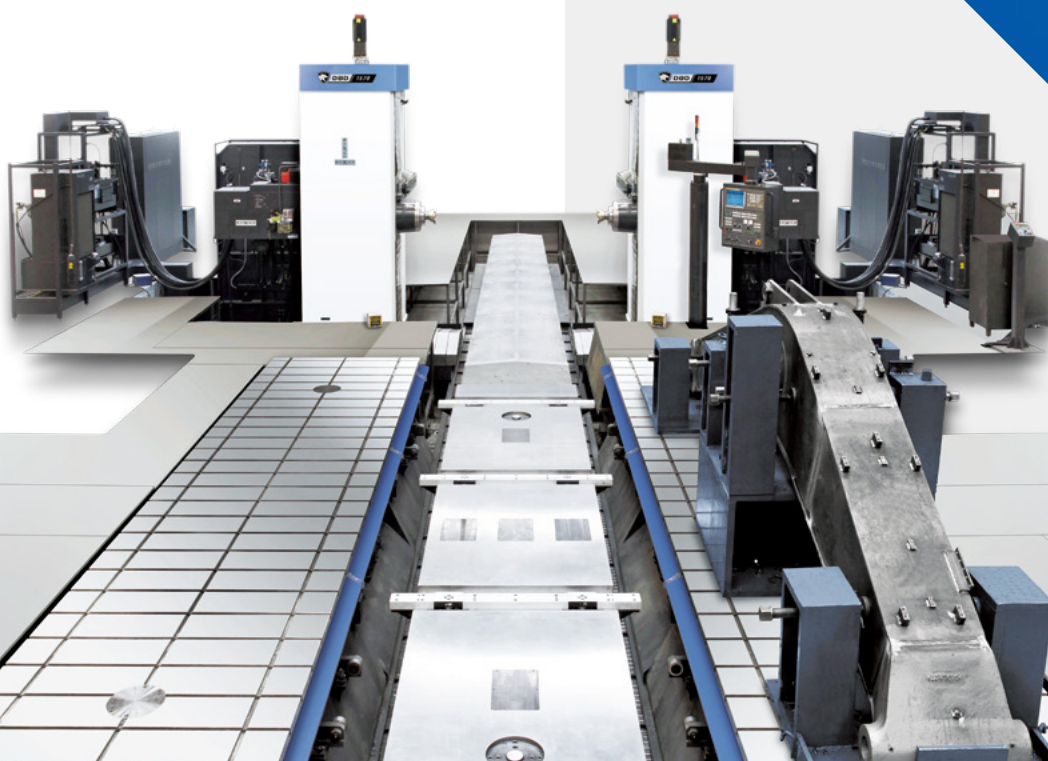


DBD SERIES FOR LARGE SIZED WORK-PIECE

DBD series

DBD 1250 · 1270 · 1290

DBD 1680W · 16100W



DBD SERIES

DBD series has two-headed boring spindles suitable for concentric processing to ensure high-precision and productivity through bidirectional simultaneous processing of symmetrical long workpieces. Also, the length of the table can be extended depending on the size of the workpieces.

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Product Overview

Basic Information

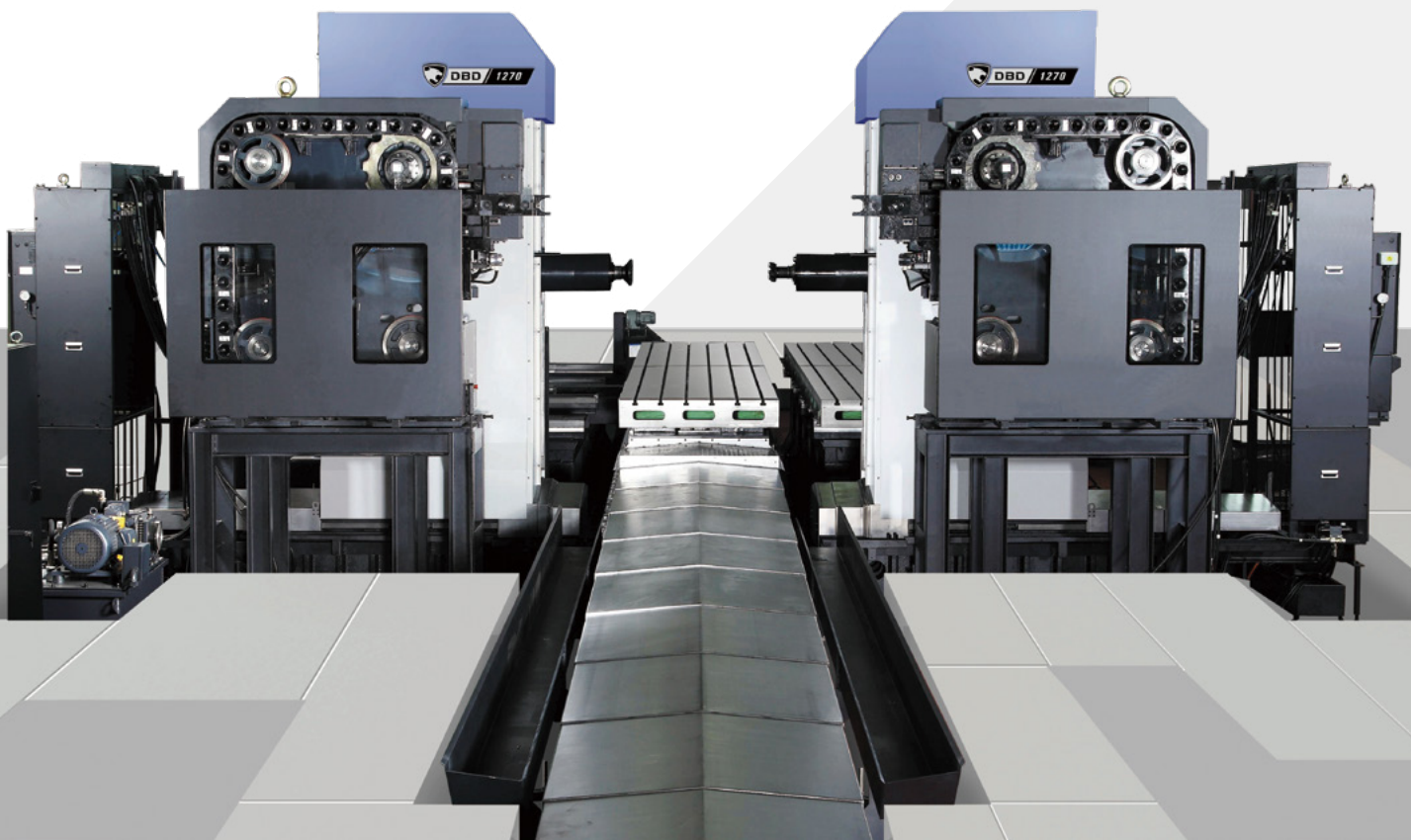
- 04 Basic Structure
- 05 Spindle

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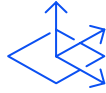


