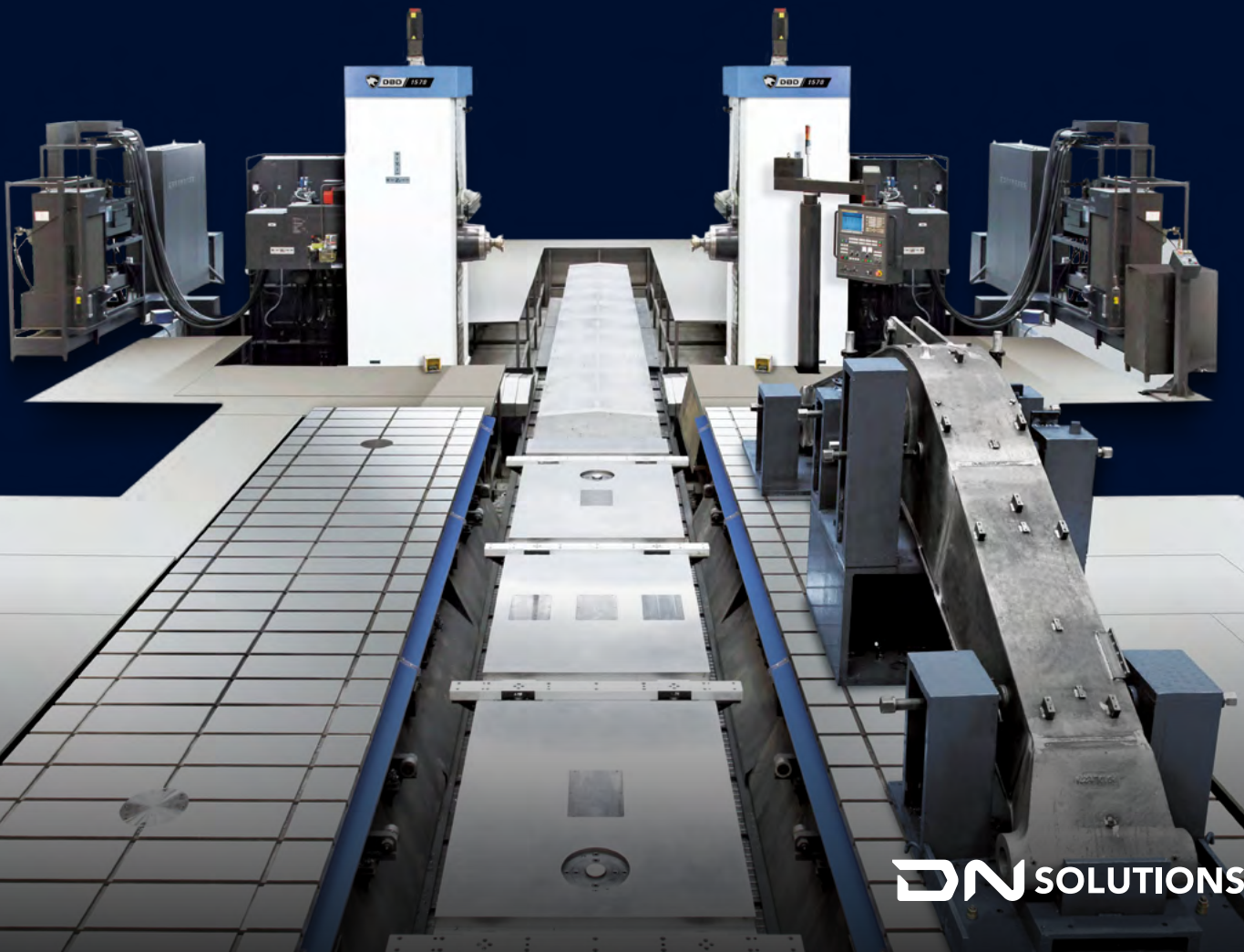




DBD SERIES FOR LARGE SIZED WORK-PIECE

DBD

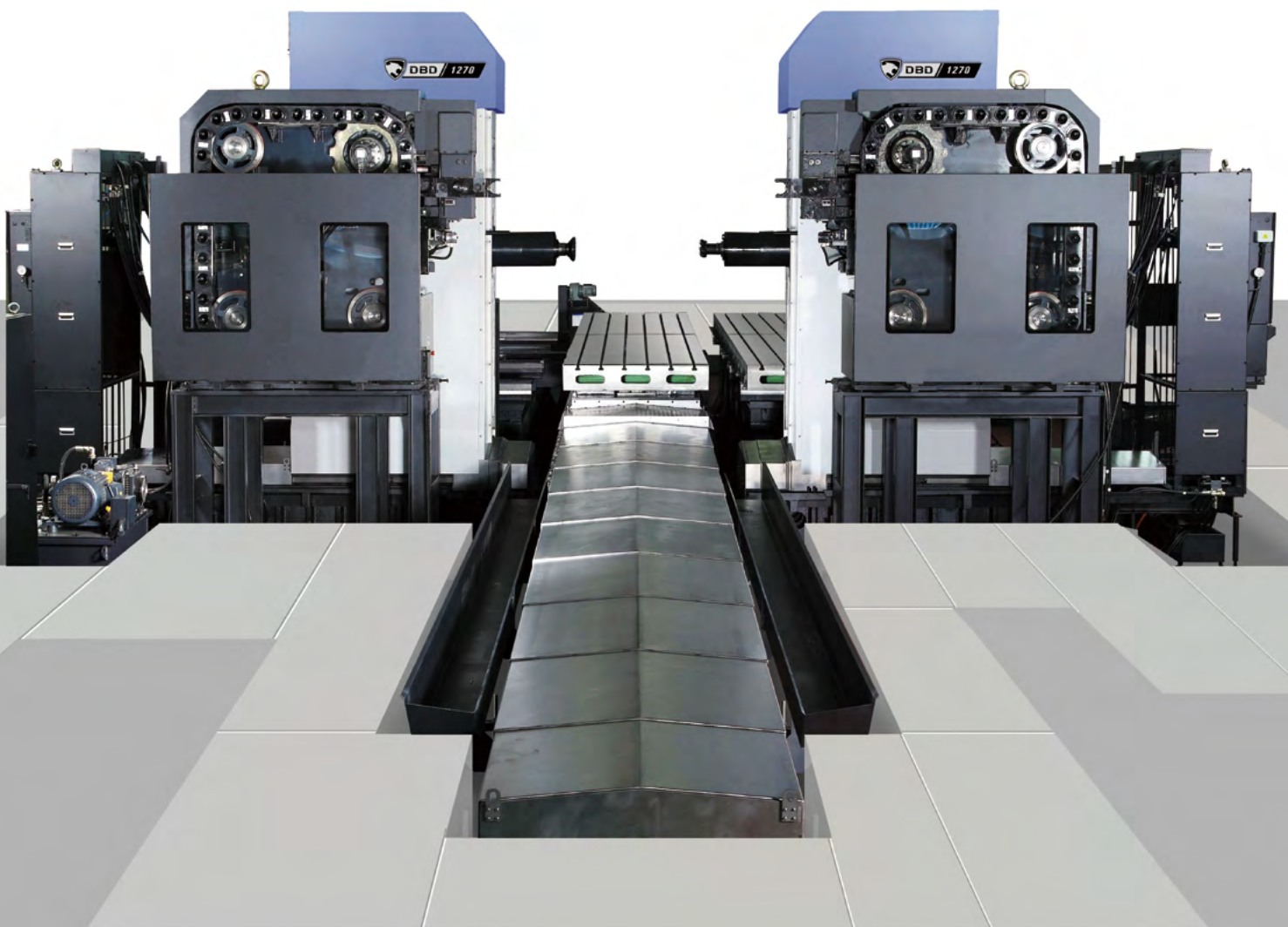
1270 • 1580



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 : 2500 r/min
- Max. spindle motor :
26/22Kw (34.9 / 29.5 Hp)
(Cont. / 30min)

