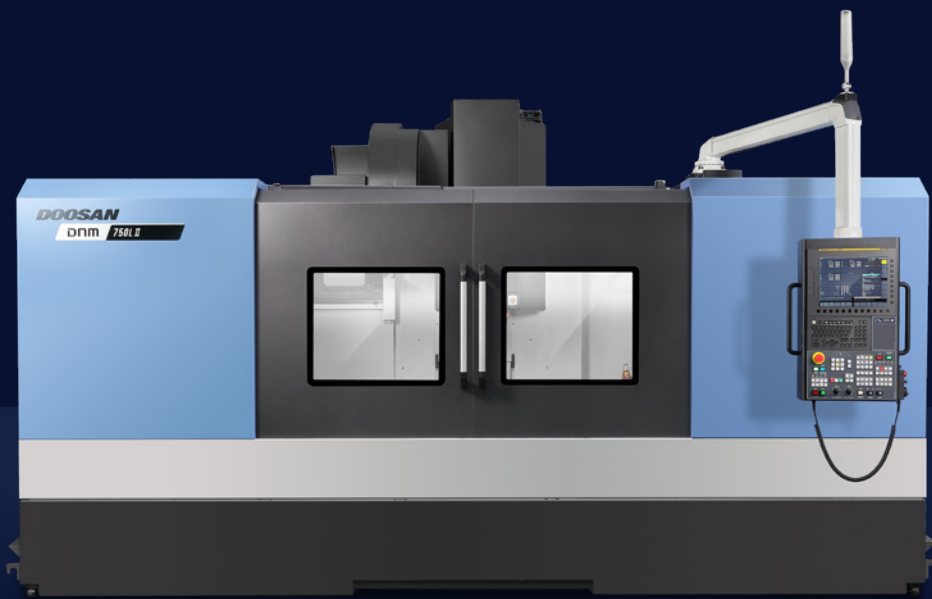




HIGH PRODUCTIVITY VERTICAL MACHINING CENTER

DNM

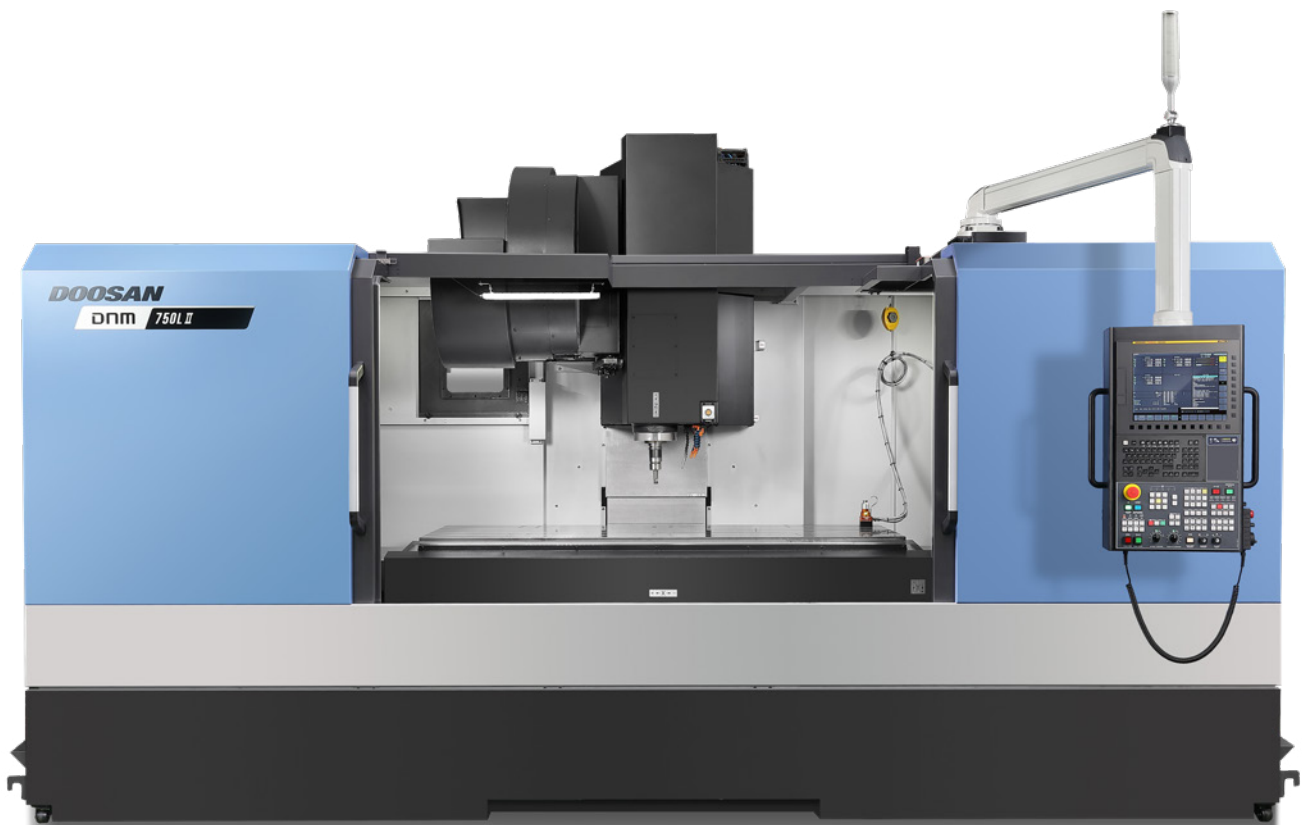
750 II • 750L II



Doosan Machine Tools

DNM 750 II • DNM 750L II

Designed as high productivity vertical machining centers, the DNM 750 II and DNM 750L II have a rigid structure and are equipped with either directly-coupled, built-in or belt-driven spindles. An oil cooler system is supplied as a standard enabling the machines to be used continuously, at high speed, over long periods of time. The oil is cooled in the cooler system before being circulated around the spindle head and ball screw nut to minimize thermal displacement and deliver high-precision cutting. The EOP functions in the machines' control systems ensure efficient and trouble-free job set ups and machining operations.





THE LARGEST CUTTING AREA IN THEIR CLASS

- The X-axis travel distance, table size and maximum table load have all been increased allowing larger and heavier workpieces to be machined.

HIGH PRODUCTIVITY MACHINES FOR HIGHLY STABLE MACHINING PERFORMANCE

- Spindle cooling and ball screw cooling systems are supplied as standard to ensure reliable and repeatable machining performance.

EASY OPERATION OF CNC SYSTEM

- Fast, efficient and error-free operation
- The EOP functions are user friendly and are easy-to-use.

BASIC STRUCTURE | AXIS SYSTEM

Basic structure

The machines' rigid column design ensures highly-stable machining performance. Larger workpieces can be machined by extending the X-axis stroke.

Traver distance (X x Y x Z axis)

DNM 750 II

1630 / 762 / 650 mm

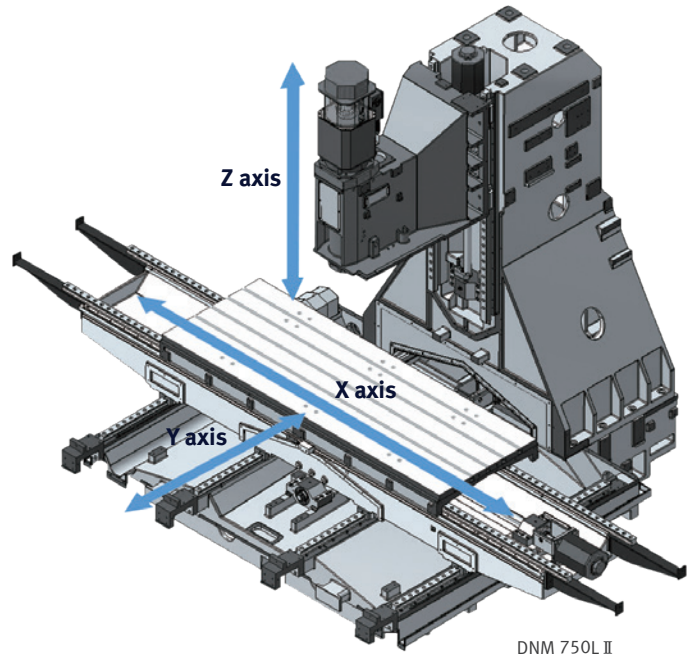
64.2 x 30.0 x 25.6 inch

DNM 750L II

2160 / 762 / 650 mm

85.0 x 30.0 x 25.6 inch

The DNM 750L II uses four-row Roller guideways in the Y-axis that eliminate overhang and provide optimum stability. (DNM 750 II has two-row Roller guideways).



