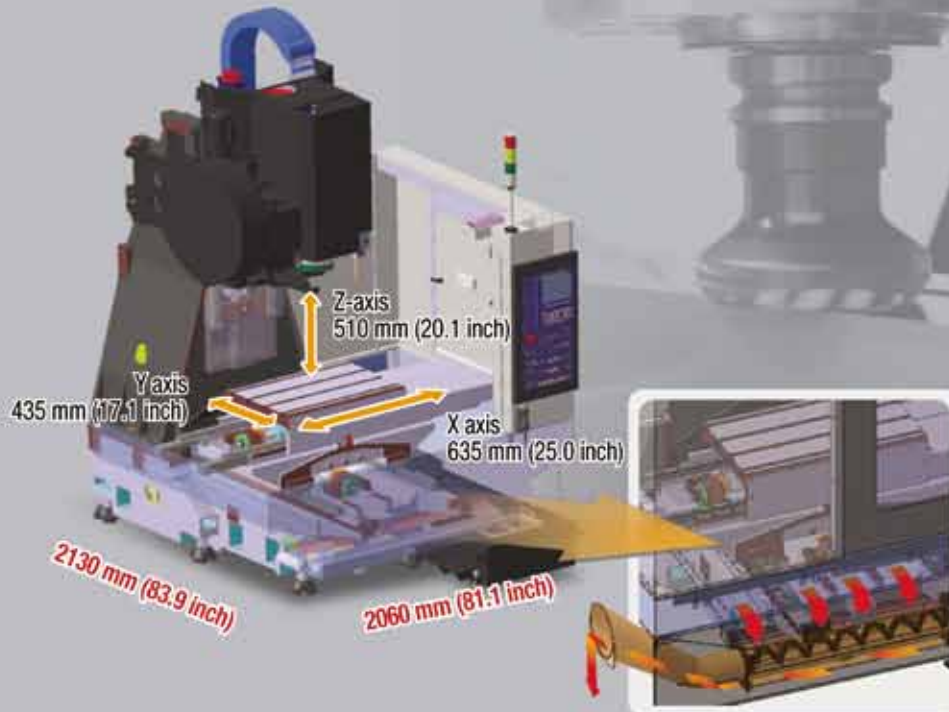




# DNM 400a

## Compact Vertical Machining Center

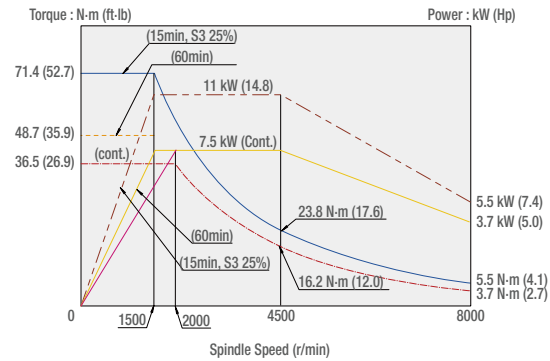
- Compact design for space saving
- Enhanced machining productivity
- Fit for light cutting operations





## Main Spindle

### Spindle power-torque diagram



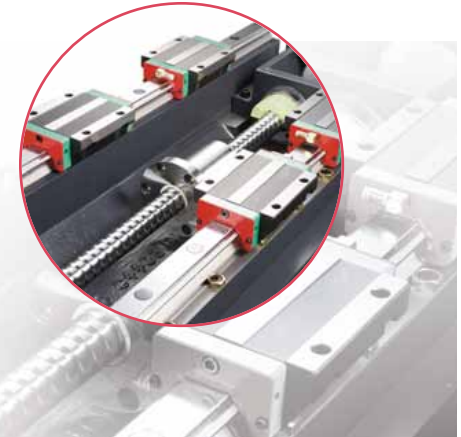
Spindle motor power (15min/Cont.) **11 / 7.5 kW**  
(14.8 / 10.1 Hp)

Max. Spindle speed **8000 r/min**

## Rapid Traverse



The linear motion guide ways and the high-speed servo motors enable fast axis movements, which reduce machining time and non-cutting time, resulting in enhanced productivity.



		DNM 400a
X-axis	m/min (ipm)	<b>30 (1181.1)</b>
Y-axis	m/min (ipm)	<b>30 (1181.1)</b>
Z-axis	m/min (ipm)	<b>30 (1181.1)</b>

## Auto Tool Changer

Fast tool change time on a cam-type tool changer helps improve productivity.



Tool change time (T-T-T)

DNM series **1.3 s**

• This value is based on the motor on-off time and 60Hz.

