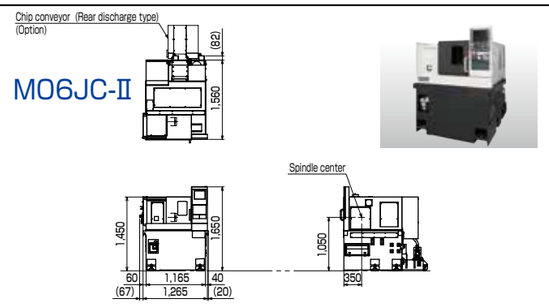
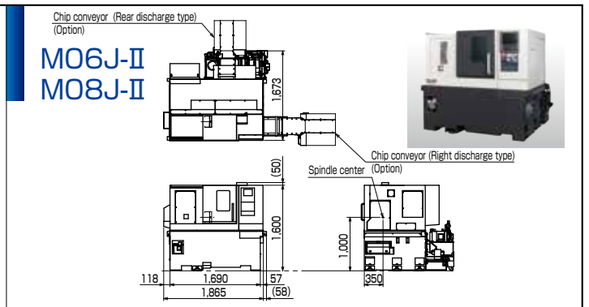
Layout

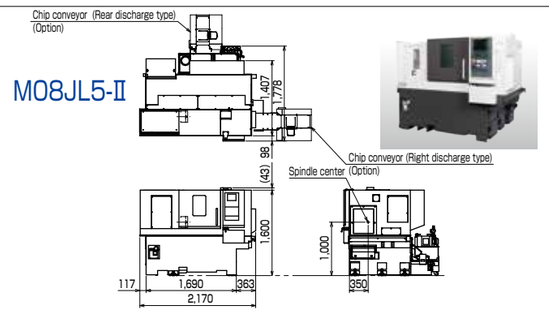
M06JC-Ⅱ



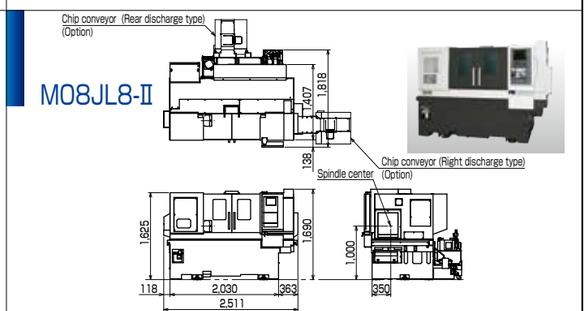
M06J-Ⅱ
M08J-Ⅱ



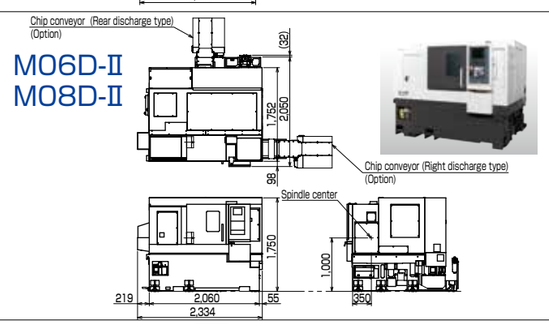
M08JL5-Ⅱ



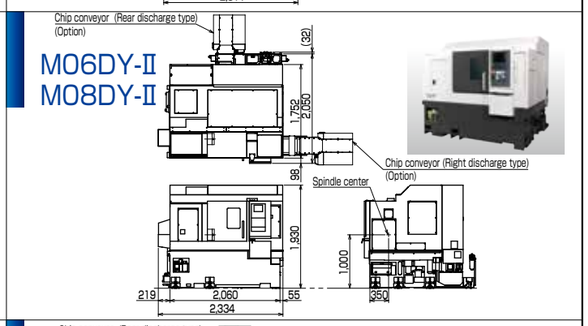
M08JL8-Ⅱ



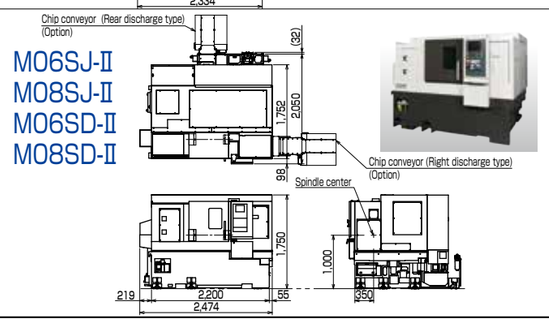
M06D-Ⅱ
M08D-Ⅱ



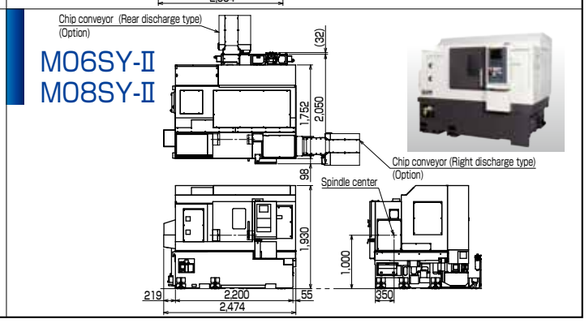
M06DY-Ⅱ
M08DY-Ⅱ



M06SJ-Ⅱ
M08SJ-Ⅱ
M06SD-Ⅱ
M08SD-Ⅱ



M06SY-Ⅱ
M08SY-Ⅱ



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

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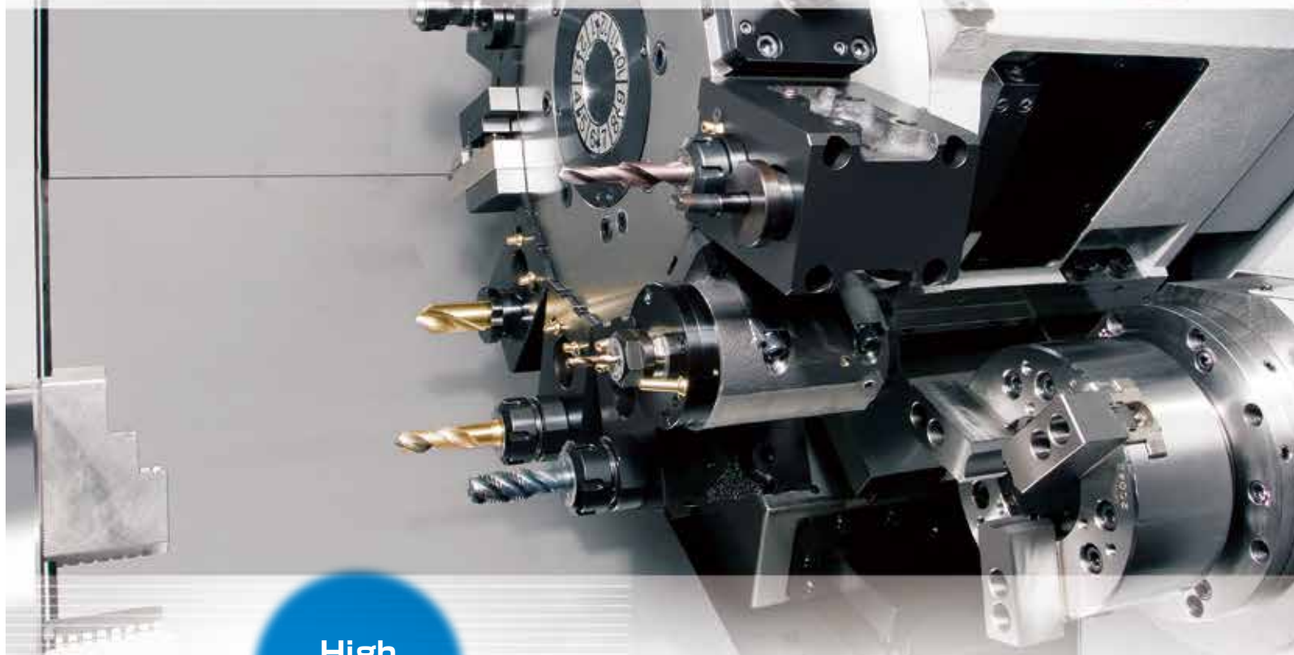
http://www.tsugami.co.jp/

CAT.NO.E123948.MAR.0T(H)

PRECISION TSUGAMI

CNC Lathe

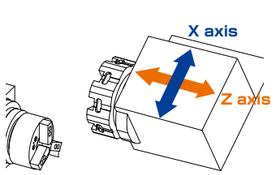
M06JC-Ⅱ
M06J-Ⅱ/M08J-Ⅱ
M08JL5-Ⅱ/M08JL8-Ⅱ
M06D-Ⅱ/M08D-Ⅱ
M06DY-Ⅱ/M08DY-Ⅱ
M06SJ-Ⅱ/M08SJ-Ⅱ
M06SD-Ⅱ/M08SD-Ⅱ
M06SY-Ⅱ/M08SY-Ⅱ



Realizes high accuracy, high rigidity, high productivity, space saving, and overwhelming cost performance.

Best selection from a wide range of variation to fit needs

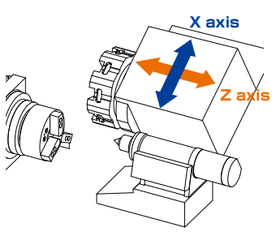
M06JC-Ⅱ
Space saving basic machine



M06JC-Ⅱ
(6 inch chuck)
Max. machining dia.: ϕ220mm
ϕ42mm (Barstock)
(Option)
Max. machining length: 190mm

Note: The figure includes options.

M06J-Ⅱ M08J-Ⅱ
Basic machine

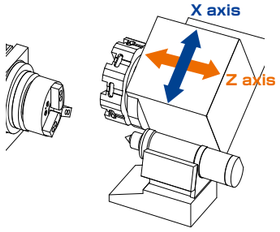


M06J-Ⅱ
(6 inch chuck)
Max. machining dia.: ϕ260mm
ϕ51mm (Barstock)
Max. machining length: 290mm

M08J-Ⅱ
(8 inch chuck)
Max. machining dia.: ϕ280mm
ϕ65mm (Barstock)
Max. machining length: 290mm

Note: The figure includes options.

M08JL5-Ⅱ M08JL8-Ⅱ
Long stroke basic machine

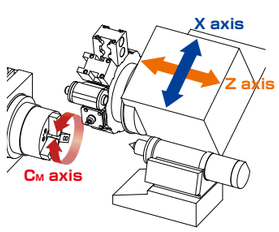


M08JL5-Ⅱ
(8 inch chuck)
Max. machining dia.: ϕ280mm
ϕ65mm (Barstock)
Max. machining length: 500mm

M08JL8-Ⅱ
(8 inch chuck)
Max. machining dia.: ϕ280mm
ϕ65mm (Barstock)
Max. machining length: 800mm

Note: The figure includes options.

M06D-Ⅱ M08D-Ⅱ
Turning center

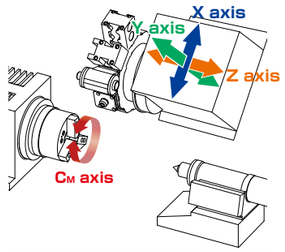


M06D-Ⅱ
(6 inch chuck)
Max. machining dia.: ϕ260 mm
ϕ51 mm (Barstock)
Max. machining length: 380 mm

M08D-Ⅱ
(8 inch chuck)
Max. machining dia.: ϕ280 mm
ϕ65 mm (Barstock)
Max. machining length: 380 mm

Note: The figure includes options.

M06DY-Ⅱ M08DY-Ⅱ
Turning center with Y axis

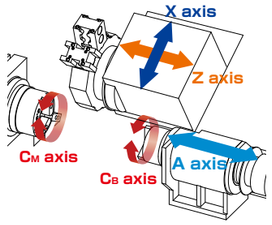


M06DY-Ⅱ
(6 inch chuck)
Max. machining dia.: ϕ260 mm
ϕ51 mm (Barstock)
Max. machining length: 380 mm

M08DY-Ⅱ
(8 inch chuck)
Max. machining dia.: ϕ280 mm
ϕ65 mm (Barstock)
Max. machining length: 380 mm

Note: The figure includes options.

M06SJ-Ⅱ M08SJ-Ⅱ
Basic machine with back spindle

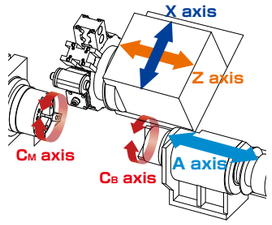


M06SJ-Ⅱ
(6 inch chuck)
Max. machining dia.: ϕ260 mm
ϕ51 mm (Barstock)
Max. machining length: 380 mm

M08SJ-Ⅱ
(8 inch chuck)
Max. machining dia.: ϕ280 mm
ϕ65 mm (Barstock)
Max. machining length: 380 mm

Note: The figure includes options.
All back spindles are 6 inches.

M06SD-Ⅱ M08SD-Ⅱ
Turning center with back spindle

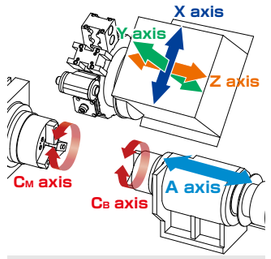


M06SD-Ⅱ
(6 inch chuck)
Max. machining dia.: ϕ260 mm
ϕ51 mm (Barstock)
Max. machining length: 380 mm

M08SD-Ⅱ
(8 inch chuck)
Max. machining dia.: ϕ280 mm
ϕ65 mm (Barstock)
Max. machining length: 380 mm

Note: The figure includes options.
All back spindles are 6 inches.

M06SY-Ⅱ M08SY-Ⅱ
Turning center with back spindle and Y axis



M06SY-Ⅱ
(6 inch chuck)
Max. machining dia.: ϕ260 mm
ϕ51 mm (Barstock)
Max. machining length: 380 mm

M08SY-Ⅱ
(8 inch chuck)
Max. machining dia.: ϕ280 mm
ϕ65 mm (Barstock)
Max. machining length: 380 mm

Note: The figure includes options.
All back spindles are 6 inches.