Axis system

Roller LM guideways are used as standard on all axes to improve rigidity.

Rapid traverse rate (X / Y / Z axis)

DNM 750 II

30 / 30 / 24 m/min

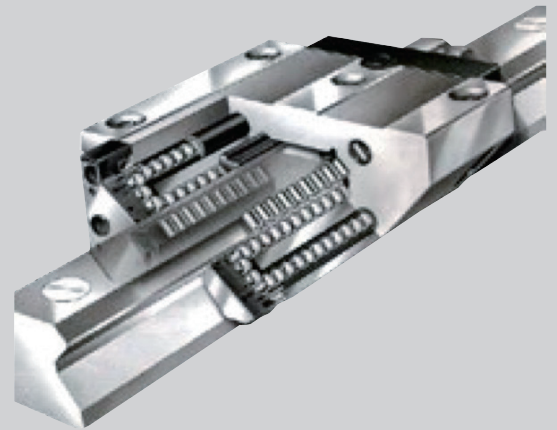
1181.1 / 1181.1 / 944.9 ipm

DNM 750L II

24 / 24 / 24 m/min

944.9 / 944.9 / 944.9 ipm

Roller LM guideway life is twice that of Ball LM guideways.



TABLE

The machines offer a wide range cutting capacities and capabilities, and can handle a range of large workpieces.

Table size (A x B)

DNM 750 II

1630 x 760 mm 64.2 x 29.9 inch

DNM 750L II

2160 x 760 mm 85.0 x 29.9 inch

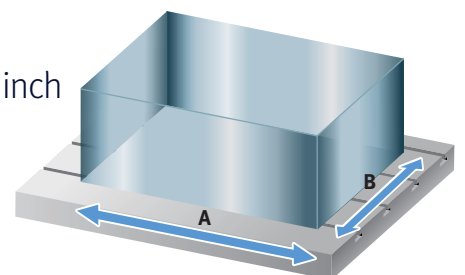
Max. weight on table

DNM 750 II

1500 kg
3306.9 lb

DNM 750L II

1800 kg
3968.3 lb



SPINDLE

Spindle

Directly-coupled spindles have been adopted as a standard feature to further reduce vibration and noise while enhancing productivity, the working environment and machining accuracy. The dual contact tool system is used as standard for extra rigidity and reliability.

Max. spindle speed

8000 r/min*

12000 r/min** option

Max. spindle motor power

18.5 kW 24.8 Hp

28 kW 37.5 Hp option

15.6 kW 20.9 Hp option

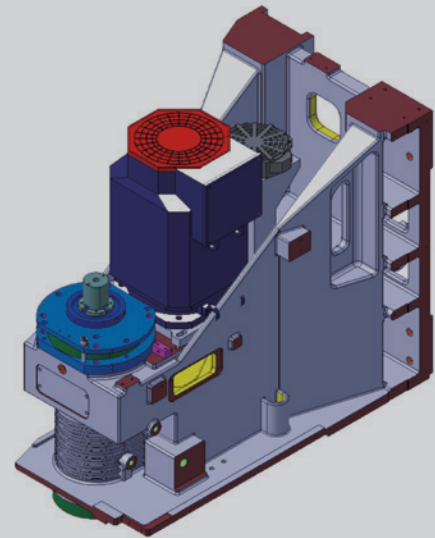
Max. spindle motor torque

118 N.m 87.1 ft-lbs

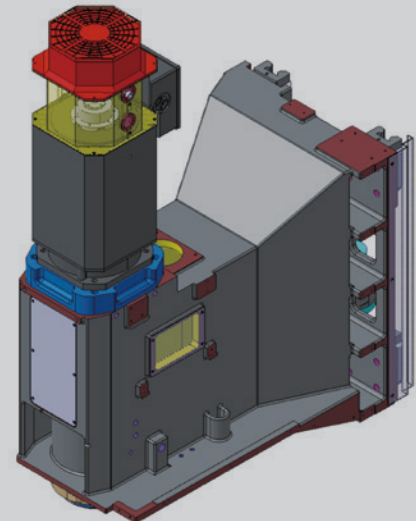
159.1 N.m 117.4 ft-lbs option

165.5 N.m 122.1 ft-lbs option

* Belt type ** Direct type



Belt



Direct

TOOL CHANGE SYSTEM

Higher productivity can be achieved with the CAM-type tool changer that has faster tool changing capability.

Tool storage capacity

30 ea / **40** ea option

Tool to Tool

1.3 sec

Chip-to-Chip*

3.7 sec

* The Chip-to-Chip time has been tested in accordance with Doosan's strict testing conditions, but may vary depending on the user's operating conditions.

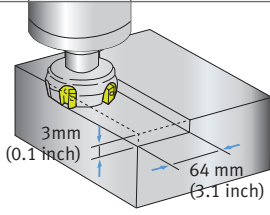
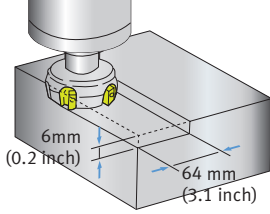
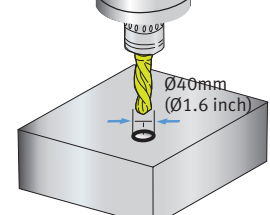
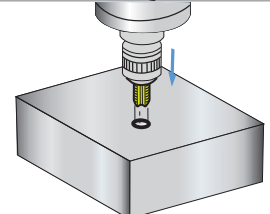


MACHINING PERFORMANCE

To provide best cutting performance. Tool change time has been optimized to reduce non cutting time.

Cutting performance

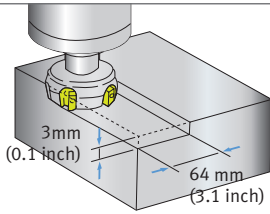
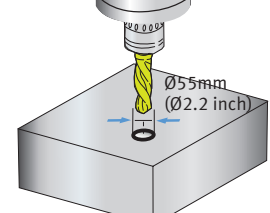
Result of cutting test on DNM 750 II (12000r/min, Direct, 15.6/15.6kW (20.9/20.9 Hp))

Face mill (ø80 mm (ø3.1 inch) Carbon steel (SM45C))			
Chip removal rate (cm ³ /min(inch ³ /min))	Spindle speed (r/min)	Feedrate (mm/min (ipm))	
806 (49.2)	1500	4200 (165.4)	
Face mill (ø80 mm (ø3.1 inch) Aluminium alloy (AL6061))			
Chip removal rate (cm ³ /min(inch ³ /min))	Spindle speed (r/min)	Feedrate (mm/min (ipm))	
1728 (105.4)	1500	4500 (177.2)	
U-Drill (ø40 mm (ø1.6 inch) Carbon steel (SM45C))			
Chip removal rate (cm ³ /min(inch ³ /min))	Spindle speed (r/min)	Feedrate (mm/min (ipm))	
251 (15.3)	1200	200 (7.9)	
Tap Carbon steel (SM45C)			
Tap size (mm)	Spindle speed (r/min)	Feedrate (mm/min (ipm))	
M30 x P3.5	200	700 (27.6)	

* The results, indicated in this catalogue are provides as example. They may not be obtained due to differences in cutting conditions and environmental conditions during measurement.