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

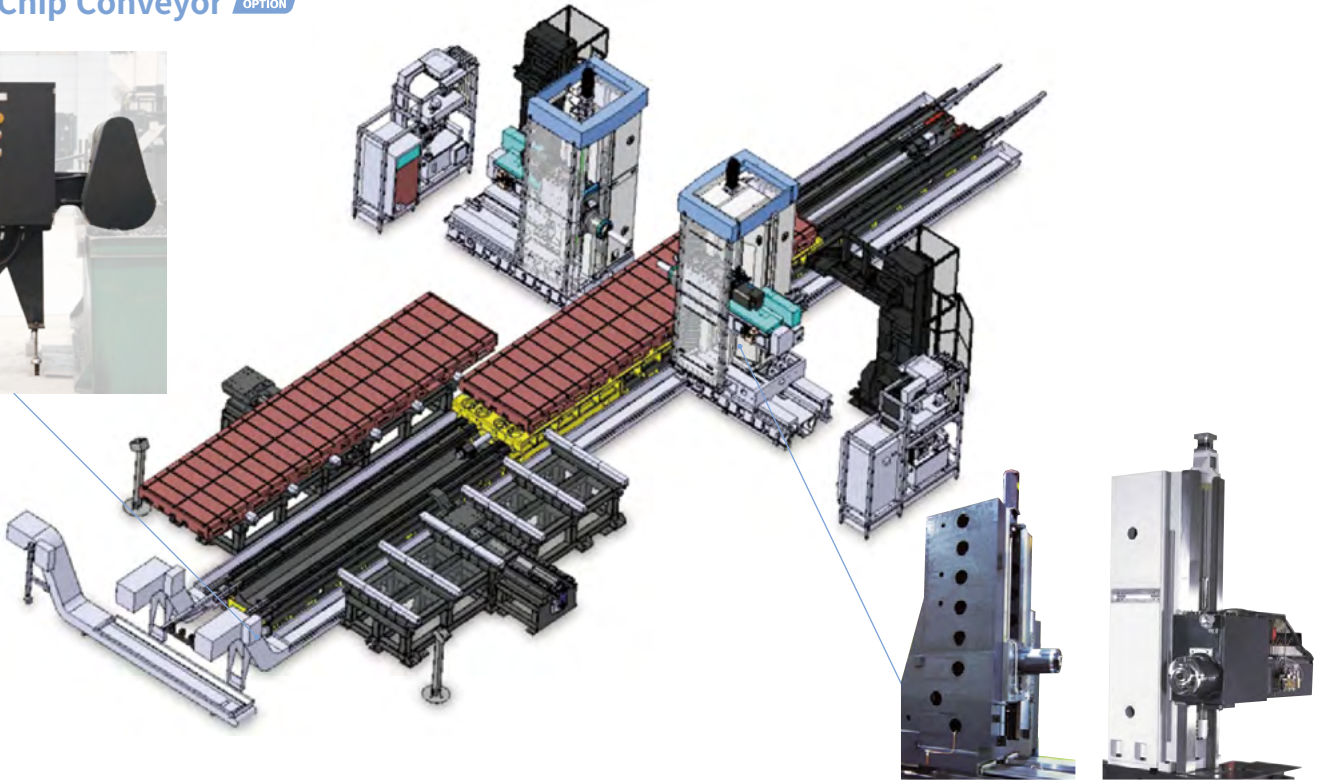
- DBD 1270 :
1250 X 7000 mm (49.2 x 275.6 inch)
- DBD 1580 :
1500 X 8000 mm (59.1 x 315.0 inch)

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

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

BASIC STRUCTURE

Hinged Chip Conveyor OPTION



Column **DBD 12 series** **DBD 15 series**

TABLE

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

Table size (W×L)

DBD 1270

1250 x 7000 mm

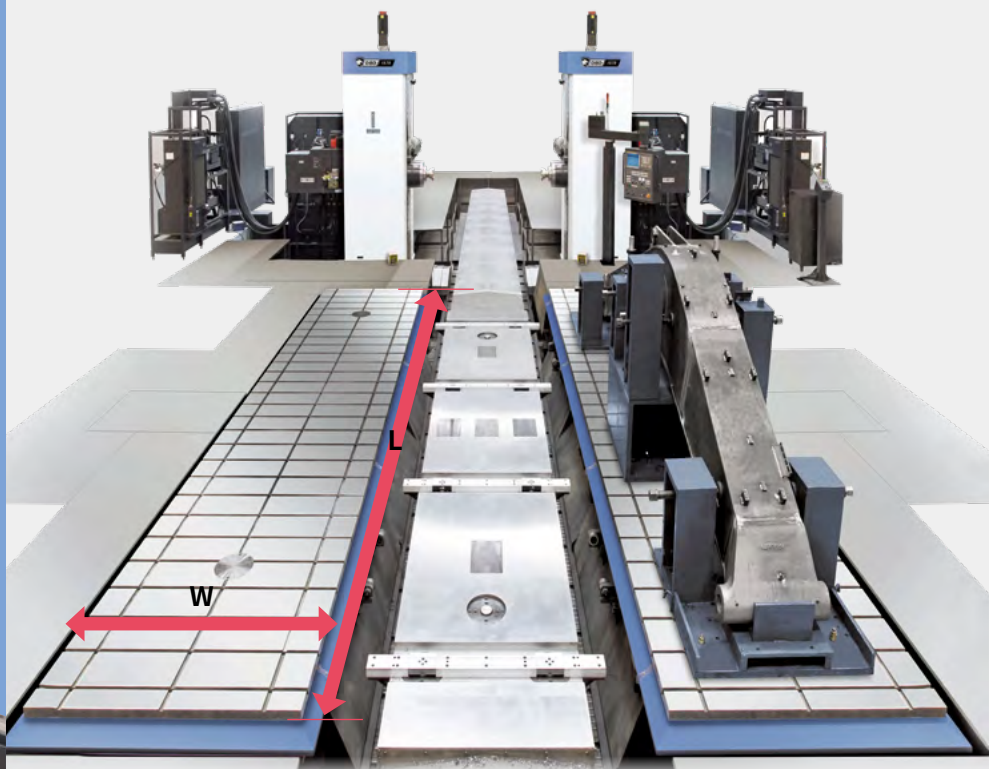
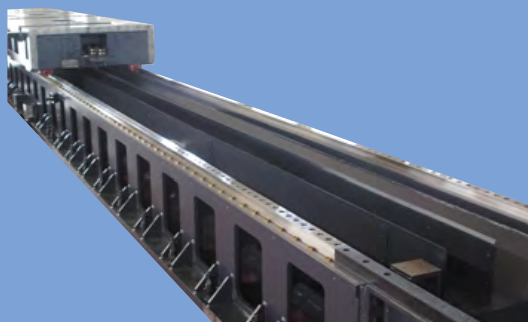
49.2 x 275.6 inch