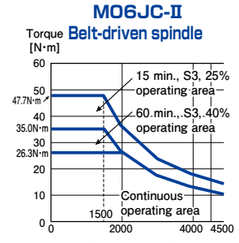
Machining capability to achieve high productivity (Material: [JIS] S45C)

	Standard type	
	Turning (Cutting area)	**Drilling**
M06JC-Ⅱ	0.9 mm² Machining dia.: ϕ50 mm Cutting depth: 3.0 mm Cutting speed: 200 m/min Feed: 0.3 mm/rev	ϕ20 mm Cutting speed: 200 m/min Feed: 0.2 mm/rev

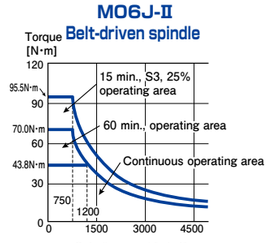
	Standard type		Low speed type (Option)	
	Turning (Cutting area)	**Drilling**	**Turning** (Cutting area)	**Drilling**
M06J-Ⅱ	1.5 mm² Machining dia.: ϕ50 mm Cutting depth: 3.0 mm Cutting speed: 150 m/min Feed: 0.5 mm/rev	ϕ20 mm Cutting speed: 150m/min Feed: 0.2mm/rev	———	———
M08J-Ⅱ M08JL5-Ⅱ M08JL8-Ⅱ	1.6 mm² Machining dia.: ϕ70 mm Cutting depth: 3.2 mm Cutting speed: 150 m/min Feed: 0.5 mm/rev	ϕ30 mm Cutting speed: 150 m/min Feed: 0.2 mm/rev	2.0 mm² Machining dia.: ϕ100 mm Cutting depth: 4.0 mm Cutting speed: 150 m/min Feed: 0.5 mm/rev	ϕ30 mm Cutting speed: 150 m/min Feed: 0.2 mm/rev

	Main spindle (D-Ⅱ/DY-Ⅱ/SJ-Ⅱ/SD-Ⅱ/SY-Ⅱ)		Back spindle (SJ-Ⅱ/SD-Ⅱ/SY-Ⅱ)	
	Turning (Cutting area)	**Drilling**	**Turning** (Cutting area)	**Drilling**
M06-Ⅱ M08-Ⅱ	1.6 mm² Machining dia.: ϕ70 mm Cutting depth: 4.0 mm Cutting speed: 150 m/min Feed: 0.4 mm/rev	ϕ30 mm Cutting speed: 150 m/min Feed: 0.2 mm/rev	1.0 mm² Machining dia.: ϕ55 mm Cutting depth: 4.0 mm Cutting speed: 150 m/min Feed: 0.25 mm/rev	ϕ20 mm Cutting speed: 150 m/min Feed: 0.2 mm/rev

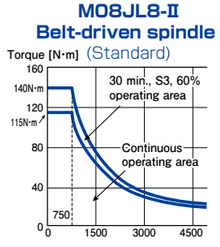
M06JC-Ⅱ
Torque [N·m] Belt-driven spindle



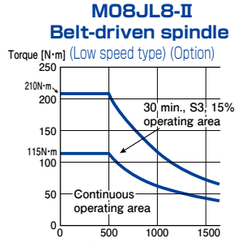
M06J-Ⅱ
Torque [N·m] Belt-driven spindle



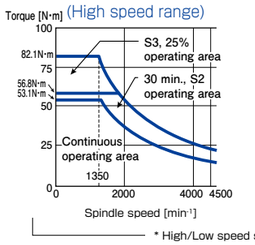
M08J-Ⅱ/M08JL5-Ⅱ M08JL8-Ⅱ
Belt-driven spindle
Torque [N·m] (Standard)



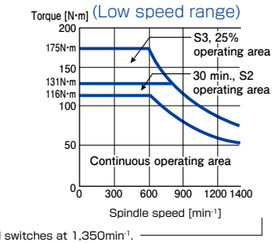
M08J-Ⅱ/M08JL5-Ⅱ M08JL8-Ⅱ
Belt-driven spindle
Torque [N·m] (Low speed type) (Option)



M06-Ⅱ/M08-Ⅱ
SJ-Ⅱ/D-Ⅱ/DY-Ⅱ/SD-Ⅱ/SY-Ⅱ
Built-in motor main spindle
Torque [N·m] (High speed range)

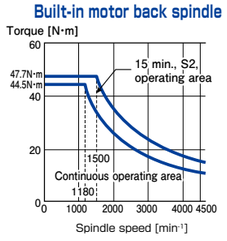


M06-Ⅱ/M08-Ⅱ
SJ-Ⅱ/D-Ⅱ/DY-Ⅱ/SD-Ⅱ/SY-Ⅱ
Built-in motor main spindle
Torque [N·m] (Low speed range)

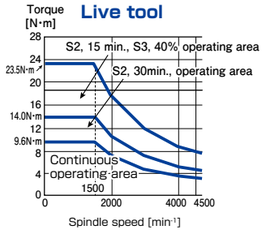


* High/Low speed switches at 1,350min-1.

M06-Ⅱ/M08-Ⅱ
SJ-Ⅱ/SD-Ⅱ/SY-Ⅱ
Built-in motor back spindle
Torque [N·m]



M06-Ⅱ/M08-Ⅱ
D-Ⅱ/DY-Ⅱ/SD-Ⅱ/SY-Ⅱ
Torque [N·m] **Live tool**



PRECISION TSUGAMI

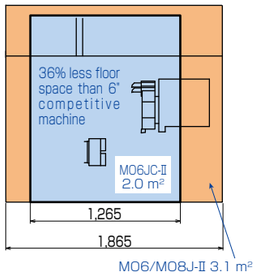
MO6JC-Ⅱ

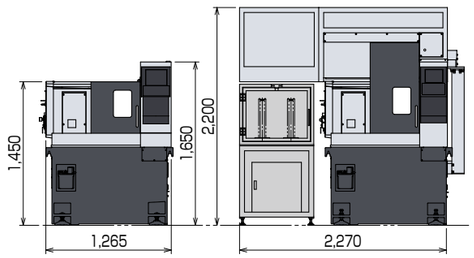
JC-Ⅱ Type

Space saving basic machine for turning, drilling, and boring

Space saving

- Compact machine: width 1,265 mm
- 1,450 mm height to the upper guard gives a clear view of the factory which makes operational supervision easier.
- Pullout type coolant tank helps chip cleaning easy.
- Standard coolant tank capacity: 116 L





Standard machine　Machine with NC loader

Tool post for turning

- The tool post dedicated for turning allows □20 mm tool to be mounted on the turret surface directly, and it realizes high efficiency machining.


8-station turret

Item	Specifications
Total number of tools	8
OD tool size	□20 mm
Drill holder hole dia.	ϕ25 mm

High rigidity

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

Machining capability

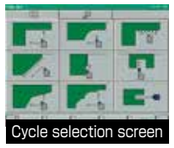
- Enables turning, drilling, and boring.
- Realizes heavy-duty cutting by rigid basic structure.
- Corresponds to the compact automation system.

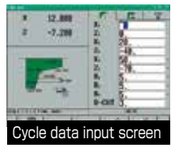
High-accuracy machining

- Thanks to the thermal displacement compensation, the long-term stable production is realized.

Simple operation

- Programs can be created easily with optional on-board conversational programming software (FANUC: TURN MATE i).

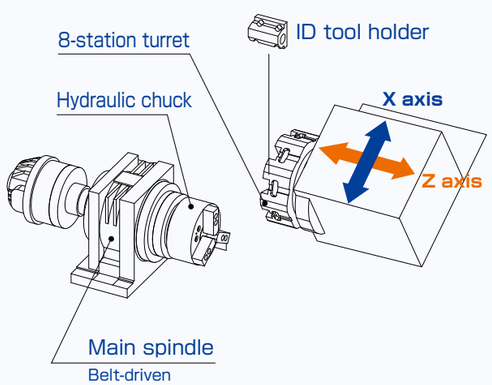

Cycle selection screen


Cycle data input screen

- Safety setting up by interference prevention function at debug mode.
- Reduces the damage to the machine with retraction function by abnormal load detection.

Overwhelming cost performance

- Overwhelming cost performance to enable big profit by small investment



Note: The figure includes options.

PRECISION TSUGAMI

MO6J-Ⅱ/MO8J-Ⅱ

J-Ⅱ Type

Basic machine for turning, drilling, and boring

Machining capability


8-station turret

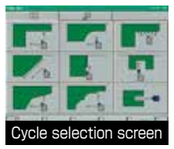
- Enables turning, drilling, and boring.
- Realizes heavy-duty cutting by rigid basic structure
- Achieves high productivity by heavy-duty cutting and stable machining accuracy.
- Pullout type coolant tank helps chip cleaning easy.
- Standard coolant tank capacity: 145 L

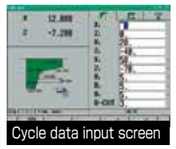
High-accuracy machining

- Thanks to the thermal displacement compensation, the long-term stable production is realized.
- Optional built-in motor spindle is selectable.

Simple operation

- Programs can be created easily with optional on-board conversational programming software (FANUC: TURN MATE i).


Cycle selection screen


Cycle data input screen

- Safety setting up by interference prevention function at debug mode.
- Reduces the damage to the machine with retraction function by abnormal load detection.

Tool post for turning

- The tool post dedicated for turning allows □25 mm tool to be mounted on the turret surface directly, and it realizes high efficiency machining.

Item	Specifications
Total number of tools	8
OD tool size	□25 mm
Drill holder hole dia.	ϕ32 mm/ϕ40 mm

High rigidity

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

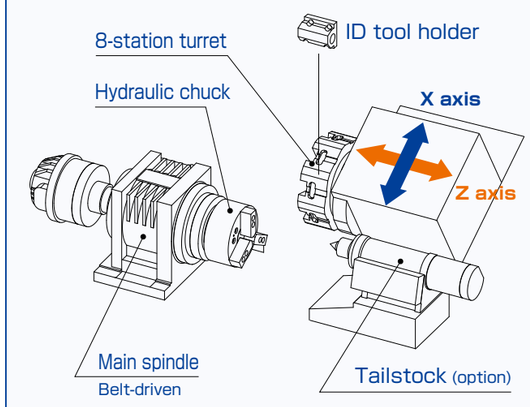
Overwhelming cost performance

- Overwhelming cost performance to enable big profit by small investment

Corresponds to a long workpiece

- The tailstock (option) enables machining of a long workpiece or a workpiece with less chucking length.

Item	Specifications
Tapered hole	MT No.4
Tailstock stroke	100 mm (Hydraulic drive)
Position adjustment	Manual (240 mm)



Note: The figure includes options.

PRECISION TSUGAMI

MO8JL5-Ⅱ

JL5-Ⅱ Type

Long stroke type basic machine for turning, drilling, and boring (Max. machining length: 500 mm)

Machining capability


8-station turret

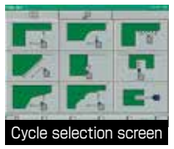
- Max. machining length: 500 mm
- Enables turning, drilling, and boring.
- Realizes heavy-duty cutting by rigid basic structure.
- Equipped with the high rigidity tailstock (option) for long workpieces.
- Pullout type coolant tank helps chip cleaning easy.
- Standard coolant tank capacity: 145 L

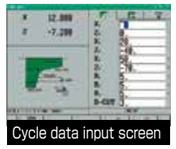
High-accuracy machining

- Thanks to the thermal displacement compensation, the long-term stable production is realized.
- Optional built-in motor spindle is selectable.

Simple operation

- Programs can be created easily with optional on-board conversational programming software (FANUC: TURN MATE i).


Cycle selection screen


Cycle data input screen

- Safety setting up by interference prevention function at debug mode.
- Reduces the damage to the machine with retraction function by abnormal load detection.

Tool post for turning

- The tool post dedicated for turning allows □25 mm tool to be mounted on the turret surface directly, and it realizes high efficiency machining.

Item	Specifications
Total number of tools	8
OD tool size	□25 mm
Drill holder hole dia.	ϕ32 mm/ϕ40 mm

High rigidity

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

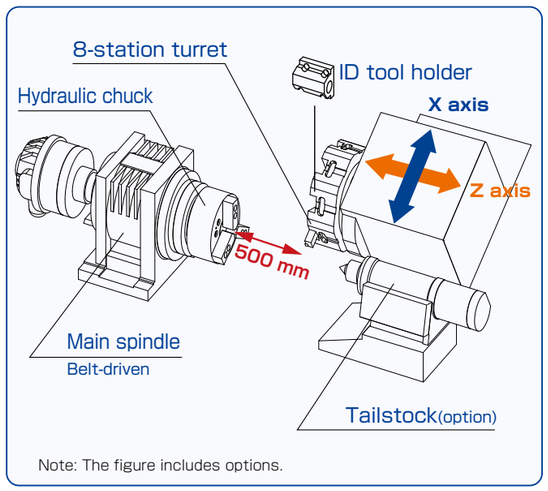
Overwhelming cost performance

- Overwhelming cost performance to enable big profit by small investment

Corresponds to a long workpiece

- The tailstock (option) enables machining of a long workpiece or a workpiece with less chucking length.

Item	Specifications
Tapered hole	MT No.5
Tailstock stroke	100 mm (Hydraulic drive)
Position adjustment	Manual (345 mm)



Note: The figure includes options.

PRECISION TSUGAMI

MO8JL8-Ⅱ

JL8-Ⅱ Type

Long stroke type basic machine for turning, drilling, and boring (Max. machining length: 800 mm)

Machining capability


8-station turret

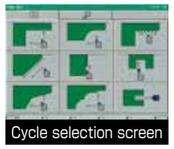
- Max. machining length: 800 mm
- Enables turning, drilling, and boring.
- Realizes heavy-duty cutting by rigid basic structure
- Equipped with the high rigidity tailstock (option) for long workpieces.
- Pullout type coolant tank helps chip cleaning easy.
- Standard coolant tank capacity: 145 L

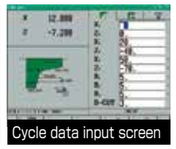
High-accuracy machining

- Thanks to the thermal displacement compensation, the long-term stable production is realized.
- Optional built-in motor spindle is selectable.

Simple operation

- Programs can be created easily with optional on-board conversational programming software (FANUC: TURN MATE i).


Cycle selection screen


Cycle data input screen

- Safety setting up by interference prevention function at debug mode.
- Reduces the damage to the machine with retraction function by abnormal load detection.

Tool post for turning

- The tool post dedicated for turning allows □25 mm tool to be mounted on the turret surface directly, and it realizes high efficiency machining.

Item	Specifications
Total number of tools	8
OD tool size	□25 mm
Drill holder hole dia.	ϕ32 mm/ϕ40 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

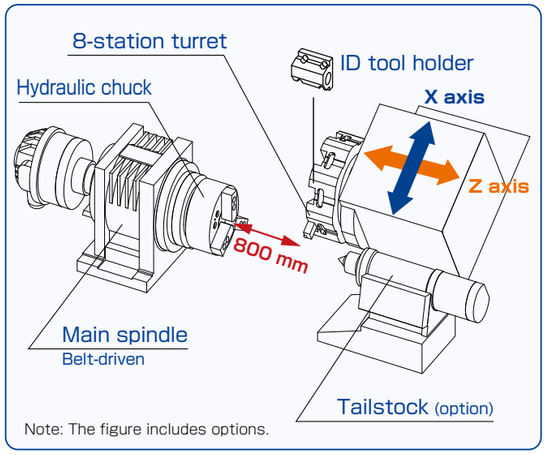
Corresponds to a long workpiece

- Deflection of long workpiece is reduced by using the intermediate work rest unit (option).
- The tailstock (option) enables machining of a long workpiece or a workpiece with less chucking length.

Item	Specifications
Tapered hole	MT No.5
Tailstock stroke	100 mm (Hydraulic drive)
Position adjustment	Manual (345 mm)

- When using the tailstock (option), the minimum workpiece length is 423.5 mm.

* The length varies depending on specifications of chuck or live center.



Note: The figure includes options.

PRECISION TSUGAMI

M06D-Ⅱ/M08D-Ⅱ

D-Ⅱ Type

Turning center

Machining capability


12-station turret

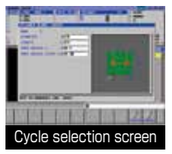
- Not only turning drilling or boring, but also milling including cross drilling is realized.
- Built-in motor is equipped on the main spindle.
- Realizes heavy-duty cutting by rigid basic structure
- Powerful milling capability
- Pullout type coolant tank helps chip cleaning easy.
- Standard coolant tank capacity: 190 L

High-accuracy machining

- Thanks to the thermal displacement compensation, the long-term stable production is realized.
- Built-in motor main spindle achieves high-accuracy machining with less vibration.

Simple operation


Simulation screen


Cycle selection screen

- Programs can be created easily with optional on-board conversational programming software (FANUC: MANUAL GUIDE i).
- Safety setting up by interference prevention function at debug mode.
- Reduces the damage to the machine with retraction function by abnormal load detection.

Live tools can be mounted on all positions.

- Live tools (option) can be mounted on all positions of the 12-station turret. Cross-drilling, front off-center drilling, etc. are feasible.