Cutting performance

Result of cutting test on DNM 750 II (12000r/min, Direct, 28/11kW (37.5/14.8 Hp))

Face mill (ø80 mm (ø3.1 inch) Carbon steel (SM45C))			
Chip removal rate (cm ³ /min(inch ³ /min))	Spindle speed (r/min)	Feedrate (mm/min (ipm))	
864 (52.7)	1500	4500 (177.2)	
U-Drill (ø55 mm (ø2.2 inch) Carbon steel (SM45C))			
Chip removal rate (cm ³ /min(inch ³ /min))	Spindle speed (r/min)	Feedrate (mm/min (ipm))	
356 (21.7)	700	150 (5.9)	

* The results, indicated in this catalogue are provides as example. They may not be obtained due to differences in cutting conditions and environmental conditions during measurement.

STANDARD | OPTIONAL SPECIFICATIONS

Various optional features are available to meet customers' specific machining requirements and applications.

Description	Features				DNM 750 II DNM 750L II	
Spindle	FANUC	8000 r/min	Belt	18.5/15 kW (24.8/20.1 Hp) (S3 60%/Cont.)	●	
		12000 r/min	Direct	28/11 kW (37.5/14.8 Hp) (S3 15%/Cont.)	○	
	HEIDENHAIN	8000 r/min	Belt	15.6/15.6 kW (20.9/20.9 Hp) (S3 40%/Cont.)	○	
		12000 r/min	Direct	20/15 kW (26.8/20.1 Hp) (S6 60%/Cont.)	○	
	SIEMENS	8000 r/min	Belt	21.8/16.3 kW (29.2/21.9 Hp) (S6 40%/Cont.)	○	
		12000 r/min	Direct	16.5/11 kW (22.1/14.8 Hp) (S6 40%/Cont.)	○	
Spindle cooling system	FANUC	8000 r/min	Belt	18.5/15 kW (24.8/20.1 Hp)	●	
		12000 r/min	Direct	28/11 kW (37.5/14.8 Hp)	●	
	HEIDENHAIN	8000 r/min	Belt	15.6/15.6 kW (20.9/20.9 Hp)	●	
		12000 r/min	Direct	20/15 kW (26.8/20.1 Hp)	●	
	SIEMENS	8000 r/min	Belt	20/15 kW (26.8/20.1 Hp)	●	
		12000 r/min	Direct	21.8/16.3 kW (29.2/21.9 Hp)	●	
		8000 r/min	Belt	16.5/11 kW (22.1/14.8 Hp)	●	
		12000 r/min	Direct	16.5/11 kW (22.1/14.8 Hp)	●	
Magazine	Tool storage capacity	30 ea		●		
Tool shank type			40 ea		○	
	BIG PLUS BT40				●	
	BIG PLUS CAT40				○	
Coolant	FLOOD		0.15 Mpa, 0.4 kW (0.5 Hp)		●	
			0.7 MPa, 1.8 kW (2.4 Hp)		○	
	TSC	None				●
		2 MPa, 1.5kW (2.0 Hp)				○
		2 MPa, 4.0 kW (5.4 Hp)				○
	7 Mpa, 5.5 kW (7.4 Hp)				○	
	SHOWER		0.1 MPa, 1.1 kW (1.5 Hp)			○
Oil skimmer		Belt type			○	
Chip disposal	MQL				○	
	Chip pan				●	
	Chip conveyor	Hinged type (Left / Right / Rear)				○
		Magnetic scraper type (Left / Right / Rear)				○
		Drum filter type (Rear)			○	
Precision machining option	Chip bucket				○	
	Linear scale		X / Y / Z axis		●	
	AICC II (200 block)				●	
Measurement & Automation	Fine surface machining		Look-ahead block is Max.200		●	
	Automatic tool measurement		-AI contour control II+ -Smooth tolerance control+ -Jerk control		○	
	Automatic tool breakage detection		TS27R		○	
	Automatic workpiece measurement		OTS		○	
Automatic front door with safety device		OMP60		○		
Accessories	WORK LIGHT		LED LAMP		●	
	SMART THERMAL CONTROL		SENSORLESS TYPE(ONLY SPINDLE)		●	
	AIR BLOWER		-		○	
	AUTO TOOL LENGTH MEASUREMENT	MAKER/SPEC.	RENISHAW / TS27R			○
			RENISHAW / OTS			○
	AUTO TOOL BREAKAGE DETECTION		FAR-EAST MACHINE TOOL/FEM-1CP(NEEDLE TYPE IN CUTTING AREA)			○
	AUTO WORKPIECE MEASUREMENT		RENISHAW / OMP60			○
	4TH AXIS PREPARATION CABLING FOR SERVO/1-PNEUMATIC PIPING		FACTORY READY MADE			○
	AIR GUN		-			○
	Coolant gun					○
Mist collector					○	
Customized Special Option	ANCHORING ⁽¹⁾		SIDE CLAMP & CHEMICAL ANCHOR BOLT		○	
	COOLANT CHILLER ⁽²⁾		-		○	
	TSA ⁽³⁾		0.54		○	
	RAISING BLOCK	150mm				○
		200mm				○
		300mm				○
	CHIP CONVEYOR	HINGED PLATE TYPE LEFT SIDE				○
		MAGNETIC SCRAPER TYPE RIGHT SIDE				○
		MAGNETIC SCRAPER TYPE LEFT SIDE				○
		DRUM CHIP CONVEYOR WITH HINGED PLATE				○
		DRUM CHIP CONVEYOR WITH SCRAPER				○
		OUTLET DIRECTION - REAR SIDE TYPE				○
	20 BAR TSC with INVERTER		50Hz → 60Hz			○
	MAGAZINE TOOL STORAGE CAPACITY		60T(CHAIN ATC)			○
	SERVO MAGAZINE		30T			○
			40T			○
	AEROSPACE PACKAGE		30K SPINDLE(HSK-63A)			○
		IMPROVED CHIP EVACUATION			○	
SPINDLE HEAD TYPE		11/18.5(S3 15%), 15,000 rpm, DIRECT TYPE			○	
AUTO TOOL LENGTH MEASUREMENT		LTS			○	
AUTO TOOL BREAKAGE DETECTION		MSC/BK9(NEEDLE TYPE ON MAGAZINE)			○	
AUTO DOOR WITH SAFETY EDGE		-			○	

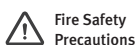
* Please contact Doosan for detailed specification information.

● Standard ○ Optional X Not applicable

(1) Please refer to foundation drawing in relation to anchoring. If more detail information want, consult with doosan service

(2) In case of using neat cutting oil, this device is highly recommended in order to reduce the change of accuracy by rising the coolant temperatures.

(3) In case of TSC is not required and only TSA is needed, this option can be selected.

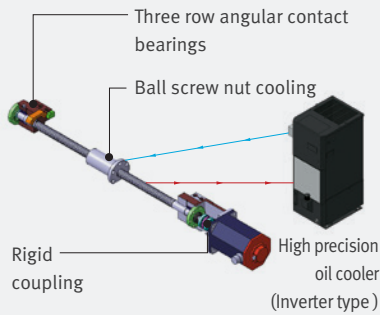


There is a high risk of fire when using non-water-soluble cutting fluids, processing flammable materials, neglecting the controlled and careful use of coolants and modifying the machine without the consent of the manufacturer. Always check the SAFETY GUIDELINES carefully before using the machine.

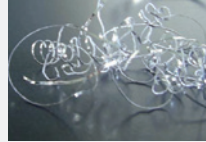
PERIPHERAL EQUIPMENT

Spindle and ball screw nut cooling system

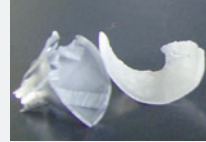
The machines' cooling system helps minimize thermal displacement of the spindle and axes and features oil, that is cooled and is then circulated around the spindle head and ball screw nuts.