DBD 1580

1500 x 8000 mm

59.1 x 315.0 inch

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

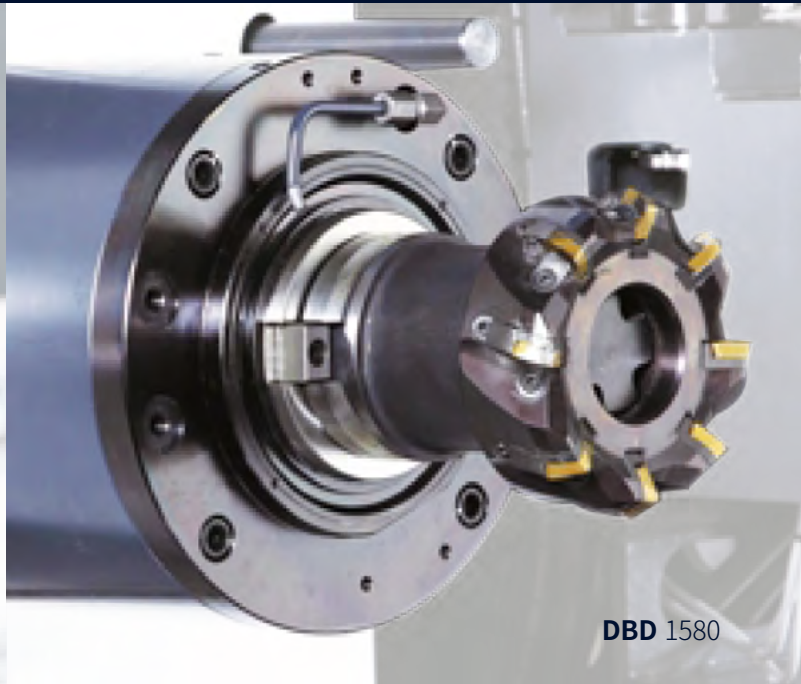


SPINDLE

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



DBD 1270



DBD 1580

Max. spindle speed

2500 r/min

Motor (Cont. / 30 min)

26/22 kW
34.9 / 29.5 Hp

Gear transmission

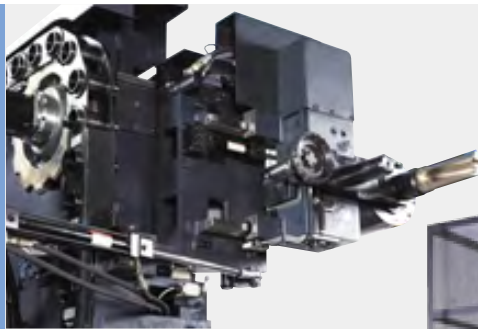
3 steps

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 OPTION

40/60 ea



Allowable moment : 34 N · m (25.1 ft · lb)

* Please attention to cutting edge direction and tool shape in case of Max. Boring tool

STANDARD | OPTIONAL SPECIFICATIONS

A range of options is available to suit individual requirements.