**CONCENTRIC MACHINING
THROUGH THE DUPLEX
SPINDLE**



- Max. spindle speed : 3000r/min
- Max. spindle motor :
26/22Kw (34.9 / 29.5 Hp)
(Cont. / 30min)
37/30 kW (49.6 / 40.2 Hp)

**BIG TABLE FOR LONG AND
SYMMETRICAL MACHINING
WIDE WORK AREA THROUGH
AXIS EXTENSION**

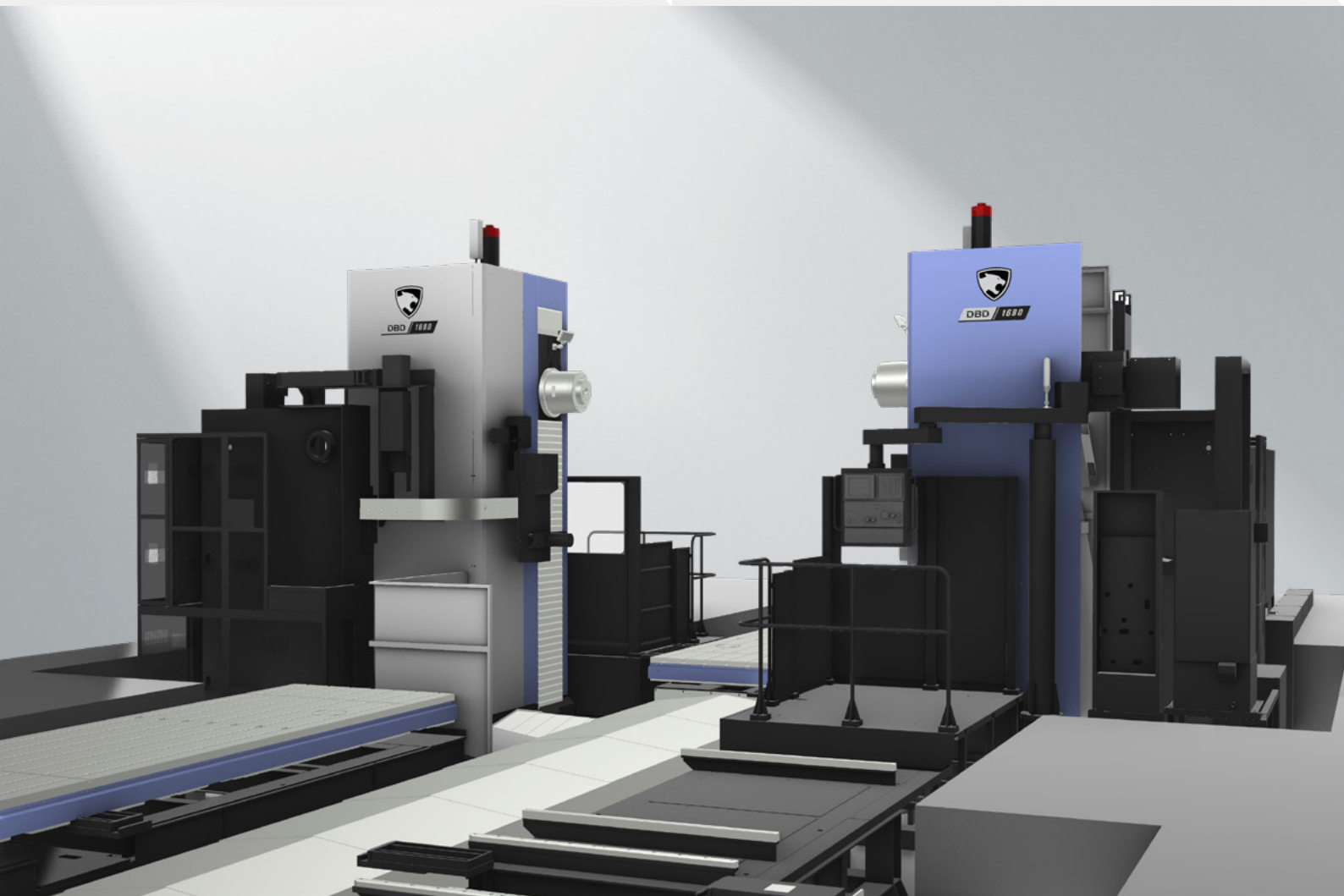


- DBD1250 : 1250 x 5000 mm (49.2 x 196.9 inch)
- DBD1270 : 1250 x 7000 mm (49.2 x 275.6 inch)
- DBD1290 : 1250 x 9000 mm (49.2 x 354.3 inch)
- DBD1680W : 1600 x 8000 mm (63.0 x 315.0 inch)
- DBD16100W : 1600 x 10000 mm (63.0 x 393.7 inch)

**IMPROVEMENT OF EASE OF
USE THROUGH AUTOMATIC
TOOL CHANGER**



- High-speed and smooth operation and
reduced noise by servo-driven tool magazine



