



Optimal Solutions for the Future

Mynx series



**Heavy Duty Vertical
Machining Center**

Mynx series

- Mynx 5400
- Mynx 6500
- Mynx 7500
- Mynx 9500 **NEW**

ver. EN 160823 SU

Basic information

Basic Structure
Cutting
Performance

Detailed Information

Options
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Customer Support Service



Mynx series

Mynx series offers a wide line-up from 540 mm (21.3 inch) to 950 mm (37.4 inch) and various spindle enabling to meet the user to handle a wider range of workpieces. In addition, Mynx series offers high durability, high performance to designed high rigidity. The EOP functions for the user-friendliness has improved the convenience of customers.

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Users can be selected according to material and size of workpiece

- Wide line-up from 540mm (21.3 inch) to 950mm (37.4 inch) and various spindle are available to meet material and size of workpiece.

High productivity and stable precision, powerful cutting performance

- High-rigidity machine structure provides high durability and stable accuracy during heavy duty cutting.
- Higher productivity can be achieved with the CAM-type tool changer that supports faster tool changing.

Easy operation for improving convenience to use NC system

- Easy operation for user's convenient machine operation.
- The EOP functions for the user-friendliness has improved the convenience of customers.

Basic Structure

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The Mynx series offers a wide line-up. High-rigidity machine structure provides high durability and stable accuracy during heavy duty cutting.

Travel distance (XxYxZ axis)

Mynx 5400, Mynx 5400/50

1020 x 540 x 530 mm
(40.2 x 21.3 x 20.9 inch)

Mynx 6500, Mynx 6500/50

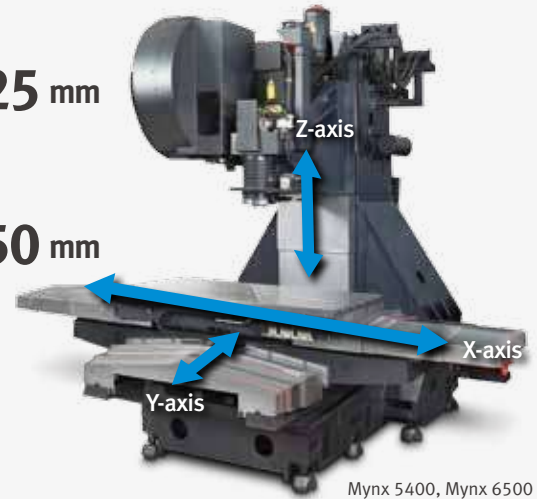
1270 x 670 x 625 mm
(50.0 x 26.4 x 24.6 inch)

Mynx 7500, Mynx 7500/50

1525 x 762 x 625 mm
(60.0 x 30.0 x 24.6 inch)

Mynx 9500

2500 x 950 x 850 mm
(98.4 x 37.4 x 33.5 inch)



Mynx 5400, Mynx 6500

Axis System

Applied a highly rigid box guideway structure suitable for heavy cutting. The extended box-type guideways improve the machine durability as well as rigidity and stability.



Surface Finish

The surface of moving elements are coated with Rulon 142 material to reduce friction and stick-slip. This material is carefully hand-scraped to achieve optimum accuracy.

| Models | Rapid traverser rate (X / Y / Z) |
|--------------|---|
| Mynx 5400 | 30 / 30 / 24 m/min (1181.1 / 1181.1 / 944.9 ipm) |
| Mynx 5400/50 | |
| Mynx 6500 | |
| Mynx 6500/50 | |
| Mynx 7500 | 16 / 16 / 16 m/min (629.9 / 629.9 / 629.9 ipm) |
| Mynx 7500/50 | |
| Mynx 9500 | |

Z-axis Span width **22%** ↑

Z-axis Span Length **32%** ↑

Table

Mynx series offers an optimized table for machine line up enabling to meet the user to handle a wider range of workpieces.

Wide machining area

Max weight on Table

Mynx 5400, Mynx 5400/50

800 kg
(1763.7 lb)

Mynx 6500, Mynx 6500/50

1000 kg
(2204.6 lb)

Mynx 7500, Mynx 7500/50

1500 kg
(3306.9 lb)

Mynx 9500

3500 kg
(7716.1 lb)

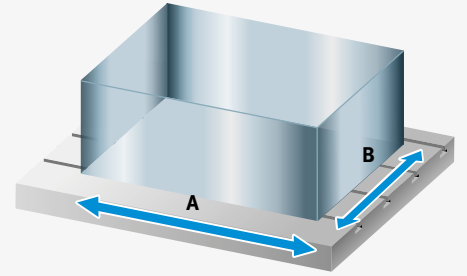


Table size (A x B)

Mynx 5400, Mynx 5400/50

1200 x 540 mm
(47.2 x 21.3 inch)

Mynx 6500, Mynx 6500/50

1400 x 670 mm
(55.1 x 26.4 inch)

Mynx 7500, Mynx 7500/50

1600 x 750 mm
(63.0 x 29.5 inch)

Mynx 9500

2500 x 950 mm
(98.4 x 37.4 inch)

Spindle

Users can select spindles of various driving systems and specifications according to the workpiece material.

Drive Systems

The Mynx series spindles support Belt-driven, Gear-driven, Built in-driven systems. Dual contact tool system support as standard.



Mynx 9500 Gear-driven spindles

| Models | Taper | Standard | Optional |
|------------------------------|---------|--|--|
| Mynx 5400 Mynx 6500 | ISO #40 | 8000r/min (15/11 kW (20.1/14.8 Hp), 191.1 N·m (141.0 ft-lbs)) | 12000r/min (15.6/15 kW (20.9/20.1 Hp), 165.7 N·m (122.3 ft-lbs)) |
| Mynx 5400/50 Mynx 6500/50 | ISO #50 | 6000r/min (15/11 kW (20.1/14.8 Hp), 286.4 N·m (211.4 ft-lbs)) | 6000r/min (18.5/15 kW (24.8/20.1 Hp), 306.9 N·m (226.5 ft-lbs)) 6000r/min* (30/18.5 kW (40.2/24.8 Hp), 617.4 N·m (455.6 ft-lbs)) |
| Mynx 7500 | ISO #40 | 8000r/min (22/15 kW (29.5/20.1 Hp), 140.1 N·m (103.4 ft-lbs)) | 8000r/min (15/11 kW (20.1/14.8 Hp), 191.1 N·m (141.0 ft-lbs)) 12000r/min (26/22 kW (34.9/29.5 Hp), 165.7 N·m (122.3 ft-lbs)) |
| Mynx 7500/50 | ISO #50 | 6000r/min (18.5/15 kW (24.8/20.1 Hp), 306.9 N·m (226.5 ft-lbs)) | 6000r/min (22/18.5 kW (29.5/24.8 Hp), 365.5 N·m (269.7 ft-lbs)) 6000r/min* (30/18.5 kW (40.2/24.8 Hp), 617.4 N·m (455.6 ft-lbs)) 8000r/min (15/11 kW (20.1/14.8 Hp), 286.4 N·m (211.4 ft-lbs)) |
| Mynx 9500 | ISO #50 | 6000r/min* (30/18.5 kW (40.2/24.8 Hp), 617.4 N·m (455.6 ft-lbs)) | 10000r/min** (30/25 kW (40.2/33.5 Hp), 420 N·m (310.0 ft-lbs)) |

None : Belt-driven * : Gear-driven ** : Built in-driven



Dual Contact Spindle

The system enables simultaneous dual-contact of tapered side using elastic deformation of the spindle and perfect gauge control.



Tool Changer

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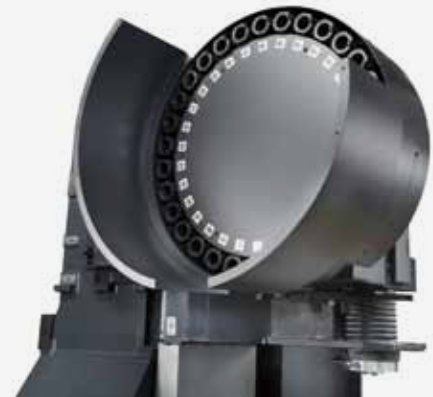
Higher productivity can be achieved with the CAM-type tool changer that supports faster tool changing.

Tool Magazine

Chain type CAM magazine



Drum-type CAM magazine

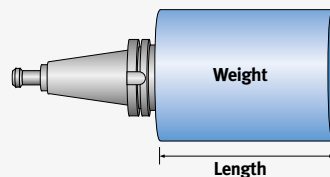


Unit : ea

| Models | Taper | Standard | Optional |
|--------------|---------|----------|----------|
| Mynx 5400 | ISO #40 | 30 | 40 |
| Mynx 6500 | | | |
| Mynx 7500 | | | |
| Mynx 5400/50 | ISO #50 | 24 | - |
| Mynx 6500/50 | | 24 | 30* |
| Mynx 7500/50 | | 24 | 40* |
| Mynx 9500 | | 30* | 40* |

None : Drum-type CAM magazine * : Chain type CAM magazine (Servo type)

Automatic tool changer



| Models | Taper | Tool Change Time | | Max. Tool Size | |
|--------------|---------|------------------|-------|----------------------|-------------------|
| | | T-T-T | C-T-C | Length | Weight |
| Mynx 5400 | ISO #40 | 1.3 s | 3.7 s | 300mm (11.8 inch) | 8kg (17.6 lb) |
| Mynx 6500 | | | | | |
| Mynx 7500 | | | | | |
| Mynx 5400/50 | ISO #50 | 2.5 s | 5.5 s | 350mm (13.8 inch) | 15kg (33.1 lb) |
| Mynx 6500/50 | | | | | |
| Mynx 7500/50 | | | | | |
| Mynx 9500 | | | | | |



Cutting Performance

The heavy-duty machining performance of the Mynx series spindles is the best in its class.

ISO #40

Result of cutting test on Mynx 5400 (8000r/min, Belt, 15/11kW (20.1/14.8 Hp))

| | | | |
|---|--------------------------|----------------------------|--|
| Face mill (ø80 mm, Cut edge count :5) Carbon steel (SM45C) | | | |
| Machining rate (cm ³ /min (inch ³ /min)) | Spindle speed (r/min) | Feedrate (mm/min (ipm)) | |
| 422 (25.8) | 750 | 1100 (43.3) | |
| Drill (ø50 mm) Carbon steel (SM45C) | | | |
| Machining rate (cm ³ /min (inch ³ /min)) | Spindle speed (r/min) | Feedrate (mm/min (ipm)) | |
| 81 (4.9) | 200 | 42 (1.7) | |
| Tap Carbon steel (SM45C) | | | |
| Tap size (mm) | Spindle speed (r/min) | Feedrate (mm/min (ipm)) | |
| M36 x P4.0 | 250 | 1000 (39.4) | |

* The results, indicated in this catalogue are provides as example. They may not be obtained due to differences in cutting conditions and environmental conditions during measurement.

ISO #50

Result of cutting test on Mynx 9500 (6000r/min, Gear, 30/18.5kW (40.2/24.8 Hp))

| | | | |
|---|--------------------------|----------------------------|--|
| Face mill (ø125 mm,Cut edge count :8) Carbon steel (SM45C) | | | |
| Machining rate (cm ³ /min (inch ³ /min)) | Spindle speed (r/min) | Feedrate (mm/min (ipm)) | |
| 756 (46.1) | 464 | 1080 (42.5) | |
| Drill (ø85 mm) Carbon steel (SM45C) | | | |
| Machining rate (cm ³ /min (inch ³ /min)) | Spindle speed (r/min) | Feedrate (mm/min (ipm)) | |
| 510 (31.1) | 562 | 90 (3.5) | |
| Tap Carbon steel (SM45C) | | | |
| Tap size (mm) | Spindle speed (r/min) | Feedrate (mm/min (ipm)) | |
| M42 x P4.5 | 100 | 450 (17.7) | |

* The results, indicated in this catalogue are provides as example. They may not be obtained due to differences in cutting conditions and environmental conditions during measurement.