Division	Item	Specifications	DBD 1270	DBD 1580	
TRAVEL	STROKE	X-axis	7000 mm	●	X
		8000 mm	X	●	
		1500 mm	●	X	
		2000 mm	X	●	
		450 mm	●	●	
	Z-axis	1000 mm	●	X	
		500 mm	X	●	
		400 ~ 2,300 mm	X	●	
		500 ~ 2,500 mm	●	X	
		200 ~ 1,150 mm	X	●	
DISTANCE BETWEEN TABLE CENTER AND SPINDLE END	250 ~ 1,250 mm	●	X		
	300 ~ 1,800 mm	●	X		
	300 ~ 2,300 mm	X	●		
SPINDLE CENTER TO TABLE TOP	1,250 × 7,000 mm	●	X		
	1,500 × 8,000 mm	X	●		
	MAX. 10,000 kg	●	●		
DIVIDING TABLE	CAPACITY	TABLE SIZE (WIDTH X LENGTH)	24H8 mm	●	●
	T-SLOT X NUMBERS	LOAD CAPACITY	26 / 22 kW	●	●
SPINDLE HEAD	SPINDLE DRIVE MOTOR (30 min./cont. rating)	30 / 22 kW	X	○	
		37 / 30 kW	○	X	
		2500 r/min	X	●	
	SPINDLE SPEED	3000 r/min	●	X	
		3 STEPS	●	●	
	NUMBER OF SPEED RANGES	MAS403 BT 50	●	●	
		MAS403-P50T-1(45°)	●	●	
	TOOL SHANK	POSITION CODER	●	●	
		ISO #50, T/24 TAPER	●	●	
	ORIENTATION	SPINDLE COOLING	TANK CAPACITY	40 x 2EA L	●
CAPACITY		120 x 2EA L	X	●	
AXIS SYSTEM	RAPID TRAVERSE	X / Y / Z-axis	12,000 / 12,000 / 12,000 mm/min	●	X
		X / Y / Z / W-axis	10,000 / 10,000 / 10,000 / 6,000 mm/min	X	●
	MAX. CUTTING FEEDRATE	X / Y / Z-axis	4000 mm/min	●	X
		X / Y / Z / W-axis	4000 mm/min	X	●
	FEED MOTOR	X / Y / Z-axis	AC 9.0 / 9.0 / 9.0 kW	●	X
		X / Y / Z / W-axis	AC 9.0 / 9.0 / 9.0 / 4.0 kW	X	●
	FEEDBACK SYSTEM	X / Y / Z-axis	INC. PULSE CODER	●	X
		X / Y / Z / W-axis	INC. PULSE CODER	X	●
	POSITIONING ACCURACY	X / Y / Z-axis	±0.01 / 1000mm	●	X
		X / Y / Z / W-axis	±0.01 / 1000mm	X	●
REPEATABILITY	X / Y / Z-axis	±0.010 mm	●	X	
	X / Y / Z / W-axis	±0.010 mm	X	●	
STANDARD ACCESSORIES	CONCENTRICITY	±0.05 mm	●	●	
	SLIDEWAY COVERS (X / Z-axis)	2 set	●	●	
	COLUMN GUIDEWAY CHIP COVER (Y-axis)	1 set	●	X	
	SPINDLE ORIENTATION	POSITION CODER set	●	●	
	PORTABLE MPG	1 set	●	●	
	MAIN OP. PANEL	1 set	●	●	
	OPERATOR'S CALL LAMP (RED / YELLOW / GREEN)	1 set	●	●	
	TABLE CHIP PAN (AROUND TABLE ONLY)	1 set	●	●	
	WORK LIGHT (HALOGEN LAMP)	2 set	●	●	
	FOOT SWITCH FOR TOOL UNCLAMP	2 set	●	●	
TOOL KIT	1 set	●	●		
CUSTOMER'S MANUAL	1 set	●	●		
LEVELING BLOCKS & ANCHORING BOLTS ⁽³⁾	1 set	●	●		
SPINDLE OIL COOLER	2 set	●	●		
TEST BAR	2 set	●	●		
OPERATOR GUARD	1 set	●	●		
ATC	TOOL STORAGE CAPACITY	40 EA	○	○	
		60 EA	○	○	
	TOOL SHANK	MAS403 BT 50	●	●	
	PULL STUD	MAS403-P50T-1(45°)	●	●	
	TOOL SELECTION TYPE	FIXED ADDRESS	●	●	
	MAX. TOOL DIAMETER	Φ130(CONT.), Φ250(ADJACENT BOTH-SIDE 1POT EMPTY) mm	●	●	
	MAX. TOOL LENGTH	400 mm	●	●	
MAX. TOOL WEIGHT	25 kg	●	●		
MAX. TOOL MOMENT	29.4 N·m	●	●		
APC	NUMBER OF PALLETS	2 EA	○	○	
	APC TYPE	PARALLEL SHUTTLE (Z-DIRECTION)	○	○	
	PALLET SIZE (WIDTH×LENGTH)	1,250 × 7,000 mm	○	X	
LINEAR SCALE FEEDBACK SYSTEM	INCREMENTAL TYPE	1,500 × 8,000 mm	X	○	
		10000 kg	○	○	
CHIP DISPOSAL	HINGED BELT	T-SLOT	24H8 mm	○	○
		0.75 kW SET	○	○	
AXIS EXTENSION PNEUMATIC ACCESSORY	STROKE	Y-axis	2000 mm	○	X
		AIR	AIR SPRAY GUN	1 SET	○
MEASUREMENT	WORK SETTING GUIDE	AUTO. WORKPIECE MEASUREMENT ⁽¹⁾	RENISHAW (RMP60)-2SET/EA SET	○	○
		AUTO OFFSET MEASUREMENT WITH RMP60	RENISHAW (RMP60)-2SET/EA + S/W FUNCTION EA	○	○

* Please contact DN Solutions to select detailed steady rest specifications

● Standard ● Optional X Not applicable



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.

