

HORIZONTAL BORING MACHINE

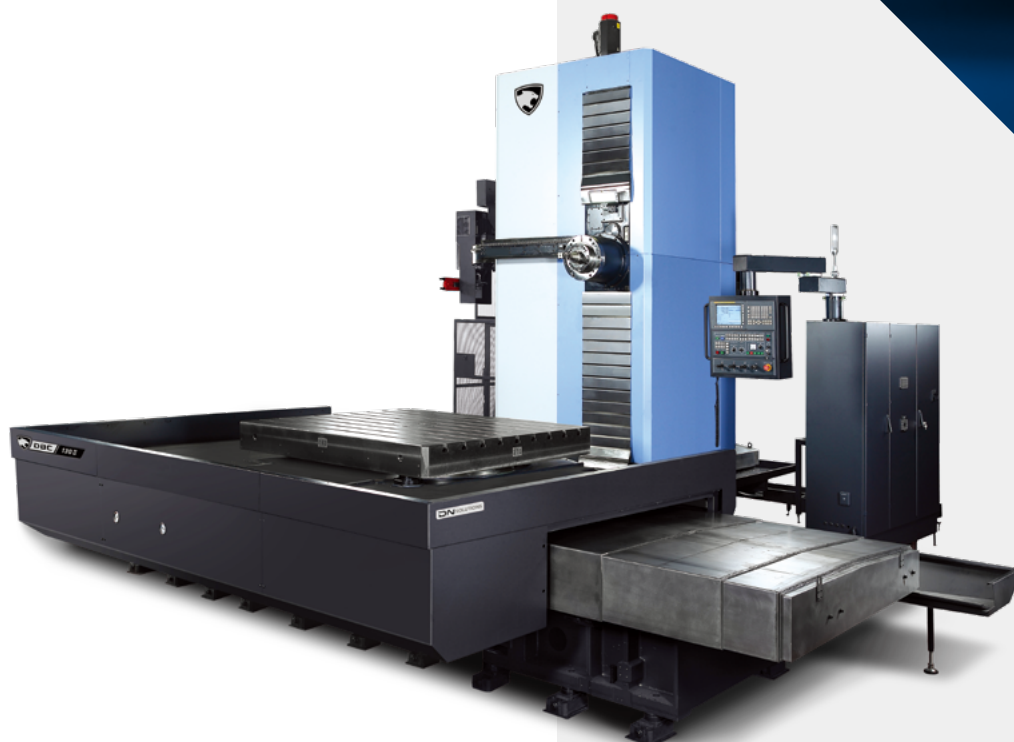
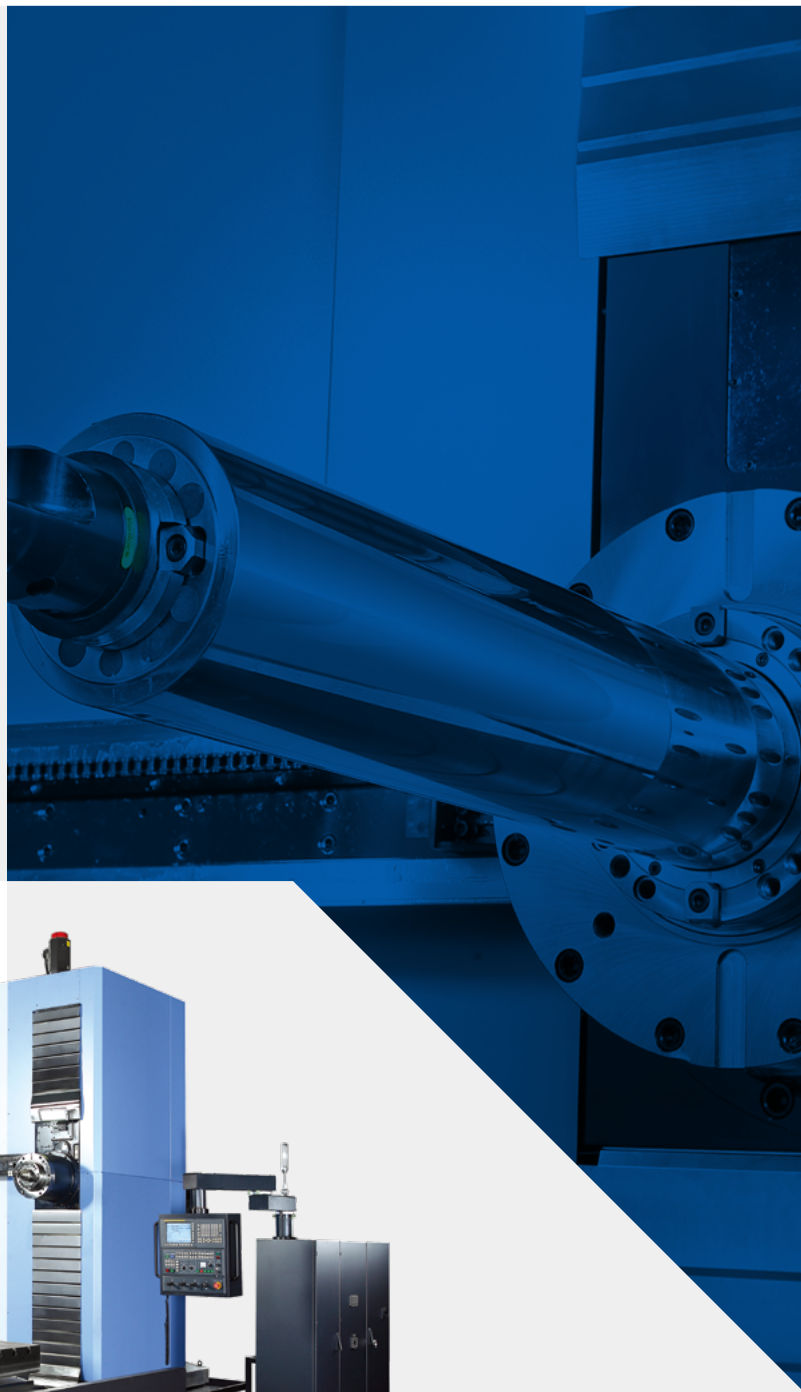
DBC 110 · 130 · 160 · 250

DBC 110S · 110II

DBC 130S · 130II/LII

DBC 160/L

DBC 250LII



DBC SERIES

The DBC series, ranging from compact to super-size models, satisfies customers' requirements with advanced technical prowess. A product line-up has been established for processing from middle to largest size parts including die / mold parts. We are improving productivity and creating values for our customers on the basis of our design improvements including enhanced operating convenience and efficiency.

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Diversified Line-up for Faster Response to Customers' Requirements



The DBC Series offers a wide line-up from compact to large models, from heavy-duty type to high-speed processing type.

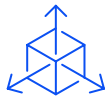
Enhanced Performance through High-Rigidity & High-Precision Structure



A high-rigidity and high-precision structure has been adopted to improve heavy-duty machining performance.

- The high-strength box guideway is applied based on a structural analysis design.
- B-axis rotary table equipped with high-precision encoder as a standard
- Securing stable characteristics of feed mechanism when machining high-load workpieces

Increased Convenience and Productivity



The DBC series offers various options and customized control functions for maximum user convenience.

- Automatic tool changer (ATC)
- Automatic pallet changer (APC)
- Various head attachments
- EZ WORK function



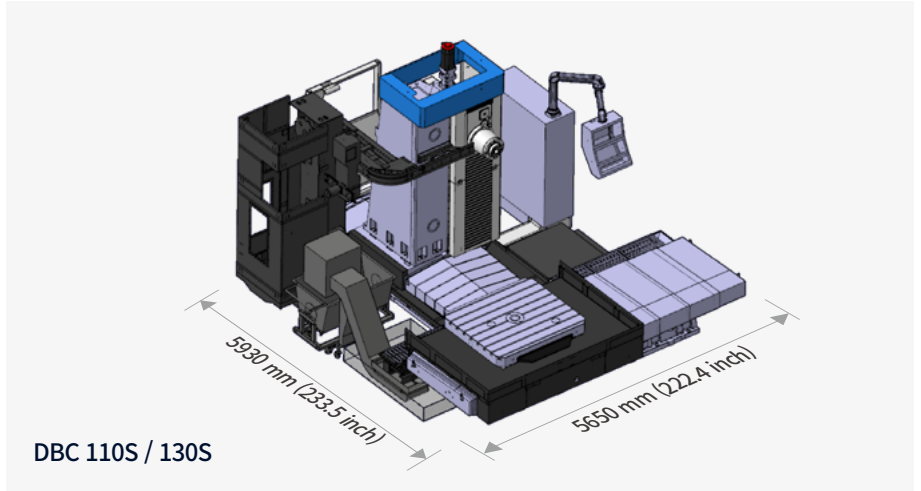
DIVERSE LINE-UP

The DBC series provides a wide line-up of models covering compact, multi-functional, heavy loads and large workpieces.

Compact type_DBC S series

DBC 110S / 130S

- Designed in compact size for small-medium size works
- Compact structure minimizes machine footprint



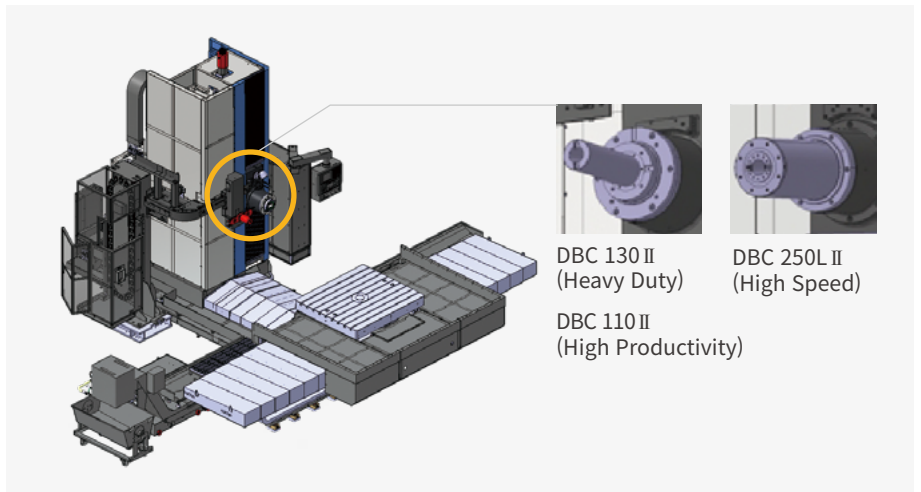
Multi-purpose (Standard)_DBCII series

DBC 110II / 130(L)II / 250LII

- A standard machine that has been upgraded based on high-power and high-torque spindle for the machining of medium and large workpieces, and various machining support packages.
- Shortest delivery time by modular system design.

Spindle speed

4000/3000/6000 r/min



Large workpieces

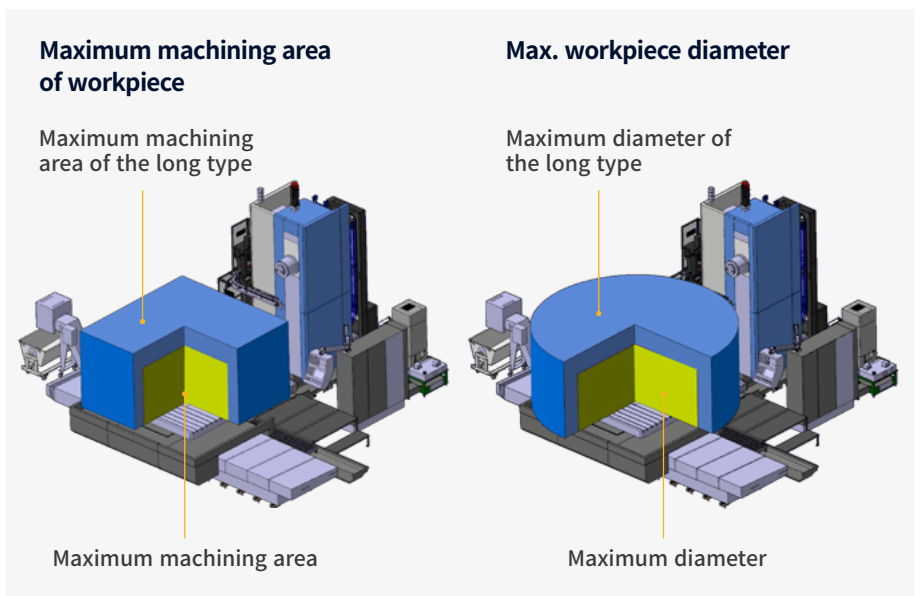
DBC 130LII / 160 / 160L / 250LII

- Suitable for machining large workpieces

Max. workpiece diameter (without splash guard)

DBC 130II
Ø3900 mm
 (153.5 inch)

DBC 130LII/160/160L/250LII
Ø4800 mm
 (189.0 inch)



SPINDLE

Nose-type head structure allows easy access to the work piece and minimal protrusion of boring spindle enables stable cutting operation.

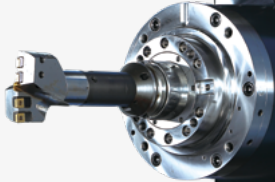
Stable cutting performance of highly-rigid spindle

Supported by highly-rigid bearings, the spindle is designed to bear very high axial working load. In addition, the spindles of the DBC Series have further reinforced rigidity providing improved cutting performance when the W-axis is in protruding position.

DBC S series

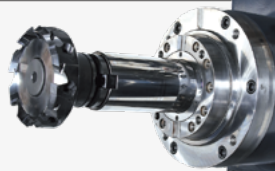
DBC S series DBC 110S / DBC 130S

Offer high-speed, high-power spindles to different boring sizes for higher productivity.