Chip conveyor option



Long



Short



Needle



Sludge

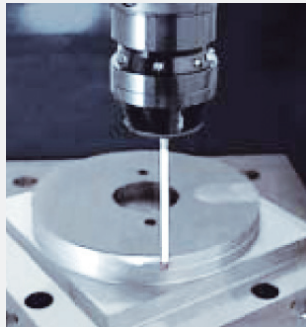
Chip conveyor type		Material	Carbon steel			Cast iron		Aluminium		
			Long	Short	Needle	Short	Sludge	Long	Short	Needle
Hinged belt type			○	△	X	△	X	○	△	X
Scrapper type	Normal		X	○	△	○	△	X	△	X
	Magnetic		X	○	○	○	○	-	-	-
Drum filter type	Hinged type		○	△	X	△	X	○	△	X
	Scrapper		X	○	△	○	△	X	○	△

○ : Suitable, △ : Possible, X : Not suitable

Measurement & Automation option



Automatic tool measurement

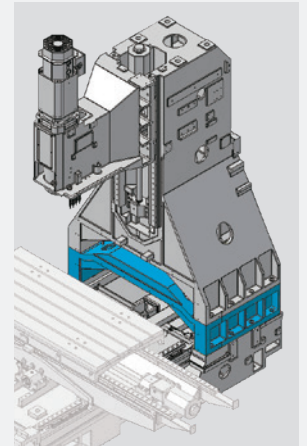


Automatic workpiece measurement

Raised block option

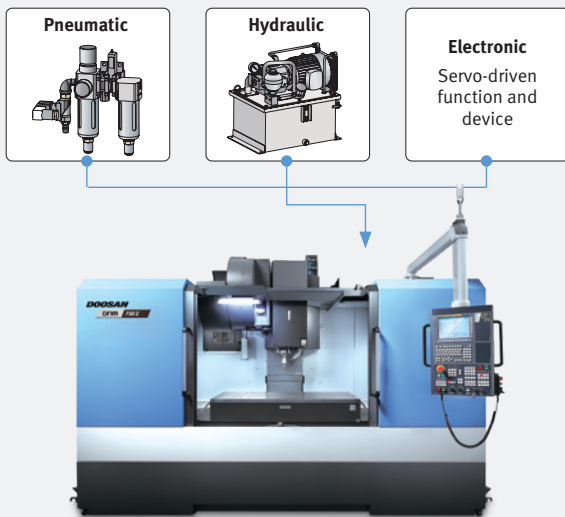
When the distance between the table top and the spindle nose needs to be extended, for example, to accommodate a fixture or rotary axis on the table, a raised block can be used.

Height **150 mm (5.9 inch)**
200 mm (7.9 inch)
300 mm (11.8 inch)



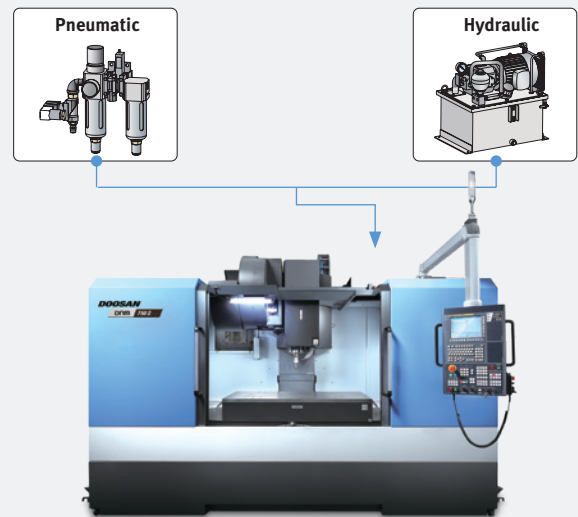
4th-axis auxiliary device interface option

Customers wishing to set up a rotary axis on the table to increase application flexibility are encouraged to contact Doosan in advance.



Hydraulic / Pneumatic fixture line option

Customers should prepare pipelines for hydraulic/pneumatic fixtures whose detailed specifications should be determined and agreed through discussions with Doosan.



DOOSAN FANUC i PLUS

DOOSAN Fanuc i Plus is optimized for maximizing customer productivity and convenience.

15 inch screen + new operation panel

DOOSAN Fanuc i Plus' operation panel enhances operating convenience by incorporating common-design buttons and layout, and features the Qwerty keyboard for fast and easy operation.

Doosan Fanuc i Plus

- 15 inch color display
- Intuitive and user-friendly design

USB & PCMCIA card

QWERTY keyboard

- EZ-guide i standard
- Ergonomic operator panel
- 2MB Memory
- Hot key



iHMI touchscreen option

iHMI provides an intuitive interface that uses a touchscreen for quick and easy operation.

Range of applications

Providing various applications related to planning, machining, improvement and utility, for customer convenience.

NUMERIC CONTROL SPECIFICATIONS

FANUC

Item	Specifications	Doosan Fanuc i (F0i-F Plus) DNM 4digit	
Controlled axis	Controlled axes	3 (X,Y,Z)	
	Simultaneously controlled axes	4 axes	
Data input/output	Additional controlled Axis	●	
	Fast data server	○	
	Memory card input/output	●	
	USB memory input/output	●	
	Large capacity memory(2GB)*2	Note *2) Available Option only with 15" Touch LCD (iHMI Only)	
Interface function	Embedded Ethernet	○	
	Fast Ethernet	●	
	Enhanced Embedded Ethernet function	●	
Operation	DNC operation	Included in RS232C interface.	
	DNC operation with memory card	●	
Program input	Workpiece coordinate system	G52 - G59	
	Addition of workpiece coordinate system	G54.1 P1 X 48 (48 pairs)	
	Tool number command	●	
Feed function	Tilted working plane indexing command	T4 digits	
	AI contour control I	G68.2 TWP	
	AI contour control II	G5.1 Q, 40 Blocks	
	AI contour control II	G5.1 Q, 200 Blocks	
	AI contour control II	G5.1 Q, 600 Blocks	
Operation guidance function	High smooth TCP	G5.1 Q, 1000 Blocks	
	EZ Guidei (Conversational Programming Solution)	●	
	iHMI with Machining Cycle	3	
	EZ Operation package	○	
Setting and display	CNC screen dual display function	X	
	FANUC MTConnect	●	
Network	FANUC OPC UA	⊕	
	Others	Display unit	●
Part program storage size & Number of registerable programs		10.4" color LCD	X
		15" color LCD	●
		15" color LCD with Touch Panel	○
		640M(256KB)_500 programs	X
		1280M(512KB)_1000 programs	X
		2560M(1MB)_1000 programs	X
		5120M(2MB)_1000 programs	●
		10240M(4MB)_1000 programs	X
		20480M(8MB)_1000 programs	X
	2560M(1MB)_2000 programs	X	
5120M(2MB)_4000 programs	X		

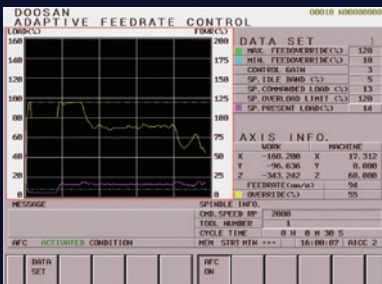
* 2) Only for Fanuc i plus iHMI
Network: FANUC MTConnect and FANUC OPC UA available.

EASY OPERATION PACKAGE

The software developed by Doosan provides a range of different functions designed for fast, efficient and convenient operation

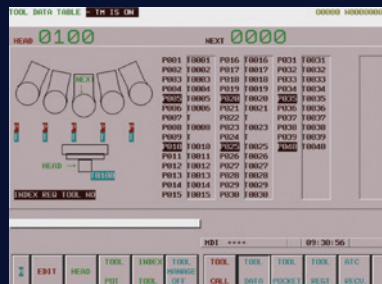
Easy operation package (EOP)

The EOP package delivers speed and efficiency. This menu-driven innovation not only helps customers reduce setup times, but also simplifies common tasks and procedures, reducing the potential for errors. EOP reduces operating time, protects machinery, enhances quality and speeds up maintenance interventions.



