

SIMULTANEOUS 5 AXIS HORIZONTAL MACHINING CENTER
EQUIPPED WITH A NODDING HEAD SPINDLE

DHF 8000

DHF 8000/ST



DHF 8000 · 8000ST

The DHF 8000 with its A-axis nodding head spindle is a 5-axis simultaneous horizontal machining center with a highly rigid structure and dual ballscrews on its X and Y axes. The DHF 8000 meets the machining requirements of customers machining a range of materials from hard metals, such as Titanium and Inconel, through to the high-speed machining of Aluminium.

The depth and breadth of DN Solutions's range of vertical and horizontal 5-axis machining centers is second to none. As such, irrespective of whether you are machining small precision medical parts or large aero-engine components, there is a DN Solutions machine that can more than meet your requirements.

CONTENTS

Product Overview

Basic Information

- 04 Basic Structure
- 05 Machining area
- 06 Spindle Information
- 07 Cutting Performance, Magazine Specifications
- 08 Standard | Optional Specifications
- 09 Peripheral Equipment

Detailed Information

- 11 FANUC 31i-B PLUS
- 12 EZ WORK
- 13 Convenient Operation
- 14 Power | Torque
- 15 Dimensions
- 18 Pallet | Working area
- 19 Machine Specifications

Customer Support Service

- 20 Why 5-Axis machining?
- 21 Why DN Solutions
- 22 Customer Support and Services
- 23 Global Network



**HIGH PRODUCTIVITY, SINGLE
SETUP WITH SIMULTANEOUS
5 AXIS MACHINING**



- A-axis nodding head spindle
- Travel (x / y / z) : 1450 / 1200 / 1500 mm
(57.1 / 47.2 / 59.1 inch)
- Max. Workpiece size : Ø1400 X H1400 mm
(Ø55.1 X H55.1 inch)

**HIGH RIGIDITY &
COMPACT STRUCTURE**



- Y/Z dual ballscrew
- Thermal compensation for spindle and structure
- Cooling system
- Linear scale

**USER-FRIENDLY
FEATURES**



- Improved rear exit chip disposal
- Power-pack, multi-step TSC
- Easy chip-disposal through PSC
(Programmable Shower Coolant).



BASIC STRUCTURE

To machine high-precision, complex components with intricate shapes and features, DHF 8000 is equipped with A-axis nodding head spindles that facilitate 5-axis simultaneous machining. Dual ballscrews are applied to the X and Y axes to ensure highly-stable machining.

Travel distance

X-axis
1450 mm
(57.1 inch)

Y-axis
1200 mm
(47.2 inch)

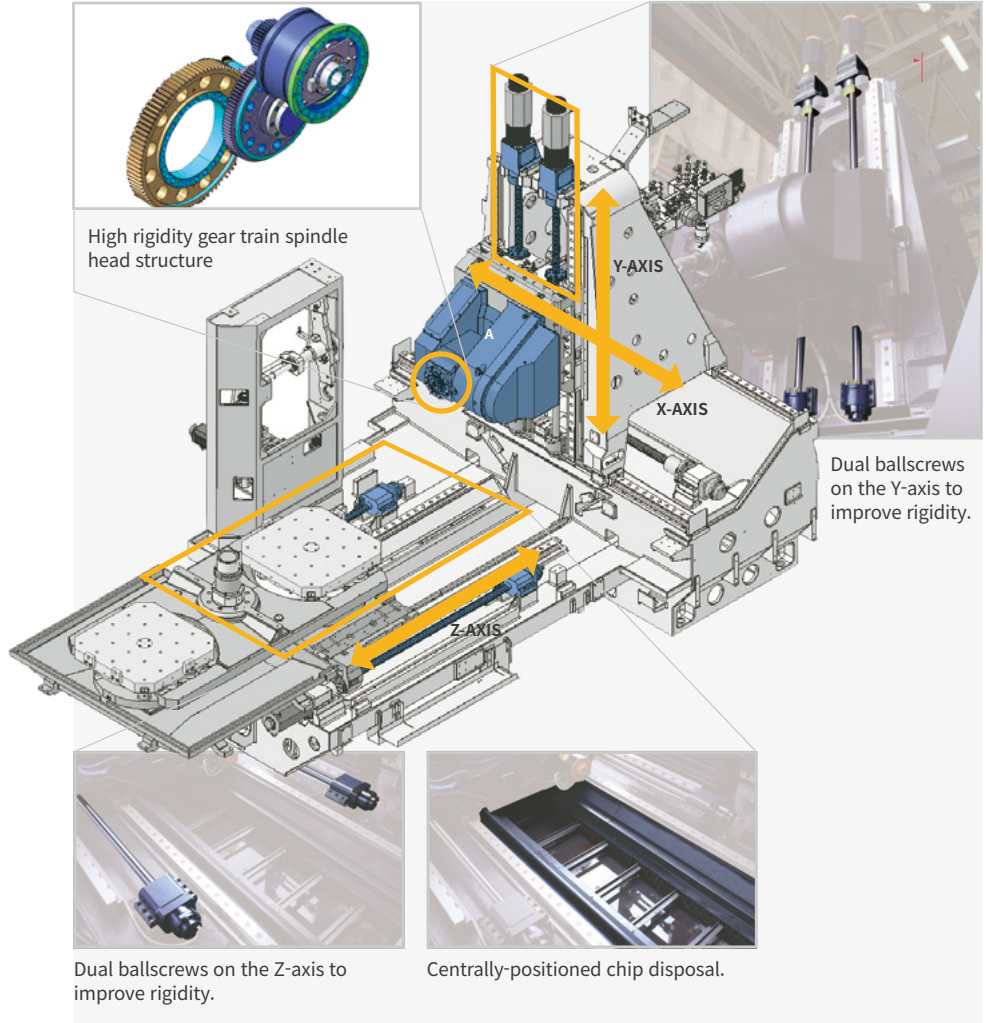
Z-axis
1500 mm
(59.1 inch)

Feedrate

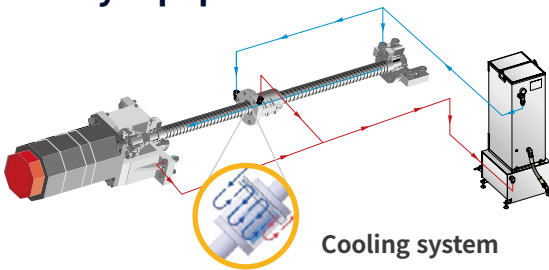
X-axis
40 m/min
(1574.8 ipm)

Y-axis
40 m/min
(1574.8 ipm)

Z-axis
50 m/min
(1968.5 ipm)



High accuracy equipment



Cooling system
Significantly reduced thermal displacement of the ballscrews.



Linear scales
Maintain high precision over long machining runs and extended operation.

Main products



Titanium blisk



Turbine casing



Fan disk



Spool



Turbine component

SPINDLE INFORMATION

Excellent cutting performance is assured by using a 2-step geared spindle for machining hard materials, and a high-speed, built-in spindle for machining Aluminium.

Max. spindle speed

6000 r/min

HSK only

15000 r/min OPTION

30000 r/min OPTION

PSC(Programmable Shower Coolant) standard

Max. power

FANUC

35 kW

(46.9 hp)

92/51 kW OPTION

(123.4/68.4 hp)

Siemens

90/86 kW OPTION

(120.7/115.3 hp)

Max. torque

FANUC

960 N·m

(708.5 ft·lb)

147/53.4 N·m OPTION

(108.5, 39.4 ft·lb)

Siemens

223/49.9 N·m

(164.6/36.8 ft·lb)

Tilt angle (A axis)

-100 ~ 60 deg

DHF 8000

BT 50

HSK A100/A63

DHF 8000ST

HSK-T100



CUTTING PERFORMANCE

Impressive machining capability due to machine structure and spindle performance.