BASIC STRUCTURE

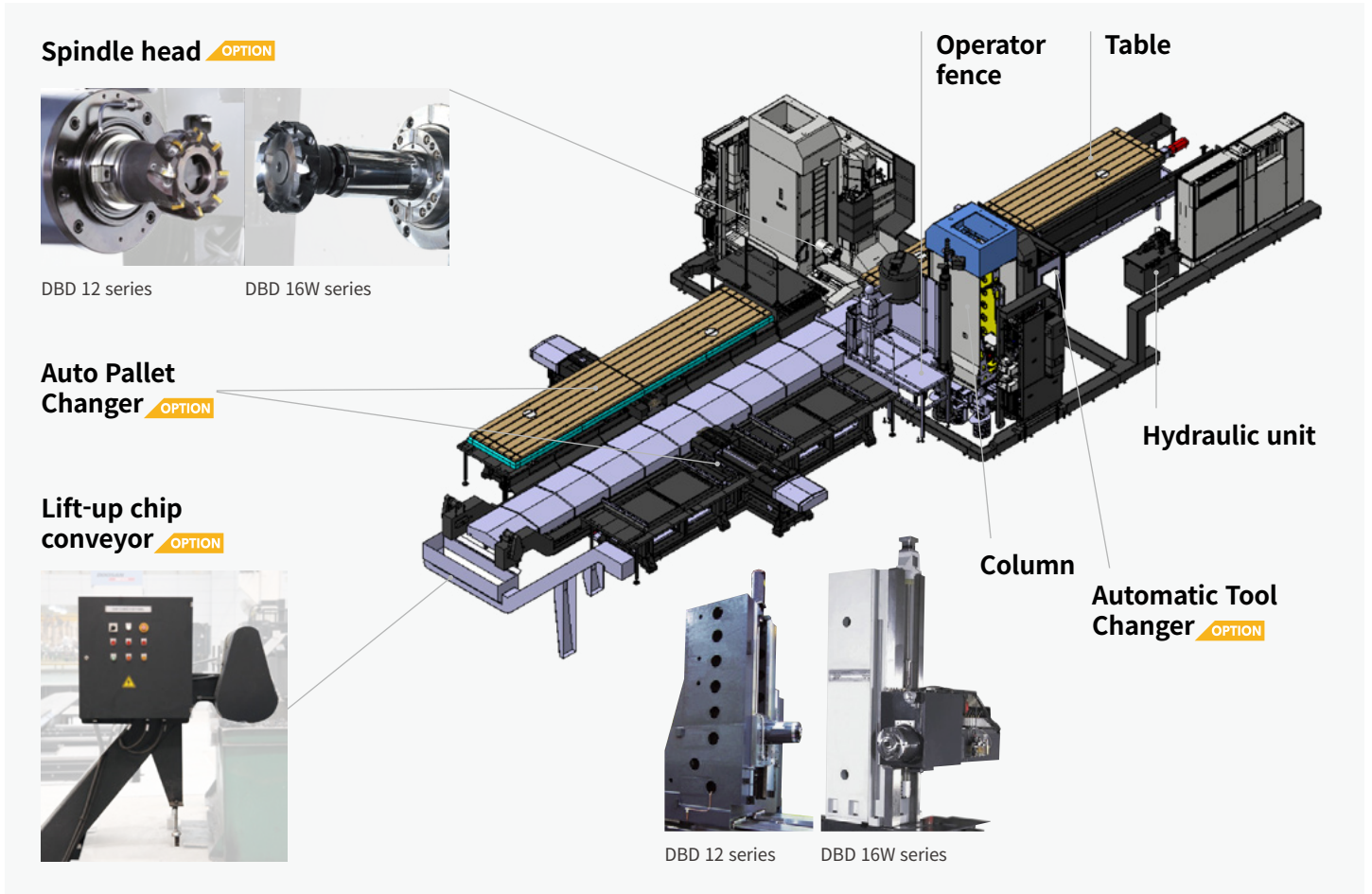


TABLE | PALLET

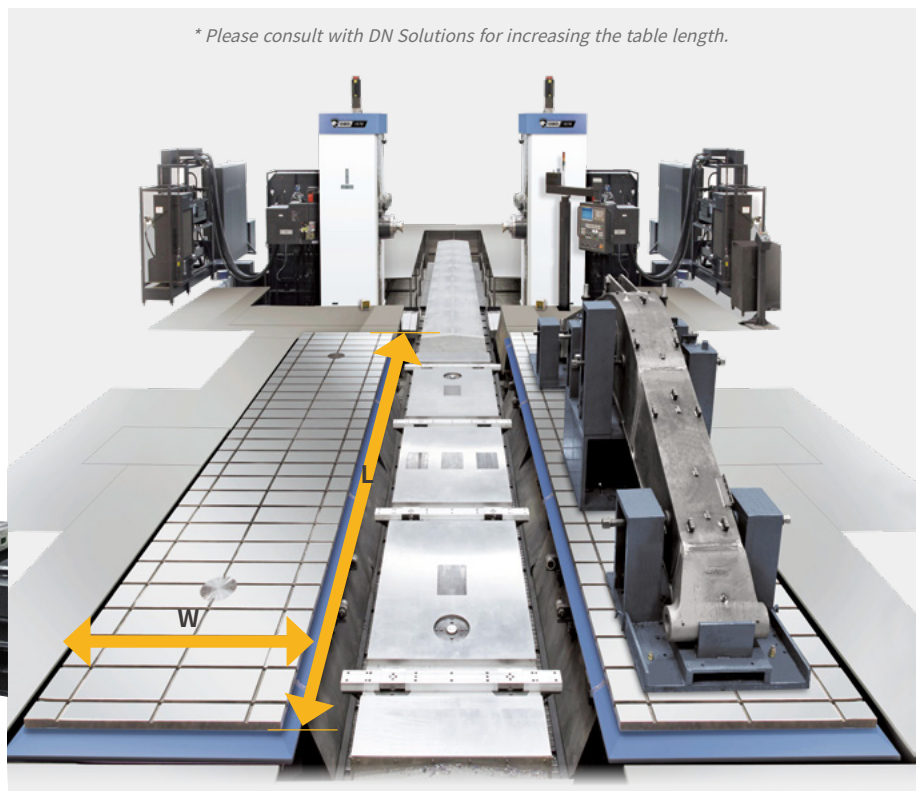
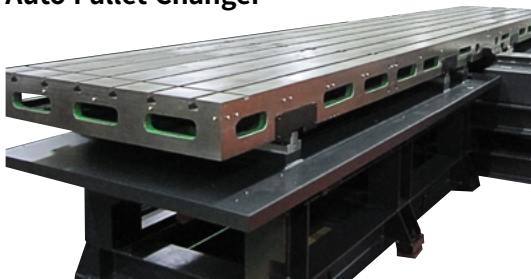
Table moving type realized by linear motion guide provides fast rapid traverse.

Unit: mm(inch)

	DBD1250	DBD1270	DBD1290
Width	1250(49.2)	1250(49.2)	1250(49.2)
Length	5000(196.9)	7000(275.6)	9000(354.3)

	DBD1680W	DBD16100W
Width	1600(63.0)	1600(63.0)
Length	8000(315.0)	10000(393.7)

Auto Pallet Changer



SPINDLE

Spindle driving torque optimized by 3-steps gear change mechanism.



Max. spindle speed

3000 r/min

Motor (Cont. / 30 min)

26/22 kW (34.9 / 29.5 Hp)
37/30 kW (49.6 / 40.2 Hp)

Gear transmission

3 steps

AUTOMATIC TOOL CHANGER

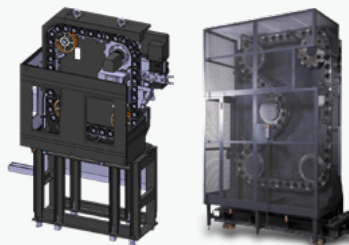
Tool Magazine by servo control will be accomplished higher reliability, speed smooth operation and reducing noise.

