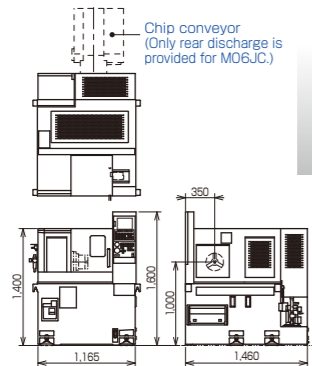
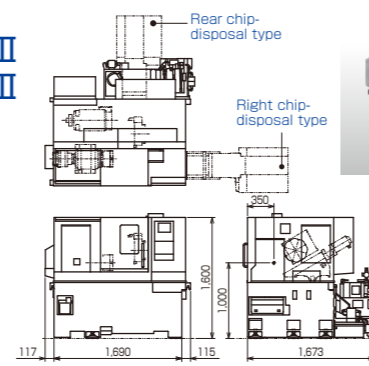


Layout

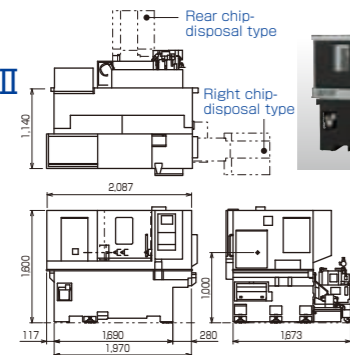
M06JC



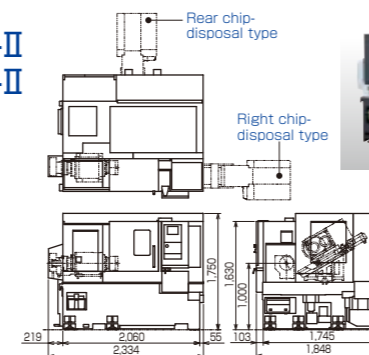
M06J-II
M08J-II



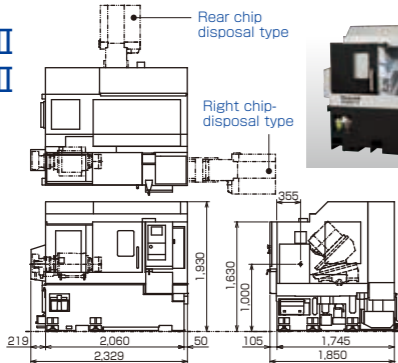
M08JL5-II



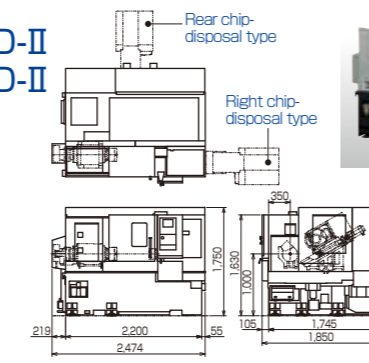
M06D-II
M08D-II



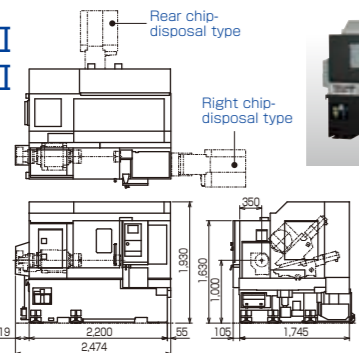
M06DY-II
M08DY-II



M06SD-II
M08SD-II



M06SY-II
M08SY-II



Safety Instructions for Coolant Selection

Use a water-soluble coolant to the cutting oil, do not use oil-based coolant.

If you use an oil-based coolant:

- There is a risk of fire which hot cutting chips or cutting-heat may ignite coolant mist.
- The rise of coolant temperature of oil-based coolant is larger than the water-soluble coolant, and it may impact to the thermal displacement of the machine significantly.
- If oil-base coolant has to be used unavoidably, an appropriate device for safety such as automatic fire extinguisher is required.

When you plan to use an oil-based coolant, please contact Tsugami or authorized distributor at the time of inquiry.

Export permission by the Japanese Government may be required for exporting our products in accordance with the Foreign Exchange and Foreign Trade Law. Please contact our sales office before exporting our products.

The specifications of this catalogue are subject to change without prior notice.

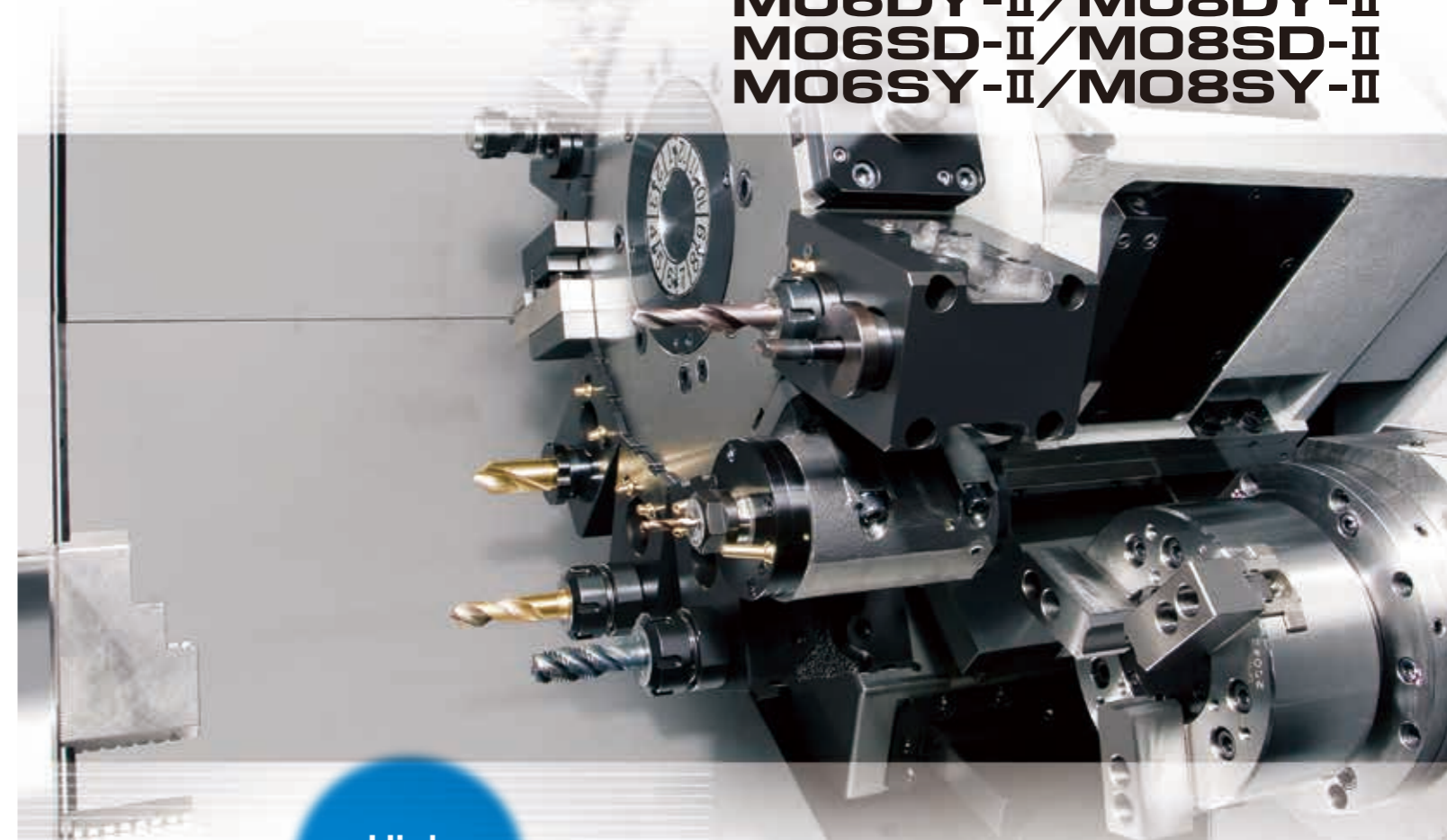
TSUGAMI CORPORATION

12-20, TOMIZAWA-CHO, NIHONBASHI,
CHUO-KU, TOKYO 103-0006, JAPAN
Phone : 03-3808-1172
Facsimile : 03-3808-1175

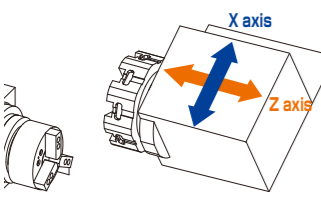
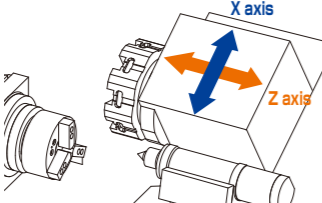
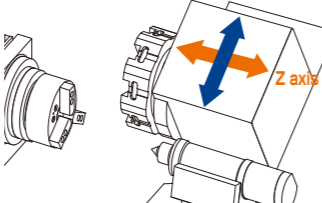
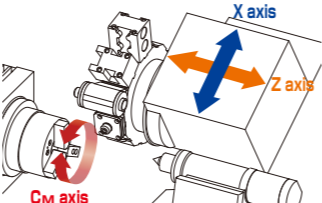
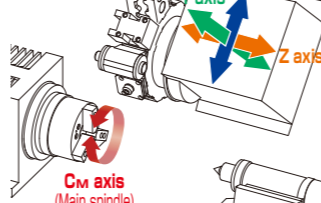
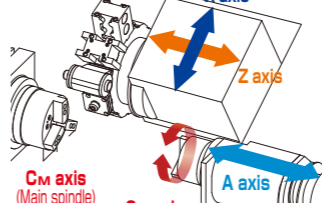
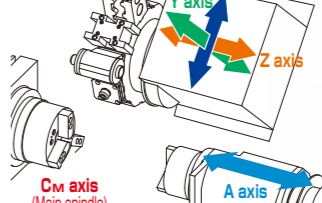
TSUGAMI

CNC Lathe

M06JC
M06J-II / M08J-II
M08JL5-II
M06D-II / M08D-II
M06DY-II / M08DY-II
M06SD-II / M08SD-II
M06SY-II / M08SY-II



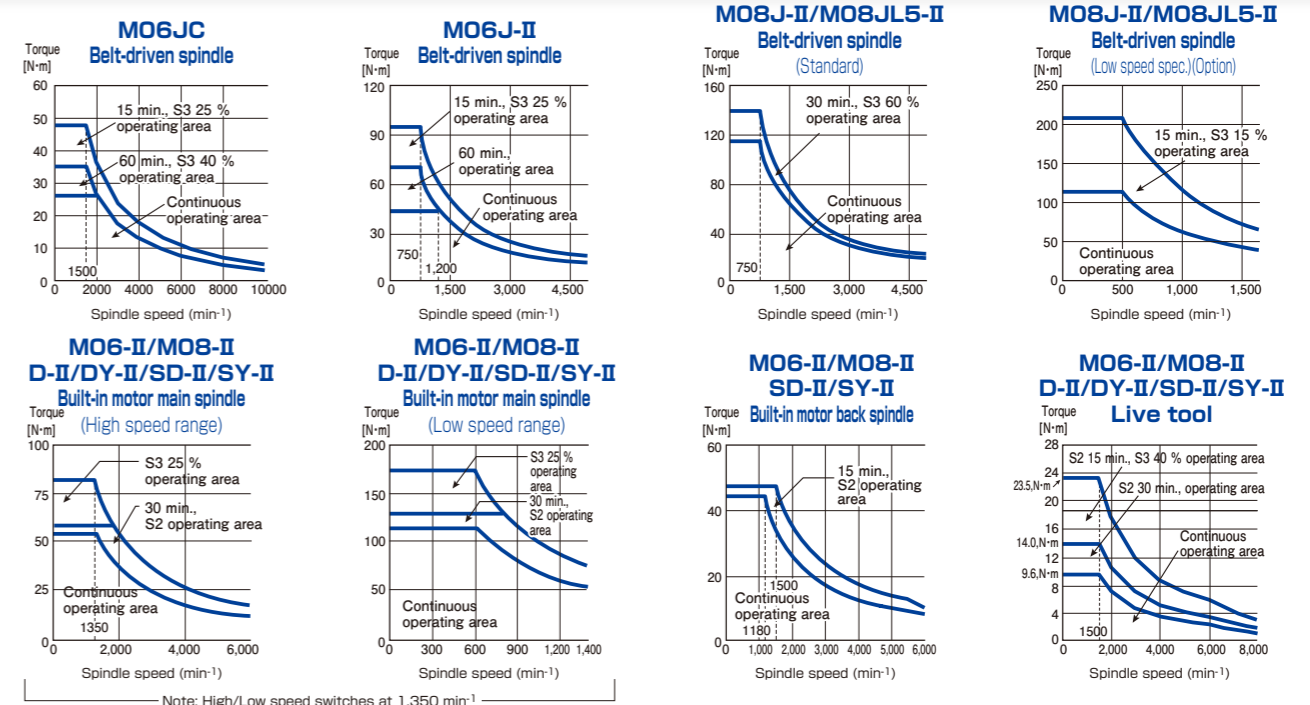
Best selection to suit for your applications

| | | | | | | |
|--|---|---|---|---|---|---|
| <p>M06JC</p> <p>Space saving basic machine</p>  | <p>M06J-II M08J-II</p> <p>Basic machine</p>  | <p>M08JL5-II</p> <p>Long stroke basic machine</p>  | <p>M06D-II M08D-II</p> <p>Turning center with Powerful milling</p>  | <p>M06DY-II M08DY-II</p> <p>Turning center with Y-axis</p>  | <p>M06SD-II M08SD-II</p> <p>Turning center with back spindle</p>  | <p>M06SY-II M08SY-II</p> <p>Turning center with back spindle and Y-axis</p>  |
| <p>M06JC (6 inch chuck)</p> <p>Max. machining dia.: φ220 mm φ42 (Barstock) mm (Option)</p> <p>Max. machining length: 190 mm</p> | <p>M06J-II (6 inch chuck)</p> <p>Max. machining dia.: φ260/φ51 (Barstock) mm</p> <p>Max. machining length: 290 mm</p> <p>M08J-II (8 inch chuck)</p> <p>Max. machining dia.: φ280/φ65 (Barstock) mm</p> <p>Max. machining length: 290 mm</p> | <p>M08JL5-II (8 inch chuck)</p> <p>Max. machining dia.: φ280/φ65 (Barstock) mm</p> <p>Max. machining length: 500 mm</p> | <p>M06D-II (6 inch chuck)</p> <p>Max. machining dia.: φ260/φ51 (Barstock) mm</p> <p>Max. machining length: 380 mm</p> <p>M08D-II (8 inch chuck)</p> <p>Max. machining dia.: φ280/φ65 (Barstock) mm</p> <p>Max. machining length: 380 mm</p> | <p>M06DY-II (6 inch chuck)</p> <p>Max. machining dia.: φ260/φ51 (Barstock) mm</p> <p>Max. machining length: 380 mm</p> <p>M08DY-II (8 inch chuck)</p> <p>Max. machining dia.: φ280/φ65 (Barstock) mm</p> <p>Max. machining length: 380 mm</p> | <p>M06SD-II (6 inch chuck)</p> <p>Max. machining dia.: φ260/φ51 (Barstock) mm</p> <p>Max. machining length: 380 mm</p> <p>M08SD-II (8 inch chuck)</p> <p>Max. machining dia.: φ280/φ65 (Barstock) mm</p> <p>Max. machining length: 380 mm</p> | <p>M06SY-II (6 inch chuck)</p> <p>Max. machining dia.: φ260/φ51 (Barstock) mm</p> <p>Max. machining length: 380 mm</p> <p>M08SY-II (8 inch chuck)</p> <p>Max. machining dia.: φ280/φ65 (Barstock) mm</p> <p>Max. machining length: 380 mm</p> |
| <p>Note: Shown figure includes options.</p> | | | | | | |