Higher cutting power

High-rigidity machining can be undertaken with speed and precision.

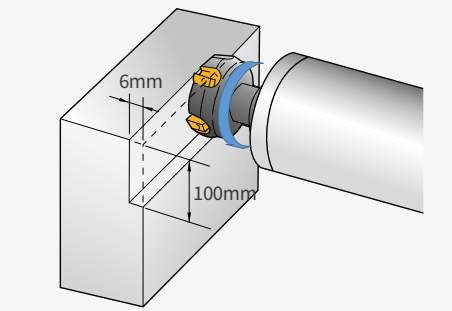
Cutting capacity

Face milling carbon steel (SM45C) [ø125mm Face mill (8Z)]

| | Machining rate | Spindle speed | Feed rate |
|-----------------|---------------------------|---------------|-------------|
| DHF 8000 | 1020 cm ³ /min | 348 r/min | 1700 mm/min |

* The results in the catalogue are provided as examples and should be used as a guide. Different cutting and environmental conditions will deliver different results.

(Motor power : 35/22 kW (46.9/29.5Hp))



Tool to Tool

3.5 sec

2.4 sec

Max. tool length

550 mm

(21.7 inch)

Max. tool weight

30 kg (66.1 lb)

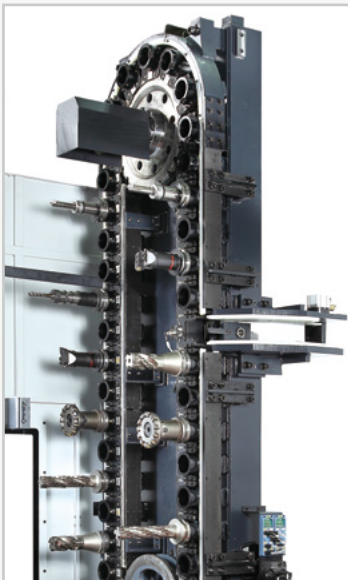
12 kg (26.5 lb)

(30000 r/min)

MAGAZINE SPECIFICATIONS

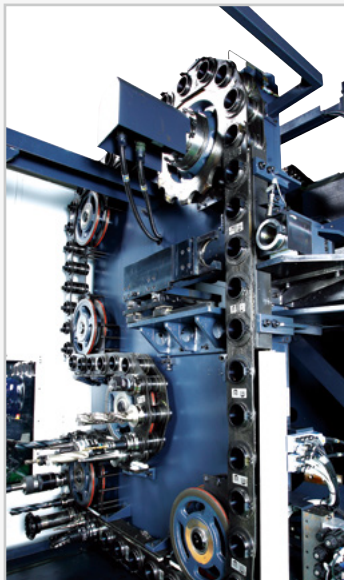
The servo type magazine improves productivity and reliability.

Pot type magazine



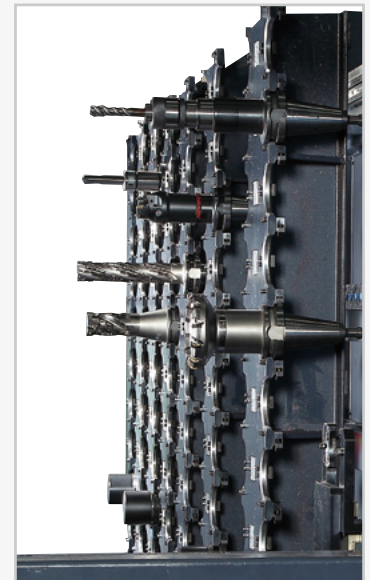
30000 r/min 80 / 120 tools

Chain type magazine OPTION



90 / 120 / 150 tools

Matrix type magazine OPTION



196 / 256 / 316 / 376 tools
30000 r/min 171 / 275 tools

STANDARD | OPTIONAL SPECIFICATIONS

A range of options is available to suit individual requirements.


| Description | Features | DHF 8000 | DHF 8000ST |
|----------------------------|--|---------------------------------------|------------|
| Spindle | 6000 r/min | ● | ● |
| | 15000 r/min(SIEMENS) | ○ | ○ |
| | 15000 r/min(FANUC) | ○ | ○ |
| | 30000 r/min(SIEMENS) | ○ | X |
| | 30000 r/min(FANUC) | ○ | X |
| Magazine | Tool storage capacity | 60 ea | ● |
| | | 90 / 120 / 150 / 196~376 ea | ○ |
| | | 80ea (30000 r/min only) | ● |
| | | 120 / 171 / 275 ea (30000 r/min only) | ○ |
| Tool shank type | BIG PLUS BT50 | ● | X |
| | BIG PLUS CAT50 | ○ | X |
| | BIG PLUS DIN50 | ○ | X |
| | HSK A100 | ○ | X |
| | HSK A63 | ○ | X |
| | HSK T100 | - | ○ |
| Coolant | PSC (Programmable shower coolant) (30000 r/min only) | ● | ● |
| | FLOOD | ● | ● |
| | FLUSHING | ● | ● |
| | PROGRAMMABLE TSC | ● | ● |
| | SHOWER | ○ | ○ |
| | Water soluble Coolant Chiller** | ○ | ○ |
| | Coolant level switch : Sensing level - Low / High | ● | ● |
| Chip disposal | Chip conveyor | 2-step drum type | ● |
| | Chip bucket | Forklift type | ○ |
| | | Rotation type | ○ |
| | Air blower | | ○ |
| | Air gun | | ○ |
| Coolant gun | | ○ | |
| Precision machining option | Linear scale | X / Y / Z-axis | ● |
| | Data Server 2G/4G/16GB | | ○ |
| Measurement & automation | Automatic tool measurement | TS27R_RENISHAW | ● |
| | | Hybrid type_RENISHAW | X |
| | Automatic workpiece measurement | RMP600_RENISHAW | ○ |
| Others | LED Work light | | ● |
| | Signal tower | | ● |
| | Tool load monitoring | | ● |
| | EZ Guide i | | ○ |
| | Automatic power off | | ○ |
| Customized special option | Spin window for main door (Electric type) | | ○ |

* 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

* Please contact DN Solutions for detailed specification information.

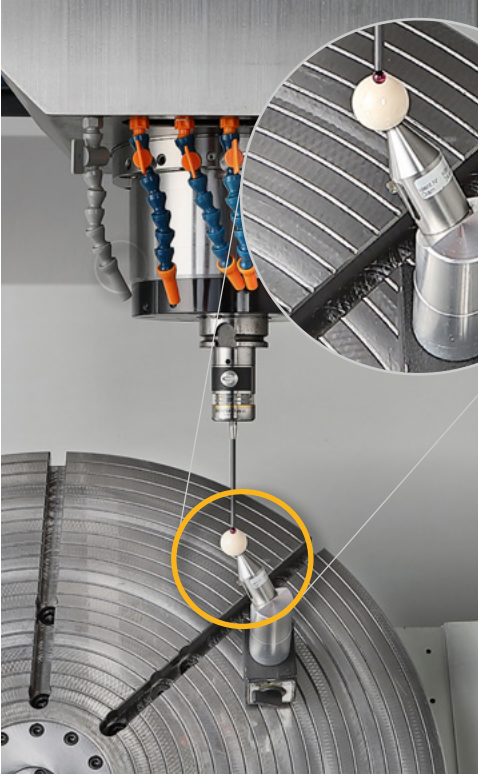
● Standard ○ Optional X Not applicable

 **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.

PERIPHERAL EQUIPMENT

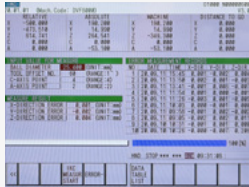
Intelligent Kinematic Compensation for 5-axis Recommended Option

For high accuracy 5-axis machining, the Intelligent Kinematic Compensation function is recommended. This function minimizes error in complex 5-axis machining applications by ensuring that the tip of the tool is always in the correct position in relation to the workpiece. In order to take advantage of this function, the following optional items are required.