Standard / Optional Specifications

● Standard ○ Optional ✕ Not applicable

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| No. | Description | Features | Mynx 5400 | Mynx 5400/50 | Mynx 6500 | Mynx 6500/50 | Mynx 7500 | Mynx 7500/50 | Mynx 9500 | | | |
|-----|---|-------------------------------------|-------------------|---------------------------|-----------------------------|--------------|-----------|--------------|-----------|---|---|---|
| 1 | Spindle | FANUC 6000 r/min | Belt** | 15/11 kW (20.1/14.8 Hp) | X | ● | X | ● | X | X | X | |
| 2 | | | Belt** | 18.5/15 kW (24.8/20.1 Hp) | X | ○ | X | ○ | X | ● | X | |
| 3 | | | Belt** | 22/18.5 kW (29.5/24.8 Hp) | X | X | X | X | X | ○ | X | |
| 4 | | | Gear* | 30/18.5 kW (40.2/24.8 Hp) | X | ○ | X | ○ | X | ○ | ● | |
| 5 | | 8000 r/min | FANUC | Belt* | 15/11 kW (20.1/14.8 Hp) | ● | X | ● | X | ○ | X | X |
| 6 | | | | Belt* | 15/11 kW (20.1/14.8 Hp) | X | ○ | X | ○ | X | ○ | X |
| 7 | | | Belt* | 22/15 kW (29.5/20.1 Hp) | X | X | X | X | ● | X | X | |
| 8 | | | Built in* | 30/25 kW (40.2/33.5 Hp) | X | X | X | X | X | X | ○ | |
| 9 | | 12000 r/min | HEIDENHAIN | Belt* | 15.6/15 kW (20.9/20.1 Hp) | ○ | X | ○ | X | X | X | X |
| 10 | | | | Belt* | 26/22 kW (34.9/29.5 Hp) | X | X | X | X | ○ | X | X |
| 11 | | 6000 r/min | HEIDENHAIN | Gear* | 37/20 kW (49.6/26.8 Hp) | X | ○ | X | ○ | X | ○ | X |
| 12 | | | | Belt* | 38/24 kW (51.0/32.2 Hp) | ○ | ○ | ○ | ○ | ○ | ○ | X |
| 13 | | | SIEMENS | Belt* | 25/20 kW (33.5/26.8 Hp) | ○ | X | ○ | X | ○ | X | X |
| 14 | | | | Belt** | 20/18.5 kW (26.8/24.8 Hp) | X | ○ | X | ○ | X | ○ | X |
| 15 | | 8000 r/min | SIEMENS | Gear* | 27.8/18.5 kW (37.3/24.8 Hp) | X | ○ | X | ○ | X | ○ | X |
| 16 | | | | Belt* | 20/18.5 kW (26.8/24.8 Hp) | ○ | ○ | ○ | ○ | ○ | ○ | X |
| 17 | Spindle cooling system(Oil cooler) | 6000 r/min | Belt | | X | ○ | X | ○ | X | ○ | X | |
| 18 | | | Gear | | X | ● | X | ○ | X | ● | ● | |
| 19 | | 8000 r/min | Belt | | ○ | ● | ○ | ○ | ○ | ● | X | |
| 20 | | 10000 r/min | Built in | | X | X | X | X | X | X | ● | |
| 21 | | 12000 r/min | Belt | | ● | X | ● | X | ● | X | X | |
| 22 | Magazine | Tool storage capacity | 24ea | | X | ● | X | ● | X | ● | X | |
| 23 | | | 30ea | | ● | X | ● | ○ | ● | X | ● | |
| 24 | | | 40ea | | ○ | X | ○ | X | ○ | ○ | ○ | |
| 25 | Tool shank type | ISO #40 | BIG PLUS BT40 | | ● | X | ● | X | ● | X | X | |
| 26 | | | BIG PLUS CAT40 | | ○ | X | ○ | X | ○ | X | X | |
| 27 | | | BIG PLUS DIN40 | | ○ | X | ○ | X | ○ | X | X | |
| 28 | | ISO #50 | BIG PLUS BT50 | | X | ● | X | ● | X | ● | ● | |
| 29 | | | BIG PLUS CAT50 | | X | ○ | X | ○ | X | ○ | ○ | |
| 30 | | | BIG PLUS DIN50 | | X | ○ | X | ○ | X | ○ | ○ | |
| 31 | Coolant | FLOOD | 0.15 MPa (0.4 kW) | | ● | ● | ● | ● | ● | ● | ● | |
| 32 | | | 0.7 MPa (1.8 kW) | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 33 | | TSC | None | | ● | ● | ● | ● | ● | ● | ● | |
| 34 | | | 2 MPa (1.5kW) | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 35 | | | 2 MPa (4.0 kW) | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 36 | | | 7 MPa (5.5 kW) | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 37 | | SHOWER | 0.1 MPa (1.1 kW) | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 38 | | Oil Skimmer | Belt type | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 39 | | MQL | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 40 | Chip disposal | Chip pan | | | ● | ● | ● | ● | ● | ● | ● | |
| 41 | | | Chip conveyor | Hinged type | | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 42 | | | | Magnetic scraper type | | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 43 | | Drum filter type | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 44 | | Chip bucket | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | |
| 45 | | Air blower | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | |
| 46 | | Air gun | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | |
| 47 | | Coolant gun | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | |
| 48 | Mist collector | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | |
| 49 | Precision machining option | Smart Thermal Compensation | | | X | X | X | X | X | X | ● | |
| 50 | | Linear scale | X / Y / Zaxis | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 51 | | AICC I (40 block) | | | ○ | ○ | ○ | ○ | ○ | ○ | ● | |
| 52 | AICC II (200 block) | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | |
| 53 | Measurement & Automation | Automatic tool measurement | TS27R | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 54 | | | OTS | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 55 | | Automatic tool breakage detection | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 56 | | Automatic workpiece measurement | OMP60 | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 57 | Automatic front door with safety device | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | |
| 58 | Others | LED Work light | | | ● | ● | ● | ● | ● | ● | ● | |
| 59 | | 3 color signal tower | | | ● | ● | ● | ● | ● | ● | ● | |
| 60 | | 4th axis auxiliary device interface | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 61 | | Tool load monitoring | | | ● | ● | ● | ● | ● | ● | ● | |
| 62 | | EZ Guide i | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 63 | Automatic power off | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | |

*Spindle cooling system (Oil cooler) is standard **Spindle cooling system (Oil cooler) is option

* Please contact Doosan to select detail specifications.

Peripheral Equipment

Linear Scale option 50

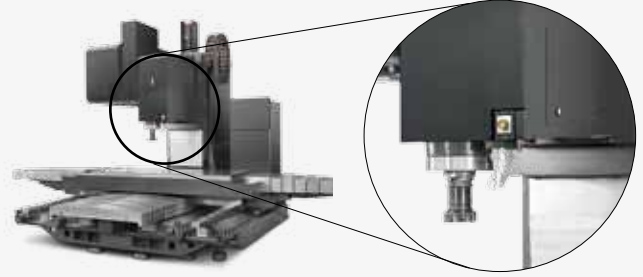
Using the linear scale feedback system, accuracy of the machine can be further improved since the X, Y and Z axes can be controlled to correct positions.

Resolution : 0.001 mm



Smart thermal compensation (Mynx 9500 only)

Smart thermal compensation function fitted as standard optimizes machine accuracy of the spindle and structure by reducing the effects of heat build-up during extended periods of operation.



Chip conveyor option 41-43

Hinged type



Magnetic scraper type



Drum filter type



| Chip conveyor type | Material | Description |
|-----------------------|-----------|--|
| Hinged type | Steel | Hinged belt chip conveyor, which is most commonly used for steel work [for cleaning chips longer than 30mm(1.2inch)], is available as an option. |
| Magnetic scraper type | Cast Iron | Magnetic scraper type chip conveyor, which is ideal for die-casting work [for cleaning small chips], is available as an option. |
| Drum filter type | Aluminium | Drum filter type chip conveyor, which is ideal for aluminium work [for filtering small chips], is available as an option. |

Oil Cooler option

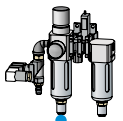
An oil cooler correlated to room temperature can be equipped for a long-term operation at high speed. Cooling oil circulates around the spindle bearings to prevent thermal error of the spindle and maintain machining accuracy.



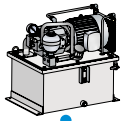
4th axis auxiliary device interface option 60

Users who wish to set up a rotary axis on the table to increase application flexibility are encouraged to contact Doosan in advance.

Pneumatic



Hydraulic



Electronic

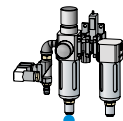
Servo driven
Function and
Device



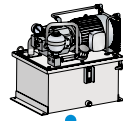
Hydraulic / Pneumatic fixture line option

The user should prepare pipelines for hydraulic / pneumatic fixtures whose detailed specifications should be determined by discussion with Doosan.

Pneumatic



Hydraulic





Basic information

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User convenience has been significantly enhanced with a new operation panel.

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Simple and Convenient Operation Panel

The operation panel is redesigned and integrated for better usability. Additionally, customized function switches can be attached to maximize operation convenience.

10.4" color TFT LCD monitor

Various alarm messages indicating errors from the machine and controller will be displayed on a large 10.4" LCD screen, enhancing the operation convenience.



- **Model**
Mynx 5400, Mynx 5400/50
Mynx 6500, Mynx 6500/50
Mynx 7500, Mynx 7500/50



- **Model**
Mynx 9500

MPG handle



PCMCIA Card & USB Port

PCMCIA Card

The PCMCIA card enables uploading and downloading of the NC program, NC parameters, tool information, and ladder programs, and also supports DNC operation.

USB Port

The USB memory stick enables uploading and downloading of the NC program, NC parameters, tool information and ladder programs. (DNC operation is not supported.)



Convenience Functions (Hot Keys)

To quick operate, some of buttons such as return reference point and tool management etc. are installed on the operation panel.



Swiveling operation panel

The operation panel is capable of swiveling by 90 degrees to enhance convenience.





Easy Operation Package

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

Adaptive Feed Control (AFC)



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)

Tool Load Monitor



Function to automatically monitor tool load
(Different loads can be set for one tool according to M700 ~ M704)

Work Offset Setting



Function to configure various work offset settings

Sensor Status Monitor



Function to view sensor conditions of the machine

Tool Management



Function to manage tool information
[Tool information]
- Tool No. / Tool name
- Tool condition : normal, large diameter, worn/
damaged, used for the first time, annual

Pattern Cycle & Engraving



Function to create frequently-used cutting programs automatically
- Pattern Cycle: creates a program for a pre-defined shape
- Engraving: creates a program for cutting a shape described with characters [option](#)

Alarm Guidance



Function to show detailed info on frequently triggered alarms and recommended actions

ATC Recovery



Function to view detailed info with recommended actions and to perform step-by-step operation manually (when an alarm is triggered during an ATC operation)

Spindle Power – Torque Diagram (FANUC)

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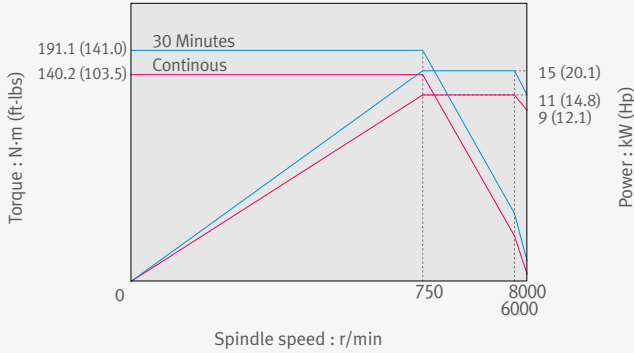
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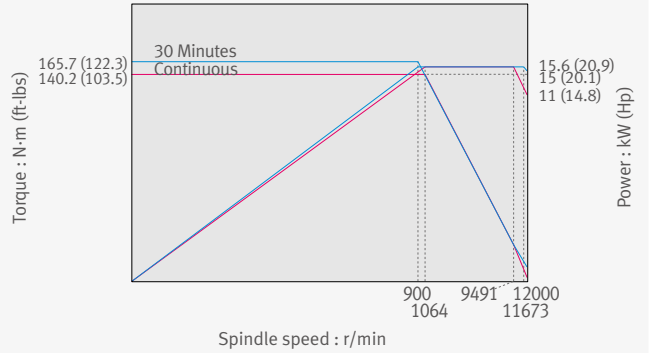
Customer Support Service

[FANUC] Mynx 5400, Mynx 6500

8000 r/min, Belt, 15/11 kW (20.1/14.8 Hp), 191.1 N·m (141.0 ft-lbs)

