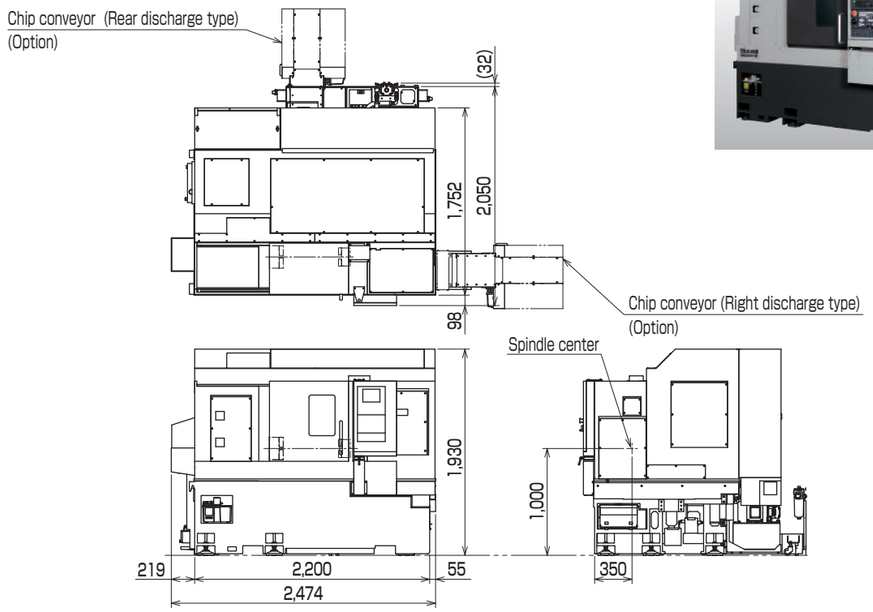
Layout

MiO8SY-Ⅱ



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CAT.NO.E124A08.DEC.OT(H)

PRECISION TSUGAMI

CNC Lathe

MiO8D-Ⅱ
MiO8DY-Ⅱ
MiO8SY-Ⅱ

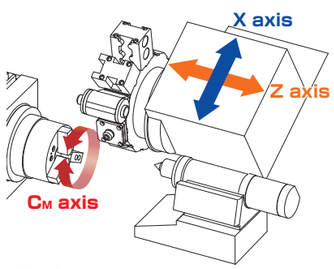
High accuracy
High rigidity
High productivity
Space saving
Outstanding cost performance

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

Best selection from a wide range of variation to fit needs

MiO8D-II

Turning center

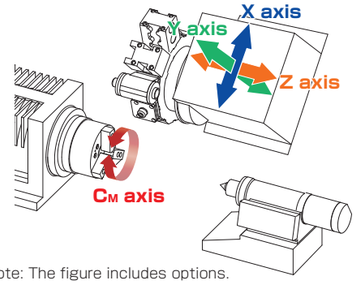


Note: The figure includes options.

Chuck size: 8 inch
Max. machining dia.: ϕ280 mm
ϕ65 mm (Barstock)
Max. machining length: 380 mm
Number of turret stations: 12
OD tool size: □25 mm
Drill holder hole dia.: ϕ40 mm

MiO8DY-II

Turning center with Y axis

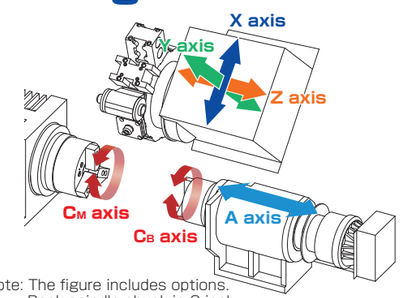


Note: The figure includes options.

Chuck size: 8 inch
Max. machining dia.: ϕ280 mm
ϕ65 mm (Barstock)
Max. machining length: 380 mm
Number of turret stations: 12
OD tool size: □25 mm
Drill holder hole dia.: ϕ40 mm

MiO8SY-II

Turning center with back spindle and Y axis



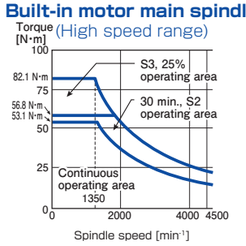
Note: The figure includes options.
Back spindle chuck is 6 inch.

Chuck size: 8 inch
Max. machining dia.: ϕ280 mm
ϕ65 mm (Barstock)
Max. machining length: 380 mm
Number of turret stations: 12
OD tool size: □25 mm
Drill holder hole dia.: ϕ40 mm

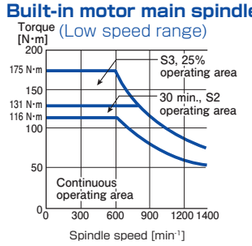
Machining capability to achieve high productivity (Material: [JIS] S45C)

	Main spindle (D-II/DY-II/SY-II)		Back spindle (SY-II)	
	Turning (Cutting area)	Drilling	Turning (Cutting area)	Drilling
MiO8-II	1.6 mm² Machining dia.: ϕ70 mm Cutting depth: 4.0 mm Cutting speed: 150m/min Feed: 0.4 mm/rev	ϕ30 mm Cutting speed: 150m/min Feed: 0.2 mm/rev	1.0 mm² Machining dia.: ϕ55 mm Cutting depth: 4.0 mm Cutting speed: 150m/min Feed: 0.25 mm/rev	ϕ20 mm Cutting speed: 150m/min Feed: 0.2 mm/rev

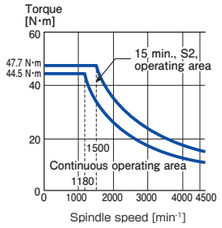
MiO8-II D-II/DY-II/SY-II Built-in motor main spindle Torque (High speed range)



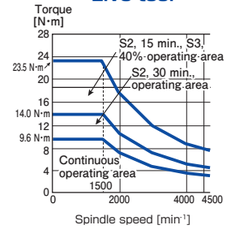
MiO8-II D-II/DY-II/SY-II Built-in motor main spindle Torque (Low speed range)