Acceptable Tool Dimensions

	Spec.	Shape
Max. tool diameter	Facing Tool D = $\varnothing 130\text{mm}$ ($\varnothing 5.1$ inch) [Continuous]	
	Boring Tool D = $\varnothing 400\text{ mm}$ (15.7 inch) [Adjacent pots empty]	
Max. tool length	L = 400 mm (15.7 inch)	
Max. tool weight	W = 25 kg (55.1 lb)	

Tool storage capacity **OPTION**

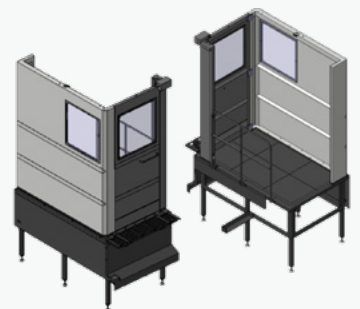
40/60/90 ea



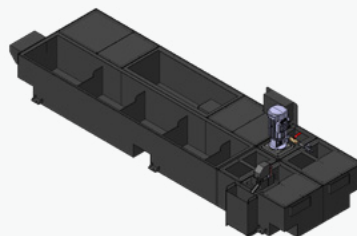
DBD12 series

DBD 16W series

Operator guard



Coolant tank (1300L)



Chip air blow



STANDARD | OPTIONAL SPECIFICATIONS

A range of options is available to suit individual requirements.

Division	Item	Specifications	DBD1250	DBD1270	DBD1290	DBD1680W	DBD16100W	
SPINDLE HEAD	SPINDLE DRIVE	26/22 Kw	●	●	●	●	●	
	MOTOR(30min/cont.rating)	37/30 kw	○	○	○	X	X	
	SPINDLE MAX. SPEED	3000 r/min	●	●	●	●	●	
	NUMBER OF SPEED RANGES	3 STEP	●	●	●	●	●	
	TOOL SHANK	MAS403 BT50	●	●	●	●	●	
	PULL STUD	MAS403-P50T-1(45°)	●	●	●	●	●	
DIVIDING TABLE	TABLE SIZE (WIDTHxLENGTH)	1250x5000	●	X	X	X	X	
		1250x7000	X	●	X	X	X	
		1250x9000	X	X	●	X	X	
		1600x8000	X	X	X	●	X	
		1600x10000	X	X	X	X	●	
	MAX. LOAD CAPACITY	9000kg	●	X	X	X	X	
		10000kg	X	●	●	X	X	
18000kg		X	X	X	●	●		
T-SLOT	24H8	●	●	●	●	●		
APC	PALLET SIZE (WIDTHxLENGTH)	1250x5000	○	X	X	X	X	
		1250x7000	X	○	X	X	X	
		1250x9000	X	X	○	X	X	
		1600x8000	X	X	X	○	X	
		1600x10000	X	X	X	X	○	
	MAX. LOAD CAPACITY	7000kg	○	○	○	X	X	
		8000kg	X	X	X	○	○	
	NUMBER OF PALLETS	2EA	○	○	○	○	○	
T-SLOT	24H8	○	○	○	○	○		
AXIS SYSTEM	SPINDLE ORIENTATION	POSITION CODER SET	●	●	●	X	X	
		BZ SENSOR	X	X	X	●	●	
	PORTABLE MPG	1 SET	●	●	●	●	●	
	MAIN OP. PANEL	1 SET	●	●	●	●	●	
	OPERATOR'S CALL LAMP (RED/YELLOW/GREEN)	1 SET	●	●	●	●	●	
	WORK LIGHT	2 SET	●	●	●	●	●	
	FOOT SWITCH FOR TOOL UNCLAMP	2 SET	●	●	●	●	●	
	INSTALLATION TOOL KIT	1 SET	●	●	●	●	●	
	CUSTOMER'S MANUAL	1 SET	●	●	●	●	●	
	LEVELING BLOCKS & ANCHORING BOLTS	1 SET	●	●	●	●	●	
	TEST BAR	1 SET	●	●	●	●	●	
	OPERATOR FENCE	1 SET	●	●	●	●	●	
	ATC	TOOL STORAGE CAPACITY	40/60/90 TOOLS	○	○	○	○	○
	APC	TOOL STORAGE CAPACITY	40/60/90 TOOLS	○	○	○	○	○
LINEAR SCALE	ABSOLUTE TYPE	X / Y	○	○	○	○	○	
		Z	X	X	X	X	X	
COOLANT	TSC	4.0kw_2.0Mpa_cyclon	○	○	○	○	○	
	FLOOD COOLANT	2.2Kw_1.4Mpa_40L/min	○	○	○	○	○	
	Water soluble Coolant Chiller**		○	○	○	○	○	
	COOLANT TANK	1300L	○	○	○	○	○	
	COOLANT SPRAY GUN		○	○	○	○		
CHIP DISPOSAL	LIFT-UP CHIP CONVEYOR	HINGED BELT	○	○	○	○	○	
	CHIP BUCKET	380L	○	○	○	○	○	
SAFETY GUARD	COOLANT SPLASH GUARD	OPERATOR GUARD	○	○	○	○	○	
PNEUMATIC ACCESSORY	Y-axis Stroke	2000	○	○	○	X	X	
		2500	XX	X	X	○	○	
PNEUMATIC ACCESSORY	AIR GUN		○	○	○	○	○	
	AIR BLOW	CHIP AIR BLOW	○	○	○	○	○	
	AIR DRYER	MAIN AIR	○	○	○	○	○	
AUTO WORKPIECE MEASURING DEVICE	AUTO OFFSET MEASUREMENT W/H RMP60	RMP60_RENISHAW	○	○	○	○	○	
		RMP60_RENISHAW +S/W FUNCTION	○	○	○	○	○	
MASTER TOOL MEASURING DEVICE		CALIBRATION BLOCK	○	○	○	○	○	

* Please contact your DN Solutions representative for detailed machine information.

● Standard ○ Optional X N/A

* When using a semi-synthetic type or synthetic type, contact our sales representative or service center in advance.

** Technical consultation is mandatory for the chilling of non-water soluble coolant

FANUC 32i PLUS

Fanuc 32i Plus maximizes customer productivity and convenience.

15" Touch screen + New OP

DN Solutions Fanuc 32i Plus' operation panel enhances operating convenience by incorporating common-design buttons and layout. It features a Qwerty keyboard for fast and easy data input and operation.

FANUC 32i PLUS

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

USB and PCMCIA card QWERTY keyboard

- EZ-Guide i standard
- Ergonomic operator panel
- 4MB Memory
- Hot keys
- Enhance AICC BLOCK
- Touch pen provided as standard