Machining capability to achieve high productivity (Material: JIS:S45C)

| | Standard type | | | | |
|---|------------------------|---|--|--|--|
| | Turning (Cutting area) | | Drilling | | |
| M06JC | 0.9 mm ² | Machining dia.: φ50 mm Cutting depth: 3.0 mm Surface speed: 200 m/min Feed: 0.3 mm/rev | φ20 mm | Surface speed: 200 m/min Feed: 0.2 mm/rev | |
| | Standard type | | Low speed spec. (Option) | | |
| | Turning (Cutting area) | | Drilling | | |
| M06J-II | 1.5 mm ² | Machining dia.: φ50 mm Cutting depth: 3.0 mm Surface speed: 150 m/min Feed: 0.5 mm/rev | φ20 mm | Surface speed: 150 m/min Feed: 0.2 mm/rev | |
| M08J-II M08JL5-II | 1.6 mm ² | Machining dia.: φ70 mm Cutting depth: 3.2 mm Surface speed: 150 m/min Feed: 0.5 mm/rev | φ30 mm | Surface speed: 150 m/min Feed: 0.2 mm/rev | |
| | Main spindle | | Back spindle (SD-II / SY-II) | | |
| | Turning (Cutting area) | | Drilling | | |
| D-II/DY-II SD-II/SY-II | 1.6 mm ² | Machining dia.: φ70 mm Cutting depth: 4.0 mm Surface speed: 150 m/min Feed: 0.4 mm/rev | φ30 mm | Surface speed: 150 m/min Feed: 0.2 mm/rev | |
| | | Turning (Cutting area) | | Drilling | |
| | | 1.0 mm ² | Machining dia.: φ55 mm Cutting depth: 4.0 mm Surface speed: 150 m/min Feed: 0.25 mm/rev | φ20 mm | Surface speed: 150 m/min Feed: 0.2 mm/rev |

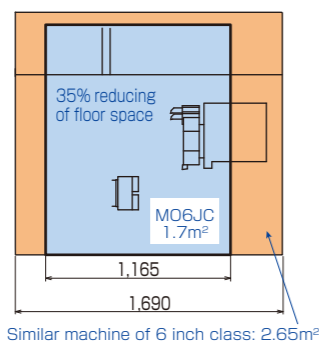


JC Type

Space saving basic machine for turning, drilling and boring

Space saving

- Compact machine width 1,165 mm
Improve productivity by arranging plural machines adjacently
- Height 1400 mm
Easy supervision of factory by the low height machine



Standard machine



Machine with NC loader

Tool post for turning

- 20-mm square tools can be mounted on the turret directly, and it enables high efficiency machining.



8-station turret

| Item | Specifications |
|------------------------|----------------|
| Total number of tools | 8 |
| Square tool shank size | □20 mm |
| Boring bar shank size | φ25 mm |

High rigidity

- High-rigidity box slide is equipped for X axis to enable heavy-duty cutting.



Machining capability

- Enables turning, drilling, and boring
- Realizes heavy-duty cutting by rigid basic structure
- Corresponds to the compact automation system

High-accuracy machining

- Realizes high-accuracy machining by the thermal displacement compensation

Simple operation

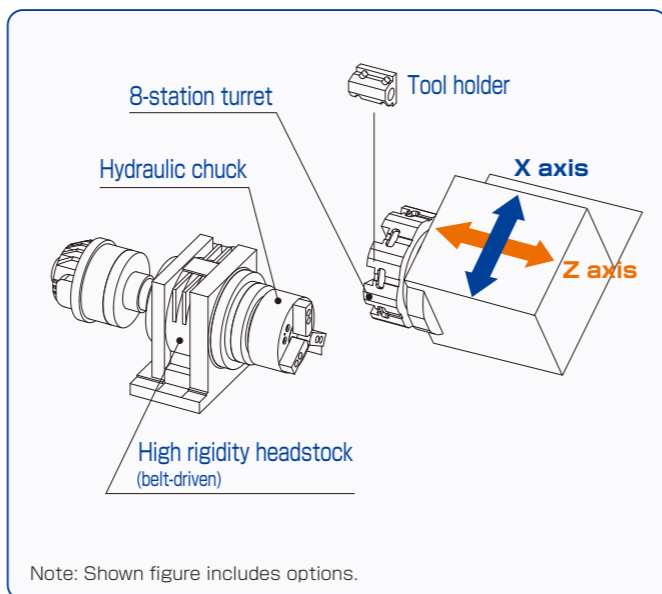
- Enables to create program simply by the optional interactive programming software on-board (FANUC: TURN MATE i).
- Safety set up by interference prevention function at debug mode
- Minimizes the damage to the machine with the retraction function by an abnormal load detection

Overwhelming cost performance

- Overwhelming cost performance to enable big profit by small investment

LED illumination light (Standard)

- Environmentally-friendly LED internal illumination light is provided as standard.



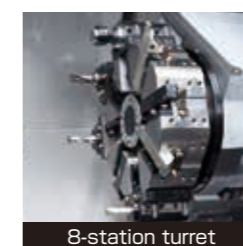
Note: Shown figure includes options.

J-II Type

Basic machine for turning, drilling, and boring

Machining capability

- Enables turning, drilling, and boring
- Realizes heavy-duty cutting by rigid basic structure
- Realizes high productivity with excellent machining capability and stable machining accuracy
- Pullout type coolant tank facilitates chip cleaning, and additional isolated tank is available as option.
- Standard coolant tank capacity: 145L



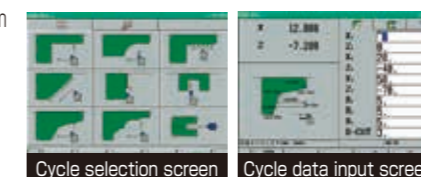
8-station turret

High-accuracy machining

- Realizes high-accuracy machining by the thermal displacement compensation
- Optional built-in motor spindle is selectable.

Simple operation

- Enables to create program simply by the optional interactive programming software on-board (FANUC: TURN MATE i).
- Safety set up by interference prevention function at debug mode
- Minimizes the damage to the machine with the retraction function by an abnormal load detection



Cycle selection screen

Cycle data input screen

Tool post for turning

- 25 mm square tools can be mounted on the turret directly, and it enables high efficiency machining.

| Item | Specifications |
|------------------------|----------------|
| Total number of tools | 8 |
| Square tool shank size | □25 mm |
| Boring bar shank size | φ40/32 mm |

High rigidity

- High-rigidity box slide is equipped for X axis to enable heavy-duty cutting.

Overwhelming cost performance

- Overwhelming cost performance to enable big profit by small investment

Correspond to a long workpiece

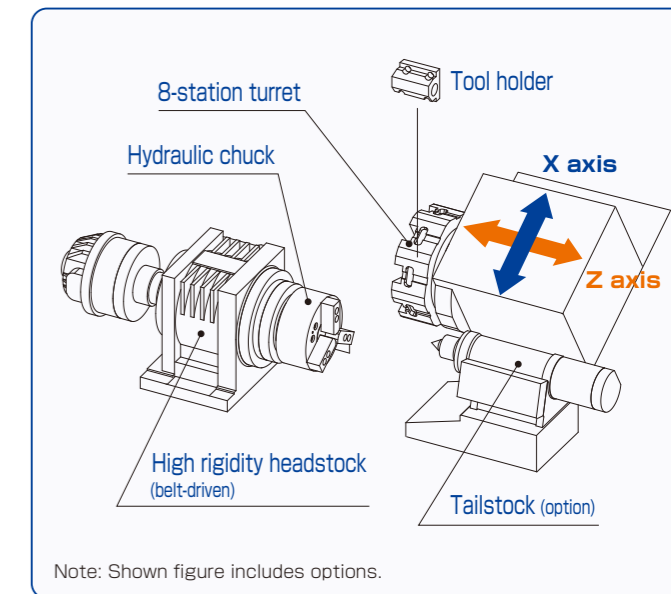
- The tailstock (option) is prepared for a long workpiece or a workpiece with less clamping length.



| Item | Specifications |
|------------------|--------------------------|
| ID taper | MT No.4 |
| Tailstock stroke | 100 mm (Hydraulic drive) |
| Positioning | Manual (240 mm) |

LED illumination light (Standard)

- Environmentally-friendly LED internal illumination light is provided as standard.



Note: Shown figure includes options.

JL-II Type

Long stroke basic machine for turning, drilling and boring

Machining capability

- Max. machining length: 500 mm
- Enables turning, drilling, and boring
- Realizes heavy-duty cutting by rigid basic structure
- Corresponds to a long parts with rigid tail stock unit (option)
- Pullout type coolant tank facilitates chip cleaning, and additional isolated tank is available as option.
- Standard coolant tank capacity: 145L



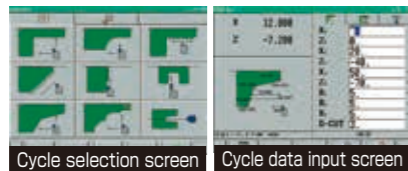
8-station turret

High-accuracy machining

- Realizes high-accuracy machining by the thermal displacement compensation
- Optional built-in motor spindle is selectable.

Simple operation

- Enables to create program simply by the optional interactive programming software on-board (FANUC: TURN MATE i).
- Safety set up by interference prevention function at debug mode
- Minimizes the damage to the machine with the retraction function by an abnormal load detection



Cycle selection screen

Cycle data input screen

Tool post for turning

- 25 mm square tools can be mounted on the turret directly, and it enables high efficiency machining.

| Item | Specifications |
|------------------------|----------------|
| Total number of tools | 8 |
| Square tool shank size | □25 mm |
| Boring bar shank size | φ40/32 mm |

High rigidity

- High-rigidity box slide is equipped for X axis to enable heavy-duty cutting.

Overwhelming cost performance

- Overwhelming cost performance to enable big profit by small investment

Correspond to a long workpiece

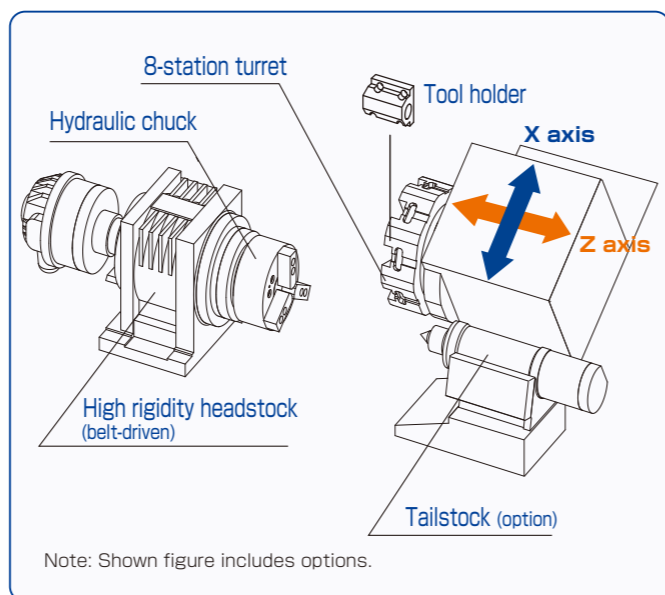
- The tailstock (option) is prepared for a long workpiece or a workpiece with less clamping length.



| Item | Specifications |
|------------------|--------------------------|
| ID taper | MT No.5 |
| Tailstock stroke | 100 mm (Hydraulic drive) |
| Positioning | Manual (345 mm) |

LED illumination light (Standard)

- Environmentally-friendly LED internal illumination light is provided as standard.



D-II Type

Turning center with powerful milling

Machining capability

- Enables complex machining such as turning, drilling, boring, cross-drilling and milling.
- Built-in motor is equipped on the main spindle.
- Realizes heavy-duty machining by rigid basic structure
- Powerful milling capability
- Pullout type coolant tank facilitates chip cleaning, and additional isolated tank is available as option.
- Standard coolant tank capacity: 160L



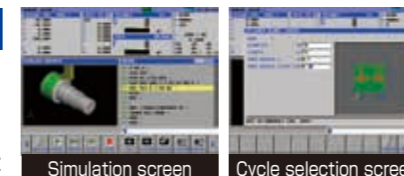
12-station turret

High accuracy machining

- Realizes high-accuracy machining by the thermal displacement compensation
- High accuracy machining with less vibration by using built-in motor on main spindle.

Simple operation

- Enables to create program simply by the optional interactive programming software on-board (FANUC: MANUAL GUIDE i).
- Machining condition is determined automatically.
- Safety set up by interference prevention function at debug mode
- Minimizes the damage to the machine with the retraction function by an abnormal load detection



Simulation screen

Cycle selection screen

Live tools can be mounted on all positions.

- Live tools (option) can be mounted in all the positions of the 12-station turret. Processing such as cross drilling or front off-center drilling becomes possible.

| Item | Specifications | |
|----------------------------|-------------------------|-----|
| Total number of live tools | Max. 12 | |
| Max. spindle speed | 5,000 min ⁻¹ | |
| Applicable collet | ER25-φD | |
| Gripping size | Drill | φ16 |
| | End mill | |



Overwhelming cost performance

- Overwhelming cost performance to enable big profit by small investment even turning center

Correspond to a long workpiece

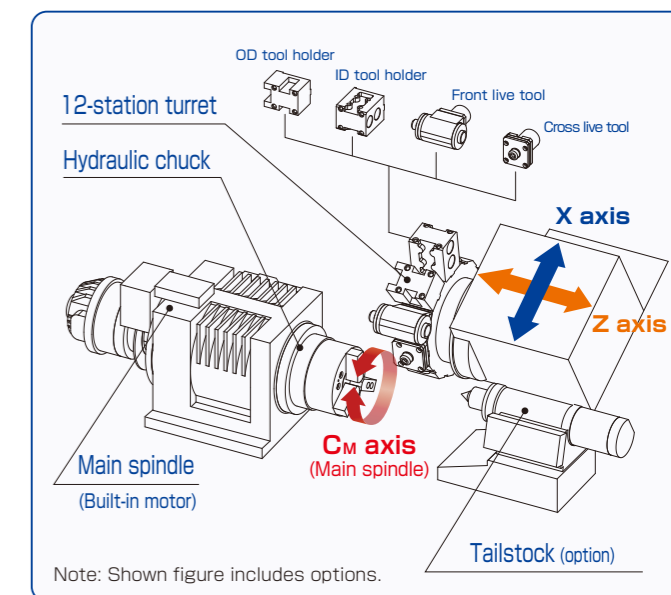
- The tailstock (option) is prepared for a long workpiece or a workpiece with less clamping length.