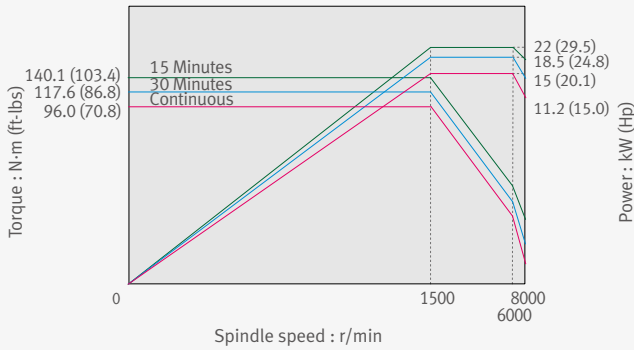


12000 r/min, Belt, 15.6/15 kW, 165.7 N·m (122.3 ft-lbs) **option**

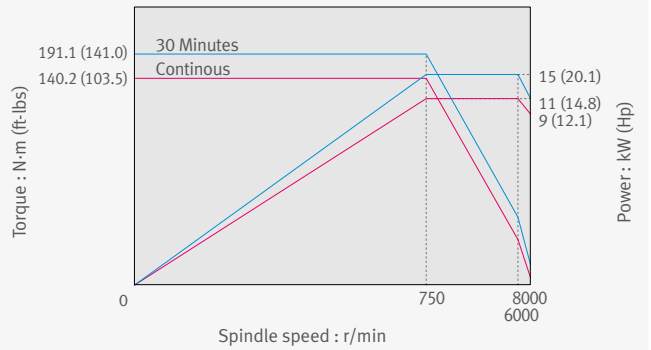


[FANUC] Mynx 7500

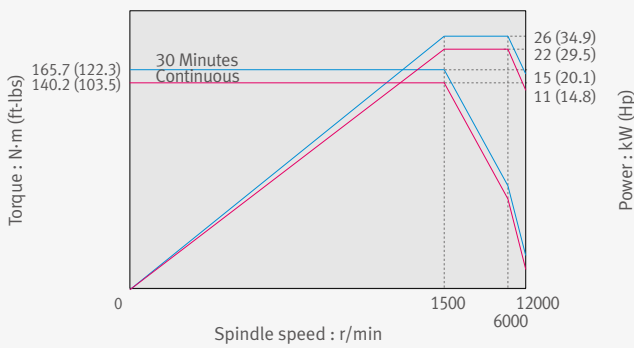
8000 r/min, Belt, 22/15 kW (29.5/20.1 Hp), 140.1 N·m (103.4 ft-lbs)



8000 r/min, Belt, 15/11 kW (20.1/14.8 Hp), 191.1 N·m (141.0 ft-lbs) **option**

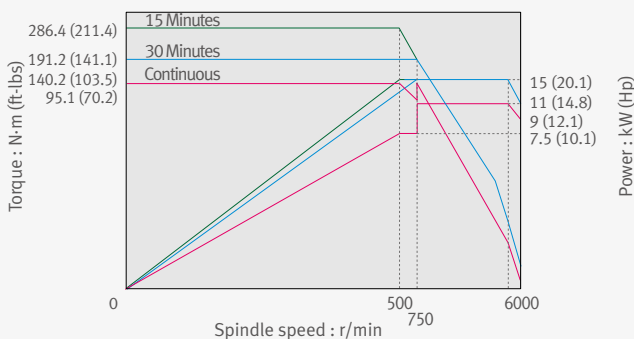


12000 r/min, Belt, 26/22 kW (34.9/29.5 Hp), 165.7 N·m (122.3 ft-lbs) **option**

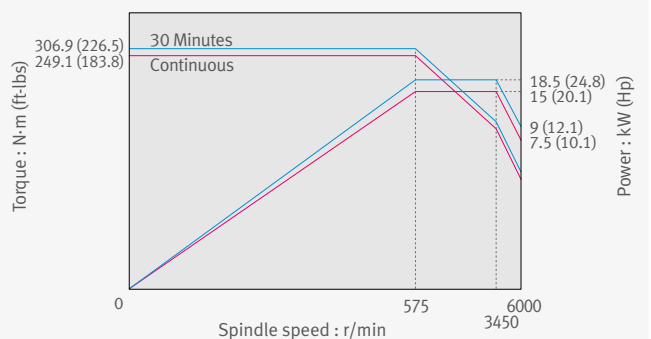


[FANUC] Mynx 5400/50, Mynx 6500/50

6000 r/min, Belt, 15/11 kW (20.1/14.8 Hp), 286.4 N·m (211.4 ft-lbs)

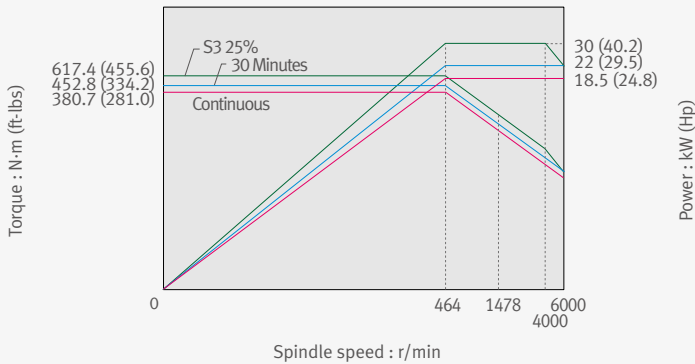


6000 r/min, Belt, 18.5/15 kW (24.8/20.1 Hp), 306.9 N·m (226.5 ft-lbs) **option**

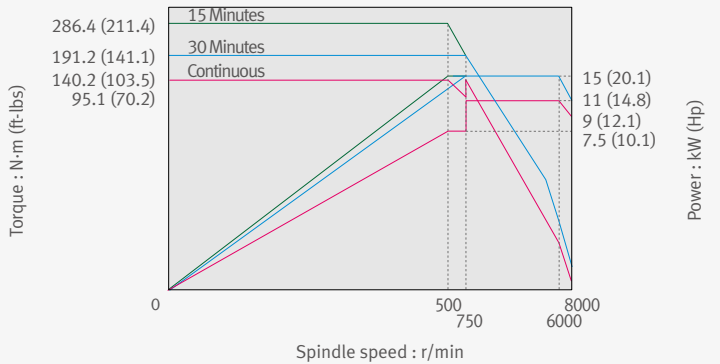


[FANUC] Mynx 5400/50, Mynx 6500/50

6000r/min, Gear, 30/18.5kW (40.2/24.8 Hp), 617.4 N-m (455.6 ft-lbs) **option**

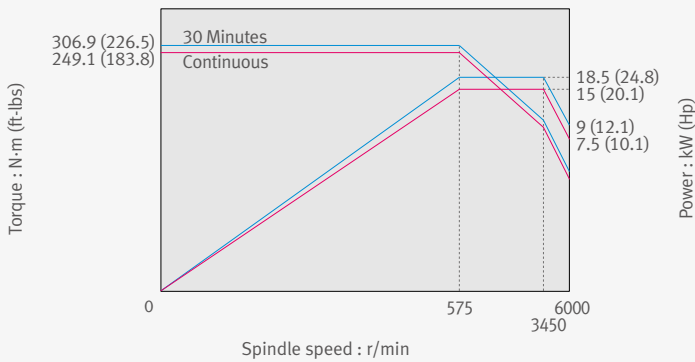


8000 r/min, Belt, 15/11 kW (20.1/14.8 Hp), 286.4 N-m (211.4 ft-lbs) **option**

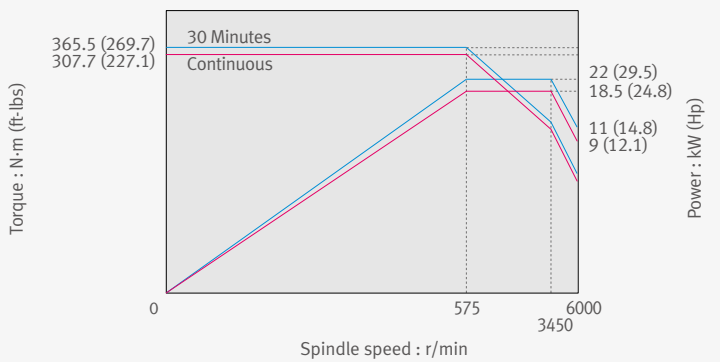


[FANUC] Mynx 7500/50

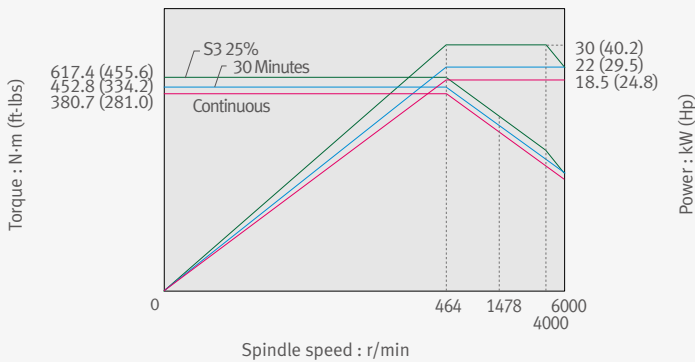
6000 r/min, Belt, 18.5/15 kW (24.8/20.1 Hp), 306.9 N-m (226.5 ft-lbs)



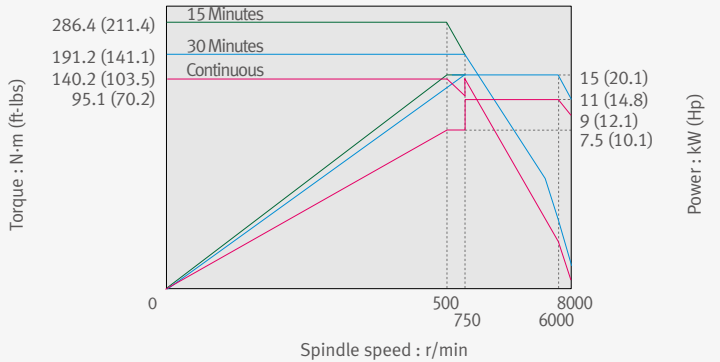
6000 r/min, Belt, 22/18.5 kW (29.5/24.8 Hp), 365.5 N-m (369.7 ft-lbs) **option**



6000r/min, Gear, 30/18.5kW (40.2/24.8 Hp), 617.4 N-m (455.6 ft-lbs) **option**

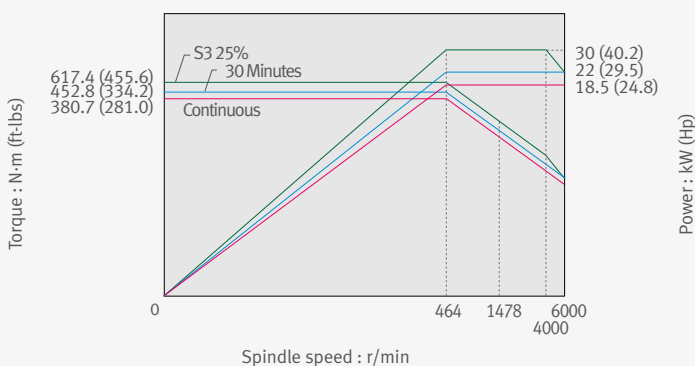


8000 r/min, Belt, 15/11 kW (20.1/14.8 Hp), 286.4 N-m (211.4 ft-lbs) **option**

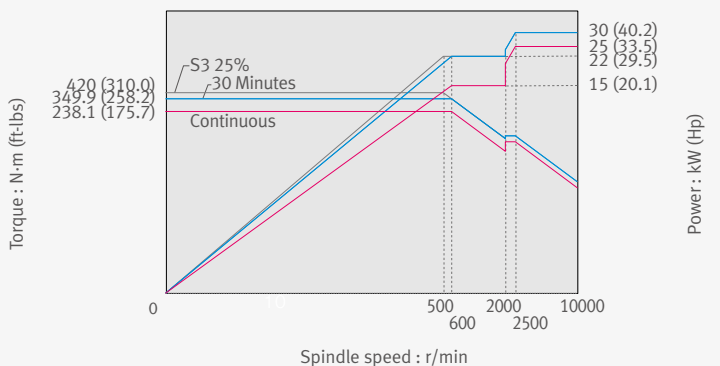


[FANUC] Mynx 9500

6000r/min, Gear, 30/18.5kW (40.2/24.8 Hp), 617.4 N-m (455.6 ft-lbs)



10000 r/min, Built in, 30/25 kW (40.2/33.5 Hp), 420 N-m (310.0 ft-lbs) **option**



Spindle Power – Torque Diagram (HEIDENHAIN / SIEMENS)

