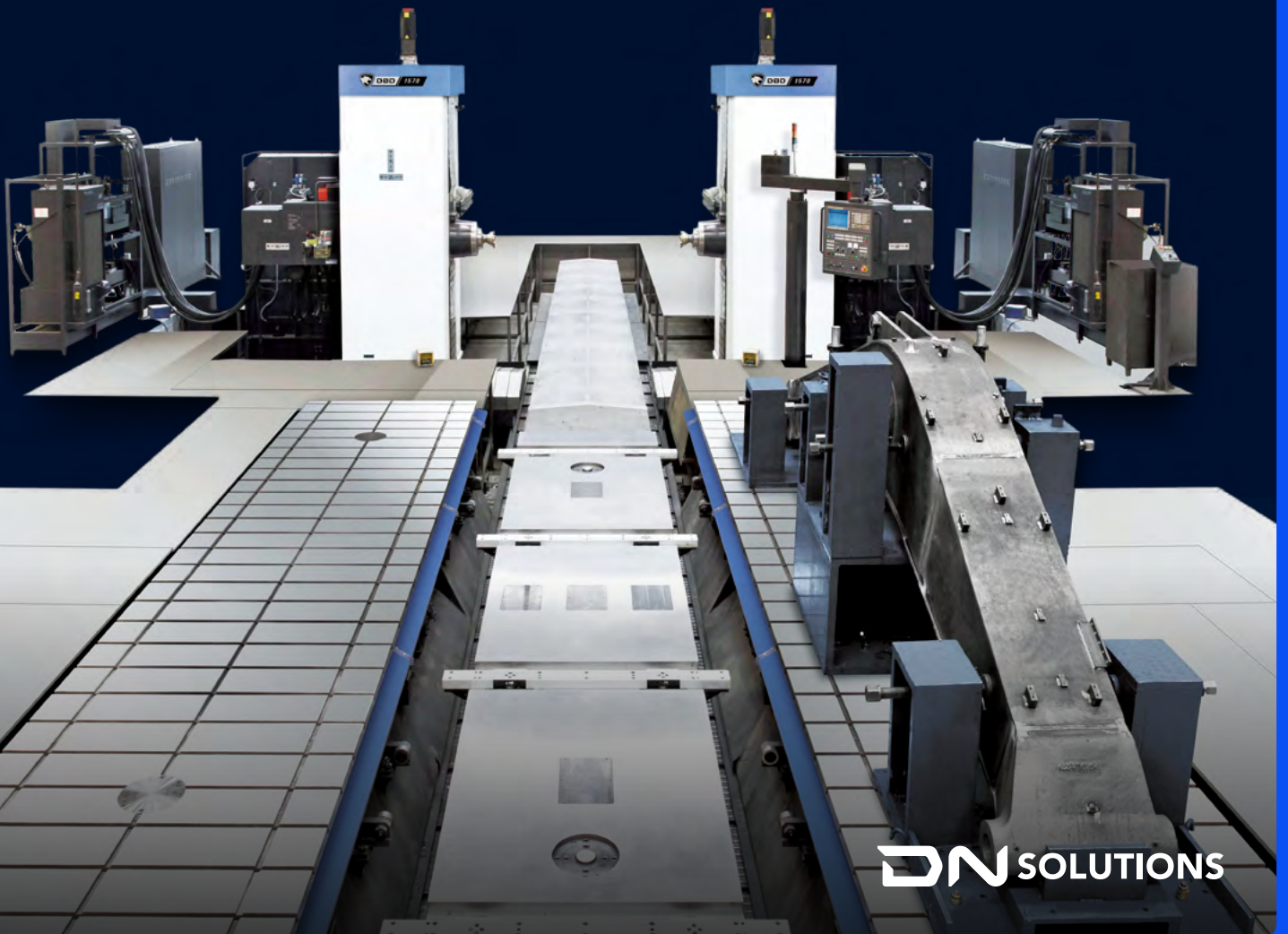




DBD SERIES FOR LARGE SIZED WORK-PIECE

DBD

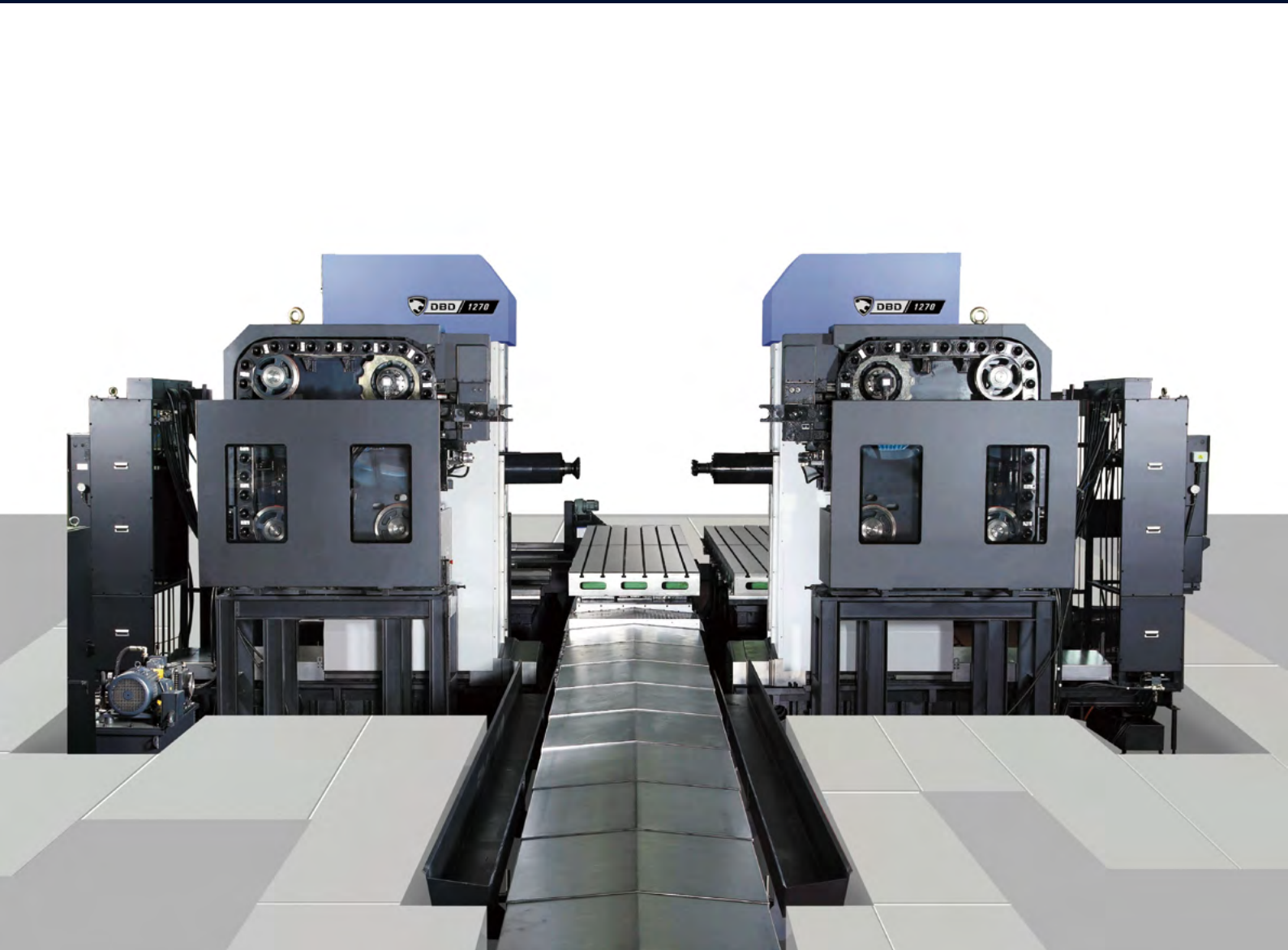