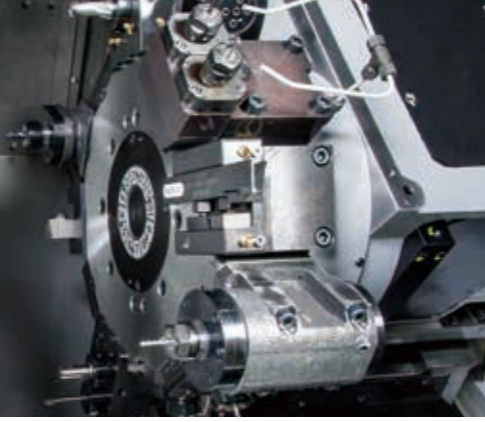
| Item | Specifications |
|------------------|--------------------------|
| ID taper | MT No.4 |
| Tailstock stroke | 100 mm (Hydraulic drive) |
| Positioning | Manual (240 mm) |

LED illumination light (Standard)

- Environmentally-friendly LED internal illumination light is provided as standard.



DY-II Type



Turning center with Y-axis

Machining capability

- Enables machining of complicated workpiece by Y-axis control.
- Enables complex machining such as turning, drilling, boring, cross-drilling and milling.
- Built-in motor is equipped on the main spindle.
- Realizes heavy-duty machining by rigid basic structure
- Powerful milling capability
- Pullout type coolant tank facilitates chip cleaning, and additional isolated tank is available as option.
- Standard coolant tank capacity: 160L

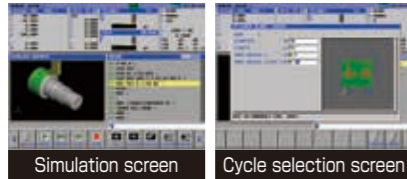


Y-axis machining

- Enables diverse machining by ±50 mm long stroke by Y-axis control.

Simple operation

- Enables to create program simply by the optional interactive programming software on-board (FANUC: MANUAL GUIDE i).
- Machining condition is determined automatically.
- Safety set up by interference prevention function at debug mode
- Minimizes the damage to the machine with the retraction function by an abnormal load detection



Live tools can be mounted on all positions.

- Live tools (option) can be mounted in all the positions of the 12-station turret. Processing such as cross drilling or front off-center drilling becomes possible.

| Item | Specifications | |
|----------------------------|-------------------------|-----|
| Total number of live tools | Max. 12 | |
| Max. spindle speed | 5,000 min ⁻¹ | |
| Applicable collet | ER25-φD | |
| Gripping size | Drill | φ16 |
| | End mill | |



High accuracy machining

- Realizes high-accuracy machining by the thermal displacement compensation
- High accuracy machining with less vibration by using built-in motor on main spindle.

High rigidity

- High-rigidity box slide is equipped for X and Y axis to enable heavy-duty machining.

Correspond to a long workpiece

- The tailstock (option) is prepared for a long workpiece or a workpiece with less clamping length.

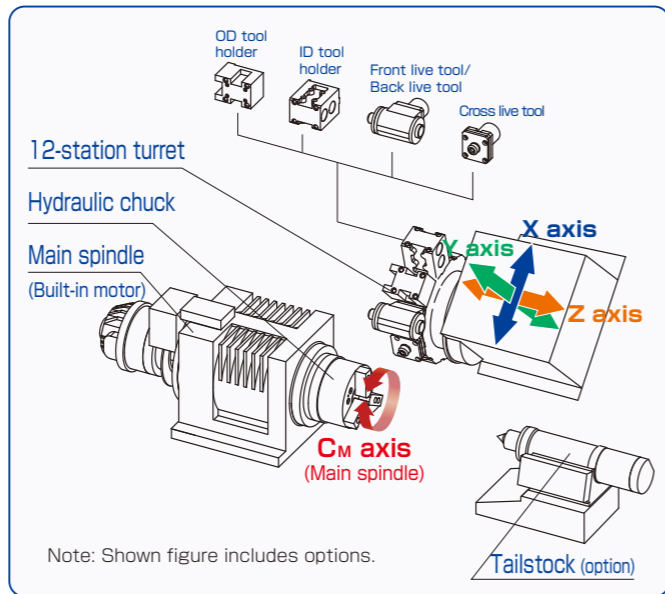
| Item | Specifications |
|------------------|--------------------------|
| ID taper | MT No.4 |
| Tailstock stroke | 100 mm (Hydraulic drive) |
| Positioning | Manual (240 mm) |

Overwhelming cost performance

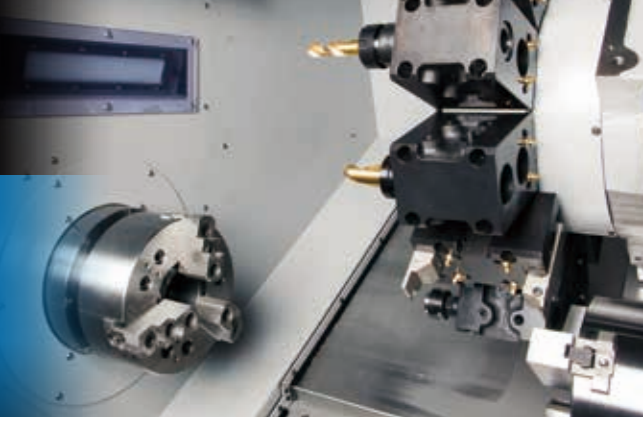
- Overwhelming cost performance to enable big profit by small investment even turning center with back spindle and Y axis

LED illumination light (Standard)

- Environmentally-friendly LED internal illumination light is provided as standard.



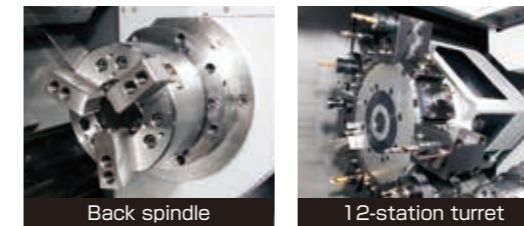
SD-II Type



Turning center with back spindle

Machining capability

- Cutting-off side can be machined with back spindle, and secondary machining is unnecessary.
- Enables complex machining such as turning, drilling, boring, cross-drilling and milling.
- Built-in motor is equipped on main spindle and back spindle.
- Realizes heavy-duty machining by rigid basic structure
- Powerful milling capability
- Pullout type coolant tank facilitates chip cleaning, and additional isolated tank is available as option.
- Standard coolant tank capacity: 160L



High accuracy machining

- Realizes high-accuracy machining by the thermal displacement compensation
- High accuracy machining with less vibration by using built-in motor on main spindle and back spindle.

Live tools can be mounted on all positions.

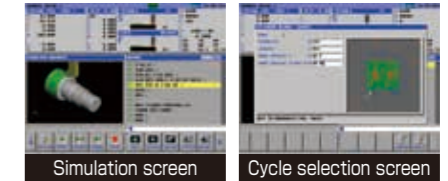
- Live tools (option) can be mounted on all positions of 12-station turret, and realizing milling operation.

| Item | Specifications | |
|----------------------------|-------------------------|-----|
| Total number of live tools | Max. 12 | |
| Max. spindle speed | 5,000 min ⁻¹ | |
| Applicable collet | ER25-φD | |
| Gripping size | Drill | φ16 |
| | End mill | |



Simple operation

- Enables to create program simply by the optional interactive programming software on-board (FANUC: MANUAL GUIDE i).
- Machining condition is determined automatically.



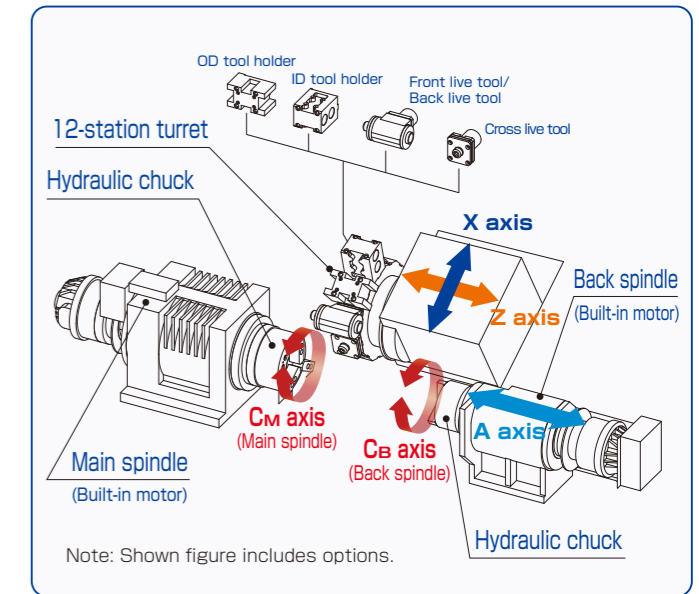
- Safety set up by interference prevention function at debug mode
- Minimizes the damage to the machine with the retraction function by an abnormal load detection

Overwhelming cost performance

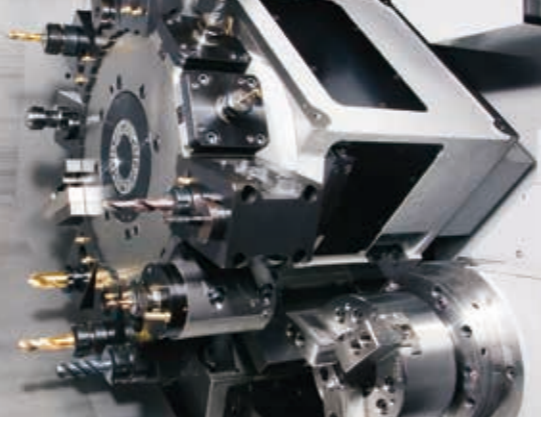
- Overwhelming cost performance to enable big profit by small investment even turning center with back spindle

LED illumination light (Standard)

- Environmentally-friendly LED internal illumination light is provided as standard.



SY-II Type



Turning center with back spindle and Y axis

Machining capability

- Enables machining of complicated workpiece by Y-axis control
- Cutting-off side can be machined with back spindle, and secondary machining is unnecessary.
- Enables complex machining such as turning, drilling, boring, cross-drilling and milling.
- Built-in motor is equipped on main spindle and back spindle.
- Realizes heavy-duty machining by rigid basic structure
- Powerful milling capability
- Pullout type coolant tank facilitates chip cleaning, and additional isolated tank is available as option.
- Standard coolant tank capacity: 160L



Y-axis machining

- Enables diverse machining by ±50 mm long stroke by Y-axis control.

High accuracy machining

- Realizes high-accuracy machining by the thermal displacement compensation
- High accuracy machining with less vibration by using built-in motor for main spindle and back spindle.

Live tools can be mounted on all positions.

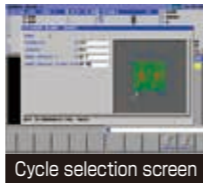
- Live tools (option) can be mounted on all positions of 12-station turret, and realizing milling operation.

| Item | Specifications |
|----------------------------|-------------------------|
| Total number of live tools | Max. 12 |
| Max. spindle speed | 5,000 min ⁻¹ |
| Applicable collet | ER25-φD |
| Gripping size | Drill |
| | End mill |
| | φ16 |



Simple operation

- Enables to create program simply by the optional interactive programming software on-board (FANUC: MANUAL GUIDE i).
- Machining condition is determined automatically.



- Safety set up by interference prevention function at debug mode
- Minimizes the damage to the machine with the retraction function by an abnormal load detection

High rigidity

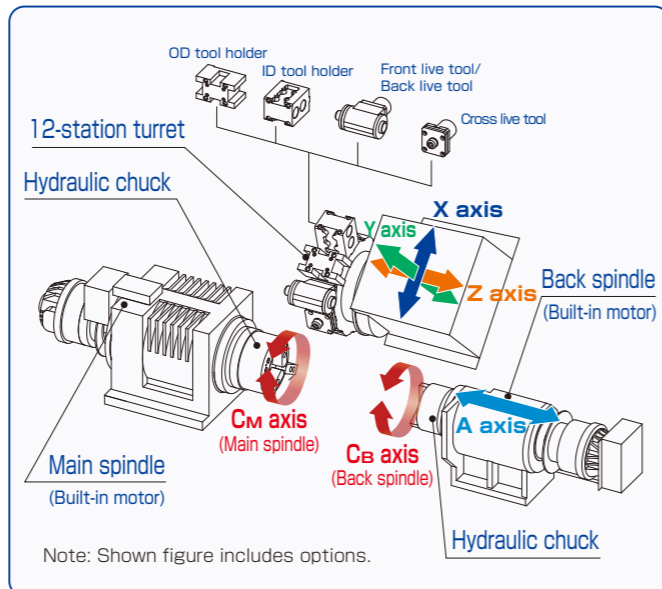
- High-rigidity box slide is equipped for X and Y axis to enable heavy-duty machining.

Overwhelming cost performance

- Overwhelming cost performance to enable big profit by small investment even turning center with back spindle and Y axis

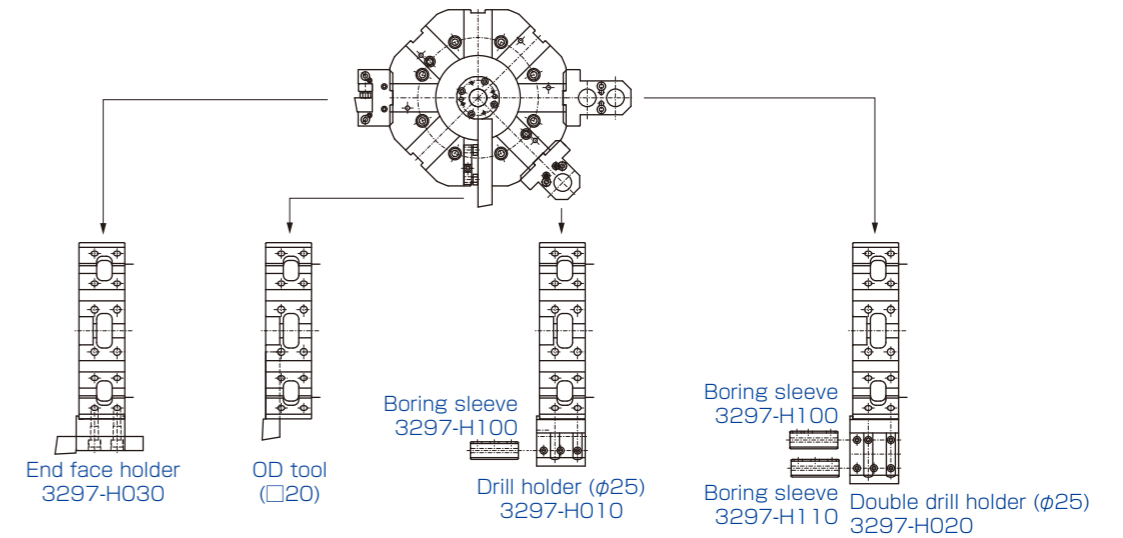
LED illumination light (Standard)

- Environmentally-friendly LED internal illumination light is provided as standard.