Adaptive Feed Control (AFC)

Function to control feedrate so that the cutting can be carried out at a constant load (To adapt to the spindle load set up with constant load feedrate control function)



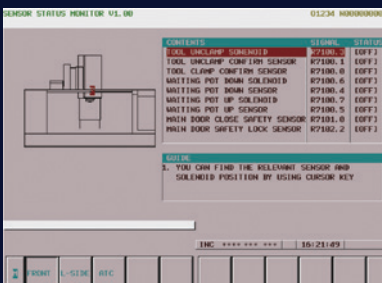
Tool Management

Function to manage tool information [Tool information]
 - Tool No. / Tool name
 - Tool condition : normal, large diameter, worm/damaged, used for the first time, annual



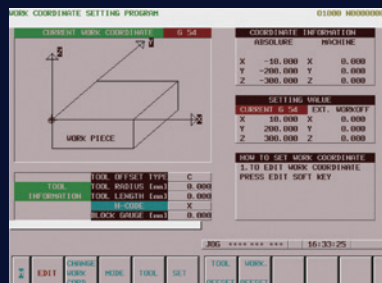
Tool Load Monitor

Function to automatically monitor tool load (Different loads can be set for one tool according to M700 ~ M704)



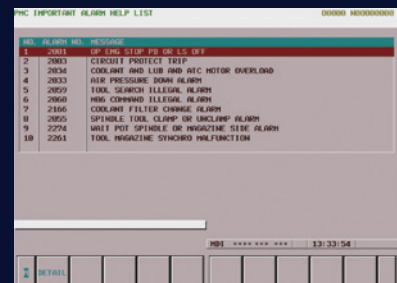
Sensor Status Monitor

Function to view sensor conditions of the machine



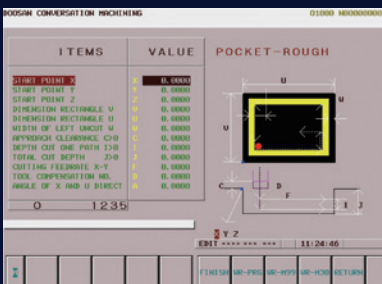
Work Offset Setting

Function to configure various work offset settings



Alarm Guidance

Function to show detailed info on frequently triggered alarms and recommended actions



Pattern Cycle & Engraving

Function to create frequently-used cutting programs automatically
 - Pattern Cycle: creates a program for a pre-defined shape
 - Engraving: creates a program for cutting a shape described with characters **option**



ATC Recovery

Function to view detailed info with recommended actions and to perform step-by-step operation manually (when an alarm is triggered during an ATC operation)

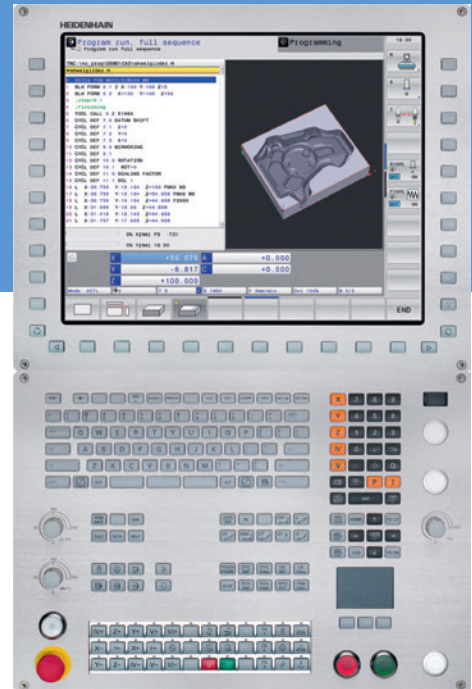
CONVENIENT OPERATION

HEIDENHAIN TNC620

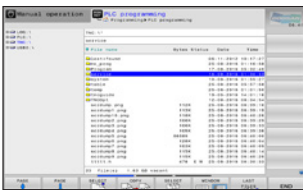
Superior hardware specifications

The TNC 620 features optimized motion control, short block processing times and special control strategies. Together with its uniform digital design and its integrated digital drive control (including inverters), it enables you to achieve high machining speeds and the best possible contour accuracy.

- 15.6" display
- 21GB Storage memory
- 1024 look ahead blocks
- High user convenience with folder structure data management



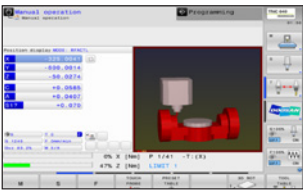
Conversational convenient function



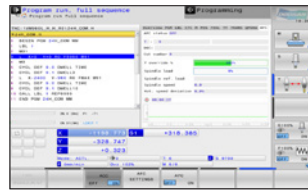
Data are controlled in the folder structure; convenient communication via USB devices



KinematicOpt & KinematicComp **option**
(Touch probe cycle for automatic measurement)



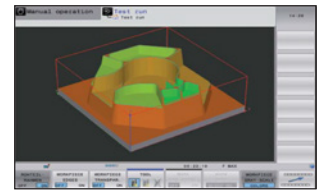
Collision protection system **option**



Adaptive feed control **option**



Various built-in pattern cycles for a wider scope of application (Software standard)



Graphic simulation

NUMERIC CONTROL SPECIFICATIONS



HEIDENHAIN

Item		Specifications	TNC620 DNM
Controlled axis	Controlled axis		3 (X,Y,Z)
	Simultaneously controlled axis		4 axis
Data input/output	USB memory input/output		●
Interface function	Embedded ethernet		●
Feed function	Look-ahead	5000 blocks	●
Axis compensation	KinematicsOpt	Automatic measurement and optimization of machine kinematics	○
Collision monitoring	Dynamic collision monitoring (DCM)		X
Network	MTConnect		⊕
Others	Display unit	15.1 inch TFT color flat panel	●
		15.1 inch TFT color with Touch Panel	○
		19 inch TFT color flat panel	○
		19 inch TFT color with Touch Panel	○
	Part program storage size & number of registerable programs	21GB 1.8GB	X ●

● Standard ○ Optional X Not Available ⊕ Available

CONVENIENT OPERATION

SIEMENS 828D

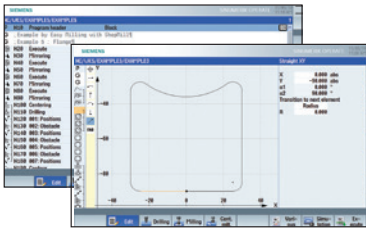
15.6" screen + new operation panel

The newly-designed operation panel improves the customer convenience by incorporating and using common-design buttons and layouts, and includes the familiar QWERTY keyboard for fast and easy operation.

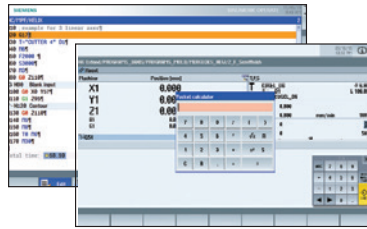
- 15.6" display
- 10MB high capacity user memory
- USB & ethernet (standard)
- QWERTY keyboard (standard)
- High-speed calculation and simulation can be fulfilled by improved processor functionality



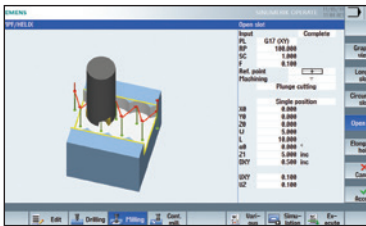
Conversational convenient function



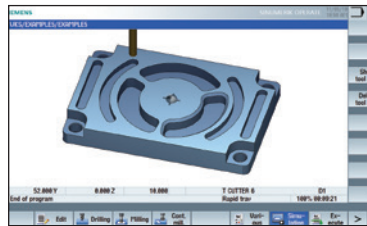
Shop Mill Part Programming



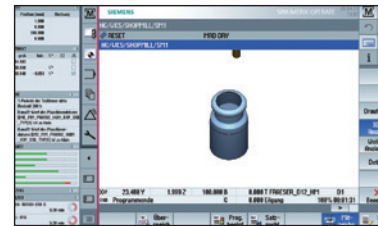
Smart function



Advanced program language programGUIDE



Simulation and machining contour monitoring



Side screen widget

NUMERIC CONTROL SPECIFICATIONS

SIEMENS

Item	Specifications	S828D
		DNM
Controlled axis	Controlled axes (제어축수)	3축
	Simultaneously controlled axes (동시 제어축수)	3축
Data input/output	Memory card input/output	X
	USB memory input/output	●
Interface function	Ethernet	●
	On network drive	○
Operation	On USB storage medium, e.g. memory stick	●
	Workpiece coordinate system	●
Program input	Addition of workpiece coordinate system	●
	Advanced surface	●
Interpolation & Feed function	Top surface	○
	Look ahead number of block	S/W version 4.8
	3D simulation, finished part	●
Programming & Editing function	Simultaneous recording	●
	Measure kinematics	X
	DXF Reader for PC integrated in SINUMERIK Operate	○
Operation Guidance Function	ShopMill	●
	EZ Work	●
Setting and display	Operation via a VNC viewer	●
Network	MTCConnect	⊕
	OPCUA	○
Etc. function	15.6" color display with touch screen	●
	19" color display without touch screen	X
	21.5" color display with touch screen	X
	CNC user memory	10 MB
	Expansion by increments	2 ~ 12 MB
	Collision avoidance	X
Collision avoidance ECO (machine, working area)	X	