1250 • 1270 • 1290 • 1680W • 16100W

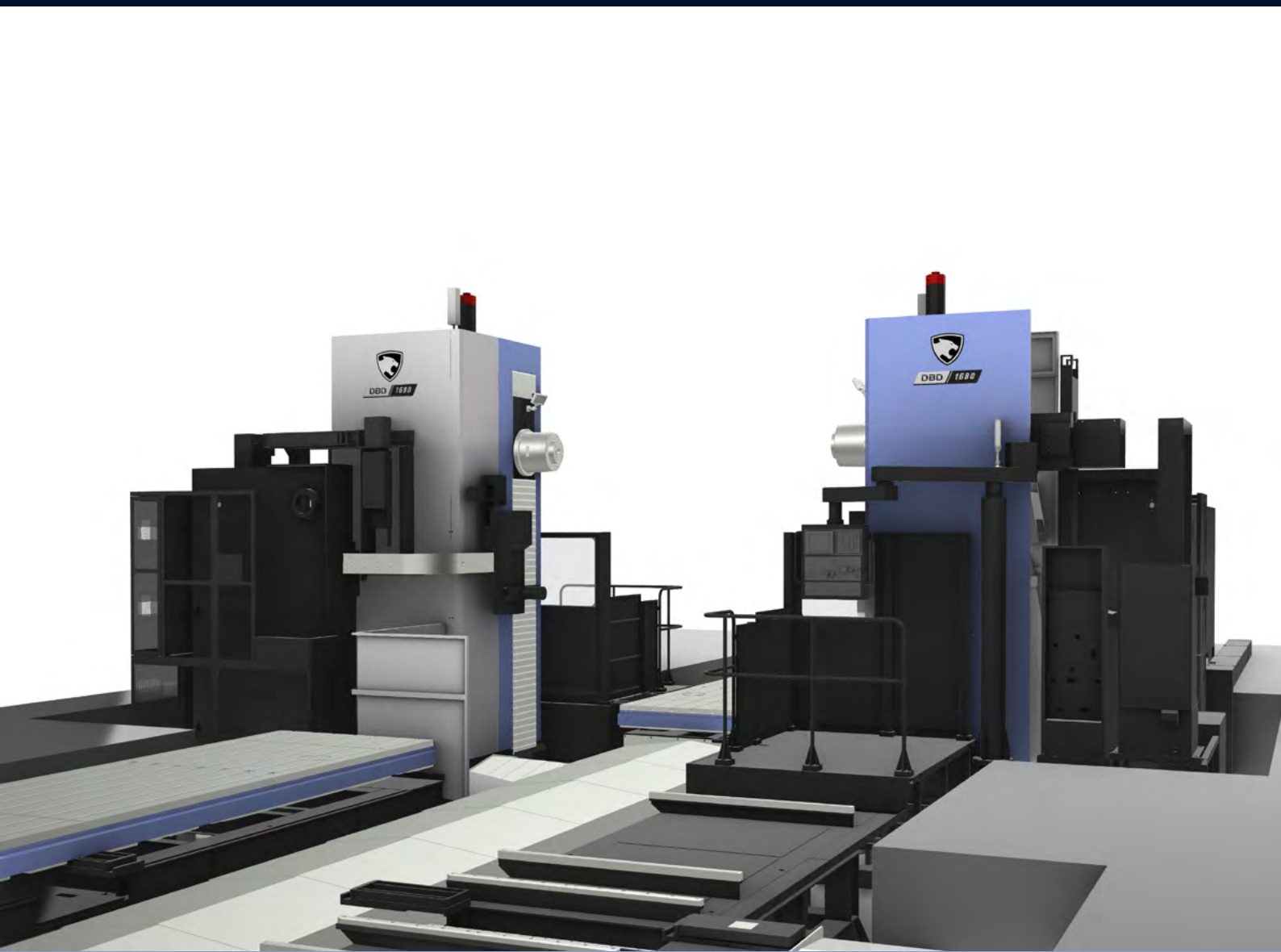


DN SOLUTIONS

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.