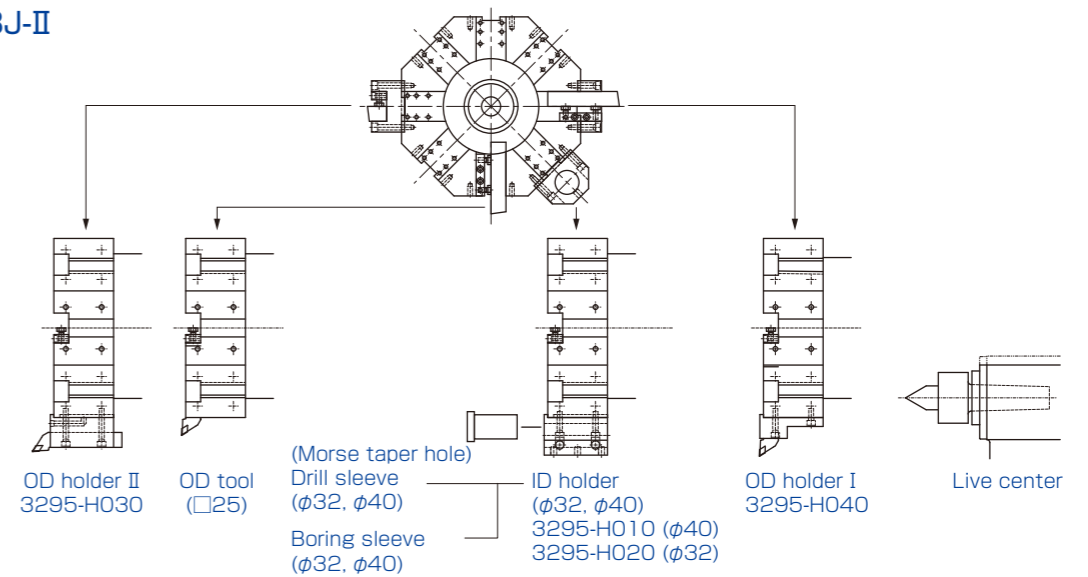


Tool holder (Option)

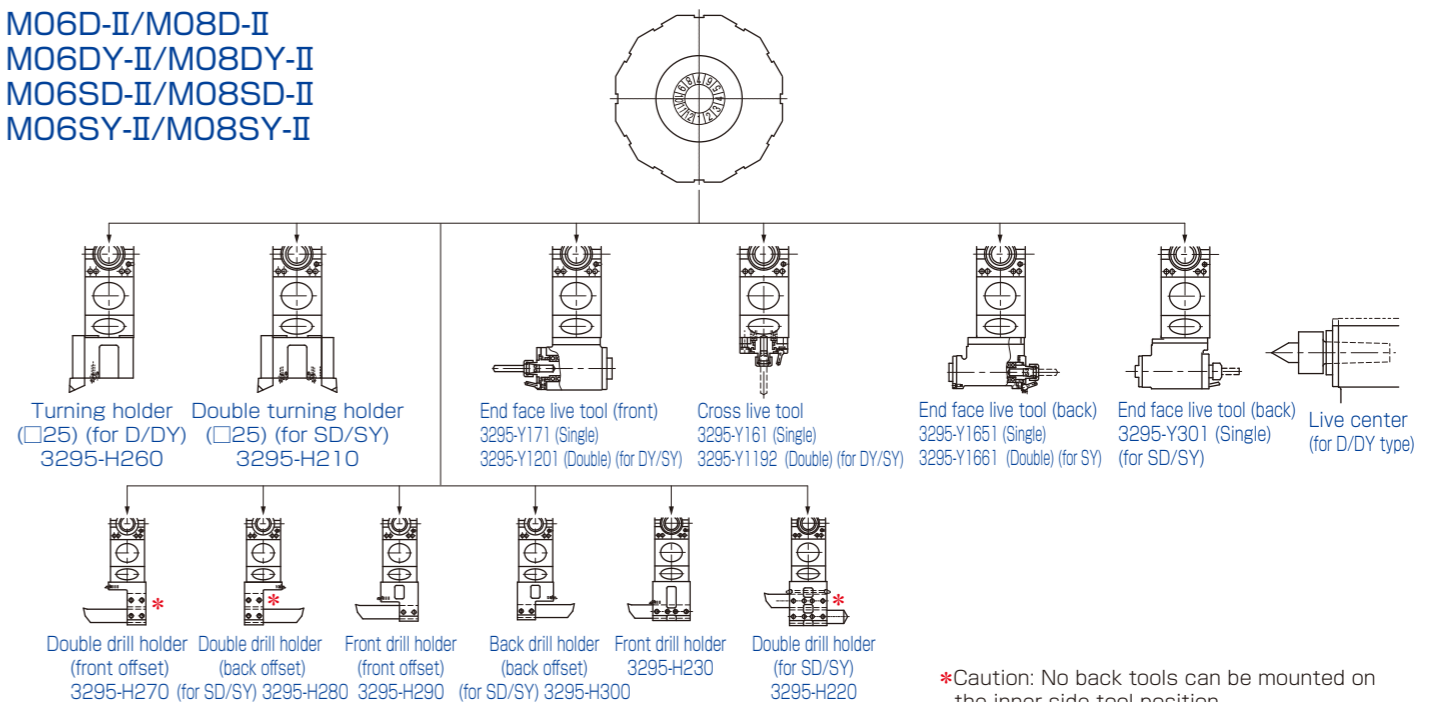
MO6JC



MO6J-II/MO8J-II MO8JL5-II



MO6D-II/MO8D-II MO6DY-II/MO8DY-II MO6SD-II/MO8SD-II MO6SY-II/MO8SY-II



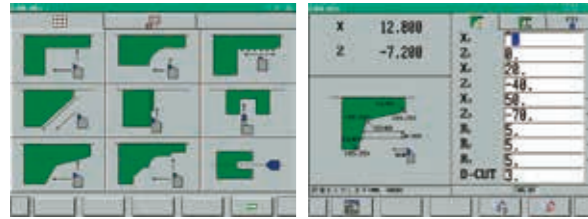
*Caution: No back tools can be mounted on the inner side tool position.

Control function

Automatic programming software (Option)

MO6J-II/MO8J-II/MO8JL5-II/MO6JC

Preparing the optional interactive programming software on-board TURN MATE i (FANUC)



Cycle selection screen

Cycle data input screen

- Entering data according to the map that is displayed on the screen. Processing without NC program is possible.
- Continuous operation of the processing cycle (up to 20 pcs)
- ISO program conversion function from the processing cycle. Can be converted to the ISO program from the "TURN MATE i" dedicated program.

MO6D-II/MO8D-II/MO6DY-II/MO8DY-II/MO6SD-II/MO8SD-II/MO6SY-II/MO8SY-II

Preparing the optional interactive programming software on-board MANUAL GUIDE i (FANUC)



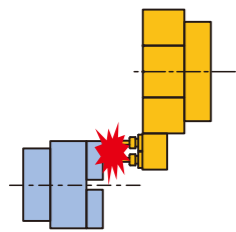
Simulation screen

Cycle selection screen

- Entering data according to the map that is displayed on the screen.
- Machining condition is determined automatically.
- Simulation by animation
- ISO program conversion function from the processing cycle. Can be converted to the ISO program from the MANUAL GUIDE i (FANUC) dedicated program.

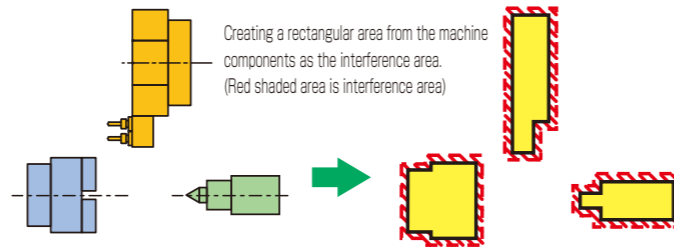
Retraction function by an abnormal load detection (standard)

When load level exceeds the setting level that is set based on the data such as the collision and cutting tool breakage, an alarm will occur, and make the slide to move to the retracting direction immediately to minimize damage to the machine.

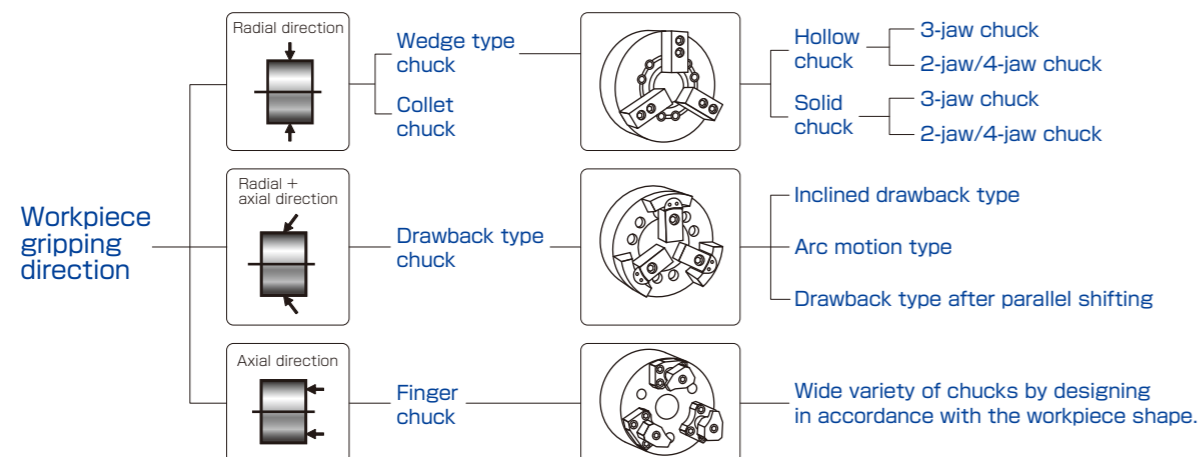


Interference prevention function at debug mode (standard)

When the machine enters into the interference area in debug mode, the axis stops moving and the alarm occurs.



Chuck system (Option)




Option

Chip conveyor

Installed direction can be selected

Enables to be selected either from the machine right side or the machine rear side. Appropriate machine layout can be selected. (Only rear discharge is provided for MO6JC.)

| Name | Hinge type |
|----------|--|
| Material | For steel (general purpose type) |
| Features | For long swarf |
| Shape |  Hinge plate |

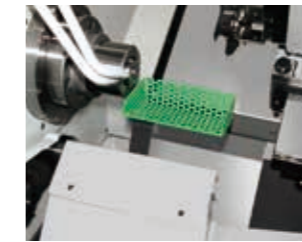
Tailstock

Processing for a long workpiece or a workpiece with less clamping length can be possible by this tailstock.

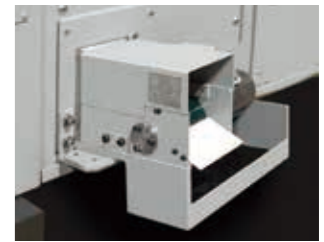
(This is provided as option for MO6J-II, MO8J-II, MO8JL5-II, MO6D-II, MO8D-II, MO6DY-II and MO8DY-II)



Work catcher



Work conveyor



Tool setter

Tool offset is set automatically by touching the tool to the stylus.



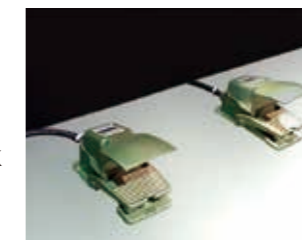
High pressure pump

A pump unit supplying coolant with high pressure.



Foot switch

This foot switch is used to clamp or unclamp the main/back spindle chuck.



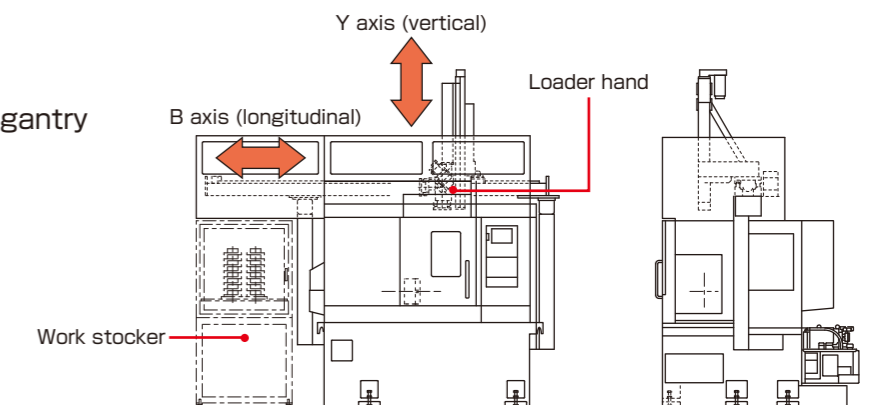
Signal indicator (Triple)

Three color lamp lights and it informs of the state of the machine.