POWER | TORQUE

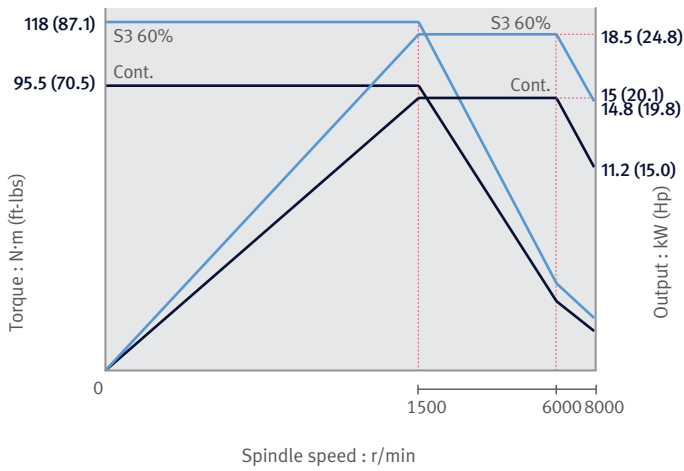
FANUC

FANUC 8000 r/min

8000 r/min

Max. spindle power: 18.5 kW (24.8 Hp)

Max. spindle torque: 118 N·m (87.1 ft-lbs)

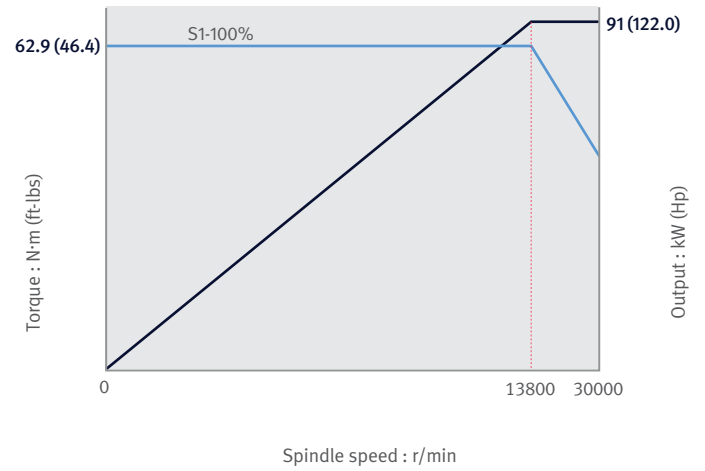


FANUC 30000 r/min option

30000 r/min

Max. spindle power: 91 kW (122.0 Hp)

Max. spindle torque: 62.9 N·m (46.4 ft-lbs)

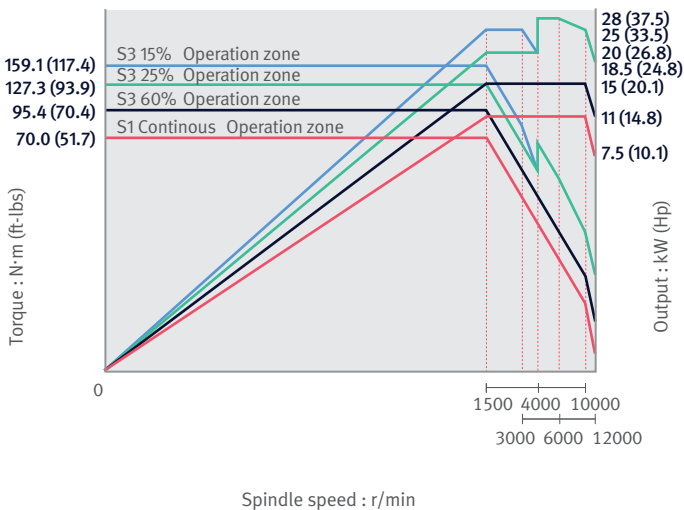


FANUC 12000 r/min option

12000 r/min

Max. spindle power: 28 kW (37.5 Hp)

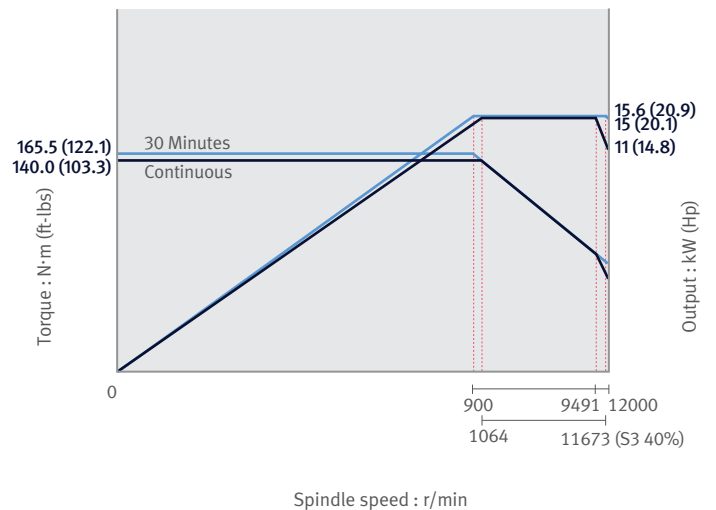
Max. spindle torque: 159.1 N·m (117.4 ft-lbs)



12000 r/min

Max. spindle power: 15.6 kW (20.9 Hp)

Max. spindle torque: 165.5 N·m (122.1 ft-lbs)



POWER | TORQUE

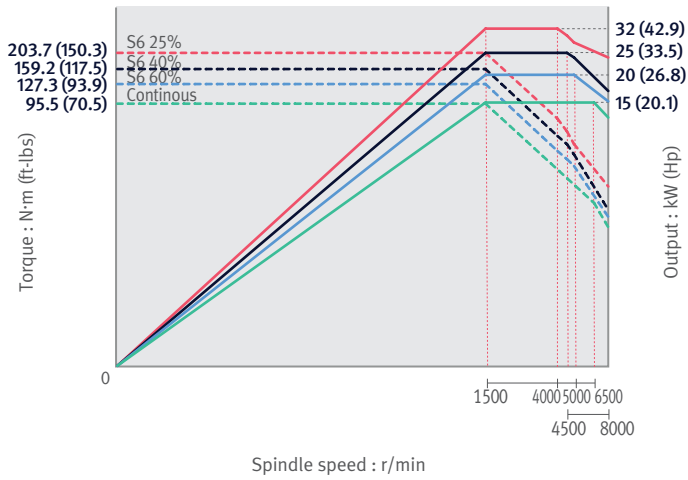
HEIDENHAIN | SIEMENS

HEIDENHAIN 8000 r/min

8000 r/min

Max. spindle power: 32 kW (42.9 Hp)

Max. spindle torque: 203.7 N·m (150.3 ft-lbs)