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 : 1250x5000 mm (49.2 x 196.9 inch)
- DBD1270 : 1250x7000 mm (49.2 x 275.6 inch)
- DBD1290 : 1250x9000 mm (49.2 x 354.3 inch)
- DBD1680W : 1600x8000 mm (63.0 x 315.0 inch)
- DBD16100W : 1600x10000 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

Spindle head OPTION



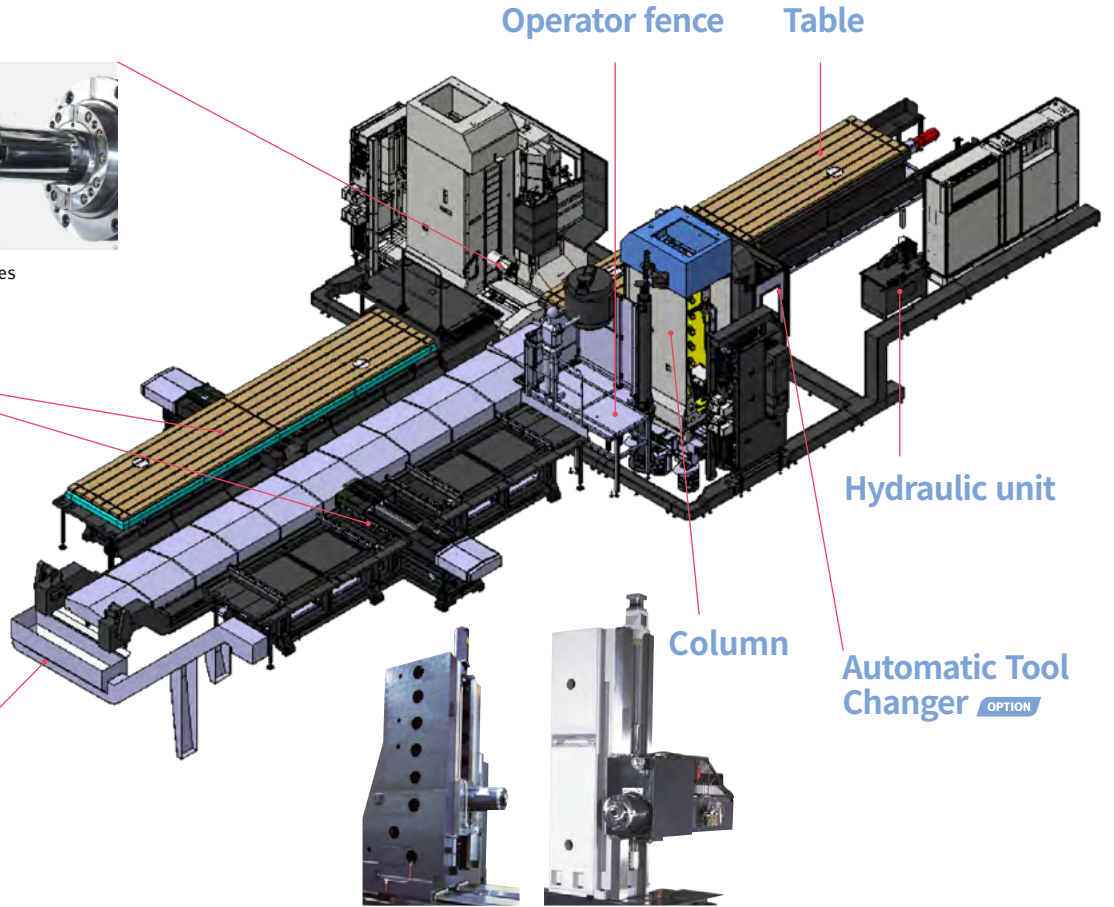
DBD12 series

DBD 16W series

Auto Pallet Changer OPTION



Lift-up chip conveyor OPTION



DBD12 series

DBD 16W series

TABLE | PALLET

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

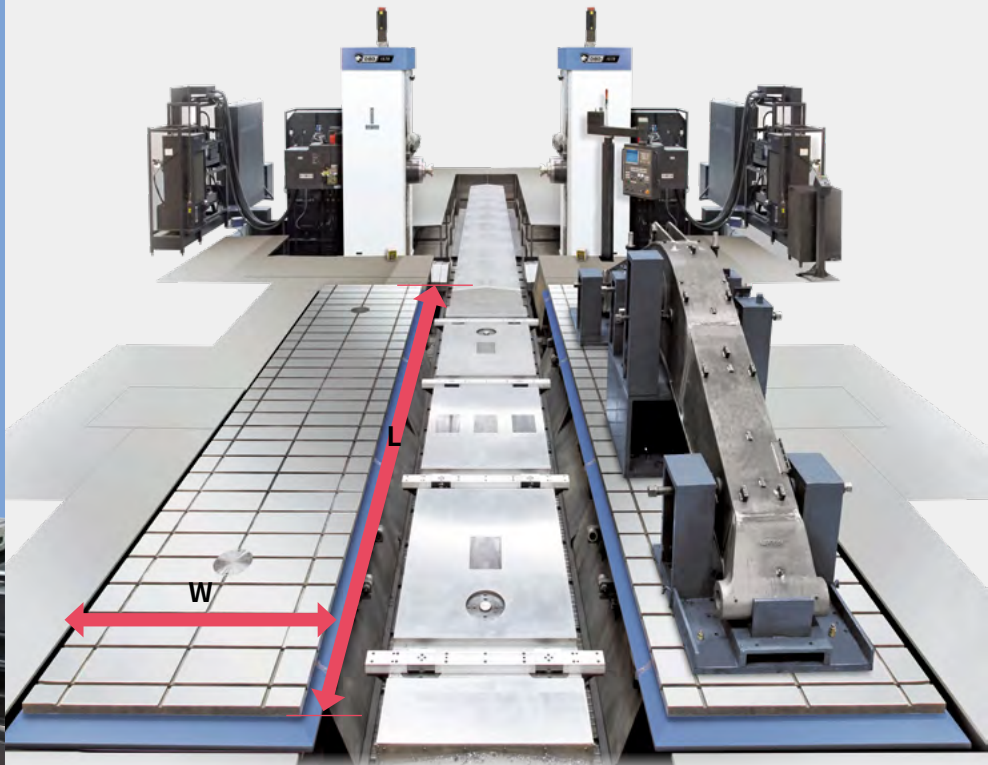
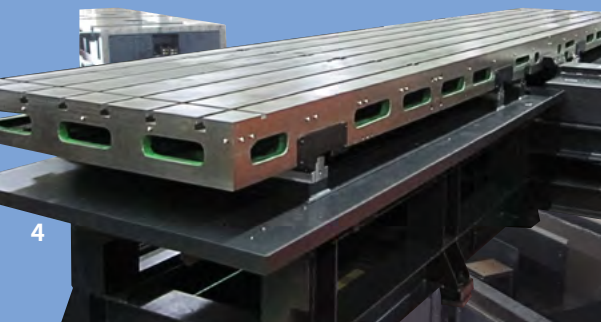
Unit : mm (inch)