CONVENIENT OPERATION

Fanuc 32i

User-friendly operation panel

The FANUC 32i is the core FANUC CNC system. Featuring an array of functions and advanced control technologies, the 32i is the ideal control for high-performance lathes and machining centers. Leading-edge hardware has enhanced the basic performance of the CNC, servos and the PMC to support advanced CNC functionality and operation. The end result is an intuitive, fast and vastly improved operator experience.



Design optimized for customers' needs based on our extensive know-how

Designed for user convenience	<ul style="list-style-type: none"> • Convenient and intuitive UI • Optimized button size • High-visibility lamps • Long life cycle buttons • Partitioned to prevent operator error
Convenient option buttons	<ul style="list-style-type: none"> • Detachable buttons • Spare I/O signal ports for optional devices
Customized functionality	<ul style="list-style-type: none"> • Customer-specific function switches • Available for auxiliary panel design

NUMERIC CONTROL SPECIFICATIONS

FANUC

Division	Item	Specifications	DBD1680	DBD1270	
			F32iB	F32iB	
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	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)	X	X	
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	
	Tilted working plane indexing command	G68.2 TWP	X	X	
Feed function	AI contour control I	G5.1 Q ₁ , 40 Blocks	X	X	
	AI contour control II	G5.1 Q ₂ , 200 Blocks	●	●	
	AI contour control III	G5.1 Q ₃ , 600 Blocks	○	○	
	AI contour control IV	G5.1 Q ₄ , 1000 Blocks	○	○	
	High smooth TCP		X	X	
Operation Guidance Function	EZ GuideI(Conversational Programming Solution)		X	X	
	iHMI with Machining Cycle	Note *1) Only with 15" Touch LCD standard	X	X	
Setting and display	EZ Operation package		●	●	
	CNC screen dual display function		●	●	
Network	FANUC MTConnect		*	*	
	FANUC OPC UA		*	*	
Others	Display unit	15" color LCD	●	●	
		15" color LCD with Touch Panel	○	○	
	Part program storage size & Number of registerable programs	640M(256KB) _500 programs		X	X
		1280M(512KB) _1000 programs		X	X
		2560M(1MB) _1000 programs		X	X
		5120M(2MB) _1000 programs		●	●
		10240M(4MB) _1000 programs		X	X
		20480M(8MB) _1000 programs		X	X
		2560M(1MB) _2000 programs		X	X
		5120M(2MB) _4000 programs		X	X
10240M(4MB) _4000 programs		X	X		
20480M(8MB) _4000 programs		X	X		

Network: FANUC MTConnect and FANUC OPC UA available.

