

CNC Spindle Slide  
Precision Lathe

# XXW series



**TAKAMAZ**

CNC **2**-Spindle **2**-Slide Precision Lathe

# XVW series

*Full Lineup of **2**-Spindle and **2**-Slide Lathe Machines!*



From the original spindle parallel structure, a high rigidity, compact and high precision design is achieved. This qualifies as an expert model for durability on mass production system.

*Simultaneous same process machining*












"Work in process" is no longer in inventory. The loader is equipped with a 3-axis servo that is realized by a flexible line structure that leads to reduction of the production line.

*Simultaneous machining of both sides of the part*



Depending on the production requirements, separate left and right cutting is possible.

*Independent production form*

	Chuck size	Type		
<b>XWG-3</b> <small>NEW</small>	<b>4</b> Inch	 Gang Type	Achieving high-speed, high-accuracy machining!	P3–P4
<b>XW-60</b>	<b>6</b> Inch	 Drum Type	Medium-sized machine boasting high productivity!	P5–P6
			 <b>YouTube</b>	
<b>XW-60M</b>	<b>6</b> Inch	 Drum Type	Achieving versatile machining by mounting power tools!	P5–P6
<b>XW-130</b>	<b>8</b> Inch	 Drum Type	Fastest loading time in its class	P7–P8
<b>XW-130M</b>	<b>8</b> Inch	 Drum Type	Achieving high productivity with powerful milling!	P9–P10
<b>XW-200</b>	<b>10</b> Inch	 Drum Type	Long-awaited machine accepting 10-inch chucks!	P11–P12
<b>XWT-10</b>	<b>10</b> Inch	 Drum Type	Upgraded machine with two 10-station turrets!	P13–P14
			 <b>YouTube</b>	

# XWVG-3



CNC 2-Spindle 2-Slide Precision Lathe

# XWVG-3

Chuck size 3 / 4 Inch





# TAKAMAZ's proposal for contributing to carbon neutrality and building a new style of production

## Built-in motor spindles for stable accuracy

5.5/3.7kW high-efficiency motors are used.

The machine can be equipped with up to 4-inch chucks, and optionally hydraulic cylinders, enabling stable mass production of workpieces that could not be cut previously due to insufficient gripping force. In addition, a review of the cooling circuit has made the oil controller that was previously required for short-cycle machining unnecessary\*, resulting in cost and space savings.

\*An oil controller may still be required for some specifications.

## Targeting high accuracy with the in-machine cooling unit

Two-spindle machines are prone to unstable accuracy due to thermal imbalance when different machining is performed on the right and left, but this machine has a cooling tank for the two built-in motor spindles inside the bed to suppress thermal displacement and achieve stable change over time. (Patented technology)

## Reduction of the number of parts and enhanced energy saving effect

The new MG loader installed in this machine uses far less parts compared to previous loader systems by integrating parts such as the control PCB, display unit, and battery which is a maintenance part, into the machine.



In addition, the new adoption of a power regeneration system along with higher-speed movements gives greater energy savings than previous models.

## Innovation in the mode of production

Featuring a footprint of a mere 2.75 m<sup>2</sup>, this machine needs only enough space for installing a single lathe.

We promise high-precision and high-efficiency production with two built-in motor spindles.

In contrast to machines requiring linking, these machines can be integrated with auxiliary units such as chip conveyors, coolant units or mist collectors.

## Large-sized touch panel for improved operability

A large 19-inch touch screen with great visual comfort is adopted to improve operability during setup. The 2-screen multi-display can be switched over according to the purpose of operation. The home screen can be used to check for causes of machine downtime, such as low lubricating oil and counters reaching preset values, before they occur and thereby improve the machine availability rate. In addition, machine status data and traceability data can be saved and utilized such as for quality control and investigating the cause of a machine error, and therefore contribute to enabling stable operation of the equipment.



## Revamped design for easier setup

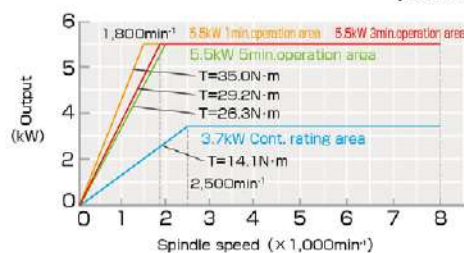
During setup changes, the machine front cover can be opened across the entire width of the machine, enabling safe and speedy setup.



## Increased productivity with faster speeds

Slide rapid traverse rate are increased by 33%. The time spent before starting machining can be shortened. The machine is equipped with two new MG30H loaders (optional) that support high-speed operation, enabling shorter cycle times.

**XWG-3 Spindle power characteristic curve** ■ Max.8,000min<sup>-1</sup> Standard type (AC5.5/3.7kW)



XW-60/60M



※The photo shows the XW-60M.

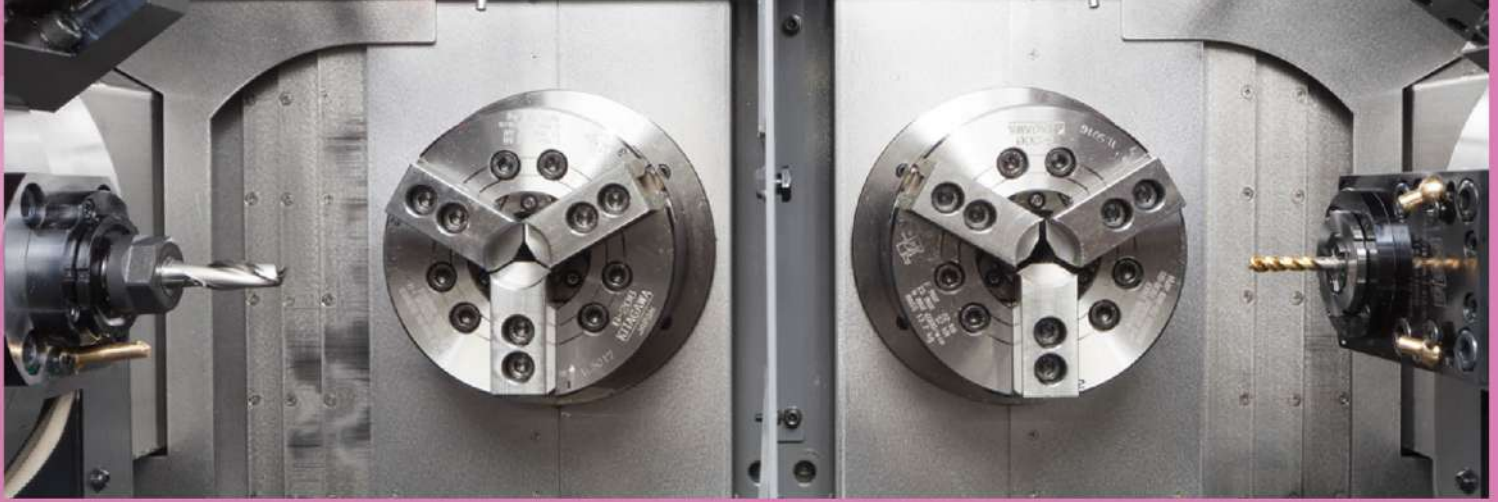
CNC 2-Spindle 2-Turret Precision Lathe

# XW-60/60M

Chuck size **6** Inch



Scan the QR code with your camera phone or smartphone to see videos on YouTube.

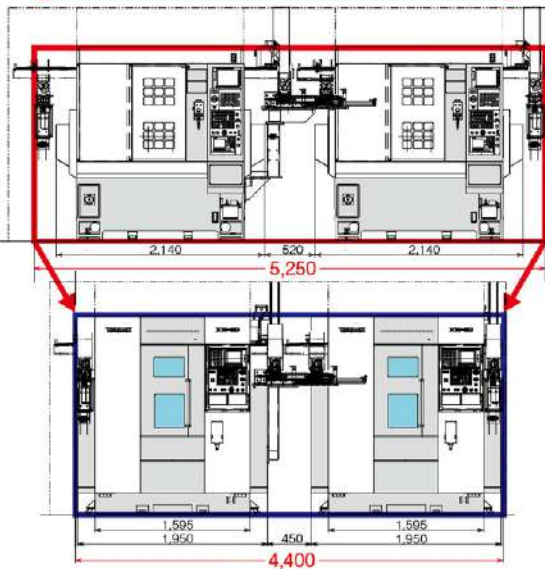


# 6-inch-chuck medium-sized machine ticking all three boxes: space savings, compound machining, and high-speed automation

## Space savings in production lines

Reducing the machine width has expanded the space available for installing peripheral equipment, and also helps to shorten production lines.

**Production lines: Up to 15% reduction (comparison with previous lines)**



※ With 2 machines linked: shortening of 850 mm

## Evolved high-speed automation system

The optimum transfer system is configured by integrating a transfer loader with the machine body, contributing to cycle time reduction. (Y-axis rapid traverse rate: 60% higher than on previous models, Loading time: 10% shorter than on previous models, Shortest cycle time for front and back machining with processes 1 and 2: 8% reduction compared to previous models)

## More extensive machining possibilities

A single-tool drive system is used for power tools, which increases the transmission efficiency and improves the machining capacity. Up to 20 power tools can be mounted and with a greater mountable tool size the range of selectable tools is broadened. (60M: Power tool specifications)



## Shorter machining cycles

A 7.5/5.5 kW spindle motor is installed, and the increased power reduces spindle acceleration/deceleration times by 22% at the maximum speed (4,500 min<sup>-1</sup>) compared to previous models. The reduction in non-cutting time shortens cycle times and improves productivity.