Item	Specifications
Max. number of live tools	12
Rotation speed	Max. 5,000 min^{-1} (Rated speed: 4,000 min^{-1})
Applicable collet	ER25
Max. chucking dia.	ϕ16 mm

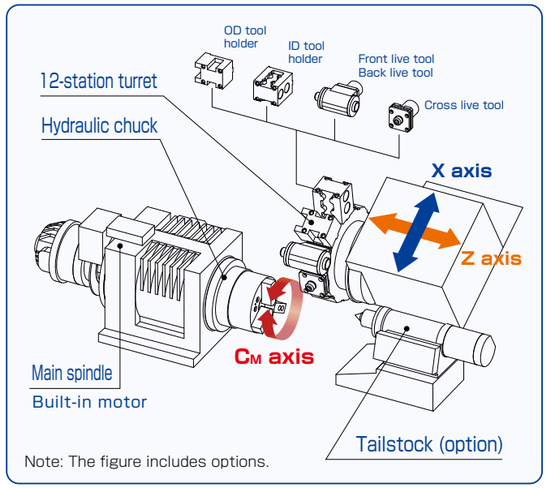
Overwhelming cost performance

- Overwhelming cost performance to enable big profit by small investment

Corresponds to a long workpiece

- The tailstock (option) enables machining of a long workpiece or a workpiece with less chucking length.

Item	Specifications
Tapered hole	MT No. 4
Tailstock stroke	100 mm (Hydraulic drive)
Position adjustment	Manual (240 mm)

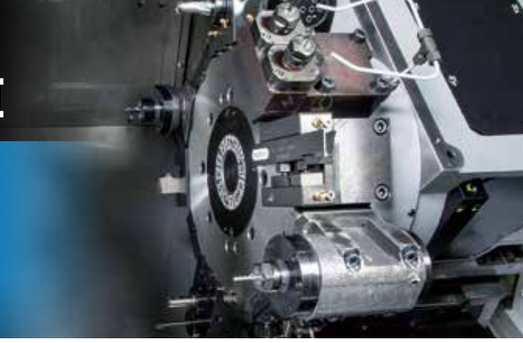


Note: The figure includes options.

PRECISION TSUGAMI

M06DY-Ⅱ/M08DY-Ⅱ

DY-Ⅱ Type



Turning center with Y axis

Machining capability


12-station turret

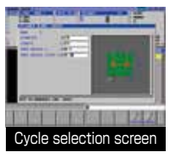
- Y-axis control enables machining of complex-shaped works.
- Not only turning drilling or boring, but also milling including cross drilling is realized.
- Built-in motor is equipped on the main spindle.
- Realizes heavy-duty cutting by rigid basic structure
- Powerful milling capability
- Pullout type coolant tank helps chip cleaning easy.
- Standard coolant tank capacity: 190 L

Y-axis machining

- Long stroke Y-axis control of ± 50 mm enables a variety of milling.

Simple operation


Simulation screen


Cycle selection screen

- Programs can be created easily with optional on-board conversational programming software (FANUC: MANUAL GUIDE i).
- Safety setting up by interference prevention function at debug mode.
- Reduces the damage to the machine with retraction function by abnormal load detection.

Live tools can be mounted on all positions.

- Live tools (option) can be mounted on all positions of the 12-station turret. Cross-drilling, front off-center drilling, etc. are feasible.

Item	Specifications
Max. number of live tools	12
Rotation speed	Max. 5,000 min^{-1} (Rated speed: 4,000 min^{-1})
Applicable collet	ER25
Max. chucking dia.	ϕ16 mm

High-accuracy machining

- Thanks to the thermal displacement compensation, the long-term stable production is realized.
- Built-in motor main spindle achieves high-accuracy machining with less vibration.

High rigidity

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

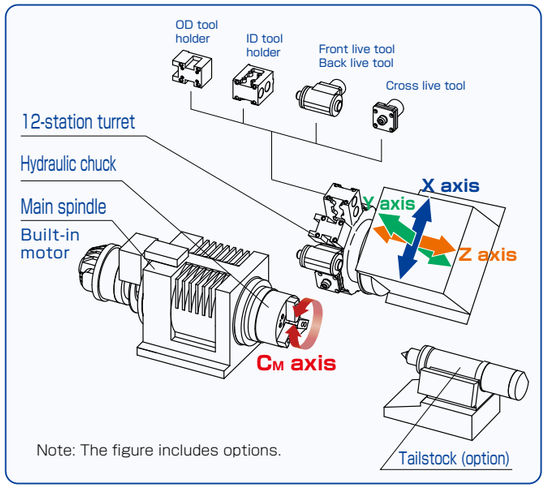
Corresponds to a long workpiece

- The tailstock (option) enables machining of a long workpiece or a workpiece with less chucking length.

Item	Specifications
Tapered hole	MT No. 4
Tailstock stroke	100 mm (Hydraulic drive)
Position adjustment	Manual (240 mm)

Overwhelming cost performance

- Overwhelming cost performance to enable big profit by small investment



Note: The figure includes options.

PRECISION TSUGAMI

MO6SJ-Ⅱ/MO8SJ-Ⅱ

SJ-Ⅱ Type

Basic machine with back spindle for turning, drilling, and boring

Machining capability

- Enables turning, drilling, and boring on the back side.
- Built-in motor is equipped on the main and back spindle.
- Realizes heavy-duty cutting by rigid basic structure
- Achieves high productivity by heavy-duty cutting and stable machining accuracy.
- Pullout type coolant tank helps chip cleaning easy.
- Standard coolant tank capacity: 190 L


Back spindle


12-station turret

High-accuracy machining

- Thanks to the thermal displacement compensation, the long-term stable production is realized.
- Built-in motor type main and back spindles achieve high-accuracy machining with less vibration.

Tool holder

OD tool holder
- Double turning holder

ID tool holder
- Double drill holder

Simple operation

- Programs can be created easily with optional on-board conversational programming software (FANUC: MANUAL GUIDE i).


Simulation screen


Cycle selection screen

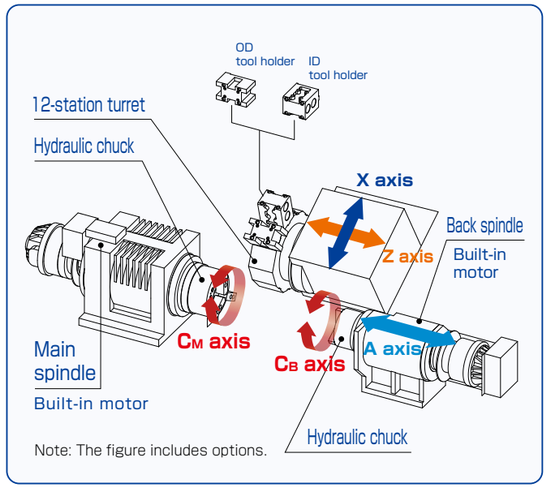
- Safety setting up by interference prevention function at debug mode.
- Reduces the damage to the machine with retraction function by abnormal load detection.

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



Note: The figure includes options.

PRECISION TSUGAMI

MO6SD-Ⅱ/MO8SD-Ⅱ

SD-Ⅱ Type

Turning center with back spindle

Machining capability

- Cutting-off side can be machined with back spindle, so the secondary machining is unnecessary.
- Not only turning drilling or boring, but also milling including cross drilling is realized.
- Built-in motor is equipped on the main and back spindle.
- Realizes heavy-duty cutting by rigid basic structure
- Powerful milling capability
- Pullout type coolant tank helps chip cleaning easy.
- Standard coolant tank capacity: 190 L


Back spindle


12-station turret

High-accuracy machining

- Thanks to the thermal displacement compensation, the long-term stable production is realized.
- Built-in motor type main and back spindles achieve high-accuracy machining with less vibration.

Live tools can be mounted on all positions.

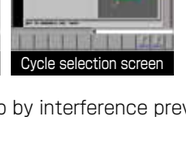
- Live tools (option) can be mounted on all positions of the 12-station turret. Cross-drilling, off-center drilling, etc. even on the back spindle are feasible.

Item	Specifications
Max. number of live tools	12
Rotation speed	Max. 5,000 min^{-1} (Rated speed: 4,000 min^{-1})
Applicable collet	ER25
Max. chucking dia.	ϕ16 mm

Simple operation

- Programs can be created easily with optional on-board conversational programming software (FANUC: MANUAL GUIDE i).

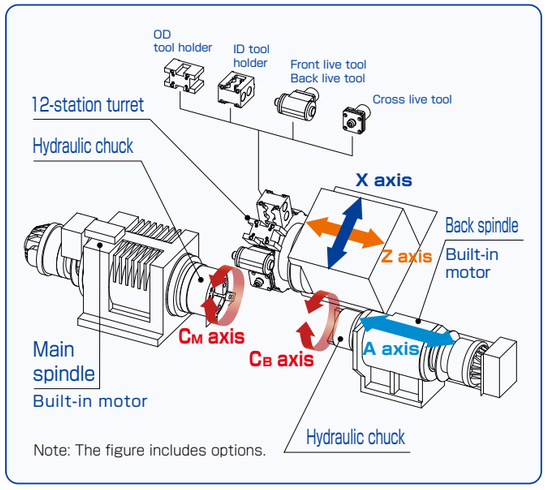

Simulation screen


Cycle selection screen

- Safety setting up by interference prevention function at debug mode.
- Reduces the damage to the machine with retraction function by abnormal load detection.

Overwhelming cost performance

- Overwhelming cost performance to enable big profit by small investment



Note: The figure includes options.

MO6SY-Ⅱ/MO8SY-Ⅱ

SY-Ⅱ Type

Turning center with back spindle and Y axis

Machining capability

- Y-axis control enables machining of complex-shaped works.
- Cutting-off side can be machined with back spindle, so the secondary machining is unnecessary.
- Not only turning drilling or boring, but also milling including cross drilling is realized.
- Built-in motor is equipped on the main and back spindle.
- Realizes heavy-duty cutting by rigid basic structure
- Powerful milling capability
- Pullout type coolant tank helps chip cleaning easy.
- Standard coolant tank capacity: 190 L

Back spindle

12-station turret

Y-axis machining

- Long stroke Y-axis control of ± 50 mm enables a variety of milling.

High-accuracy machining

- Thanks to the thermal displacement compensation, the long-term stable production is realized.
- Built-in motor type main and back spindles achieve high-accuracy machining with less vibration.

Live tools can be mounted on all positions.

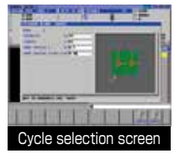
- Live tools (option) can be mounted on all positions of the 12-station turret. Milling even on the back spindle is feasible.

Item	Specifications
Max. number of live tools	12
Rotation speed	Max. 5,000 min^{-1} (Rated speed: 4,000 min^{-1})
Applicable collet	ER25
Max. chucking dia.	ϕ16 mm

Simple operation

- Programs can be created easily with optional on-board conversational programming software (FANUC: MANUAL GUIDE i).

Simulation screen



Cycle selection screen

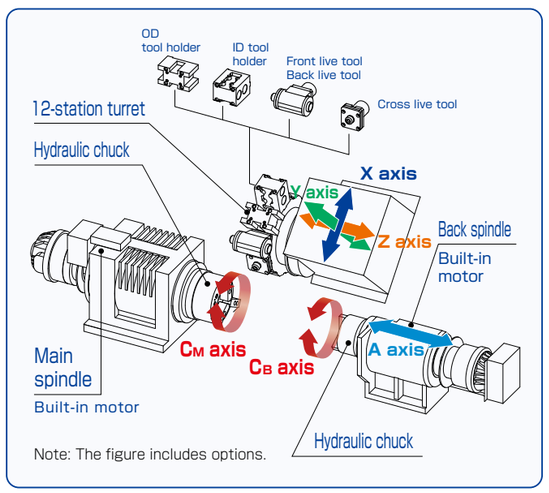
- Safety setting up by interference prevention function at debug mode.
- Reduces the damage to the machine with retraction function by abnormal load detection.

High rigidity

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

Overwhelming cost performance

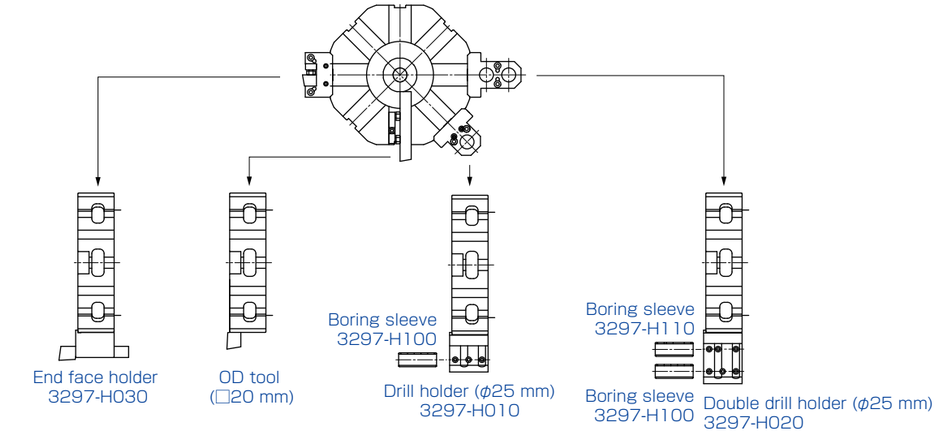
- Overwhelming cost performance to enable big profit by small investment



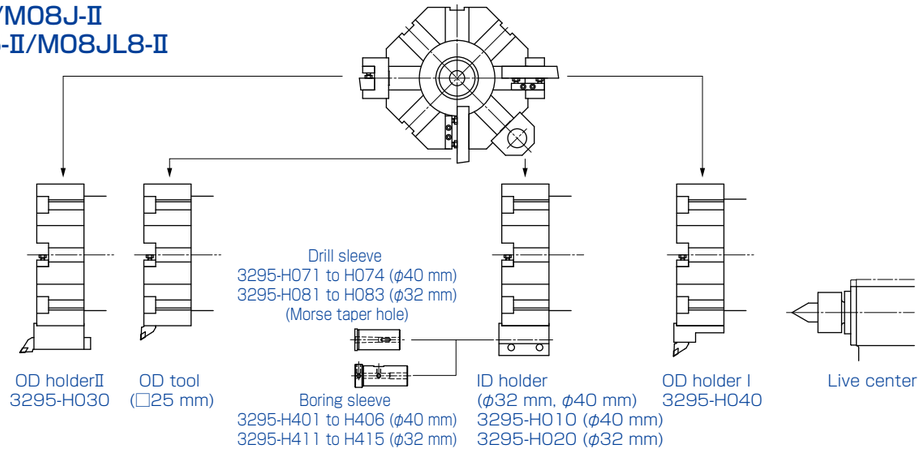
Note: The figure includes options.