	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)

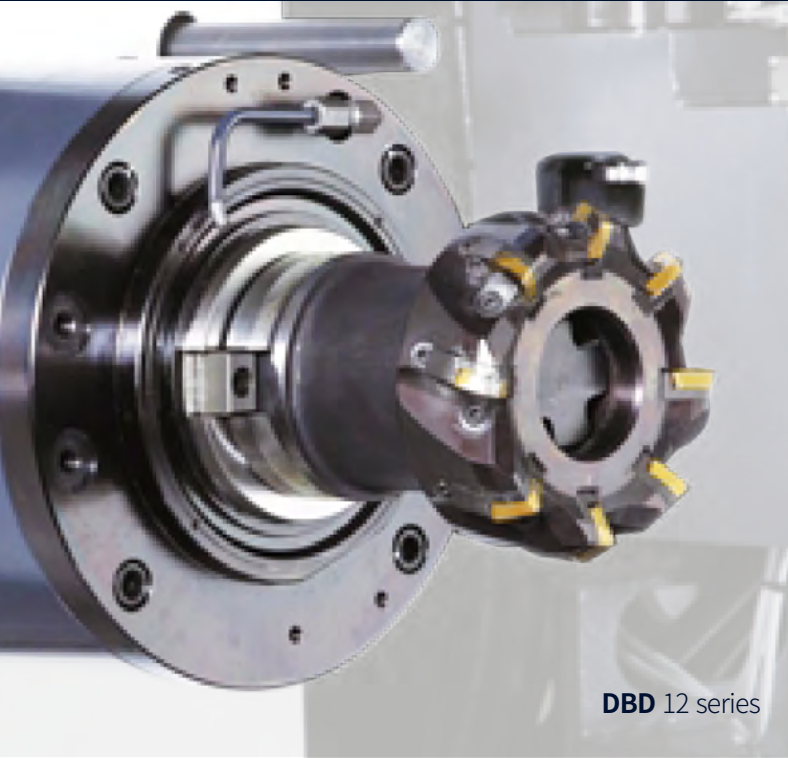
* Please consult with DN Solutions for increasing the table length.

Auto Pallet Changer

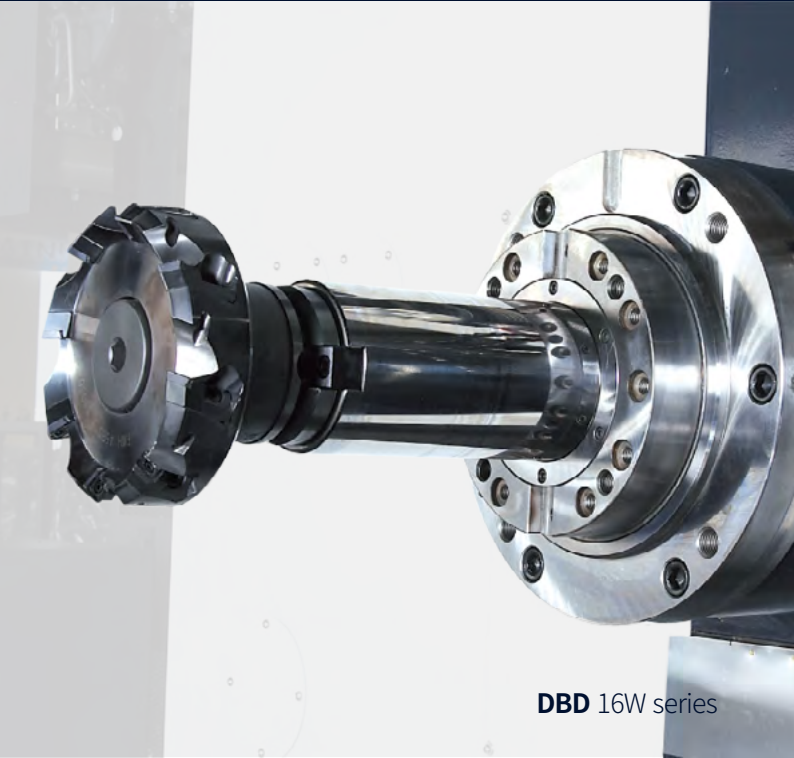


SPINDLE

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



DBD 12 series



DBD 16W series

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

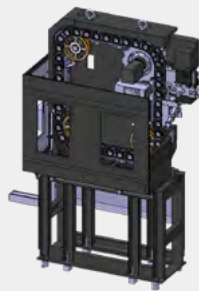
Tool Magazine by servo control will be accomplished higher reliability, speed smooth operation and reducing noise.