## Unique thermal displacement suppression construction adopted

An original spindle base cooling system that forcibly circulates coolant (patented technology) is featured as standard, suppressing thermal displacement of the bed, minimizing changes over time, and achieving stable dimensional accuracy. In addition, a vibration damping structure that suppresses vibration by incorporating functional materials in each part of the machine (patented technology) has been adopted.

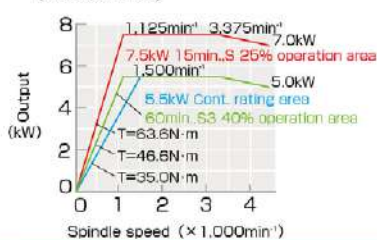
(Technology common to XW-130/XW-130M/XW-200/XWT-10)

**Vibration damping function installed** For details, see page 10. (Technology common to XW-130/XW-130M/XW-200/XWT-10)

**Improved operability for setup changes** For details, see page 10. (Technology common to XW-130/XW-130M/XW-200/XWT-10)

### XW-60/60M Spindle power characteristic curve

■ Max.4,500min<sup>-1</sup> Standard type (AC5.5/7.5kW)

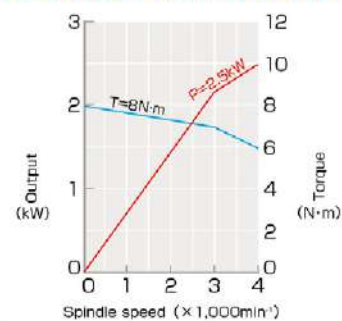


■ Max.6,000min<sup>-1</sup> Option type (AC5.5/7.5kW)



### XW-60M Power tool power characteristic curve

■ Max.4,000min<sup>-1</sup> Standard type (AC2.5kW)



# XW-130

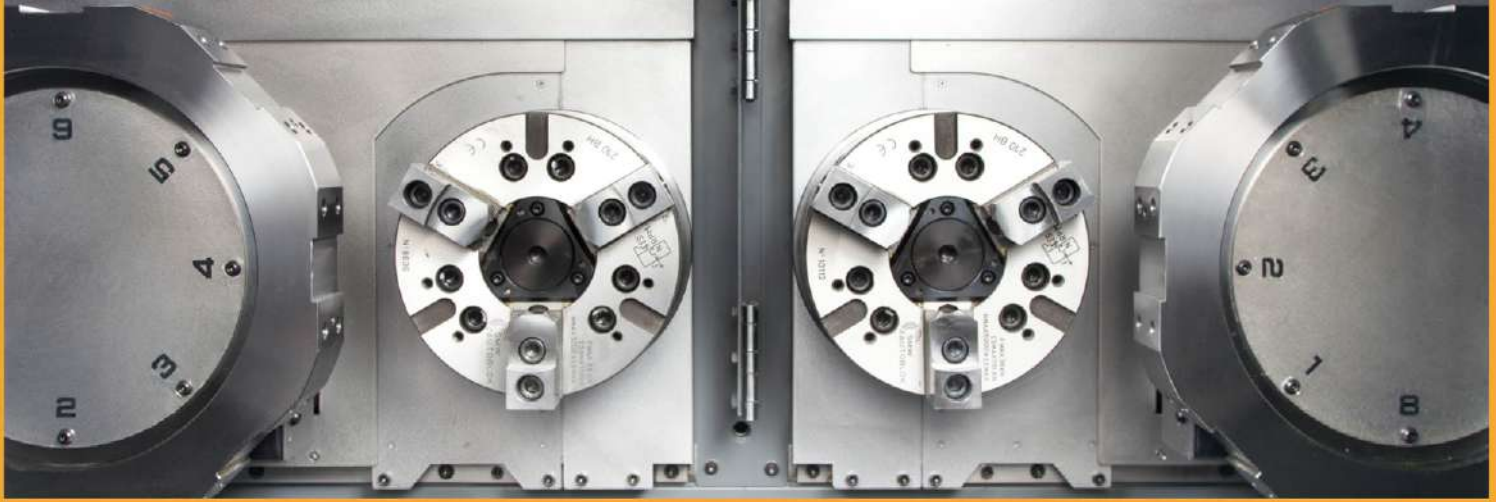


CNC 2-Spindle 2-Turret Precision Lathe

# XW-130

Chuck size 8 Inch





# A 2-Spindle 2-Turret Precision Lathe with "high-speed high-power" 8-inch chuck

## Loading time with a mark of fastest class at 6 seconds

The XW-130 series is equipped with a newly-developed 3-axis loader dedicated to 2-spindle configurations. High rigidity has been achieved by increasing the rack size, and higher travel speeds have been sought, resulting in the fastest loading time in its class at 6 seconds. In addition, improvement of the intermediate turnover unit has enabled workpiece delivery to be completed in one motion instead of two as was previously necessary, allowing a cycle time of only 18 seconds for processes 1 and 2 in both-side machining (Patented technology). What is more, one of the parallel loader hands has been given an independent drive function, and a configuration that minimizes interference with the stocker, washer unit, etc., during delivery has been adopted.



## High-speed shutter installed

The shutter that opens and closes when the loader enters has been made even faster. The combination of solenoid valve control with the ideal cylinder has cut the operating time of previous models in half, to under 0.5 seconds for both opening and closing operations.

## Ease of maintenance

For cutting inside the machine, there is no exposure of the slide wipers. Therefore countermeasure for hot chip is perfect. In addition, because of the chip conveyor, stagnation of the chip does not occur directly under the spindle. Furthermore, coolant tank can be pulled out from the front of the machine, which is a structure for coolant tank easy cleaning. With complete opening of rear cover, and the piping concentrated in the machine side, it is the structure that ensures easy maintenance on the rear area of the machine.

## Unique thermal displacement suppression construction adopted

For details, see page 6.  
(Technology common to XW-60/XW-60M/XW-130M/XW-200/XWT-10)

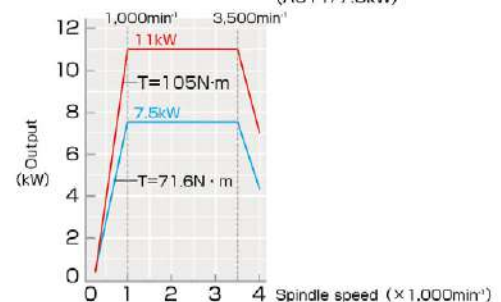
## Vibration damping function installed

For details, see page 10.  
(Technology common to XW-60/XW-60M/XW-130M/XW-200/XWT-10)

## Improved operability for setup changes

For details, see page 10.  
(Technology common to XW-60/XW-60M/XW-130M/XW-200/XWT-10)

**XW-130 Spindle power characteristic curve** ■ Max.4,000min<sup>-1</sup> Standard type (AC11/7.5kW)

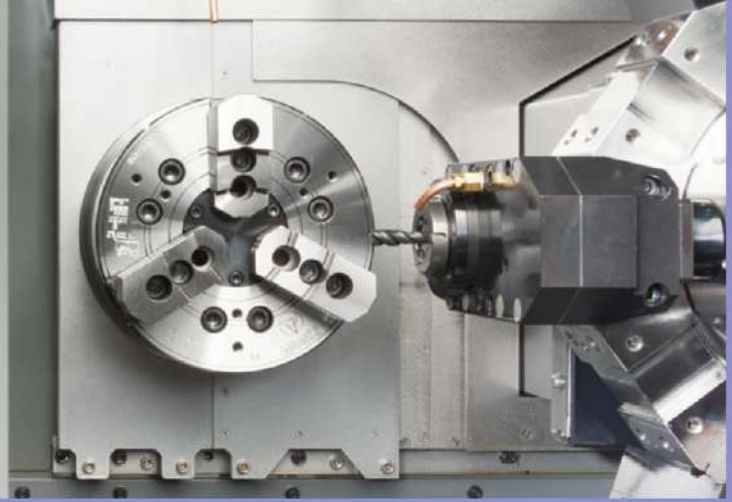
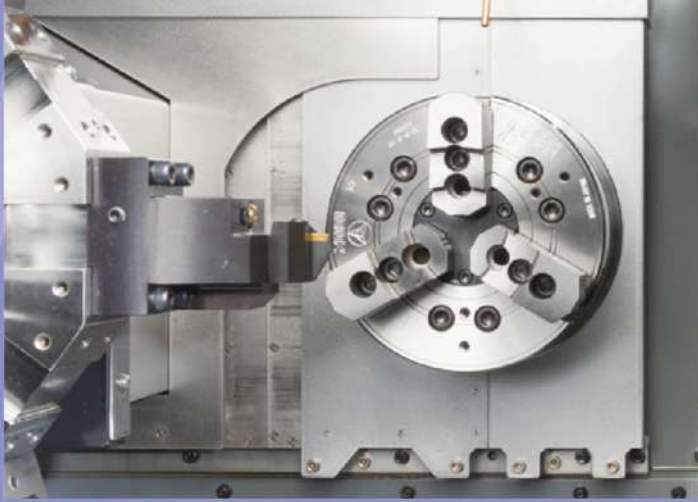




CNC 2-Spindle 2-Turret Precision Lathe

# XW-130M

Chuck size 8 Inch



# Support for Diverse Compound Machining Needs through Mounting of Power Tools

## High productivity with powerful milling

The machine is equipped with a power tool unit suitable for 8-inch chucks. It has a maximum capacity of 20 power tools, and supports the requirements of process integration through compound machining. In addition, in-process inventory has been reduced to zero by simultaneous front and back machining, delivering high productivity.