Tool holder (Option)

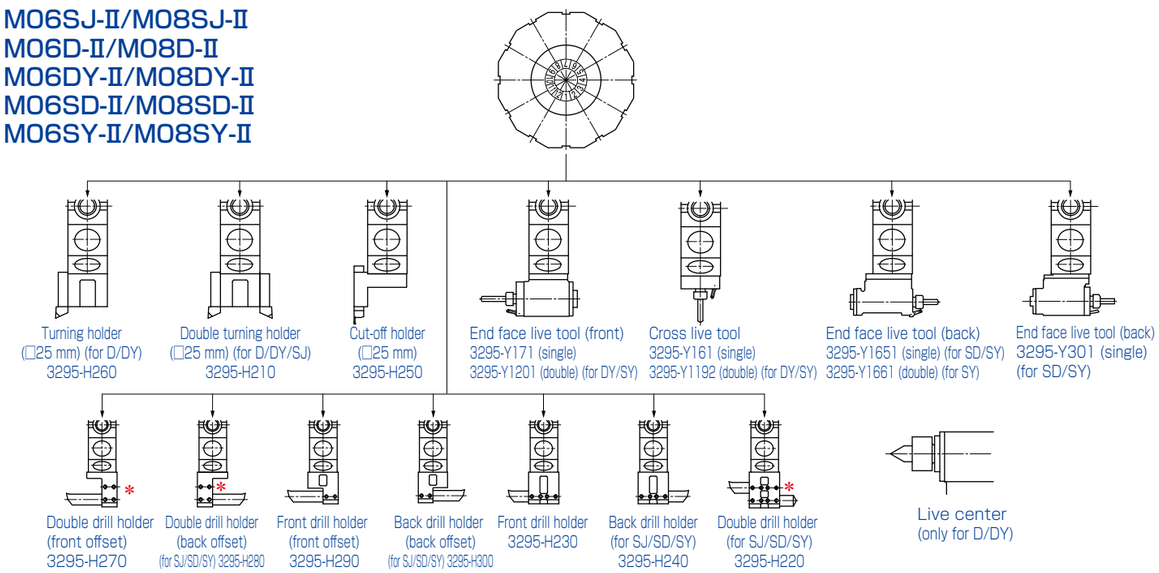
MO6JC-Ⅱ



MO6J-Ⅱ/MO8J-Ⅱ
MO8JL5-Ⅱ/MO8JL8-Ⅱ



MO6SJ-Ⅱ/MO8SJ-Ⅱ
MO6D-Ⅱ/MO8D-Ⅱ
MO6DY-Ⅱ/MO8DY-Ⅱ
MO6SD-Ⅱ/MO8SD-Ⅱ
MO6SY-Ⅱ/MO8SY-Ⅱ

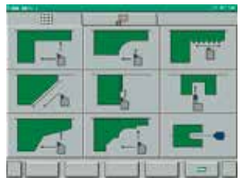


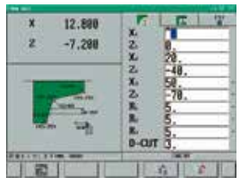
* Any back side tools cannot be mounted on the turret side tool position.

Control functions

Automatic programming software (Option)

On-board conversational programming software,TURN MATE i (FANUC), is prepared as an option.
(M06J-Ⅱ/M08J-Ⅱ/M08JL5-Ⅱ/M08JL8-Ⅱ/M06JC-Ⅱ)


Cycle selection screen



Cycle data input screen

- Inputs data according to the map displayed on the screen. Processing without NC program is possible.
- Continuous operation of the machining cycle (up to 20 pcs)
- ISO program conversion function of the processing cycle. Dedicated program for TURN MATE i (FANUC) can be converted to the ISO program.

On-board conversational programming software,MANUAL GUIDE i (FANUC), is prepared as an option.
(M06SJ-Ⅱ/M08SJ-Ⅱ/M06D-Ⅱ/M08D-Ⅱ/M06DY-Ⅱ/M08DY-Ⅱ/M06SD-Ⅱ/M08SD-Ⅱ/M06SY-Ⅱ/M08SY-Ⅱ)

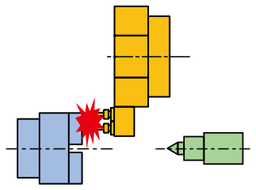

Simulation screen


Cycle selection screen

- Inputs data according to the map displayed on the screen.
- Simulation by animation
- ISO program conversion function of the processing cycle. Dedicated program for MANUAL GUIDE i (FANUC) can be converted to the ISO program.

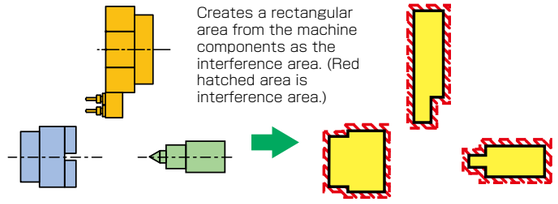
Retraction function by abnormal load detection (Standard)

When load level exceeds the preset level due to the collision, cutting tool breakage, etc., an alarm will occur, and the slide is moved to the retracting direction immediately to reduce the damage to the machine.

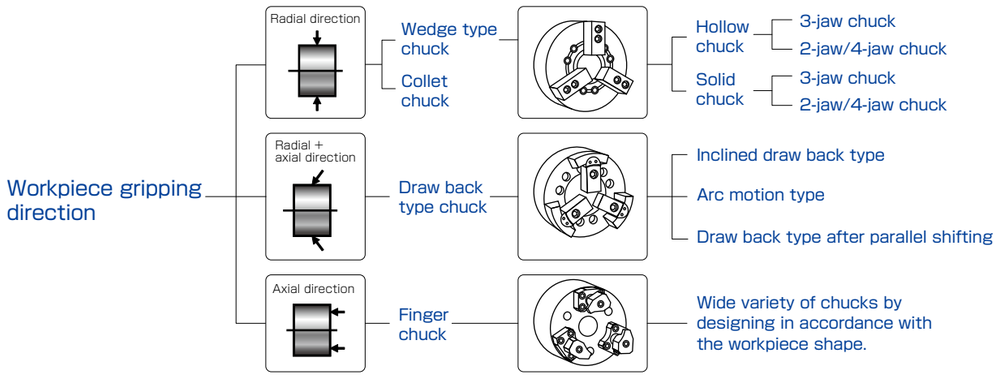


Interference prevention function at debug mode (Standard)

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



Chuck system (Option)



Options

Chip conveyor

The installation direction of the chip conveyor can be selected from either right side discharge or rear discharge.
(Only rear discharge is available for M06JC-Ⅱ.)

Spec	Hinge type
Applicable	Steel
Usage	For long chips

Spec	Hinge + filter type
Applicable	Steel, Castings, Non-ferrous
Usage	From fine, crushed chips to long swarfs
Shape	 Filter

Tailstock

Enables machining of a long workpiece or a workpiece with less chucking length.

(This option is available for J, JL5, JL8, D, or DY type.)

Work catcher

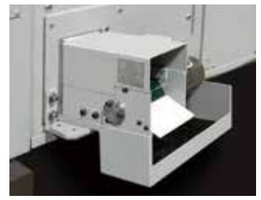
The workpiece is discharged to the work conveyor.

(JC, J, JL5, JL8, D, DY type: It cannot be used together with the tool setter.)

Work conveyor

The workpiece is carried to the outside of the machine.

(The work storage box is not included in this option.)



Tool setter

Tool offset is set automatically by pressing the tool against the sensor located at the top of the arm.

(JC, J, JL5, JL8, D, DY type: It cannot be used together with the work catcher.)

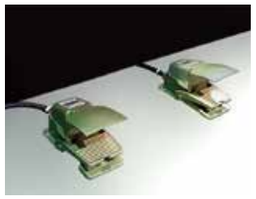
Signal indicator (triple)

Three color lamp indicates the status of the machine.

Foot switch

The main/back spindle chuck is opened or closed with the foot switch.

(JC, J, JL5, JL8, D, DY type: Main spindle only.)



Coolant pump (0.75/1.1 kW)

Higher output coolant pump is available instead of the standard coolant pump.

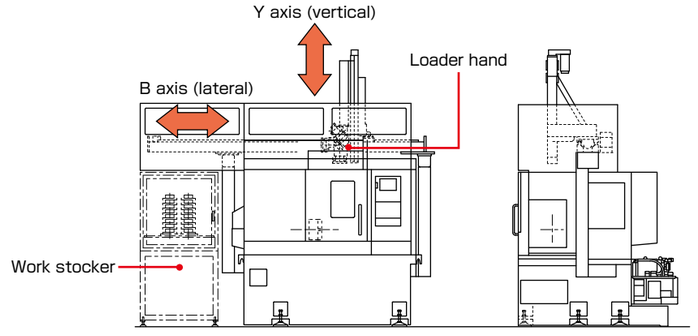
Front discharge (SJ/SD/SY-Ⅱ)

Ejector discharges the workpiece frontward from the back spindle.

(Ejector tip is not included in this option.)

2-axis NC loader

Corresponds to automation with NC gantry loader system.



Specifications

Machine specifications

Item	M06JC-II	M06J-II	M08J-II	M08JL5-II	M08JL8-II	M06D-II	M08D-II	M06DY-II	M08DY-II	M06SJ-II	M08SJ-II	M06SD-II	M08SD-II	M06SY-II	M08SY-II
Max. machining dia.	ϕ220 mm ϕ42 mm(Barstock) (Option)	ϕ260 mm ϕ51 mm (Barstock)	ϕ280 mm ϕ65 mm (Barstock)	ϕ280 mm ϕ65 mm (Barstock)		ϕ260mm ϕ51mm (Barstock)	ϕ280 mm ϕ65 mm (Barstock)	ϕ260 mm ϕ51 mm (Barstock)	ϕ280 mm ϕ65 mm (Barstock)	ϕ260 mm ϕ51 mm (Barstock)	ϕ280 mm ϕ65 mm (Barstock)	ϕ260 mm ϕ51 mm (Barstock)	ϕ280 mm ϕ65 mm (Barstock)	ϕ260 mm ϕ51 mm (Barstock)	ϕ280 mm ϕ65 mm (Barstock)
Max. machining length	190 mm	290 mm		500 mm	800 mm	380 mm		380 mm		380 mm		380 mm		380 mm	
Swing over bed	ϕ530 mm	ϕ540 mm		ϕ540 mm		ϕ540 mm		ϕ540 mm		ϕ530 mm		ϕ530 mm		ϕ530 mm	
Main spindle chuck size	6 inch	6 inch	8 inch	8 inch	8 inch	6 inch	8 inch	6 inch	8 inch	6 inch	8 inch	6 inch	8 inch	6 inch	8 inch
Main spindle speed	Max. 4,500 min^{-1} (Rated speed: 4,000 min^{-1}) *1	Max. 4,500 min^{-1} (Rated speed: 4,000 min^{-1}) *1	Max. 4,000 min^{-1} (Rated speed: 3,500 min^{-1}) *1 (Standard type)/ Max. 1,500 min^{-1} (Low speed type) (Option)	Max. 4,000 min^{-1} (Rated speed: 3,500 min^{-1}) *1 (Standard type)/Max. 1,500 min^{-1} (Low speed type) (Option)		Max. 4,500 min^{-1} (Rated speed: 4,000 min^{-1}) *1		Max. 4,500 min^{-1} (Rated speed: 4,000 min^{-1}) *1		Max. 4,500 min^{-1} (Rated speed: 4,000 min^{-1}) *1		Max. 4,500 min^{-1} (Rated speed: 4,000 min^{-1}) *1		Max. 4,500 min^{-1} (Rated speed: 4,000 min^{-1}) *1	
Main spindle end face configuration	ϕ140 mm flat	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							
Main spindle draw tube ID	ϕ43.6 mm	ϕ52 mm	ϕ66 mm	ϕ66 mm		ϕ52 mm	ϕ66 mm	ϕ52 mm	ϕ66 mm	ϕ52 mm	ϕ66 mm	ϕ52 mm	ϕ66 mm	ϕ52 mm	ϕ66 mm
Main spindle bearing ID	ϕ80 mm	ϕ100 mm		ϕ100 mm		ϕ100 mm		ϕ100 mm							
Number of turret stations	8	8		8		12		12							
OD tool size	□20 mm	□25 mm		□25 mm		□25 mm		□25 mm							
Drill holder hole dia.	ϕ25 mm	ϕ32 mm/ϕ40 mm		ϕ32 mm/ϕ40 mm		ϕ40 mm		ϕ40 mm							
Back spindle speed	–	–		–		–		–		Max. 4,500 min^{-1} (Rated speed: 4,000 min^{-1}) *1		Max. 4,500 min^{-1} (Rated speed: 4,000 min^{-1}) *1		Max. 4,500 min^{-1} (Rated speed: 4,000 min^{-1}) *1	
Back spindle end face configuration	–	–		–		–		–		ϕ140 mm flat		ϕ140mm flat		ϕ140 mm flat	
Back spindle bore/bearing ID	–	–		–		–		–		ϕ59mm/ϕ80 mm		ϕ59mm/ϕ80mm		ϕ59 mm/ϕ80 mm	
Back spindle chuck size	–	–		–		–		–		6 inch		6 inch		6 inch	
Live tool speed	–	–		–		Max. 5,000 min^{-1} (Rated speed: 4,000 min^{-1}) *1		Max. 5,000 min^{-1} (Rated speed: 4,000 min^{-1}) *1		–		Max. 5,000 min^{-1} (Rated speed: 4,000 min^{-1}) *1		Max. 5,000 min^{-1} (Rated speed: 4,000 min^{-1}) *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							
Back spindle motor	–	–		–		–		–		5.5/7.5 kW		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	
Coolant pump motor	520/815 W (50 Hz/60 Hz)							520/815 W (50 Hz/60 Hz)							
Stroke X axis/Z axis	X axis: 130 mm Z axis: 230 mm	X axis: 160 mm Z axis: 330 mm		X axis: 160 mm Z axis: 560 mm	X axis: 160 mm Z axis: 860 mm	X axis: 260 mm Z axis: 400 mm		X axis: 221 mm Z axis: 400 mm		X axis: 260 mm Z axis: 400 mm		X axis: 260 mm Z axis: 400 mm		X axis: 221 mm Z axis: 400 mm	
Stroke A axis/Y axis	–	–		–		–		A axis: – Y axis: ±50 mm		A axis: 506 mm Y axis: –		A axis: 506 mm Y axis: –		A axis: 506 mm Y axis: ±50 mm	
Rapid traverse rate X axis/Z axis	X axis, Z axis: 24m/min	X axis: 24m/min Z axis: 27m/min		X axis: 24 m/min Z axis: 27 m/min		X axis: 24 m/min Z axis: 27 m/min		X axis: 24 m/min Z axis: 27 m/min							
Rapid traverse rate A axis/Y axis	–	–		–		–		A axis: – Y axis: 12 m/min		A axis: 30 m/min Y axis: –		A axis: 30 m/min Y axis: –		A axis: 30 m/min Y axis: 12 m/min	
Taper size for tailstock (option)	–	MT No.4		MT No.5		MT No.4		MT No.4		–		–		–	
Power source requirement	18 kVA	23 kVA	27 kVA	27 kVA		24kVA		25 kVA		27 kVA		28.6 kVA		30 kVA	
Compressed air requirement	0.5 MPa							0.5 MPa							
Air discharge rate	100 NL/min							100 NL/min							
Coolant tank capacity	116 L	145 L		145 L		190 L		190 L							
Size (Width x Depth x Height)	1,265 mm x 1,560 mm x 1,650 mm	1,865 mm x 1,673 mm x 1,600 mm		2,170 mm x 1,778 mm x 1,600 mm	2,511 mm x 1,818 mm x 1,690 mm	2,334 mm x 2,050 mm x 1,750 mm		2,334 mm x 2,050 mm x 1,930 mm		2,474 mm x 2,050 mm x 1,750 mm		2,474 mm x 2,050 mm x 1,750 mm		2,474 mm x 2,050 mm x 1,930 mm	
Weight	2,230 kg	3,300 kg		3,430 kg	4,000 kg	4,700 kg		5,200 kg		5,270 kg		5,300 kg		5,600 kg	

*1 The rotation more than the rated speed should be short period.