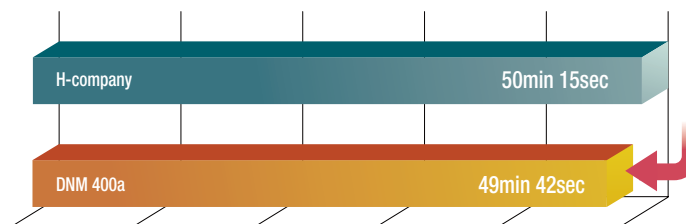
Tool storage capacity

**20 tools**

## Machining Productivity

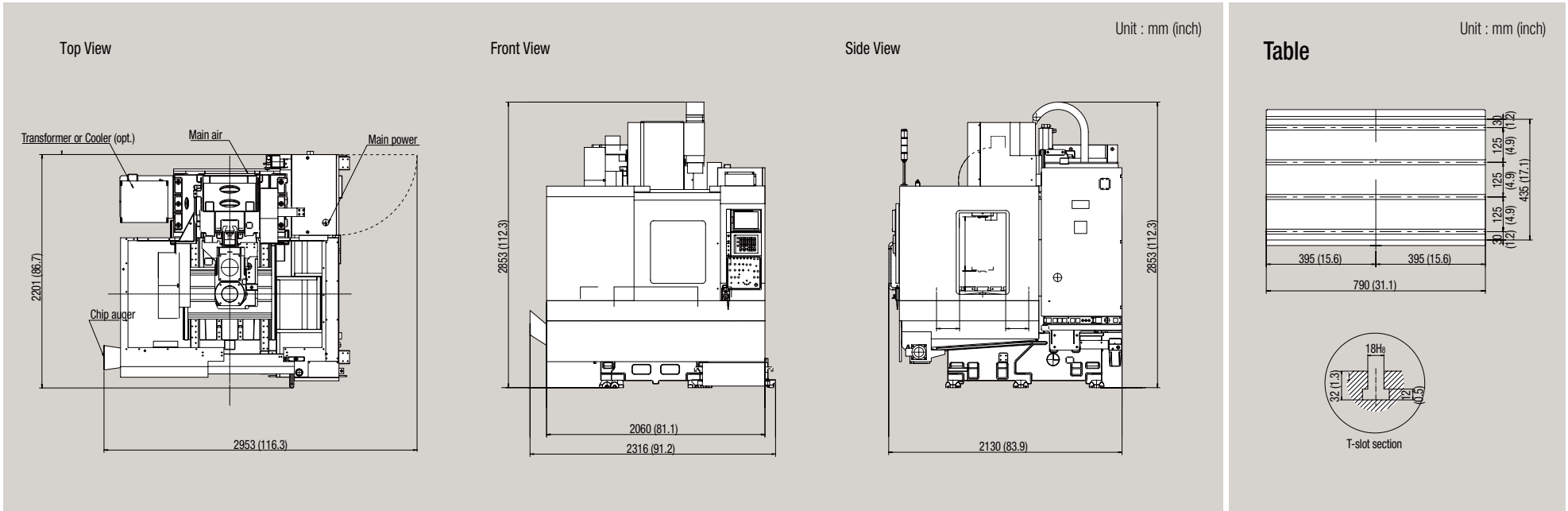
The basic concept of the machine design enables fast machining performance, which ensures an improvement in productivity.

### Comparison of Cutting Time



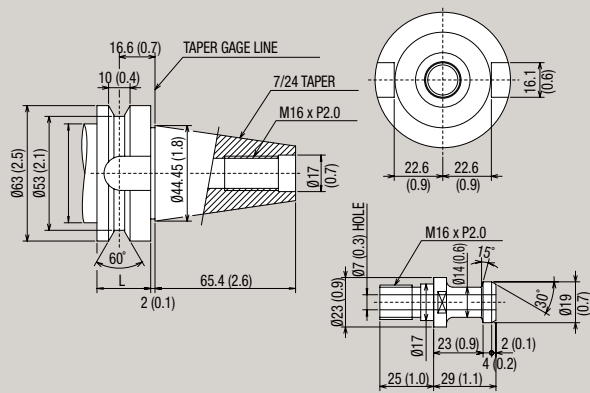
Material : Aluminum (Al606-T6)  
Size : 561 x 210 x 40 mm  
(22.1 x 8.3 x 1.6 inch)  
No. of tools used : 18 tools