Recommended optional items


1. SOFTWARE Recommended Option



FANUC NC : IKC
2. RECEIVER Recommended Option


3. TOUCH PROBE OPTION


4. DATUM BALL OPTION


5. MASTER TOOL OPTION



PERIPHERAL EQUIPMENT

Chip conveyor



Movable units



Oil skimmer



Mist collector OPTION



Chip disposal system

| | | | |
|---|--|------------------------------|--|
| <p>FLUSHING COOLANT</p> | <p>PROGRAMMABLE TSC</p> | <p>SHOWER COOLANT</p> | <p>COOLANT GUN OPTION</p> |
| <p>MQL (MINIMUM QUANTITY LUBRICATION) SYSTEM (MISTING DEVICE) OPTION</p> | <p>PROGRAMMABLE SHOWER COOLANT 30000 R/MIN STANDARD</p> | <p><i>PSC Unit</i></p> | <p><i>Controller</i></p> |

FANUC 31i-B PLUS

Fanuc 31i 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-B Plus

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

USB and PCMCIA card QWERTY keyboard

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

iHMI touchscreen

iHMI provides an intuitive interface that uses a touchscreen for quick and easy operation.

Range of applications

Providing various applications related to planning, machining, improvement and utility, for customer convenience.



NUMERIC CONTROL SPECIFICATIONS



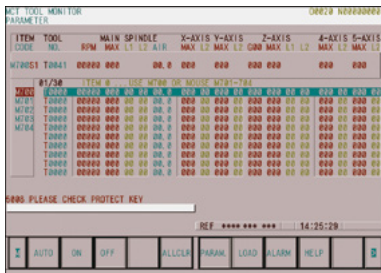
| Item | | Specifications | 31i-B PLUS |
|-----------------------------|---|---|---------------|
| | | | DHF 8000 |
| Controlled axis | Controlled axes | | 5 (X,Y,Z,A,C) |
| | Simultaneously controlled axes | | 5 axes |
| | Additional controlled axis | Add 1 Axis (5th Axis) | ○ |
| Data input/output | Fast data server | | ●(1GB) |
| | Memory card input/output | | ● |
| | USB memory input/output | | ● |
| | Large capacity memory(2GB)*2 | Note *2) Available Option only with 15" Touch LCD (iHMI Only) | ○ |
| 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 |
| | Tilted working plane indexing command | G68.2 TWP | ● |
| Feed function | AI contour control II | G5.1 Q_, 600 Blocks | ○ |
| | AI contour control II | G5.1 Q_, 1000 Blocks | ● |
| | High smooth TCP | | ● |
| Operation Guidance Function | EZ Guide i | | ● |
| | iHMI with machining cycle | Note *1) Only with 15" Touch LCD standard | ● |
| | EZ Operation package | | ● |
| Setting and display | CNC screen dual display function | | ● |
| | FANUC MTConnect | | ☆ |
| Network | FANUC OPC UA | | ☆ |
| | Display unit | 15" color LCD with Touch Panel | ● |
| Others | Part program storage size & number of registerable programs | 10240M(4MB)_1000 programs | ● |
| | | 20480M(8MB)_1000 programs | ○ |
| | | 2560M(1MB)_2000 programs | ○ |
| | | 5120M(2MB)_4000 programs | ○ |
| | | 10240M(4MB)_4000 programs | ○ |
| | | 20480M(8MB)_4000 programs | ○ |

EZ WORK

The software developed by DN Solutions features numerous functions designed for convenience and ease of operation.

EZ work

The EZ work package delivers speed and efficiency. This menu-driven innovation not only helps customers reduce setup times, but also simplifies common tasks and procedures, reducing the potential for errors. EZ work reduces operating time, protects machinery, enhances quality and speeds up maintenance interventions.



Tool Load Monitor

Function to automatically monitor abnormal load from wear or breakage of tool



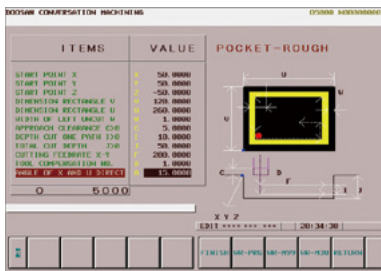
Thermal Compensation

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



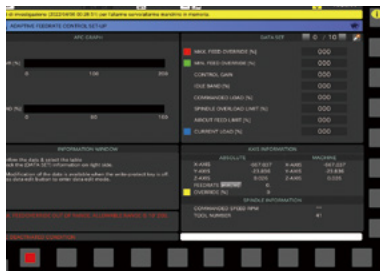
Operation Rate

Machine operation history management function by date based on load



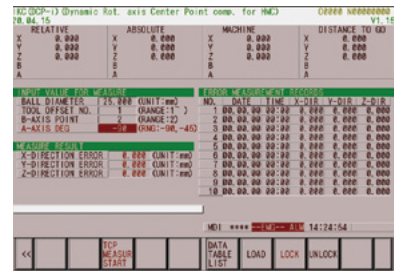
Pattern Cycle

A function to automatically create frequently used part programs



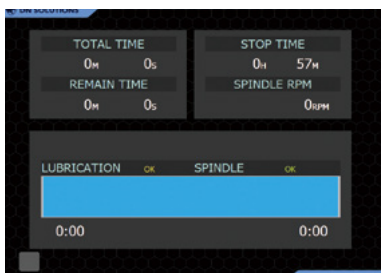
Adaptive Feed Control_IHMI

Function to control feedrate so that the cutting can be carried out at a constant load



IKC (DCP-I)

The function to compensate the position of the workpiece and the tool tip to be constant regardless of the rotation of the rotating shaft error



Spindle Warm Up

A function that assists spindle warm-up for spindle life when the spindle has not been used for a certain period of time



PMC Soft Panel Switch_IHMI

Manual operations that occur continuously in each stages for APC, ATC change command



APC Setting Screen_IHMI

A simple automation function that supports automatic processing of the next pallet by setting the processing program for each pallet of the equipment including APC in advance

CONVENIENT OPERATION

Siemens 840D

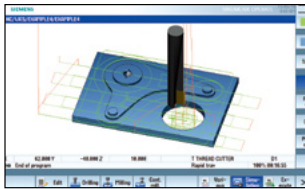
15.6" screen + new operation panel

The newly-designed operation panel improves the customer convenience by incorporating and using common-design buttons and layouts, and includes the familiar QWERTY keyboard for fast and easy operation.