Safety Instructions for Coolant Selection

Use a water-miscible coolant only. Do not use any oil-based coolant.
In case of using an oil-based coolant:
- There is a risk of fire which hot chips or cutting-heat may ignite coolant mist.
- Since the temperature of oil-based coolant rises more than that of water-miscible coolant, it has a great influence on the thermal displacement of the machine.
- In case of unavoidable use of oil-based coolant, an appropriate device for safety such as automatic fire extinguisher is required.

Before using an oil-based coolant, please contact TSUGAMI at the time of consideration of installation.

NC specifications

Item	M06JC-II	M06J-II	M08J-II	M08JL5-II	M08JL8-II	M06D-II	M08D-II	M06DY-II	M08DY-II	M06SJ-II	M08SJ-II	M06SD-II	M08SD-II	M06SY-II	M08SY-II
Controlled axes	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 (X-axis in diameter)														
Max. programmable value	±8 digits														
Interpolation method	Linear, Circular														
Feedrate	1 to 6,000 mm/min														
Feedrate override	0 to 150% in 10% increments														
Dwell	G04, 0 to 99999.999														
Absolute/ incremental command	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, 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	
Number of tool offset	64							64							
LCD/MDI	10.4" color LCD							10.4" color LCD							
Display language	Japanese / English							Japanese / English							
Part program storage size	2 Mbyte							2 Mbyte							
Number of registerable programs	1,000							1,000							
Miscellaneous functions	M4-digits							M4-digits							
Spindle functions	S4-digits							S4-digits							
Tool functions	T4-digits							T4-digits							

Accessories

Machine standard accessories

Item	M06JC-Ⅱ	M06J-Ⅱ/M08J-Ⅱ	M08JL5-Ⅱ/M08JL8-Ⅱ	M06D-Ⅱ/M08D-Ⅱ	M06DY-Ⅱ/M08DY-Ⅱ	M06SJ-Ⅱ/M08SJ-Ⅱ	M06SD-Ⅱ/M08SD-Ⅱ	M06SY-Ⅱ/M08SY-Ⅱ
Internal illumination lamp	Standard							
Door interlock	Standard							
Through-turret coolant	Option (Max. 2 MPa)	Standard						
Hydraulic cylinder	Standard (Solid)	Standard						
Standard tools	Standard							
Plate, Leveling bolt	Standard							
Transit clamps	Standard							
Main/back spindle air purge	Standard (main spindle only)					Standard		
Thermal displacement compensation	Standard							
Over-spindle coolant nozzle	Standard							
Main spindle C-axis control (with brake)	–			Standard		Standard *	Standard	
Back spindle C-axis control (with brake)	–					Standard *	Standard	

* Brake is not included.

NC standard accessories

Item	M06JC-Ⅱ M06J-Ⅱ/M08J-Ⅱ M08JL5-Ⅱ/M08JL8-Ⅱ	M06D-Ⅱ/M08D-Ⅱ M06DY-Ⅱ/M08DY-Ⅱ	M06SJ-Ⅱ/M08SJ-Ⅱ M06SD-Ⅱ/M08SD-Ⅱ M06SY-Ⅱ/M08SY-Ⅱ
Chasing function	Standard		
Continuous thread cutting	Standard		
Manual pulse generator	Standard		
Memory card I/O interface	Standard		
Background editing	Standard		
Run time & parts number display	Standard		
Custom macro	Standard		
Constant surface speed control	Standard		
Tool geometry/Wear offset	Standard		
Programmable data input	Standard		
Chamfering & Corner R	Standard		
Multiple repetitive cycle	Standard		

Item	M06JC-Ⅱ M06J-Ⅱ/M08J-Ⅱ M08JL5-Ⅱ/M08JL8-Ⅱ	M06D-Ⅱ/M08D-Ⅱ M06DY-Ⅱ/M08DY-Ⅱ	M06SJ-Ⅱ/M08SJ-Ⅱ M06SD-Ⅱ/M08SD-Ⅱ M06SY-Ⅱ/M08SY-Ⅱ
Extended program editing	Standard		
Direct drawing dimension programming	Standard		
Inch/metric conversion	Standard		
Canned drilling cycle	Standard		
Rigid tap (main spindle, back spindle)	Standard (main spindle only)		Standard
Rigid tap (live tool)	–	Standard (Not available for M06SJ-Ⅱ/M08SJ-Ⅱ)	
Abnormal load detection	Standard		
Variable-lead thread cutting	Standard		
Thread cutting cycle retract	Standard		
Cylindrical interpolation	–	Standard	
Polar coordinate interpolation	–	Standard	
Interference prevention function	Standard		
Power consumption monitor	Standard		

Options

Item	M06JC-Ⅱ	M06J-Ⅱ/M08J-Ⅱ	M08JL5-Ⅱ/M08JL8-Ⅱ	M06D-Ⅱ/M08D-Ⅱ	M06DY-Ⅱ/M08DY-Ⅱ	M06SJ-Ⅱ/M08SJ-Ⅱ	M06SD-Ⅱ/M08SD-Ⅱ	M06SY-Ⅱ/M08SY-Ⅱ
Hydraulic chuck	○	○	○	○	○	○	○	○
Collet chuck	○	○	○	○	○	○	○	○
Tool holder	○	○	○	○	○	○	○	○
Front discharge	–	–	–	–	–	○	○	○
Work conveyor	○	○	○	○	○	○	○	○
2-axis NC loader	○	○	○ *1	○	○	○	○	○
Work stocker (flange)	○	○	○ *1	○	○	○	○	○
Work stocker (shaft)	–	○	○ *1	○	○	○	○	○
Tool setter	○	○	○	○	○	○	○	○
Chip conveyor *2	○ (Rear discharge only)	○	○	○	○	○	○	○
Coolant pump (0.75kW/1.1 kW)	–	○	○	○	○	○	○	○
Tailstock	–	○	○	○	○	–	–	–
Live center	–	○ (MT No.4)	○(MT No.5)	○(MT No.4)	○(MT No.4)	–	–	–
Foot switch (main/back spindle)	○ (Main spindle only)	○ (Main spindle only)	○ (Main spindle only)	○ (Main spindle only)	○ (Main spindle only)	○	○	○
Signal indicator (triple)	○	○	○	○	○	○	○	○
Bar feeder interface	○	○	○	○	○	○	○	○
RS232C input/output interface	○	○	○	○	○	○	○	○
Manual handle retrace	○	○	○	○	○	○	○	○
Helical interpolation	–	–	–	○	○	○	○	○
FANUC: TURN MATE i	○	○	○	–	–	–	–	–
FANUC: MANUAL GUIDE i	–	–	–	○	○	○	○	○
Tool load monitor (main spindle, back spindle, live tool)	○	○	○	○	○	○	○	○
Tool load monitor (linear axis)	○	○	○	○	○	○	○	○
Tool counter	○	○	○	○	○	○	○	○
MT-LINK i	○	○	○	○	○	○	○	○
AI servo monitor *3	○	○	○	○	○	○	○	○

*1 Custom-made option for M08JL8-Ⅱ.
*2 Right side discharge or rear discharge is selectable.
*3 MT-LINK i (option) is additionally required.

Packaged options (M06JC-Ⅱ)

Best-selected options according to the machining system and the shape of workpieces.

Packaged options			Chucker spec.	Chucker spec. (Automation)	Bar spec.
Options	Automation	2-axis NC loader	–	○	–
		Work stocker (flange)	–	○	–
		Work catcher with work conveyor *1	–	–	○
	Main spindle chuck	3-jaw hollow (large ID) 6 inch *2	–	–	–
		3-jaw solid 6 inch	○	○	–
		Collet chuck (SAD50)	–	–	○
	Tooling kit		○	○	○
		OD holder Ⅱ (end face holder)	2	2	2
		ID holder (ϕ25 mm)	4	4	4
		Boring sleeve (ϕ25 mm x ϕ16 mm)	2	2	2
		Boring sleeve (ϕ25 mm x ϕ20 mm)	2	2	2
	Chip conveyor	Hinge type	○	○	○
	Tool setter *1	Manual swiveling type	–	–	–
	Foot switch		○	–	–
	Through-turret coolant		–	–	–
	Signal indicator (triple)		○	○	○
	Bar feeder interface		–	–	○
	Work stopper		–	–	○

*1 Tool setter and work catcher cannot be installed together.
*2 The bore of hollow 6 inch chuck is ϕ52 mm, but it is limited to ϕ43 mm due to the connecting parts.

Packaged options (M06J-Ⅱ/M08J-Ⅱ)

Best-selected options according to the machining system and the shape of workpieces.

Packaged options			Chucker spec.		Chucker spec. (Automation)		Bar spec.	
			A	B	C	D	E	F
Workpiece shape			Flange	Shaft	Flange	Shaft	Bar work	
Options	Tailstock		–	○	–	○	–	○
	Automation	2-axis NC loader	–	–	○	○	–	–
		Work stocker (flange)	–	–	○	–	–	–
		Work stocker (shaft)	–	–	–	○	–	–
		Work catcher with work conveyor*	–	–	–	–	○	○
	Main 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		○	○	○	○	○	○
		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 mm)	4	–	4	–	4	–
		ID holder (ϕ32 mm)	–	4	–	4	–	4
		Drilling sleeve (ϕ40 mm) (MT No.2)	1	–	1	–	1	–
		Drilling sleeve (ϕ32 mm) (MT No.2)	–	1	–	1	–	1
		Boring sleeve (ϕ40 mm x ϕ16 mm)	2	–	2	–	2	–
		Boring sleeve (ϕ40 mm x ϕ20 mm)	2	–	2	–	2	–
		Boring sleeve (ϕ32 mm x ϕ16 mm)	–	2	–	2	–	2
		Boring sleeve (ϕ32 mm x ϕ20 mm)	–	2	–	2	–	2
		Live center (MT No.4)	–	1	–	1	–	1
	Chip conveyor	Hinge type	○	○	○	○	○	○
	Tool setter*	Manual swiveling type	–	–	–	–	–	–
	Foot switch		○	○	–	–	–	–
	Signal indicator (triple)		○	○	○	○	○	○
	Bar feeder interface		–	–	–	–	○	○
	Work stopper		–	–	–	–	○	○

* Tool setter and work catcher cannot be installed together.

Packaged options (M08JL5-Ⅱ)

Best-selected options according to the machining system and the shape of workpieces.

Packaged options			Chucker spec.		Chucker spec. (Automation)		Bar spec.	
			A	B	C	D	E	F
Workpiece shape			Flange	Shaft	Flange	Shaft	Bar work	
Options	Tailstock		–	○	–	○	–	○
	Automation	2-axis NC loader	–	–	○	○	–	–
		Work stocker (flange)	–	–	○	–	–	–
		Work stocker (shaft)	–	–	–	○	–	–
		Work catcher with work conveyor*	–	–	–	–	○	○
	Main spindle chuck	3-jaw hollow (large ID) 8 inch	○	○	○	○	○	○
		3-jaw solid 8 inch	–	–	–	–	–	–
		Collet chuck	–	–	–	–	○	○
	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 mm)	4	–	4	–	4	–
		ID holder (ϕ32 mm)	–	4	–	4	–	4
		Drilling sleeve (ϕ40 mm) (MT No.2)	1	–	1	–	1	–
		Drilling sleeve (ϕ32 mm) (MT No.2)	–	1	–	1	–	1
		Boring sleeve (ϕ40 mm x ϕ16 mm)	2	–	2	–	2	–
		Boring sleeve (ϕ40 mm x ϕ20 mm)	2	–	2	–	2	–
		Boring sleeve (ϕ32 mm x ϕ16 mm)	–	2	–	2	–	2
		Boring sleeve (ϕ32 mm x ϕ20 mm)	–	2	–	2	–	2
		Live center (MT No.5)	–	1	–	1	–	1
	Chip conveyor	Hinge type	○	○	○	○	○	○
	Tool setter*	Manual swiveling type	–	–	–	–	–	–
	Foot switch		○	○	–	–	–	–
	Signal indicator (triple)		○	○	○	○	○	○
	Bar feeder interface		–	–	–	–	○	○
	Work stopper		–	–	–	–	○	○

* Tool setter and work catcher cannot be installed together.

Packaged options (M08JL8-Ⅱ)

Best-selected options according to the machining system and the shape of workpieces.

Packaged options			Chucker spec.		Bar spec.	
			A	B	E	F
Workpiece shape			Flange	Shaft	Bar work	
Options	Tailstock		–	○	–	○
	Automation	Work catcher with work conveyor*	–	–	○	○
	Main spindle chuck	3-jaw hollow (large ID) 8 inch	○	○	○	○
		3-jaw solid 8 inch	–	–	–	–
		Collet chuck	–	–	○	○
	Tooling kit		○	○	○	○
		OD holder Ⅰ (offset holder)	2	2	2	2
		OD holder Ⅱ (end face holder)	2	2	2	2
		ID holder (ϕ40 mm)	4	–	4	–
		ID holder (ϕ32 mm)	–	4	–	4
		Drilling sleeve (ϕ40 mm) (MT No. 2)	1	–	1	–
		Drilling sleeve (ϕ32 mm) (MT No. 2)	–	1	–	1
		Boring sleeve (ϕ40 mm×ϕ16 mm)	2	–	2	–
		Boring sleeve (ϕ40 mm×ϕ20 mm)	2	–	2	–
		Boring sleeve (ϕ32 mm×ϕ16 mm)	–	2	–	2
		Boring sleeve (ϕ32 mm×ϕ20 mm)	–	2	–	2
		Live center (MT No. 5)	–	1	–	1
	Chip conveyor	Hinge type	○	○	○	○
	Tool setter*	Manual swiveling type	–	–	–	–
	Foot switch		○	○	–	–
	Signal indicator (triple)		○	○	○	○
	Bar feeder interface		–	–	○	○
	Work stopper		–	–	○	○

* Tool setter and work catcher cannot be installed together.

Packaged options (M06D-Ⅱ/M08D-Ⅱ/M06DY-Ⅱ/M08DY-Ⅱ)

Best-selected options according to the machining system and the shape of workpieces.

Packaged options			Chucker spec.		Chucker spec. (Automation)		Bar spec.	
			A	B	C	D	E	F
Workpiece shape			Flange	Shaft	Flange	Shaft	Bar work	
Options	Tailstock		–	○	–	○	–	○
	Automation	2-axis NC loader	–	–	○	○	–	–
		Work stocker (flange)	–	–	○	–	–	–
		Work stocker (shaft)	–	–	–	○	–	–
		Work catcher with work conveyor	–	–	–	–	○	○
	Main spindle chuck	3-jaw hollow (large ID) 6 inch (M06D-Ⅱ/M06DY-Ⅱ)	○	○	○	○	○	○
		3-jaw hollow (large ID) 8 inch (M08D-Ⅱ/M08DY-Ⅱ)	○	○	○	○	○	○
		3-jaw solid 6 inch (M06D-Ⅱ/M06DY-Ⅱ)	–	–	–	–	–	–
		3-jaw solid 8 inch (M08D-Ⅱ/M08DY-Ⅱ)	–	–	–	–	–	–
		Collet chuck (M06D-Ⅱ/M06DY-Ⅱ) (M08D-Ⅱ/M08DY-Ⅱ)	–	–	–	–	○	○
	Tooling kit		○	○	○	○	○	○
		Turning holder	4	4	4	4	3	3
		Double drill holder	4	4	4	4	4	4
		Boring sleeve (ϕ40 mm×ϕ16 mm)	2	2	2	2	2	2
		Boring sleeve (ϕ40 mm×ϕ20 mm)	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 (MT No. 4)	–	1	–	1	–	1
	Chip conveyor	Hinge type	○	○	○	○	○	○
	Tool setter*	Manual swiveling type	–	–	–	–	–	–
	Foot switch		○	○	–	–	–	–
	Signal indicator (triple)		○	○	○	○	○	○
	Bar feeder interface		–	–	–	–	○	○
	Work stopper		–	–	–	–	○	○

* Tool setter and work catcher cannot be installed together.