Acceptable Tool Dimensions

	Spec.	Shape
Max. tool diameter	Facing Tool D = $\varnothing 130$ mm ($\varnothing 5.1$ inch) [Continuous]	
	Boring Tool D = $\varnothing 400$ 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

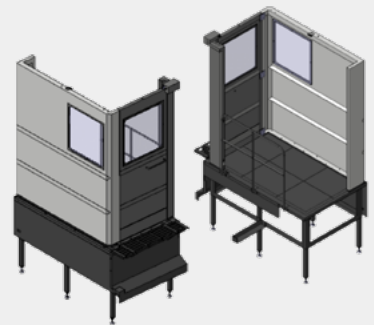


DBD12 series

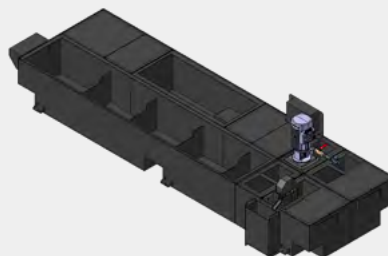


DBD 16W series

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 MOTOR(30min/ cont.rating)	26/22 Kw	●	●	●	●	●
		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	○	○
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	○	○	○	○	○
	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.

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

● Standard ○ Optional X N/A



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.

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.



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.

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



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	Part program storage size & Number of registerable programs	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	○	○		

Network: FANUC MTConnect and FANUC OPC UA available.