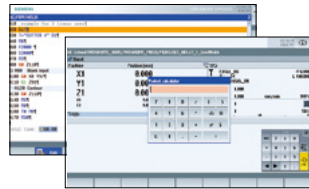
- 15.6" display
- 10MB high capacity user memory
- USB & ethernet (standard)
- QWERTY keyboard (standard)
- High-speed calculation and simulation can be fulfilled by improved processor functionality



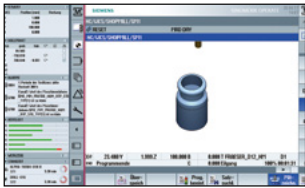
Conversational convenient function



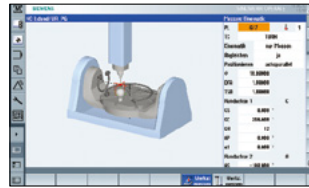
Simulation and machining contour monitoring



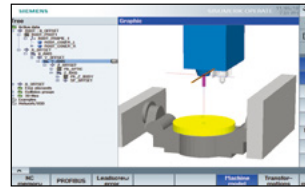
Smart function



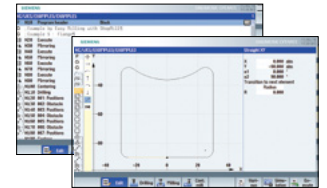
Side screen widget



5-axis kinematic measuring cycles



3D collision avoidance and collision avoidance ECO



Shop mill part programming

NUMERIC CONTROL SPECIFICATIONS

SIEMENS

| Item | | Specifications | S-ONE DHF 8000 |
|---|---|-------------------------------|-------------------|
| Controlled axis | Controlled axes | 5 axes | ● |
| | Simultaneously controlled axes | 5 axes | ● |
| Data input/output | Memory card input/output | (Local drive) | ● |
| | USB memory input/output | | ● |
| Interface function | Ethernet | (X130) | ● |
| Operation | On network drive | (without EES option, Extcall) | ● |
| | On USB storage medium, e.g. memory stick | (without EES option, Extcall) | ● |
| Program input | Workpiece coordinate system | G54 - G57 | ● |
| | Addition of workpiece coordinate system | G505 - G599 | ● |
| Interpolation & Feed function | Advanced surface | | ○ |
| | Top surface | | ● |
| | Look ahead number of block | | 1000 |
| Programming & Editing function | 3D simulation, finished part | | ● |
| | Simultaneous recording | | ● |
| | DXF Reader for PC integrated in SINUMERIK Operate | | ○ |
| Operation Guidance Function | ShopMill | | ● |
| | EZ Work | | ● |
| Setting and display | Operation via a VNC viewer | | ● |
| | MTConnect | | ⊕ |
| Network | OPCUA | | ○ |
| | 15.6" color display with touch screen | | ● |
| Others | 19" color display without touch screen | | ○ |
| | 21.5" color display with touch screen | | ○ |
| | CNC user memory | 10 MB | ● |
| | Max. CNC user memory | 28 MB | ○ |
| | Collision avoidance (machine, working area) | | ○ |
| Collision avoidance ECO (machine, working area) | | ○ | |

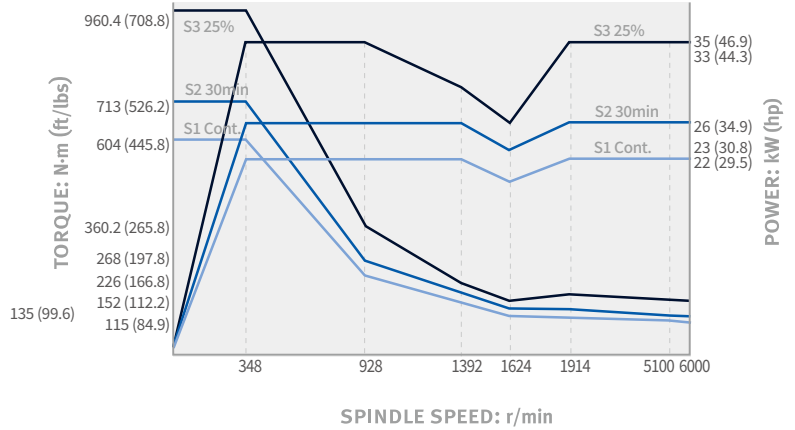
POWER | TORQUE

DHF 8000/8000ST

6000 r/min FANUC

Power : 35 kW (46.9 Hp)

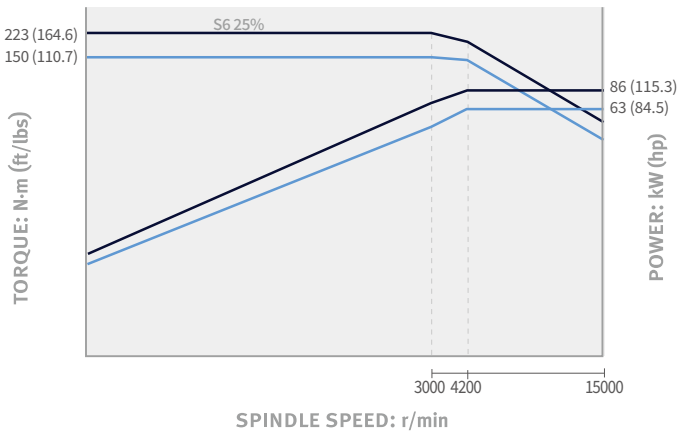
Torque : 960.4 N·m (708.8 ft-lbs)



15000 r/min SIEMENS OPTION

Power : 86 kW (115.3 Hp)

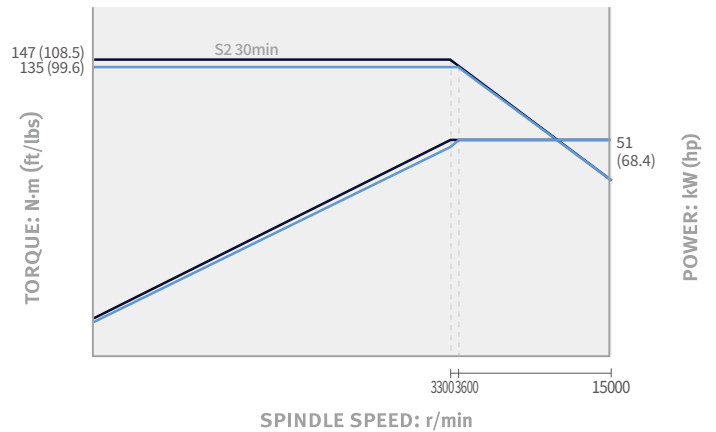
Torque : 223 N·m (164.6 ft-lbs)



15000 r/min FANUC OPTION

Power : 51 kW (68.4 Hp)

Torque : 147 N·m (108.5 ft-lbs)

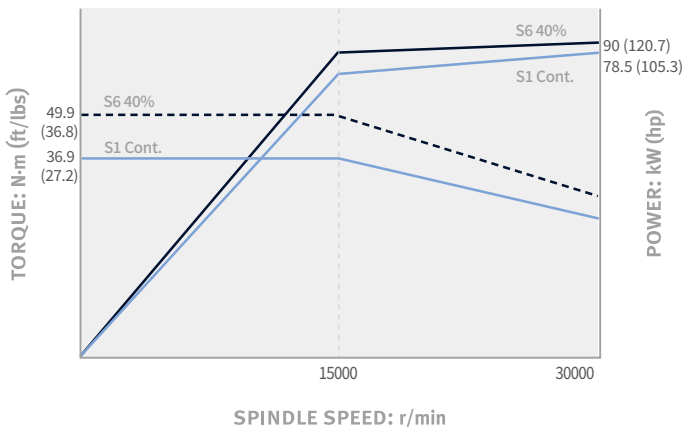


DHF8000_30000 r/min

30000 r/min SIEMENS OPTION

Power : 90 kW (120.7 Hp)

