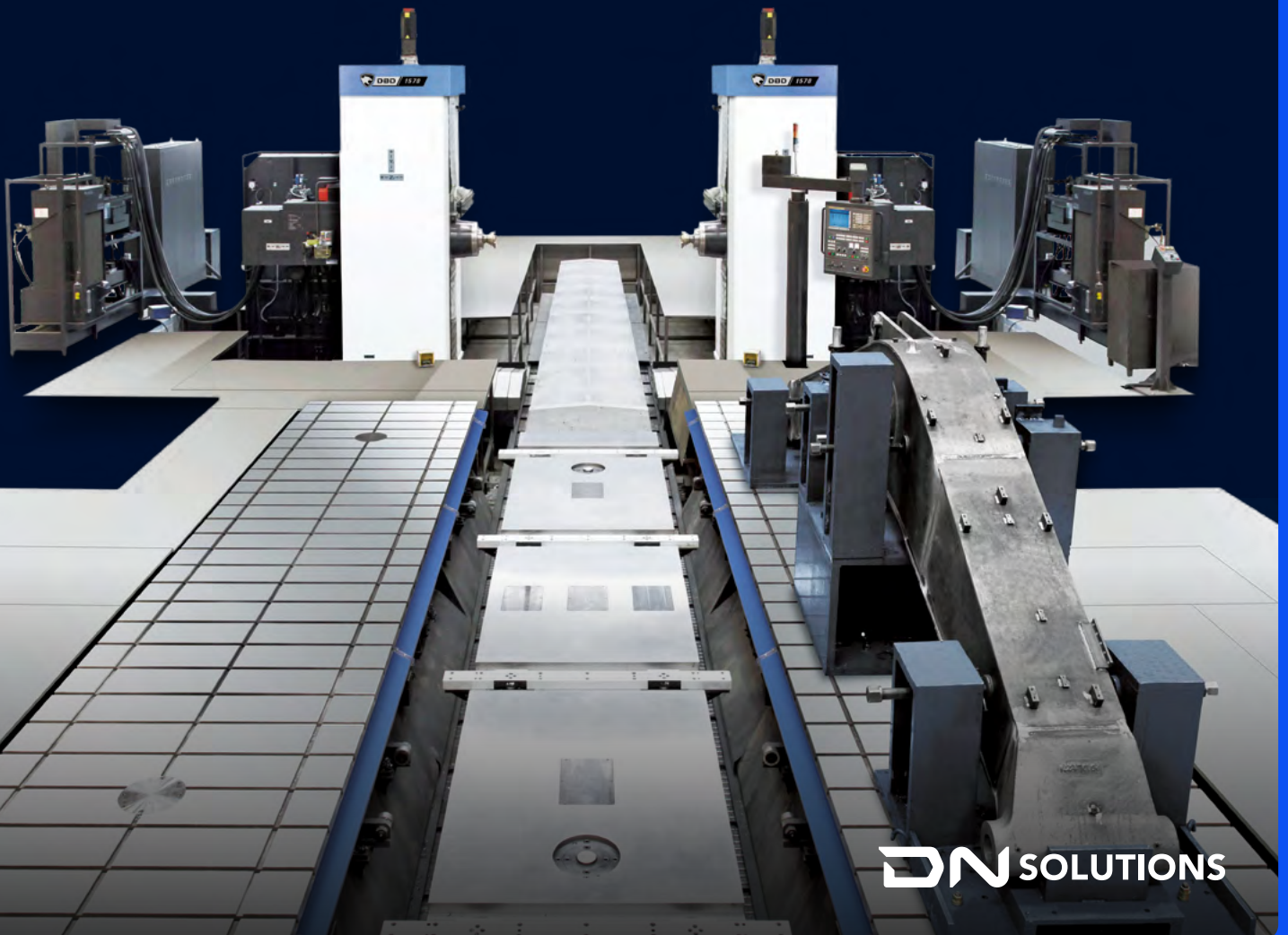




DBD SERIES FOR LARGE SIZED WORK-PIECE

DBD

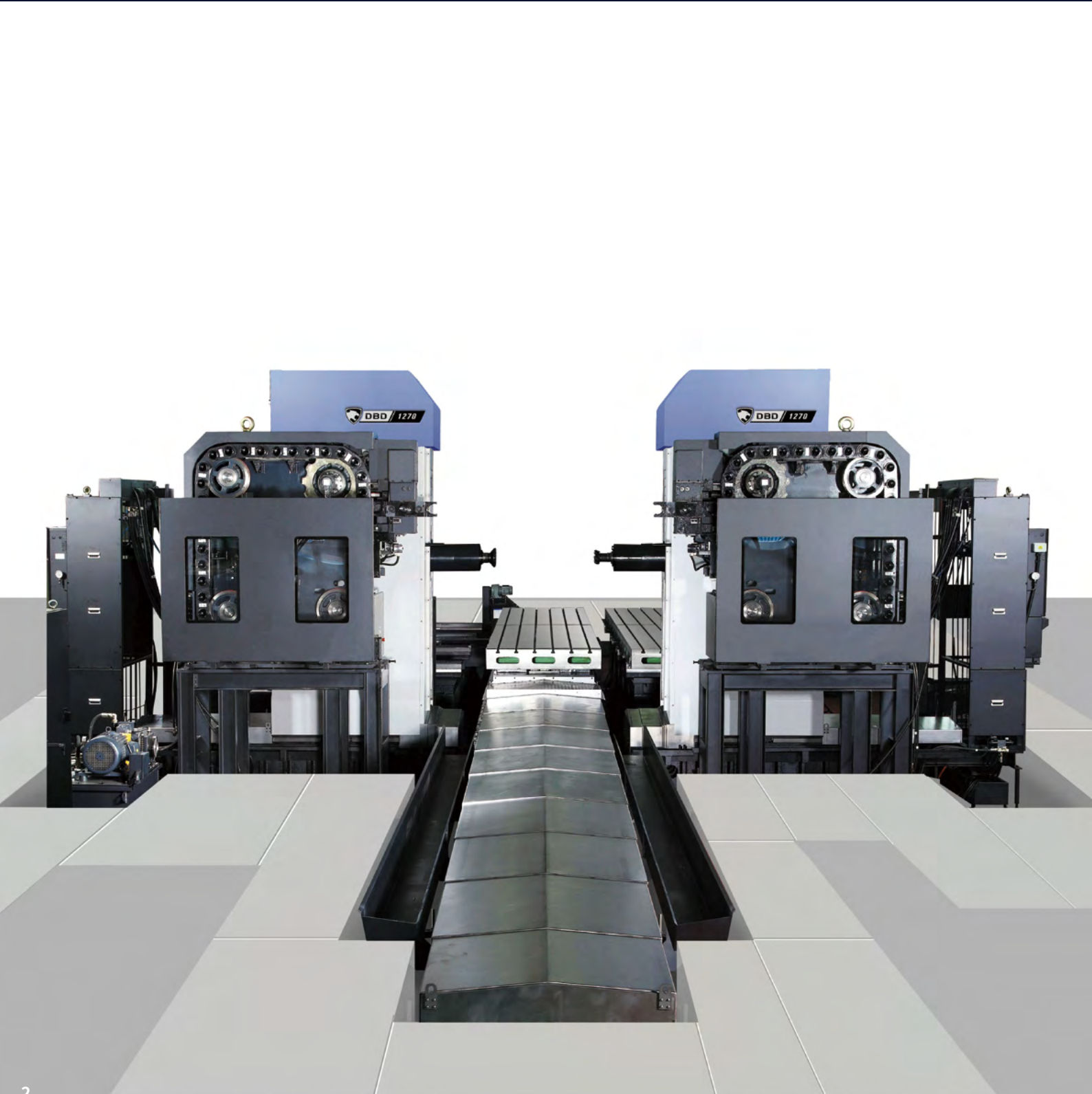