MiO8SY-II Built-in motor back spindle Torque [N·m]



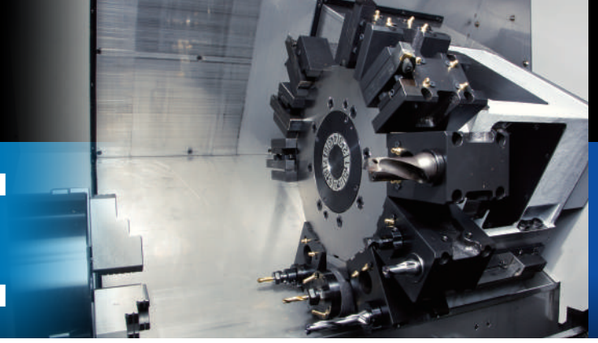
MiO8-II D-II/DY-II/SY-II Live tool Torque [N·m]



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

PRECISION TSUGAMI

MiO8D-II



Turning center

Machining capability


12-station turret

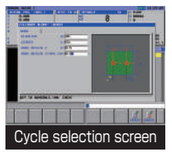
- Turning, drilling, boring, milling, and cross drilling can be processed.
- Built-in motor is equipped on the spindle.
- Heavy-duty cutting enabled by rigid basic structure
- Powerful milling capability
- Pullout type coolant tank for easy chip cleaning
- Standard coolant tank capacity: 190 L

High-accuracy machining

- Long term stable production by thermal displacement compensation
- High-accuracy machining with less vibration achieved by built-in motor on the spindle

Simple operation


Simulation screen


Cycle selection screen

- Easy programming with optional on-board conversational programming software (FANUC: MANUAL GUIDE i)
- Safety setup by interference prevention function at debug mode.
- Reduces the damage to the machine with retraction function by abnormal load detection.

Live tools 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.

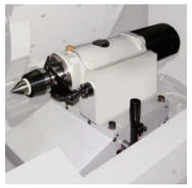
Item	Specifications
Max. number of live tools	12
Rotation speed	Max. 5,000 min^{-1} (Rated speed: 4,000 min^{-1})
Applicable collet	ER25
Max. chucking dia.	ϕ16 mm

Outstanding cost performance

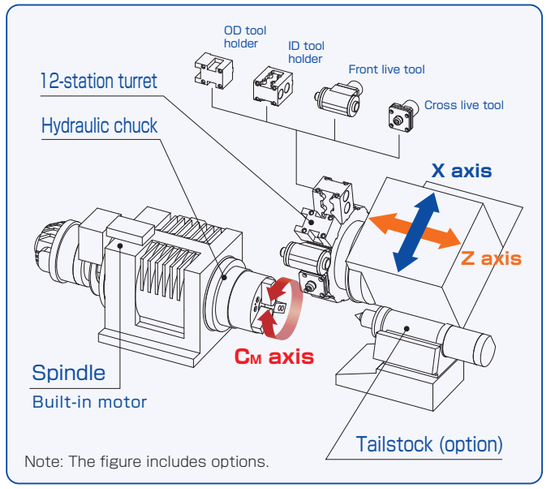
- Outstanding cost performance ensures significant profit with small investment.

Supporting a long workpiece

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



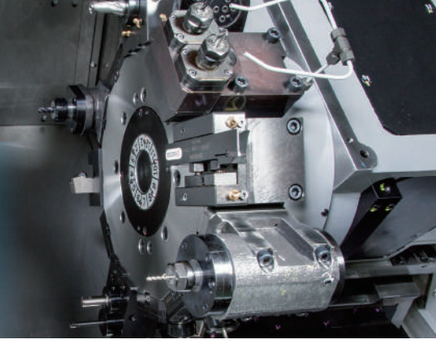
Item	Specifications
Taper size	MT No. 4
Tailstock stroke	100 mm (Hydraulic drive)
Position adjustment	Manual (240 mm)



Note: The figure includes options.

PRECISION TSUGAMI

MiO8DY-II



Turning center with Y axis

Machining capability


12-station turret

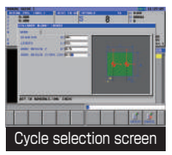
- Y-axis control enables machining of complex-shaped workpieces.
- Turning, drilling, boring, milling, and cross drilling can be processed.
- Built-in motor is equipped on the spindle.
- Heavy-duty cutting enabled by rigid basic structure
- Powerful milling capability
- Pullout type coolant tank for easy chip cleaning
- Standard coolant tank capacity: 190 L

Y-axis machining

- Y-axis control with long stroke of ±50 mm enhances a variety of milling.

Simple operation


Simulation screen


Cycle selection screen

- Easy programming with optional on-board conversational programming software (FANUC: MANUAL GUIDE i)
- Safety setup by interference prevention function at debug mode.
- Reduces the damage to the machine with retraction function by abnormal load detection.

Live tools 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

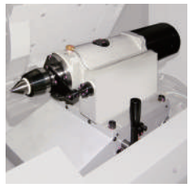
- Long term stable production by thermal displacement compensation
- Built-in motor main spindle achieves high-accuracy machining with less vibration.

High rigidity

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

Supporting a long workpiece

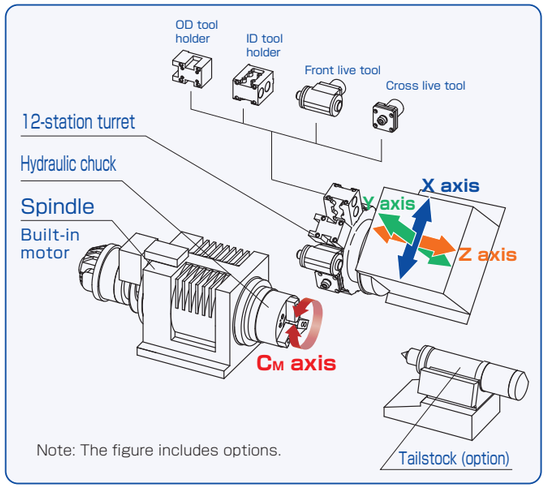
- The tailstock (option) enables machining of a long workpiece or a workpiece with less chucking length.