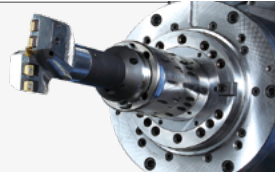
| Model | Spindle Speed (r/min) | Boring spindle diameter mm (inch) | Quill diameter mm (inch) | |
|----------|-----------------------|-----------------------------------|--------------------------|---|
| DBC 110S | 3000 | 110 (4.3) | - |  |
| DBC 130S | 2500 | 130 (5.1) | - | |

DBC II series

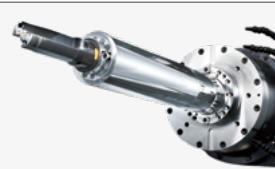
DBC 110II _ High-speed, high-performance spindle

| Model | Spindle Speed (r/min) | Boring spindle diameter mm (inch) | Quill diameter mm (inch) | |
|-----------|-----------------------|-----------------------------------|--------------------------|---|
| DBC 110II | 4000 | 110 (4.3) | - |  |

DBC 130II / LII _ High-power, high-torque spindle for heavy-duty machining


| Model | Spindle Speed (r/min) | Boring spindle diameter mm (inch) | Quill diameter mm (inch) | |
|-----------------|-----------------------|-----------------------------------|--------------------------|---|
| DBC 130II / LII | 3000 | 130 (5.1) | - |  |

DBC 160 / L _ High-power, high-torque spindle for powerful cutting

| Model | Spindle Speed (r/min) | Boring spindle diameter mm (inch) | Quill diameter mm (inch) | |
|-------------|-----------------------|-----------------------------------|--------------------------|---|
| DBC 160 / L | 2000 | 160 (6.3) | - |  |

DBC 250LII _ High-speed, high-precision built-in Quill spindle

- Powerful Quill (Ø250mm) feed system (W-axis travel distance: 500 mm)
- Stable thermal error of the spindle over a long-term operation

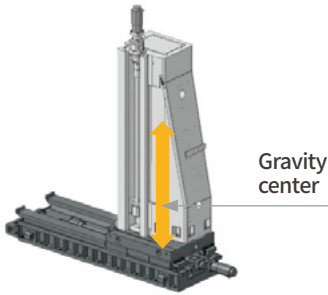
| Model | Spindle Speed (r/min) | Boring spindle diameter mm (inch) | Quill diameter mm (inch) | |
|-----------|-----------------------|-----------------------------------|--------------------------|---|
| DBC250LII | 6000 | - | 250 (9.8) |  |

HIGHLY-RIGID STRUCTURE

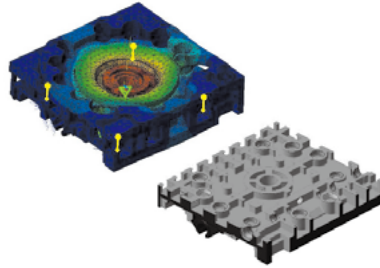
For heavier workpieces and higher processing quality, the design has been improved with a cast structure offering excellent stiffness. The machine performance has been further upgraded by structural analysis of the inner rib structure.

Highly rigid design of major units

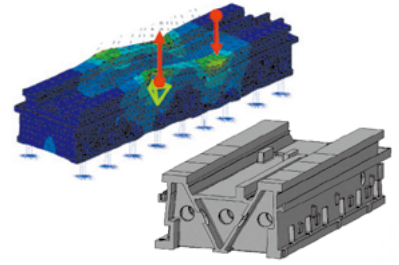
Rigidity is enhanced by optimal design of the machine structure. The highest accuracy can be achieved by minimizing deformation caused by heavy load.



Low gravity center design to minimize vibration and column moving structure suitable for heavy load



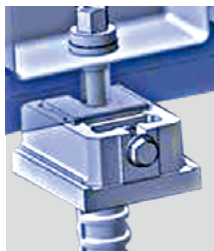
Deformation caused by heavy workpiece minimized with optimal design of table and table base



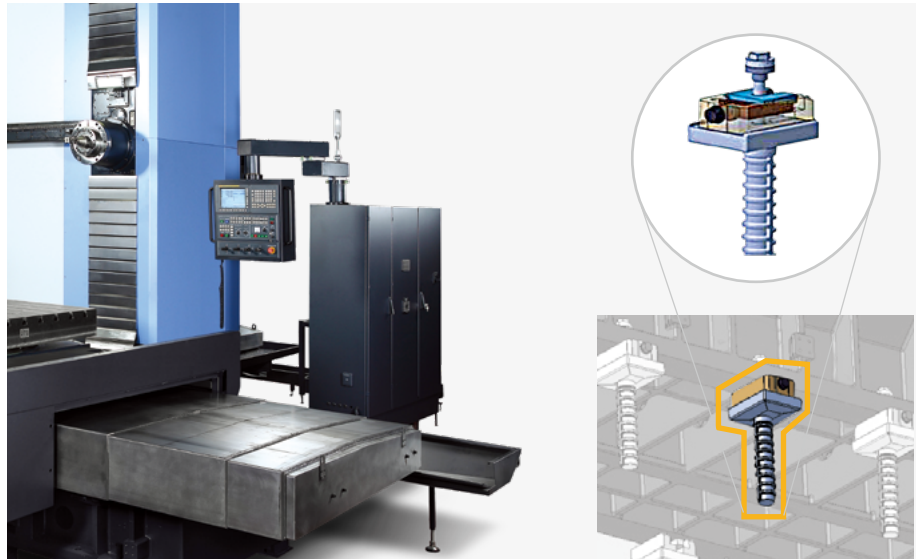
Deformation and vibration minimized by M-type ribs inside the bed.

Stable machine structure

A highly-rigid, stable machine structure has been realized by optimizing the design of the column and the bed. Excellent wear resistance and accuracy for machining quality have been achieved by precision grinding after heat treatment.

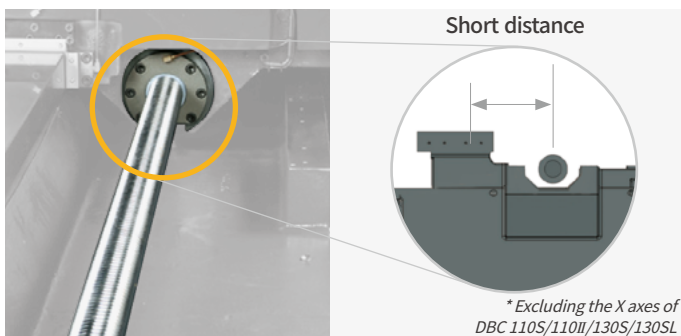


A leveling block is provided to strengthen anchoring force to the foundation, as well as enabling fast and easy installation.



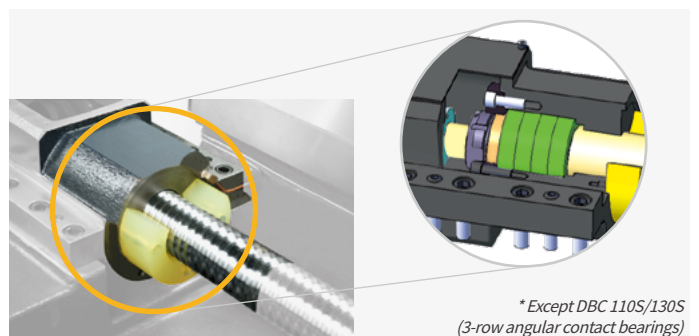
Narrow guide system

Designed with narrow guide system to minimize axis torque and ensure smooth motion.



4-row angular ball bearings & Ball screw

Both ends of the shafts are supported by 4-row angular contact bearings. Low-noise, highly-precise ball screws are employed for axis travel.



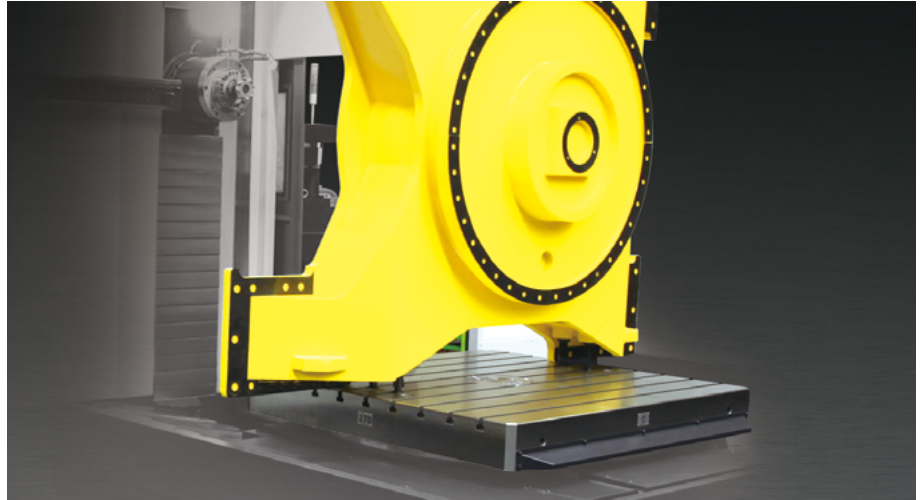
HIGH LOAD | HIGH ACCURACY

Upgraded with stable travel performance in heavy-duty machining by reducing servo load and increasing axial thrust.

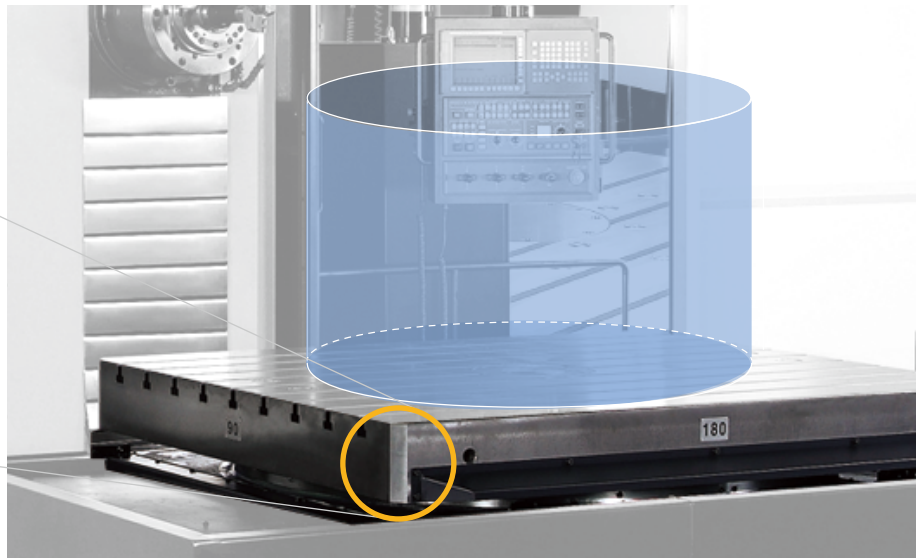
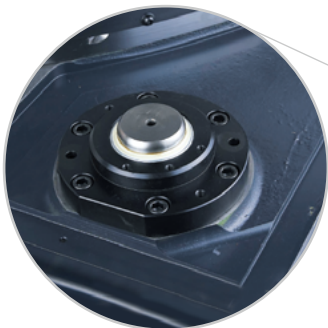
Rotary table

A high-precision, separate type encoder is installed at the table center as a standard to realize precise rotation of the B-axis.

* Patented

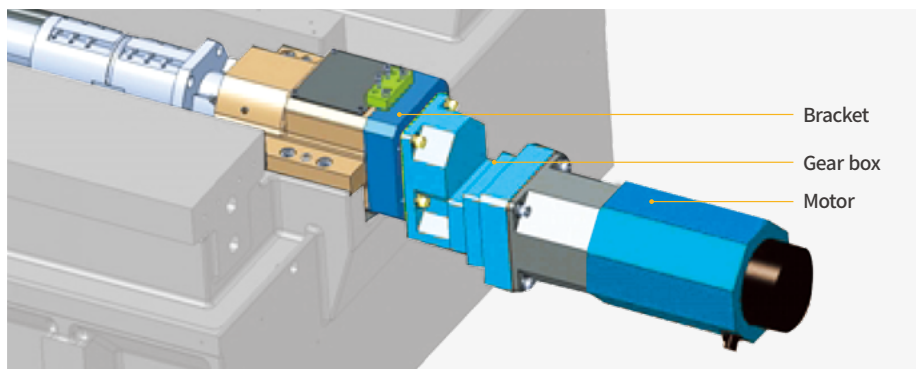


Locating pin for positioning by 90° steps



Gear reducer for axis shafts (X/Z)

- Servo load is reduced to secure stable feeding characteristics for heavy workpieces (X-axis).
- Axial thrust is increased to improve cutting capacity (Z-axis).



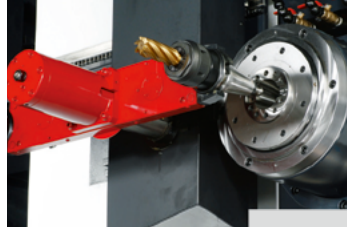
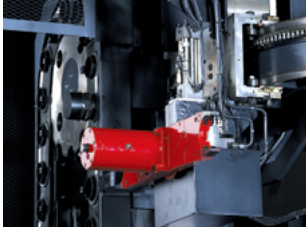
| Model Axis | DBC 110S | DBC 130S | DBC 110II | DBC 130II | DBC 130LII | DBC 160 | DBC 160L | DBC 250LII |
|------------|----------|----------|-----------|-----------|------------|---------|----------|------------|
| X-axis | ○ | ○ | ○ | ○ | ● | ● | ● | ● |
| Z-axis | ○ | ○ | ○ | ○ | ● | ● | ● | ● |

● Standard ○ Option

AUTO TOOL CHANGER (ATC) OPTION

The adoption of a servo-motor for tool magazine and carriage drive greatly reduces hydraulic system load of the entire machine. Machine has been improved by simplifying the structure to minimize the causes of failure.

Servo-driven auto tool changer

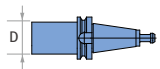
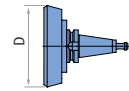
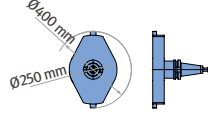


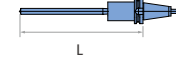
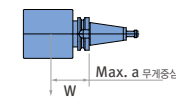
Auto tool changer (ATC)

Servo tool magazine

Servo carriage

Applicable tool specification

| | Specification | Shape |
|-----------------------|---|---|
| Max. tool dia. | Normal tools: D = \varnothing 130 mm |  |
| | Facing tools: D = \varnothing 250 mm (Neighboring pots must be empty) |  |
| | Boring tools: D = \varnothing 400 mm (15.7 inch) (Neighboring pots must be empty) D = \varnothing 600 mm (23.6 inch) OPTION (Neighboring pots must be empty) |  |

| | Specification | Shape |
|------------------------------|--|---|
| Max. tool length | L = 600 mm |  |
| Max. tool weight | W = 30 kg |  |
| Tool storage capacity | {40/60/90/120} tools OPTION | |

Max. allowable moment: 34 N·m (25.1 ft·lbs)
* Please contact us if you wish to extend the boring tool diameter (D= \varnothing 600).

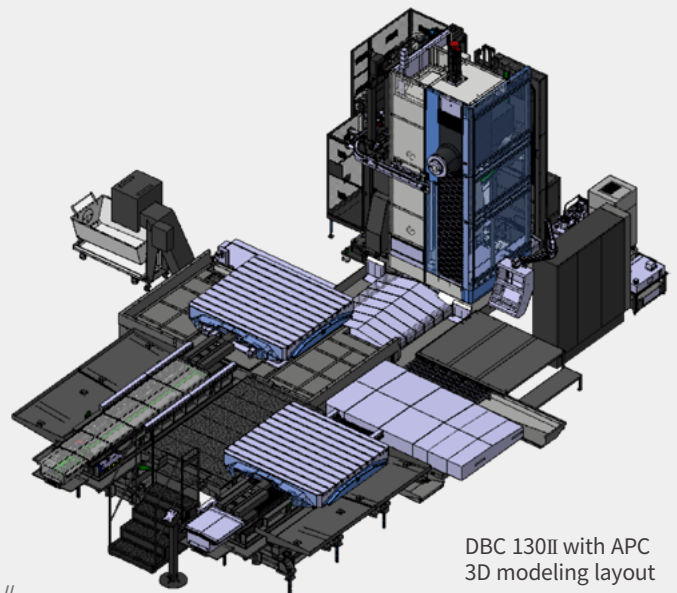
Automatic Pallet Changer (APC) OPTION

While the machine tool is cutting a workpiece, the workpiece to be processed next is set up on the standby pallet which can replace the current pallet automatically at the end of cutting to raise productivity.