Packaged options (M06SJ-Ⅱ/M08SJ-Ⅱ)

Best-selected options according to the machining system and the shape of workpieces.

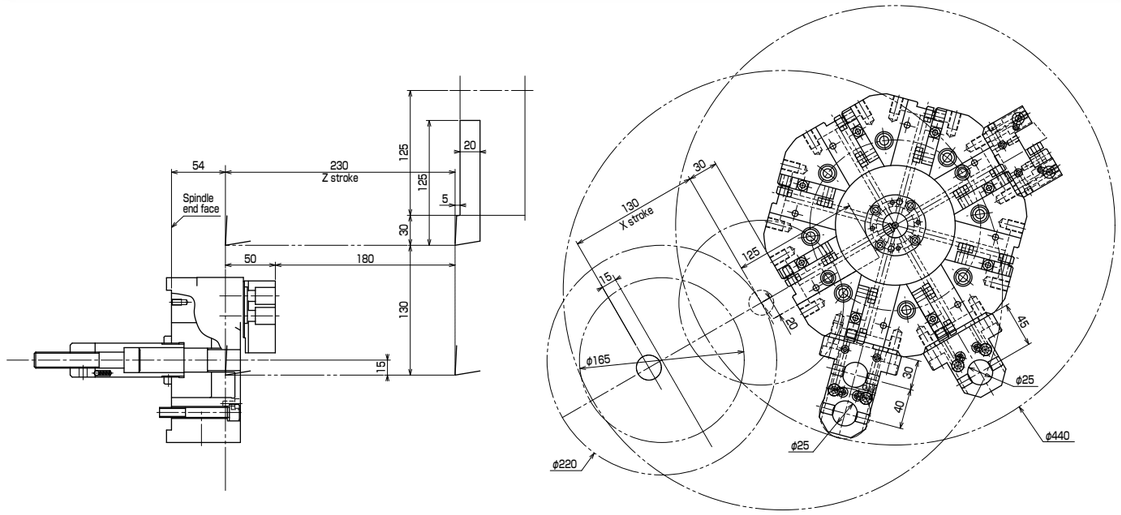
Packaged options			Chucker spec.	Chucker spec. (Automation)		Bar spec.
			A	B	C	D
Workpiece shape			Flange & Shaft	Flange	Shaft	Bar work
Options	Automation	2-axis NC loader	–	○	○	–
		Work stocker (flange)	–	○	–	–
		Work stocker (shaft)	–	–	○	–
		Front discharge	–	–	–	○
		Coolant pump (0.75/1.1 kW)	–	–	–	○
		Work catcher with work conveyor	–	–	–	○
	Main spindle chuck	3-jaw hollow (large ID) 6 inch (M06SJ-Ⅱ)	○	○	○	○
		3-jaw hollow (large ID) 8 inch (M08SJ-Ⅱ)	○	○	○	○
		3-jaw solid 6 inch (M06SJ-Ⅱ)	–	–	–	–
		3-jaw solid 8 inch (M08SJ-Ⅱ)	–	–	–	–
		Collet chuck (M06SJ-Ⅱ/M08SJ-Ⅱ)	–	–	–	○
	Back spindle chuck	3-jaw hollow 6 inch	○	○	○	–
		3-jaw solid 6 inch	–	–	–	–
		Back collet chuck	–	–	–	○
	Tooling kit		○	○	○	○
		Double turning holder	4	4	4	3
		Double drill holder (back offset)	4	4	4	4
		Boring sleeve (ϕ40 mm×ϕ16 mm)	2	2	2	2
		Boring sleeve (ϕ40 mm×ϕ20 mm)	2	2	2	2
		Cut-off holder	–	–	–	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)

Best-selected options according to the machining system and the shape of workpieces.

Packaged options			Chucker spec.	Chucker spec. (Automation)		Bar spec.
			A	B	C	D
Workpiece shape			Flange & Shaft	Flange	Shaft	Bar work
Options	Automation	2-axis NC loader	–	○	○	–
		Work stocker (flange)	–	○	–	–
		Work stocker (shaft)	–	–	○	–
		Front discharge	–	–	–	○
		Coolant pump (0.75/1.1 kW)	–	–	–	○
		Work catcher with work 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	–	–	–	–
		Back collet chuck	–	–	–	○
	Tooling kit		○	○	○	○
		Double turning holder	4	4	4	3
		Double drill holder (back offset)	4	4	4	4
		Boring sleeve (ϕ40 mm×ϕ16 mm)	2	2	2	2
		Boring sleeve (ϕ40 mm×ϕ20 mm)	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		–	–	–	○

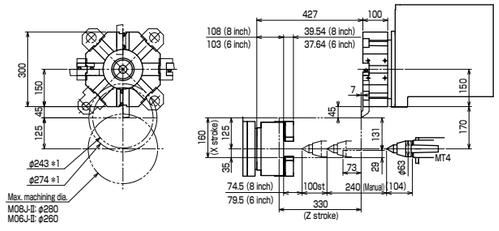
Tooling zone JC-Ⅱ



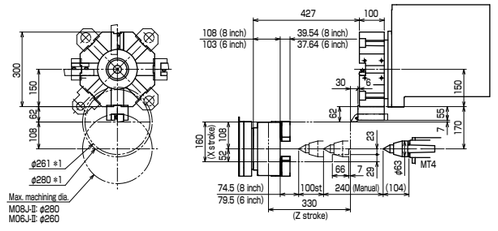
Max. drill protruded length: 40 mm

＊Chuck type (CHANDOX): CL-06 (6 inch)

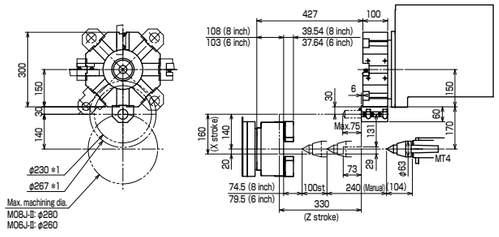
Tooling zone J-Ⅱ



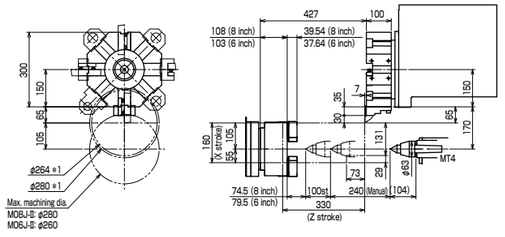
Direct mounting on the turret end face



3295-H030 (End face holder)



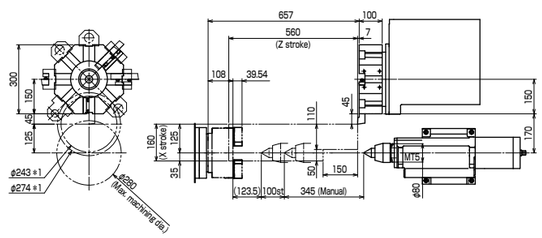
3295-H010 (Drill holder φ40 mm)



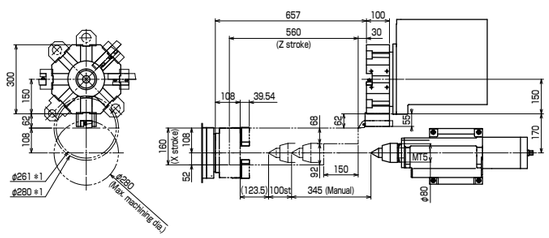
3295-H040 (Offset holder)

＊1 Max. workpiece dia. restricted by the adjacent tool holders.
＊2 Chuck type (CHANDOX): OPB-206 (6 inch), OPB-208 (8 inch)

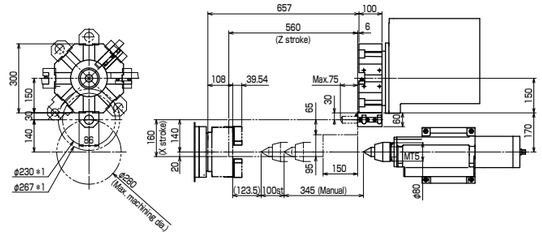
Tooling zone JL5-Ⅱ



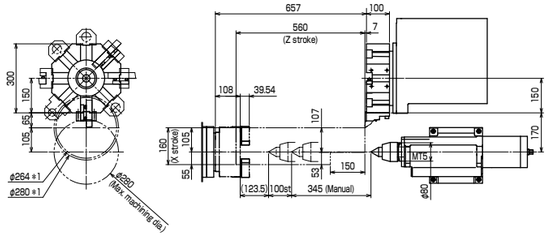
Direct mounting on the turret end face



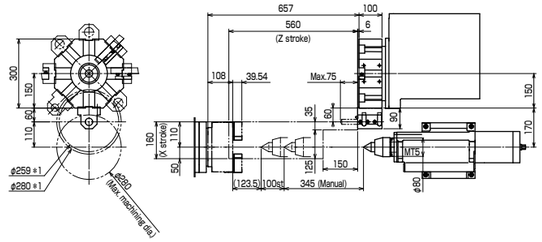
3295-H030 (End face holder)



3295-H010 (Drill holder φ40 mm)



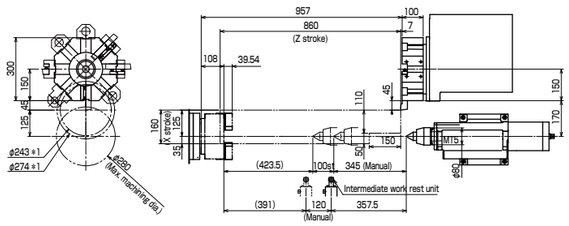
3295-H040 (Offset holder)



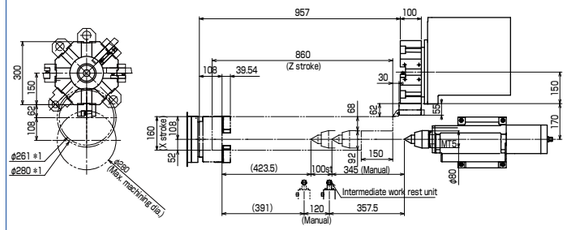
3295-H020 (Drill holder φ32 mm)

＊1 Max. workpiece dia. restricted by the adjacent tool holders.
＊2 Chuck type of J-Ⅱ (CHANDOX): OPB-206 (6 inch), OPB-208 (8 inch)
＊3 Chuck type of JL5-Ⅱ (CHANDOX): OPB-208 (8 inch)

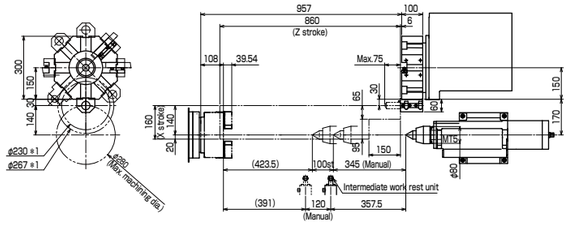
Tooling zone JL8-Ⅱ



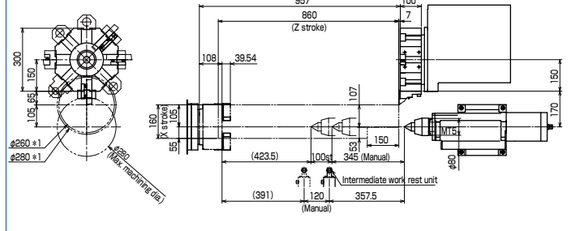
Direct mounting on the turret end face



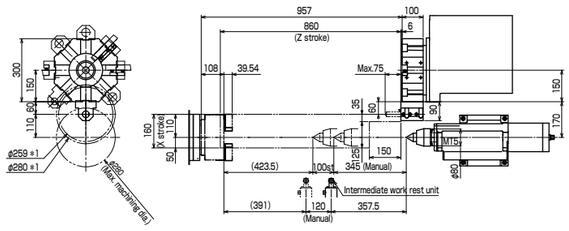
3295-H030 (End face holder)



3295-H010 (Drill holder ϕ40 mm)

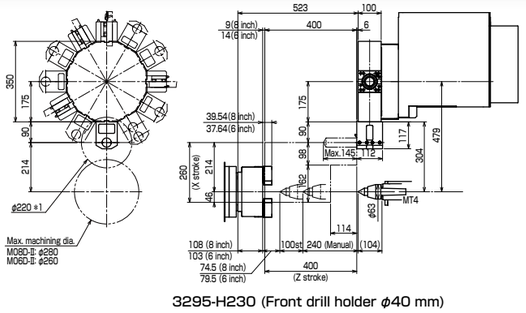


3295-H040 (Offset holder)

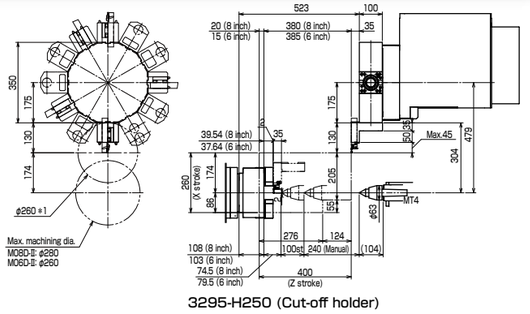


3295-H020 (Drill holder ϕ32 mm)

Tooling zone D-Ⅱ



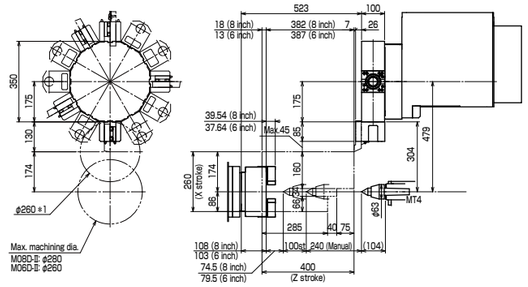
3295-H230 (Front drill holder ϕ40 mm)



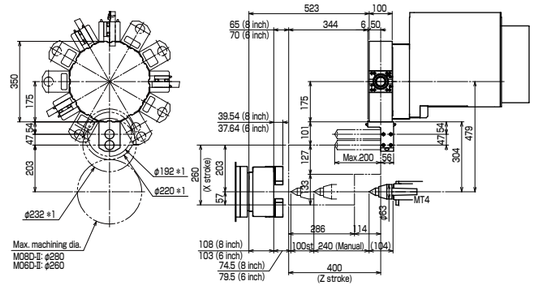
3295-H250 (Cut-off holder)

∗1 Max. workpiece dia. restricted by the adjacent tool holders.
∗2 Chuck type of JL8-Ⅱ (CHANDOX): OPB-208 (8 inch)
∗3 Chuck type of D-Ⅱ (CHANDOX): OPB-206 (6 inch), OPB-208 (8 inch)

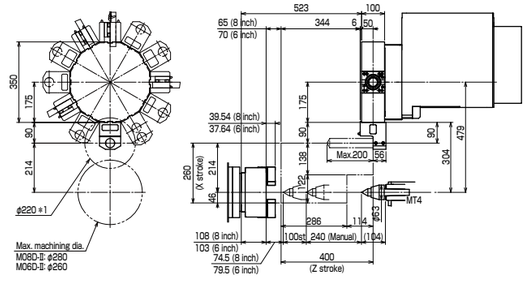
Tooling zone D-Ⅱ



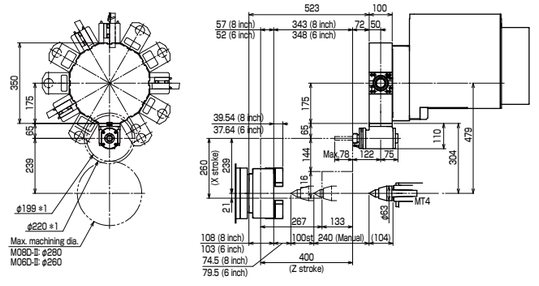
3295-H260 (Turning holder)