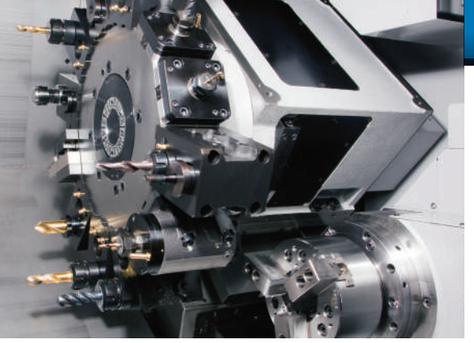
Item	Specifications
Taper size	MT No. 4
Tailstock stroke	100 mm (Hydraulic drive)
Position adjustment	Manual (240 mm)

Outstanding cost performance

- Outstanding cost performance ensures significant profit with small investment.



Note: The figure includes options.

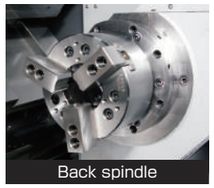


MiO8SY-II

Turning center with back spindle and Y axis

Machining capability

- Y-axis control enables machining of complex-shaped workpieces.
- Cutting-off side can be machined with back spindle, so the secondary machining is unnecessary.
- Turning, drilling, boring, milling, and cross drilling can be processed.
- Built-in motor is equipped on the main and back spindle.
- Heavy-duty cutting enabled by rigid basic structure
- Powerful milling capability
- Pullout type coolant tank for easy chip cleaning
- Standard coolant tank capacity: 190 L


Back spindle


12-station turret

Y-axis machining

- Y-axis control with long stroke of ±50 mm enhances a variety of milling.

High-accuracy machining

- Long term stable production by thermal displacement compensation
- High-accuracy machining with less vibration achieved by built-in motor on the main and back spindles

Live tools on all positions

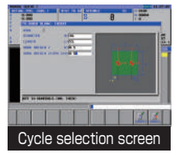
- Live tools (option) can be mounted on all positions of the 12-station turret. Milling even on the back spindle is feasible.

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

- Easy programming with optional on-board conversational programming software (FANUC: MANUAL GUIDE i)


Simulation screen


Cycle selection screen

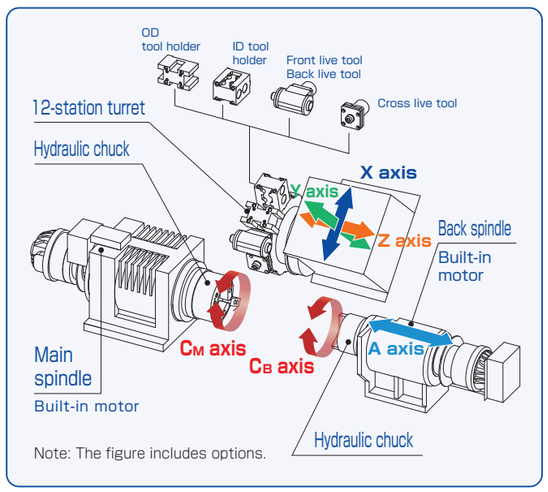
- Safety setup by interference prevention function at debug mode.
- Reduces the damage to the machine with retraction function by abnormal load detection.

High rigidity

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

Outstanding cost performance

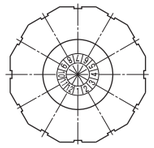
- Outstanding cost performance ensures significant profit with small investment.

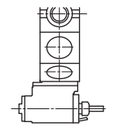


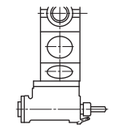
Note: The figure includes options.

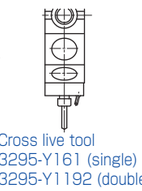
Tool holder (Option)

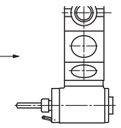
MiO8D-II
MiO8DY-II
MiO8SY-II

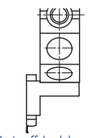


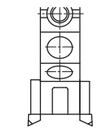

End face live tool (back)
3295-Y301 (single)
(for SY)

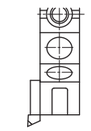

End face live tool (back)
3295-Y1651 (single) (for SY)
3295-Y1661 (double) (for SY)


Cross live tool
3295-Y161 (single)
3295-Y1192 (double) (for DY/SY)


End face live tool (front)
3295-Y171 (single)
3295-Y1201 (double) (for DY/SY)


Cut-off holder
(□25 mm)
3295-H250


Double turning holder
(□25 mm) (for SY)
3295-H210


Turning holder
(□25 mm) (for D/DY)
3295-H260

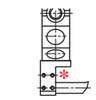

Double drill holder
(for SY)
3295-H220

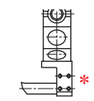

Back drill holder
(for SY)
3295-H240

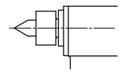

Front drill holder
3295-H230


Back drill holder
(back offset)
(for SY) 3295-H300


Front drill holder
(front offset)
3295-H290


Double drill holder
(back offset)
(for SY) 3295-H280


Double drill holder
(front offset)
3295-H270


Live center
(only for D/DY)

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

Control functions

On-board conversational programming software, MANUAL GUIDE i (FANUC), is prepared as an option. (MiO8D-Ⅱ/MiO8DY-Ⅱ/MiO8SY-Ⅱ)

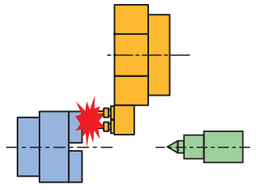
Simulation screen

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.

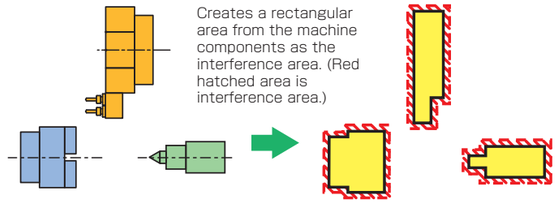
Retraction function by abnormal load detection (Standard)

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.