Detailed specification of APC

| Details | Unit | Specification |
|--------------------------------------|-----------------|--|
| No. of pallets | ea | 2 |
| APC type | - | Parallel shuttle (in Z-axis direction) |
| Pallet size (W x L) & Workpiece Load | mm (inch) / ton | 1600 x 1800 / 10ton (63 x 70.9 / 10ton) 1800 x 2000 / 8ton (70.9 x 78.7 / 8ton) |

Note 1) The above specification is for reference to understand the APC option of DBC 130 II.
Note 2) Please contact us for further details of the specifications. The specifications are subject to change without prior notice for performance improvement



DBC 130II with APC
3D modeling layout

STANDARD | OPTIONAL SPECIFICATIONS

DBC S series

| Description | Features | DBC 110S | DBC 130S |
|---|---|-----------|-----------|
| SPINDLE MOTOR POWER | 26 / 22 KW (34.9 / 29.5 Hp) (30WORKPIECE SETTING DEVICE) | ● | X |
| | 30 / 22 KW (40.2 / 29.5 Hp) (15WORKPIECE SETTING DEVICE) (AMP UP) | ○ | X |
| | 45 / 37 KW (60.3 / 49.6 Hp) (30WORKPIECE SETTING DEVICE) | X | X |
| | 37 / 30 KW (49.6 / 40.2 Hp) (30WORKPIECE SETTING DEVICE) | X | ● |
| | 40 TOOLS | ○ | ○ |
| ATC | 60 / 90 / 120 TOOLS | ○ | ○ |
| | CENTER BUSH | X | X |
| WORKPIECE SETTING DEVICE | EDGE LOCATOR | ○ | ○ |
| | 1400 X 1600 mm(55.1X63.0 inch) | ● | ● |
| TABLE SIZE | 1400 X 1800 mm(55.1X70.9 inch) | X | X |
| | 1600 X 1800 mm(63.0X70.9 inch) | X | X |
| | 1800 X 2000 mm(70.9X78.7 inch) | X | X |
| | 2000 X 2200 mm(78.7X86.6 inch) | X | X |
| | 1800 X 2000 mm(70.9X78.7 inch) _20 ton | X | X |
| | 2000 X 2200 mm(78.7X86.6 inch) _19 ton | X | X |
| | 1600 X 3000 mm(63.0X118.1 inch) _20 ton | X | X |
| | APC ⁽¹⁾ | | ○ |
| LINEAR SCALE (X / Y / Z) | ABSOLUTE | ○ | ○ |
| RAISED COLUMN⁽¹⁾ | | ○ | ○ |
| SPLASH GUARD | SPLASH GUARD W/O TOP | ○ | ○ |
| | AUTO DOOR SEMI GUARD ^{(1) (2)} | ○ | ○ |
| COOLANT TANK | | ○ | ○ |
| LIFT UP CHIP CONVEYOR | | ○ | ○ |
| Flood Coolant | 1.1 KW_0.7MPA_30 L/MIN | ○ | ○ |
| | 1.1KW_1.0MPA_20 L/MIN | ○ | ○ |
| | 1.5 KW_2.0 MPA_CYCLONE FILTER | ○ | ○ |
| TSC | 2.9 KW_2.0 MPA_CYCLONE FILTER | ○ | ○ |
| | 2.9 KW_3.0MPA CYCLONE FILTER | ○ | ○ |
| | 7.5 KW_7.0 MPA_CYCLONE FILTER | ○ | ○ |
| | Water soluble Coolant Chiller** | ○ | ○ |
| OIL SKIMMER | BELT TYPE | ○ | ○ |
| | DISK TYPE | ○ | ○ |
| COOLANT GUN | | ○ | ○ |
| Coolant level switch | | ○ | ○ |
| AIR GUN | | ○ | ○ |
| AIR BLOWER | | ○ | ○ |
| 6-AXIS OPTION⁽¹⁾ | 1 AXIS_WIRE AND PIPING_HYD | ○ | ○ |
| AUTO WORKPIECE MEASURING DEVICE | OMP60_RENISHAW | ○ | ○ |
| | RMP60_RENISHAW | ○ | ○ |
| | RMP600_RENISHAW | ○ | ○ |
| MASTER TOOL FOR AUTO TOOL MEASUREMENT | CALIBRATION BLOCK | ○ | ○ |
| AUTO TOOL MEASURING DEVICE | TS27R_RENISHAW | ○ | ○ |
| | SIZE 450 X 600 X 400 | ○ | ○ |
| | SIZE 500 X 1000 X 550 | ○ | ○ |
| | SIZE 750 X 1250 X 750 | ○ | ○ |
| ANGULAR FIXTURE | SIZE 1000 X 2000 X 1000 | ○ | ○ |
| | 90° ANGLE HEAD_L420 / L650 | ○ | ○ |
| | FACE PLATE_Ø650 | ○ | ○ |
| | INDEXABLE ANGLE HEAD_90° AUTO INDEX | ○ | ○ |
| | MANUAL UNIVERSAL HEAD_1000 | ○ | ○ |
| ATTACHMENT | SPINDLE SUPPORT_310 MM | X | ○ |
| | SPINDLE SUPPORT_200 MM | ○ | X |
| | COGSDILL READY | ○ | ○ |
| | ATTACHMENT SPEED LIMIT CONTROL | ● | ● |
| | SAFETY FENCE AND INTERLOCK SWITCH | ○ | ○ |
| SPINDLE THERMAL COMPENSATION SYSTEM | | ● | ● |
| TEST BAR | BT50 | ○ | ○ |
| Y-AXIS ADDITIONAL BRAKE SYSTEM⁽¹⁾ | | ○ | ○ |
| MDI / DISPLAY unit | 15" Color LCD with Touch Panel | ● | ● |
| TRANSFORMER | | ○ | ○ |
| POWER PANEL AIR CONDITIONER | | ○ | ○ |
| POWER PANEL LIGHT | | ○ | ○ |
| POWER PANEL LINE FILTER | | ○ | ○ |
| AUTO NC POWER OFF | | ○ | ○ |
| AUTO NC POWER ON | | ○ | ○ |
| MACHINE WARMING UP | | ○ | ○ |
| DN Solutions TOOL MANAGEMENT | | ○ | ○ |
| DN Solutions TOOL LOAD MONITORING | | ○ | ○ |
| MPG | 1 MPG_PORTABLE_W/ENABLE TYPE | ● | ● |
| | 3 MPG_PORTABLE_W/ENABLE TYPE | ○ | ○ |
| ALARM GUIDANCE | | ○ | ○ |
| COUNTER FUNCTION | WORK/TOTAL/DAILY | ○ | ○ |
| NC | | 32IB PLUS | 0iMF PLUS |
| AICC II 200 BLOCK | | X | ● |
| AICC II 400 BLOCK | | X | ○ |
| AICC II 600 BLOCK | | ● | X |
| AICC II 1000 BLOCK | | X | X |

Please contact DN Solutions to select detailed steady rest specifications

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

Note 1) Please contact us for further details

Note 2) This specification applies to APC option.

Note 3) 30 min/continuous For DBC 250L

● Standard ○ Optional X Not applicable



Fire Safety Precautions

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.

STANDARD | OPTIONAL SPECIFICATIONS

DBCII series

| Description | Features | DBC 110II | DBC 130II | DBC 130LII | DBC 160 | DBC 160L | DBC 250LII |
|---|--|-----------|-----------|------------|-----------|-----------|------------------|
| SPINDLE MOTOR POWER | 26 / 22 KW(34.9 / 29.5 Hp) (30min/continuous) | ● | ● | ● | X | X | X |
| | 30 / 22 KW(34.9 / 29.5 Hp) (15min/continuous) (AMP UP) | ○ | ○ | ○ | X | X | ● ⁽³⁾ |
| | 45 / 37 KW(34.9 / 29.5 Hp) (30min/continuous) | ○ | ○ | ○ | ● | ● | X |
| | 37 / 30 KW(34.9 / 29.5 Hp) (30min/continuous) | X | X | X | X | X | X |
| ATC | 40 TOOLS | ○ | ○ | ○ | ○ | ○ | ○ |
| | 60 / 90 / 120 TOOLS | ○ | ○ | ○ | ○ | ○ | ○ |
| WORKPIECE SETTING DEVICE | CENTER BUSH | X | ○ | ○ | ○ | ○ | ○ |
| | EDGE LOCATOR | ○ | ○ | ○ | ○ | ○ | ○ |
| TABLE SIZE | 1400 X 1600 mm (55.1X63.0 inch) | X | X | X | X | X | X |
| | 1400 X 1800 mm (55.1X70.9 inch) | ● | X | X | X | X | X |
| | 1600 X 1800 mm (63.0X70.9 inch) | X | ● | ● | X | X | ● |
| | 1800 X 2000 mm (70.9X78.7 inch) | X | ○ | ○ | X | X | ○ |
| | 2000 X 2200 mm (78.7X86.6 inch) | X | ○ | ○ | X | X | ○ |
| | 1800 X 2000 mm (70.9X78.7 inch) 20 ton | X | X | ○ | X | X | X |
| | 2000 X 2200 mm (78.7X86.6 inch) 19 ton | X | X | ○ | X | X | X |
| | 2000 X 2200 mm (78.7X86.6 inch) 20 ton | X | X | X | ● | ● | X |
| 2000 X 2200 mm (78.7X86.6 inch) 25 ton | X | X | X | ○ | X | X | |
| APC ⁽¹⁾ | | ○ | ○ | ○ | ○ | ○ | ○ |
| LINEAR SCALE (X, Y, Z-AXIS) | ABSOLUTE | ○ | ○ | ○ | ● | ● | ● |
| RAISED COLUMN ⁽²⁾ | | ○ | ○ | ○ | ○ | ○ | ○ |
| SPLASH GUARD | SPLASH GUARD W/O TOP | ○ | ○ | ○ | ○ | ○ | ○ |
| | AUTO DOOR SEMI GUARD ^{(1) (2)} | ○ | ○ | ○ | ○ | ○ | ○ |
| COOLANT TANK | | ○ | ○ | ○ | ○ | ○ | ○ |
| LIFT-UP CHIP CONVEYOR | | ○ | ○ | ○ | ○ | ○ | ○ |
| Flood Coolant | 1.1 KW_0.7MPA_30 L/MIN | ○ | ○ | ○ | ○ | ○ | ○ |
| | 1.1 KW_1.0MPA_20 L/MIN | ○ | ○ | ○ | ○ | ○ | ○ |
| | 1.5 KW_2.0 MPA_CYCLONE FILTER | ○ | ○ | ○ | ○ | ○ | ○ |
| TSC | 2.9 KW_2.0 MPA_CYCLONE FILTER | ○ | ○ | ○ | ○ | ○ | ○ |
| | 2.9 KW_3.0MPA CYCLONE FILTER | ○ | ○ | ○ | ○ | ○ | ○ |
| | 7.5 KW_7.0 MPA_CYCLONE FILTER | ○ | ○ | ○ | ○ | ○ | ○ |
| Water soluble Coolant Chiller | ** | ○ | ○ | ○ | ○ | ○ | ○ |
| OIL SKIMMER | BELT TYPE | ○ | ○ | ○ | ○ | ○ | ○ |
| | DISK TYPE | ○ | ○ | ○ | ○ | ○ | ○ |
| COOLANT GUN | | ○ | ○ | ○ | ○ | ○ | ○ |
| Coolant level switch | | ○ | ○ | ○ | ○ | ○ | ○ |
| AIR GUN | | ○ | ○ | ○ | ○ | ○ | ○ |
| AIR BLOWER | | ● | ○ | ○ | ○ | ○ | ● |
| 6-AXIS OPTION ⁽¹⁾ | 1 AXIS_WIRE AND PIPING_HYD | ○ | ○ | ○ | ○ | ○ | ○ |
| | OMP60_RENISHAW | ○ | ○ | ○ | ○ | ○ | ○ |
| | RMP60_RENISHAW | ○ | ○ | ○ | ○ | ○ | ○ |
| AUTO WORK MEASURING DEVICE | RMP600_RENISHAW | ○ | ○ | ○ | ○ | ○ | ○ |
| MASTER TOOL FOR AUTO TOOL MEASUREMENT | CALIBRATION BLOCK | ○ | ○ | ○ | ○ | ○ | ○ |
| AUTO TOOL MEASURING DEVICE | TS27R_RENISHAW | ○ | ○ | ○ | ○ | ○ | ○ |
| | SIZE 450 X 600 X 400 | ○ | ○ | ○ | ○ | ○ | ○ |
| | SIZE 500 X 1000 X 550 | ○ | ○ | ○ | ○ | ○ | ○ |
| | SIZE 750 X 1250 X 750 | ○ | ○ | ○ | ○ | ○ | ○ |
| | SIZE 1000 X 2000 X 1000 | ○ | ○ | ○ | ○ | ○ | ○ |
| ATTACHMENT | 90° ANGLE HEAD_L420 / L650 | ○ | ○ | ○ | ○ | ○ | X |
| | FACE PLATE_Ø650 | ○ | ○ | ○ | ○ | ○ | X |
| | INDEXABLE ANGLE HEAD_90° AUTO INDEX | ○ | ○ | ○ | ○ | ○ | X |
| | MANUAL UNIVERSAL HEAD_1000 | ○ | ○ | ○ | ○ | ○ | X |
| | SPINDLE SUPPORT_370 MM | X | X | X | ○ | ○ | X |
| | SPINDLE SUPPORT_310 MM | X | ○ | ○ | X | X | X |
| | SPINDLE SUPPORT_200 MM | ○ | X | X | X | X | X |
| | COGSDILL READY | ○ | ○ | ○ | ○ | ○ | X |
| ATTACHMENT SPEED LIMIT CONTROL | | ● | ● | ● | ● | ● | |
| SAFETY FENCE AND INTERLOCK SWITCH | | ○ | ○ | ○ | ○ | ○ | |
| SPINDLE THERMAL COMPENSATION SYSTEM | | ● | ● | ● | ● | ● | |
| TEST BAR | BT50 | ○ | ○ | ○ | ○ | ○ | |
| Y-AXIS ADDITIONAL BRAKE SYSTEM ⁽¹⁾ | | ○ | ○ | ○ | ○ | ○ | |
| MDI / DISPLAY UNIT | 15" Color LCD with Touch Panel | ● | ● | ● | ● | ● | |
| TRANSFORMER | | ○ | ○ | ○ | ○ | ○ | |
| POWER PANEL AIR CONDITIONER | | ○ | ○ | ○ | ○ | ○ | |
| POWER PANEL LIGHT | | ○ | ○ | ○ | ○ | ○ | |
| POWER PANEL LINE FILTER | | ○ | ○ | ○ | ○ | ○ | |
| AUTO NC POWER OFF | | ○ | ○ | ○ | ○ | ○ | |
| AUTO NC POWER ON | | ○ | ○ | ○ | ○ | ○ | |
| MACHINE WARMING UP | | ○ | ○ | ○ | ○ | ○ | |
| DN Solutions TOOL MANAGEMENT | | ○ | ○ | ○ | ○ | ○ | |
| DN Solutions TOOL LOAD MONITORING | | ○ | ○ | ○ | ○ | ○ | |
| MPG | 1 MPG_PORTABLE_W/ENABLE TYPE | ● | ● | ● | ● | ● | ● |
| | 3 MPG_PORTABLE_W/ENABLE TYPE | ○ | ○ | ○ | ○ | ○ | ○ |
| ALARM GUIDANCE | | ○ | ○ | ○ | ○ | ○ | |
| COUNTER FUNCTION | WORK/TOTAL/DAILY | ○ | ○ | ○ | ○ | ○ | |
| NC | | 31iB PLUS | 31iB PLUS | 31iB PLUS | 31iB PLUS | 31iB PLUS | |
| AICC II 200 BLOCK | | X | X | X | X | X | |
| AICC II 400 BLOCK | | X | X | X | X | X | |
| AICC II 600 BLOCK | | X | X | X | X | X | |
| AICC II 1000 BLOCK | | ● | ● | ● | ● | ● | |