## Tool post construction enabling sustained heavy-duty cutting

A construction with square box-way slides for exceptional rigidity, and realizing little center of gravity displacement of the tool post with the X axis resting on the Z axis, is adopted for differentiation from competitors' products. This helps to resist secular changes and to dampen chattering in cutting.

(Technology common to XW-200)

## Unique thermal displacement suppression construction adopted

For details, see page 6.

(Technology common to XW-60/XW-60M/XW-130/XW-200/XWT-10)

## Vibration damping function installed

When finish machining, commands to ameliorate the effects of vibrations due to the operation of the spindle at the other side, or reduce them to zero, are available. They can be selected and programmed in various cases (prioritizing accuracy, prioritizing cycle time).

(Technology common to XW-60/XW-60M/XW-130/XW-200/XWT-10)

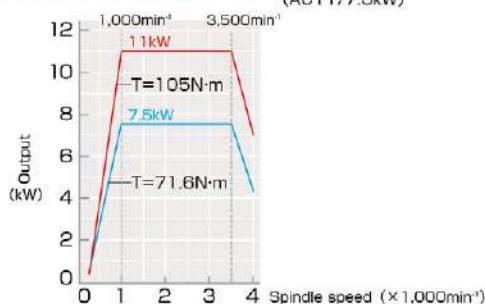
## Improved operability for setup changes

A low center of gravity construction with the spindle center height restricted to 1,000 mm allows chucks and workpieces to be changed in a comfortable posture. The work can also be done in a bright machine interior since overhead lighting is featured as standard, and this helps to shorten working times and greatly improve operating efficiency. In addition, the adoption as standard of a swiveling operation panel and a pendant operation panel for the transfer loader enables simple and accurate teaching.

(Technology common to XW-60/XW-60M/XW-130/XW-200/XWT-10)



**XW-130w Spindle power characteristic curve** ■ Max.4,000min<sup>-1</sup> Standard type (AC11/7.5kW)



**XW-130w Power tool power characteristic curve** ■ Max.4,000min<sup>-1</sup> Standard type (AC3.7/2.2kW)



XW-200



CNC 2-Spindle 2-Turret Precision Lathe

# XW-200

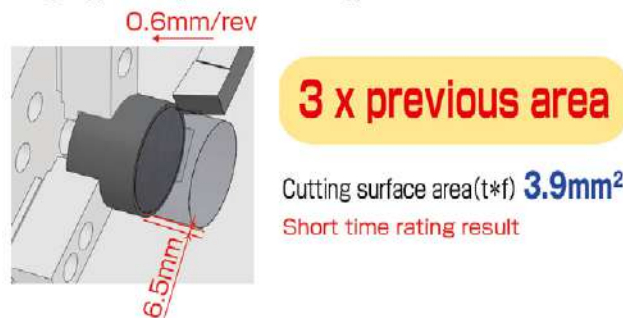
Chuck size 10 Inch



## Long-awaited 10-inch chuck compatible machines in the XW series enable high productivity with large-diameter workpieces

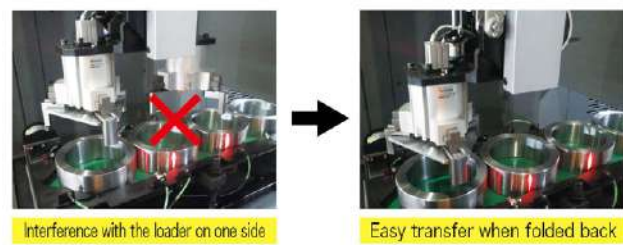
### Powerful heavy-duty cutting capability

The adoption of large-diameter  $\phi 120\text{mm}$  bearings and an 18.5/15 kW motor has realized stable machining of large workpieces. With stable spindle output in the mid- and low-speed ranges allow cutting across three times the cutting surface area of existing models is achieved, showing their outstanding power in the heavy-duty machining of large flange-type workpieces. (Technology common to XWT-10)



### Transfer of large workpieces enabled

The largest workpieces that Takamaz machines can handle, measuring  $\phi 200\text{ mm}$  and up to 8 kg, can be transferred on each side. Since hands can be folded back in addition to being turned, workpieces arranged in a line can be picked up easily without interfering with the loader on one side. (Technology common to XWT-10)



Intermediate turnover unit that can handle large-diameter workpieces

A high-speed shutter with patented technology is used, cutting the operating time of previous models in half, to under 0.5 seconds for both opening and closing operations, so cycle times are shortened.

### Tool post construction enabling sustained heavy-duty cutting

For details, see page 10.  
(Technology common to XW-130M)

### Unique thermal displacement suppression construction adopted

For details, see page 6.  
(Technology common to XW-60/XW-60M/XW-130/XW-130M/XWT-10)

### Vibration damping function installed

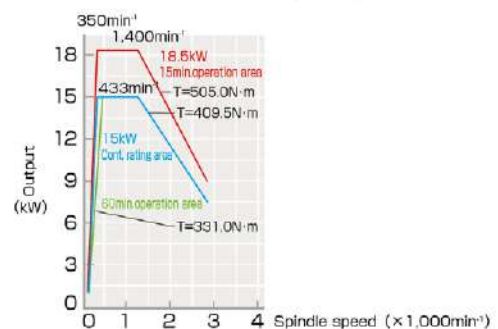
For details, see page 10.  
(Technology common to XW-60/XW-60M/XW-130/XW-130M/XWT-10)

### Improved operability for setup changes

For details, see page 10.  
(Technology common to XW-60/XW-60M/XW-130/XW-130M/XWT-10)

### XW-200 Spindle power characteristic curve

Max. 2,800min<sup>-1</sup> Standard type  
( $\phi 120$  spindle AC18.5/15kW)



# XWWT-10



CNC 2-Spindle 2-Turret Precision Lathe

# XWWT-10

Chuck size 10 Inch



Scan the QR code with your camera phone or smartphone to see videos on YouTube.



# Upgraded machine realizing the largest OD turning range of the XW series!

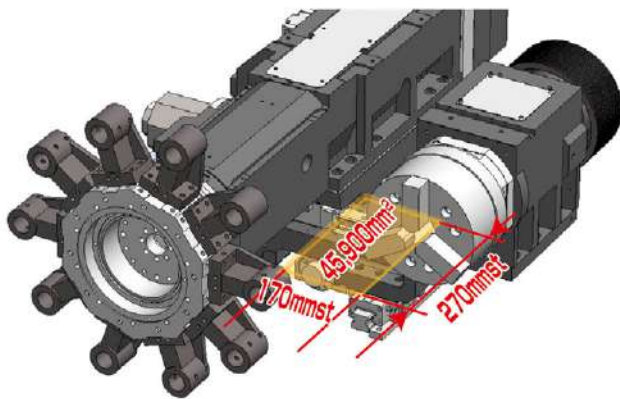
## Equipped with 10-station turrets

With two 10-station turrets, tool capacity is increased, boosting production efficiency.

## The largest turning range of the XW series

The maximum turning range in the XW series is secured, making it possible to handle workpieces that require simultaneous deep ID and OD turning, such as differential cases and brake calipers.

You can also take advantage of the spacious machine interior to mount chucks of various designs.



## Improved chip disposal

In addition to chip flushing inside the machine, a chip flushing circuit is installed behind the cover under the door to prevent chip retention and promote a straight drop of chips into the chip conveyor (optional) below the spindle.

## Powerful heavy-duty cutting capability

For details, see page 12.

(Technology common to XW-200)

## Transfer of large workpieces enabled

For details, see page 12.

(Technology common to XW-200)

## Unique thermal displacement suppression construction adopted

For details, see page 6.

(Technology common to XW-60/XW-60M/XW-130/XW-130M/XW-200)

## Vibration damping function installed

For details, see page 10.

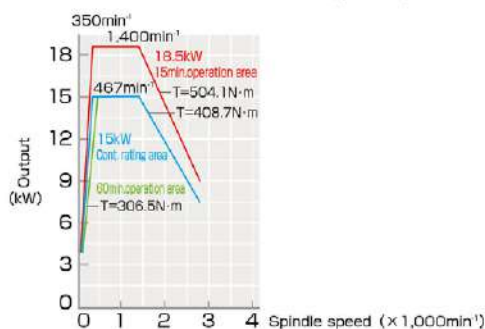
(Technology common to XW-60/XW-60M/XW-130/XW-130M/XW-200)

## Improved operability for setup changes

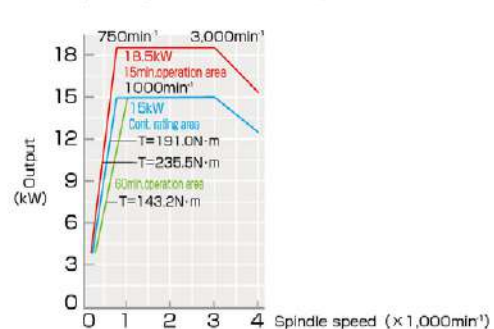
For details, see page 10.

(Technology common to XW-60/XW-60M/XW-130/XW-130M/XW-200)

**XWT-10 Spindle power characteristic curve** ■ Max.2,800min<sup>-1</sup> Standard type (φ 120 spindle AC18.5/15kW)



■ Max.4,000min<sup>-1</sup> Option type (φ 120 spindle AC18.5/15kW)



## Equipped with the [Speed] and [Small Footprint] Servo Loader, “MG Series”, “ $\Sigma$ i Series”

As a result of machine body and loader integrated as one unit, superiority in design balance is accomplished as well as high productivity and space savings, and with after-sale service by **TAKAMAZ**, will benefit the customer on different aspects.