# External Dimensions

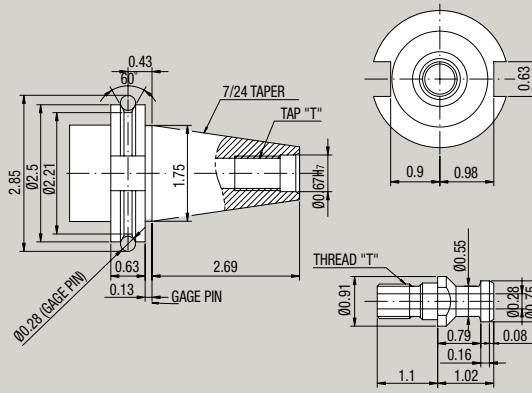


## Tool Shank

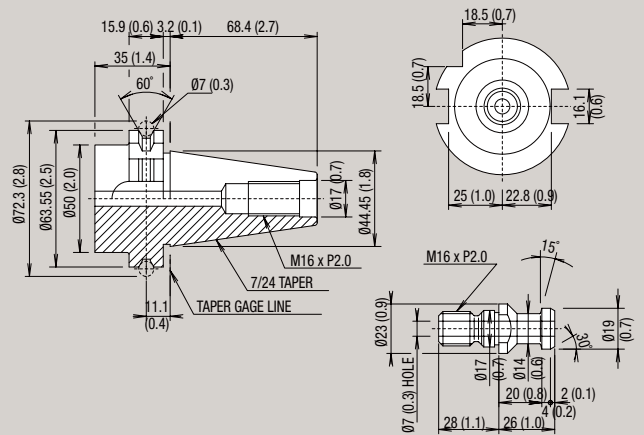
BT40 Unit : mm (inch)



CAT40 Unit : inch



DIN40 Unit : mm (inch)



## Machine Specifications

	Features		DNM 400a
Travel	X-axis	mm (inch)	635 (25.0)
	Y-axis	mm (inch)	435 (17.1)
	Z-axis	mm (inch)	510 (20.1)
	Distance from Spindle to table surface	mm (inch)	150-660 (5.9-26.0)
Table	Table size	mm (inch)	790 x 435 (31.1 x 17.1)
	Table loading capacity	kg (lb)	400 (881.8)
	Table surface		4-125 x 18Hø
Spindle	Max. spindle speed	r/min	8000
	Spindle Taper		ISO #40 7/24 Taper
	Max. Torque	N-m (ft-lb)	71 (695.8) / 15min
Feedrate	Rapid traverse rate (X / Y / Z)	m/min (ipm)	30 (1181.1)
	Cutting feedrate	mm/min (ipm)	15000 (590.6)
Automatic tool changer	Type of tool shank		BT / CAT / DIN 40
	Tool storage capacity	ea	20
	Max. tool diameter	mm (inch)	Ø80 (3.2)
	Max. tool diameter without adjacent tools	mm (inch)	Ø125 (4.9)
	Max. tool length	mm (inch)	300 (11.8)
	Max. tool weight	kg (lb)	8 (17.6)
	Method of tool selection		memory random
	Tool change time (tool-to-tool)	s	1.3
Motor	Spindle motor	kW (Hp)	11 / 7.5 (14.8 / 10.1) [15min/Cont.]
	Feed motor (X / Y / Z)	kW (Hp)	1.2 / 1.2 / 1.8 (1.6 / 1.6 / 2.4)
Power source	Electric power supply (Rated capacity)	kVA	27.4
	Compressed air supply	MPa (psi)	0.54 (78.3)
Tank capacity	Coolant tank capacity	L (gal)	300 (79.3)
	Lubrication tank capacity	L (gal)	1.4 (0.37)
Machine size	Machine height	mm (inch)	2853 (112.3)
	Machine dimension (L x W)	mm (inch)	2130 x 2060 (83.9 x 81.1)
	Machine weight	kg (lb)	4000 (8818.5)
NC system			DOOSAN FANUC i series

- The specifications and information above-mentioned may be changed without prior notice.
- For more details, please contact Doosan.



## Doosan Machine Tools

<http://www.doosanmachinetools.com>

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## NC Unit Specifications

### DOOSAN FANUC i series



### Standard Feature

- Assembly & operation tools
- Auger chip conveyor
- Coolant tank & chip pan
- Door interlock for safety
- Enclosure splash guard (Top cover **opt.**)
- Flood coolant system
- Installation parts
- Operator call lamp (red, yellow, green)
- Portable MPG
- Work light

### Optional Feature

- 4th axis preparation
- Automatic power off
- Automatic tool length measurement
- Hydraulic line for fixture
- Pneumatic line for fixture
- Rotary table
- Shower coolant
- Spindle head cooling system
- Test bar
- Through spindle coolant (Top cover **std.**)
- Top cover

- Number of tool offsets : 400 ea
- Tool life management : 128 sets
- Tool offset memory C : Geometry / Wear and Length / Radius offset memory
- No. of Registered programs : 400 ea
- Part program storage : 1280 m
- Additional work coordinate system : G54.1 P1 - 48 (48 pairs)
- AI APC(Advanced Preview Control) : 20 block preview
- MDI / DISPLAY unit : 8.4" Color TFT LCD, keyboard for data input (small), soft-keys
- Embedded ethernet

\* For more details, please contact Doosan Machine Tools.

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