Please contact DN Solutions to select detailed steady rest specifications

* 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

Note 1) Please contact us for further details

Note 2) This specification applies to APC option. Note 3) 30 min/continuous For DBC 250LII

● Standard ○ Optional X Not applicable



Fire Safety Precautions

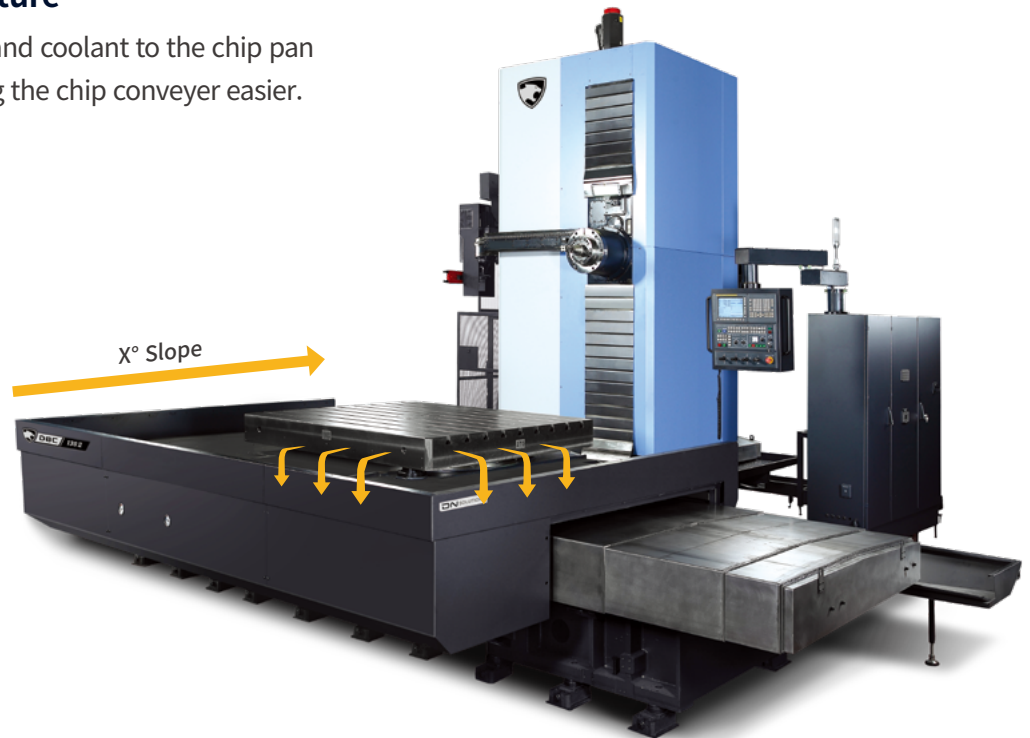
There is a high risk of fire when using non-water-soluble cutting fluids, processing flammable materials, neglecting the controlled and careful use of coolants and modifying the machine without the consent of the manufacturer. Always check the SAFETY GUIDELINES carefully before using the machine.

CHIP DISPOSAL SYSTEM

Proper chip disposal is very important for productivity and environment protection. The DBC series provides various chip disposal systems designed to improve productivity and the working environment.

Easy chip removal structure

The DBC series confines chips and coolant to the chip pan to make the chip disposal using the chip conveyor easier.

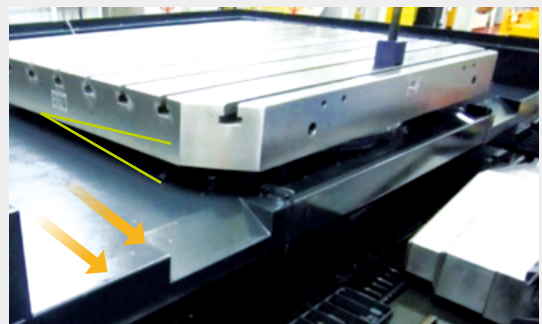


Coolant gun OPTION

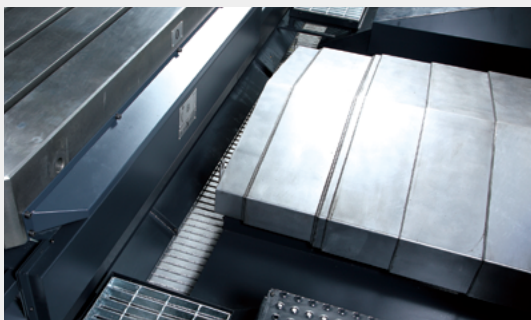


Chip pan

Slope-type chip pan is used for smooth coolant drain and chip disposal.



Built-in, hinge-type belt chip conveyor



Lift-up chip conveyor OPTION

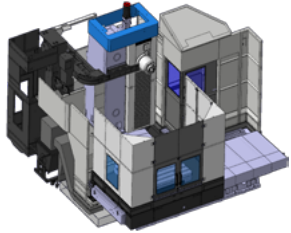


CHIP DISPOSAL SYSTEM

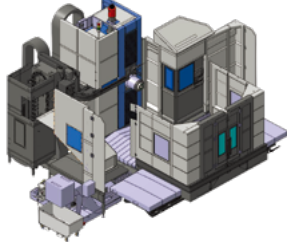
Coolant splash guard OPTION

Semi-splash guard

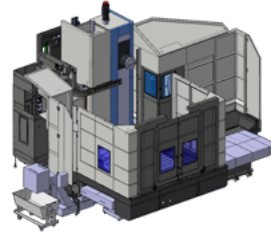
DBC 110S / 130S



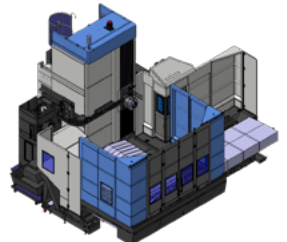
DBC 110II



DBC 130II / 130LII / 250LII



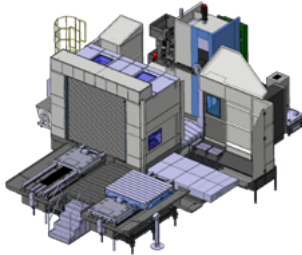
DBC 160



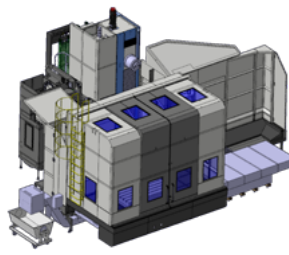
Auto door semi-splash guard

(for APC option)

DBC 130II / 130LII / 250LII

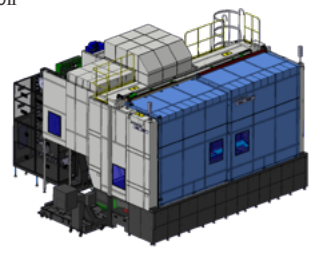


Semi-splash guard with top



Full -splash guard

DBC 130II



* Users are recommended to select the cover (splash guard) option to protect the operator from splashing coolant in the work area. Customers who do not purchase a splash guard should prepare a separate protective measure.
 * This layout is be used as reference data for the better understanding. It is subject to change without notice for performance improvement. Therefore, separately consult with DN Solutions' technical team for the detailed layout.

Special options OPTION

1) Additional discussion is required when ATC need while spindle support is attached.
 (Note) The head attachments (1 ~ 10) are not applicable for DBC 250 (L) II model.

Special option can be available. please ask to sales person for detail.

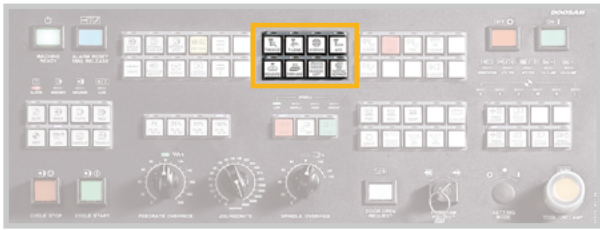
| | | | | | | | | | | | | | | | | | |
|--|--|---|-------------|-------------|-------------|-------------|-------------|---|------------|------------|------------|-------------|---|------------|------------|------------|-------------|
| <p>1. Angle head (manual indexing) (L=420mm(16.5 inch), 1500r/min¹⁾</p>  | <p>2.Long type angle head (manual indexing) (L=650mm (25.6 inch), 1500r/min¹⁾</p>  | <p>3.Universal head (manual indexing)</p>  | | | | | | | | | | | | | | | |
| <p>4. Face plate (manual indexing) (Ø650mm (25.6 inch))</p>  | <p>5. Indexable angle head (90° auto indexing) Please contact us for further details of specification.</p>  | <p>6. Spindle support²⁾</p> <ul style="list-style-type: none"> • DBC 110S / 110 II : L =200mm (7.9 inch) • DBC 130S : L = 310mm (12.2 inch) • DBC 130II / L : L= 310mm (12.2 inch) • DBC 160 / L : L=370mm (14.6 inch)  | | | | | | | | | | | | | | | |
| <p>7. Facing head (Cogsdill, ITS)</p> <ul style="list-style-type: none"> • with U-axis preparation • manual tool change • manual installation  | <p>8. Facing head TA-Center (D'andrea)</p> <ul style="list-style-type: none"> • with U-axis preparation • ATC change  | <p>9. Facing head U-Tronic (D'andrea)</p> <ul style="list-style-type: none"> • with U-axis preparation • manual tool change • manual installation  | | | | | | | | | | | | | | | |
| <p>10. AAC (Auto Attachment Change) Auto attachment change for facing head</p>  | <p>11. 120 Tools ATC Tool storage 120 ea</p>  | <p>12. Angle plate (4 types)</p> <ul style="list-style-type: none"> • Please contact us for customized specifications. • Please contact us for further information.  <p>Unit : mm (inch)</p> <table border="1"> <tr> <td>A</td> <td>600 (23.6)</td> <td>1000 (39.4)</td> <td>1250 (49.2)</td> <td>2000 (78.7)</td> </tr> <tr> <td>B</td> <td>450 (17.7)</td> <td>500 (19.7)</td> <td>750 (29.5)</td> <td>1000 (39.4)</td> </tr> <tr> <td>C</td> <td>400 (15.7)</td> <td>550 (21.7)</td> <td>750 (29.5)</td> <td>1000 (39.4)</td> </tr> </table> | A | 600 (23.6) | 1000 (39.4) | 1250 (49.2) | 2000 (78.7) | B | 450 (17.7) | 500 (19.7) | 750 (29.5) | 1000 (39.4) | C | 400 (15.7) | 550 (21.7) | 750 (29.5) | 1000 (39.4) |
| A | 600 (23.6) | 1000 (39.4) | 1250 (49.2) | 2000 (78.7) | | | | | | | | | | | | | |
| B | 450 (17.7) | 500 (19.7) | 750 (29.5) | 1000 (39.4) | | | | | | | | | | | | | |
| C | 400 (15.7) | 550 (21.7) | 750 (29.5) | 1000 (39.4) | | | | | | | | | | | | | |

EASY AND CONVENIENT OPERATION

Operating system for enhanced user convenience

DN Solutions's new operation panel

With differentiated hotkey, the DBC Series enables fast access to frequently used functions.



Improved user convenience with ergonomic design

The tilting operation panel ensures enhanced operating convenience.

Conventional type

Improved type



Productivity improved by adoption of operator panel design optimized for the operation of large machines

- Mono lever jog switches are provided at the bottom of the main operation panel for easy traverse on the long axis of large machines (standard).
- Pulse handle for the operator's convenience and portable MPG for easy workpiece setting are provided as standard features.



Portable MPG



ATC OP panel



3 Portable MPG
OPTION



MPG with LCD display
OPTION



Manual operation panel
OPTION
HMOP (Handy Machine Operator's Panel)



Mono lever jog switch

FANUC 31i/32i PLUS

FANUC 31i PLUS / 32i PLUS / 0iF PLUS maximizes customer productivity and convenience.