- ◆The largest three-axis control, setup is easy and can be done quickly.
- ◆Depending on the cutting time, it is possible to equip the machine with 1 or 2 loaders.
- ◆In each point, it is possible to set the interlock to prevent accidental collision.
- ◆All database, the servo parameter, the data tables, and timer setting can be uploaded and downloaded to and from the memory card.



### Loader transfer capacity

Item	Unit	XWG-3		XW-60/60m		XW-130	XW-130m/200	XW-200	XWT-10
		MG30	MG30H(High speed type)	$\Sigma$ IGTH60	$\Sigma$ IGTH60(High speed type)	$\Sigma$ IGTH150	$\Sigma$ IGTH200		
Loader Model		MG30	MG30H(High speed type)	$\Sigma$ IGTH60	$\Sigma$ IGTH60(High speed type)	$\Sigma$ IGTH150	$\Sigma$ IGTH200		
Number of axes	axes	2				3			
Loading Time (Reference)	sec.	4	2	6	2	6		7	
Transport Diameter x Length (Reference)	mm	$\phi$ 30x40		$\phi$ 60x60	$\phi$ 55( $\phi$ 60)x60	$\phi$ 150x50		$\phi$ 200x120	$\phi$ 200x220
Work Dimension Weight	kg	0.3(One side)		1.0(One side)		3.0(One side)		8.0(One side)	
Shoulder (Traverse axis : Z)	Drive System	Servomotor							
	Stroke	Depends on specifications							
	Rapid Traverse Rate	m/min	85	170	120		170		100
Forward/Backward axis : X	Drive System	Servomotor							
	Stroke	—		200		235			
	Rapid Traverse Rate	m/min	—		45		35		30
Arm (Vertical axis: Y)	Drive System	Servomotor							
	Stroke	240		590		690	760		780
	Rapid Traverse Rate	m/min	85	170	125	170	125		80
Hand	Drive System	Air cylinder							
	Angle	—				90			
	Jaw Stroke	mm	9(One side)	—	10(One side)		16(One side)		12(One side)
Hand Type		Parallel Hand	Fluoting open/close hand	$\Sigma$ IGTH dedicated L Hand					

The loading time, transport and work dimensions are the indicators.

## Different Varieties of Loader Hand that can Handle Different Shapes of Parts

◆ Loader hands that can handle a wide range of shapes, including flange workpieces, are available.

### Parallel Hand

XWG-3 Standard loader



### ΣIGTH dedicated L Hand

XW-60 XW-60M  
XW-130 XW-130M XW-200 XWT-10



## Flexible Variation for Automated Large-Variety and Small-Lot Production

Machining Type / Machining Flow	Continuous Front and Rear Machining Line	Same Process Machining Line
L → R		
L ← R		
L ↻		
R ↻		
L ↔ R	—	

## Automation Peripheral Devices

◆ A production line with different varieties of peripheral devices and loading variations can be designed.

In / Out Stocker



In / Out Conveyor



Auto measurement unit



External turning device



# OPTIONAL PARTS

## Quality / Environment Control Unit



● **Signal Tower**  
The solid and flashing lights for the operating conditions.



● **Cleaning Unit**  
Without operator intervention, cleaning is performed automatically.



● **Oil Mist Collector**  
Oil mist collection facilities a clean production environment.



● **Automatic Fire Extinguisher**  
If fire breaks out in the machine during automatic operations, fire extinguishing agent is automatically discharged.

## Work Stocker / Transfer Unit



● **Tray Changer**  
Workpieces can be stored in individual trays.



● **"Rakuchin" Stocker**  
Reasonably priced bucket for easy bucket transport management.



● **Parts Feeder**  
Workpieces can be stored together with the tray.



● **Station Stocker**  
Flexible Multi-layer stocker to accommodate different part diameter sizes.

## Cutting Efficiency / Chip Disposal



● **Alloyed Clamp Holder for vibration suppression**  
Inhibiting the progression of wear boundary is expected to extend cutting tool life in high speed machining.



● **Chip Conveyor (Spiral Type)**  
Mounted on the rear side  
Chip disposal is done semi-automatically in minimal space. Floor type is also available.



● **High-pressure coolant**  
Constantly cooled coolant is discharged at high pressure so that the tool life is significantly prolonged.

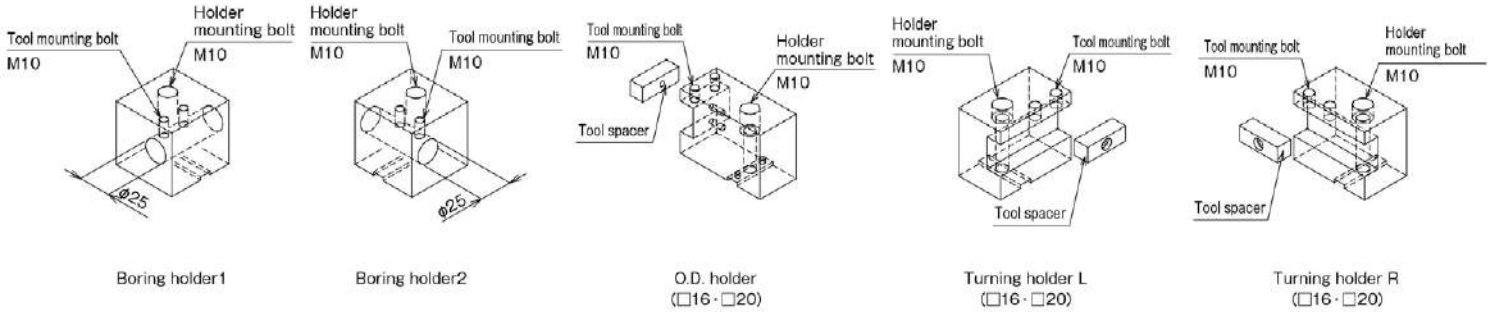


● **Semi-dry machining**  
Ultratrace, highly-lubricating organic coolant is applied to the correct point on the cutting edge, realizing semi-dry machining.