● Standard ○ Optional X N/A * Available

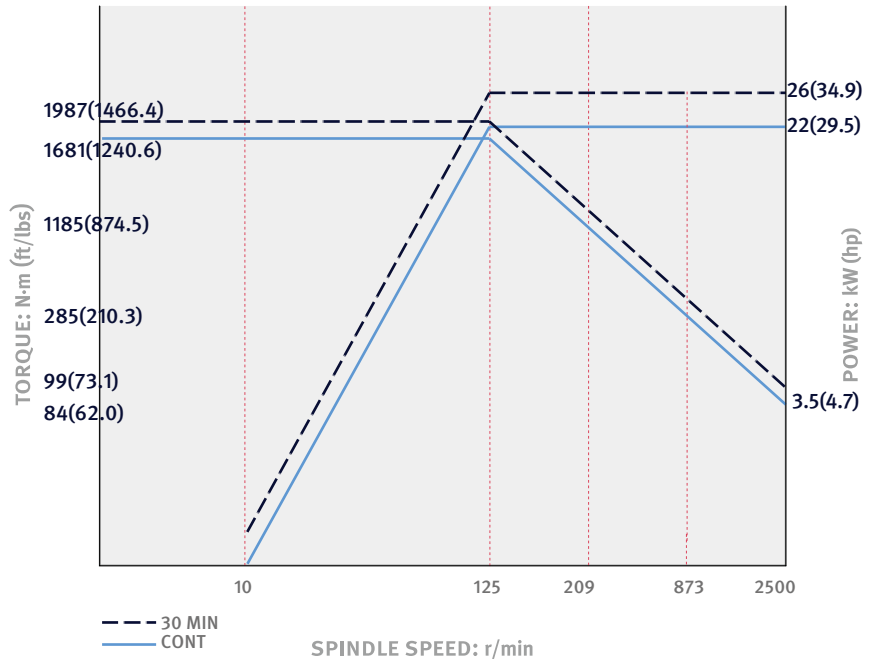
POWER | TORQUE

DBD 1270

Max. spindle speed: **25000** r/min

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

Max Torque: **1987** N·m
1466.4 lbf-ft

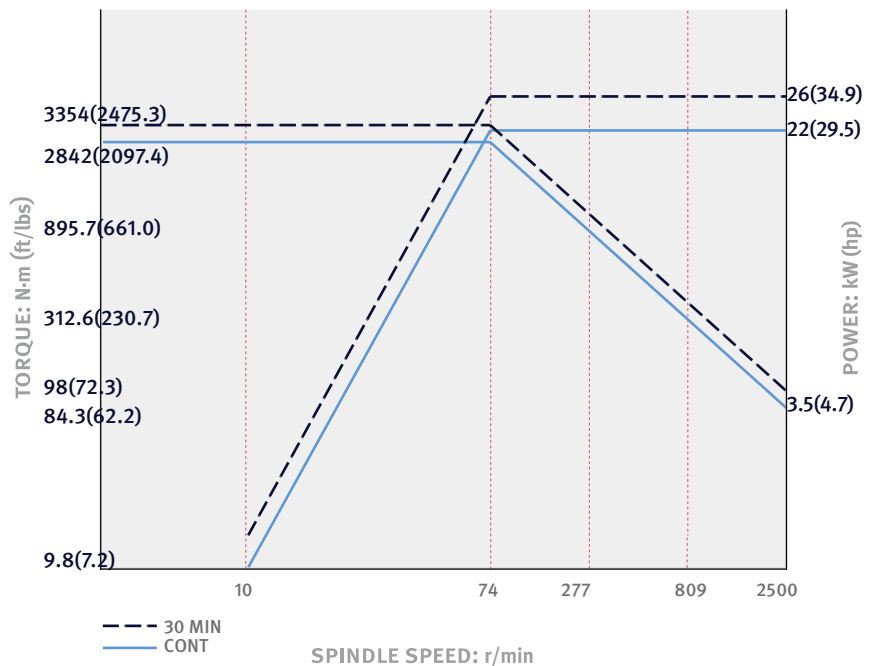


DBD 1580

Max. spindle speed: **25000** r/min

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

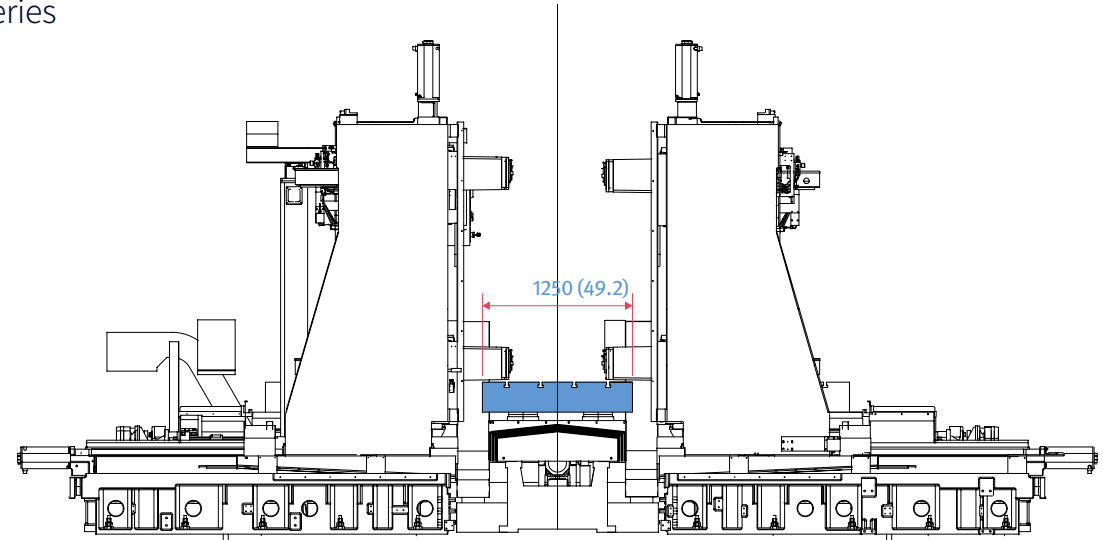
Max Torque: **3354** N·m
2475.3 lbf-ft



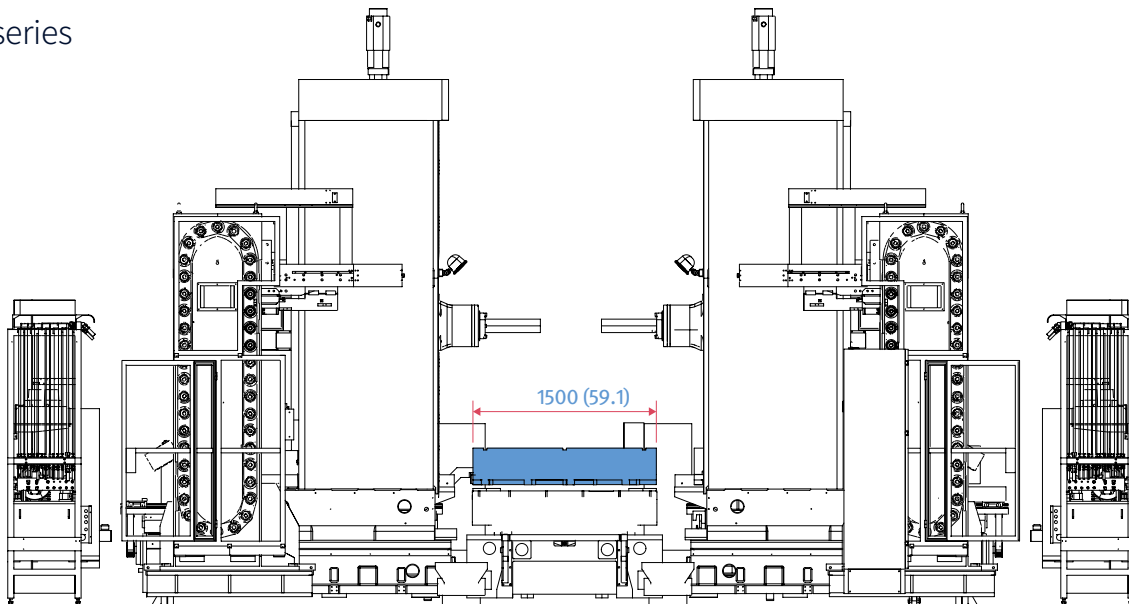
EXTERNAL DIMENSIONS

Unit : mm (inch)

DBD 12 series



DBD 15 series



	DBD 12 series (Z-axis spindle)	DBD 15 series (Z/W-axis spindle)
Table size (Width)	1250 (49.2)	1500 (59.1)
Column ~ Table center	800 (31.5)	1040 (40.9)
Spindle nose	550 (21.7)	340 (13.4)
The distance between spindle	550 (21.7)	400 (15.7)
W-axis travel	-	500 (19.7)
Spindle bearing inner dia.	ø100 (ø3.9)	ø190 (ø7.5)
Spindle nose dia.	ø320 (ø12.6)	ø390 (ø15.4)

* Some peripheral equipment can be placed in other places.

MACHINE SPECIFICATIONS

	Description		Unit	DBD 1270	DBD 1580
Travels	Travel distance	X-axis	mm (inch)	7000 (275.6)	8000
		Y-axis	mm (inch)	1500 (59.1)	2000
		Z-axis	mm (inch)	1000 (39.4)	450
		W-axis	mm (inch)	-	500
	Spindle center to table top		mm (inch)	150~1650 {150~2150} (5.9~64.9 {5.9~84.6})	0~2000