NC loader

Corresponds to automation or unattended operation with NC gantry loader system



Specifications

Machine specification

| Item | M06JC | M06J-II | M08J-II | M08JL5-II | M06D-II | M08D-II | M06DY-II | M08DY-II | M06SD-II | M08SD-II | M06SY-II | M08SY-II |
|---|---------------------------|---------------------------|---|---|--|---------------------------|--|---------------------------|--|---------------------------|--|---------------------------|
| Max. machining dia. | φ220/φ42 (Barstock) mm | φ260/φ51 (Barstock) mm | φ280/φ65 (Barstock) mm | φ280/φ65 (Barstock) mm | φ260/φ51 (Barstock) mm | φ280/φ65 (Barstock) mm | φ260/φ51 (Barstock) mm | φ280/φ65 (Barstock) mm | φ260/φ51 (Barstock) mm | φ280/φ65 (Barstock) mm | φ260/φ51 (Barstock) mm | φ280/φ65 (Barstock) mm |
| Max. machining length | 190 mm | 290 mm | | 500 mm | 380 mm | | 380 mm | | 380 mm | | 380 mm | |
| Chuck size | 6 inch | 6 inch | 8 inch | 8 inch | 6 inch | 8 inch | 6 inch | 8 inch | 6 inch | 8 inch | 6 inch | 8 inch |
| Max. spindle speed | 4,500 min ⁻¹ | 4,500 min ⁻¹ | 4,000 min ⁻¹ (Standard spec.)/ 1,500 min ⁻¹ (Low speed spec.)/ (Option) | 4,000 min ⁻¹ (Standard spec.)/ 1,500 min ⁻¹ (Low speed spec.)/ (Option) | 4,500 min ⁻¹ | | 4,500 min ⁻¹ | | 4,500 min ⁻¹ | | 4,500 min ⁻¹ | |
| Shape of spindle end | 140F | JIS A2-6 | | JIS A2-6 | JIS A2-6 | | JIS A2-6 | | JIS A2-6 | | JIS A2-6 | |
| Main spindle bore | φ52 mm | φ73 mm | φ73 mm | φ73 mm | φ73 mm | | φ73 mm | | φ73 mm | | φ73 mm | |
| Spindle bearing ID | φ80 mm | φ100 mm | φ100 mm | φ100 mm | φ100 mm | | φ100 mm | | φ100 mm | | φ100 mm | |
| Number of stations | 8 | 8 | 8 | 8 | 12 | | 12 | | 12 | | 12 | |
| OD tool shank | □20 mm | □25 mm | □25 mm | □25 mm | □25 mm | | □25 mm | | □25 mm | | □25 mm | |
| Drill holder hole dia. | φ25 mm | φ40 mm | φ40 mm | φ40 mm | φ40 mm | | φ40 mm | | φ40 mm | | φ40 mm | |
| Max. back spindle speed | — | — | — | — | — | | — | | 4,500 min ⁻¹ | | 4,500 min ⁻¹ | |
| Back spindle end | — | — | — | — | — | | — | | φ140 flat | | φ140 flat | |
| Back spindle bore/Back spindle bearing ID | — | — | — | — | — | | — | | φ59/φ80 mm | | φ59/φ80 mm | |
| Back spindle chuck | — | — | — | — | — | | — | | 6 inch | | 6 inch | |
| Max. live tool speed | — | — | — | — | 5,000 min ⁻¹ | | 5,000 min ⁻¹ | | 5,000 min ⁻¹ | | 5,000 min ⁻¹ | |
| Main spindle motor | 5.5/7.5 kW | 5.5/7.5 kW | 9/11 kW | 9/11 kW | 7.5/11 kW | | 7.5/11 kW | | 7.5/11 kW | | 7.5/11 kW | |
| Back spindle motor | — | — | — | — | — | | — | | 5.5/7.5 kW | | 5.5/7.5 kW | |
| Live tool motor | — | — | — | — | 2.2 (30 min ⁻¹)/3.7 (15 min ⁻¹) kW | | 2.2 (30 min ⁻¹)/3.7 (15 min ⁻¹) kW | | 2.2 (30 min ⁻¹)/3.7 (15 min ⁻¹) kW | | 2.2 (30 min ⁻¹)/3.7 (15 min ⁻¹) kW | |
| Stroke X/Z | X: 130 mm Z: 230 mm | X: 160 mm Z: 330 mm | X: 160 mm Z: 560 mm | X: 160 mm Z: 560 mm | X: 260 mm Z: 400 mm | | X: 260 mm Z: 400 mm | | X: 260 mm Z: 400 mm | | X: 221 mm Z: 400 mm | |
| Stroke A/Y | — | — | — | — | — | | Y: ±50 mm | | A: 506 mm | | A: 506 mm Y: ±50 mm | |
| Rapid traverse rate X/Z | X,Z: 24 m/min | X: 24 m/min Z: 27 m/min | X: 24 m/min Z: 27 m/min | X: 24 m/min Z: 27 m/min | X: 24 m/min Z: 27 m/min | | X: 24 m/min Z: 27 m/min | | X: 24 m/min Z: 27 m/min | | X: 24 m/min Z: 27 m/min | |
| Rapid traverse rate A/Y | — | — | — | — | — | | Y: 12 m/min | | A: 30 m/min | | A: 30 m/min Y: 12 m/min | |
| Power source requirements | 18 kVA | 23 kVA | 27 kVA | 27 kVA | 24 kVA | | 25 kVA | | 28.6 kVA | | 30 kVA | |
| Compressed air requirement | 0.5 MPa | 0.5 MPa | | 0.5 MPa | 0.5 MPa | | 0.5 MPa | | 0.5 MPa | | 0.5 MPa | |
| Air discharge rate | 100 NL/min | 100 NL/min | | 100 NL/min | 100 NL/min | | 100 NL/min | | 100 NL/min | | 100 NL/min | |
| Size (Width x depth x height) | 1,165 x 1,460 x 1,600 mm | 1,690 x 1,570 x 1,600 mm | | 1,970 x 1,673 x 1,600 mm | 2,330 x 1,850 x 1,750 mm | | 2,330 x 1,850 x 1,930 mm | | 2,470 x 1,850 x 1,750 mm | | 2,470 x 1,850 x 1,930 mm | |
| Weight | 2,380 kg | 3,300 kg | | 3,430 kg | 4,700 kg | | 5,200 kg | | 5,300 kg | | 5,600 kg | |

Precaution: Always use the water soluble coolant.

NC unit

| Item | M06JC | M06J-II/M08J-II | M08JL5-II | M06D-II/M08D-II | M06DY-II/M08DY-II | M06SD-II/M08SD-II | M06SY-II/M08SY-II |
|----------------------------------|--|-------------------------------------|-------------------------------------|---|---|--|--|
| NC unit | FANUC OiMate-TD | FANUC Oi-TF | | FANUC Oi-TF | | FANUC Oi-TF | |
| Controllable axes | X, Z | X, Z | X, Z | X, Z, C _M | X, Y, Z, C _M | X, Z, C _M , C _B , A | X, Y, Z, C _M , C _B , A |
| Least input increment | 0.001 mm (Diameter value of X axis) | | | 0.001 mm (Diameter value of X axis) | | | |
| Maximum commandable value | ± 8 digits | | | ± 8 digits | | | |
| Interpolation method | Linear/circular | | | Linear/circular | | | |
| Cutting feed rate | 1 to 6,000 mm/min | | | 1 to 6,000 mm/min | | | |
| Feed rate override | 0 to 150 %, 10 % step | | | 0 to 150 %, 10 % step | | | |
| Dwell | G04, 0 to 99999.999 | | | G04, 0 to 99999.999 | | | |
| Absolute/ incremental command | X, Z: Absolute U, W: Incremental | X, Z: Absolute U, W: Incremental | X, Z: Absolute U, W: Incremental | X, Z, C _M : Absolute U, W, H _M : Incremental | X, Y, Z, C _M : Absolute U, V, W, H _M : Incremental | X, Z, C _M , C _B , A: Absolute U, W, H _M , H _B : Incremental | X, Y, Z, C _M , C _B , A: Absolute U, V, W, H _M , H _B : Incremental |
| Tool offset pairs | 64 pairs | | | 64 pairs | | | |
| LCD/MDI | 8.4" color LCD | | | 8.4" color LCD | | | |
| Display language | English | | | English | | | |
| Part program storage size | 512 KB (equivalent to tape length 1,280 m) | | | 512 KB (equivalent to tape length 1,280 m) | | 1 MB (equivalent to tape length 2,560 m) | |
| No. of registerable programs | 400 | | | 400 | | 800 | |
| Miscellaneous function | M4 digits | | | M4 digits | | | |
| Spindle function | S4 digits | | | S4 digits | | | |
| Tool function | T4 digits | | | T4 digits | | | |

Standard accessories

| Item | M06JC | M06J-II/M08J-II | M08JL5-II | M06D-II/M08D-II | M06DY-II/M08DY-II | M06SD-II/M08SD-II | M06SY-II/M08SY-II |
|-----------------------------------|-----------|-----------------|-----------|-----------------|-------------------|-------------------|-------------------|
| Internal illumination light | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Door interlock | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Turret-through coolant | — | ○ | ○ | ○ | ○ | ○ | ○ |
| Hydraulic cylinder unit | ○ (Solid) | ○ | ○ | ○ | ○ | ○ | ○ |
| Standard tools | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Plate, leveling bolt | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Transit clamps | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Spindle air purge | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Thermal displacement compensation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Live tool rigid tap | — | — | — | ○ | ○ | ○ | ○ |
| Main spindle C-axis (with brake) | — | — | — | ○ | ○ | ○ | ○ |
| Back spindle C-axis (with brake) | — | — | — | — | — | ○ | ○ |
| Over-spindle coolant nozzle | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

Machine options and NC accessories

Machine options

| Item | M06JC | M06J-II/M08J-II | M08JL5-II | M06D-II/M08D-II | M06DY-II/M08DY-II | M06SD-II/M08SD-II | M06SY-II/M08SY-II |
|---------------------------------|-------------------------|-----------------|-----------|-----------------|-------------------|-------------------|-------------------|
| Hydraulic chuck spec. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Tool holder | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Work conveyor | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| NC gantry loader | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Tool setter | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Chip conveyor ^{note 1} | ○ (Rear discharge only) | ○ | ○ | ○ | ○ | ○ | ○ |
| Collet chuck | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Live center: MT No.4 | — | ○ | — | ○ | ○ | — | — |
| Live center: MT No.5 | — | — | ○ | — | — | — | — |
| Tailstock | — | ○ | ○ | ○ | ○ | — | — |
| Turret-through coolant | ○ (Max. 2 MPa) | Standard | Standard | Standard | Standard | Standard | Standard |

Note 1: Right discharge or rear discharge

NC accessories

| Item | M06JC M06J-II/M08J-II M08JL5-II | M06D-II/M08D-II M06DY-II/M08DY-II M06SD-II/M08SD-II M06SY-II/M08SY-II | Item | M06JC M06J-II/M08J-II M08JL5-II | M06D-II/M08D-II M06DY-II/M08DY-II M06SD-II/M08SD-II M06SY-II/M08SY-II |
|--------------------------------|---------------------------------------|--|--------------------------------|---------------------------------------|--|
| Chasing function | Standard | | Direct drawing dimension input | Standard | |
| Continuous thread cutting | Standard | | Inch/metric conversion | Standard | |
| Manual pulse generator | Standard | | Canned cycle for drilling | Standard | |
| Memory card I/O interface | Standard | | Rigid tapping | Standard | |
| RS232C I/O interface | Option | | Abnormal load detection | Standard | |
| Back ground editing | Standard | | Manual handle retrace | Option ^{note)} | Option |
| Run time/parts number display | Standard | | Variable-lead thread cutting | Standard | |
| Custom macro | Standard | | Thread cutting cycle retract | Standard | |
| Constant surface speed control | Standard | | Cylindrical interpolation | — | Standard |
| Tool geometry / wear offset | Standard | | Polar coordinate interpolation | — | Standard |
| Programmable data input | Standard | | Helical interpolation | — | Option |
| Chamfering and corner R | Standard | | TURN MATE i | Option ^{note)} | — |
| Multiple repetitive cycle | Standard | | MANUAL GUIDE i | — | Option |
| Expanded program editing | Standard | | | | |

Note: These functions cannot be executed simultaneously.

Packaged options (M06JC)

Selected options according to the machining system and shape of workpieces.

| Packaged options | | Chucker spec. | Chucker spec. (Automation) | Bar spec. |
|---|------------------------------------|---------------|-------------------------------|-----------|
| Automation | 2-axis NC loader | — | ○ | — |
| | Work stocker (flange) | — | ○ | — |
| | Work catcher with conveyor | — | — | ○ |
| Spindle chuck (Made in Taiwan, CHANDOX) | 3-jaw hollow (Large ID) 6 inch | — | — | — |
| | 3-jaw solid 6 inch | ○ | ○ | — |
| | Hydraulic cylinder (hollow P1452S) | — | — | ○ |
| Spindle chuck (Made in Japan, KITAGAWA) | 3-jaw hollow 6 inch (B-206) | — | — | — |
| | 3-jaw solid 6 inch (N-06) | — | — | — |
| | Hydraulic cylinder (hollow P1452S) | — | — | — |
| | Chuck adapter | — | — | — |
| Main spindle chuck | Collet chuck (SAD50) | — | — | ○ |
| Tooling kit | | ○ | ○ | ○ |
| | OD holder II (end face holder) | 2 | 2 | 2 |
| | ID holder (φ25) | 4 | 4 | 4 |
| | Boring sleeve (φ25 x φ16) | 2 | 2 | 2 |
| | Boring sleeve (φ25 x φ20) | 2 | 2 | 2 |
| Chip conveyor | Hinge type | ○ | ○ | ○ |
| Tool setter | Manual swiveling type | — | — | — |
| Foot switch | | ○ | — | — |
| Automatic door | Automatic door (M-code command) | — | — | — |
| | Both-hand start switch | — | — | — |
| Through-turret coolant | | — | — | — |
| Signal indicator (triple) | | ○ | ○ | ○ |
| Automatic programming software (FANUC TURNMATE i) | | — | — | — |
| Bar feeder interface | | — | — | ○ |
| Work stopper | | — | — | ○ |

Option

Packaged options (M06J-II/M08J-II)

Selected options according to the machining system and shape of workpieces.

| Packaged options | | Chucker spec. | | Chucker spec. (Automation) | | Bar spec. | | | |
|---------------------------|---------------|--|-------------|----------------------------|-------------|-----------|---|---|---|
| | | A | B | C | D | E | F | | |
| Workpiece shape | | Flange shape | Shaft shape | Flange shape | Shaft shape | Bar work | | | |
| Option | Tailstock | — | ○ | — | ○ | — | ○ | | |
| | Automation | 2-axis NC loader | — | — | ○ | ○ | — | — | |
| | | Work stocker (flange) | — | — | ○ | — | — | — | |
| | | Work stocker (shaft) | — | — | — | ○ | — | — | |
| | | Work catcher with conveyor | — | — | — | — | ○ | ○ | |
| | Spindle chuck | 3-jaw hollow (Large ID) 6 inch (M06J-II) | ○ | ○ | ○ | ○ | ○ | ○ | |
| | | 3-jaw hollow (Large ID) 8 inch (M08J-II) | ○ | ○ | ○ | ○ | ○ | ○ | |
| | | 3-jaw solid 6 inch (M06J-II) | — | — | — | — | — | — | |
| | | 3-jaw solid 8 inch (M08J-II) | — | — | — | — | — | — | |
| | | Collet chuck (M06J-II/M08J-II) | — | — | — | — | ○ | ○ | |
| | Tooling kit | Tooling kit | | ○ | ○ | ○ | ○ | ○ | |
| | | OD holder I (Offset holder) | | 2 | 2 | 2 | 2 | 2 | 2 |
| | | OD holder II (End face holder) | | 2 | 2 | 2 | 2 | 2 | 2 |
| | | ID holder (φ40) | | 4 | — | 4 | — | 4 | — |
| | | ID holder (φ32) | | — | 4 | — | 4 | — | 4 |
| | | Drilling sleeve (40) (MT No.2) | | 1 | — | 1 | — | 1 | — |
| | | Drilling sleeve (32) (MT No.2) | | — | 1 | — | 1 | — | 1 |
| | | Boring sleeve (φ40 x φ16) | | 2 | — | 2 | — | 2 | — |
| | | Boring sleeve (φ40 x φ20) | | 2 | — | 2 | — | 2 | — |
| | | Boring sleeve (φ32 x φ16) | | — | 2 | — | 2 | — | 2 |
| Boring sleeve (φ32 x φ20) | | — | 2 | — | 2 | — | 2 | | |
| Live center (MT4) | | — | 1 | — | 1 | — | 1 | | |
| Chip conveyor | | Hinge type | ○ | ○ | ○ | ○ | ○ | ○ | |
| Tool setter | | Manual swiveling type | — | — | — | — | — | — | |
| Foot switch | | ○ | ○ | — | — | — | — | | |
| Signal indicator (triple) | | ○ | ○ | ○ | ○ | ○ | ○ | | |
| Bar feeder interface | | — | — | — | — | ○ | ○ | | |
| Work stopper | | — | — | — | — | ○ | ○ | | |