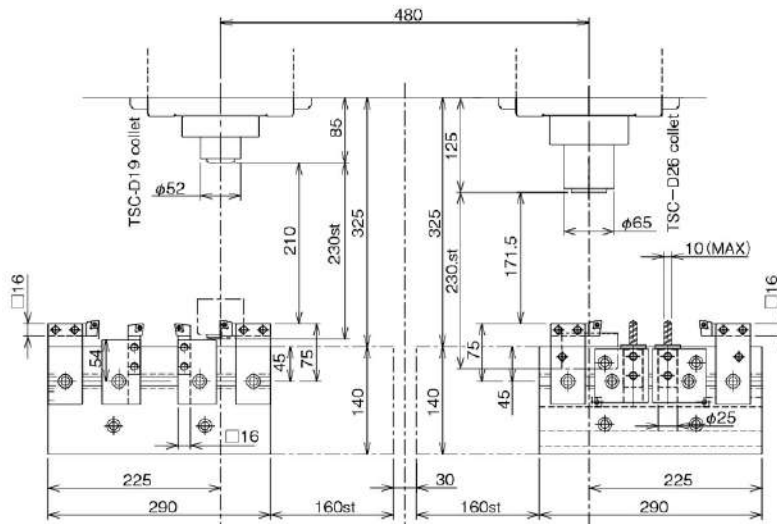
# TOOLING SYSTEM & STROKE

## Tooling System

# XWG-3

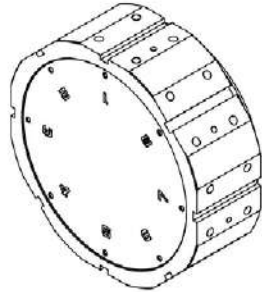


## Stroke-Related Drawing

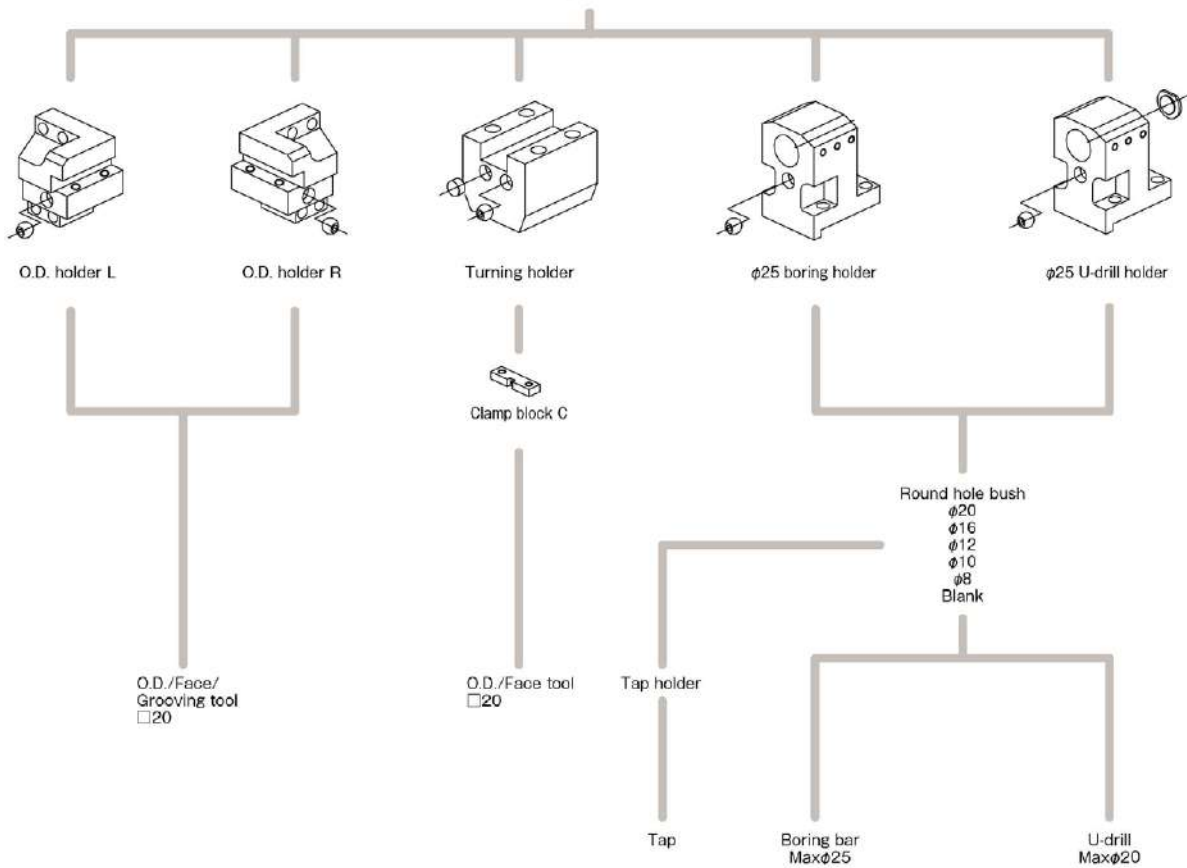


Unit (mm)

## XW-60

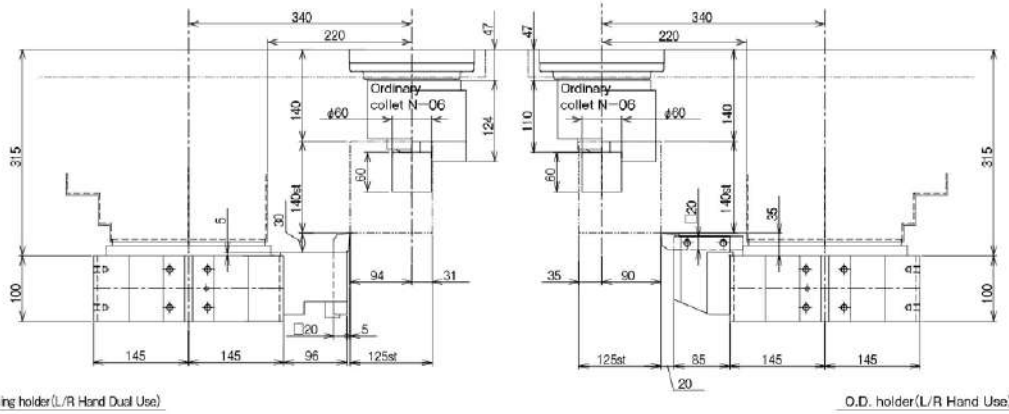


8-station turret



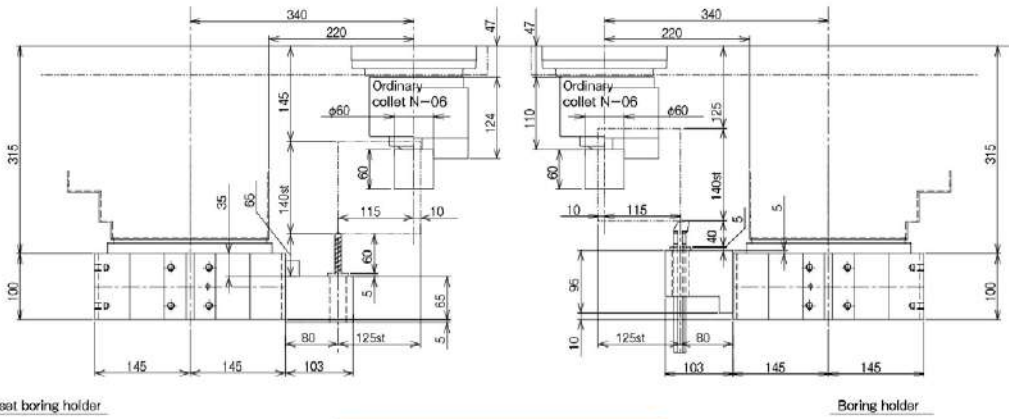
## Stroke-Related Drawing

# XW-60



Turning holder(L/R Hand Dual Use)

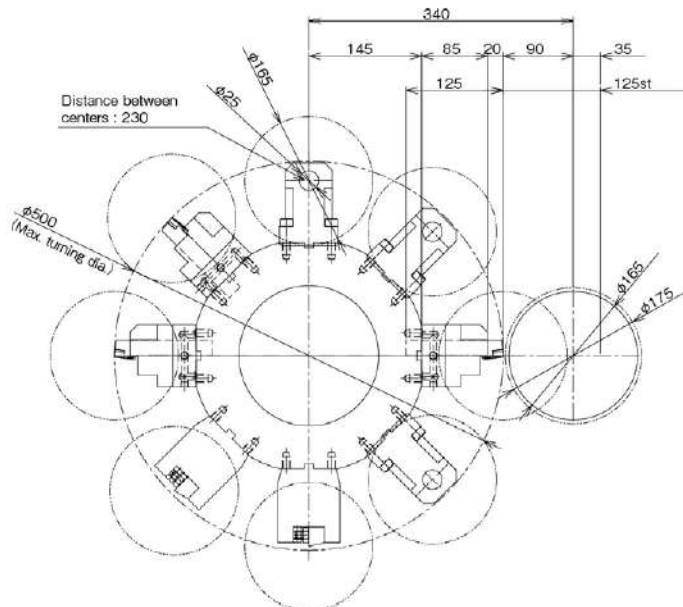
O.D. holder(L/R Hand Use)



Offset boring holder

Boring holder

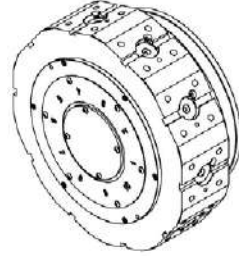
## Turret Interference



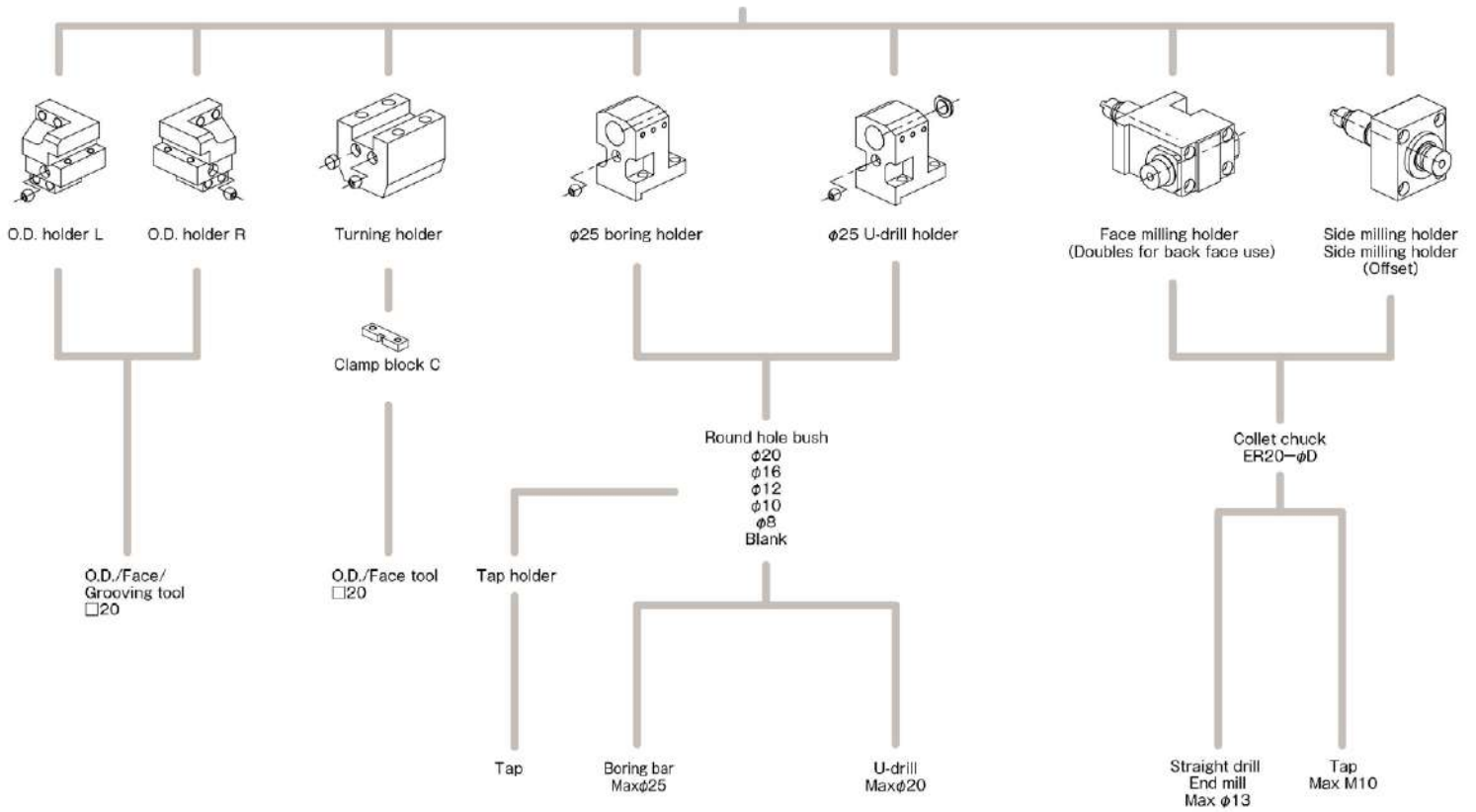
Unit (mm)