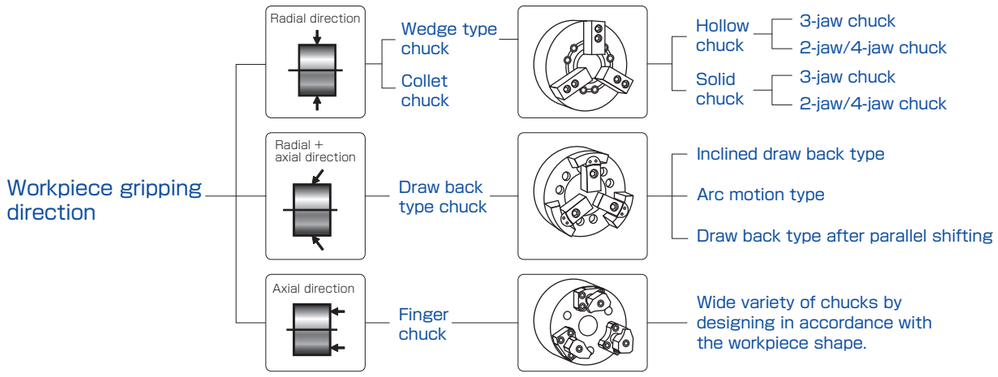


Interference prevention function at debug mode (Standard)

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.

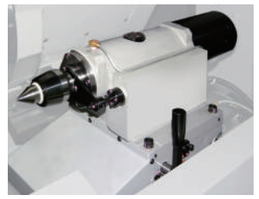
Spec	Hinge type
Applicable	Steel
Usage	For long chips

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.

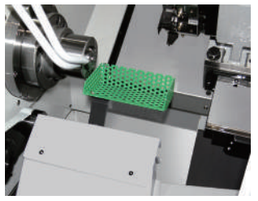
(This option is available for D, or DY type.)



Work catcher

The workpiece is discharged to the work conveyor.

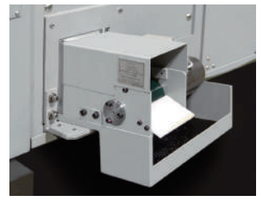
(D, DY type: It cannot be used together with the tool setter.)



Work conveyor

The workpiece is carried to the outside of the machine.

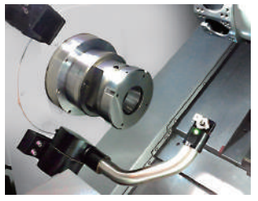
(The work storage box is not included in this option.)



Tool setter

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

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



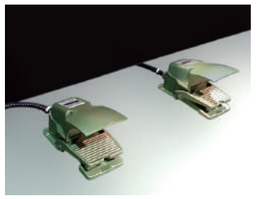
Signal indicator (triple)

Three color lamp indicates the status of the machine.

Foot switch

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

(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.

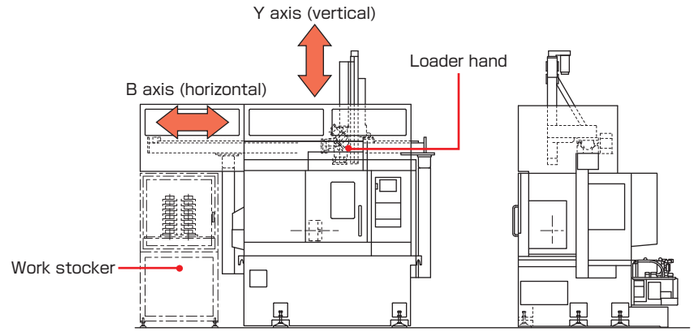
Front discharge (SY-Ⅱ)

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	MiO8D-II	MiO8DY-II	MiO8SY-II
Max. machining dia.	ϕ280 mm ϕ65 mm (Bar stock)		
Max. machining length	380 mm		
Swing over bed	ϕ540 mm		ϕ530 mm
Main spindle chuck size	8 inch		
Main spindle speed	Max. 4,500 min^{-1} (Rated speed: 4,000 min^{-1}) *1		
Main spindle end face configuration	JIS A2-6		
Main spindle bore	ϕ73 mm		
Main spindle draw tube ID	ϕ66 mm		
Main spindle bearing ID	ϕ100 mm		
Number of turret stations	12		
OD tool size	□25 mm		
Drill holder hole dia.	ϕ40 mm		
Back spindle speed	–		Max. 4,500 min^{-1} (Rated speed: 4,000 min^{-1}) *1
Back spindle end face configuration	–		ϕ140 mm flat
Back spindle bore/bearing ID	–		ϕ59 mm/ϕ80 mm
Back spindle chuck size	–		6 inch
Live tool speed	Max. 5,000 min^{-1} (Rated speed: 4,000 min^{-1}) *1		
Main spindle motor	7.5/11 kW		
Back spindle motor	–		5.5/7.5 kW
Live tool motor	2.2 (30 min^{-1})/3.7 (15 min^{-1}) kW		
Coolant pump motor	520/815 W (50 Hz/60 Hz)		
Stroke	260 mm (X) 400 mm (Z)	221 mm (X) 400 mm (Z) ±50 mm (Y)	221 mm (X) 400 mm (Z) ±50 mm (Y) 506 mm (A)
Rapid traverse rate	24 m/min (X) 27 m/min (Z)	24 m/min (X) 27 m/min (Z) 12 m/min (Y)	24 m/min (X) 27 m/min (Z) 12 m/min (Y) 30 m/min (A)
Taper size for tailstock (option)	MT No.4		–
Power source requirement	24 kVA	25 kVA	30 kVA
Compressed air requirement	0.5 MPa		
Air discharge rate *2	150 NL/min		200 NL/min
Coolant tank capacity	190 L		
Width x Depth x Height	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 1,930 mm
Weight	4,700 kg	5,200 kg	5,600 kg

*1 When the rotation of the spindle exceeds the rated speed, keep the exceeding speed range within 30% of one cycle of the machining process.
*2 It may change depending on the mounted options.