iHMI touchscreen

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

Division	Item	Specifications	DBD1680	DBD1270
			F32iB PLUS	F32iB PLUS
Controlled axis	Controlled axes		4 (X,Y1,W1,Z1,Y2, Z2,W2)	4 (X,Y1,Z1,Y2, Z2)
	Simultaneously controlled axes		4 axes	4 axes
	Additional controlled Axis	Add 1 Axis (5th Axis)	○	○
Data input/output	Fast data server		○	○
	Memory card input/output		●	●
	USB memory input/output		●	●
	Large capacity memory(2GB)*2	Available Option only with 15" Touch LCD (iHMI Only) *2)	○	○
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		T4 digits	T4 digits
Feed function	Tilted working plane indexing command	G68.2 TWP	X	X
	AI contour control I	G5.1 Q_, 40 Blocks	X	X
	AI contour control II	G5.1 Q_, 200 Blocks	X	X
	AI contour control II	G5.1 Q_, 600 Blocks	●	●
	AI contour control II	G5.1 Q_, 1000 Blocks *1)	X	X
Operation Guidance Function	High smooth TCP		X	X
	EZ Guidei (Conversational Programming Solution)		○	○
	iHMI with Machining Cycle	Only with 15" Touch LCD standard *2)	●	●
Setting and display	EZ Operation package		●	●
	CNC screen dual display function		●	●
Network	FANUC MTConnect		⊗	⊗
	FANUC OPC UA		⊗	⊗
Others	Display unit	15" color LCD	X	X
		15" color LCD with Touch Panel	●	●
		640M(256KB)_500 programs	X	X
		1280M(512KB)_1000 programs	X	X
		2560M(1MB)_1000 programs	X	X
		5120M(2MB)_1000 programs	X	X
		10240M(4MB)_1000 programs	●	●
		20480M(8MB)_1000 programs	○	○
		2560M(1MB)_2000 programs	○	○
		5120M(2MB)_4000 programs	○	○
		10240M(4MB)_4000 programs	○	○
20480M(8MB)_4000 programs	○	○		

POWER | TORQUE

DBD 1250/1270/1290

Max. spindle speed

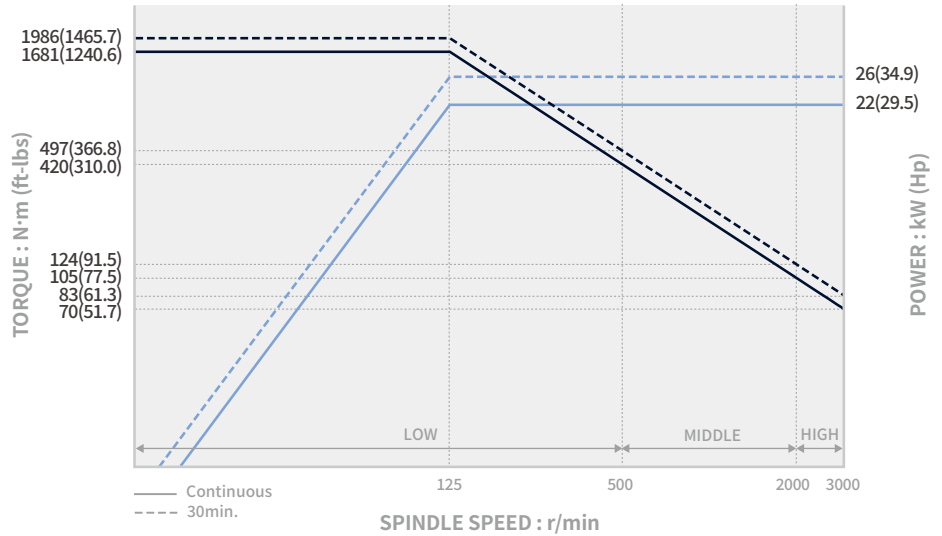
3000 r/min

Max. power

26/22 kW
(34.9/29.5 Hp)

Max Torque

1986 N.m
(1465.7 lbf-ft)



DBD 12 series

Max. spindle speed

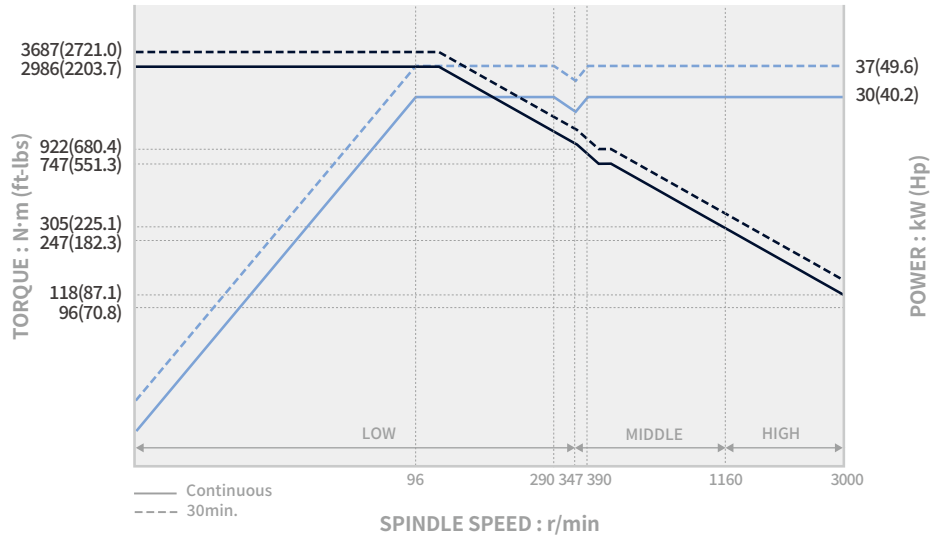
3000 r/min

Max. power

37/30 kW
(49.6/40.2 Hp)

Max Torque

3687 N.m
(2721.0 lbf-ft)



DBD 1680W / 16100W

Max. spindle speed

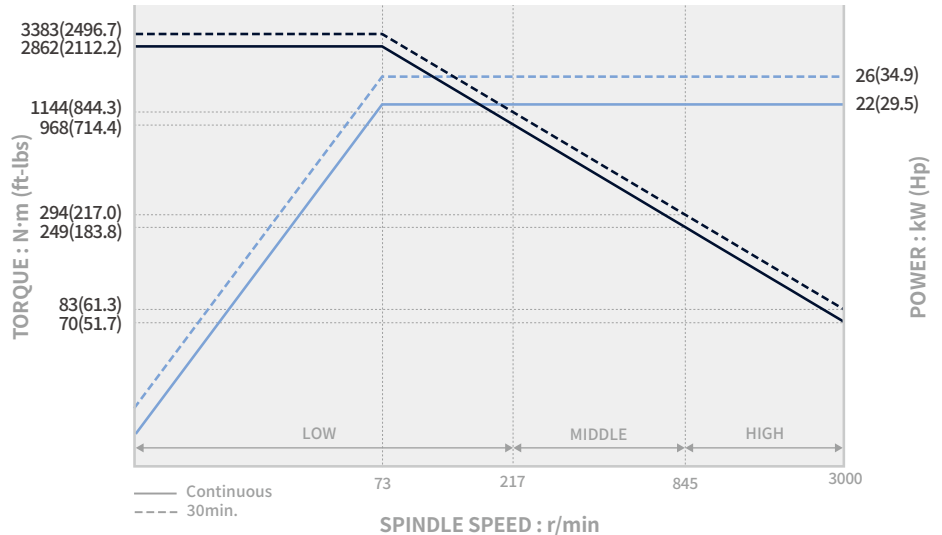
3000 r/min

Max. power

26/22 kW
(34.9/29.5 Hp)