Basic information

- Basic Structure
- Cutting
- Performance

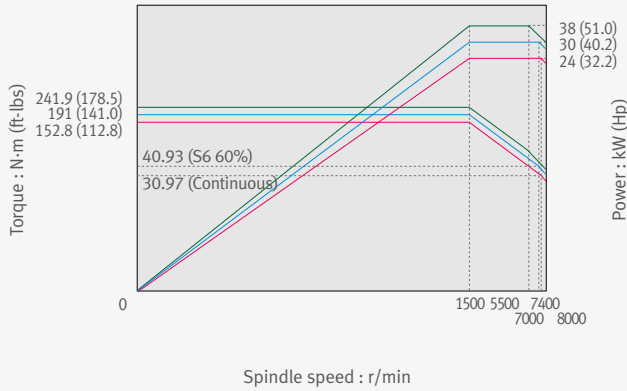
Detailed Information

- Options
- Applications
- Diagrams
- Specifications

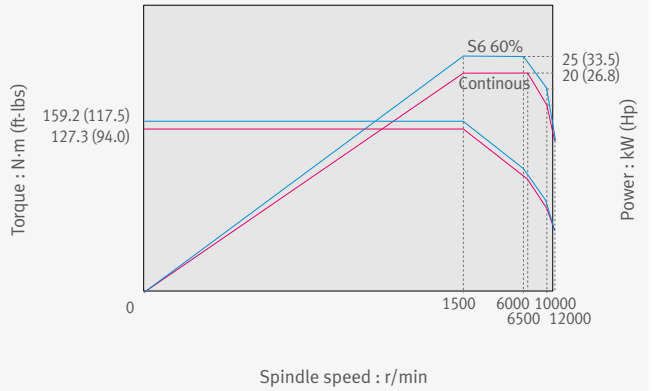
Customer Support Service

[HEIDENHAIN] Mynx 5400 , Mynx 6500, Mynx 7500

8000 r/min, Belt, 38/24 kW (51.0/32.2 Hp), 241.9 N·m (178.5 ft-lbs) **option**

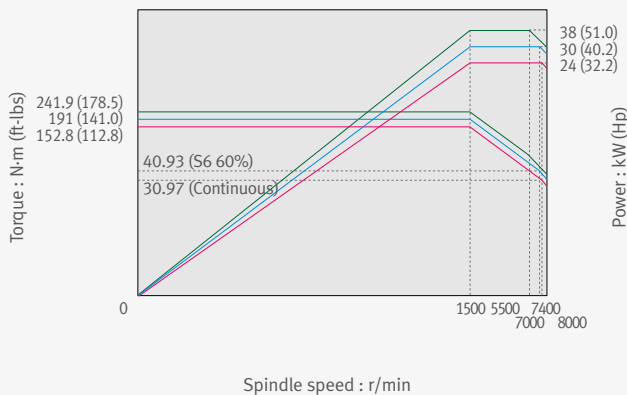


12000 r/min, Belt, 25/20 kW (33.5/26.8 Hp), 159.2 N·m (117.5 ft-lbs) **option**

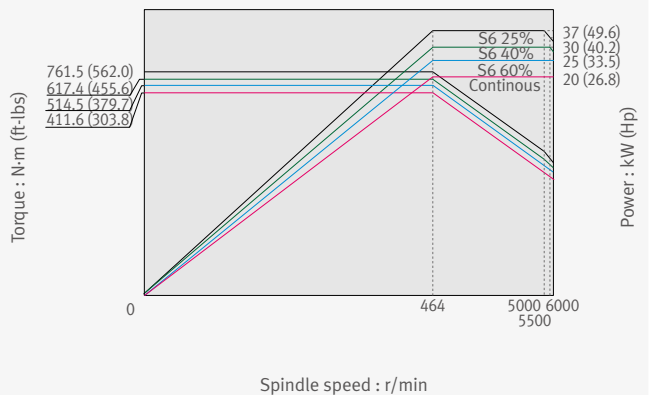


[HEIDENHAIN] Mynx 5400 /50, Mynx 6500/50, Mynx 7500/50

8000 r/min, Belt, 38/24 kW (51.0/32.2 Hp), 241.9 N·m (178.5 ft-lbs) **option**

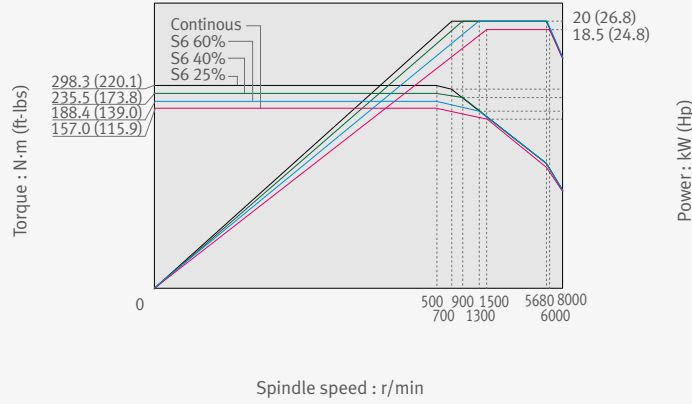


6000 r/min, Gear, 37/20 kW (49.6/26.8 Hp), 761.5 N·m (562.0 ft-lbs) **option**



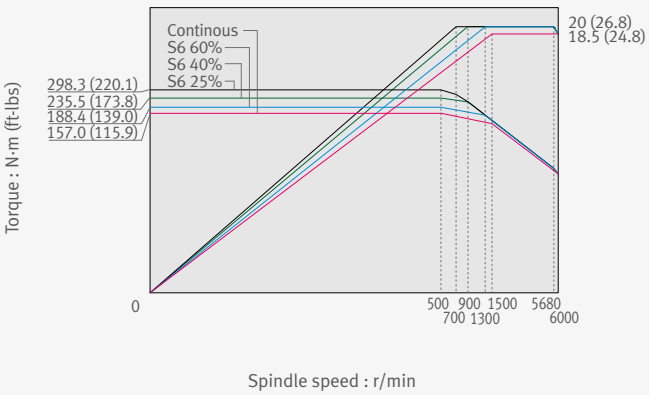
[SIEMENS] Mynx 5400, Mynx 6500, Mynx 7500

8000 r/min, Belt, 20/18.5 kW (26.8/24.8 Hp), 298.3 N·m (220.1 ft·lbs) **option**

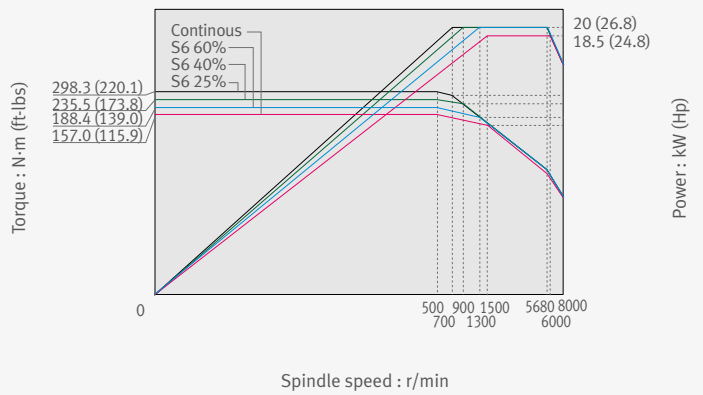


[SIEMENS] Mynx 5400/50, Mynx 6500/50, Mynx 7500/50

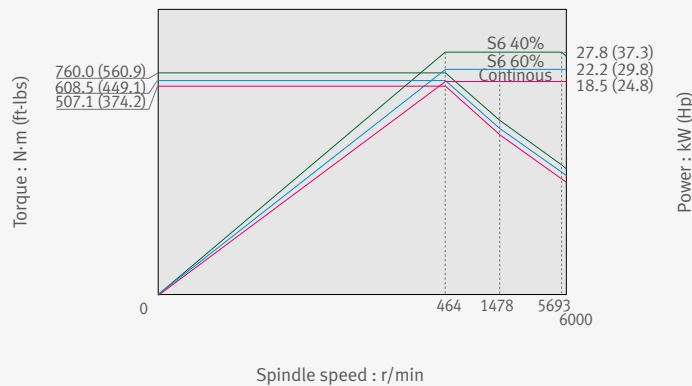
6000 r/min, Belt, 20/18.5 kW (26.8/24.8 Hp), 298.3 N·m (220.1 ft·lbs) **option**



8000 r/min, Belt, 20/18.5 kW (26.8/24.8 Hp), 298.3 N·m (220.1 ft·lbs) **option**



6000 r/min, Gear, 27.8/18.5 kW (37.3/24.8 Hp), 760 N·m (560.9 ft·lbs) **option**



External Dimensions

Basic information

- Basic Structure
- Cutting
- Performance

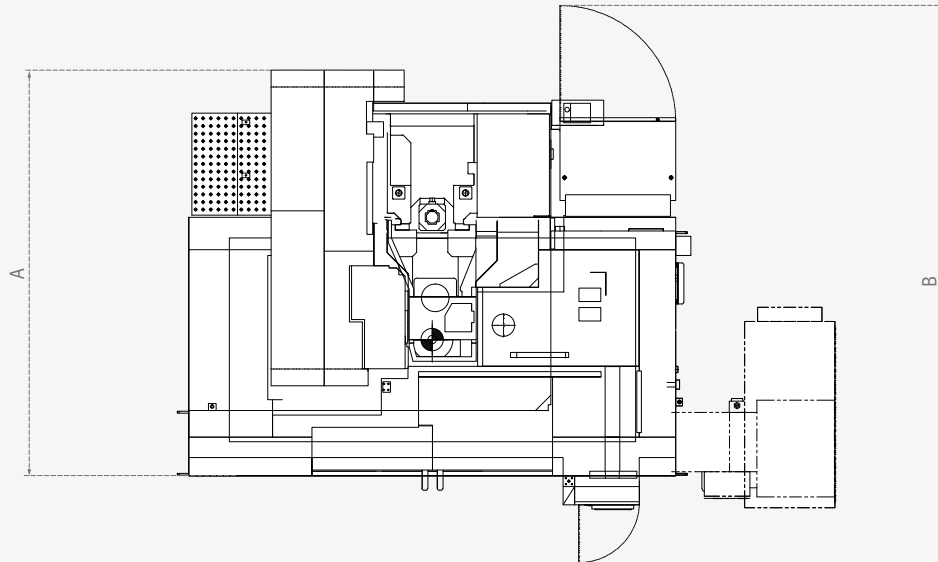
Mynx series

Detailed Information

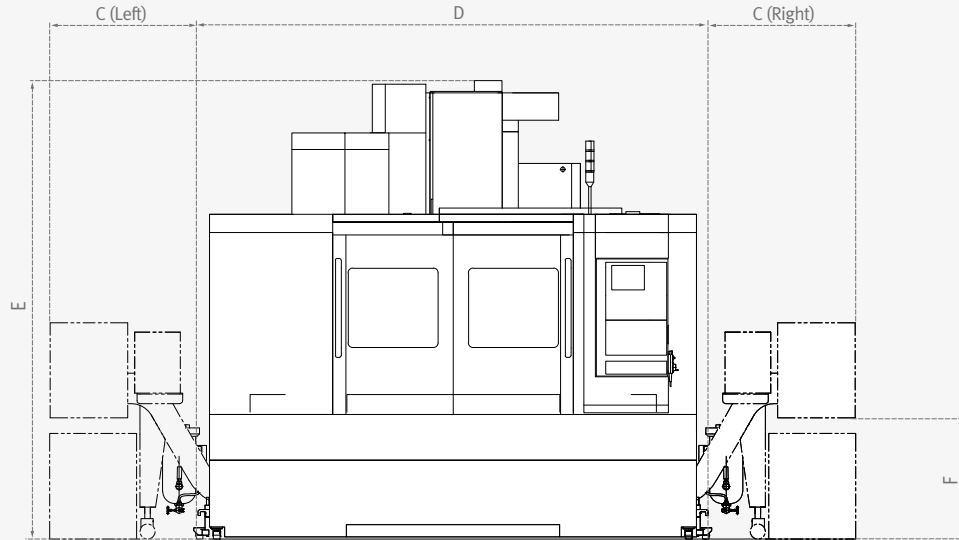
- Options
- Applications
- Diagrams
- Specifications

Customer Support Service

Top View



Front View



Unit : mm (inch)