1270 • 1580



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**

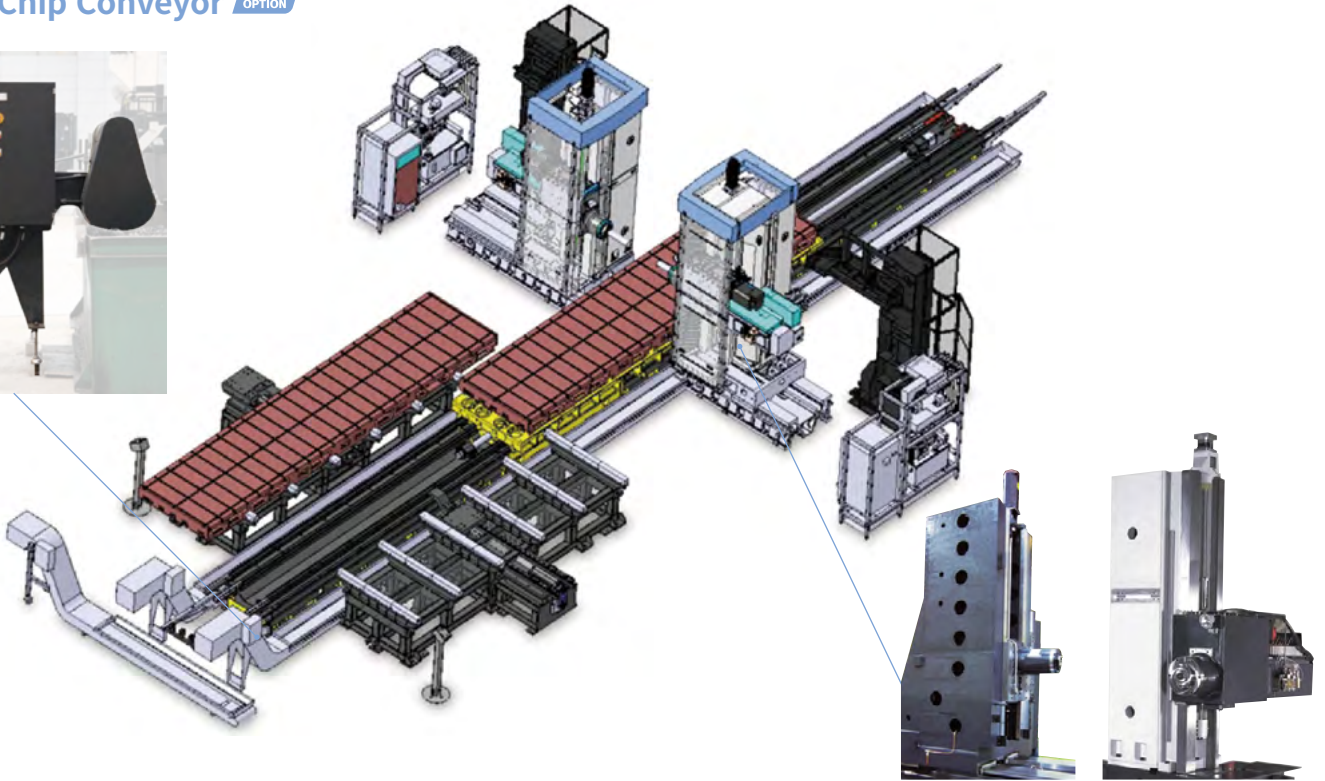
- DBD 1270 :
1250 X 7000 mm (49.2 x 275.6 inch)
- DBD 1580 :
1500 X 8000 mm (59.1 x 315.0 inch)