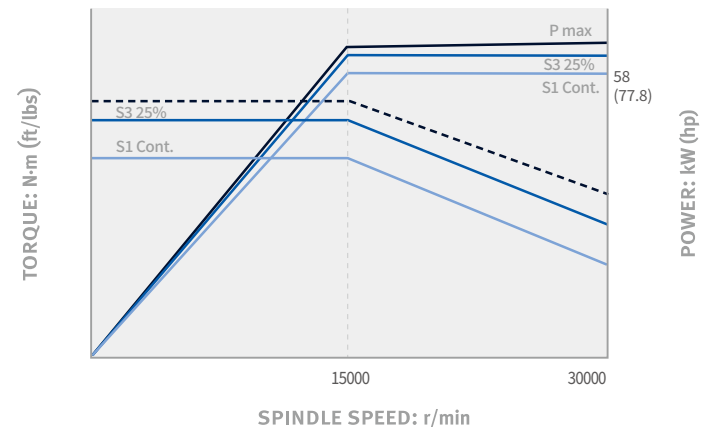
Torque : 49.9 N·m (36.8 ft-lbs)



30000 r/min FANUC OPTION

Power : 90 kW (120.7 Hp)

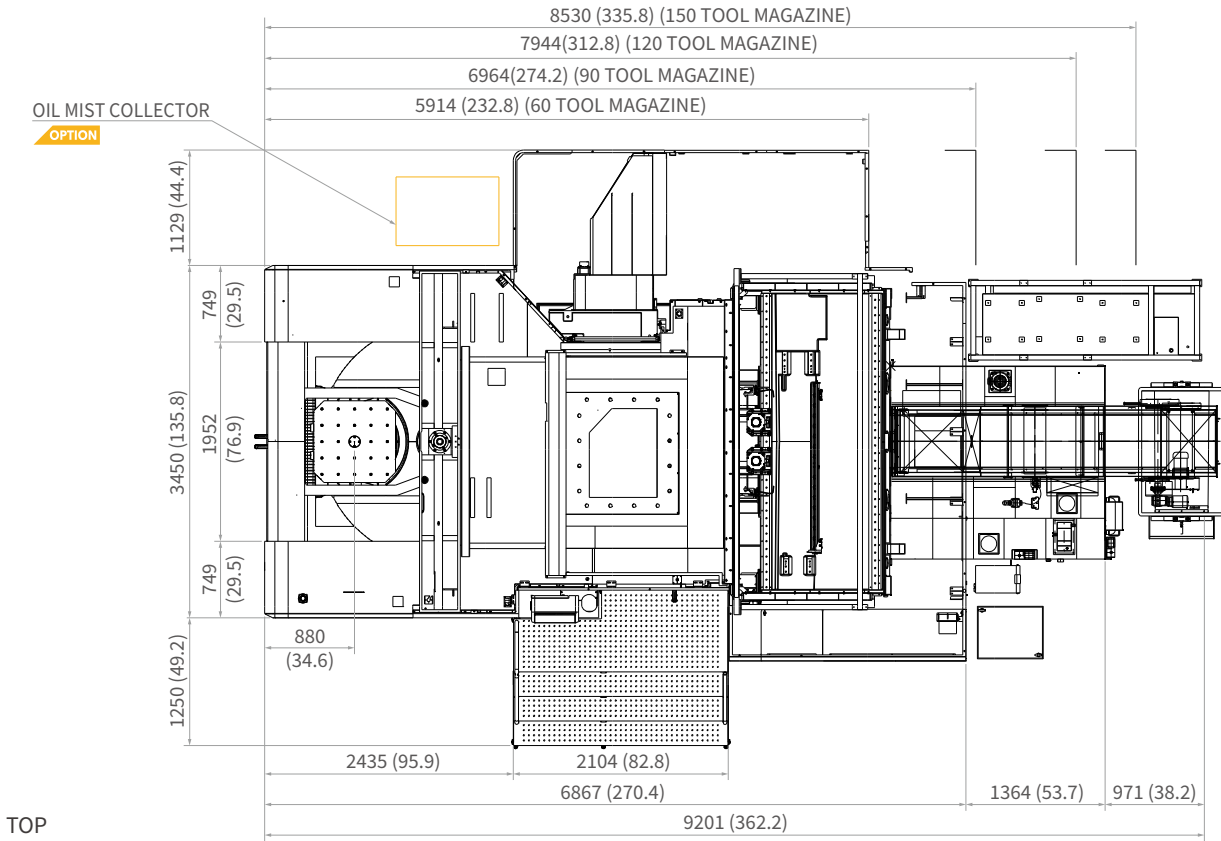
Torque : 53.4 N·m (39.4 ft-lbs)



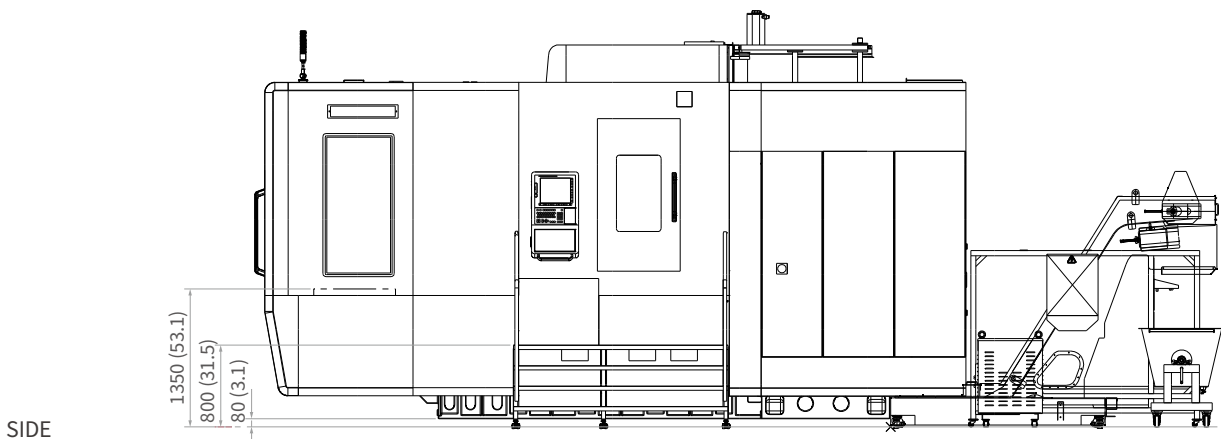
DIMENSIONS

DHF 8000

Units : mm (inch)