15" Touch screen + New OP

DN Solutions Fanuc 31iB/B5 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 31i/32i Plus

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

USB and PCMCIA card QWERTY keyboard

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

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



| Division | Item | Specifications | DBC | | | |
|-----------------------------|---|--|-----------|---------------|----------|---|
| | | | 31iB Plus | 32iB Plus | 0iF Plus | |
| Controlled axis | Controlled axes | | | 5 (X,Y,Z,W,B) | | |
| | Simultaneously controlled axes | | | 4 axes | | |
| Data input/output | Additional controlled Axis | Add 1Axis (6th Axis) | | ○ | | |
| | Fast data server | | | ○ | | |
| | Memory card input/output | | | ● | | |
| | USB memory input/output | | | ● | | |
| Interface function | Large capacity memory(2GB)*2 | Available Option only with 15" Touch LCD (iHMI Only) *2) | | ○ | | |
| | Embedded Ethernet | | | ● | | |
| | Fast Ethernet | | | ○ | | |
| Operation | Enhanced Embedded Ethernet function | | | ● | | |
| | DNC operation | Included in RS232C interface. | | ● | | |
| Program input | DNC operation with memory card | | | ● | | |
| | Workpiece coordinate system | G52 - G59 | | ● | | |
| | Addition of workpiece coordinate system | G54.1 P1 X 48 (48 pairs) | | ● | | |
| | Tool number command | | | T4 digits | | |
| Feed function | Tilted working plane indexing command | G68.2 TWP | | ○ | | |
| | Large capacity memory | | ○ | ○ | ○ | |
| | AI contour control 200 Block | | X | X | ● | |
| | AI contour control 400 Block | | X | X | ○ | |
| | AI contour control 600 Block | | X | ● | X | |
| Operation Guidance Function | AI contour control 1000 Block | | ● | X | X | |
| | EZ Guidei (Conversational Programming Solution) | | | ● | | |
| Setting and display | iHMI with Machining Cycle | Only with 15" Touch LCD standard *2) | | ● | | |
| | EZ Operation package | | | ● | | |
| Network | CNC screen dual display function | | | ● | | |
| | FANUC MTConnect | | | ● | | |
| Others | FANUC OPC UA | | | ● | | |
| | Display unit | | | ● | | |
| | Part program storage size & Number of registerable programs | 15" color LCD with touch panel | | ● | ● | ● |
| | | Part program 2MB _1000EA | | X | X | ● |
| | | Part program 4MB _1000EA | | ● | ● | X |
| | | Part program 8MB _1000EA | | ○ | ○ | X |
| | | Part program 2MB _4000EA | | X | X | X |
| | | Part program 4MB _4000EA | | ○ | ○ | X |
| | | Part program 8MB _4000EA | | ○ | ○ | X |
| | | 640M(256KB) _500 programs | | | X | |
| | | 1280M(512KB) _1000 programs | | | X | |
| | | 2560M(1MB) _1000 programs | | | X | |
| | | 5120M(2MB) _1000 programs | | | X | |
| | | 10240M(4MB) _1000 programs | | | ● | |
| | | 20480M(8MB) _1000 programs | | | ○ | |
| 2560M(1MB) _2000 programs | | | | X | | |
| 5120M(2MB) _4000 programs | | | X | | | |
| 10240M(4MB) _4000 programs | | | ○ | | | |
| 20480M(8MB) _4000 programs | | | ○ | | | |

EZ WORK

The software developed by DN Solutions's own technology provides numerous functions designed for convenient operation.

Variable work load control[®]

When the operator enters the M-code for the weight of the workpiece, the system automatically determines the table feed pattern to perform cutting.

| Work load control | DBC 110S | DBC 130S | DBC 110 II | DBC 130 II | DBC 130L II | DBC 160 | DBC 160L | DBC 250L II |
|-------------------|----------|----------|------------|------------|-------------|---------|----------|-------------|
| 5tons or less | ● | ● | ● | ● | ● | ● | ● | ● |
| 10tons or less | ● | ● | ● | ● | ● | ● | ● | ● |
| 15tons or less | | | | ● | ● | ● | ● | ● |
| 20tons or less | | | | | ○ | ● | ● | |
| 25tons or less | | | | | | ○ | | |



Tool load monitoring

During cutting operations, abnormal loads caused by wear and tear of the tool are detected, and an alarm is triggered to prevent further damage from occurring.



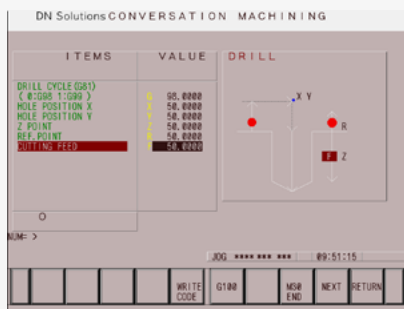
Tool management

This function controls information on the tools in the tool magazine pots.



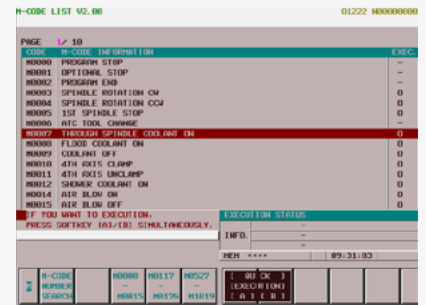
Thermal compensation

A function to maintain high-precision machining quality by analyzing and correcting the amount of thermal displacement of a structure through a temperature sensor



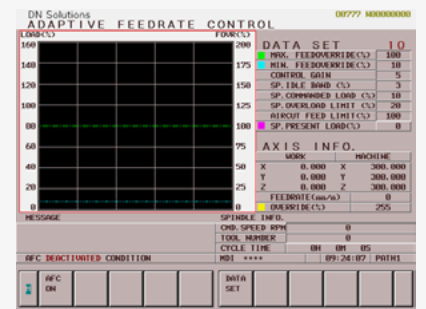
Pattern cycle

A function to automatically create frequently used part programs.



M/G-code list

Functional description of M code and G code



Adaptive Feed Control

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)

POWER | TORQUE

DBC S series

DBC 110S

Max. spindle speed

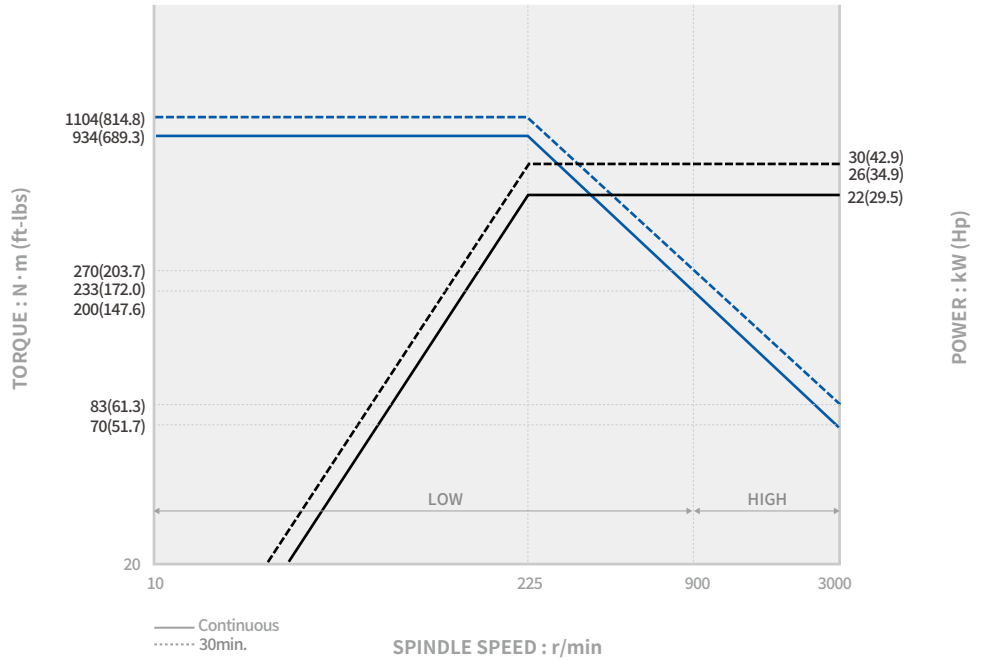
3000 r/min

Max. spindle power

30/22 kW
(40.2/29.5 Hp)

Max. Spindle torque

1104 N·m
(814.8 ft-lbs)



DBC 130S

Max. spindle speed

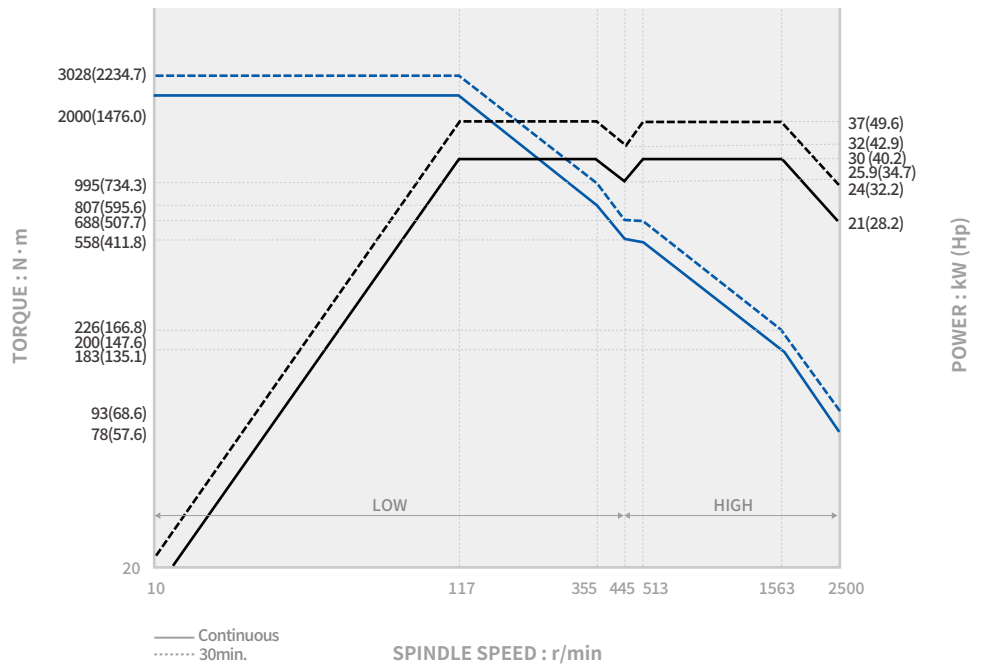
2500 r/min

Max. spindle power

37/21 kW
(49.6/28.2 Hp)

Max. Spindle torque

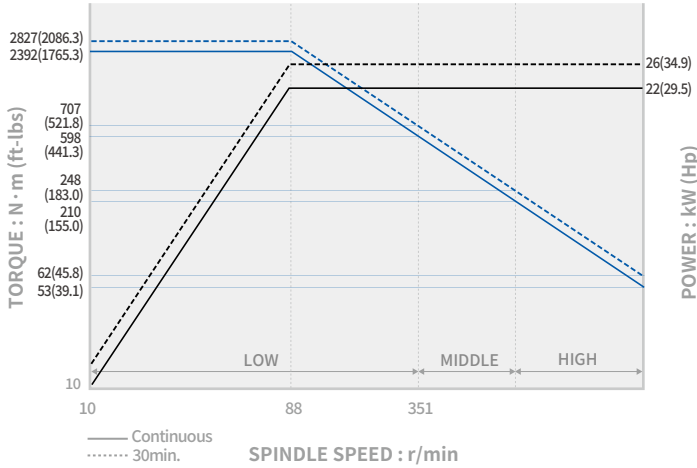
3028 N·m
(2234.7 ft-lbs)