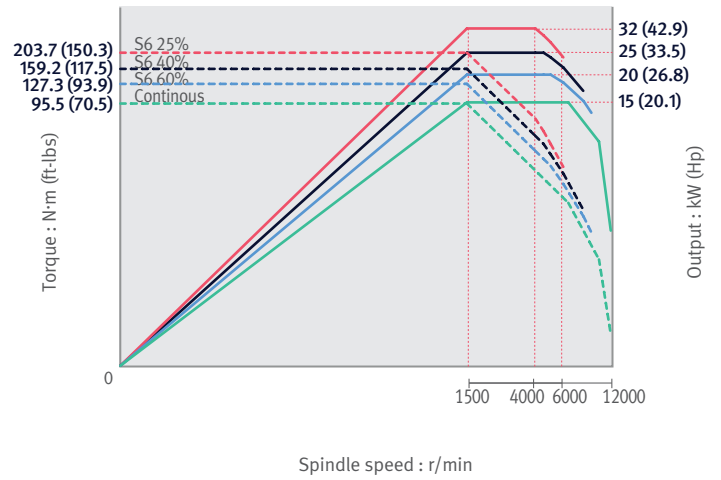


HEIDENHAIN 12000 r/min option

12000 r/min

Max. spindle power: 32 kW (42.9 Hp)

Max. spindle torque: 203.7 N·m (150.3 ft-lbs)

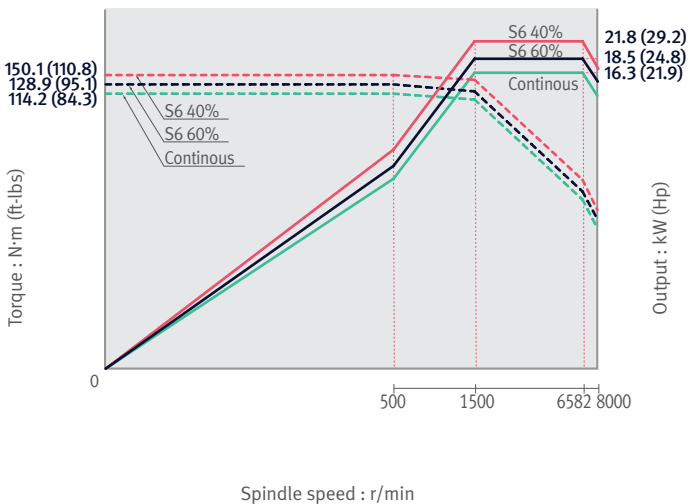


SIEMENS 8000 r/min

8000 r/min

Max. spindle power: 21.8 kW (29.2 Hp)

Max. spindle torque: 150.1 N·m (110.8 ft-lbs)

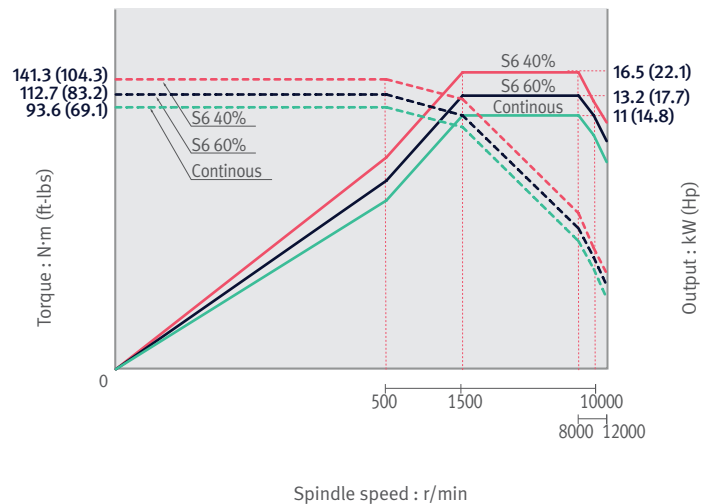


SIEMENS 12000 r/min option

12000 r/min

Max. spindle power: 16.5 kW (22.1 Hp)

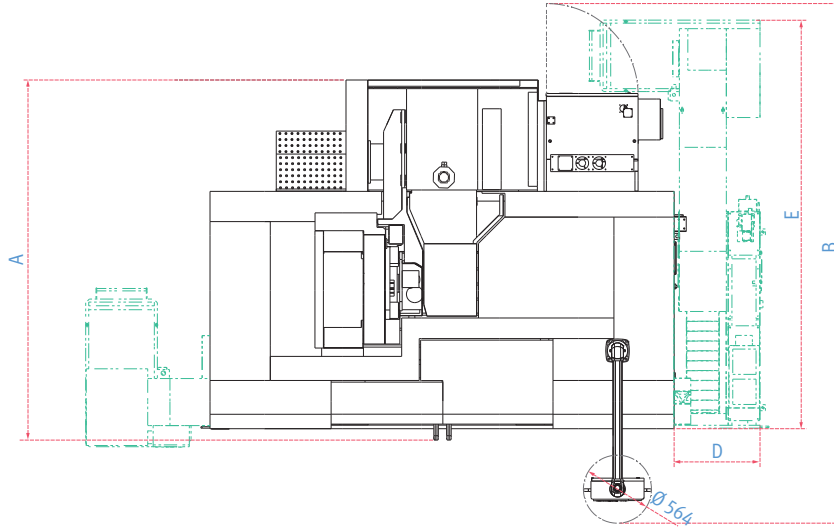
Max. spindle torque: 141.3 N·m (104.3 ft-lbs)



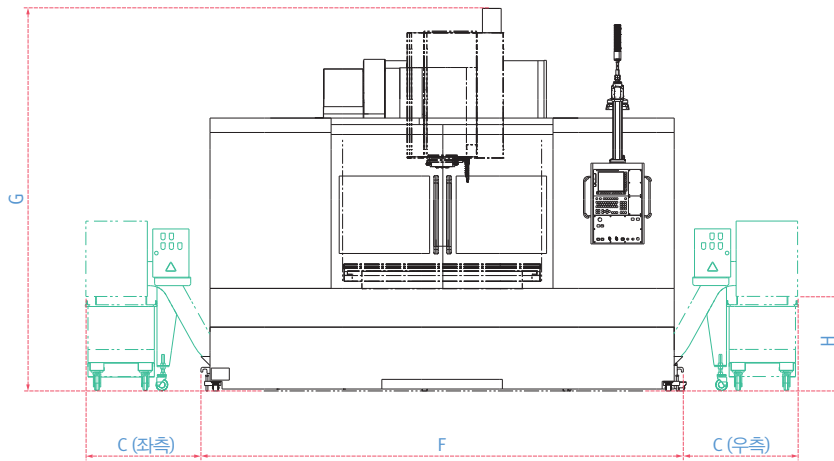
DIMENSIONS

Units : mm (inch)

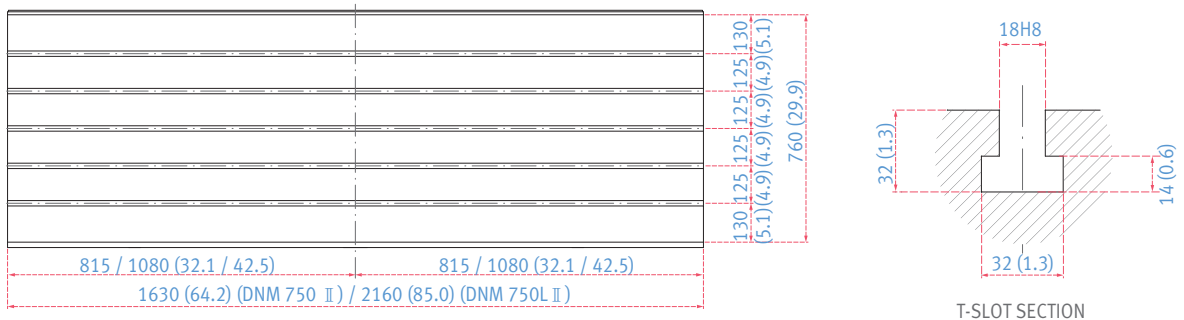
TOP



FRONT



TABLE



Model	A (Length)	B (Max. machine length)	C (Additional width to accommodate the side chip conveyor)	D (Additional width to accommodate the rear chip conveyor)	E (Length to accommodate the rear chip conveyor)	F (Width)	G* (Height)	H (Height from the floor to the chip outlet)
DNM 750 II	2986 (117.6)	4309 (169.6)	Left & Right : 953 (37.5)	790 (31.1)	3390 (133.5)	4000 (157.5)	3170 / 3251 (124.8 / 128.0)	805 (31.7)
DNM 750L II	2986 (117.6)	4309 (169.6)	Left & Right : 953 (37.5)	790 (31.1)	3390 (133.5)	5050 (198.8)	3170 / 3251 (124.8 / 128.0)	805 (31.7)