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	MiO8D-II	MiO8DY-II	MiO8SY-II
Controlled axes	X, Z, C_M	X, Y, Z, C_M	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, C_M: Absolute U, W, H_M: Incremental	X, Y, Z, C_M: Absolute U, V, W, H_M: Incremental	X, Y, Z, C_M, C_B, A: Absolute U, V, W, H_M, H_B: Incremental
Number of tool offset	64		
LCD/MDI	10.4" color LCD		
Display language	English		
Part program storage size	2 Mbyte		
Number of registerable programs	1,000		
Miscellaneous functions	M4-digits		
Spindle functions	S4-digits		
Tool functions	T4-digits		

Accessories

Machine standard accessories

Item	MiO8D-II	MiO8DY-II	MiO8SY-II
Internal light	Standard		
Door interlock	Standard		
Through-turret coolant	Standard		
Hydraulic cylinder	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		
Back spindle C-axis control (with brake)	–		Standard

NC standard accessories

Item	MiO8D-II MiO8DY-II	MiO8SY-II
Chasing function	Standard	
Continuous threading	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	
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	
Abnormal load detection	Standard	
Variable lead threading	Standard	
Threading retract	Standard	
Cylindrical interpolation	Standard	
Polar coordinate interpolation	Standard	
Interference prevention function	Standard	
Power consumption monitor	Standard	
Axis drop prevention	Standard	

Options

Item	MiO8D-II	MiO8DY-II	MiO8SY-II
Hydraulic chuck	○	○	○
Collet chuck	○	○	○
Tool holder	○	○	○
Front discharge	–	–	○
Work conveyor	○	○	○
2-axis NC loader	○	○	○
Work stocker (flange)	○	○	○
Work stocker (shaft)	○	○	○
Tool setter	○	○	○
Chip conveyor *1	○	○	○
Coolant pump (0.75kW/1.1 kW)	○	○	○
Tailstock	○	○	–
Live center	○(MT No.4)	○(MT No.4)	–
Foot switch (main/back spindle)	○ (Main spindle only)	○ (Main spindle only)	○
Signal indicator (triple)	○	○	○
Bar feeder interface	○	○	○
RS232C 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 *2	○	○	○

*1 Right side discharge or rear discharge is selectable.
*2 MT-LINK i (option) is additionally required.

Packaged options (MiO8D-Ⅱ/MiO8DY-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 chuc	–	–	–	–	○	○
	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		–	–	–	–	○	○

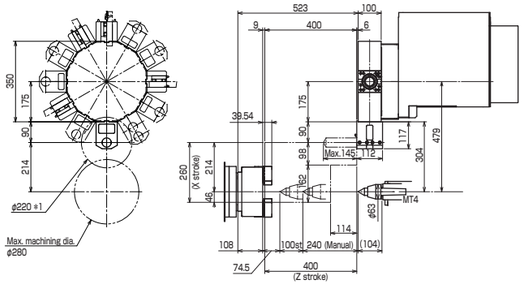
* Tool setter and work catcher cannot be installed together.

Packaged options (MiO8SY-Ⅱ)

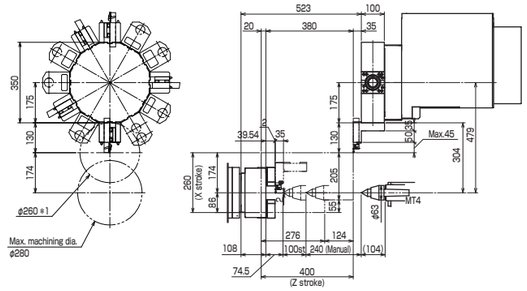
Best-selected options according to the machining system and the shape of workpieces.

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) 8 inch	○	○	○	○
		3-jaw solid 8 inch	–	–	–	–
		Collet chuck	–	–	–	○
	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		–	–	–	○

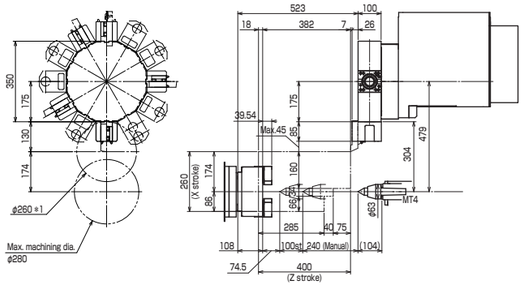
Tooling zone MiO8D-II



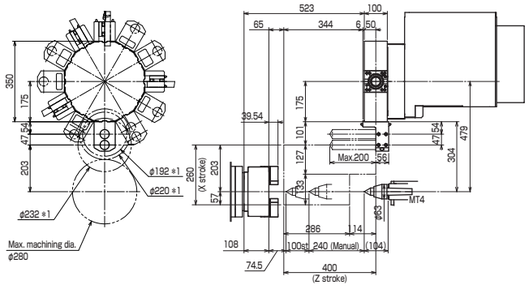
3295-H230 (Front drill holder ϕ40 mm)



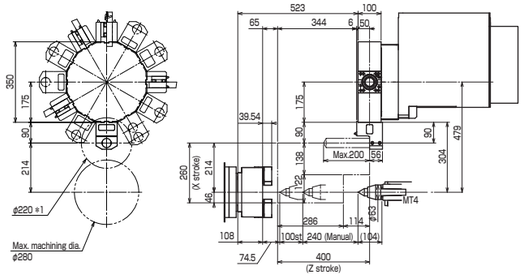
3295-H250 (Cut-off holder)



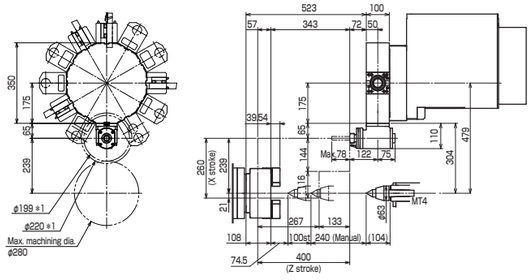
3295-H260 (Turning holder)