TOP



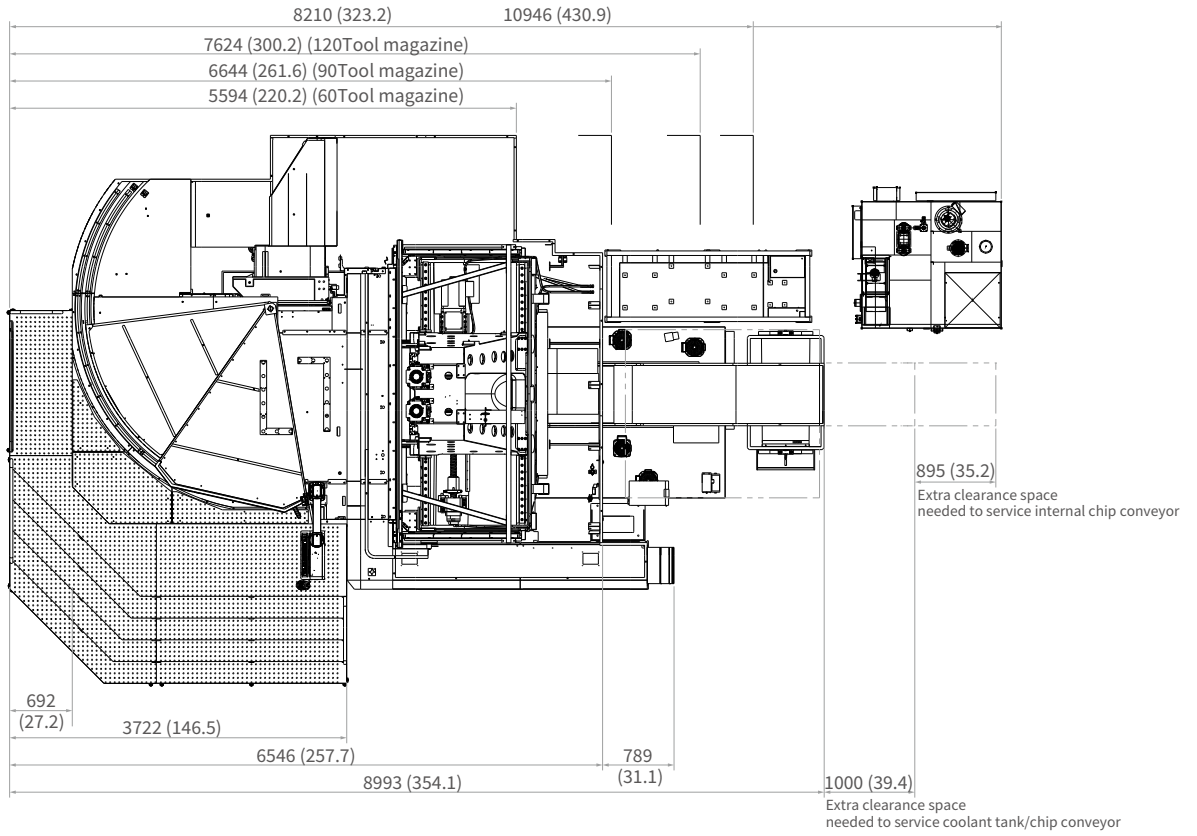
SIDE

* Some peripheral equipment can be placed in other areas.

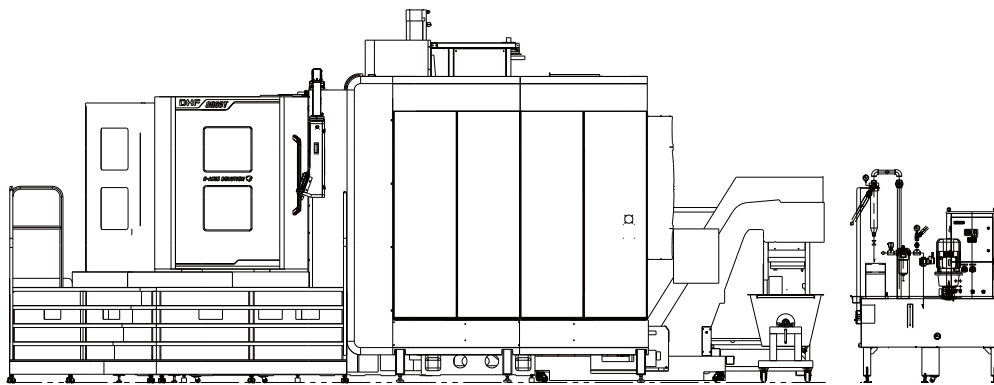
DIMENSIONS

DHF 8000ST

Units : mm (inch)



TOP



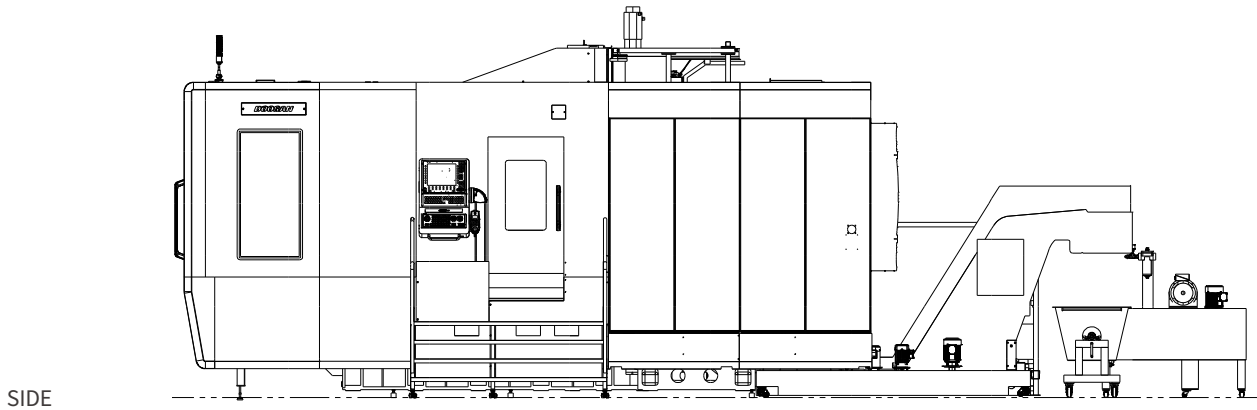
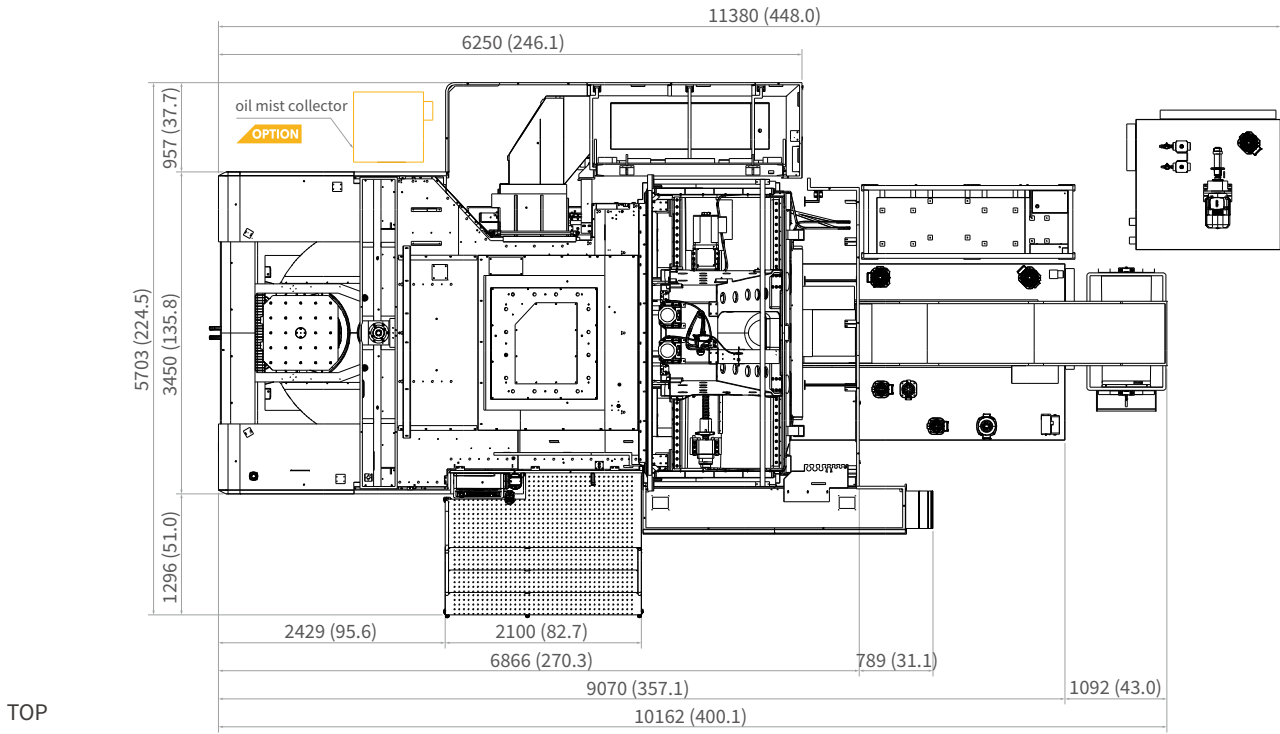
SIDE

* Some peripheral equipment can be placed in other areas.