Max Torque

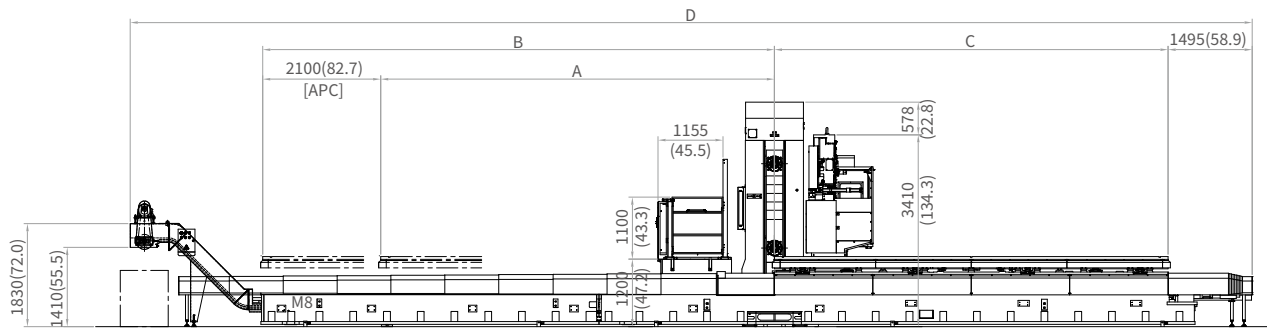
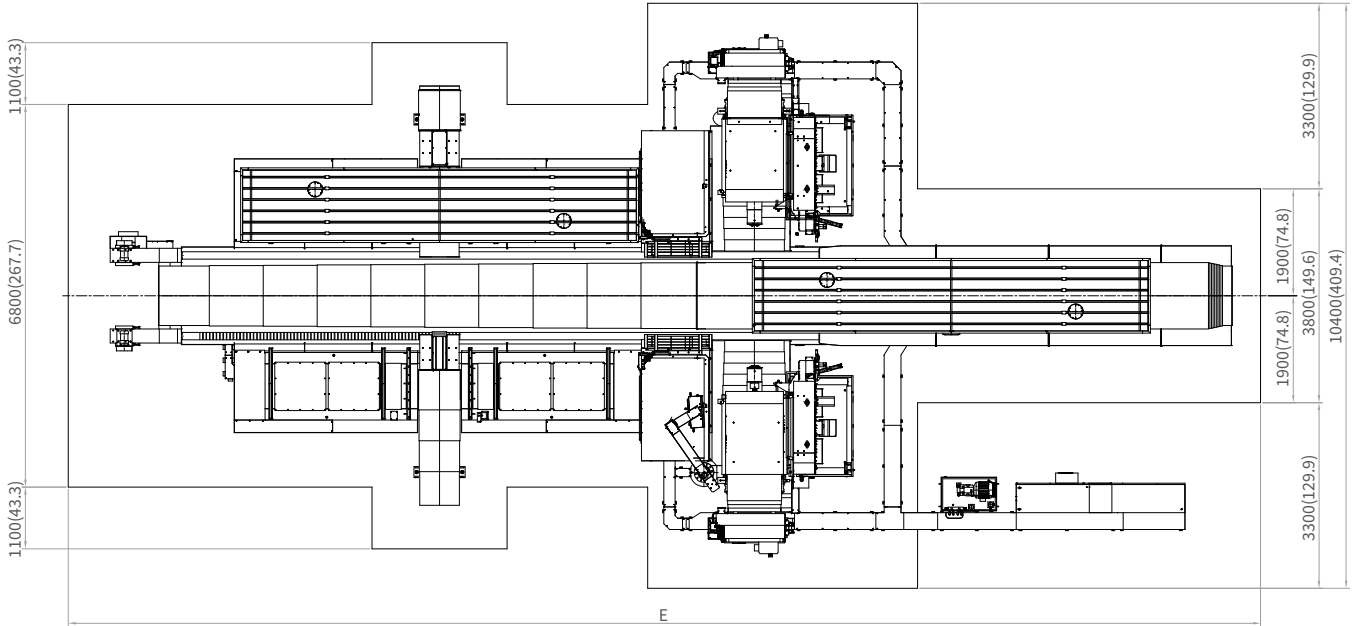
3383 N.m
(2496.7 lbf-ft)



EXTERNAL DIMENSIONS

DBD 12 series

Unit : mm (inch)