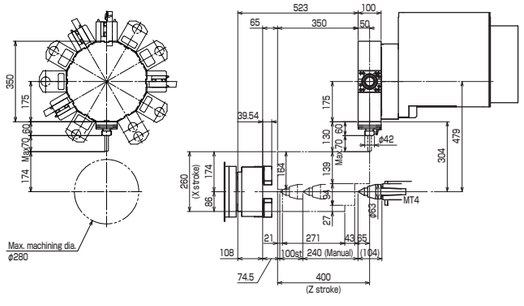
3295-H270 (Double drill holder ϕ40 mm, front offset)



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



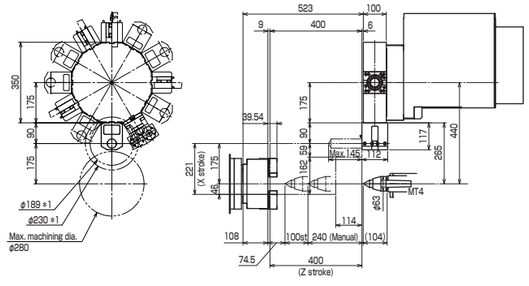
3295-Y171 (End face live tool)



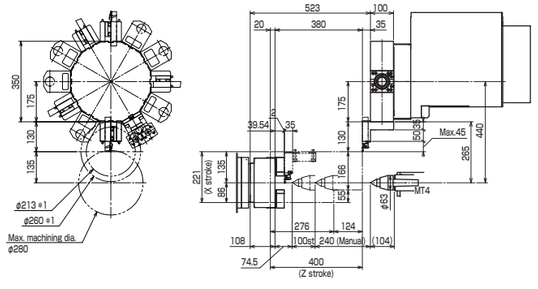
3295-Y161 (Cross live tool)

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

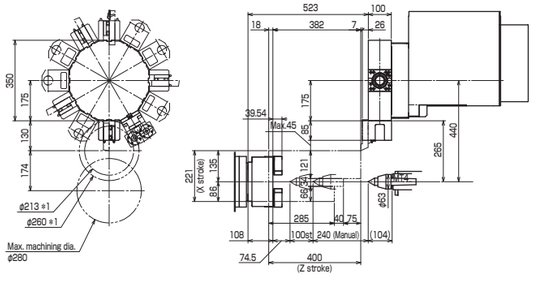
Tooling zone MiO8DY-II



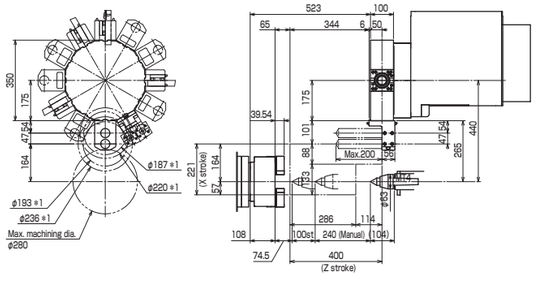
3295-H230 (Front drill holder ϕ40 mm)



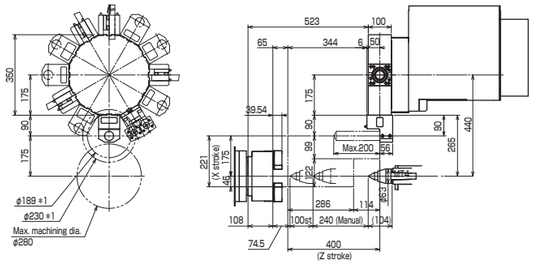
3295-H250 (Cut-off holder)



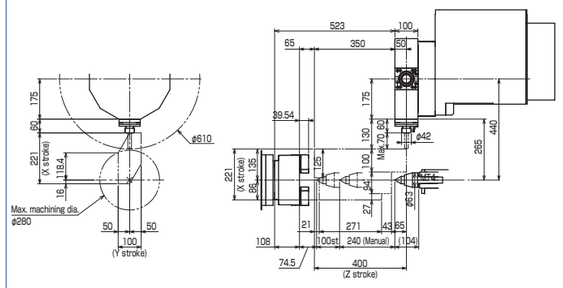
3295-H260 (Turning holder)



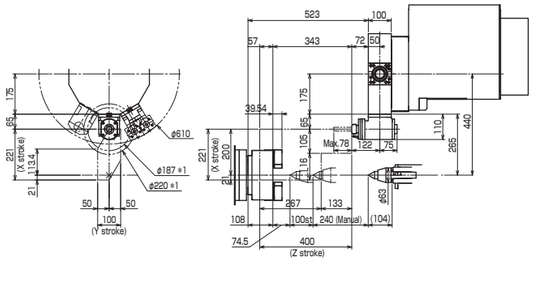
3295-H270 (Double drill holder ϕ40 mm, front offset)



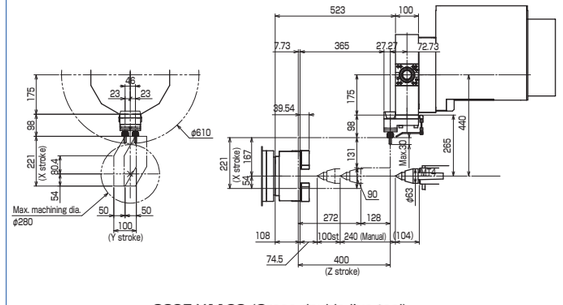
3295-H290 (Front drill holder ϕ40 mm, front offset)



3295-Y161 (Cross live tool)



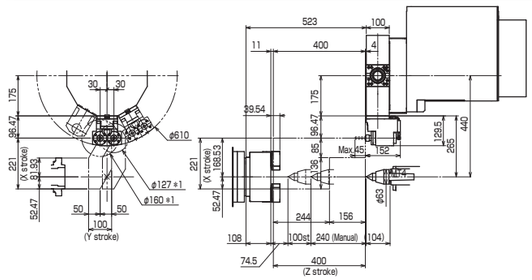
3295-Y171 (End face live tool)



3295-Y1192 (Cross double live tool)