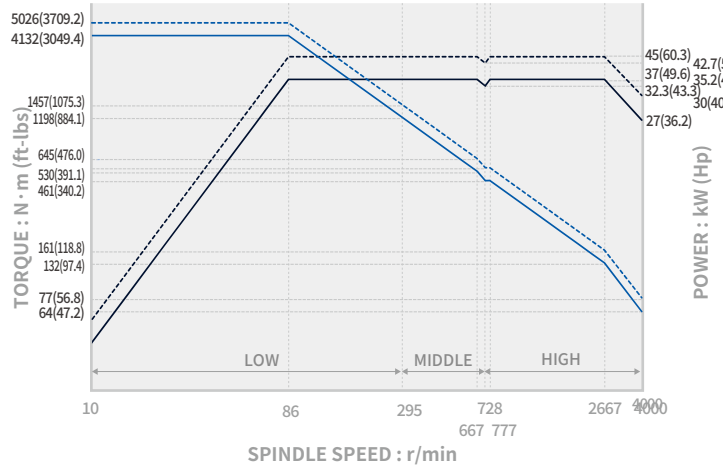
POWER | TORQUE

DBCII series

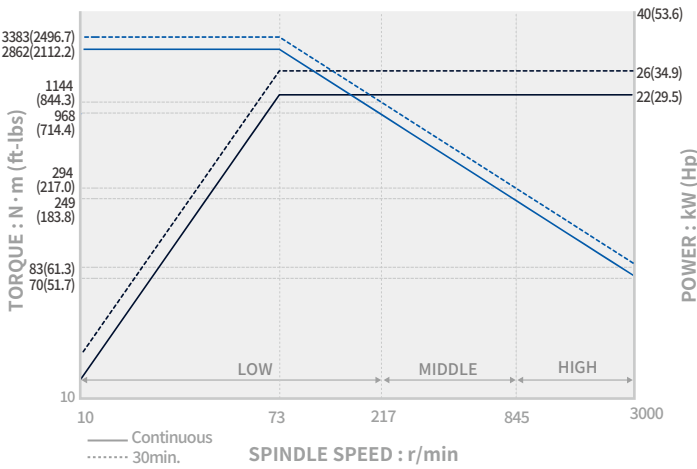
DBC 110II



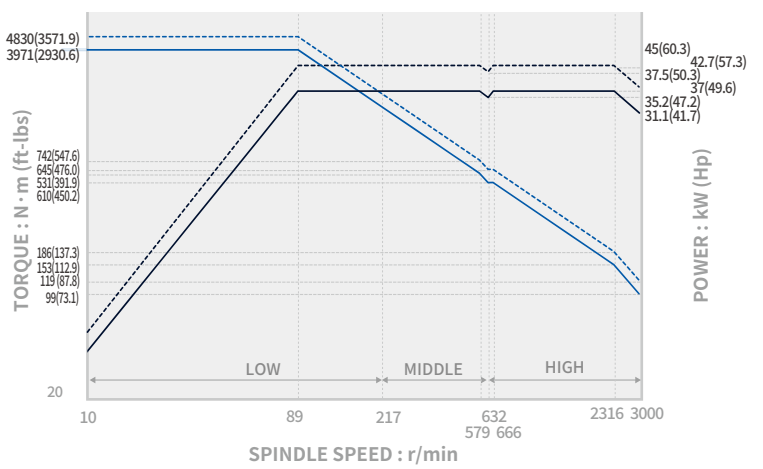
DBC 110II



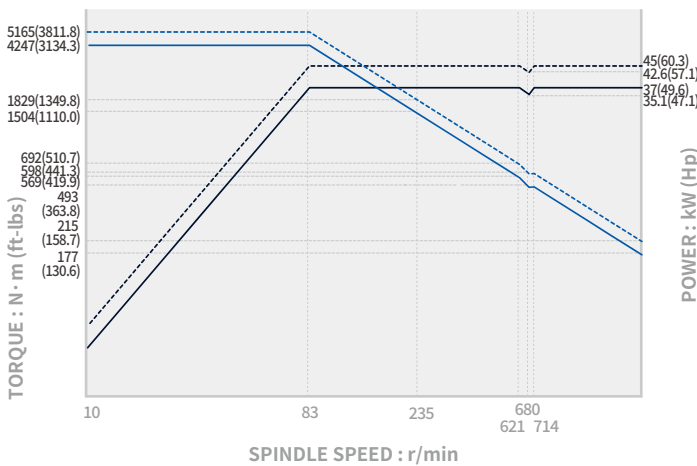
DBC 130II / 130LII



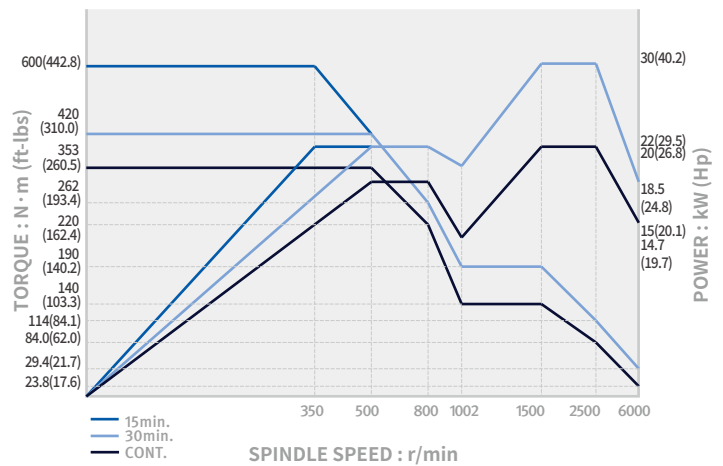
DBC 130II / 130LII



DBC 160L / L



DBC 250LII



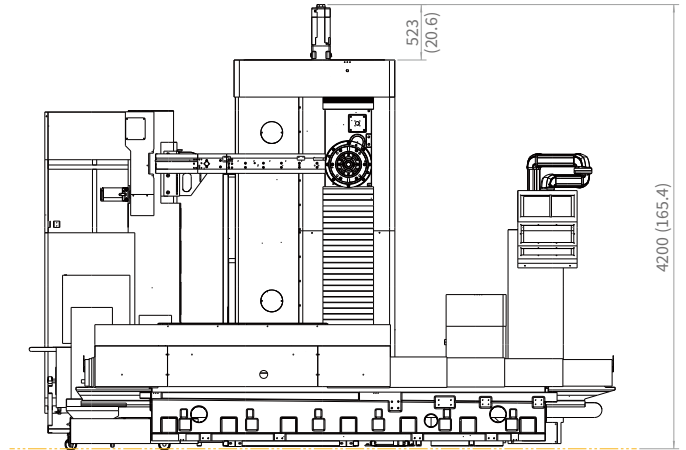
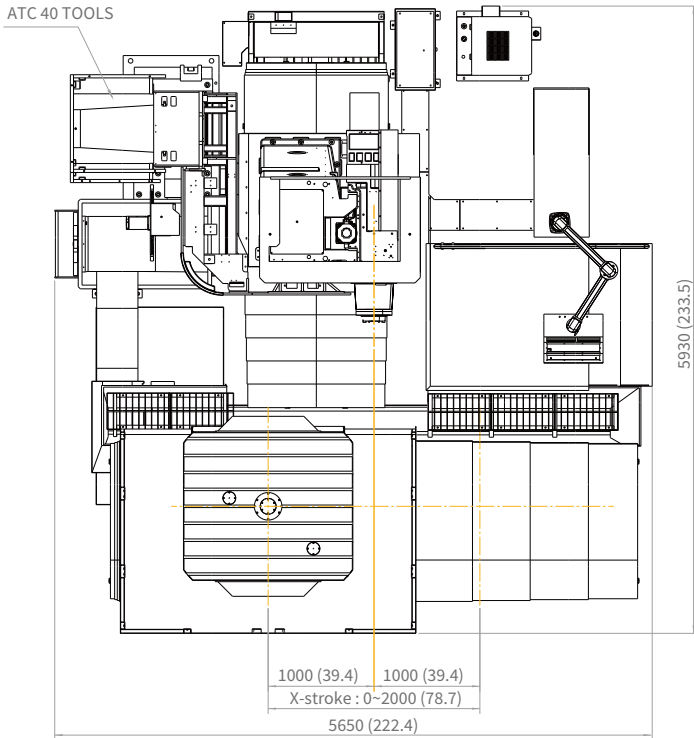
EXTERNAL DIMENSIONS

DBC 110S

Unit: mm (inch)

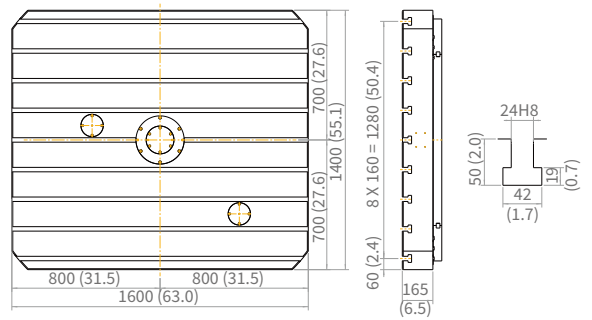
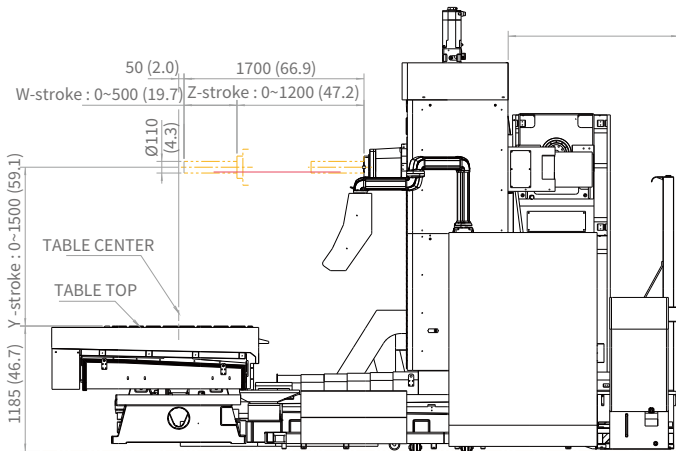
Top

Front



Side

Table 1400 x 1600 (55.1 x 63.0)



* Please comply with our company's installation guideline, such as ground condition and anchoring, in order to achieve the maximum precision and performance of the machine.

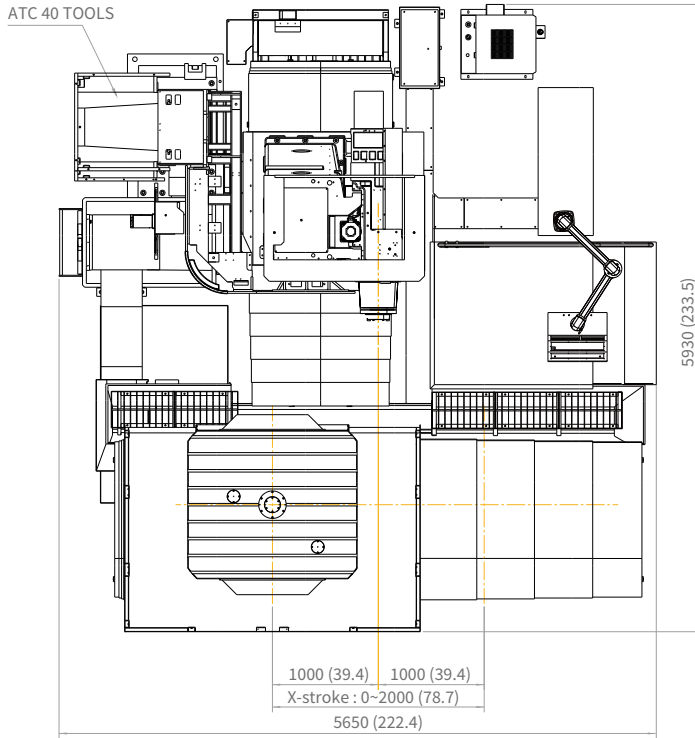
** Providing anchoring bolts. Foundation work must be done.

EXTERNAL DIMENSIONS

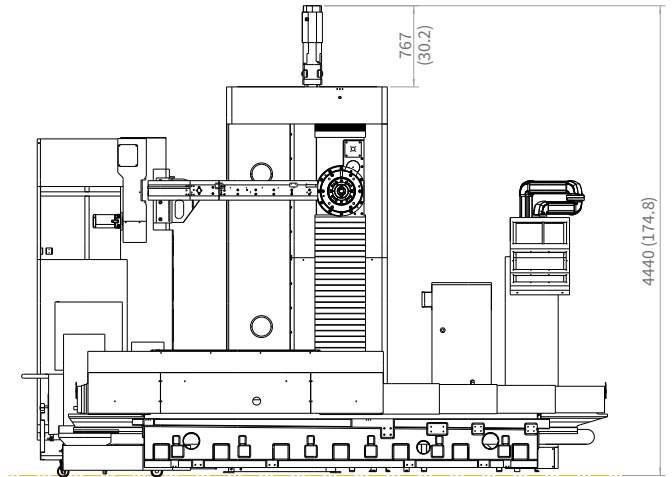
DBC 130S

Unit: mm (inch)

Top

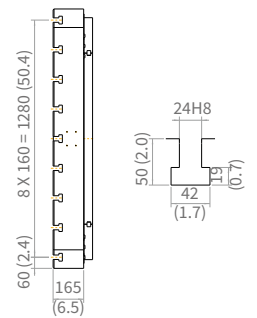
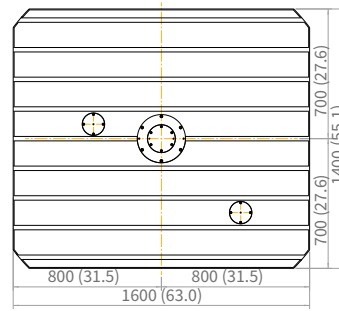
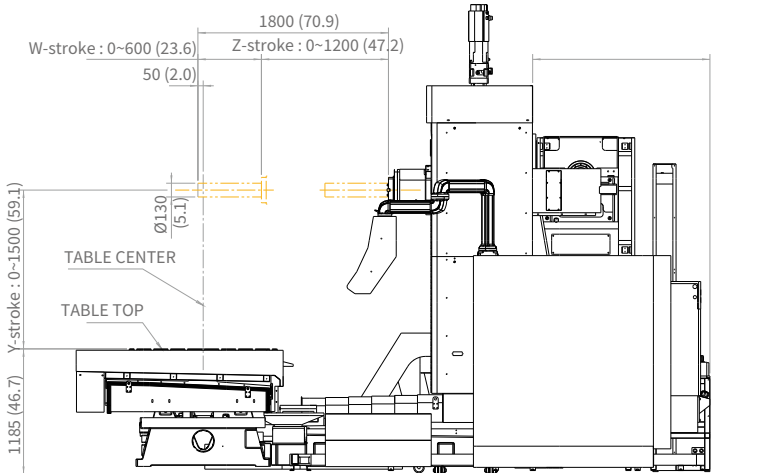


Front



Side

Table 1400 x 1600



* Please comply with our company's installation guideline, such as ground condition and anchoring, in order to achieve the maximum precision and performance of the machine.

** Providing anchoring bolts. Foundation work must be done.

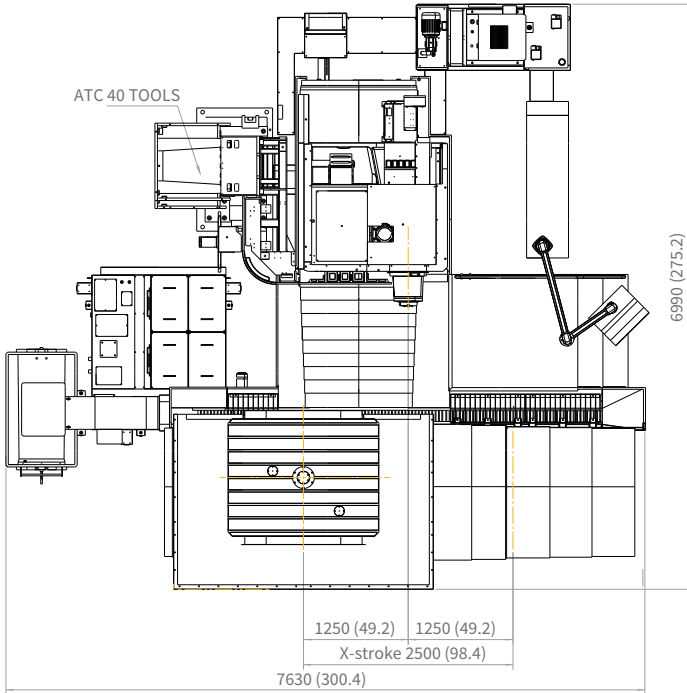
* Some peripheral equipment can be placed in other places.

EXTERNAL DIMENSIONS

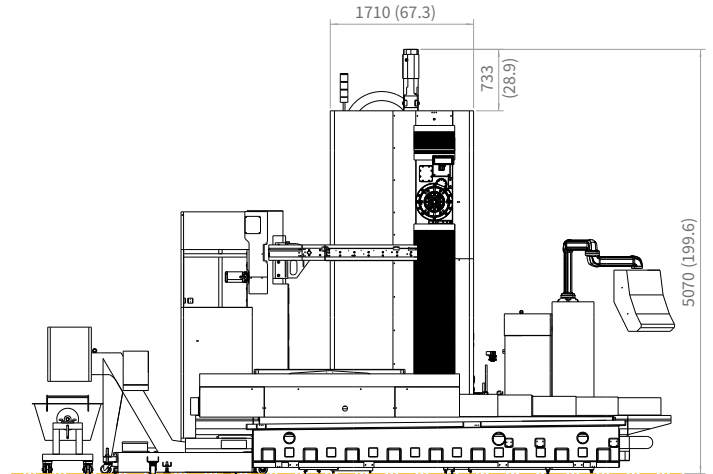
DBC 110II

Unit: mm (inch)

Top



Front



Side

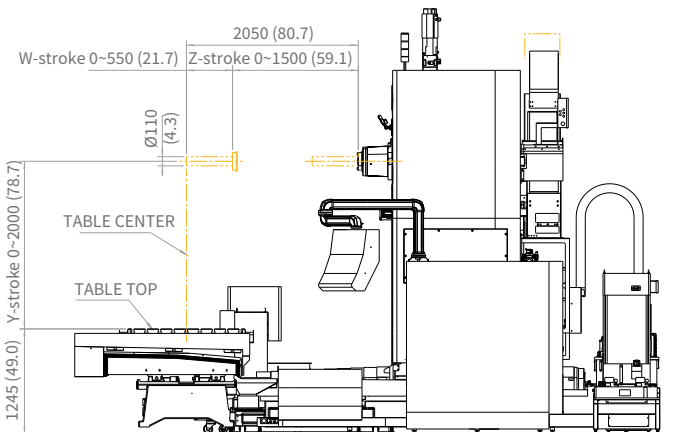
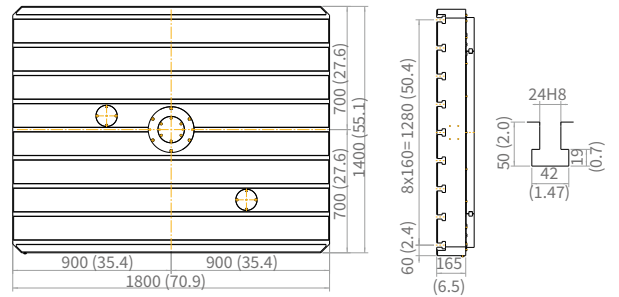


Table 1400 x 1800



* Please comply with our company's installation guideline, such as ground condition and anchoring, in order to achieve the maximum precision and performance of the machine.