## Tooling System

# XW-60M



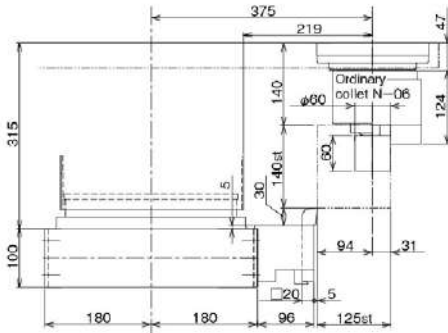
10-station turret



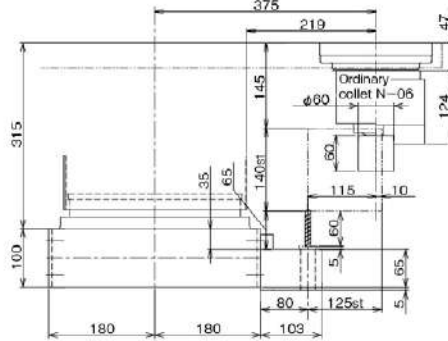
# STROKE & TURRET

## Stroke-Related Drawing

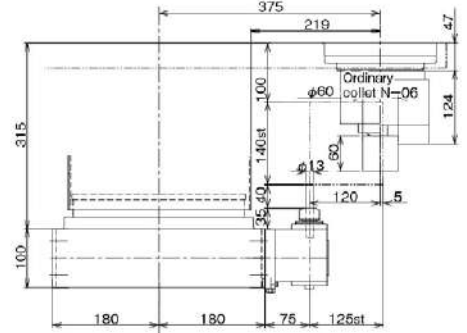
# XW-60M



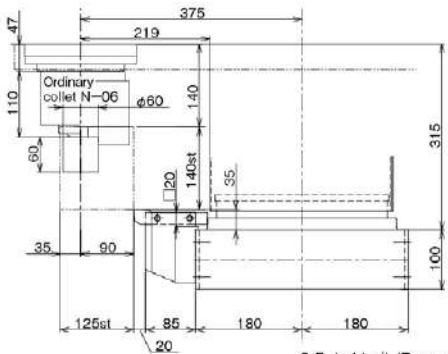
Turning holder (L/R commonness)



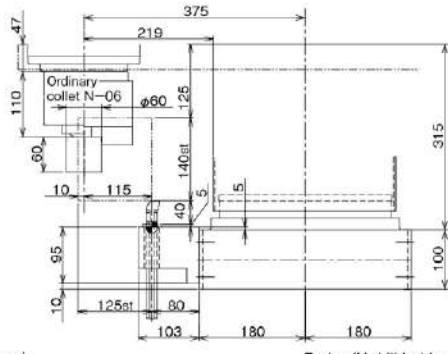
Offset boring holder



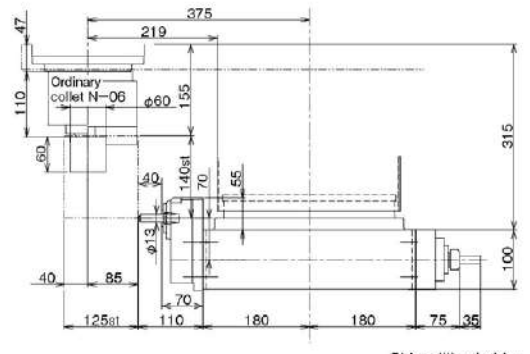
Face milling holder



O.D. holder (L/R commonness)

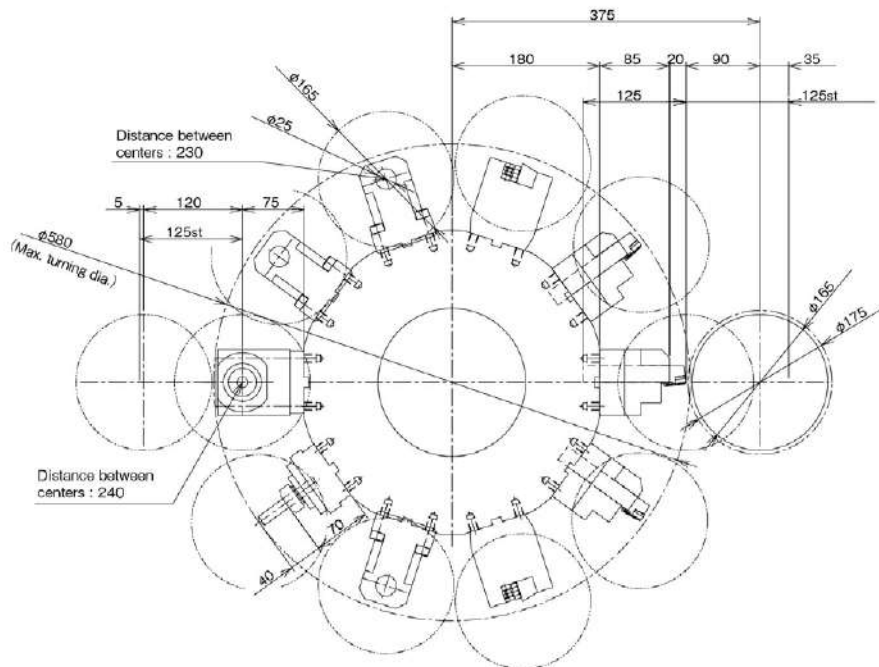


Boring/U-drill holder



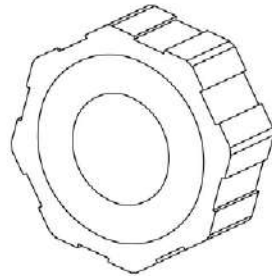
Side milling holder

## Turret Interference

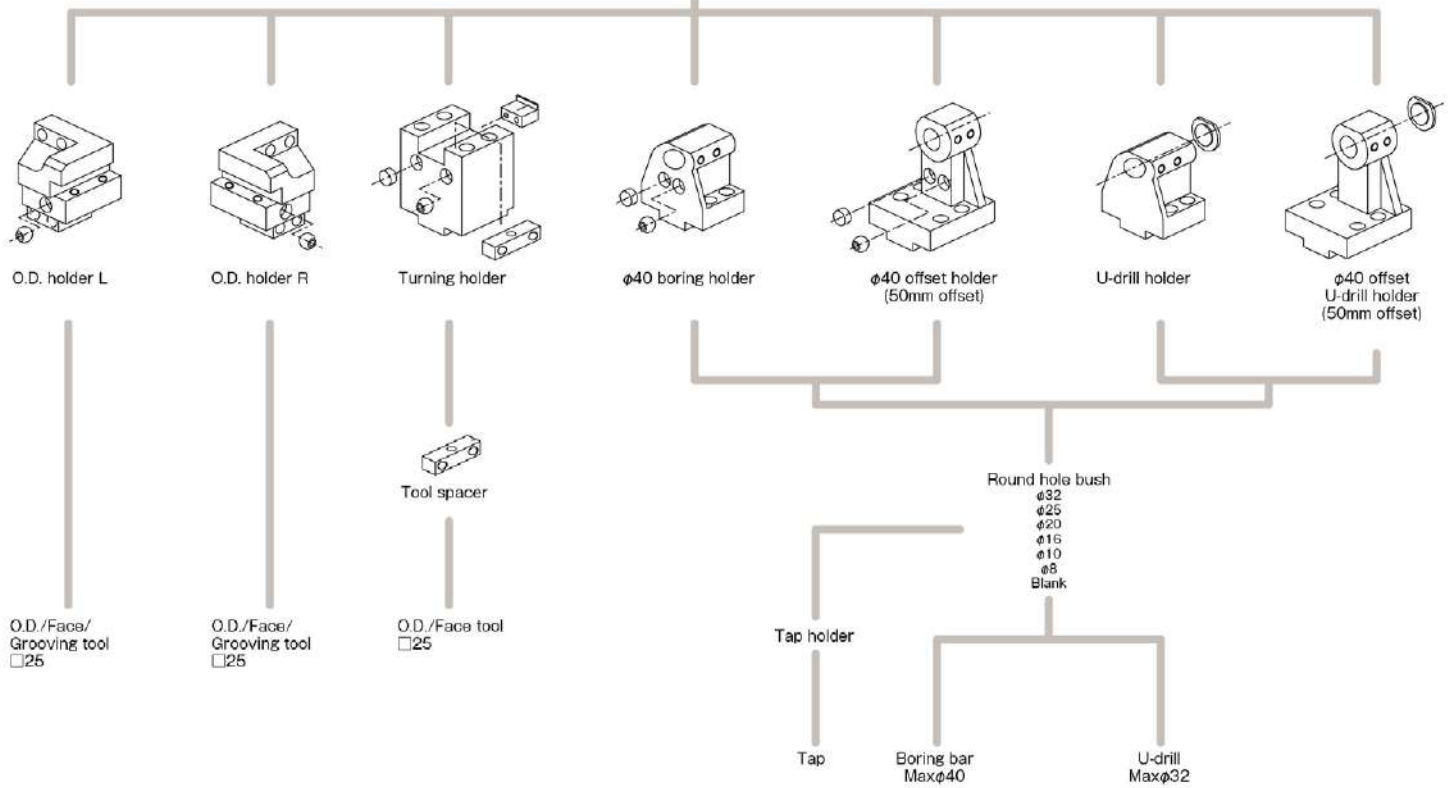


Unit (mm)

