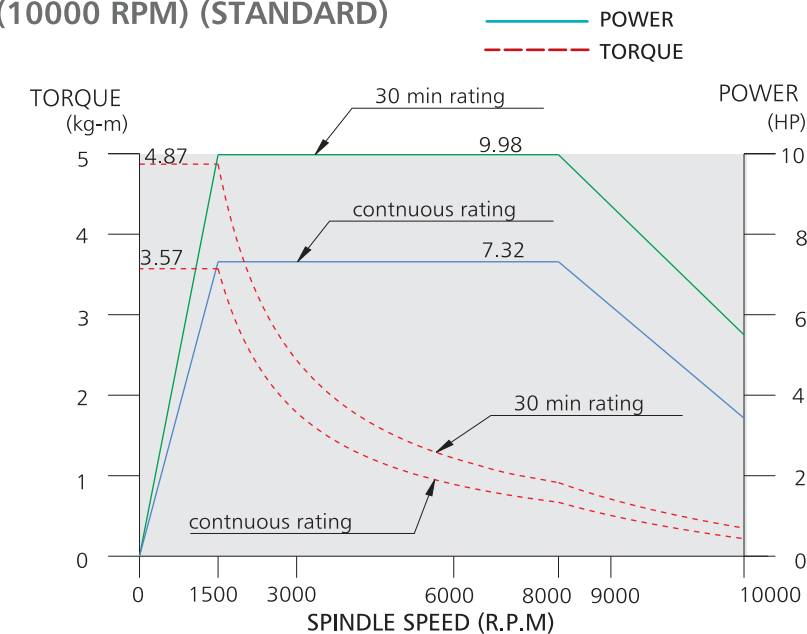
### T-SLOT



### SPINDLE



## SPINDLE POWER / TORQUE DIAGRAM (10000 RPM) (STANDARD)



## EXTERNAL DIMENSIONS

Model	DMX-320	
Unit	mm	inch
A	2850	112.20
B	790	31.10
C	2190	86.22
D	2948	116.02
E	2562	100.87
F	2250	88.58
G	2688	105.83
H	2800	110.24
I	1730	68.11
J	582.5	22.93
K	547.5	21.56
L	392.5	15.45
M	1750	68.90
N	1050	41.34
O	595	23.43
P	3895	153.35
R	1560	61.42
S	190	7.48
T	900	35.43
U	415	16.34
V	2195	86.42
W	350	13.78

## TABLE & T-SLOT

Model	DMX-320	
Unit	mm	inch
a	320	12.6
b	19	0.75
c	12	0.47
d	12	0.47
e	8	0.31
f	1	0.04
g	15.9	0.63
h	85	3.35
i	160	6.30
j	202	7.95
k	5	0.20
l	24	0.94
m	104	4.09
n	9	0.35
o	8	0.31