● Standard ○ Optional X N/A ⊕ Available

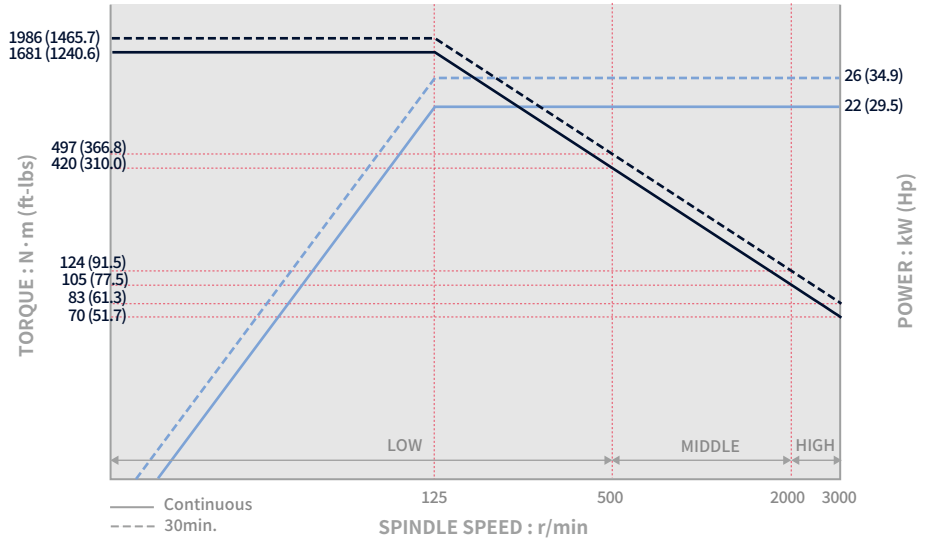
POWER | TORQUE

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

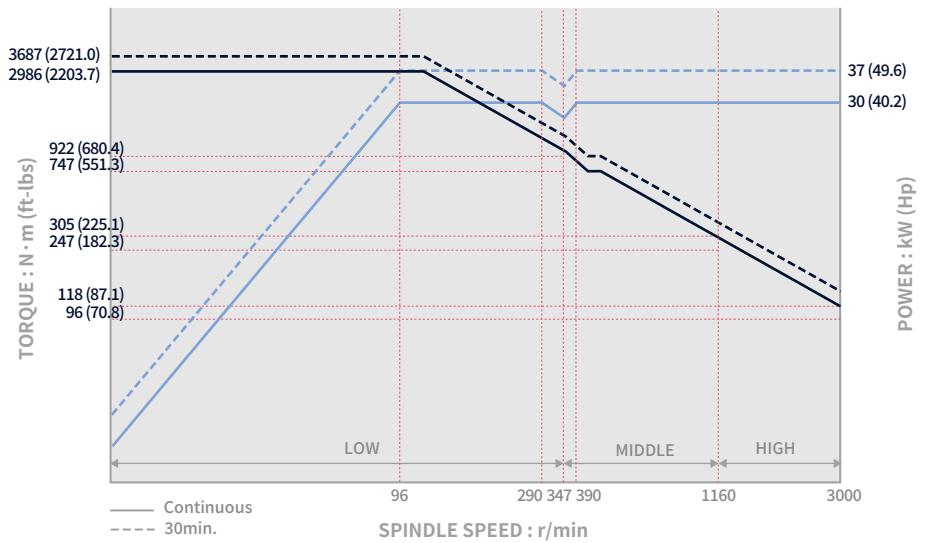


DBD 12 series

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

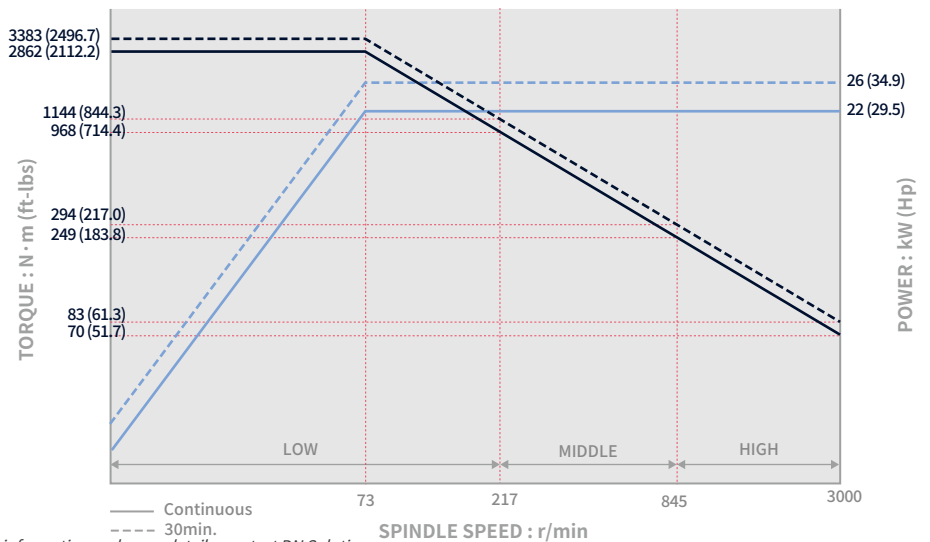


DBD 1680W / 16100W

Max. spindle speed : **3000** r/min

Max. power : **26/22** kW
34.9/29.5 Hp

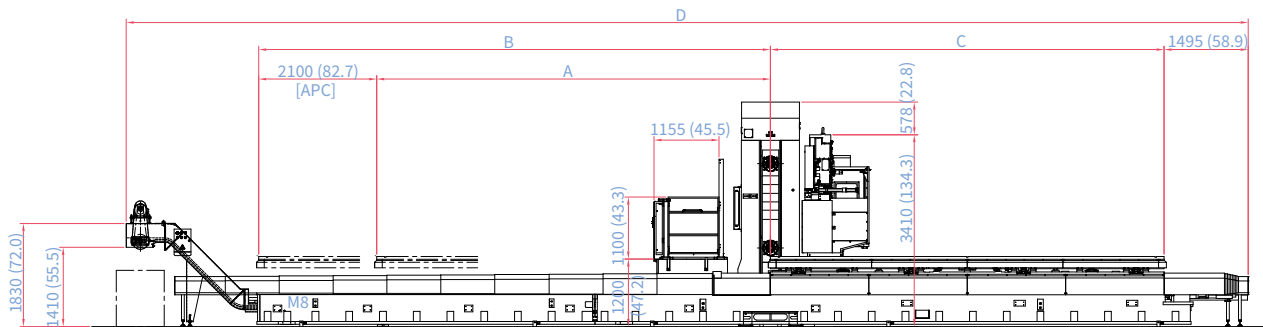
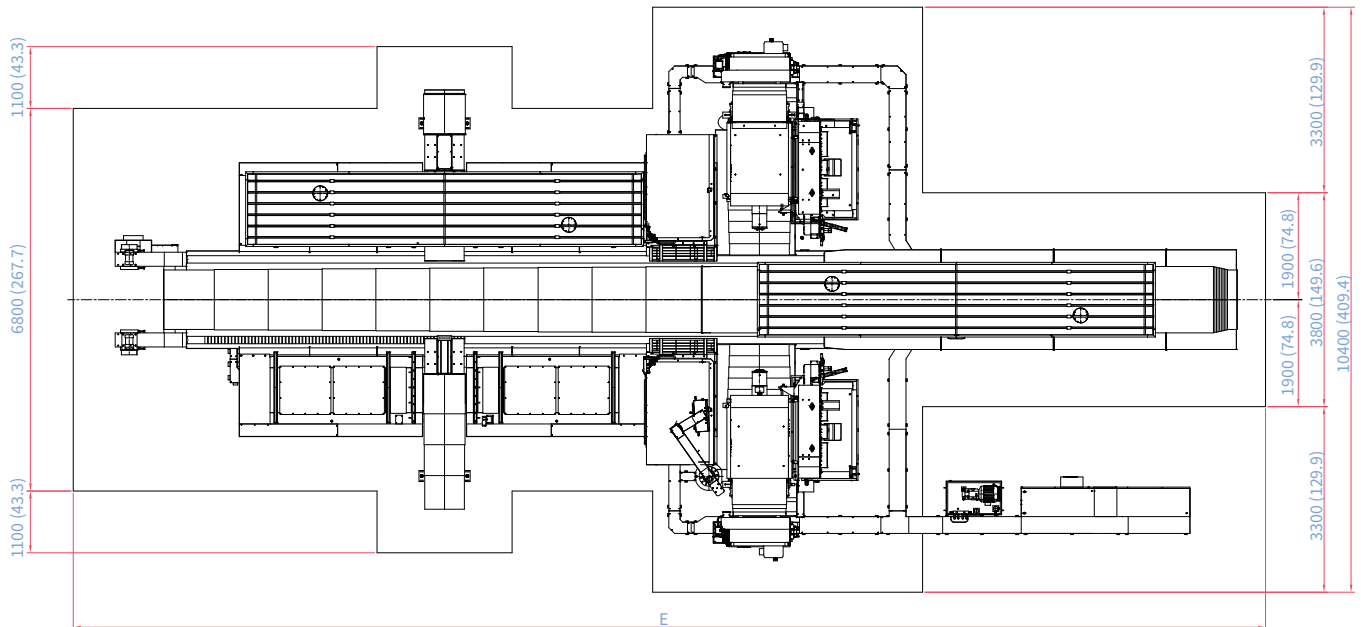
Max Torque : **3383** N·m
2496.7 lbf-ft



EXTERNAL DIMENSIONS

DBD 12 series

Unit : mm (inch)