# XW-130



8-station turret

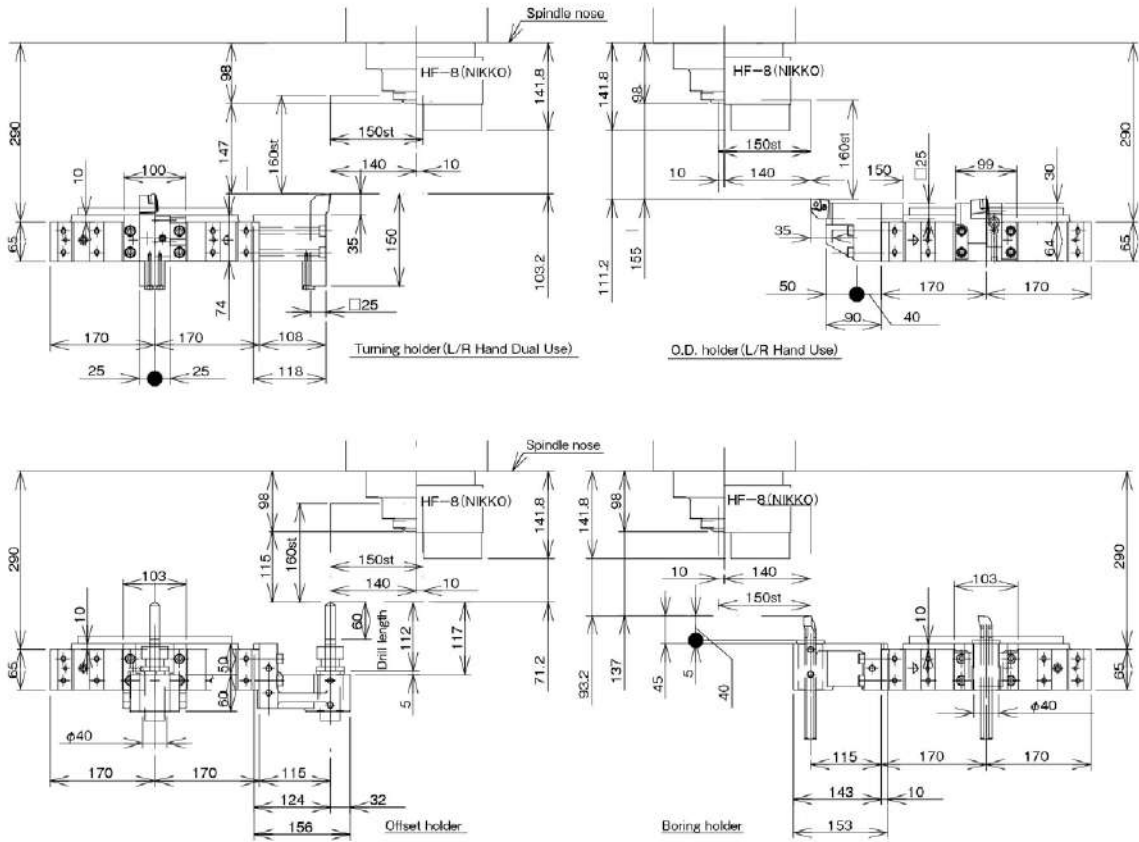


※When setup the drill, tooling space has prohibited zone.  
If you need more information, please contact to TAKAMAZ.

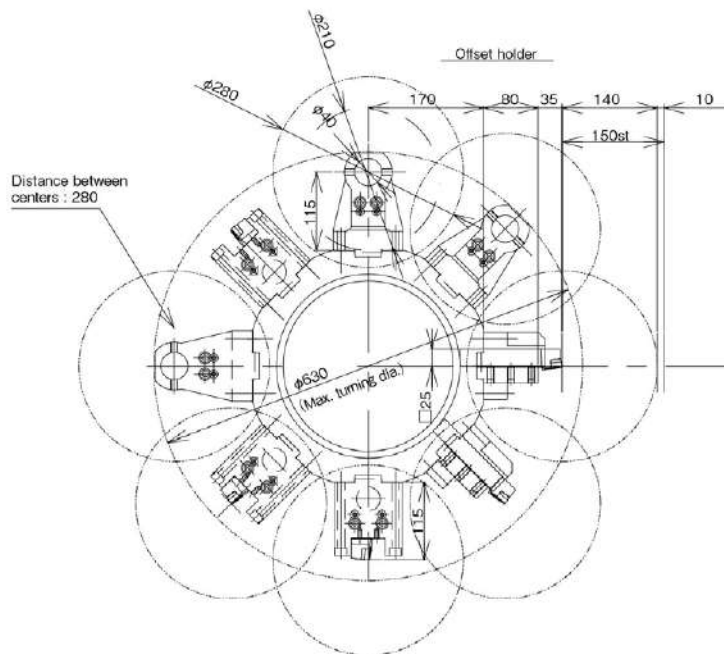
# STROKE & TURRET

## Stroke-Related Drawing

# XW-130



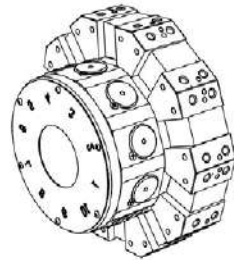
## Turret Interference



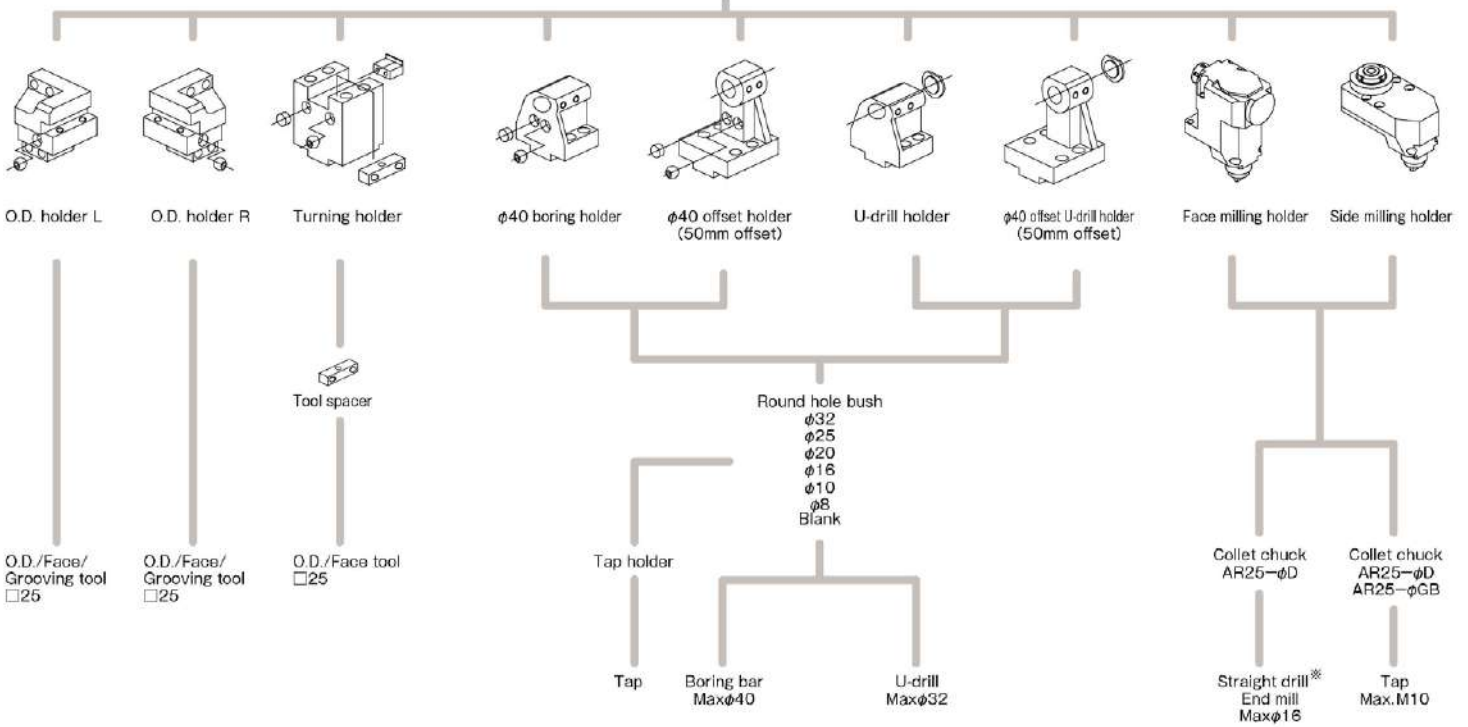
Unit (mm)

## Tooling System

# XW-130M



10-station turret

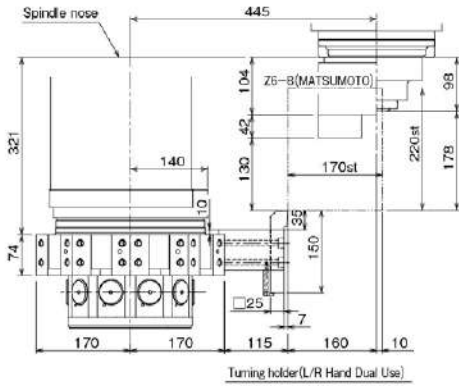


\*When setup the drill, tooling space has prohibited zone.  
If you need more information, please contact to TAKAMAZ.