Packaged options (M08JL5-II)

Select options according to the machining system and shape of workpieces.

| Packaged options | | Chucker spec. | | Chucker spec. (Automation) | | Bar spec. | | | |
|---------------------------|-----------------------|--------------------------------|-------------|----------------------------|-------------|-----------|---|---|---|
| | | A | B | C | D | E | F | | |
| Workpiece shape | | Flange shape | Shaft shape | Flange shape | Shaft shape | Bar work | | | |
| Option | Tailstock | — | ○ | — | ○ | — | ○ | | |
| | Automation | 2-axis NC loader | — | — | ○ | ○ | — | — | |
| | | Work stocker (flange) | — | — | ○ | — | — | — | |
| | | Work stocker (shaft) | — | — | — | ○ | — | — | |
| | | Work catcher with conveyor | — | — | — | — | ○ | ○ | |
| | | 3-jaw hollow (Large ID) 8 inch | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Spindle chuck | 3-jaw solid 8 inch | — | — | — | — | — | — | |
| | | Collet chuck | — | — | — | — | ○ | ○ | |
| | Tooling kit | Tooling kit | | ○ | ○ | ○ | ○ | ○ | |
| | | OD holder I (Offset holder) | | 2 | 2 | 2 | 2 | 2 | 2 |
| | | OD holder II (End face holder) | | 2 | 2 | 2 | 2 | 2 | 2 |
| | | ID holder (φ40) | | 4 | — | 4 | — | 4 | — |
| | | ID holder (φ32) | | — | 4 | — | 4 | — | 4 |
| | | Drilling sleeve (40) (MT No.2) | | 1 | — | 1 | — | 1 | — |
| | | Drilling sleeve (32) (MT No.2) | | — | 1 | — | 1 | — | 1 |
| | | Boring sleeve (φ40 x φ16) | | 2 | — | 2 | — | 2 | — |
| | | Boring sleeve (φ40 x φ20) | | 2 | — | 2 | — | 2 | — |
| | | Boring sleeve (φ32 x φ16) | | — | 2 | — | 2 | — | 2 |
| | | Boring sleeve (φ32 x φ20) | | — | 2 | — | 2 | — | 2 |
| | | Live center (MT5) | | — | 1 | — | 1 | — | 1 |
| Chip conveyor | | Hinge type | ○ | ○ | ○ | ○ | ○ | ○ | |
| Tool setter | Manual swiveling type | — | — | — | — | — | — | | |
| Foot switch | | ○ | ○ | — | — | — | — | | |
| Signal indicator (triple) | | ○ | ○ | ○ | ○ | ○ | ○ | | |
| Bar feeder interface | | — | — | — | — | ○ | ○ | | |
| Work stopper | | — | — | — | — | ○ | ○ | | |

Packaged options (M06D-II/M08D-II)

Selected options according to the machining system and shape of workpieces.

| Packaged options | | Chucker spec. | | Chucker spec. (Automation) | | Bar spec. | | |
|----------------------------------|-----------------------|--|-------------|-------------------------------|-------------|-----------|---|---|
| | | A | B | C | D | E | F | |
| Workpiece shape | | Flange shape | Shaft shape | Flange shape | Shaft shape | Bar work | | |
| Option | Tailstock | — | ○ | — | ○ | — | ○ | |
| | Automation | 2-axis NC loader | — | — | ○ | ○ | — | — |
| | | Work stocker (flange) | — | — | ○ | — | — | — |
| | | Work stocker (shaft) | — | — | — | ○ | — | — |
| | | Work catcher with conveyor | — | — | — | — | ○ | ○ |
| | Spindle chuck | 3-jaw hollow (large ID) 6 inch (M06D-II) | ○ | ○ | ○ | ○ | ○ | ○ |
| | | 3-jaw hollow (large ID) 8 inch (M08D-II) | ○ | ○ | ○ | ○ | ○ | ○ |
| | | 3-jaw solid 6 inch (M06D-II) | — | — | — | — | — | — |
| | | 3-jaw solid 8 inch (M08D-II) | — | — | — | — | — | — |
| | | Collet chuck (M06D-II/M08D-II) | — | — | — | — | ○ | ○ |
| | Tooling kit | | ○ | ○ | ○ | ○ | ○ | ○ |
| | Turning holder | Turning holder | 4 | 4 | 4 | 4 | 3 | 3 |
| | | Double drill holder | 4 | 4 | 4 | 4 | 4 | 4 |
| | | Boring sleeve (φ40 x φ16) | 2 | 2 | 2 | 2 | 2 | 2 |
| | | Boring sleeve (φ40 x φ20) | 2 | 2 | 2 | 2 | 2 | 2 |
| | | Cut-off holder | — | — | — | — | 1 | 1 |
| | | Cross live tool | 2 | 2 | 2 | 2 | 2 | 2 |
| | | Front live tool | 2 | 2 | 2 | 2 | 2 | 2 |
| | | Live center (MT4) | — | 1 | — | 1 | — | 1 |
| | | Chip conveyor | Hinge type | ○ | ○ | ○ | ○ | ○ |
| Tool setter | Manual swiveling type | — | — | — | — | — | — | |
| Foot switch | | ○ | ○ | — | — | — | — | |
| Signal indicator (triple) | | ○ | ○ | ○ | ○ | ○ | ○ | |
| Bar feeder interface | | — | — | — | — | ○ | ○ | |
| Work stopper | | — | — | — | — | ○ | ○ | |

Packaged options (M06DY-II/M08DY-II)

Selected options according to the machining system and shape of workpieces.

| Packaged options | | Chucker spec. | | Chucker spec. (Automation) | | Bar spec. | | |
|----------------------------------|-----------------------|--|-------------|-------------------------------|-------------|-----------|---|---|
| | | A | B | C | D | E | F | |
| Workpiece shape | | Flange shape | Shaft shape | Flange shape | Shaft shape | Bar work | | |
| Option | Tailstock | — | ○ | — | ○ | — | ○ | |
| | Automation | 2-axis NC loader | — | — | ○ | ○ | — | — |
| | | Work stocker (flange) | — | — | ○ | — | — | — |
| | | Work stocker (shaft) | — | — | — | ○ | — | — |
| | | Work catcher with conveyor | — | — | — | — | ○ | ○ |
| | Spindle chuck | 3-jaw hollow (large ID) 6 inch (M06D-II) | ○ | ○ | ○ | ○ | ○ | ○ |
| | | 3-jaw hollow (large ID) 8 inch (M08D-II) | ○ | ○ | ○ | ○ | ○ | ○ |
| | | 3-jaw solid 6 inch (M06D-II) | — | — | — | — | — | — |
| | | 3-jaw solid 8 inch (M08D-II) | — | — | — | — | — | — |
| | | Collet chuck (M06D-II/M08D-II) | — | — | — | — | ○ | ○ |
| | Tooling kit | | ○ | ○ | ○ | ○ | ○ | ○ |
| | Turning holder | Turning holder | 4 | 4 | 4 | 4 | 3 | 3 |
| | | Double drill holder | 4 | 4 | 4 | 4 | 4 | 4 |
| | | Boring sleeve (φ40 x φ16) | 2 | 2 | 2 | 2 | 2 | 2 |
| | | Boring sleeve (φ40 x φ20) | 2 | 2 | 2 | 2 | 2 | 2 |
| | | Cut-off holder | — | — | — | — | 1 | 1 |
| | | Cross live tool | 2 | 2 | 2 | 2 | 2 | 2 |
| | | Front live tool | 2 | 2 | 2 | 2 | 2 | 2 |
| | | Live center (MT4) | — | 1 | — | 1 | — | 1 |
| | | Chip conveyor | Hinge type | ○ | ○ | ○ | ○ | ○ |
| Tool setter | Manual swiveling type | — | — | — | — | — | — | |
| Foot switch | | ○ | ○ | — | — | — | — | |
| Signal indicator (triple) | | ○ | ○ | ○ | ○ | ○ | ○ | |
| Bar feeder interface | | — | — | — | — | ○ | ○ | |
| Work stopper | | — | — | — | — | ○ | ○ | |

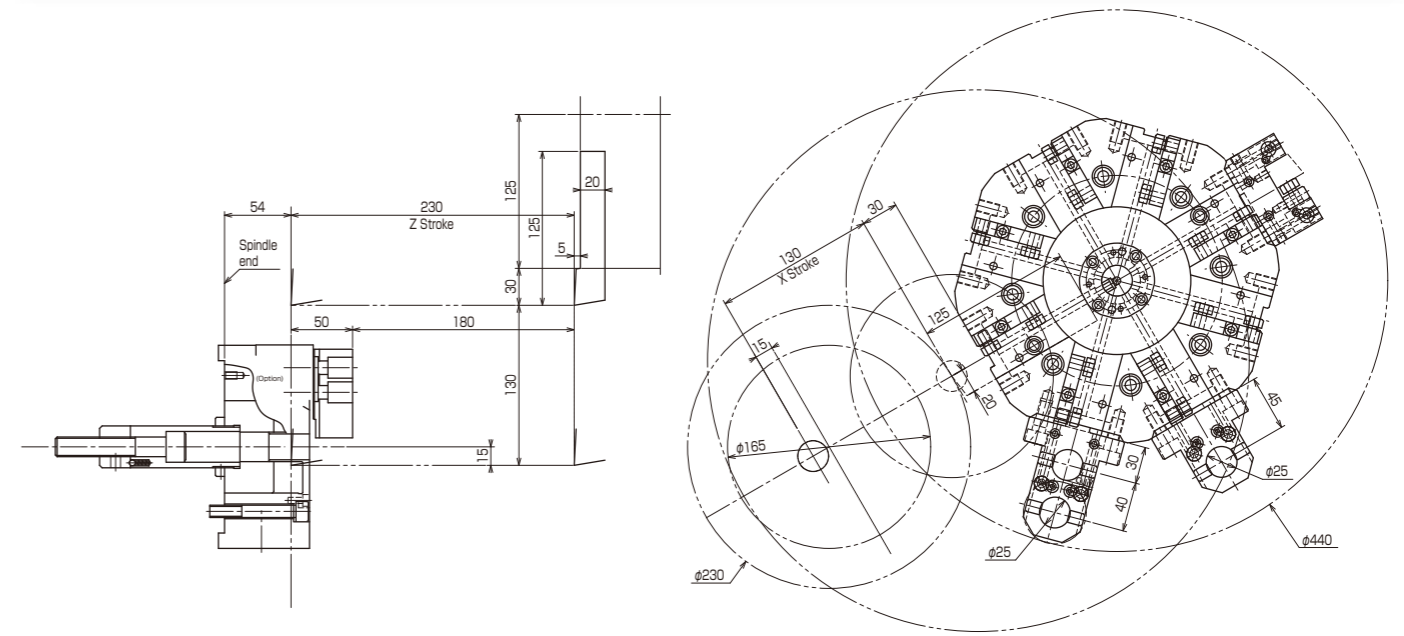
Packaged options (M06SD-II/M08SD-II/M06SY-II/M08SY-II)

Selected options according to the machining system and shape of workpieces.

| Packaged options | | Chucker spec. | Chucker spec. (Automation) | | Bar spec. |
|---------------------------|--|----------------------|----------------------------|-------------|-----------|
| | | A | B | C | D |
| Workpiece shape | | Flange & Shaft shape | Flange shape | Shaft shape | Bar work |
| Automation | 2-axis NC loader | — | ○ | ○ | — |
| | Work stocker (flange) | — | ○ | — | — |
| | Work stocker (shaft) | — | — | ○ | — |
| | Front discharge | — | — | — | ○ |
| | High-pressure pump (One filter type)* | — | — | — | ○ |
| | Work catcher with conveyor | — | — | — | ○ |
| Main Spindle chuck | 3-jaw hollow (large ID) 6 inch (M06SD-II/M06SY-II) | ○ | ○ | ○ | ○ |
| | 3-jaw hollow (large ID) 8 inch (M08SD-II/M08SY-II) | ○ | ○ | ○ | ○ |
| | 3-jaw solid 6 inch (M06SD-II/M06SY-II) | — | — | — | — |
| | 3-jaw solid 8 inch (M08SD-II/M08SY-II) | — | — | — | — |
| | Collet chuck (M06SD-II/M06SY-II) (M08SD-II/M08SY-II) | — | — | — | ○ |
| Back spindle chuck | 3-jaw hollow 6 inch | ○ | ○ | ○ | — |
| | 3-jaw solid 6 inch | — | — | — | — |
| | Collet chuck | — | — | — | ○ |
| Tooling kit | Tooling kit | ○ | ○ | ○ | ○ |
| | Double turning holder | 4 | 4 | 4 | 3 |
| | Double drill holder (back offset) | 4 | 4 | 4 | 4 |
| | Boring sleeve (φ40 x φ16) | 2 | 2 | 2 | 2 |
| | Boring sleeve (φ40 x φ20) | 2 | 2 | 2 | 2 |
| | Cut-off holder | — | — | — | 1 |
| | Cross live tool | 2 | 2 | 2 | 2 |
| | Front live tool | 2 | 2 | 2 | 2 |
| | Back live tool | — | — | — | — |
| Chip conveyor | Hinge type | ○ | ○ | ○ | ○ |
| Tool setter | Manual swiveling type | — | — | — | — |
| Foot switch | | ○ | — | — | — |
| Signal indicator (triple) | | ○ | ○ | ○ | ○ |
| Bar feeder interface | | — | — | — | ○ |
| Work stopper | | — | — | — | ○ |