DIMENSIONS

DHF 8000 30000r/min / PSC

Units : mm (inch)



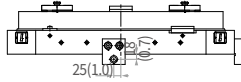
* Some peripheral equipment can be placed in other areas.

PALLET | WORKING AREA

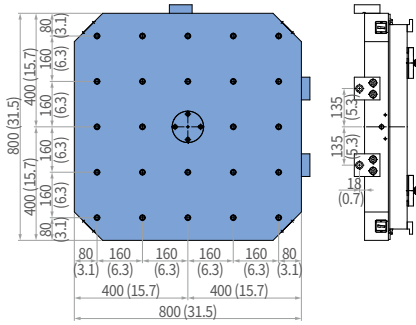
DHF 8000

Units : mm (inch)

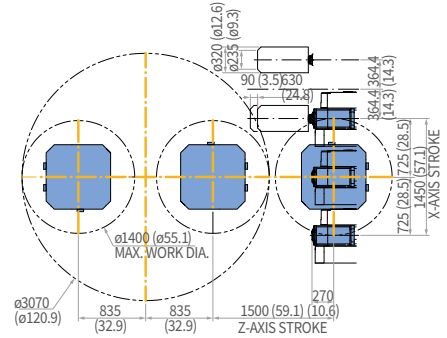
PALLET



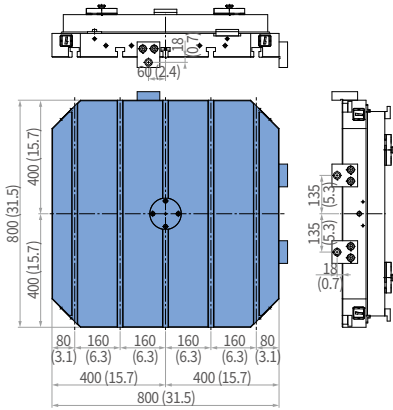
TAP



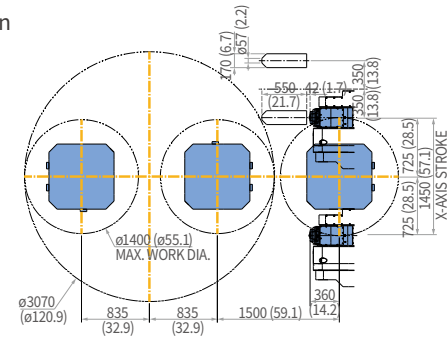
WORKING AREA



T-SLOT



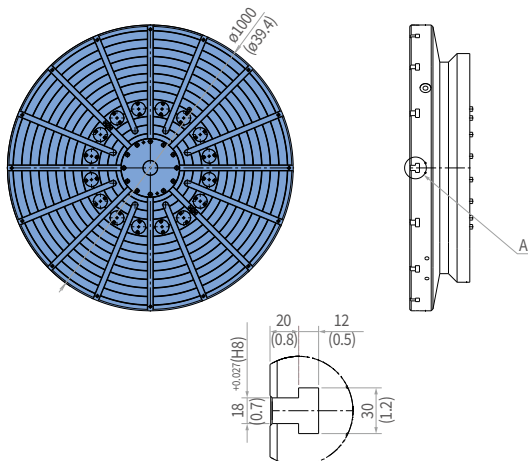
30000 r/min



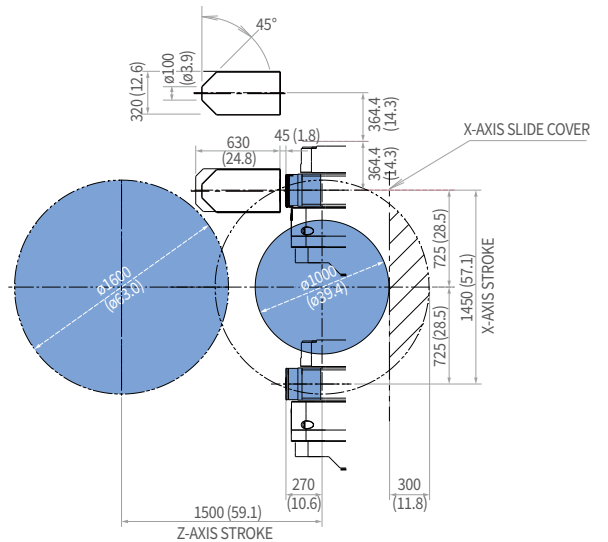
DHF 8000ST

Units : mm (inch)

PALLET



WORKING AREA



MACHINE SPECIFICATIONS

DHF 8000 · 8000ST

| Description | | Unit | DHF 8000/8000ST | DHF 8000 30000r/min / PSC | |
|------------------------------|---|------------------------|------------------|---|-------------------------|
| Travel | Travel distance | X-axis | mm (inch) | 1450 (57.1) | |
| | | Y-axis | mm (inch) | 1200 (47.2) | |
| | | Z-axis | mm (inch) | 1500 (59.1) | |
| | Spindle nose to table center | | mm (inch) | -270 ~ 1230 (-10.6 ~ 48.4) | |
| | Distance from spindle nose to table top | | mm (inch) | 200 ~ 1400 (7.9 ~ 55.1) | |
| Table | Pallet size | | mm (inch) | 800 x 800 (31.5 x 31.5), ø1000 (ø39.4)** | |
| | Workpiece size | | mm (inch) | Ø1400 x H1400 (Ø55.1 x H55.1), Ø1600 x H1400 (Ø63.0 x H55.1)** | |
| | Maximum workpiece weight | | kg (lb) | 2000 (4409.2) | |
| | Work inertia *** | | N·m ² | 1294 | |
| | B-AXIS ROTATING SPEED** | | r/min | 8 (500**) | |
| Spindle | Max. spindle speed | | r/min | 6000 {15000, 30000}* | |
| | Taper | | - | BT50, HSK A100, HSK T100** | HSK A63 |
| | Max. spindle motor power | | kW (Hp) | 35 {86, 51}* (46.9 {115.3, 68.4})* | 90 (120.7) |
| | Max. spindle torque | | N·m (ft-lbs) | 960 {223, 147} (708.5 {164.6, 108.5})* | 53.4, 49.9 (39.4, 36.8) |
| | A-axis tilting angle | | deg | -100 ~ 60 | |
| Feedrate | Rapid traverse rate | X-axis | m/min (ipm) | 40 (1574.8) | |
| | | Y-axis | m/min (ipm) | 40 (1574.8) | |
| | | Z-axis | m/min (ipm) | 50 (1968.5) | |
| Automatic tool changer (ATC) | Tool storage capacity | | ea | 60 {90, 120, 150, 196 ~ 376}* | 80 {120, 171, 275}* |
| | Max. tool diameter | Continuous | mm (inch) | 125 (4.9) | 75 (3.0) |
| | | Without adjacent tools | mm (inch) | 320 (12.6) | 170 (6.7) |
| | Max. tool length | | mm (inch) | 550 (21.7) | |
| | Max. tool weight | | kg (lb) | 30 (66.1) | 12 (26.5) |
| | Max. tool moment | | N·m (ft-lbs) | 34.3 (25.3) | 11.8 (8.7) |
| | Tool change time (Tool-to-tool) | | sec | 3.5 | 2.4 |
| Machine dimensions | Height | | mm (inch) | 4075 (160.4) | |
| | Length | | mm (inch) | 11835 (465.9) | |
| | Width | | mm (inch) | 5830 (229.5) | |
| | Weight | | kg (lb) | 31000 (68342.3) | |
| Control | CNC system | | - | FANUC 31i PLUS {SIEMENS 840D}* | |

*{ } : Option

** Only DHF 8000ST

*** When the workpiece inertia exceeds the specified limit, the M-code for the heaviest workpiece setting in the Work Load Control function must be applied.