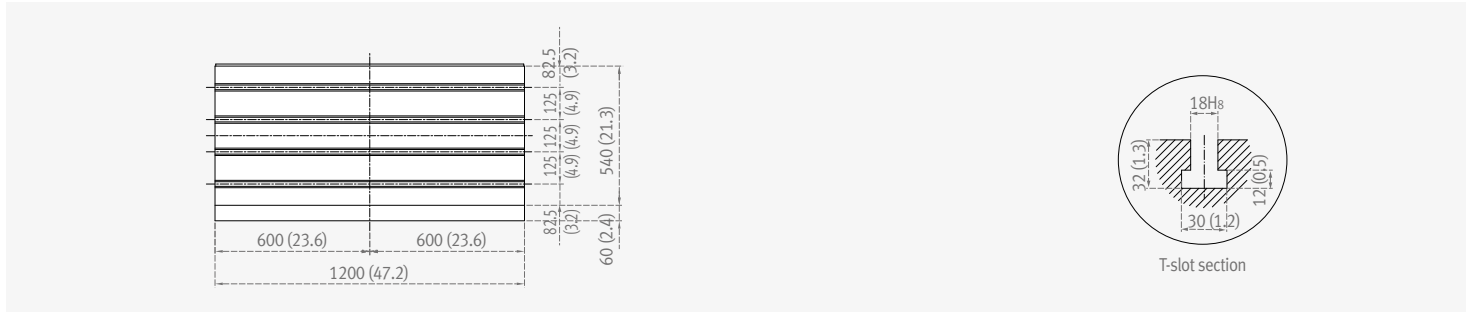
| | A (Length) | B (Max. machine length) | C* (Additional width to accommodate the side chip conveyor) | D (Width) | E (Height) | F (Height from the floor to the chip outlet) |
|---------------------|---------------|----------------------------|--|--------------|---------------|---|
| Mynx 5400 | 2467 (97.1) | 3443 (135.6) | Left & Right : 972 (38.3) | 3350 (131.9) | 2800 (110.2) | 805 (31.7) |
| Mynx 5400/50 | 2467 (97.1) | 3443 (135.6) | Left & Right : 972 (38.3) | 3350 (131.9) | 3015 (118.7) | 805 (31.7) |
| Mynx 6500 | 2692 (106.0) | 3664 (144.3) | Left & Right : 972 (38.3) | 3350 (131.9) | 2825 (111.2) | 805 (31.7) |
| Mynx 6500/50 | 2629 (103.5) | 3664 (144.3) | Left & Right : 972 (38.3) | 3350 (131.9) | 3015 (118.7) | 805 (31.7) |
| Mynx 7500 | 3900 (153.5) | 4177 (164.4) | Right : 948 (37.3) | 4050 (159.4) | 3185 (125.4) | 805 (31.7) |
| Mynx 7500/50 | 3900 (153.5) | 4172 (164.3) | Right : 948 (37.3) | 4050 (159.4) | 3235 (127.4) | 805 (31.7) |
| Mynx 9500 | 4315 (169.9) | 5350 (210.6) | Right : 1078 (42.4) | 6480 (255.1) | 3598 (141.7) | 805 (31.7) |

* Contact Doosan for more information to rear chip conveyor.

Table

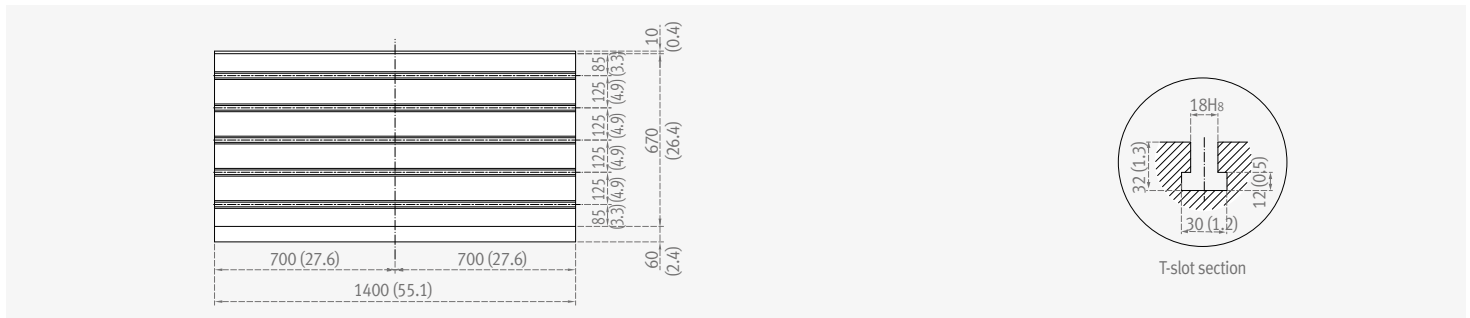
Mynx 5400, Mynx 5400/50

Unit : mm (inch)



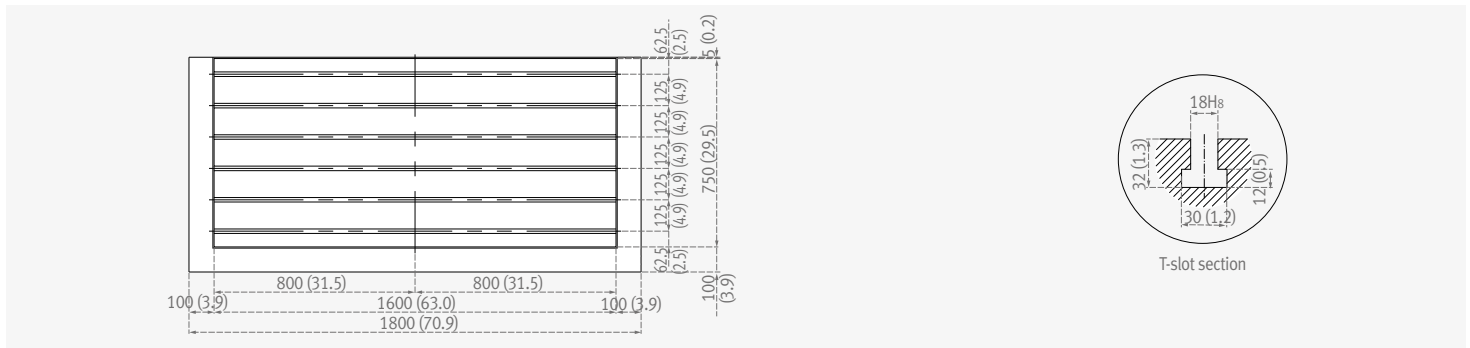
Mynx 6500, Mynx 6500/50

Unit : mm (inch)



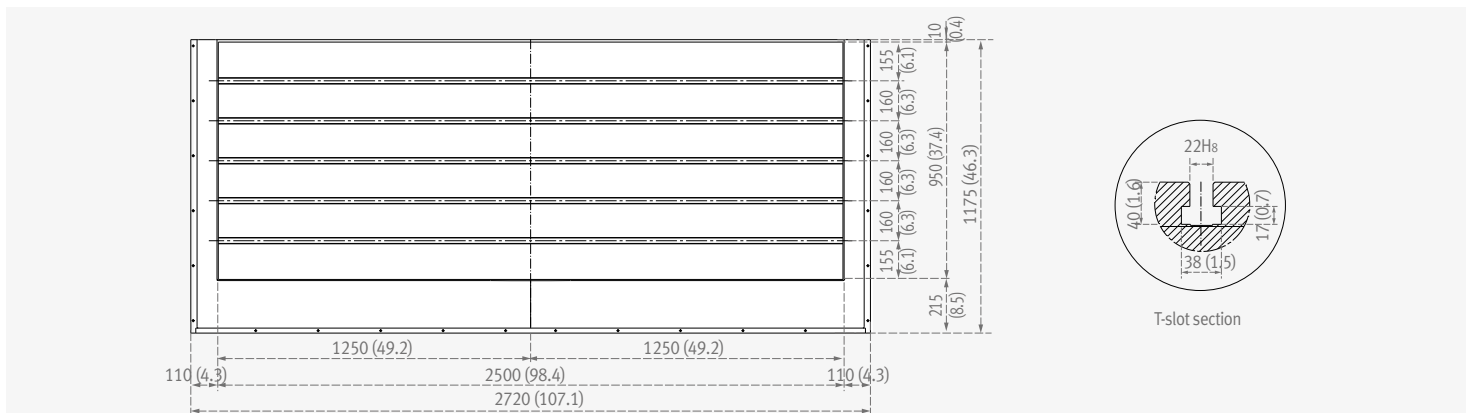
Mynx 7500, Mynx 7500/50

Unit : mm (inch)



Mynx 9500

Unit : mm (inch)



Machine Specifications

Basic information

Basic Structure
Cutting
Performance

Detailed Information

Options
Applications
Diagrams
Specifications

Customer Support Service



| Description | | | Unit | Mynx 5400 | Mynx 5400/50 | | |
|------------------------|---|------------------------|-----------------|----------------------------------|---|---|--|
| Travels | Travel distance | X axis | mm (inch) | 1020 (40.2) | | | |
| | | Y axis | mm (inch) | 540 (21.3) | | | |
| | | Z axis | mm (inch) | 530 (20.9) | | | |
| | Distance from spindle nose to table top | | mm (inch) | 150 ~ 680 (5.9 ~ 26.8) | 200 ~ 730 (7.9 ~ 28.7) | | |
| Table | Table size | | mm (inch) | 1200 x 540 (47.2 x 21.3) | | | |
| | Table loading capacity | | kg (lb) | 800 (1763.7) | | | |
| | Table surface type | | mm (inch) | T-SLOT [4-125(4.9) x 18(0.7)H8] | | | |
| Spindle | Max. spindle speed | FANUC | Belt | r/min | 8000 {12000} | 6000 {6000} {8000} | |
| | | | Gear | r/min | - | {6000} | |
| | | | Built in | r/min | - | - | |
| | | SIEMENS | Belt | r/min | 8000 | 6000 {8000} | |
| | | | Gear | r/min | - | {6000} | |
| | | HEIDENHAIN | Belt | r/min | 8000 {12000} | 8000 | |
| | Gear | | r/min | - | {6000} | | |
| | Taper | | | - | ISO #40 | ISO #50 | |
| | Spindle power | FANUC | Belt | kW (Hp) | 15/11 (20.1/14.8) {15.6/15 (20.9/20.1)} | 15/11 (20.1/14.8) {18.5/15 (24.8/20.1)} {15/11 (20.1/14.8)} | |
| | | | Gear | kW (Hp) | - | 22/18.5 (29.5/24.8) | |
| | | | Built in | kW (Hp) | - | - | |
| | | SIEMENS | Belt | kW (Hp) | 20/18.5 (26.8/24.8) | 20/18.5 (29.5/24.8) {20/18.5 (29.5/24.8)} | |
| | | | Gear | kW (Hp) | - | {27.8/18.5 (37.3/24.8)} | |
| | | HEIDENHAIN | Belt | kW (Hp) | 38/24 {25/20 (33.5/26.8)} | 38/24 | |
| | Gear | kW (Hp) | - | {37/20 (49.6/26.8)} | | | |
| Max. spindle torque | FANUC | Belt | N-m (ft-lbs) | 191.1 (140.9) {165.7 (122.2)} | 286.4 (211.2) {306.9 (226.3)} {286.4 (211.2)} | | |
| | | Gear | N-m (ft-lbs) | - | {452.0 (333.3)} | | |
| | | Built in | N-m (ft-lbs) | - | - | | |
| | SIEMENS | Belt | N-m (ft-lbs) | 222.8 (164.3) | 298.3 (220) {298.3 (220)} | | |
| | | Gear | N-m (ft-lbs) | - | {760 (560.5)} | | |
| | HEIDENHAIN | Belt | N-m (ft-lbs) | 241.9 {159.2 (117.4)} | 241.9 | | |
| Gear | N-m (ft-lbs) | - | {761.5 (562.0)} | | | | |
| Feedrates | Rapid traverse rate | X axis | m/min (ipm) | | | | |
| | | Y axis | m/min (ipm) | | | | |
| | | Z axis | m/min (ipm) | | | | |
| Automatic Tool Changer | Type of tool shank | Tool shank | - | BT 40 {CAT40/DIN40} | BT 50 {CAT50 /DIN50} | | |
| | | Pull stud | - | PS806 | P50T-1 45deg | | |
| | Tool storage capa. | | ea | 30 {40} | 24 | | |
| | Max. tool diameter | Continous | mm (inch) | 80 (3.1) {76 (3.0)} | 125 (4.9) | | |
| | | Without Adjacent Tools | mm (inch) | 125 (4.9) | 220 (8.7) | | |
| | Max. tool length | | mm (inch) | 300 (11.8) | 350 (13.8) | | |
| | Max. tool weight | | kg (lb) | 8 (17.6) | 15 (33.1) | | |
| | Tool selection | | | | | | |
| | Tool change time (Tool-to-tool) | | sec | 1.3 | 2.5 | | |
| | Tool change time (Chip-to-chip) | | sec | 3.7 | 5.5 | | |
| Power source | Electric power supply (rated capacity) | Belt | FANUC | kVA | 36.1 {40} | 36.1 {40} {36.1} | |
| | | | HEIDENHAIN | kVA | 47 {56} | 47 {56} | |
| | | | SIEMENS | kVA | - | 48.7 | |
| | | Gear | FANUC | kVA | - | {47.7} | |
| | | | HEIDENHAIN | kVA | - | - | |
| Built in | | FANUC | kVA | - | - | | |
| Compressed air supply | | Mpa (psi) | | | | | |
| Tank capacity | Coolant tank capacity | | L (gal) | | | | |
| Machine Dimensions | Height | | mm (inch) | 2800 (110.2) | 3015 (118.7) | | |
| | Length | | mm (inch) | 2467 (97.1) | 2467 (97.1) | | |
| | Width | | mm (inch) | 3350 (131.9) | 3350 (131.9) | | |
| | Weight | | kg (lb) | 7000 (15432) | 7200 (15873) | | |
| Control | NC system | | - | | | | |