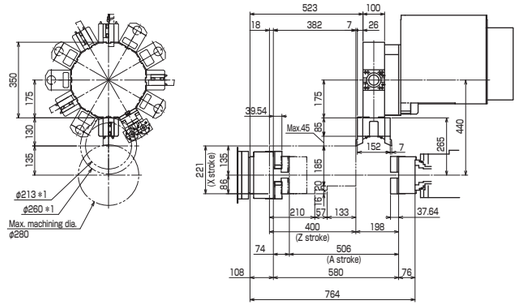
*1 Max. workpiece dia. restricted by the adjacent tool holders.
*2 Chuck type (CHANDOX): OPB-208 (8 inch)

Tooling zone MiO8DY-II

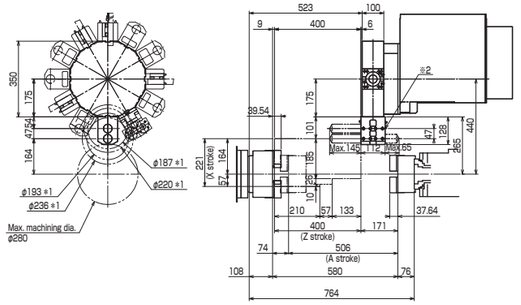


3295-Y1201 (End face live tool, double)

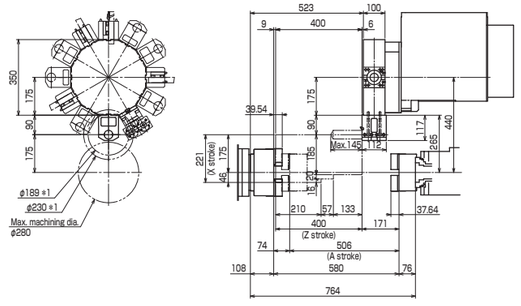
Tooling zone MiO8SY-II



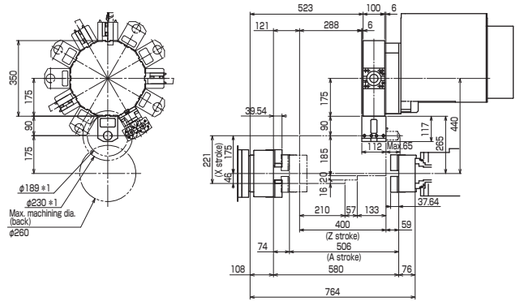
3295-H210 (Double turning holder)



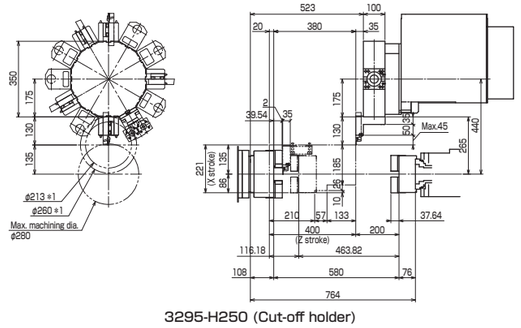
3295-H220 (Double drill holder ϕ40 mm)



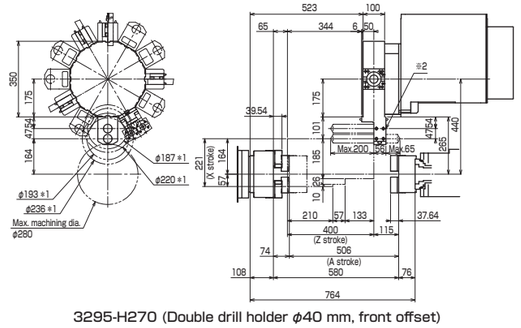
3295-H230 (Front drill holder ϕ40 mm)



3295-H240 (Back drill holder ϕ40 mm)



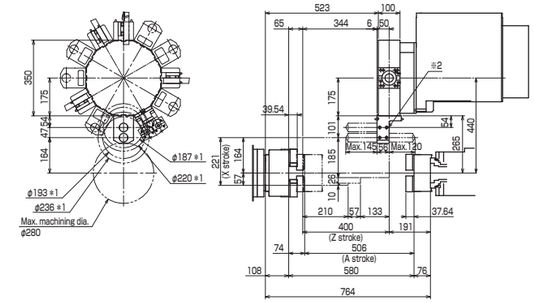
3295-H250 (Cut-off holder)



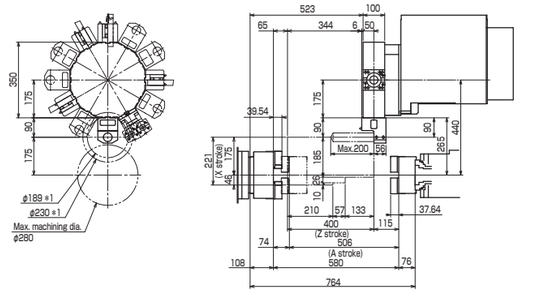
3295-H270 (Double drill holder ϕ40 mm, front offset)

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

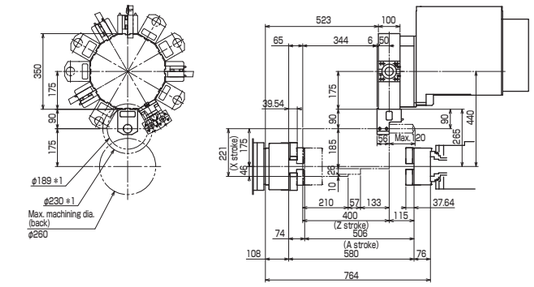
Tooling zone MiO8SY-II



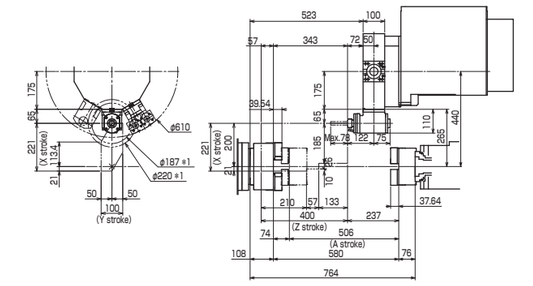
3295-H280 (Double drill holder ϕ40 mm, back offset)