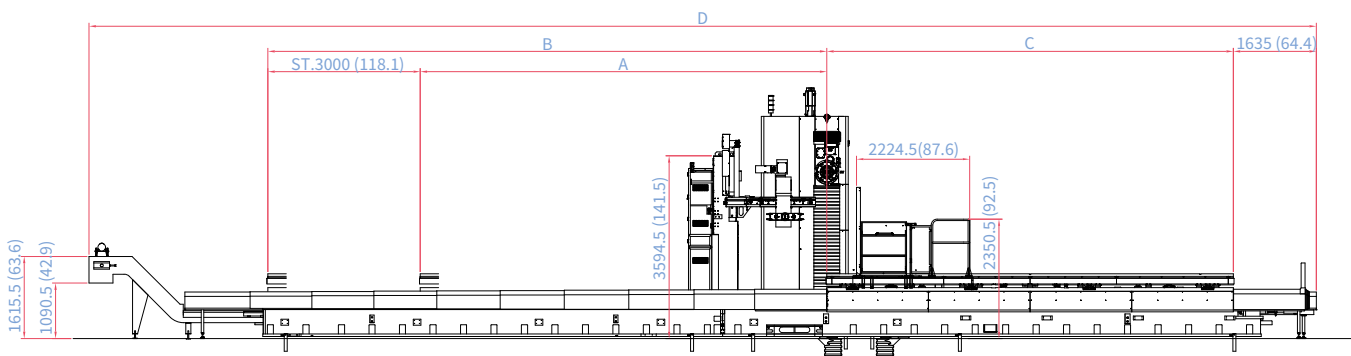
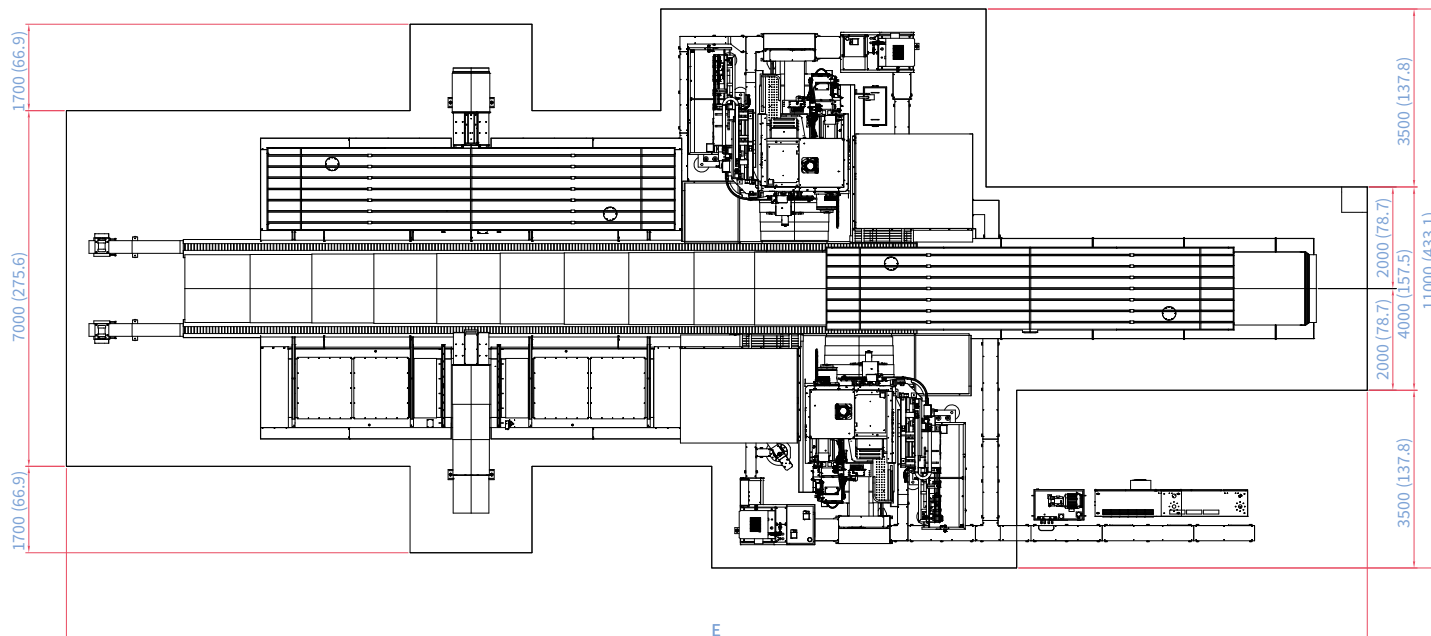
Item		DBD 1250	DBD 1270	DBD 1290
A	X-axis	5000 (196.9)	7000 (275.6)	9000 (354.3)
B	X-axis Total (W/H APC)	5000 {7100} (196.9 {279.5})	7000 {9100} (275.6 {358.3})	9000 {11100} (354.3 {437.0})
C	Table length (Pallet length)	5000 (196.9)	7000 (275.6)	9000 (354.3)
D	Machine length (W/H APC)	13845 {15945} (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)