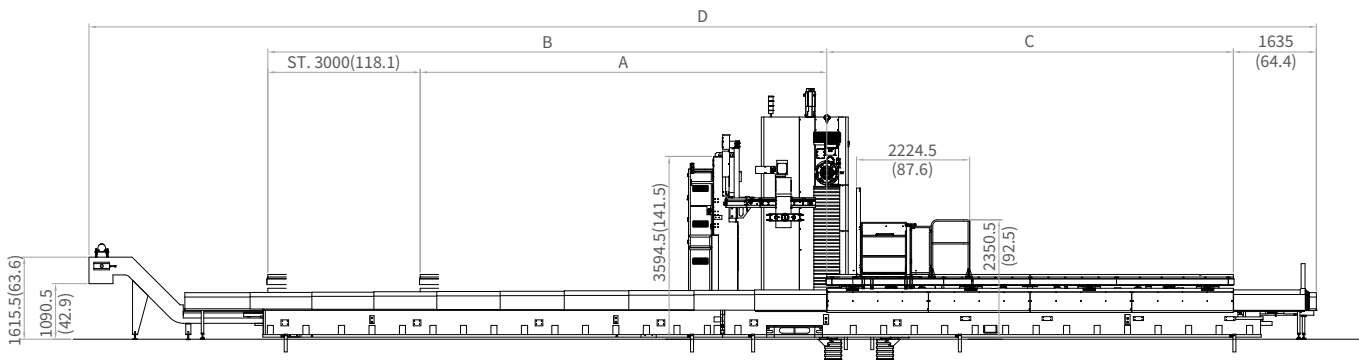
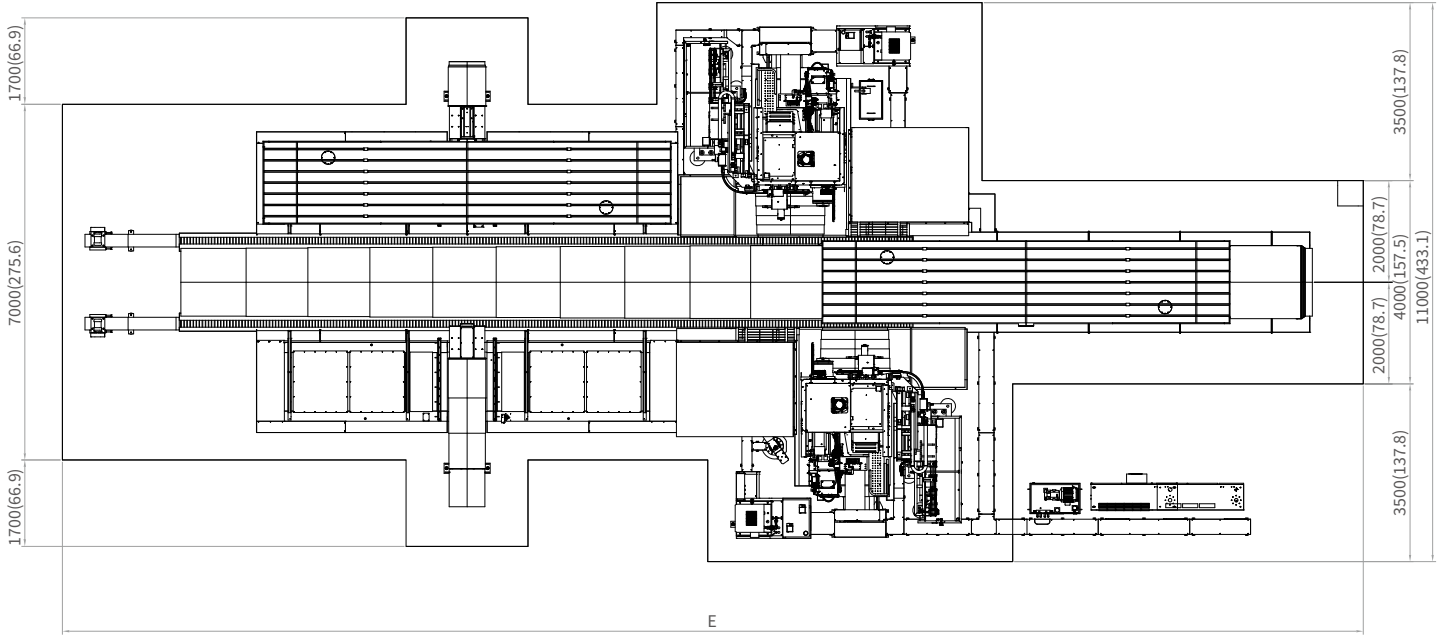
Item	DBD 1250	DBD 1270	DBD 1290
A X-axis	5000 (196.9)	7000 (275.6)	9000 (354.3)
B X-axis Total (W/H APC)	5000 {7100} (196.9 {279.5})	7000 {9100} (275.6 {358.3})	9000 {11100} (354.3 {437.0})
C Table length (Pallet length)	5000 (196.9)	7000 (275.6)	9000 (354.3)
D Machine length (W/H APC)	13845 {15945} (545.1 {627.8})	17850 {19950} (702.8 {785.4})	21850 {23950} (860.2 {942.9})
E Installation area (W/H APC)	15100 {17200} (594.5 {677.2})	19100 {21200} (752.0 {834.6})	23100 {25200} (909.4 {992.1})

* Some peripheral equipment can be placed in other places.

EXTERNAL DIMENSIONS

DBD 16W series

Unit : mm (inch)

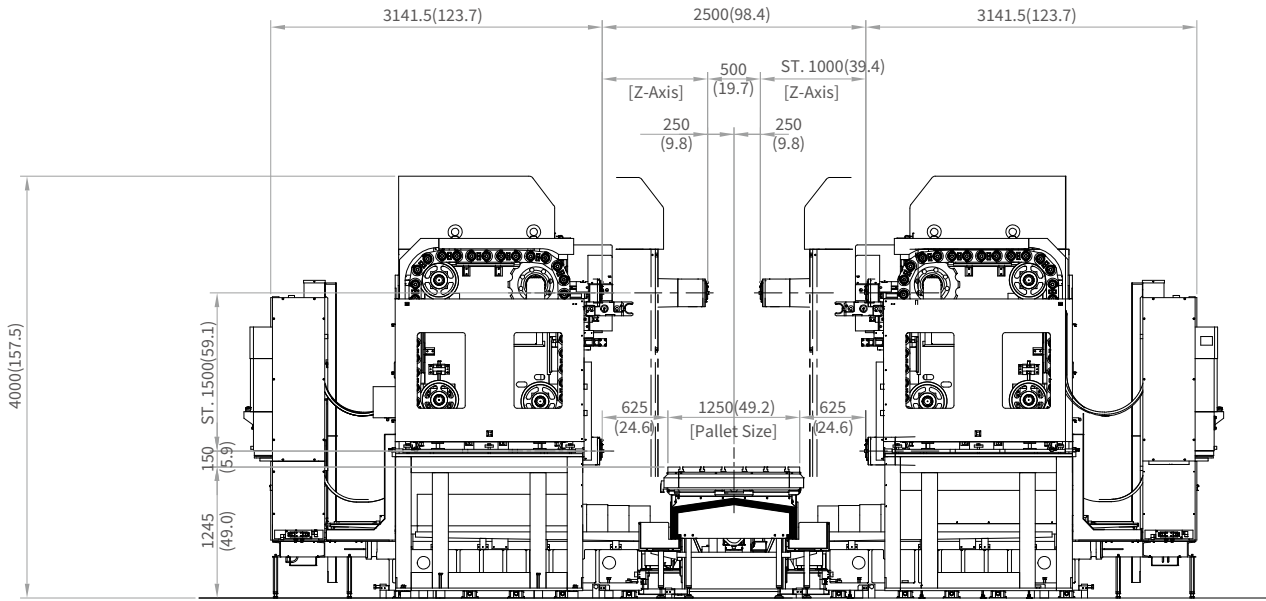


Item		DBD 1680W	DBD 16100W
A	X-axis	8000 (315.0)	10000 (393.7)
B	X-axis Total (W/H APC)	8000 {11000} (315.0 {433.1})	10000 {13000} (393.7 {511.8})
C	Table length (Pallet length)	8000 (315.0)	10000 (393.7)
D	Machine length (W/H APC)	21155 {24155} (832.9 {951.0})	25155 {28155} (990.4 {1108.5})
E	Installation area (W/H APC)	22600 {25600} (889.8 {1007.9})	26600 {29600} (1047.2 {1165.4})