| Mynx 6500 | Mynx 6500/50 | Mynx 7500 | Mynx 7500/50 | DNM 9500 |
|--|---|---|---|---------------------------------|
| 1270 (50.0) | | | 1525 (60.0) | 2500 (98.4) |
| 670 (26.4) | | | 762 (30.0) | 950 (37.4) |
| 625 (24.6) | | | 625 (24.6) | 800 (31.5) |
| 150 ~ 775 (5.9 ~ 30.5) | 200 ~ 825 (7.9 ~ 32.5) | 150 ~ 775 (5.9 ~ 30.5) | 200 ~ 825 (7.9 ~ 32.5) | 200 ~ 1000 (7.9 ~ 39.4) |
| 1400 x 670 (55.1 x 26.4) | | | 1600 x 750 (63.0 x 29.5) | 2500 x 950 (98.4 x 37.4) |
| 1000 (2204.6) | | | 1500 (3306.9) | 3500 (7716.2) |
| T-SLOT [5-125(4.9) x 18(0.7)H8] | | T-SLOT [6-125(4.9) x 18(0.7)H8] | | T-SLOT [5-160(6.3) x 22(0.9)H8] |
| 8000 {12000} | 6000 {6000} {8000} | 8000 {8000} {12000} | 6000 {6000} {8000} | - |
| - | {6000} | - | {6000} | 6000 |
| - | - | - | - | {10000} |
| 8000 | 6000 {8000} | 8000 | 6000 {8000} | - |
| - | 6000 | - | 6000 | - |
| 8000 {12000} | 8000 | 8000 {12000} | 8000 | - |
| - | {6000} | - | {6000} | - |
| ISO #40 | ISO #50 | ISO #40 | ISO #50 | ISO #50 |
| 15/11 (20.1/14.8) {15.6/15 (20.9/20.1)} | 15/11 (20.1/14.8) {18.5/15 (24.8/20.1)} {15/11 (20.1/14.8)} | 22/15 (29.5/20.1) {15/11 (20.1/14.8)} {26/22 (34.9/29.5)} | 18.5/15 (24.8/20.1) {22/18.5 (29.5/24.8)} {15/11 (20.1/14.8)} | - |
| - | {22/18.5 (29.5/24.8)} | - | {22/18.5 (29.5/24.8)} | 22/18.5 (29.5/24.8) |
| - | - | - | - | {30/25 (40.2/33.5)} |
| 20/18.5 (26.8/24.8) | 20/18.5 (26.8/24.8) {20/18.5 (26.8/24.8)} | 20/18.5 (26.8/24.8) | 20/18.5 (26.8/24.8) {20/18.5 (26.8/24.8)} | - |
| - | {27.8/18.5 (37.3/24.8)} | - | {27.8/18.5 (37.3/24.8)} | - |
| 38/24 {25/20 (33.5/26.8)} | 38/24 | 38/24 {25/20 (33.5/26.8)} | 38/24 | - |
| - | {37/20 (49.6/26.8)} | - | {37/20 (49.6/26.8)} | - |
| 191.1 (140.9) {165.7 (122.2)} | 286.4 (211.2) {306.9 (226.3)} {286.4 (211.2)} | 140.1 (103.3) {191.1 (140.9)} {165.7 (122.2)} | 306.9 (226.3) {365.5 (269.5)} {286.4 (211.2)} | - |
| - | {452.0 (333.3)} | - | {452.0 (333.3)} | 452 (333.3) |
| - | - | - | - | {420 (309.7)} |
| 298.3 (220) | 298.3 (220) {298.3 (220)} | 298.3 (220) | 298.3 (220) {298.3 (220)} | - |
| - | {760 (560.5)} | - | {760 (560.5)} | - |
| 241.9 {159.2 (117.4)} | 241.9 | 241.9 {159.2 (117.4)} | 241.9 | - |
| - | {761.5 (562.0)} | - | {761.5 (562.0)} | - |
| | 30 (1181.1) | | | 16 (629.9) |
| | 30 (1181.1) | | | 16 (629.9) |
| | 24 (944.9) | | | 16 (629.9) |
| BT 40 {CAT40 /DIN40} | BT 50 {CAT50 /DIN50} | BT 40 {CAT40 /DIN40} | BT 50 {CAT50 /DIN50} | BT 50 {CAT50 /DIN50} |
| PS806 | P50T-1 45deg | PS806 | P50T-1 45deg | P50T-1 45deg |
| 30 {40} | 24 {40} | 30 {40} | 24 {40} | 30 {40} |
| 80 (3.1) {76 (3.0)} | 125 (4.9) | 80 (3.1) {76 (3.0)} | 125 (4.9) | 125 (4.9) |
| 125 (4.9) | 220 (8.7) | 125 (4.9) | 230 (9.1) | 230 (9.1) |
| 300 (11.8) | 350 (13.8) | 300 (11.8) | 350 (13.8) | 350 (13.8) |
| 8 (17.6) | 15 (33.1) | 8 (17.6) | 15 (33.1) | 15 (33.1) |
| MEMORY RANDOM | | | | |
| 1.3 | 2.5 | 1.3 | 2.5 | 2.5 |
| 3.7 | 5.5 | 3.7 | 6.0 | 6.0 |
| 39.4 {45.1} | 44.6 {39.4} {39.4} | 48 {42.9} {56.9} | 47.3 {51.8} {42.9} | - |
| 47 {56} | 47 {56} | 47 {56} | 40 {56} | - |
| - | {48.4} | - | 60 | 47.0 |
| - | - | - | {51.8} | - |
| | | | | 54.2 |
| | 0.54 (78.3) | | | |
| | 380 (100.4) | | | 500 (132.1) |
| 2825 (111.2) | 3015 (118.7) | 3185 (125.4) | 3235 (127.4) | 3598 (141.7) |
| 2692 (106.0) | 2629 (103.5) | 3900 (153.5) | 3900 (153.5) | 4315 (169.9) |
| 3350 (131.9) | 3350 (131.9) | 4050 (159.4) | 4050 (159.4) | 6480 (255.1) |
| 9000 (19842) | 9200 (20283) | 13500 (29762) | 13500 (29762) | 23000 (50706) |

DOOSAN FANUC i {HEIDENHAIN iTNC 530 / SIEMENS S828D}

{ } : Option

Basic information

Basic Structure
Cutting
Performance

Detailed Information

Options
Applications
Diagrams
Specifications

Customer Support Service

DOOSAN
FANUC i

| No. | Division | Item | Spec. | DOOSAN FANUC i | |
|-----|----------------------------------|---|---------------------------|---|-----------|
| | | | | Mynx 5400, Mynx 5400/50 Mynx 6500, Mynx 6500/50 Mynx 7500, Mynx 7500/50 | Mynx 9500 |
| 1 | Axes control | Controlled axes | 3 (X,Y,Z) | X, Y, Z | X, Y, Z |
| 2 | | Least command increment | 0.001 mm / 0.0001" | ● | ● |
| 3 | | Least input increment | 0.001 mm / 0.0001" | ● | ● |
| 4 | Interpolation & Feed function | 2nd reference point return | G30 | ● | ● |
| 5 | | 3rd / 4th reference return | | ● | ● |
| 6 | | Inverse time feed | | ● | ● |
| 7 | | Cylindrical interpolation | G07.1 | ● | ● |
| 8 | | Automatic corner override | G62 | ● | ● |
| 9 | | Manual handle feed | 1 unit | ● | ● |
| 10 | | Manual handle feed | x1, x10, x100 (per pulse) | ● | ● |
| 11 | | Handle interruption | | ● | ● |
| 12 | | AI APC | 20 BLOCK | ● | ● |
| 13 | | AICC I | 40 BLOCK | ○ | ● |
| 14 | | AICC II | 200 BLOCK | ○ | ○ |
| 15 | Spindle & M-code function | M- code function | | ● | ● |
| 16 | | Retraction for rigid tapping | | ● | ● |
| 17 | | Rigid tapping | G84, G74 | ● | ● |
| 18 | Tool function | Number of tool offsets | 400 ea | ● | ● |
| 19 | | Tool nose radius compensation | G40, G41, G42 | ● | ● |
| 20 | | Tool length compensation | G43, G44, G49 | ● | ● |
| 21 | | Tool life management | | ● | ● |
| 22 | | Addition of tool pairs for tool life management | | ● | ● |
| 23 | | Tool offset | G45 - G48 | ● | ● |

● Standard ○ Optional X Not applicable

| No. | Division | Item | Spec. | DOOSAN FANUC i | |
|-----|--------------------------------------|--|---|---|-----------|
| | | | | Mynx 5400, Mynx 5400/50 Mynx 6500, Mynx 6500/50 Mynx 7500, Mynx 7500/50 | Mynx 9500 |
| 24 | Programming & Editing function | Custom macro | | ● | ● |
| 25 | | Macro executor | | ● | ● |
| 26 | | Extended part program editing | | ● | ● |
| 27 | | Part program storage | 512KB(1280m) | ● | ● |
| 28 | | Part program storage | 2MB(5120m) | ○ | ○ |
| 29 | | Inch/metric conversion | G20 / G21 | ● | ● |
| 30 | | Number of Registered programs | 400 ea | ● | ● |
| 31 | | Optional block skip | 9 BLOCK | ● | ● |
| 32 | | Optional stop | M01 | ● | ● |
| 33 | | Program number | 04-digits | ● | ● |
| 34 | | Playback function | | ● | ● |
| 35 | | Other Functions (Operation, setting & Display, etc) | Addition of workpiece coordinate system | G54.1 P1 - 48 (48 pairs) | ● |
| 36 | Embedded Ethernet | | | ● | ● |
| 37 | Graphic display | | Tool path drawing | ● | ● |
| 38 | Loadmeter display | | | ● | ● |
| 39 | Memory card interface | | | ● | ● |
| 40 | USB memory interface | | Only Data Read & Write | ● | ● |
| 41 | Operation history display | | | ● | ● |
| 42 | DNC operation with memory card | | | ● | ● |
| 43 | Optional angle chamfering / corner R | | | ● | ● |
| 44 | Run hour and part number display | | | ● | ● |
| 45 | High speed skip function | | | ● | ● |
| 46 | Polar coordinate command | | G15 / G16 | ● | ● |
| 47 | Programmable mirror image | | G50.1 / G51.1 | ● | ● |
| 48 | Scaling | | G50, G51 | ● | ● |
| 49 | Single direction positioning | | G60 | ● | ● |
| 50 | Pattern data input | | | ● | ● |