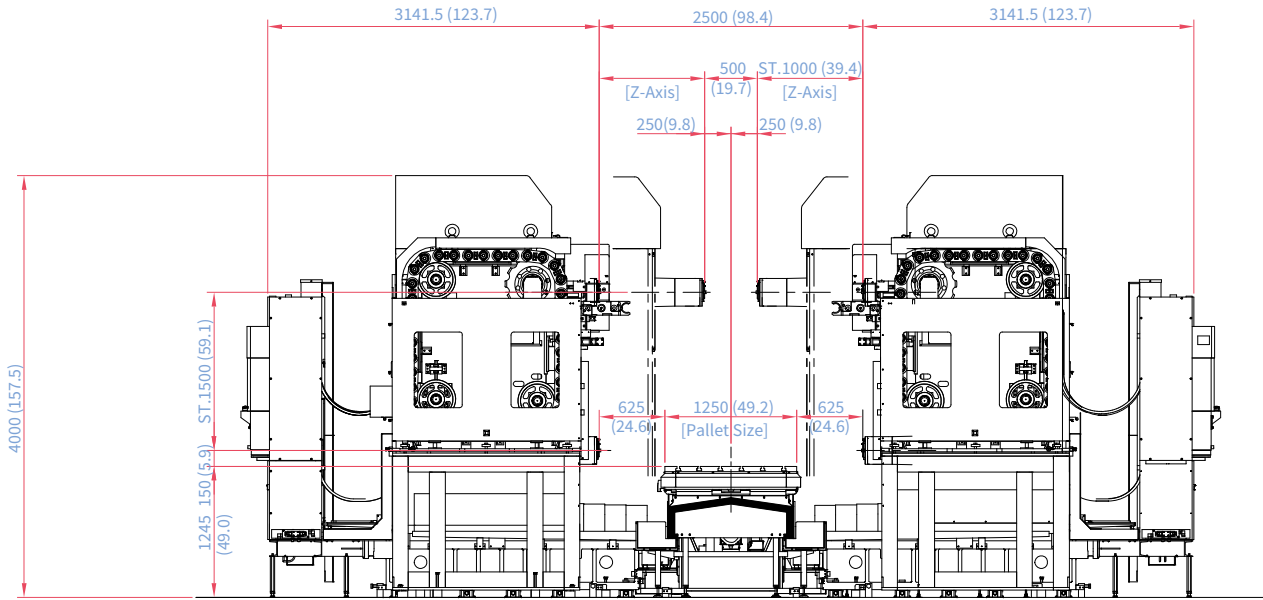


Item		DBD 1680W	DBD 16100W
A	X-axis	8000 (315.0)	10000 (393.7)
B	X-axis Total (W/H APC)	8000 {11000} (315.0 {433.1})	10000 {13000} (393.7 {511.8})
C	Table length (Pallet length)	8000 (315.0)	10000 (393.7)
D	Machine length (W/H APC)	21155 {24155} (832.9 {951.0})	25155 {28155} (990.4 {1108.5})
E	Installation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

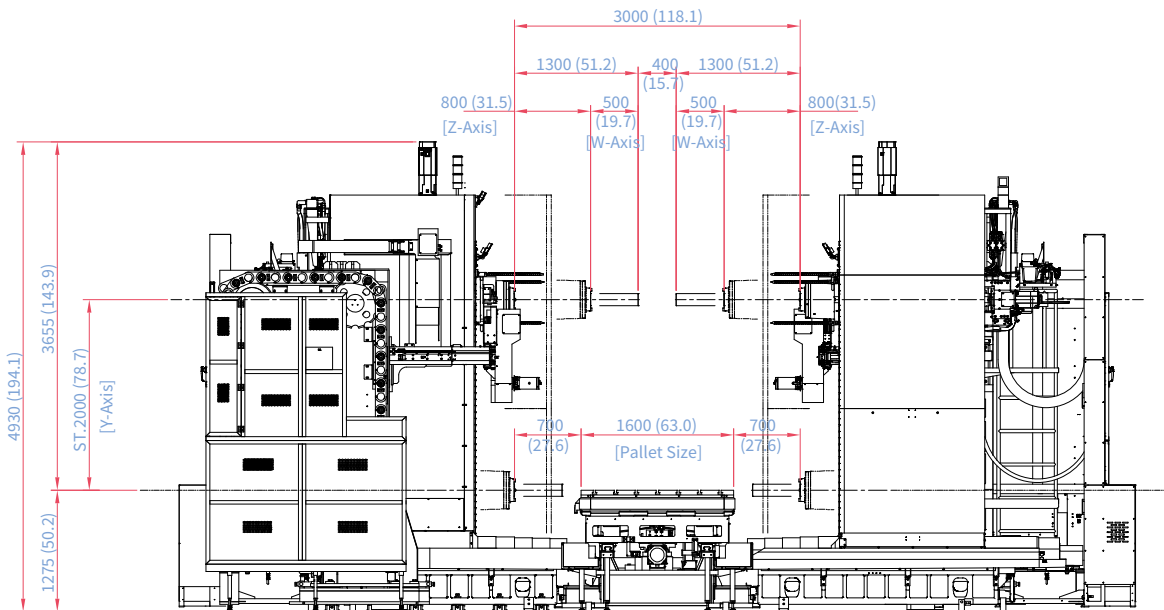
EXTERNAL DIMENSIONS

DBD 12 series

Unit : mm (inch)



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 <small>OPTION</small>	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 <small>OPTION</small>	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

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...



**MACHINE
GREATNESS™**



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

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.

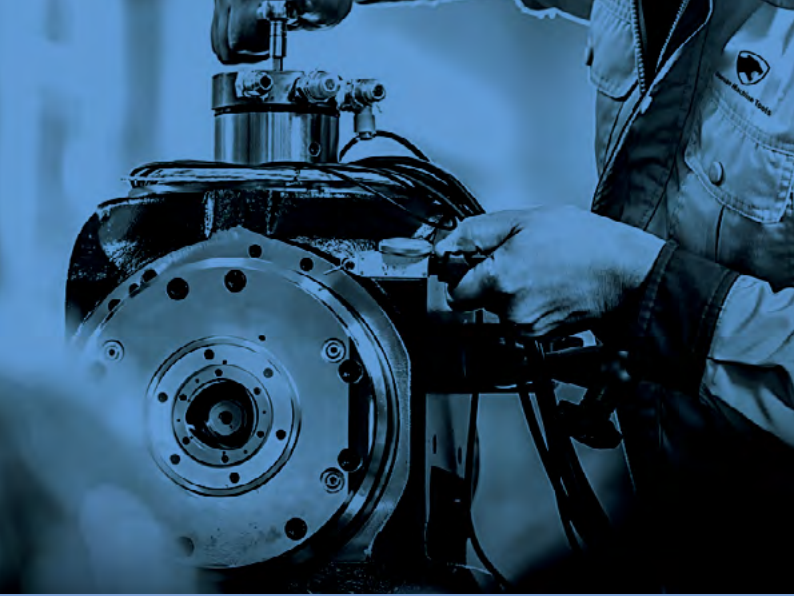
EXPERT SERVICE

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.



Global sales and service support network

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





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* Specifications and information contained within this catalogue may be changed without prior notice.