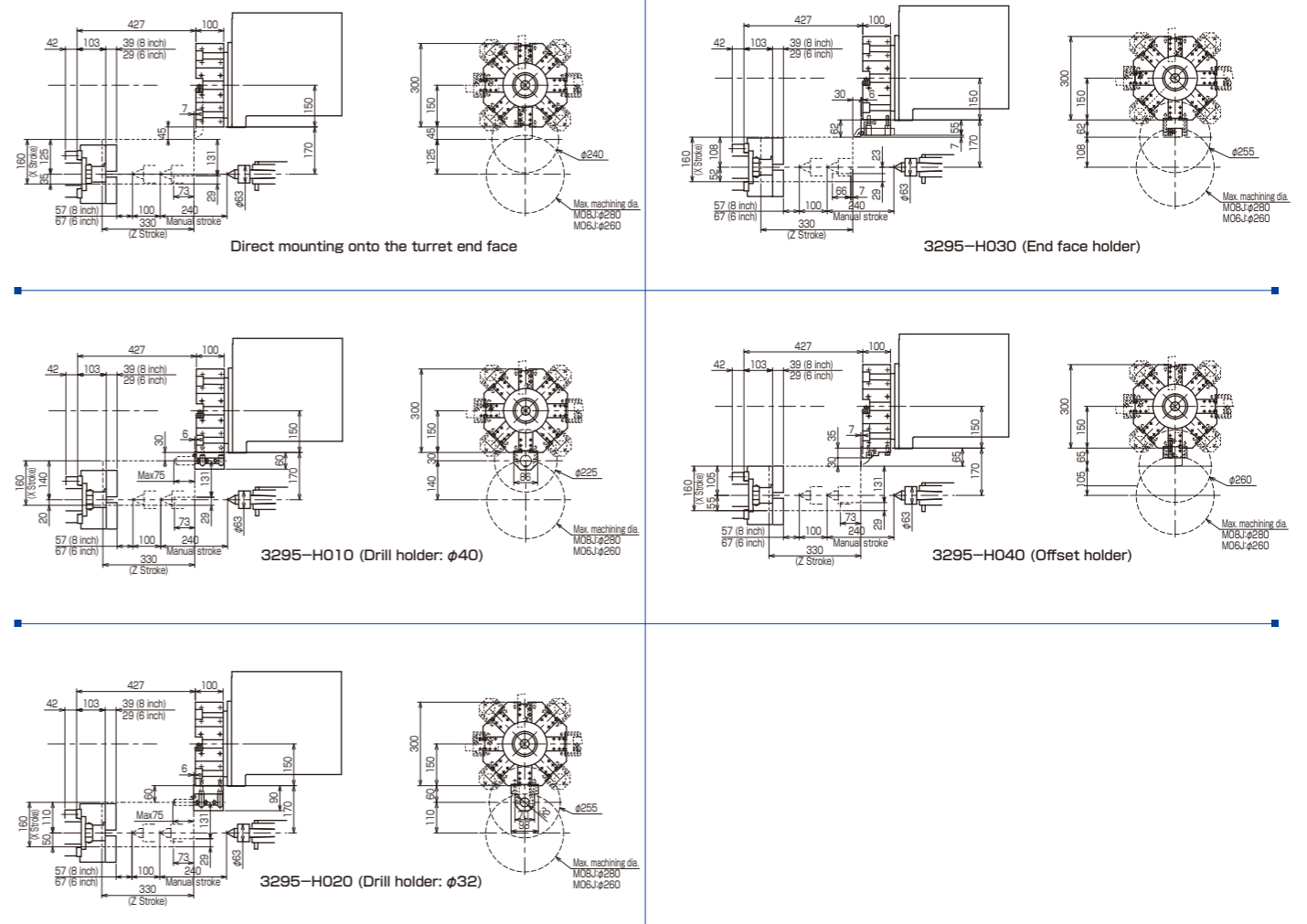
*Please determine the number of filters of the high-pressure pump at the time of order.

Tooling zone JC

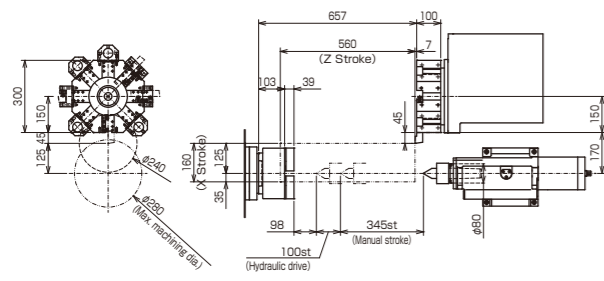


Max. drill protruded length 40 mm

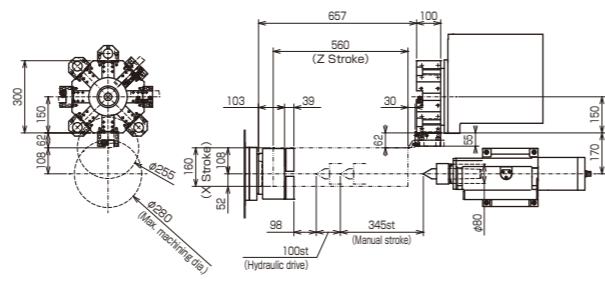
Tooling zone J-II



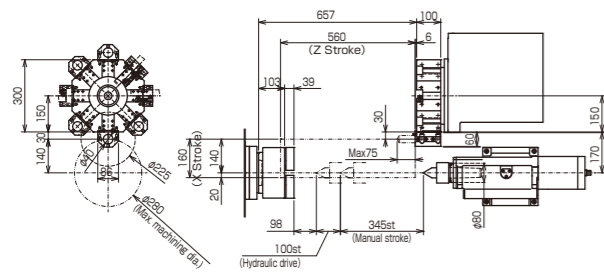
Tooling zone JL5-II



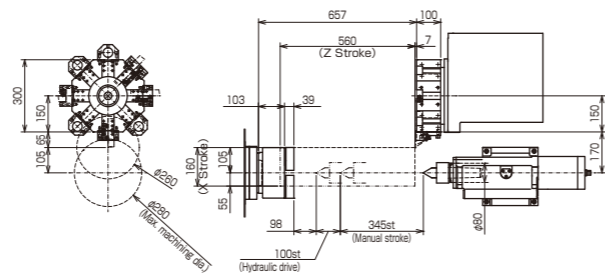
Direct mounting onto the turret end face



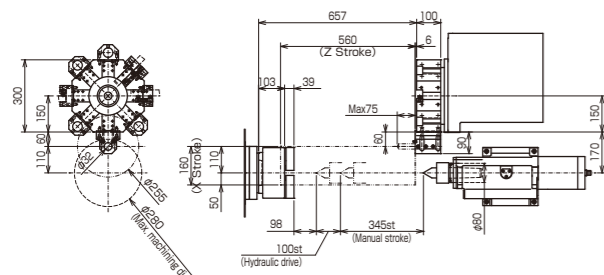
3295-H030 (End face holder)



3295-H010 (Drill holder: $\phi 40$)

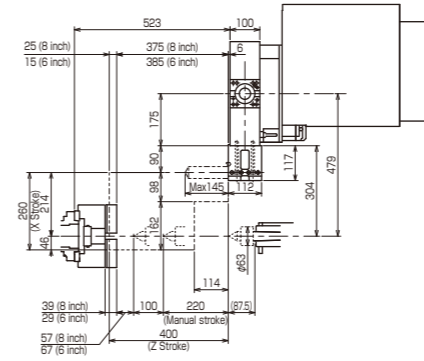


3295-H040 (Offset holder)

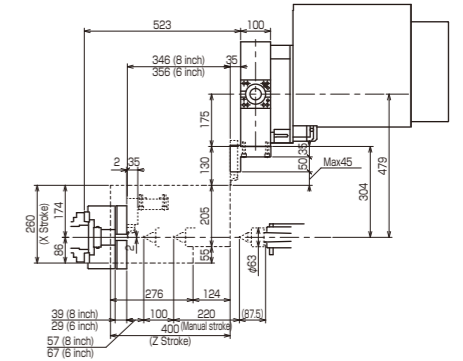


3295-H020 (Drill holder: $\phi 32$)

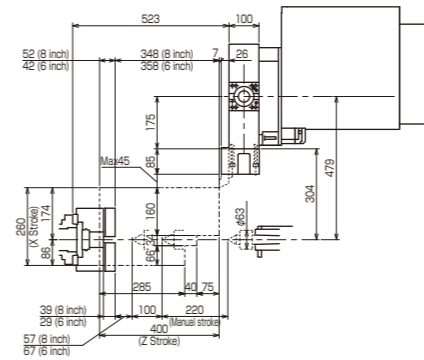
Tooling zone D-II



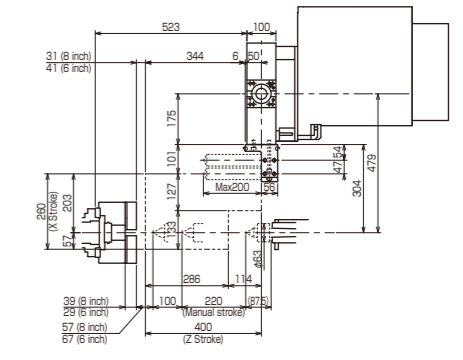
3295-H230 (Front drill holder: $\phi 40$)



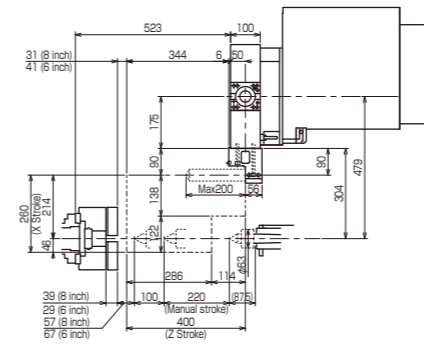
3295-H250 (Cut-off holder)



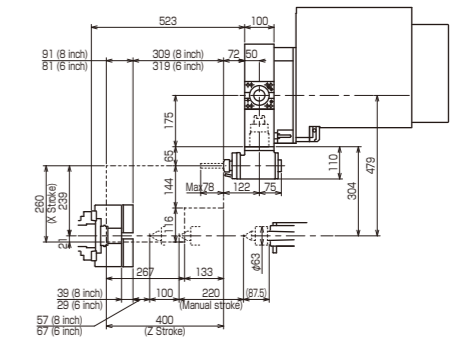
3295-H260 (Turning holder)



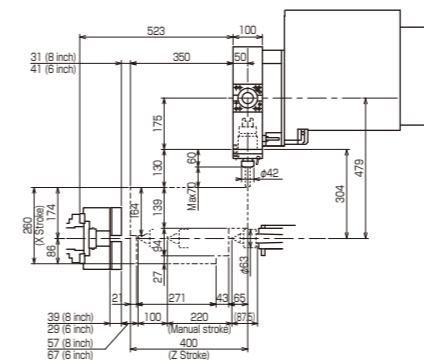
3295-H270 (Double drill holder: $\phi 40$ (Front offset))



3295-H290 (Front drill holder: $\phi 40$ (Front offset))

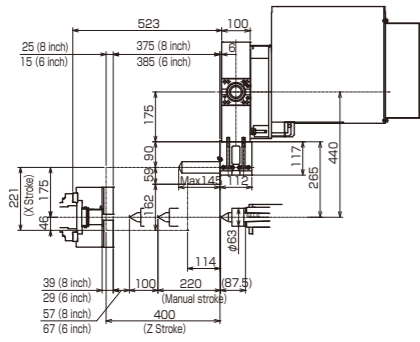


3295-Y171 (End face live tool (front))

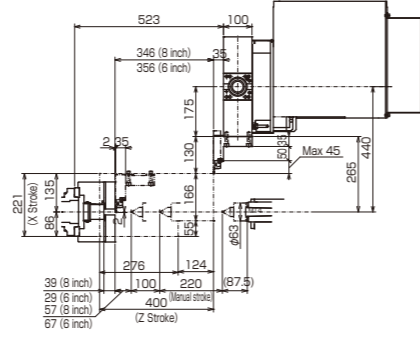


3295-Y161 (Cross live tool)

Tooling zone DY-II

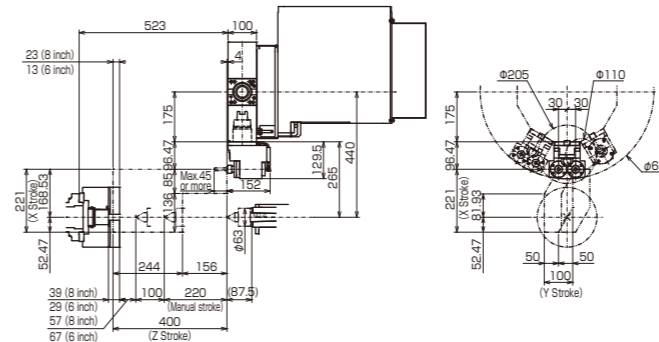


3295-H230 (Front drill holder: φ40)

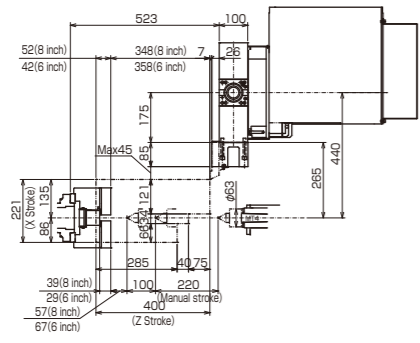


3295-H250 (Cut-off holder)

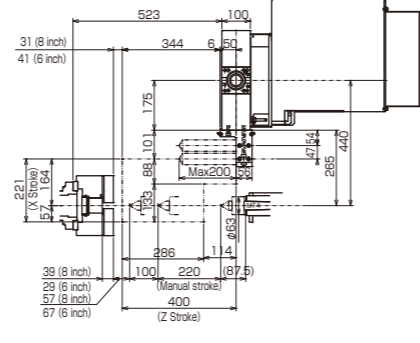
Tooling zone DY-II



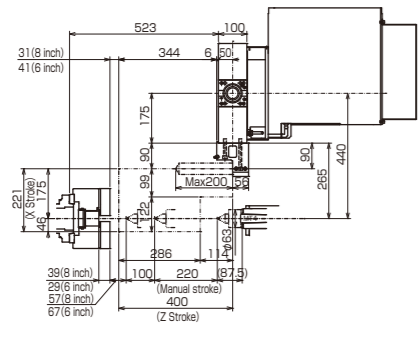
3295-Y1201 (End face live tool (double))



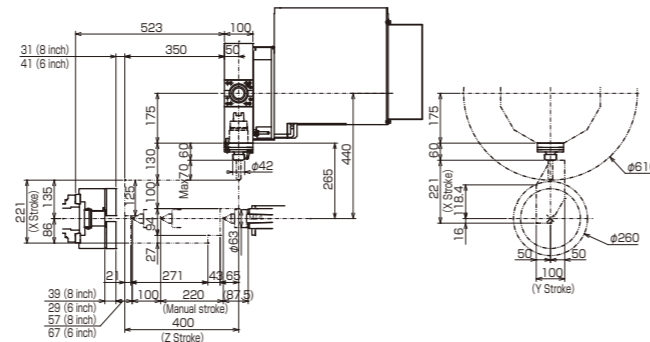
3295-H260 (Turning holder)



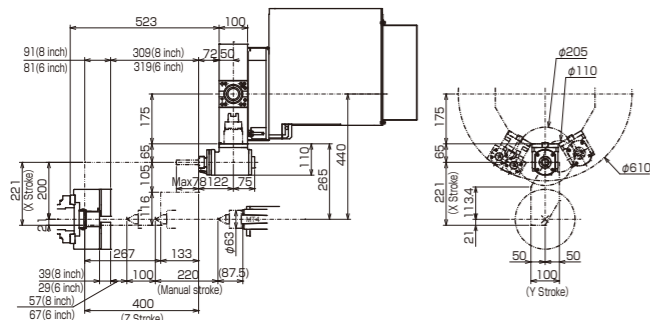
3295-H270 (Double drill holder: φ40 (front offset))