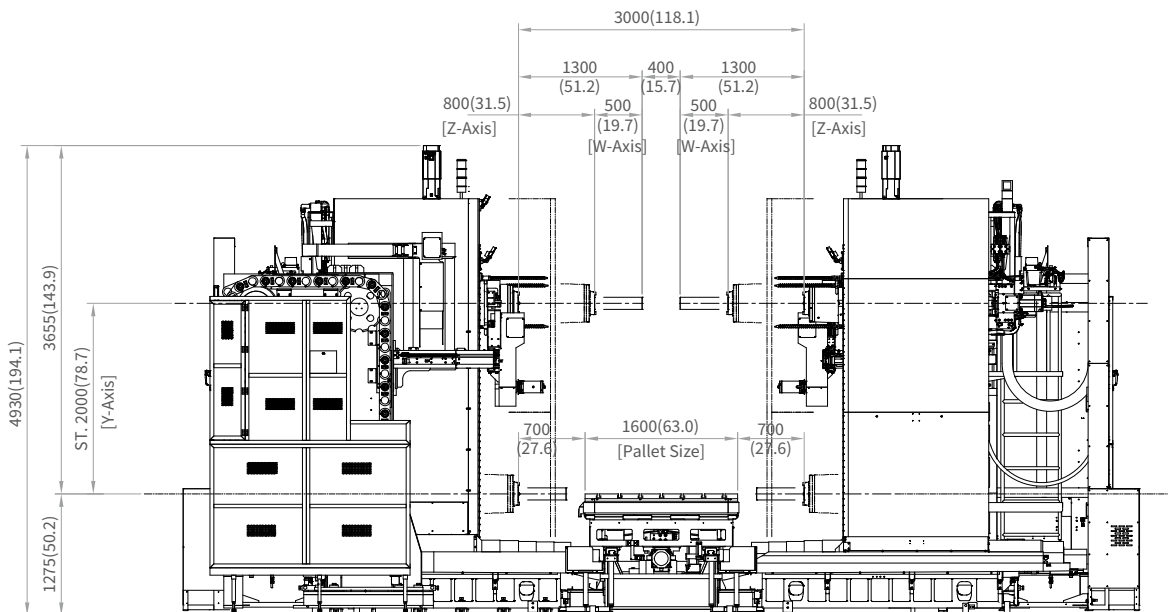
EXTERNAL DIMENSIONS

Unit : mm (inch)

DBD 12 series





DBD 16W series



* Some peripheral equipment can be placed in other places.

MACHINE SPECIFICATIONS

Description		Unit	DBD1250	DBD1270	DBD1290	DBD1680W	DBD16100W	
Travels	Stroke	X-axis	mm (inch)	5000 (196.9)	7000 (275.6)	9000 (354.3)	8000 (315.0)	10000 (393.7)
		Y-axis (extension opt.)	mm (inch)	1500 {2000} (59.1 {78.7})	1500 {2000} (59.1 {78.7})	1500 {2000} (59.1 {78.7})	2000 {2500} (78.7 {98.4})	2000 {2500} (78.7 {98.4})
		Z-axis	mm (inch)	1000 (39.4)	1000 (39.4)	1000 (39.4)	800 (31.5)	800 (31.5)
		W-axis	mm (inch)	X	X	X	500 (19.7)	500 (19.7)
	Distance between 2 spindle ends		mm (inch)	500~2500 (19.7~98.4)	500~2500 (19.7~98.4)	500~2500 (19.7~98.4)	400~3000 (15.7~118.1)	400~3000 (15.7~118.1)
	Distance between table center and spindle end		mm (inch)	250~1250 (9.8~49.2)	250~1250 (9.8~49.2)	250~1250 (9.8~49.2)	200~1500 (7.9~59.1)	200~1500 (7.9~59.1)
	Spindle center to table top	Table (W/H APC opt.)	mm (inch)	300~1800 (11.8~70.9) {150~1650 (5.9~65.0)}	300~1800 (11.8~70.9) {150~1650 (5.9~65.0)}	300~1800 (11.8~70.9) {150~1650 (5.9~65.0)}	150~2150 (5.9~84.6) {0~2000 (0~78.7)}	150~2150 (5.9~84.6) {0~2000 (0~78.7)}
Feedrate	Rapid traverse	X-axis	mm/min (ipm)	12 (0.5)	12 (0.5)	12 (0.5)	10 (0.4)	10 (0.4)
		Y-axis	mm/min (ipm)	12 (0.5)	12 (0.5)	12 (0.5)	10 (0.4)	10 (0.4)
		Z-axis	mm/min (ipm)	12 (0.5)	12 (0.5)	12 (0.5)	10 (0.4)	10 (0.4)
		W-axis	mm/min (ipm)	X	X	X	6 (0.2)	6 (0.2)
	Cutting feedrate	X/Y/Z-axis	mm/min (ipm)	4				
Table	Table Size	mm (inch)	1250x5000 (49.2x196.9)	1250x7000 (49.2x275.6)	1250x9000 (49.2x354.3)	1600x8000 (63.0x315.0)	1600x10000 (63.0x393.7)	
	Max. load capacity	kg (lb)	9000 (19841.3)	10000 (22045.9)	10000 (22045.9)	18000 (39682.6)	18000 (39682.6)	
Pallet 	Palle Size	mm (inch)	1250x5000 (49.2x196.9)	1250x7000 (49.2x275.6)	1250x9000 (49.2x354.3)	1600x8000 (63.0x315.0)	1600x10000 (63.0x393.7)	
	Max. load capacity	kg (lb)	7000 (15432.1)	7000 (15432.1)	7000 (15432.1)	8000 (17636.7)	8000 (17636.7)	
Spindle	Max. spindle speed	r/min	3000					
	Number of speed ranges		3 step					
	Spindle taper		ISO BT#50, 7/24 taper					
	Spindle motor (30 min/cont.)	kW (Hp)	26/22 {37/30} (34.9/29.5 {49.6/40.2})			26/22 (34.9/29.5)		
	Boring spindle diameter		-			ø130		
ATC 	Tool storage capacity	ea	40/ 60/ 90					
	Tool shanke		MAS403 BT50					
	Max. tool diameter	mm (inch)	ø130 (ø5.1) / {ø250 (ø9.8), ø400 (ø15.7) (both-side 1pots must be empty)}					
	Max. tool length	mm (inch)	400 (15.7)					
	Max. tool weight	kg (lb)	25 (55.1)			30 (66.1)		
	Method of tool selection		Fixed address					
Power	Electric power supply (rated capacity)	a22(a30)	KVA	100(120)		120		
Machine dimensions	Installation LengthXWidth	Table (W/H APC opt.)	mm (inch)	15100 {17200} (594.5 {677.2})	19100 {21200} (752.0 {834.6})	23100 {25200} (909.4 {992.1})	22600 {25600} (889.8 {1007.9})	26600 {29600} (1047.2 {1165.4})
	Height	Y1500 (Y2000 opt.)	mm (inch)	4000 {4500} (157.5 {177.2})			4930 (194.1)	
	Weight (Std)		kg (lb)	63000 (138889.2)	68000 (149912.1)	73000 (160935.1)	74000 (163139.7)	79000 (174162.6)

* Please consult with your DN Solutions for Increasing the table length.

{ } : Option

WHY DN SOLUTIONS

The DN Solutions promise, MACHINE GREATNESS, has two important meanings. The first is simple: DN Solutions 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 DN Solutions over other options?* Here's why...

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 DN Solutions 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 DN Solutions 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**

DN SOLUTIONS GLOBAL NETWORK

DN Solutions 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.



66	COUNTRIES
140+	SALES NETWORKS
3	FACTORIES
6	REGIONAL HQS



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