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HEIDENHAIN iTNC 530

| No. | Division | Item | Spec. | iTNC 530 |
|-----|----------------------------------|--|--|---|
| | | | | Mynx 5400, Mynx 5400/50 Mynx 6500, Mynx 6500/50 Mynx 7500, Mynx 7500/50 |
| 1 | Axes | Controlled axes | 3 axes | X, Y, Z |
| 2 | | | 4 axes | ○ |
| 3 | | Controlled axes | Max. 12 axes in total | ○ |
| 4 | | Least command incremen | 0.0001 mm (0.0001 inch), 0.0001° | ● |
| 5 | | Least input increment | 0.0001 mm (0.0001 inch), 0.0001° | ● |
| 6 | | Maximum commandable value | ±99999.999mm (±3937 inch) | ● |
| 7 | | Axis feedback control | Double-speed control loops for high-frequency spindles and torque/linear motors | ○ |
| 8 | | MDI / DISPLAY unit | 15.1 inch TFT color flat panel | ● |
| 9 | | | 19 inch TFT color flat panel | ○ |
| 10 | | Program memory for NC programs | SSDR | 21GB |
| 11 | | Block processing time | | 0.5 ms |
| 12 | | Cycle time for path interpolation | CC 61xx | 3 ms |
| 13 | | Encoders | Absolute encoders | EnDat 2.2 |
| 14 | Commissioning and diagnostics | Data interfaces | Ethernet interface | ● |
| 15 | | | USB interface (USB 2.0) | ● |
| 16 | Machine functions | Look-ahead | Intelligent path control by calculating the path speed ahead of time (max. 1024 blocks.) | ● |
| 17 | | HSC filters | | ● |
| 18 | | Switching the traverse ranges | | ● |
| 19 | User functions | Program input | According to ISO | ● |
| 20 | | | With smarT.NC | ● |
| 21 | | Position entry | Nominal positions for lines and arcs in Cartesian coordinates | ● |
| 22 | | | Incremental or absolute dimen- sions | ● |
| 23 | | | Display and entry in mm or inches | ● |
| 24 | | | Display of the handwheel path dur- ing machining with handwheel superimpositioning | ● |
| 25 | | | Paraxial positioning blocks | ● |
| 26 | | Tool compensation | In the working plane and tool length | ● |
| 27 | | | Radius-compensated contour lookahead for up to 99 blocks (M120) | ● |
| 28 | | | Three-dimensional tool radius compensation | ● |
| 29 | | Tool table | Central storage of tool data | ● |
| 30 | | | Multiple tool tables with any number of tools | ● |
| 31 | | Cutting-data table | Calculation of spindle speed and feed rate based on stored tables | ● |
| 32 | | Constant contouring speed | relative to the path of the tool center or to the tool's cutting edge | ● |
| 33 | | Parallel operation | Creation of a program while another program is being run | ● |
| 34 | | Tilting the working plane with Cycle 19 | | ○ |
| 35 | | Tilting the working plane with the PLANE function | | ○ |
| 36 | | Manual traverse in tool-axis direction | after interruption of program run | ● |
| 37 | | Function TCPM | Retaining the position of tool tip when positioning tilting axes | ● |

● Standard ○ Optional X Not applicable

| No. | Division | Item | Spec. | iTNC 530 | | | |
|-----|----------------|---|---|---|---|---|--|
| | | | | Mynx 5400, Mynx 5400/50 Mynx 6500, Mynx 6500/50 Mynx 7500, Mynx 7500/50 | | | |
| 38 | User functions | Rotary table machining | Programming of cylindrical contours as if in two axes | ○ | | | |
| 39 | | | Feed rate in distance per minute | ○ | | | |
| 40 | | | FK free contour programming | for workpieces not dimensioned for NC programming | ● | | |
| 41 | | | Program jumps | Subprograms and program section repeats | ● | | |
| 42 | | | | Calling any program as a subprogram | ● | | |
| 43 | | | Program verification graphics | Plan view, view in three planes, 3-D view | ● | | |
| 44 | | | Programming graphics | 3-D line graphics | ● | | |
| 45 | | | Program-run graphics | (plan view, view in three planes, 3-D view) | ● | | |
| 46 | | | Datum tables | Saving of workpiece-specific datums | ● | | |
| 47 | | | Preset table | Saving of reference points | ● | | |
| 48 | | | Freely definable table | after interruption of program run | ● | | |
| 49 | | | Returning to the contour | With mid-program startup | ● | | |
| 50 | | | | After program interruption (with the GOTO key) | ● | | |
| 51 | | | Autostart | | ● | | |
| 52 | | | Actual position capture | | ● | | |
| 53 | | | Enhanced file management | | ● | | |
| 54 | | | Context-sensitive help for error messages | | ● | | |
| 55 | | | TNCguide | Browser-based, context-sensitive helpsystem | ● | | |
| 56 | | | Calculator | | ● | | |
| 57 | | | Entry of text and special characters | | ● | | |
| 58 | | | Comment blocks in NC program | | ● | | |
| 59 | | | "Save As" function | | ● | | |
| 60 | | | Structure blocks in NC program | | ● | | |
| 61 | | | Entry of feed rates | FU (feed per revolution) | ● | | |
| 62 | | | | FZ (tooth feed per revolution) | ● | | |
| 63 | | | | FT (time in seconds for path) | ● | | |
| 64 | | | | FMAXT (only for rapid traverse pot: time in seconds for path) | ● | | |
| 65 | | | Dynamic collision monitoring (DCM) | | ○ | | |
| 66 | | | Fixture monitoring | | ○ | | |
| 67 | | | Processing DXF data | | ○ | | |
| 68 | | | Global program settings (GS) | | ○ | | |
| 69 | | | Adaptive feed control (AFC) | | ○ | | |
| 70 | | | KinematicsOpt | Automatic measurement and optimization of machine kinematics | ○ | | |
| 71 | | | KinematicsComp | Three-dimensional compensation | ○ | | |
| 72 | | | 3D-ToolComp | Dynamic 3-D tool radius compensation | ○ | | |
| 73 | | Fixed cycles | Working plane | Cycle 19 | ○ | | |
| 74 | | | | Cylinder surface | Cycle 27 | ○ | |
| 75 | | | | Cylinder surface slot milling | Cycle 28 | ○ | |
| 76 | | | | Cylinder surface ridge milling | Cycle 29 | ○ | |
| 77 | | Cycles for automatic workpiece | Calibrate TS | | ● | | |
| 78 | | inspection | Calibrate TS length | | ● | | |
| 79 | | | | Measure axis shift | ● | | |
| 80 | | | | Save kinematics | ○ | | |
| 81 | | | | Measure kinematics | ○ | | |
| 82 | | | | Preset compensation | ○ | | |
| 83 | | Options | Software option 1 | Rotary table machining | Programming of cylindrical contours as if in two axes | ○ | |
| | | | | | Feed rate in mm/min | | |
| | | | | Coordinate transformation | Tilting the working plane, PLANE function | | |
| | | | Interpolation | Circular in 3 axes with tilted working plane | | | |
| 84 | | | Software option 2 | 3-D machining | 3-D tool compensation through surface normal vectors | ○ | |
| | | | | | Tool center point management (TCPM) | | |
| | | Keeping the tool normal to the contour | | | | | |
| | | Tool radius compensation normal to the tool direction | | | | | |
| | | Interpolation | Line in 5 axes (subject to export permit) | | | | |
| | | | Spline: execution of splines (3rd degree polynomial) | | | | |

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**SIEMENS
S828D**

| No. | Division | Item | Spec. | S828D | |
|-----|---|--|--|--|---|
| | | | | Mynx 5400/50 Mynx 6500/50 Mynx 7500/50 | |
| 1 | | Controlled axes | 3 axes | X, Y, Z | |
| 2 | | | 4 axes | ○ | |
| 3 | | | 5 axes | ○ | |
| 4 | Axex control | Simultaneously controlled axes | Positioning(G00)/Linear interpolation(G01) : 3 axes Circular interpolation(G02, G03) : 2 axes | ● | |
| 5 | | | Positioning(G00)/Linear interpolation(G01) : 4 axes Circular interpolation(G02, G03) : 2 axes | ○ | |
| 6 | | Least command increment | 0.001mm (0.0001 inch) | ● | |
| 7 | | Least input increment | 0.001mm (0.0001 inch) | ● | |
| 8 | | Maximum commandable value | ±99999.999mm (±3937 inch) | ● | |
| 9 | | Reference point return | | ● | |
| 10 | Interpolation & Feed functions | Inverse time feedrate | G93 | ● | |
| 11 | | Spline interpolation (A, B and C splines) | | ○ | |
| 12 | Spindle Functions | Retraction for rigid tapping | | ● | |
| 13 | | Rigid tapping | | ● | |
| 14 | Tool Functions | Tool radius compensations in plane | With approach and retract strategies | ● | |
| 15 | | | With transition circle/ellipse on outer edges | ● | |
| 16 | | Number of tools/cutting edges in tool list | 256/512 | ● | |
| 17 | | Tool length compensation | | ● | |
| 18 | | Tool offset selection via T and D numbers | | ● | |
| 19 | | Replacement tools for tool management | | ○ | |
| 20 | | Monitoring of tool life and workpiece count | | ● | |
| 21 | Programming & Editing functions | Main program call from main program and subroutine | | ● | |
| 22 | | Subroutine levels and interrupt routines, max. | | 11/4 | |
| 23 | | Number of subroutine passes ≤ 9999 | | ● | |
| 24 | | Number of levels for skip blocks 1 | | ● | |
| 25 | | Number of levels for skip blocks 8 | | ○ | |
| 26 | | Polar coordinates | | ● | |
| 27 | | Auxiliary function output | Via M word, max. programmable value range: INT 231-1 | | ● |
| 28 | | | Via H word, max. range: REAL ± 3.4028 ex 38/ INT -231 ... 231-1 | | ● |
| 29 | | High-level CNC language with | User variables, configurable | | ● |
| 30 | | | Read/write system variables | | ● |
| 31 | | | Indirect programming | | ● |
| 32 | | | Program jumps and branches | | ● |
| 33 | | | Arithmetic and trigonometric functions | | ● |
| 34 | | | Compare operations and logic combinations | | ● |
| 35 | | | Macro techniques | | ● |
| 36 | | | Control structures IF-ELSE-ENDIF | | ● |
| 37 | Control structures WHILE, FOR, REPEAT, LOOP | | | ● | |
| 38 | STRING functions | | | ● | |

| No. | Division | Item | Spec. | S828D | |
|-----|---|---|---|---|---|
| | | | | Mynx 5400/50 Mynx 6500/50 Mynx 7500/50 | |
| 39 | Programming & Editing functions | Program functions | Dynamic preprocessing memory FIFO | ● | |
| 40 | | | Look ahead number of blocks | 150 | |
| 41 | | | Frame concept | ● | |
| 42 | | | Inclined-surface machining with swivel cycle | ● | |
| 43 | | Online ISO dialect interpreter | | ● | |
| 44 | | Program/workpiece management | Parts programs on NCU, max. number | 300 | |
| 45 | | | Workpieces on NCU, max. number | 100 | |
| 46 | | | On additional plug-in CF card | ● | |
| 47 | | | On USB storage medium (e.g. disk drive, USB stick) | ● | |
| 48 | | | On network drive | ○ | |
| 49 | | Basic frames, max. number | | 1 | |
| 50 | | Settable offsets, max. number | | 100 | |
| 51 | | Program editor | Programming support for cycles program(Program Guide) | ● | |
| 52 | | | CNC editor with editing functions: Marking, copying, deleting | ● | |
| 53 | | | Programming graphics/free contour input (contour calculator) | ● | |
| 54 | | Technology cycles for drilling/milling | | ● | |
| 55 | | Pocket milling free contour and islands stock removal cycle | | ● | |
| 56 | | Residual material detection | | ● | |
| 57 | | Access protection for cycles | | ● | |
| 58 | | Programming support can be extended, e.g. customer cycles | | ● | |
| 59 | | 2D simulation | | ● | |
| 60 | | 3D simulation, finished part | | ● | |
| 61 | | Simultaneous recording | | ● | |
| 62 | | Other functions (Operation, setting & Display, etc) | JOG | Handwheel selection | ● |
| 63 | | | | Switchover: inch/metric | ● |
| 64 | | | Automatic | Execution from USB or CF card interface on operator panel front | ● |
| 65 | | | | Execution from network drive | ○ |
| 66 | | | | DRF offset | ○ |
| 67 | | | | Block search with/without calculation | ● |
| 68 | | | Preset | Set actual value | ● |
| 69 | | | 10.4" color display | | ● |
| 70 | 15.0" color display | | | ○ | |
| 71 | Plain text display of user variables | | | ● | |
| 72 | Operating software languages | | Ch_S,Ch_T, En, Fr, Gr, It, Kr, Pt, Sp | ● | |
| 73 | | | Additional languages, use of language extensions | ● | |
| 74 | Working area limitation | | | ● | |
| 75 | Limit switch monitoring | | | ● | |
| 76 | Software and hardware limit switches | | | ● | |
| 77 | Remote Control System (RCS) remote diagnostics | | RCS Host remote diagnostics function | ○ | |
| 78 | | | RCS Commander (viewer function) | ● | |
| 79 | Integrated service planner for the monitoring of service intervals | | | ● | |
| 80 | Automatic measuring cycles | | | ○ | |
| 81 | Easy Extend | | | ● | |
| 82 | TRANSMIT/cylinder surface transformation | | | ○ | |
| 83 | Contour handwheel | | | ○ | |
| 84 | Integrate screens in SINUMERIK Operate with SINUMERIK Integrate Run MyScreens | | | ○ | |
| 85 | Cross-mode actions (ASUPs and synchronized actions in all operating modes) | | ○ | | |