	Distance between spindles		mm (inch)	500~2500 (19.7~98.4)	400~2300
Feedrates	Rapid Traverse Rate	X-axis	mm/min (ipm)	12000 (472.4)	10000
		Y-axis	mm/min (ipm)	12000 (472.4)	10000
		Z-axis	mm/min (ipm)	12000 (472.4)	6000
	Cutting feedrate	X / Y / Z-axis	mm/min (ipm)	4000 (157.5)	
Table *	Table size		mm (inch)	1250 × 7000 (49.2 × 275.6)	1500 × 8000 (59.1 × 315.0)
	Table loading capacity		kg (lb)	7000 (15432.1)	
Spindle	Max. spindle speed		r/min	2500	
	Number of speed range			3	
	Spindle Taper		-	ISO #50, 7/24 taper	
	Spindle motor (30min./cont.)		kW (Hp)	26 / 22 (34.9 / 29.5)	
Automatic Tool Changer	Tool Shank		-	MAS 403 BT50	
	Pull stud		-	MAS 403 P50T-1 (45°)	
	Tool storage capa.		ea	40 {60}	
	Max. tool diameter	Continuous	mm (inch)	130 (5.1)	
		1 pot empty	mm (inch)	250 (9.8)	
	Max. tool length		mm (inch)	400 (15.7)	
	Max. tool weight		kg (lb)	25 (55.1)	
Method of tool selection			Fixed address		
Machine Dimensions	Length x Width		mm (inch)	20800 × 10700 (818.9 × 421.3)	23000 × 10700 (905.5 × 421.3)
	Height		mm (inch)	4500 (177.2)	5000 (196.9)
	Weight		kg (lb)	58000 (127866.2)	86000 (189594.7)

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



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



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