**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

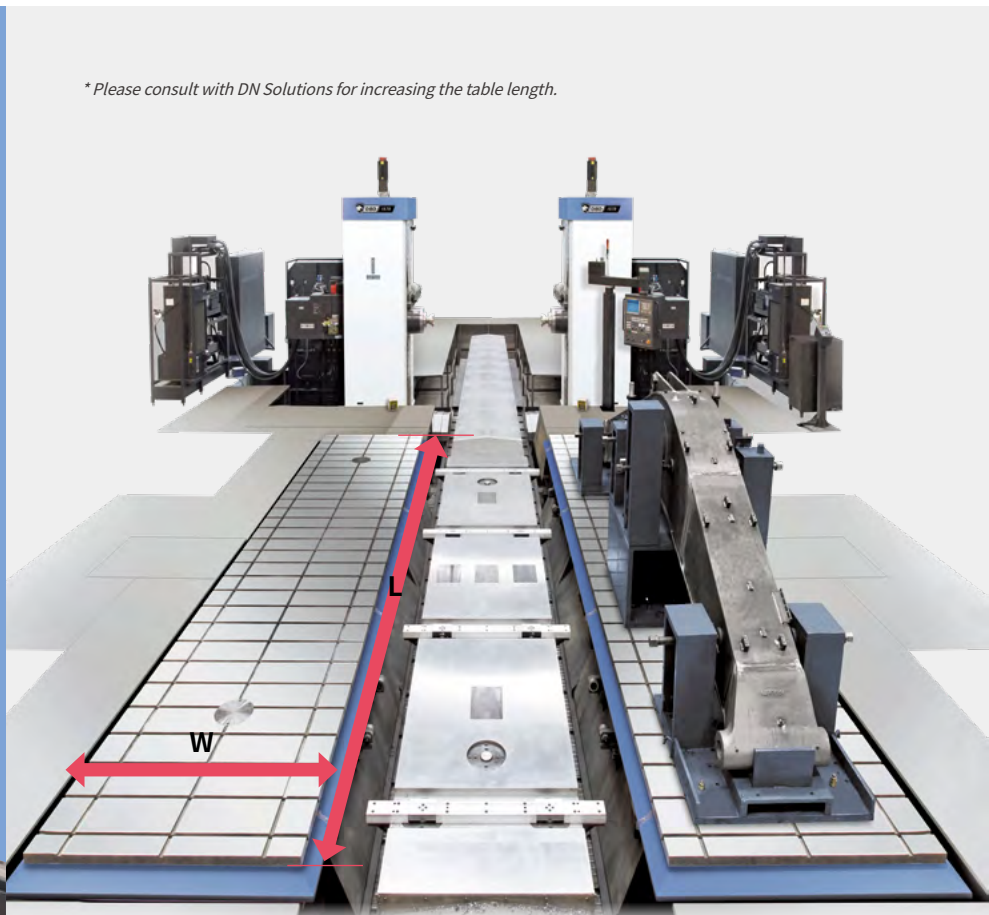
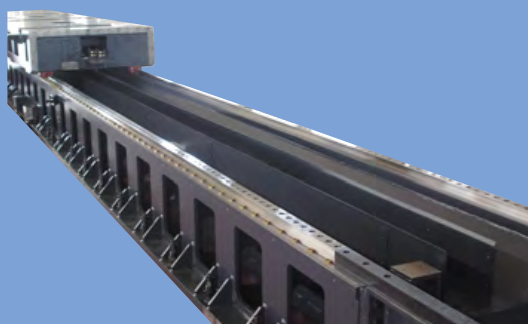
49.2 x 275.6 inch

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

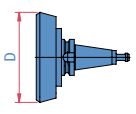
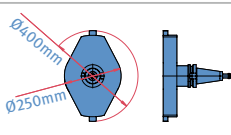
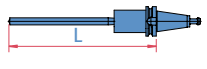
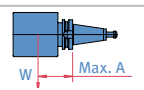
Gear transmission