Product Preview

Basic information

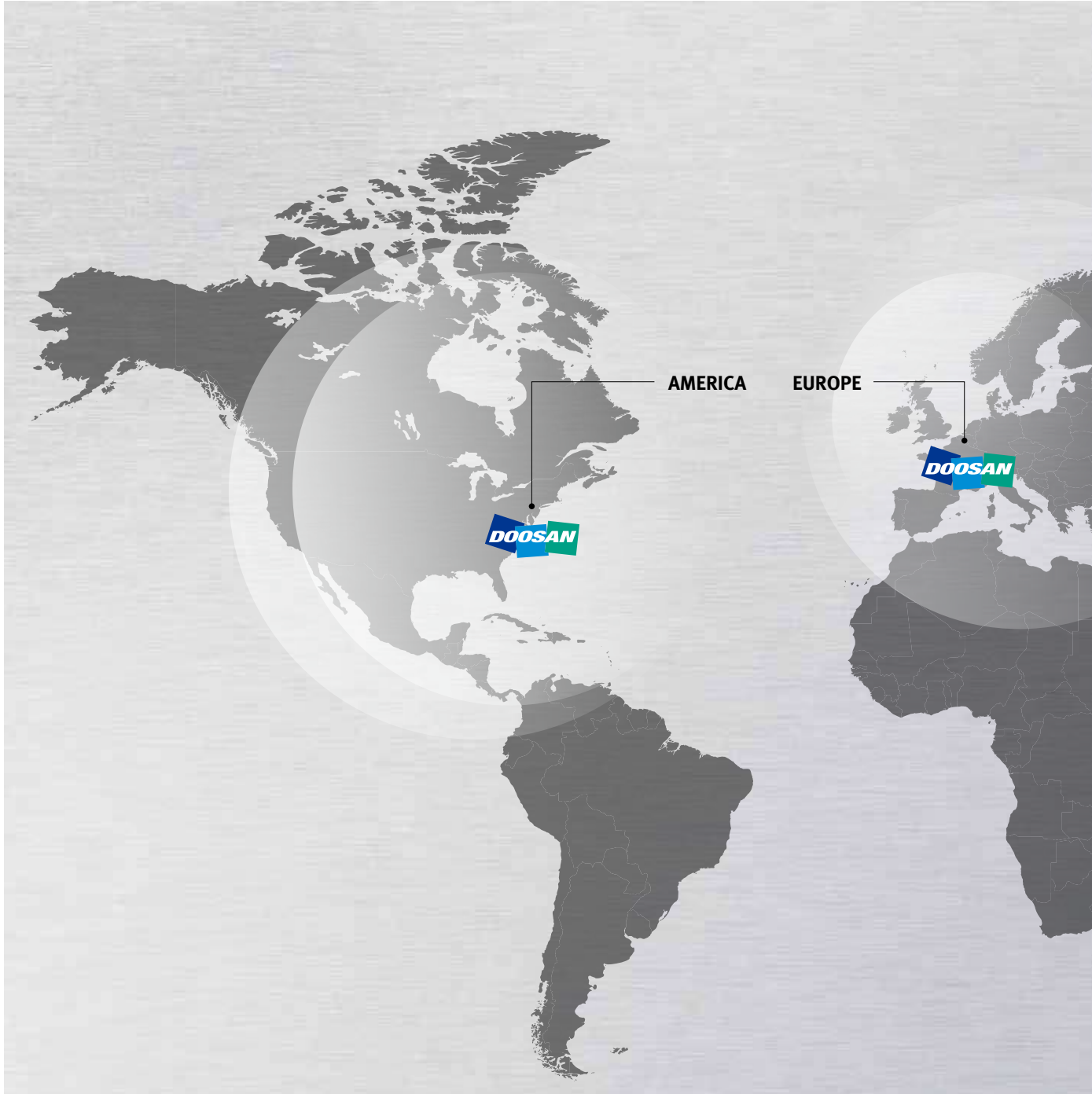
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Responding to Customers Anytime, Anywhere



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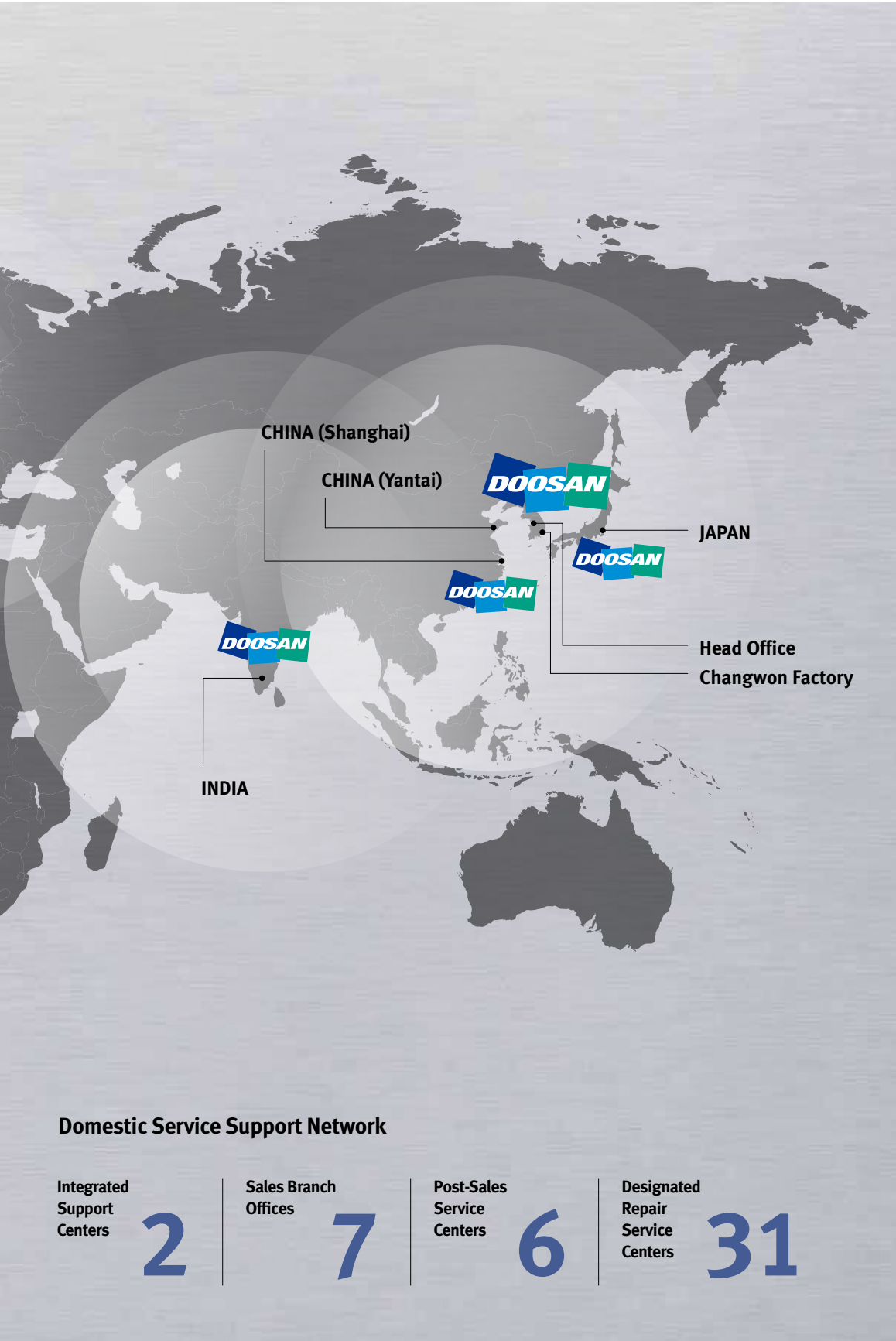
Factories

3

Technical Center: Sales Support, Service Support, Parts Support

Doosan Machine Tools' Global Network, Responding to Customer's Needs nearby, Anytime, Anywhere

Doosan machine tools provides a system-based professional support service before and after the machine tool sale by responding quickly and efficiently to customers' demands. By supplying spare parts, product training, field service and technical support, we can provide top class support to our customers around the world.



Customer Support Service

We help customers to achieve success by providing a variety of professional services from pre-sales consultancy to post-sales support.

Supplying Parts



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

Field Services



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

Technical Support



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

Training



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

Mynx series



| Description | | Unit | Mynx 5400 | Mynx 5400/50 | Mynx 6500 | Mynx 6500/50 | Mynx 7500 | Mynx 7500/50 | Mynx 9500 |
|-----------------------------|--------------|--|--|--|--|--|--|--|---------------------------|
| Max. spindle speed | Belt | r/min | 8000 {12000} | 6000 {6000} {8000} | 8000 {12000} | 6000 {6000} {8000} | 8000 {8000} {12000} | 6000 {6000} {8000} | - |
| | Gear | | - | {6000} | - | {6000} | - | {6000} | 6000 |
| | Built in | | - | - | - | - | - | - | {10000} |
| Max. spindle power | Belt | kW (Hp) | 15 (20.1)/ 11 (14.8) {15.6 (20.9)/ 15 (20.1)} | 15 (20.1)/ 11 (14.8) {18.5 (24.8)/ 15 (20.1)/ 11 (14.8)} | 15 (20.1)/ 11 (14.8) {15.6 (20.9)/ 15 (20.1)} | 15 (20.1)/ 11 (14.8) {18.5 (24.8)/ 15 (20.1)/ 11 (14.8)} | 22 (29.5)/ 15 (20.1) {15 (20.1)/ 11 (14.8)/ 22 (29.5)} | 18.5 (24.8)/ 15 (20.1) {22 (29.5)/ 18.5 (24.8)/ 15 (20.1)/ 11 (14.8)} | - |
| | Gear | | - | {30 (40.2)/ 18.5 (24.8)} | - | {30 (40.2)/ 18.5 (24.8)} | - | {30 (40.2)/ 18.5 (24.8)} | 30 (40.2)/ 18.5 (24.8) |
| | Built in | | - | - | - | - | - | - | {30/25 (40.2/33.5)} |
| Max. spindle torque | Belt | N·m (ft-lbs) | 191.1 (140.9) {165.7 (122.2)} | 286.4 (211.2) {306.9 (226.3)/ 286.4 (211.2)} | 191.1 (140.9) {165.7 (122.2)} | 286.4 (211.2) {306.9 (226.3)/ 286.4 (211.2)} | 140.1 (103.3) {191.1 (140.9)/ 165.7 (122.2)} | 306.9 (226.3) {365.5 (269.5)/ 286.4 (211.2)} | - |
| | Gear | | - | {617.4 (455.6)} | - | {617.4 (455.6)} | - | {617.4 (455.6)} | 617.4 (455.6) |
| | Built in | | - | - | - | - | - | - | {420 (310.0)} |
| Taper | - | ISO #40 | ISO #50 | ISO #40 | ISO #50 | ISO #40 | ISO #50 | ISO #50 | |
| Travel distance (X / Y / Z) | mm (inch) | 1020 / 540 / 530 (40.2 / 21.3 / 20.9) | | 1270 / 670 / 625 (50.0 / 26.4 / 24.6) | | 1525 / 762 / 625 (60.0 / 30.0 / 24.6) | | 2500 / 950 / 850 (98.4 / 37.4 / 33.5) | |
| Tool storage capa. | ea | 30 {40} | 24 | 30 {40} | 24 {30} | 30 {40} | 24 {40} | 30 {40} | |
| Table size | mm (inch) | 1200 x 540 (47.2 x 21.3) | | 1400 x 670 (55.1 x 26.4) | | 1600 x 750 (63.0 x 29.5) | | 2500 x 950 (98.4 x 37.4) | |
| NC system | - | DOOSAN FANUC i { HEIDENHAIN iTNC 530 / SIEMENS 828D} | | | | | | | |

{ } Option



Doosan Machine Tools

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