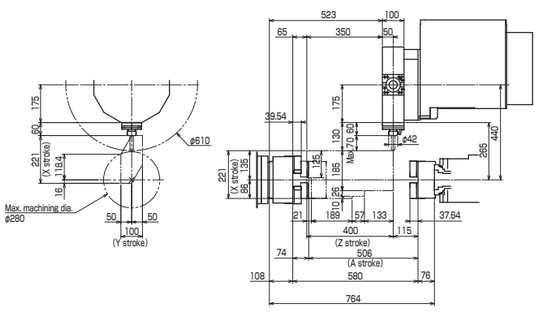
3295-H290 (Front drill holder ϕ40 mm, front offset)



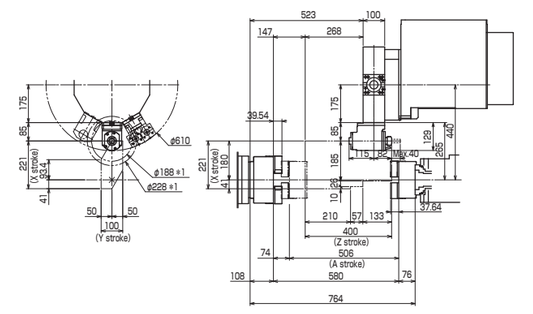
3295-H300 (Back drill holder ϕ40 mm, back offset)



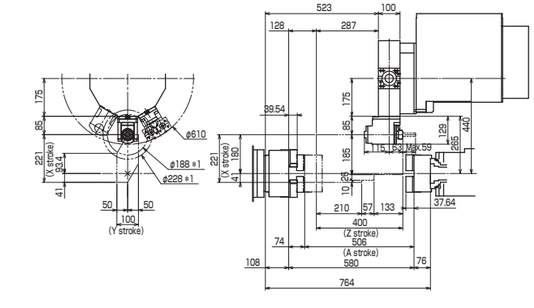
3295-Y171 (End face live tool, front)



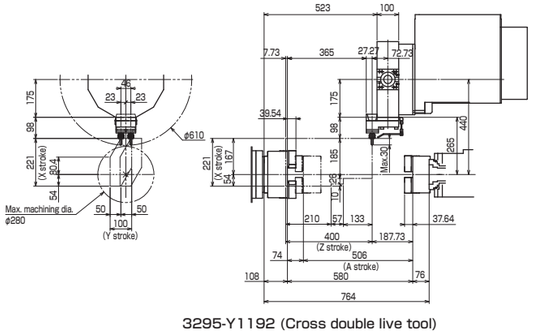
3295-Y161 (Cross live tool)



3295-Y301 (End face live tool, back)



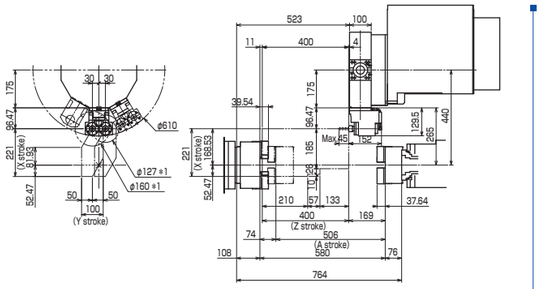
3295-Y1651 (End face live tool, back)



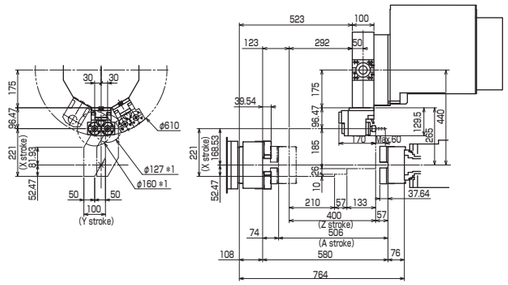
3295-Y1192 (Cross double live tool)

*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-208 (8 inch)

Tooling zone MiO8SY-Ⅱ



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

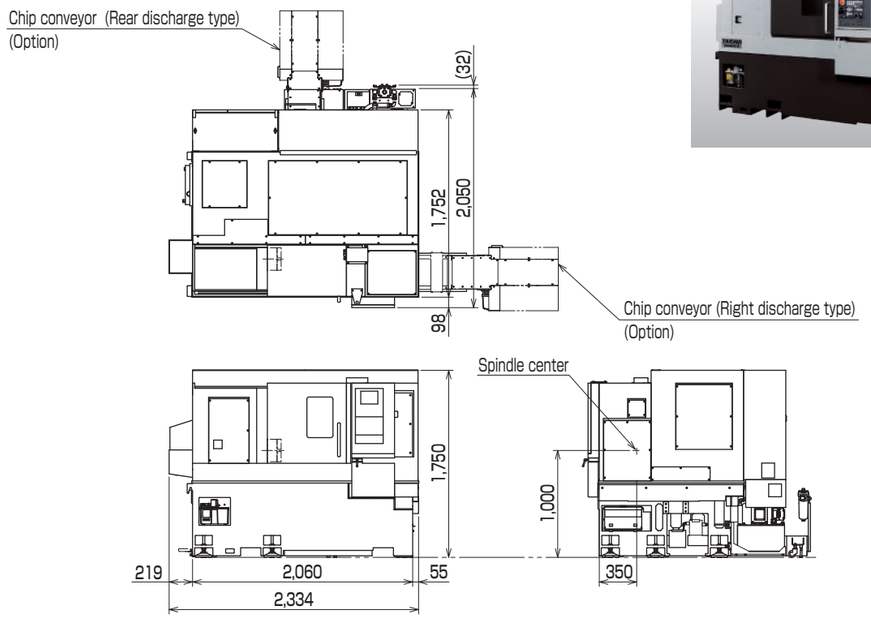


3295-Y1661 (End face live tool, back, double)

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

Layout

MiO8D-Ⅱ



MiO8DY-Ⅱ