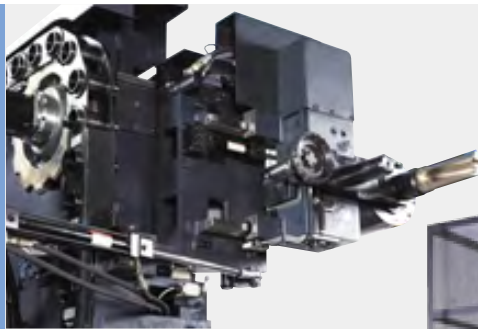
3 steps

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 | ● | |
| | | Y-axis | 1500 mm | ● | X |
| | | 2000 mm | X | ● | |
| | | Z-axis | 450 mm | ● | ● |
| | | | 1000 mm | ● | X |
| | | | 500 mm | X | ● |
| | DISTANCE BETWEEN 2 SPINDLE ENDS | 400 ~ 2,300 mm | X | ● | |
| | DISTANCE BETWEEN TABLE CENTER AND SPINDLE END | 500 ~ 2,500 mm | ● | X | |
| | | | 200 ~ 1,150 mm | X | ● |
| | | 250 ~ 1,250 mm | ● | X | |
| | | 300 ~ 1,800 mm | ● | X | |
| | | 300 ~ 2,300 mm | X | ● | |
| DIVIDING TABLE | CAPACITY | TABLE SIZE (WIDTH X LENGTH) | 1,250 × 7,000 mm | ● | X |
| | | LOAD CAPACITY | 1,500 × 8,000 mm | X | ● |
| | T-SLOT X NUMBERS | | MAX. 10,000 kg | ● | ● |
| SPINDLE HEAD | SPINDLE DRIVE MOTOR (30 min./cont. rating) | | 24H8 mm | ● | ● |
| | | | 26 / 22 kW | ● | ● |
| | | | 30 / 22 kW | X | ○ |
| | | | 37 / 30 kW | ○ | X |
| | SPINDLE SPEED | | 2500 r/min | X | ● |
| | | | 3000 r/min | ● | X |
| | NUMBER OF SPEED RANGES | | 3 STEPS | ● | ● |
| | TOOL SHANK | | MAS403 BT 50 | ● | ● |
| | PULL STUD | | MAS403-P50T-1(45°) | ● | ● |
| | ORIENTATION | | POSITION CODER | ● | ● |
| TAPER TYPE | | ISO #50, 7/24 TAPER | ● | ● | |
| SPINDLE COOLING | TANK CAPACITY | | 40 x 2EA L | ● | X |
| | | | 120 x 2EA L | X | ● |
| | CAPACITY | | 2994(60Hz)/2495(50Hz) Kcal/h | ● | X |
| | | 9028(60Hz)/7583(50Hz) Kcal/h | 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 | ● | |
| | | ±0.05 mm | ● | ● | |
| STANDARD ACCESSORIES | CONCENTRICITY | | 2 set | ● | ● |
| | SLIDEWAY COVERS (X / Z-axis) | | 1 set | ● | X |
| | COLUMN GUIDEWAY CHIP COVER (Y-axis) | | 1 set | ● | ● |
| | 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 |
| | | | 1,500 × 8,000 mm | X | ○ |
| | | 10000 kg | ○ | ○ | |
| | | 24H8 mm | ○ | ○ | |
| LINEAR SCALE FEEDBACK SYSTEM | INCREMENTAL TYPE | | X / Y1 / Y2-axis SET | ○ | ○ |
| CHIP DISPOSAL | CHIP DISPOSAL (LIFT UP CHIP CONVEYOR) | HINGED BELT | 0.75 kW SET | ○ | ○ |
| | CHIP BUCKET | | 360 L | ○ | ○ |
| 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 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.