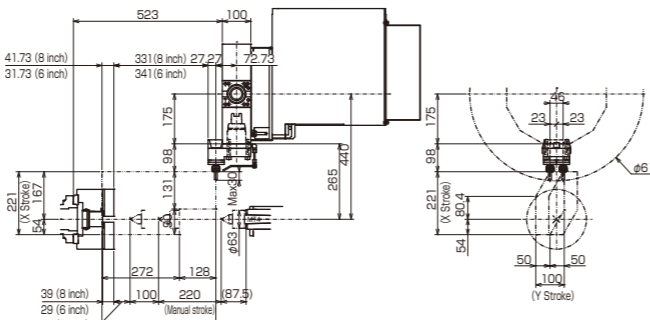
3295-H290 (Front drill holder: φ40 (front offset))



3295-Y161 (Cross live tool)

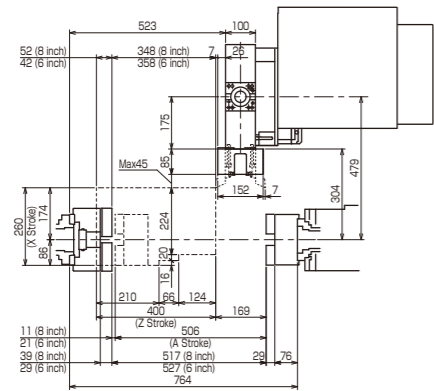


3295-Y171 (End face live tool)

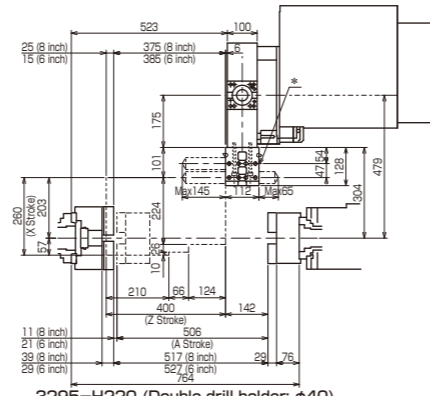


3295-Y1192 (Cross double live tool)

Tooling zone SD-II

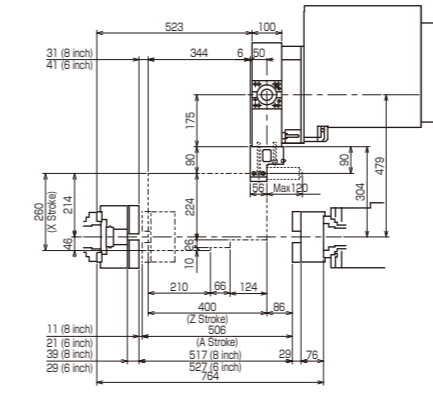


3295-H210 (Double turning holder)

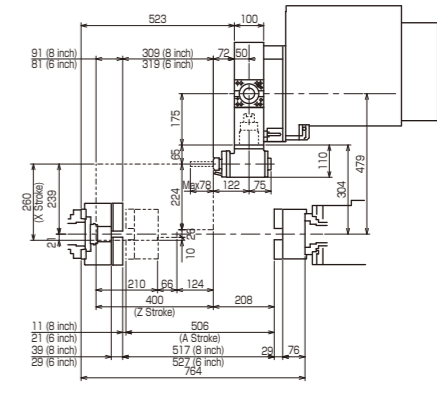


3295-H220 (Double drill holder: φ40)
*No back tools on the inner side tool position

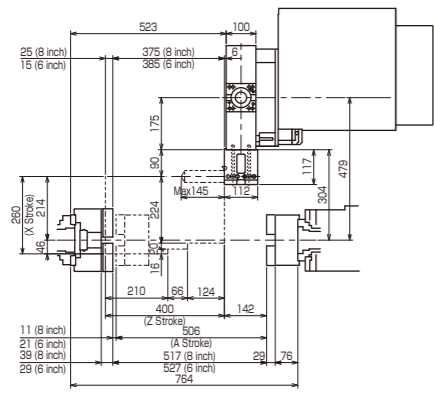
Tooling zone SD-II



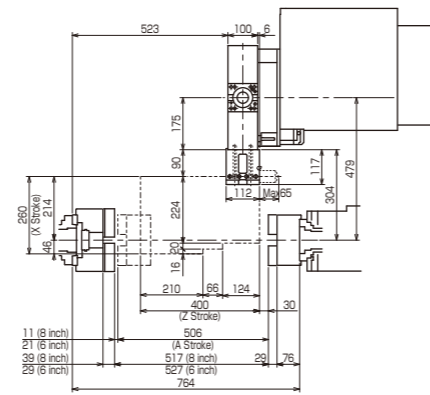
3295-H300 (Back drill holder: φ40 (back offset))



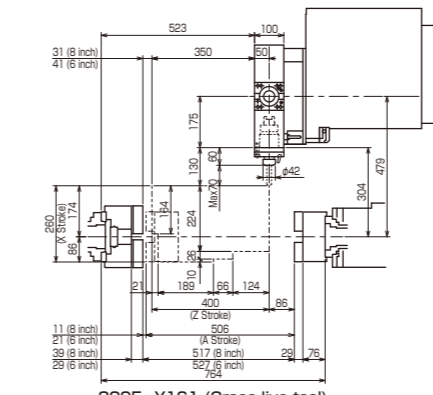
3295-Y171 (End face live tool (front))



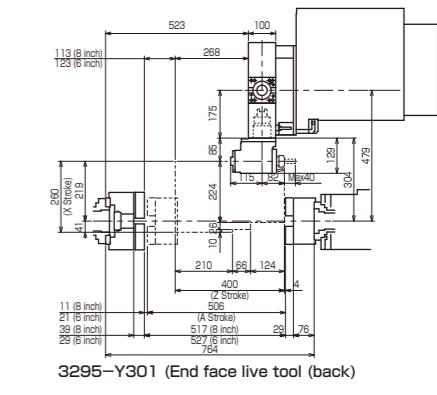
3295-H230 (Front drill holder: φ40)



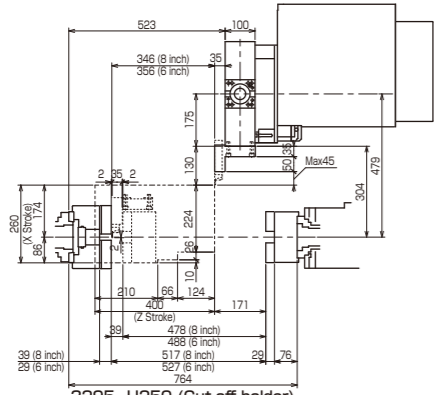
3295-H240 (Back drill holder: φ40)



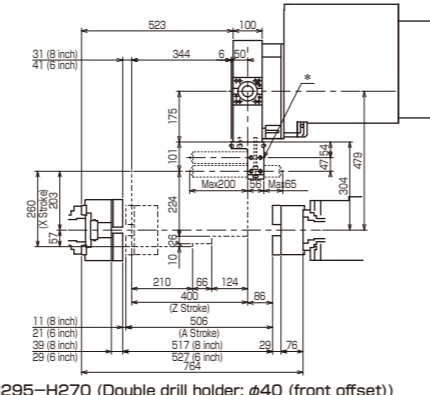
3295-Y161 (Cross live tool)



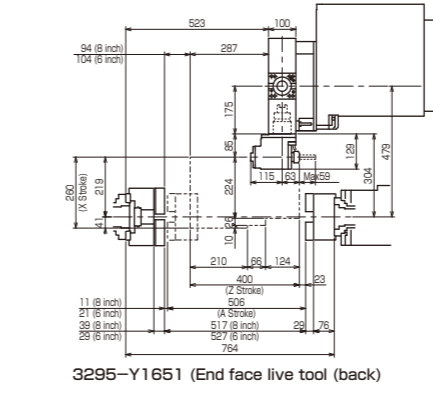
3295-Y301 (End face live tool (back))



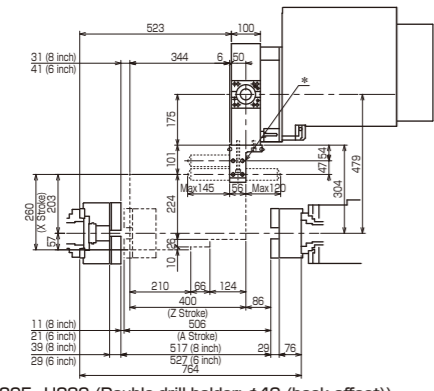
3295-H250 (Cut-off holder)



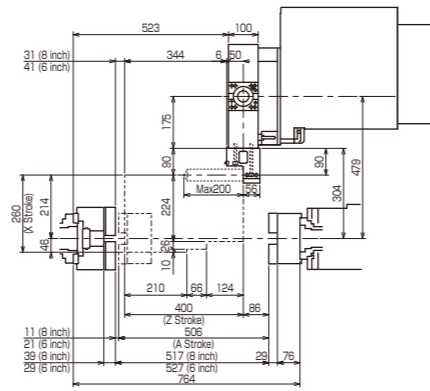
3295-H270 (Double drill holder: φ40 (front offset))
*No back tools on the inner side tool position



3295-Y1651 (End face live tool (back))

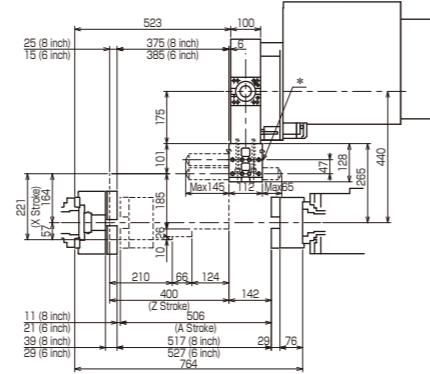
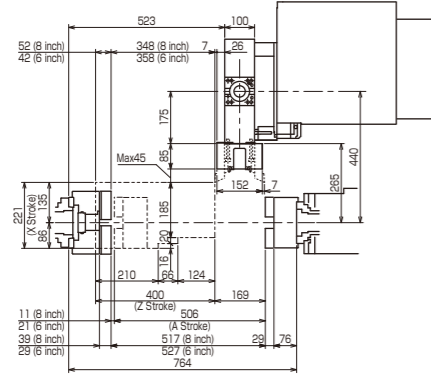


3295-H280 (Double drill holder: φ40 (back offset))
*No back tools on the inner side tool position

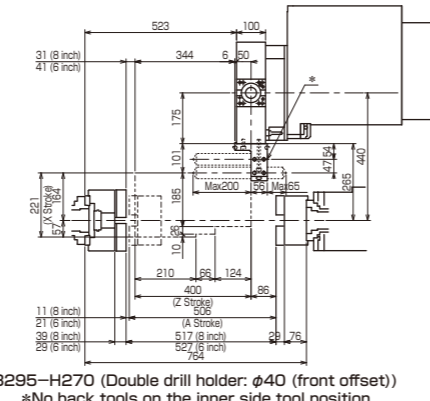
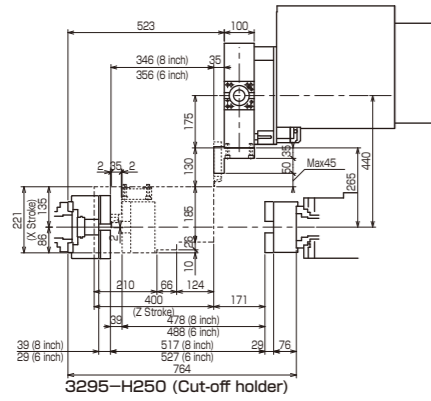
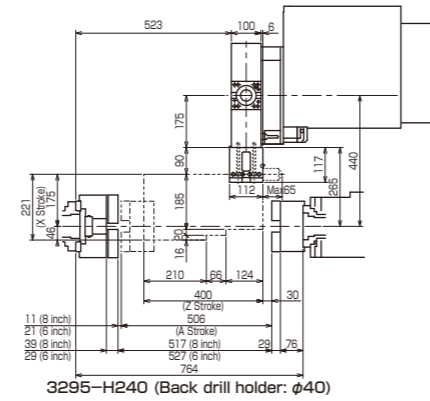
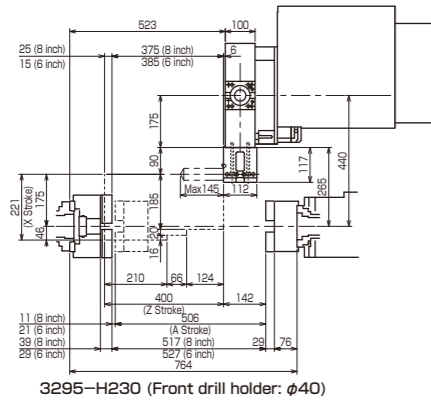


3295-H290 (Front drill holder: φ40 (front offset))

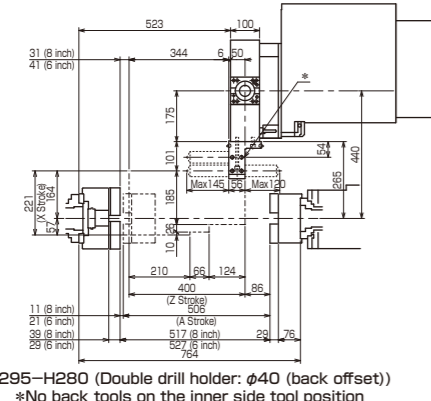
Tooling zone SY-II



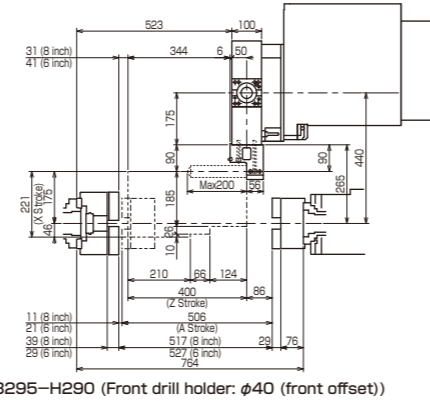
*No back tools on the inner side tool position



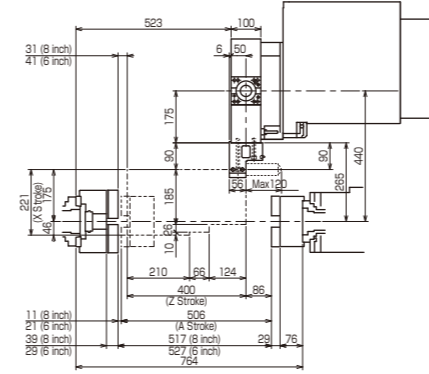
*No back tools on the inner side tool position



*No back tools on the inner side tool position



Tooling zone SY-II



*No back tools on the inner side tool position