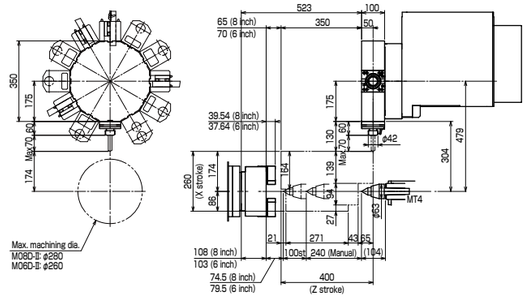
3295-H270 (Double drill holder ϕ40 mm, front offset)



3295-H290 (Front drill holder ϕ40 mm, front offset)

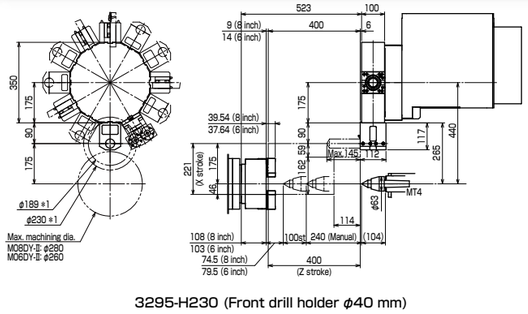


3295-Y171 (End face live tool)

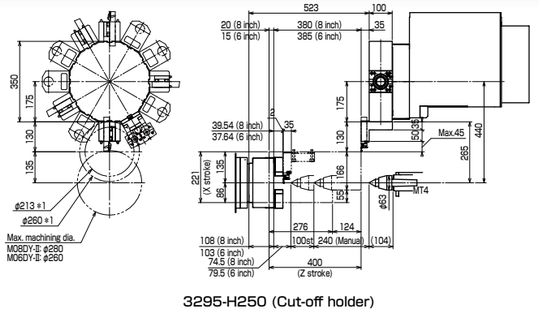


3295-Y161 (Cross live tool)

Tooling zone DY-Ⅱ



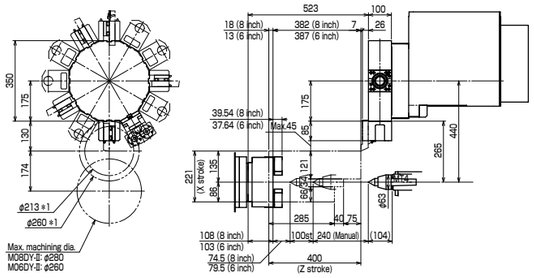
3295-H230 (Front drill holder ϕ40 mm)



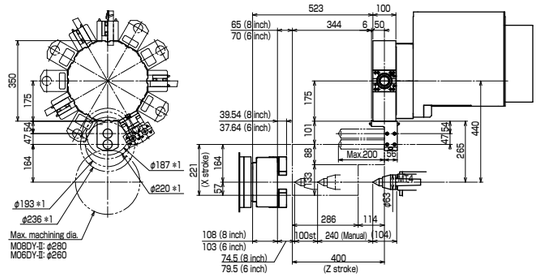
3295-H250 (Cut-off holder)

∗1 Max. workpiece dia. restricted by the adjacent tool holders.
∗2 Chuck type (CHANDOX): OPB-206 (6 inch), OPB-208 (8 inch)

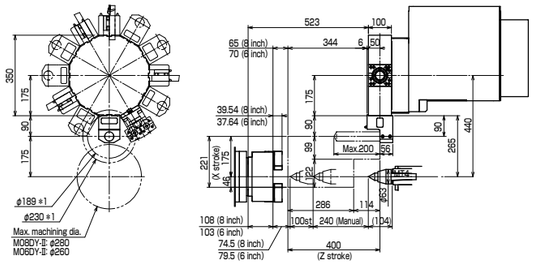
Tooling zone DY-II



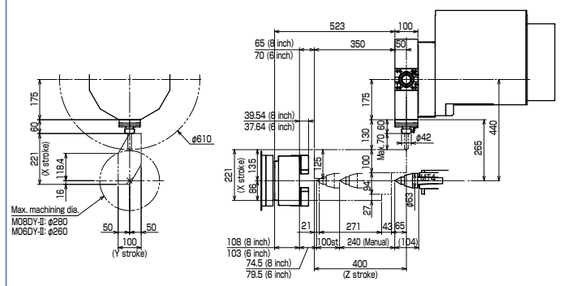
3295-H260 (Turning holder)



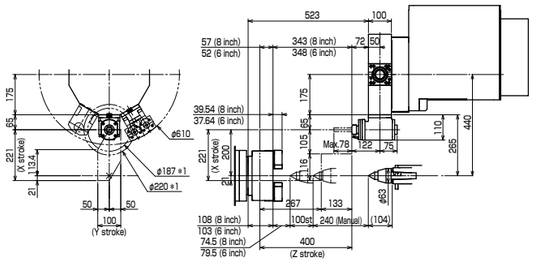
3295-H270 (Double drill holder ϕ40 mm, front offset)



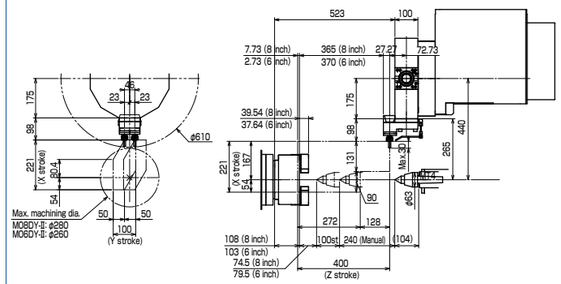
3295-H290 (Front drill holder ϕ40 mm, front offset)



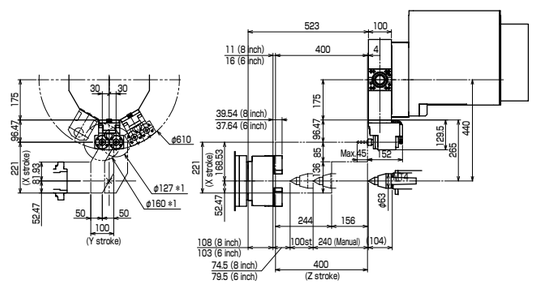
3295-Y161 (Cross live tool)



3295-Y171 (End face live tool)



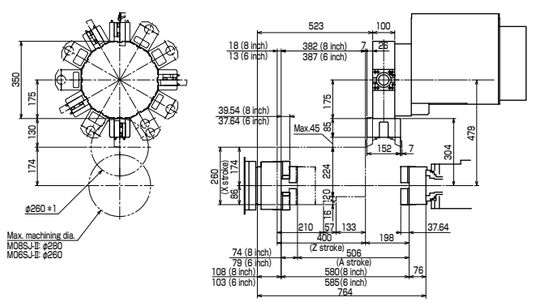
3295-Y1192 (Cross double live tool)



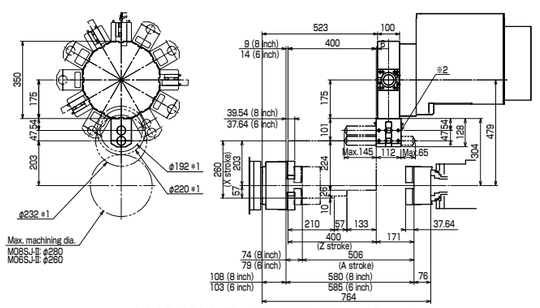
3295-Y1201 (End face live tool, double)

*1 Max. workpiece dia. restricted by the adjacent tool holders.
*2 Chuck type (CHANDOX): OPB-206 (6 inch), OPB-208 (8 inch)

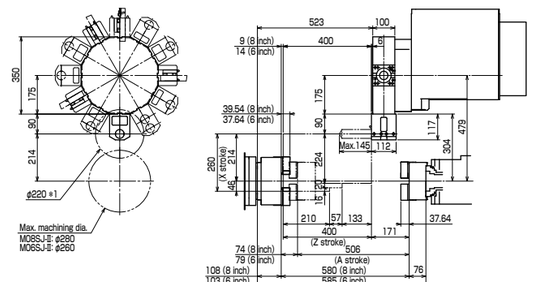
Tooling zone SJ-II



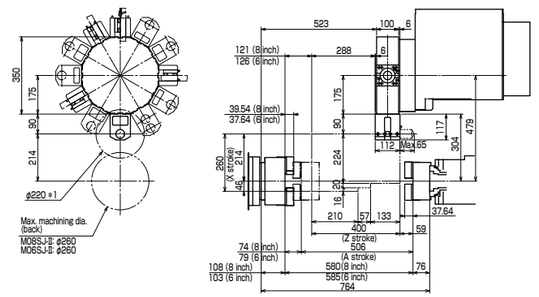
3295-H210 (Double turning holder)



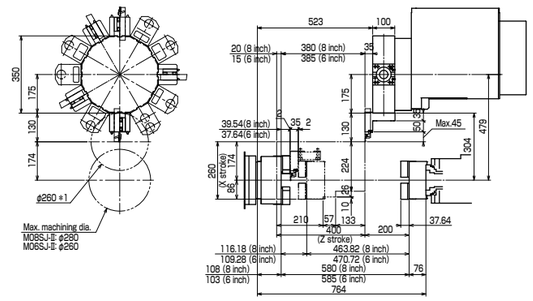
3295-H220 (Double drill holder ϕ40 mm)



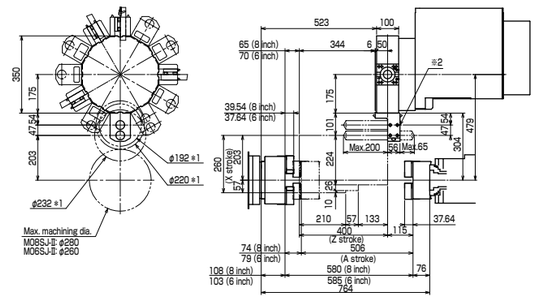
3295-H230 (Front drill holder ϕ40 mm)



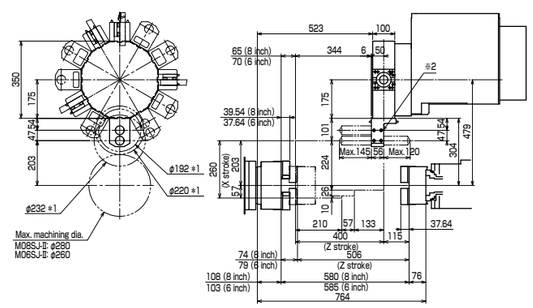
3295-H240 (Back drill holder ϕ40 mm)



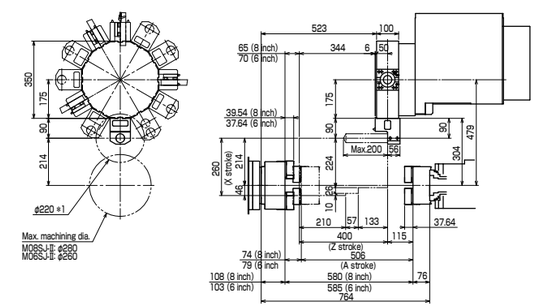
3295-H250 (Cut-off holder)



3295-H270 (Double drill holder ϕ40 mm, front offset)



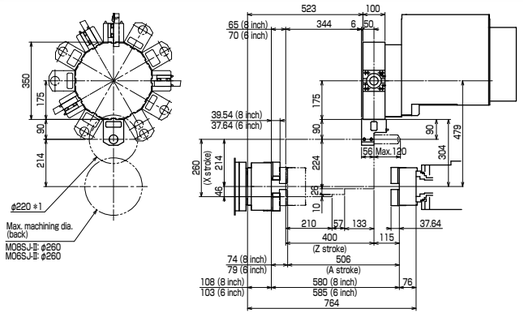
3295-H280 (Double drill holder ϕ40 mm, back offset)



3295-H290 (Front drill holder ϕ40 mm, front offset)

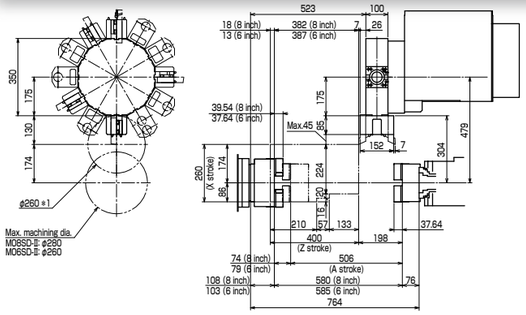
*1 Max. workpiece dia. restricted by the adjacent tool holders.
*2 Any back side tools cannot be mounted on the turret side tool position.
*3 Chuck type (CHANDOX): OPB-206 (6 inch), OPB-208 (8 inch)

Tooling zone SJ-II

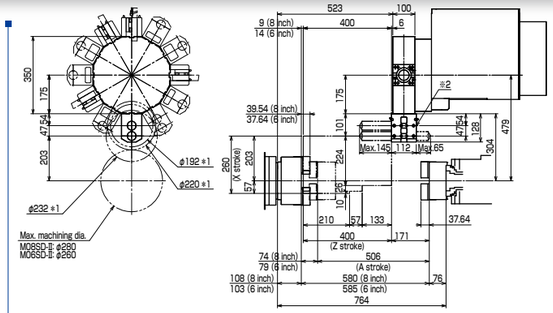


3295-H300 (Back drill holder ϕ40 mm, back offset)

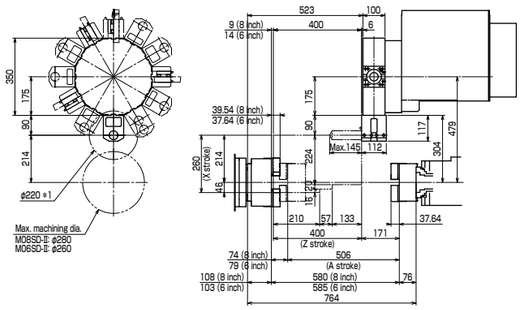
Tooling zone SD-II



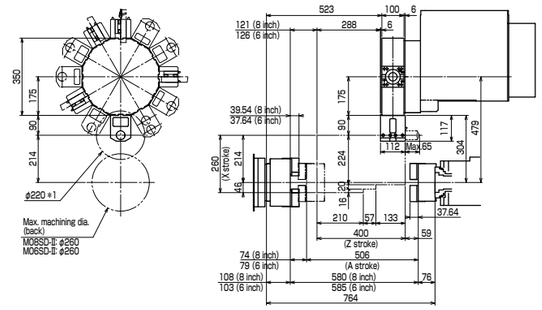
3295-H210 (Double turning holder)



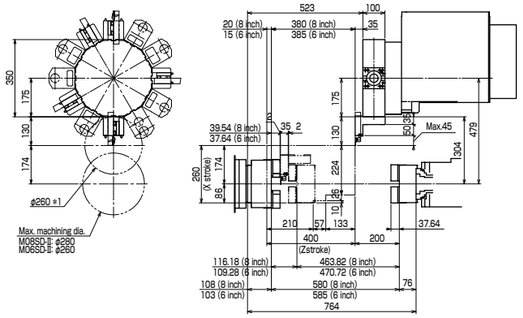
3295-H220 (Double drill holder ϕ40 mm)