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

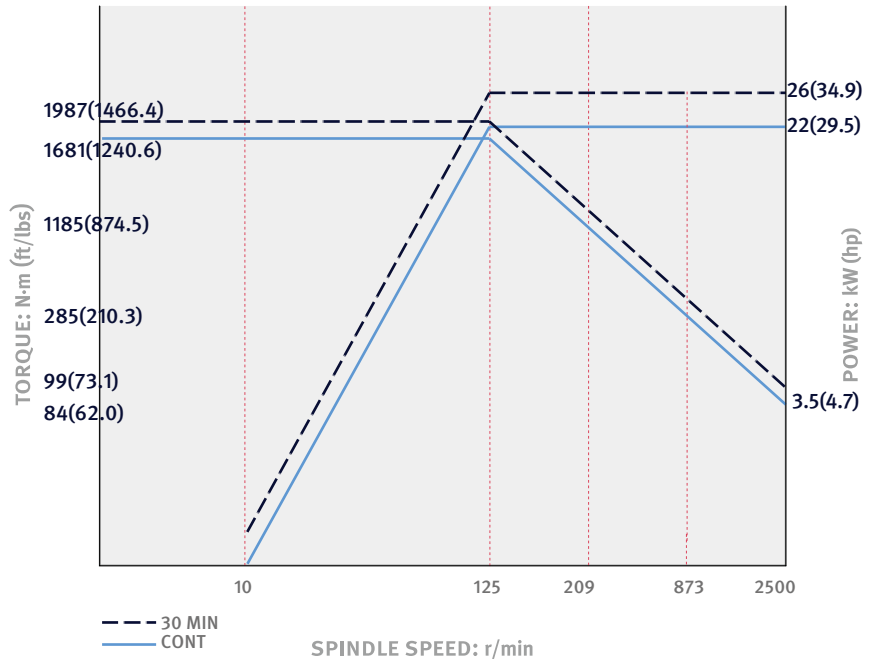
POWER | TORQUE

DBD 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

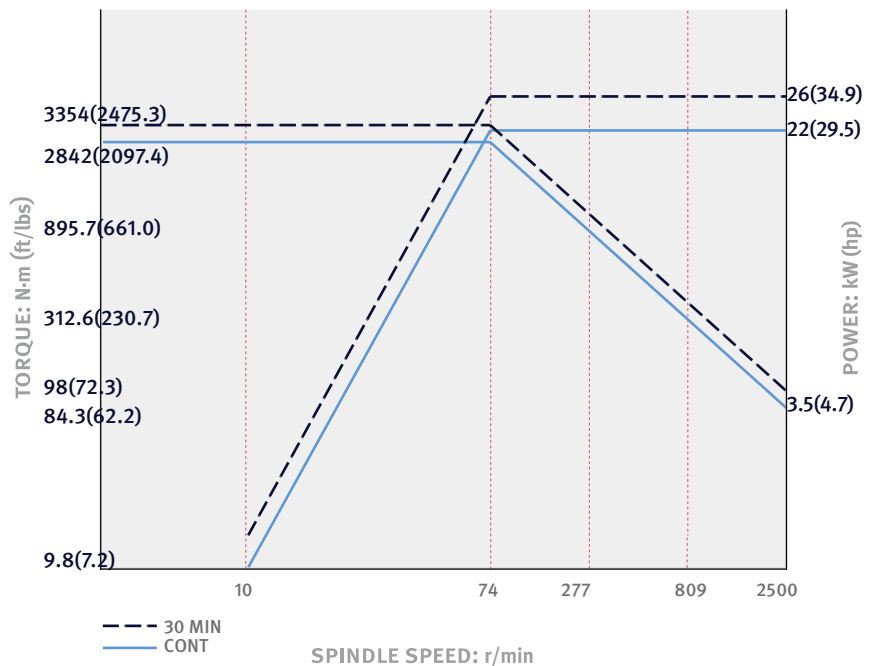


DBD 1580

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

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