WHY 5-Axis machining?

SINGLE SETUP EFFICIENCY

5-axis machining allows you to approach the workpiece from all angles, with complete access to five sides of the part in a single setup. This reduces the overall number of part setups compared to traditional machining, which minimizes machine downtime and maximizes chip making time.



IMPROVED PART ACCURACY

When making parts with multi-sided features using traditional 3-axis machining, multiple part setups are required. This means new inaccuracies can arise each time the workpiece is repositioned. 5-axis machining eliminates stacked tolerances and improves overall part dimensional accuracy.

EXTENDED MACHINE SHOP CAPABILITY

DN Solutions 5-axis machines open up new doors for your machine shop. The increased efficiency will make you instantly more competitive, and full 5-axis machining capabilities give you the opportunity to quote on jobs that previously weren't possible. So, what are you going to make today?



“Compared with similar machines from Japan or Europe, DN Solutions has the same level of precision and quality at a better value for money.”

– *OMGM Group, Italy*

“Our DN Solutions 5-axis is making complex, high precision parts for aerospace and defense. Cycle times have been reduced dramatically.”

– *Aerotech Precision Manufacturing, Great Britain*

WHY DN SOLUTIONS

The DN Solutions promise, MACHINE GREATNESS, has two important meanings. The first is simple: DN Solutions makes great machines. The second is a challenge to our end-users. With a product line that is this comprehensive, accurate and reliable, we equip our customers to machine greatness. The big question: *Why should you choose DN Solutions over other options?* Here's why...

UNBEATABLE MACHINES

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

ROBUST PRODUCT LINE

We offer an impressive range of machine models and hundreds of configurations. Whatever your machining needs and requirements, there's a DN Solutions for you.

READILY AVAILABLE - ANYWHERE IN THE WORLD

Machining centres (including 5-axis machines), lathes, multi-tasking turning centres and mill-turn machines, and horizontal borers with best-in-class specifications are all available...ready to install.

EXPERT SERVICE

Our dedicated, experienced and knowledgeable team is totally committed to improving your productivity, growth and success.

CUSTOMER SUPPORT AND SERVICES

WE'RE THERE FOR YOU WHENEVER YOU NEED US.

We help our customers operate at maximum efficiency by providing them with a range of tried, tested and trusted services - from pre-sales consultancy to post-sales support.



FIELD SERVICES

- On-site service
- Machine installation and testing
- Scheduled preventive maintenance
- Machine repair service



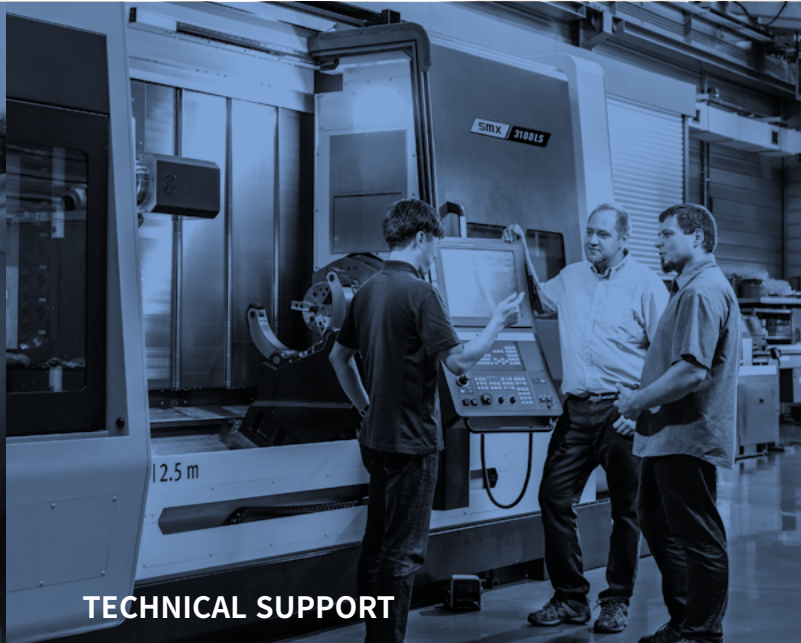
PARTS SUPPLY

- Supplying a wide range of original DN Solutions spare parts
- Parts repair service



TRAINING

- Programming, machine setup and operation
- Electrical and mechanical maintenance
- Applications engineering



TECHNICAL SUPPORT

- Supports machining methods and technology
- Responds to technical queries
- Provides technical consultancy

RESPONDING TO CUSTOMERS **ANYTIME, ANYWHERE**

DN SOLUTIONS GLOBAL NETWORK

DN Solutions provides systems-based professional support services, before and after the machine tool sale, by responding quickly and efficiently to customers. By supplying spare parts, product training, field service and technical support, we provide the expert care, attention and assistance our customers expect from a market leader.



| | | |
|-------------|----------------|--|
| 66 | COUNTRIES | An aerial photograph of a large industrial complex. The facility consists of several large, rectangular buildings with bright blue roofs. There are parking lots filled with cars and trucks in front of the buildings. The surrounding area includes some greenery and residential-style buildings in the background. |
| 140+ | SALES NETWORKS | |
| 3 | FACTORIES | |
| 6 | REGIONAL HQS | |

**Head Office**

19F, 10, Tongil-ro, Jung-gu, Seoul,
Republic of Korea, 04527

Tel: +82-2-6972-0370
Fax: +82-2-6972-0400

DN Solutions America

360 E State PKWY,
Schaumburg, IL. 60173,
United states

Tel: +1-315-265-7500

DN Solutions Europe

Emdener Strasse 24, D-41540
Dormagen, Germany

Tel: +49-2133-5067-100
Fax: +49-2133-5067-111

DN Solutions India

No.82, Jakkuar Village
Yelahanka Hobil,
Bangalore-560064

Tel: +91-80-2205-6900
E-mail: india@dncompany.com

DN Solutions China

Room 101,201,301,
Building 39 Xinzhuan Highway
No.258 Songjiang District
China Shanghai (201612)

Tel: +86 21-5445-1155
Fax: +86 21-6405-1472

DN Solutions Vietnam

M.O.R.E building 2F, 40A-40B Ut
Tich Street, 04 Ward 04,
District Tan Binh District,
Ho Chi Minh City, Vietnam

Tel: +84 28-7304-0163

DN Solutions Mexico

Avenida Parque Bicentenario
#100 Nave M65L3-6,
Fraccionamiento San Isidro
Business Park,
Santa Rosa Jauregui,
Querétaro, México

E-mail: efrain.figueroa@dncompany.com

Sales inquiry

sales@dncompany.com