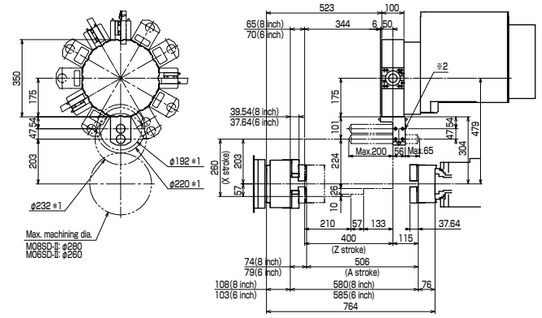
3295-H230 (Front drill holder ϕ40 mm)



3295-H220 (Double drill holder ϕ40 mm)



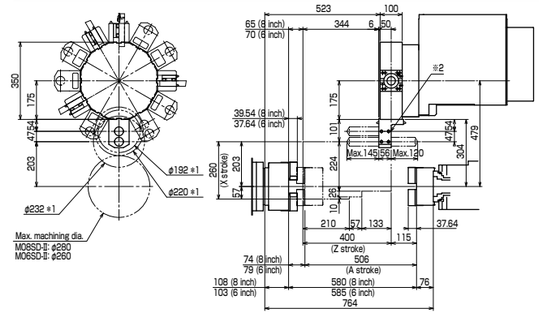
3295-H250 (Cut-off holder)



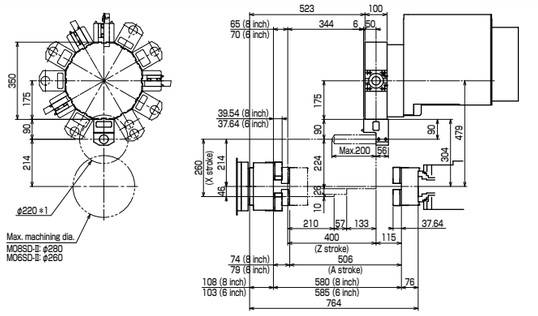
3295-H270 (Double drill holder ϕ40 mm, front offset)

∗1 Max. workpiece dia. restricted by the adjacent tool holders.
∗2 Any back side tools cannot be mounted on the turret side tool position.
∗3 Chuck type (CHANDOX): OPB-206 (6 inch), OPB-208 (8 inch)

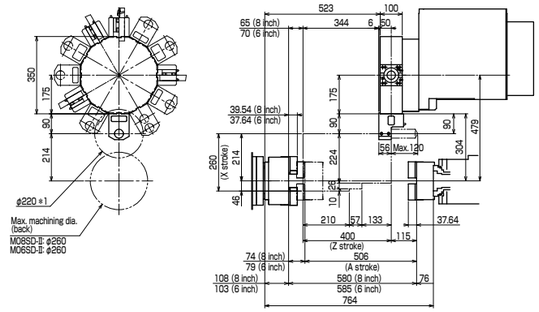
Tooling zone SD-II



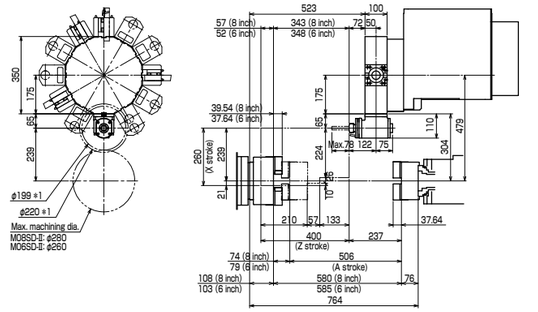
3295-H280 (Double drill holder ϕ40 mm, back offset)



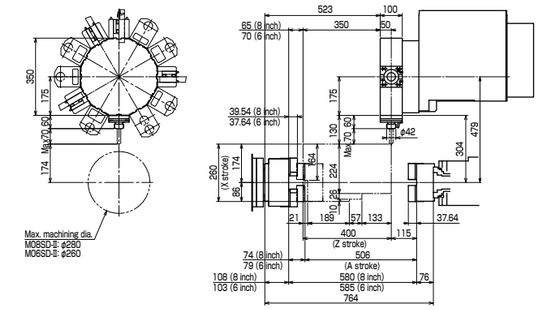
3295-H290 (Front drill holder ϕ40 mm, front offset)



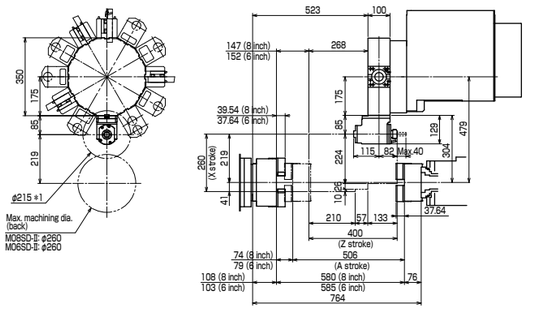
3295-H300 (Back drill holder ϕ40 mm, back offset)



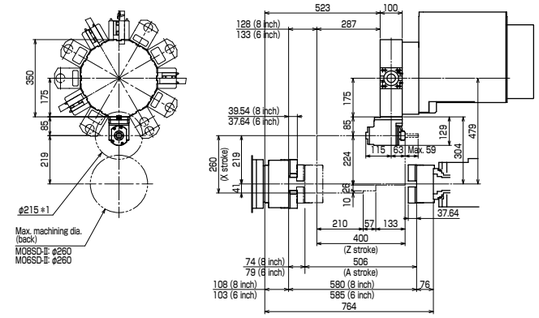
3295-Y171 (End face live tool, front)



3295-Y161 (Cross live tool)



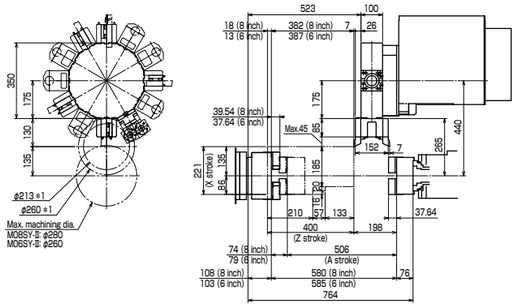
3295-Y301 (End face live tool, back)



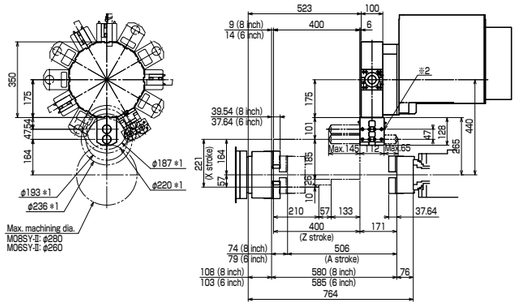
3295-Y1651 (End face live tool, back)

∗1 Max. workpiece dia. restricted by the adjacent tool holders.
∗2 Any back side tools cannot be mounted on the turret side tool position.
∗3 Chuck type (CHANDOX): OPB-206 (6 inch), OPB-208 (8 inch)

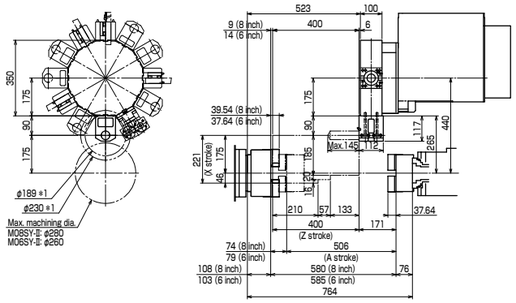
Tooling zone SY-II



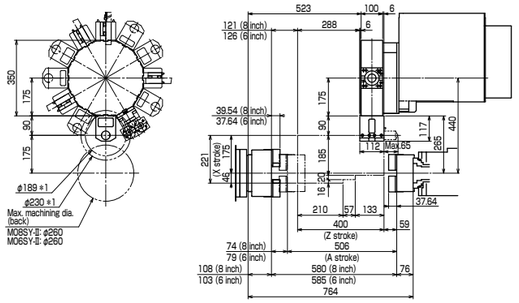
3295-H210 (Double turning holder)



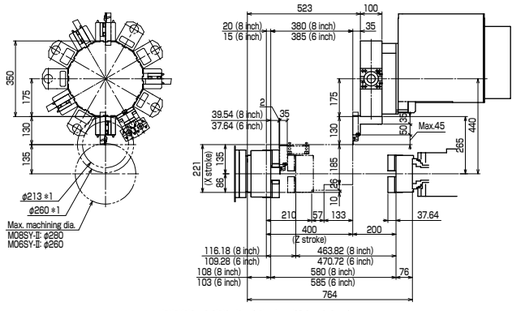
3295-H220 (Double drill holder ϕ40 mm)



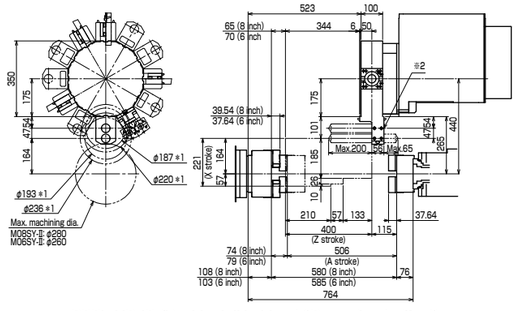
3295-H230 (Front drill holder ϕ40 mm)



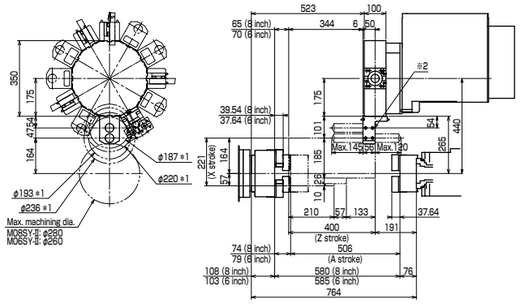
3295-H240 (Back drill holder ϕ40 mm)



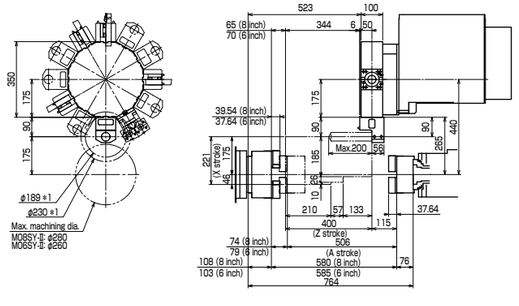
3295-H250 (Cut-off holder)



3295-H270 (Double drill holder ϕ40 mm, front offset)



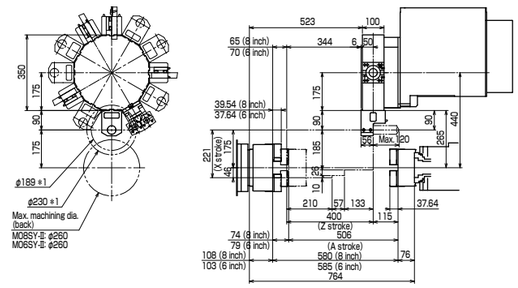
3295-H280 (Double drill holder ϕ40 mm, back offset)



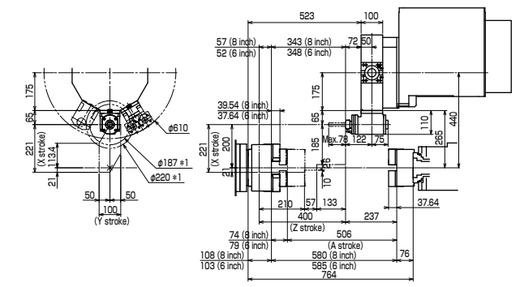
3295-H290 (Front drill holder ϕ40 mm, front offset)

*1 Max. workpiece dia. restricted by the adjacent tool holders.
*2 Any back side tools cannot be mounted on the turret side tool position.
*3 Chuck type (CHANDOX): OPB-206 (6 inch), OPB-208 (8 inch)

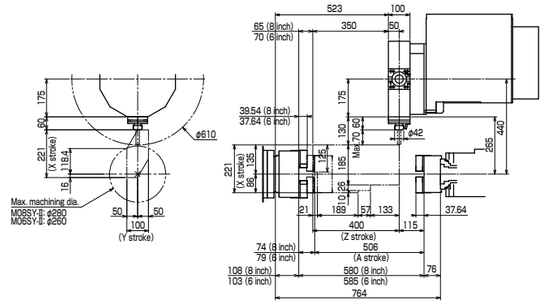
Tooling zone SY-II



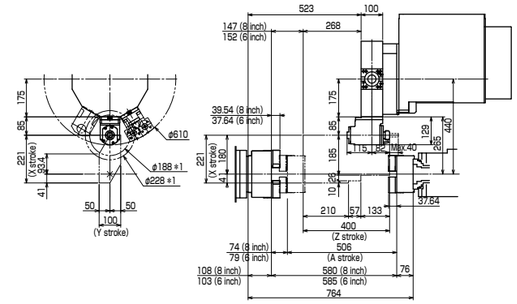
3295-H300 (Back drill holder ϕ40 mm, back offset)



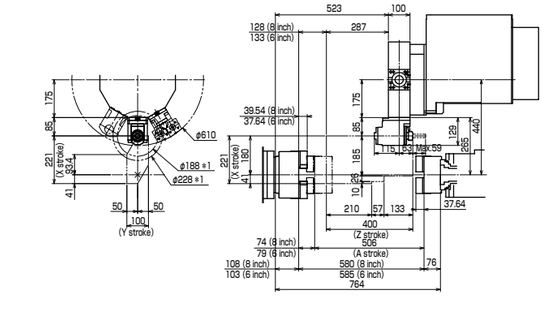
3295-Y171 (End face live tool, front)



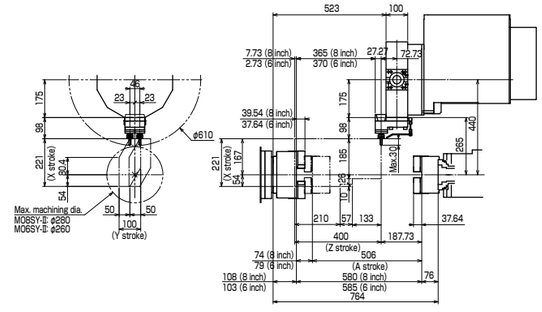
3295-Y161 (Cross live tool)



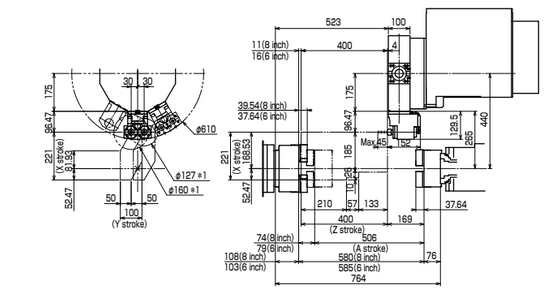
3295-Y301 (End face live tool, back)



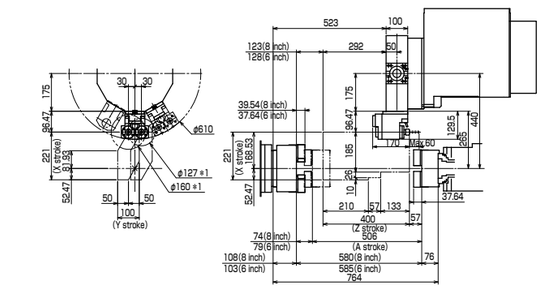
3295-Y1651 (End face live tool, back)



3295-Y1192 (Cross double live tool)



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



3295-Y1661 (End face live tool, back, double)

*1 Max. workpiece dia. restricted by the adjacent tool holders.
*2 Chuck type (CHANDOX): OPB-206 (6 inch), OPB-208 (8 inch)