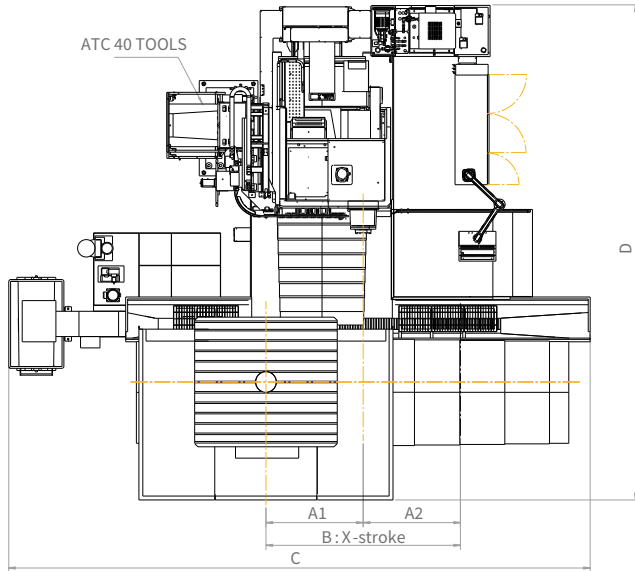
** Providing anchoring bolts. Foundation work must be done.

EXTERNAL DIMENSIONS

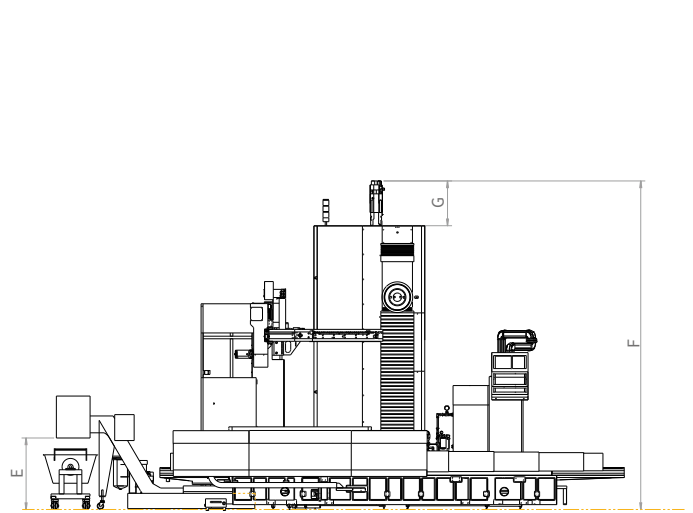
DBC 130II / 130LII / 250LII

Unit: mm (inch)

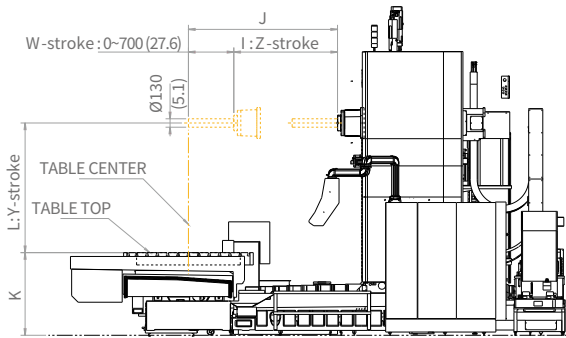
Top



Front



Side(DBC 130II / 130LII)



Side (DBC 250II / 250LII)

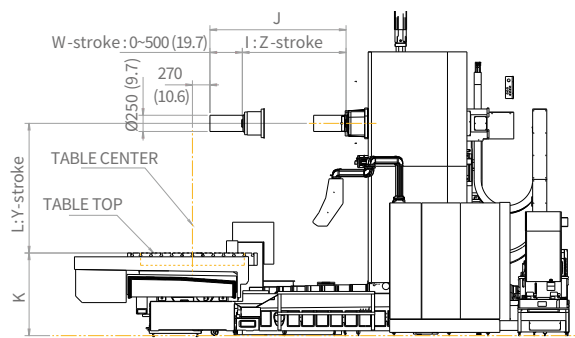


TABLE 1600 X 1800 (63.0 x 70.9)

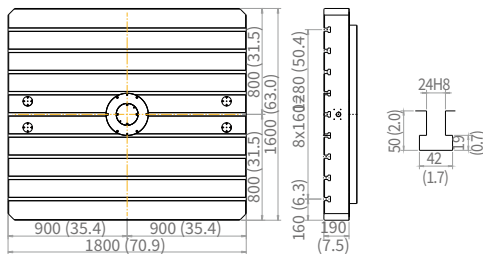
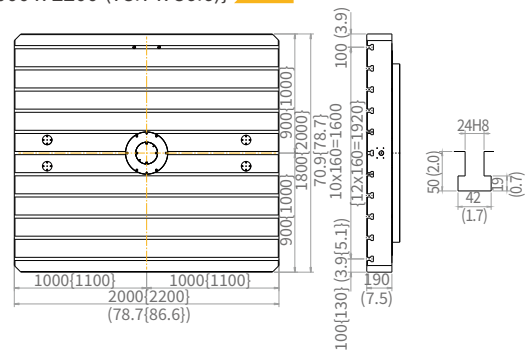


TABLE 1800 x 2000 (70.9 x 78.7)
{2000 x 2200 (78.7 x 86.6)} **OPTION**



| Model | A1 / A2 | B | C | D | E | F | G | I | J | K | L |
|------------|----------------|---------------------|-----------------|-----------------|----------------|-----------------|---------------|--------------------|-----------------|----------------|--------------------|
| DBC 130II | 1500 (59.1) | 0-3000 (0-118.1) | 8970 (353.1) | 7640 (300.8) | 1103 (43.4) | 5070 (199.6) | 690 (27.2) | 0-1600 (0-63.0) | 2300 (90.6) | 1275 (50.2) | 0-2000 (0-78.7) |
| DBC 130LII | 2000 (78.7) | 0-4000 (0-157.5) | 9970 (392.5) | 8040 (316.5) | 1103 (43.4) | 5570 (219.3) | 690 (27.2) | 0-2000 (0-78.7) | 2700 (106.3) | 1275 (50.2) | 0-2500 (0-98.4) |
| DBC 250LII | 2000 (78.7) | 0-4000 (0-157.5) | 9970 (392.5) | 8040 (316.5) | 1103 (43.4) | 5570 (219.3) | 690 (27.2) | 0-2000 (0-78.7) | 2500 (98.4) | 1275 (50.2) | 0-2500 (0-98.4) |

* Please comply with our company's installation guideline, such as ground condition and anchoring, in order to achieve the maximum precision and performance of the machine.

** Providing anchoring bolts. Foundation work must be done.

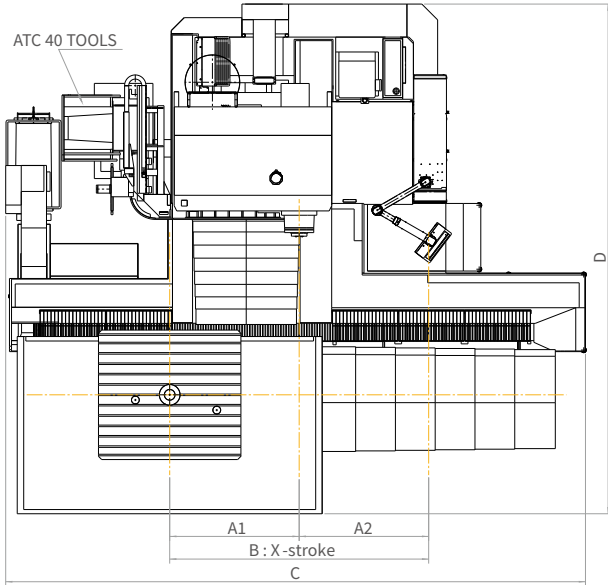
* Some peripheral equipment can be placed in other places.

EXTERNAL DIMENSIONS

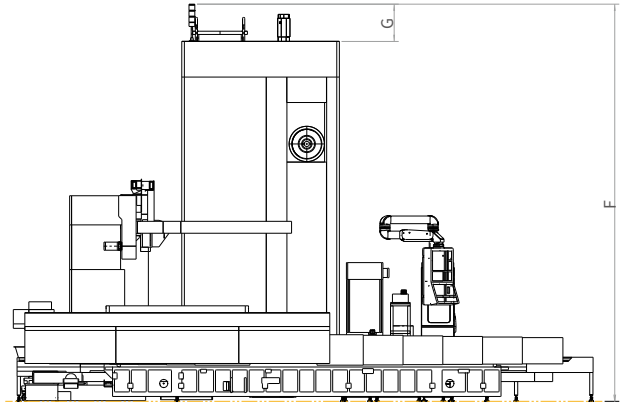
DBC 160 / 160L

Unit: mm (inch)

Top



Front



Side

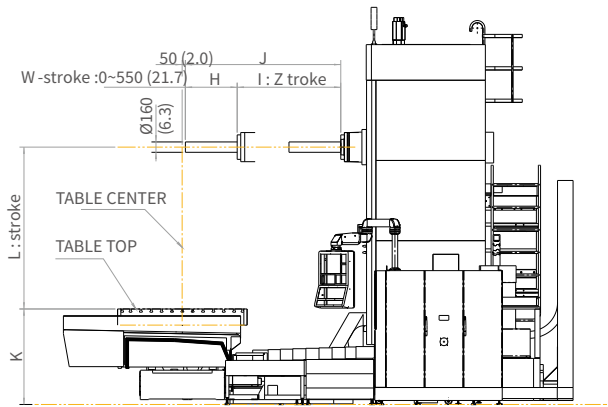
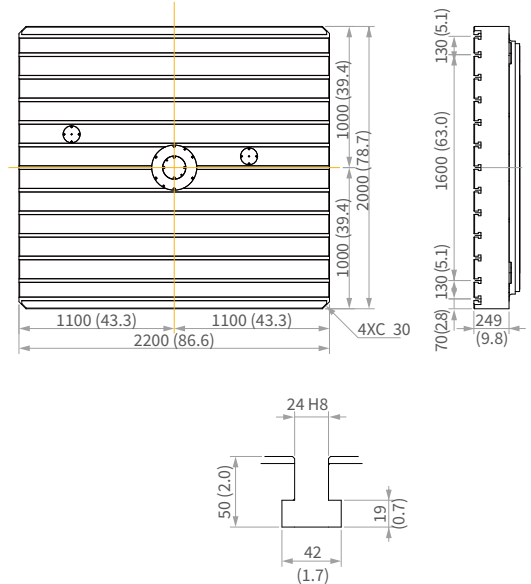


Table 2000 x 2200



| 기종명 | A1 / A2 | B | C | D | E | F | G | I | J | K | L |
|----------|----------------|---------------------|------------------|-----------------|----------------|-----------------|---------------|--------------------|-----------------|----------------|-----------------|
| DBC 160 | 2000 (78.7) | 0-4000 (0-157.5) | 8958 (352.7) | 7900 (311) | 1103 (43.4) | 6150 (242.1) | 575 (22.6) | 0-1600 (0-63.0) | 2400 (94.5) | 1475 (58.1) | 2500 (98.4) |
| DBC 160L | 2500 (98.4) | 0-5000 (0-196.9) | 10000 (393.7) | 8300 (326.8) | 1103 (43.4) | 6650 (261.8) | 575 (22.6) | 0-2000 (0-78.7) | 2800 (110.2) | 1475 (58.1) | 3000 (118.1) |

* Please comply with our company's installation guideline, such as ground condition and anchoring, in order to achieve the maximum precision and performance of the machine.

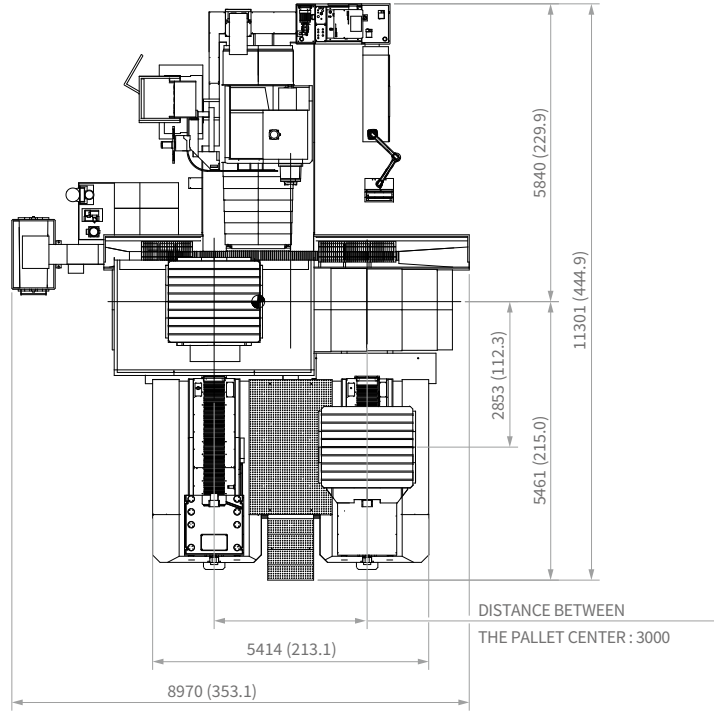
** Providing anchoring bolts. Foundation work must be done.

EXTERNAL DIMENSIONS

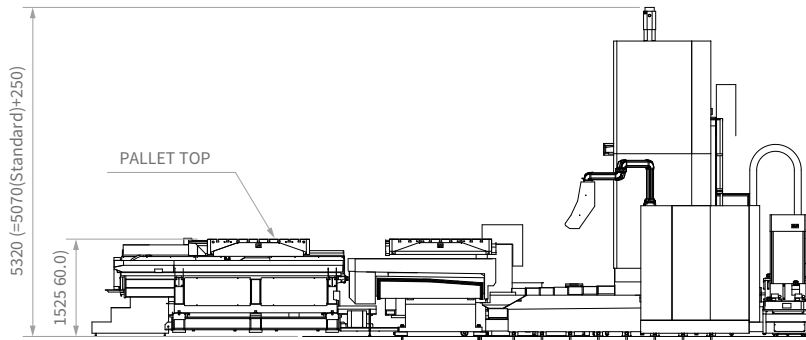
DBC 130II with APC OPTION

Unit: mm (inch)

Top



Front

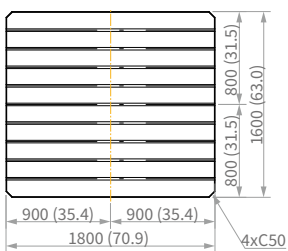


* Please comply with our company's installation guideline, such as ground condition and anchoring, in order to achieve the maximum precision and performance of the machine.
 ** Providing anchoring bolts. Foundation work must be done.