* Some peripheral equipment can be placed in other places

* 8k spindle / 12k spindle

MACHINE SPECIFICATIONS

Description			Unit	DNM 750 II	DNM 750L II	
Travels	Travel distance	X axis	mm (inch)	1630 (64.2)	2160 (85.0)	
		Y axis	mm (inch)	762 (30.0)		
		Z axis	mm (inch)	650 (25.6)		
	Distance from spindle nose to table top		mm (inch)	150 ~ 800 (5.9 ~ 31.5)		
Table	Table size		mm (inch)	1630 x 760 (64.2 x 29.9)	2160 x 760 (85.0 x 29.9)	
	Table loading capacity		kg (lb)	1500 (3306.9)	1800 (3968.3)	
	Table surface type		mm (inch)	T-SLOT [5-125 (4.9) x 18 (0.7)H8]		
Spindle	Max. spindle speed	FANUC	Direct	r/min	8000	
				r/min	{12000}*	
			r/min	{12000}*		
		HEIDENHAIN	Built in	r/min	{30000}*	
			Belt	r/min	8000	
		SIEMENS	Direct	r/min	{12000}*	
			Belt	r/min	8000	
		SIEMENS	Direct	r/min	{12000}*	
			Taper		-	ISO #40
	Spindle power	FANUC	Direct	kW (Hp)	18.5/15 (24.8/20.1)	
				kW (Hp)	{28/11 (37.5/14.8)}*	
				kW (Hp)	{15.6/15.6 (20.9/20.9)}*	
		HEIDENHAIN	Belt	kW (Hp)	32/15 (42.9/20.1)	
			Direct	kW (Hp)	{32/15 (42.9/20.1)}*	
		SIEMENS	Belt	kW (Hp)	21.8/16.3 (29.2/21.9)	
	Max. spindle torque	FANUC	Direct	N·m (ft-lbs)	118 (87.1)	
				N·m (ft-lbs)	{159.1 (117.4)}*	
				N·m (ft-lbs)	{165.5 (122.1)}*	
		HEIDENHAIN	Belt	N·m (ft-lbs)	203.7 (150.3)	
Direct			N·m (ft-lbs)	{203.7 (150.3)}*		
SIEMENS		Belt	N·m (ft-lbs)	150.1 (110.8)		
SIEMENS	Direct	N·m (ft-lbs)	{141.3 (104.3)}*			
Feedrates	Rapid traverse rate	X axis	m/min (ipm)	30 (1181.1)	24 (944.9)	
		Y axis	m/min (ipm)	30 (1181.1)	24 (944.9)	
		Z axis	m/min (ipm)	24 (944.9)	24 (944.9)	
		Tool shank		-	BT 40 {CAT40/DIN40}*	
Automatic Tool Changer	Type of tool shank	Pull stud		-	PS806	
		Tool storage capa.		ea	30 {40}*	
	Max. tool diameter	Continous	mm (inch)	80 (3.1) {76 (3.0)}*		
		Without Adjacent Tools	mm (inch)	125 (4.9)		
	Max. tool length		mm (inch)	300 (11.8)		
	Max. tool weight		kg (lb)	8 (17.6)		
	Max. tool moment		N·m (ft-lbs)	5.88 (4.3)		
	Tool selection		-	MEMORY RANDOM		
	Tool change time	Tool-to-tool	sec	1.3 1.6		
		Chip-to-chip	sec	3.7 4.0		
	Power source	Electric power supply (Rated capacity)		kVA	40.00 / 37.50 / 43.30	
Compressed air supply		Mpa	0.54			
Tank capacity	Coolant tank capacity		L (gal)	520 (137.4)	590 (155.9)	
Machine Dimensions	Height		mm (inch)	3170 (124.8)		
	Length		mm (inch)	3480 (137.0)		
	Width		mm (inch)	3850 (151.6)	4900 (192.9)	
	Weight		kg (lb)	13500 (531.5)	15000 (590.6)	
Control	CNC system		-	DOOSAN Fanuc i Plus / SIEMENS S828D / HEIDENHAIN TNC620		

*{ } : Option

WHY DOOSAN?

The Doosan promise, MACHINE GREATNESS, has two important meanings. The first is simple: Doosan makes great machines. The second is a challenge to our end-users. With a product line that is this comprehensive, accurate and reliable, we equip our customers to machine greatness. The big question: *Why should you choose Doosan over other options?*

Here's why...



**MACHINE
GREATNESS™**



Doosan Machine Tools

WHAT YOU MAKE AND HOW YOU MAKE IT MATTERS—SO MAKE IT GREAT WITH DOOSAN.

UNBEATABLE MACHINES

You won't find a more comprehensive range or a better combination of value, performance and reliability anywhere else.

ROBUST PRODUCT LINE

We offer an impressive range of machine models and hundreds of configurations. Whatever your machining needs and requirements, there's a Doosan for you.

READILY AVAILABLE - ANYWHERE IN THE WORLD

Machining centres (including 5-axis machines), lathes, multi-tasking turning centres and mill-turn machines, and horizontal borers with best-in-class specifications are all available...ready to install.

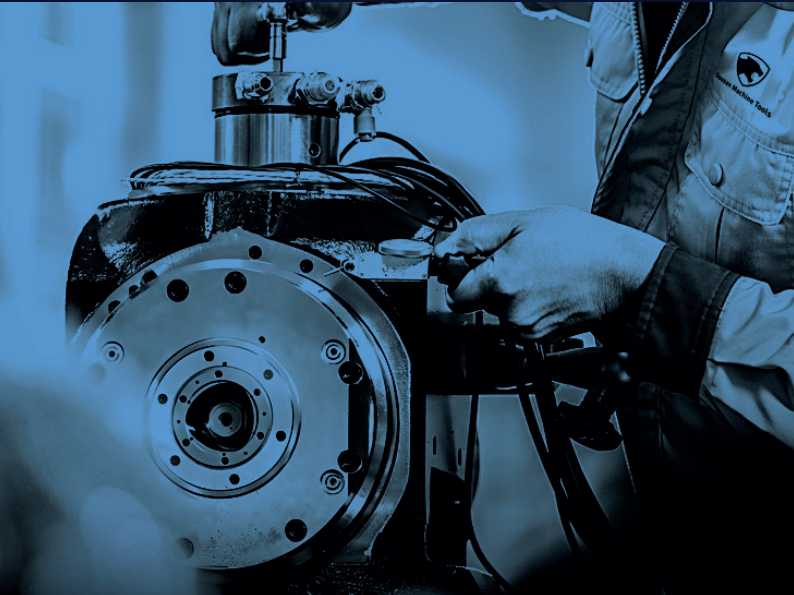
EXPERT SERVICE

Our dedicated, experienced and knowledgeable team is totally committed to improving your productivity, growth and success.

CUSTOMER SUPPORT AND SERVICES

We're there for you whenever you need us.

We help our customers operate at maximum efficiency by providing them with a range of tried, tested and trusted services - from pre-sales consultancy to post-sales support.



FIELD SERVICES

- On-site service
- Machine installation and testing
- Scheduled preventive maintenance
- Machine repair service

PARTS SUPPLY

- Supplying a wide range of original Doosan spare parts
- Parts repair service



TRAINING

- Programming, machine setup and operation
- Electrical and mechanical maintenance
- Applications engineering

TECHNICAL SUPPORT

- Supports machining methods and technology
- Responds to technical queries
- Provides technical consultancy

RESPONDING TO CUSTOMERS ANYTIME, ANYWHERE

Doosan Machine Tools' Global Network

Doosan Machine Tools provides systems-based professional support services, before and after the machine tool sale, by responding quickly and efficiently to customers. By supplying spare parts, product training, field service and technical support, we provide the expert care, attention and assistance our customers expect from a market leader.



Global sales and service support network

4	Corporations
167	Dealer networks
51	Technical centers Technical Center, Sales Support, Service Support, Parts Support
200	Service posts
3	Factories





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