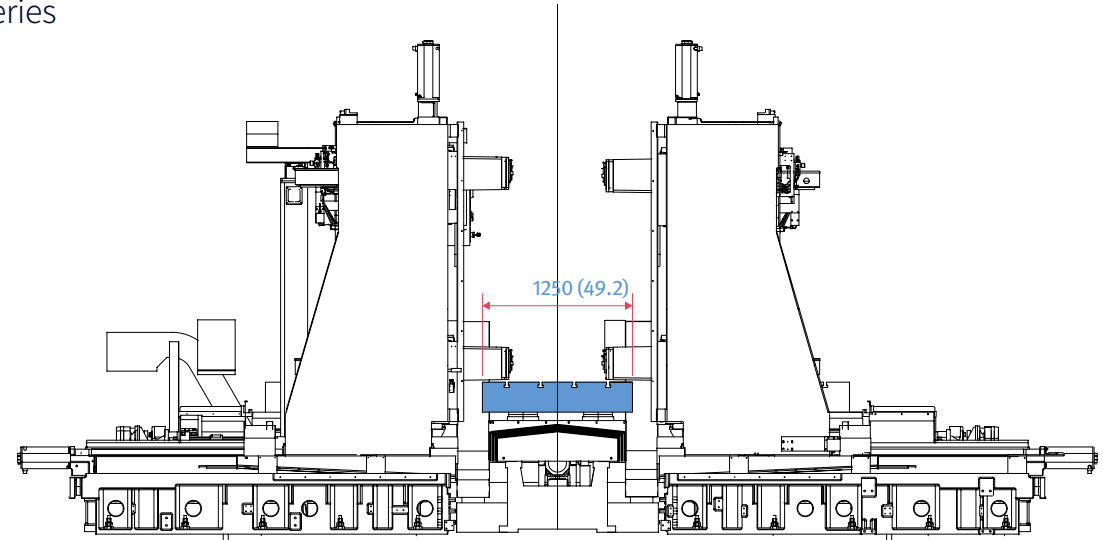
Max Torque: **3354** N·m
2475.3 lbf-ft



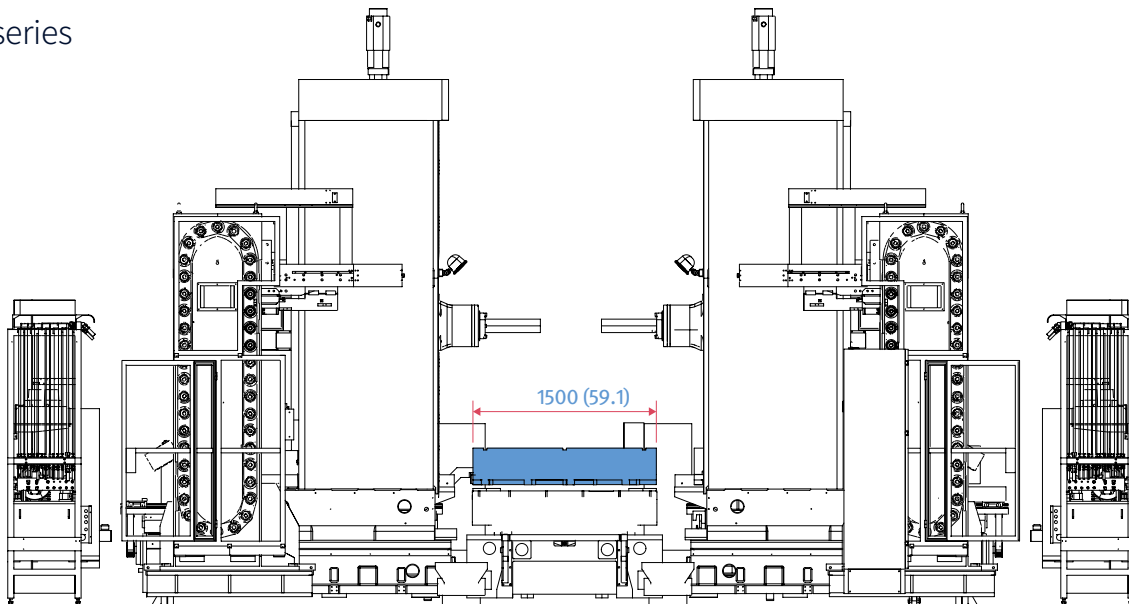
EXTERNAL DIMENSIONS

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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* For more details, please contact DN Solutions.

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