APC Pallet

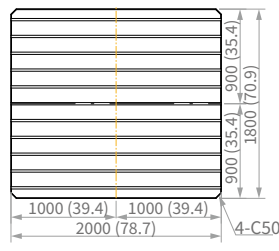
1600 x 1800 OPTION

APC loading capacity : 10 tons

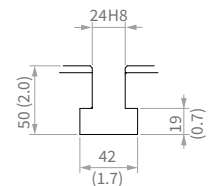
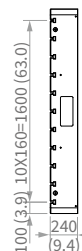


1800 x 2000 OPTION

APC loading capacity : 8 tons



T-Slot



* Some peripheral equipment can be placed in other places.

MACHINE SPECIFICATIONS

DBC S series

| Description | | Unit | DBC 110S | DBC 130S | | |
|--|--|------------------|-----------------------|---|----------------------------------|--|
| Travels | Travel distance | X-axis | mm (inch) | 2000 (78.7) | | |
| | | Y-axis | mm (inch) | 1500 (59.1) | | |
| | | Z-axis | mm (inch) | 1200 (47.2) | | |
| | | W-axis | mm (inch) | 500 (19.7) | 600 (23.6) | |
| | Distance from spindle nose to table top | | mm (inch) | 0 ~ 1500 (0~59.1) | | |
| Distance from spindle nose to table center | | mm (inch) | 550 ~ 1750 (21.7~2.9) | | | |
| Feedrate | Rapid traverse | X, Y, Z axes | m/min | 12 | | |
| | | W-axis | m/min | 6 | | |
| | Cutting feedrate | X, Y, Z axes | mm/min | 1 ~ 6000 | | |
| Table | Table size | | mm (inch) | 1400 x 1600 (55.1x63.0) | | |
| | Max. Swing diameter | Without semi-S/G | mm (inch) | ø2550 (100.4) | | |
| | | With semi-S/G | mm (inch) | ø2100 (82.7) | | |
| | Load capacity | 1400 x 1600 mm | kg (lb) | 7000 (15432.1) | 8000 {10000} (17636.7 {22045.9}) | |
| | | 1400 x 1800 mm | kg (lb) | - | - | |
| | | 1600 x 1800 mm | kg (lb) | - | - | |
| 1800 x 2000 mm | | kg (lb) | - | - | | |
| | 2000 x 2200 mm | kg (lb) | - | - | | |
| Spindle | Max. spindle speed | | r/min | 3000 | 2500 | |
| | Boring spindle diameter | | mm (inch) | 110 (4.3) | 130 (5.1) | |
| | Quill diameter | | mm (inch) | - | - | |
| Motor | Spindle motor (30 min/cont.) {AMP UP: 15 min/cont.} | | kW (Hp) | 26/22 (34.9/29.5) {30/22 (40.2/29.5)}* | 37/30 (49.6/40.2) | |
| ATC | Tool storage capacity | | ea | {40 / 60 / 90 / 120}* | | |
| | Tool shank | | | MAS403 BT50 | | |
| | Max. tool diameter | | mm (inch) | ø130 / 250 / 400 / 600 ⁽¹⁾ (5.1 / 9.8 / 15.7 / 23.6) | | |
| | Max. tool length | | mm (inch) | 600 (23.6) | | |
| | Max. tool weight | | kg (lb) | 30 (66.1) | | |
| | Max. tool moment | | N · m (ft-lbs) | 34.3 (25.3) | | |
| | Method of tool selection | | | Fixed address | | |
| Power source | Electric power supply (rated capacity) | | kVA | 70 | 75 | |
| Machine dimensions | Height | | mm (inch) | 4200 (165.4) | 4440 (174.8) | |
| | Length x Width | | mm (inch) | 5540 x 5930 (218.1 x 233.5) | | |
| | Weight | | kg (lb) | 29000 (63933.1) | 30000 (66137.7) | |
| CNC system | | | | Fanuc 32i Plus | DN Solutions Fanuc i Plus | |

*{ } : Option

(1) For Ø250 and Ø400 mm tools, neighboring pots must be empty. For Ø600 mm tools, neighboring two pots must be empty.

MACHINE SPECIFICATIONS

DBC II series

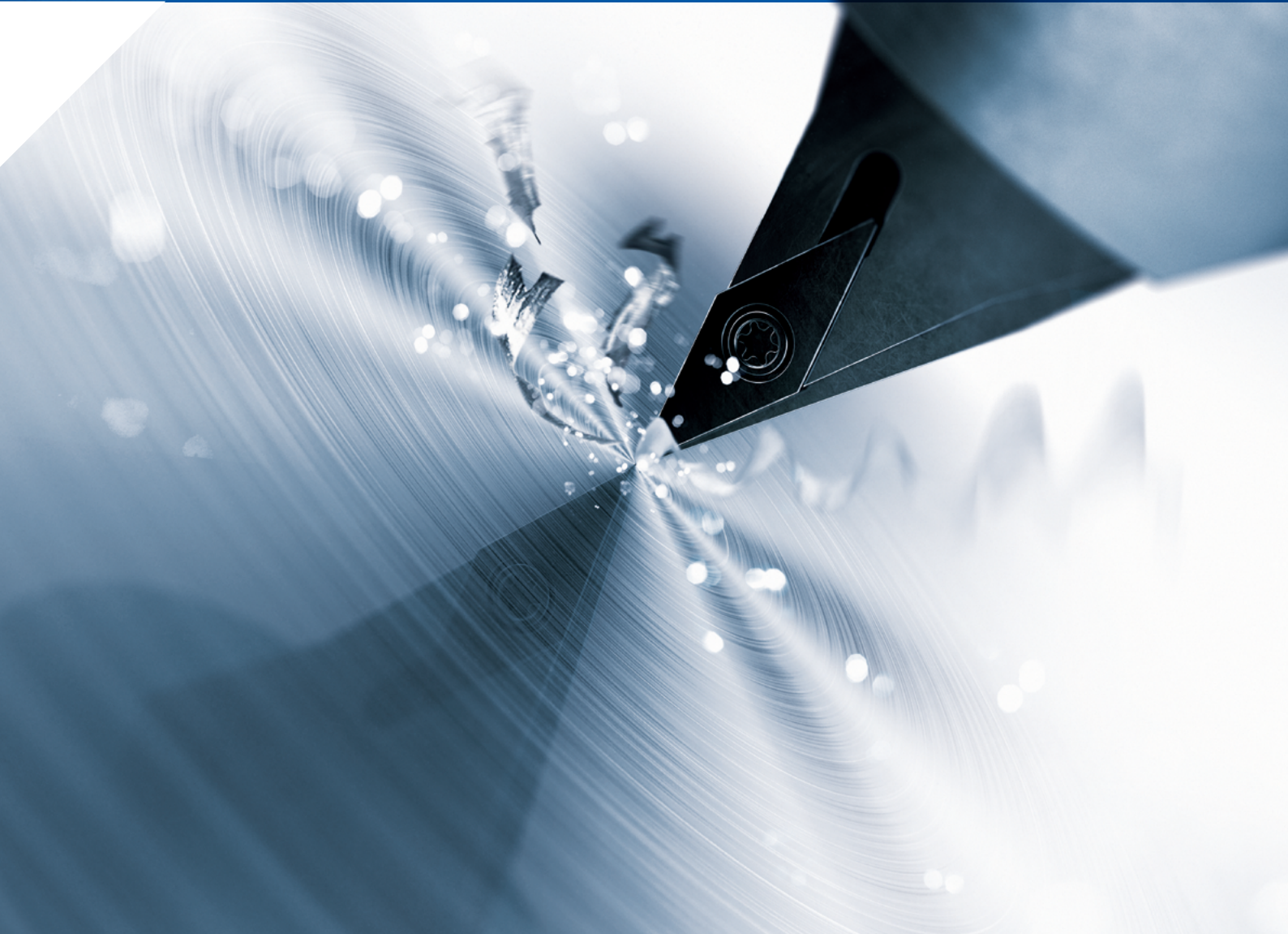
| Description | | Unit | DBC 110II | DBC 130II | DBC 130LII | DBC 160 | DBC 160L | DBC 250LII | | |
|-----------------------------------|---|-----------------------------------|----------------|--|---|---|---|------------------------------|---|----------------|
| Travels | Travel distance | X-axis | mm (inch) | 2500 (98.4) | 3000 (118.1) | 4000(157.5) | | 5000 (196.9) | 4000 (157.5) | |
| | | Y-axis | mm (inch) | 2000 (78.7) | | 2500 (98.4) | | 3000 (118.1) | 2500 (98.4) | |
| | | Z-axis | mm (inch) | 1500 (59.1) | 1600 (63.0) | 2000 (78.7) | 1600 (63.0) | 2000 (78.7) | | |
| | | W-axis | mm (inch) | 550 (21.7) | 700 (27.6) | | 800 (31.5) | | 500 (19.7) | |
| | Distance from spindle nose to table top | | mm (inch) | 0 ~ 2000 (0~78.7) | | 0 ~ 2500 (0~98.4) | | 0 ~ 3000 (0~118.1) | 0 ~ 2500 (0~98.4) | |
| | Distance from spindle nose to table center | | mm (inch) | 550 ~ 2050 (21.7 ~ 80.7) | 700 ~ 2300 (27.6 ~ 90.6) | 700 ~ 2700 (27.6 ~ 106.3) | 850 ~ 2450 (33.5 ~ 96.5) | 850 ~ 2850 (33.5 ~ 112.2) | 770 ~ 2770 (30.3 ~ 109.1) | |
| Feedrate | Rapid traverse | X, Y, Z axes | m/min | 12 | 10 | 10 / 8 / 10 {8 / 8 / 10}* ⁽¹⁾ | 10 / 10 / 10 {8 / 10 / 10} ⁽¹⁾ | 7.5 / 10 / 10 | 10 / 8 / 10 | |
| | | W-axis | m/min | 6(0.2) | | | | | 10 | |
| | Cutting feedrate | X, Y, Z axes | mm/min | 1 ~ 6000 | 1 ~ 4000 | | | | | |
| Table | Table size | | mm (inch) | 1400 x 1800 (55.1 x 70.9) | 1600 x 1800 (63.0 x 70.9) {1800 x 2000 (70.9 x 78.7), 2000 x 2200 (78.7 x 86.6)}* | | 2000 x 2200 (78.7 x 86.6) | 2000 x 2200 (78.7 x 86.6) | 1600 x 1800 (63.0 x 70.9) {1800 x 2000 (70.9 x 78.7), 2000 x 2200 (78.7 x 86.6)}* | |
| | Max. Swing diameter | Without semi-S/G | mm (inch) | ø3400 (ø133.9) | ø3900 (ø153.5) | ø4800 (ø189.0) | ø4800 (ø189.0) | ø5000 (ø196.9) | ø4800 (ø189.0) | |
| | | With semi-S/G | mm (inch) | ø2250 (ø88.6) | ø3400 (ø133.9) | ø3400 (ø133.9) | ø3400 (ø133.9) | ø3400 (ø133.9) | ø3400 (ø133.9) | |
| | Load capacity | 1400 x 1600 mm (55.1 x 63.0 inch) | | kg (lb) | - | - | - | - | - | - |
| | | 1400 x 1800 mm (55.1 x 70.9 inch) | | kg (lb) | 10000 (22045.9) | - | - | - | - | - |
| | | 1600 x 1800 mm (63.0 x 70.9 inch) | | kg (lb) | - | 15000 (3306.9) | | - | - | 15000 (3306.9) |
| 1800 x 2000 mm (70.9 x 78.7 inch) | | kg (lb) | - | {13000 (28659.7)}* | {13000 (28659.7), 20000 (44091.8)}* | - | - | {13000 (28659.7)}* | | |
| 2000 x 2200 mm (78.7 x 86.6 inch) | | kg (lb) | - | {12000 (26455.1)}* | {12000 (26455.1), 19000}* ⁽¹⁾ | 20000 {25000} (44091.8 {55114.8})* ⁽¹⁾ | 20000 (44091.8) | {12000 (26455.1)}* | | |
| Spindle | Max. spindle speed | | r/min | 4000 | 3000 | | 2000 | 2000 | 6000 | |
| | Boring spindle diameter | | mm (inch) | 110 (4.3) | 130 (5.1) | | 160 (6.3) | 160 (6.3) | - | |
| | Quill diameter | | mm (inch) | - | | - | - | - | 250 (9.8) | |
| Motor | Spindle motor (30 min/cont.) {AMP UP: 15 min/cont.} | | kW (Hp) | 26/22 {30/22}* ⁽¹⁾ , {45/37}* ⁽¹⁾ (34.9/29.5 {40.2/29.5}, {60.3/49.6}) | | | 45/37 (60.3/49.6) | - | 30/22 (40.2/29.5) | |
| ATC | Tool storage capacity | | ea | {40 / 60 / 90 / 120}* ⁽¹⁾ | | | | | | |
| | Tool shank | | | MAS403 BT50 | | | | | | |
| | Max. tool diameter | | mm | ø130 / 250 / 400 / 600 ⁽²⁾ (5.1 / 9.8 / 15.7 / 23.6) | | | | | | |
| | Max. tool length | | mm (inch) | 600 (23.6) | | | | | | |
| | Max. tool weight | | kg (lb) | 30 (66.1) | | | | | | |
| | Max. tool moment | | N · m (ft·lbs) | 34.3 (25.3) | | | | | | |
| Method of tool selection | | | Fixed address | | | | | | | |
| Power source | Electric power supply (rated capacity) | | kVA | 70 {90 kVA with 45kW motor}* ⁽¹⁾ | | | 90 | 70 | | |
| Machine dimensions | Height | | mm (inch) | 5070 (199.6) | 5070 (199.6) | 5570 (219.3) | 6140 (241.7) | 6650 (261.8) | 5570 (219.3) | |
| | Length x Width | | mm (inch) | 7630 x 6990 (300.4 x 275.2) | 8970 x 7640 (353.1 x 300.8) | 9970 x 8040 (392.5 x 316.5) | 9000 X 7900 (354.3 x 311.0) | 10000 x 8300 (393.7 x 326.8) | 9970 x 8040 (392.5 x 316.5) | |
| | Weight | | kg (lb) | 36000 (79365.2) | 43000 (94797.4) | 48000 {50000}* ⁽¹⁾ (105820.3 {110229.5}) | 49000 (108024.9) | 51000 (112434.1) | 48000 (105802.3) | |
| CNC system | | | F31iB Plus | | | | | | | |

*{ } : Option

(1) For Ø250 and Ø400 mm tools, neighboring pots must be empty. For Ø600 mm tools, neighboring two pots must be empty.

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...



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

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