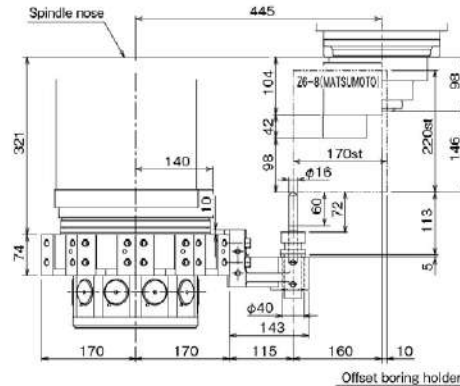
# STROKE & TURRET

## Stroke-Related Drawing

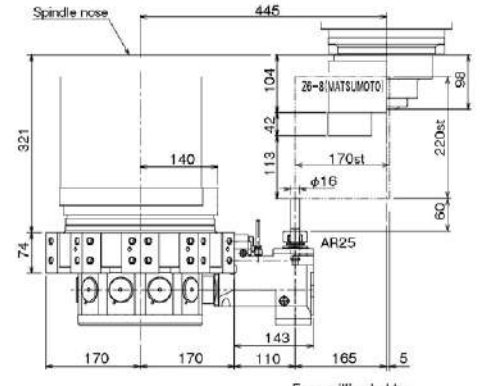
# XW-130M



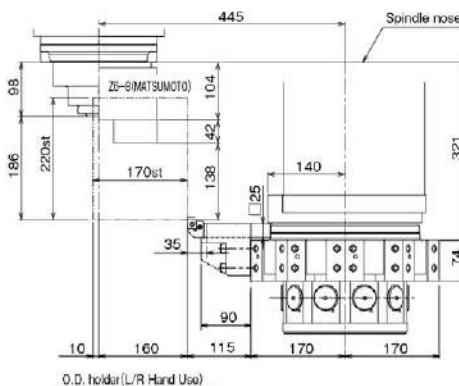
Turning holder(L/R Hand Dual Use)



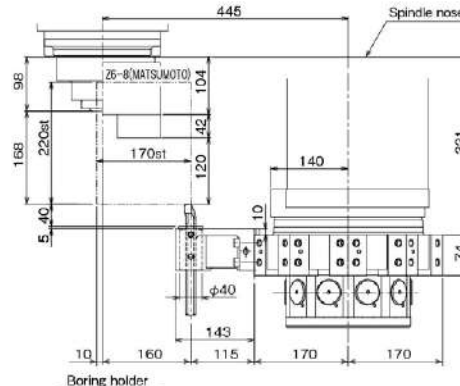
Offset boring holder



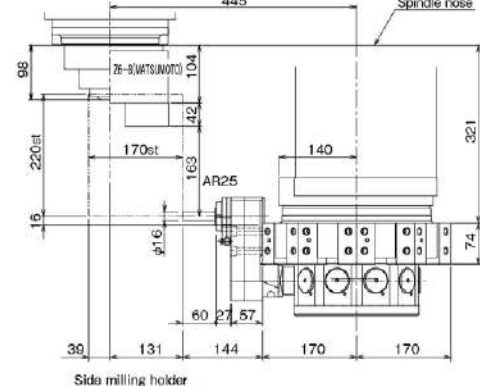
Face milling holder



O.D. holder(L/R Hand Use)

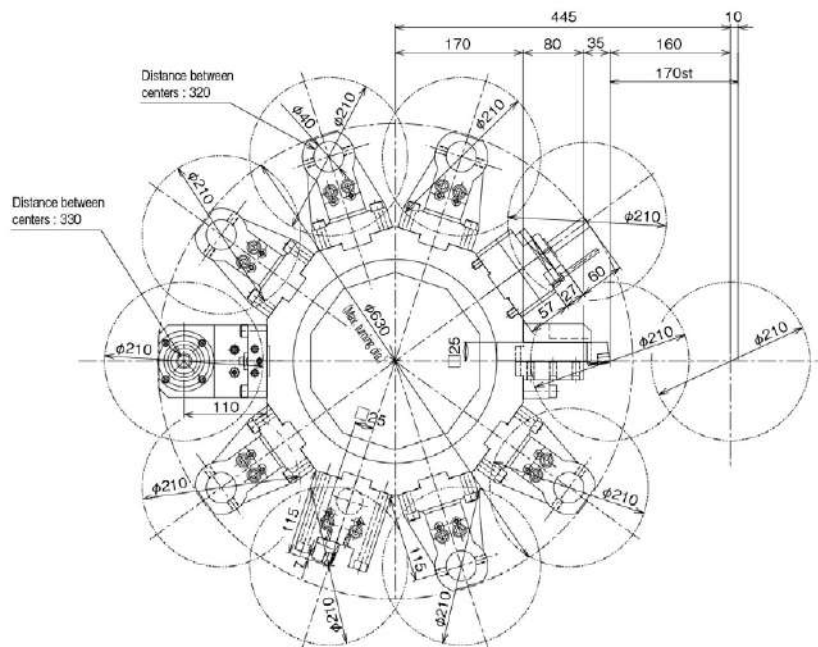


Boring holder



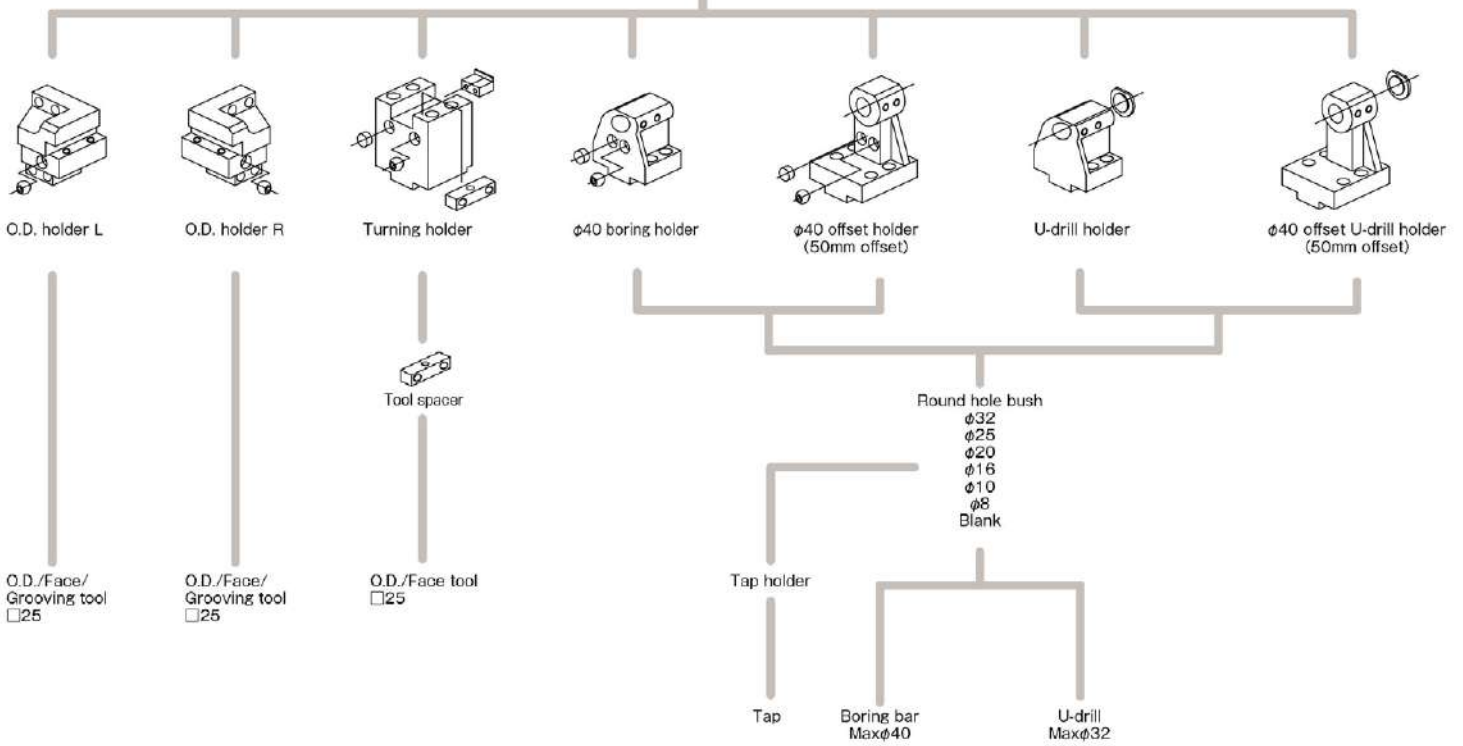
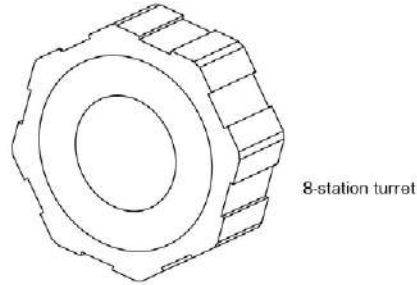
Side milling holder

## Turret Interference



Unit(mm)

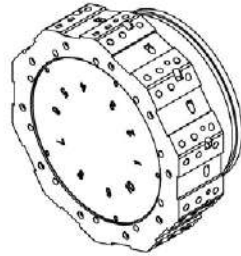
# XW-200



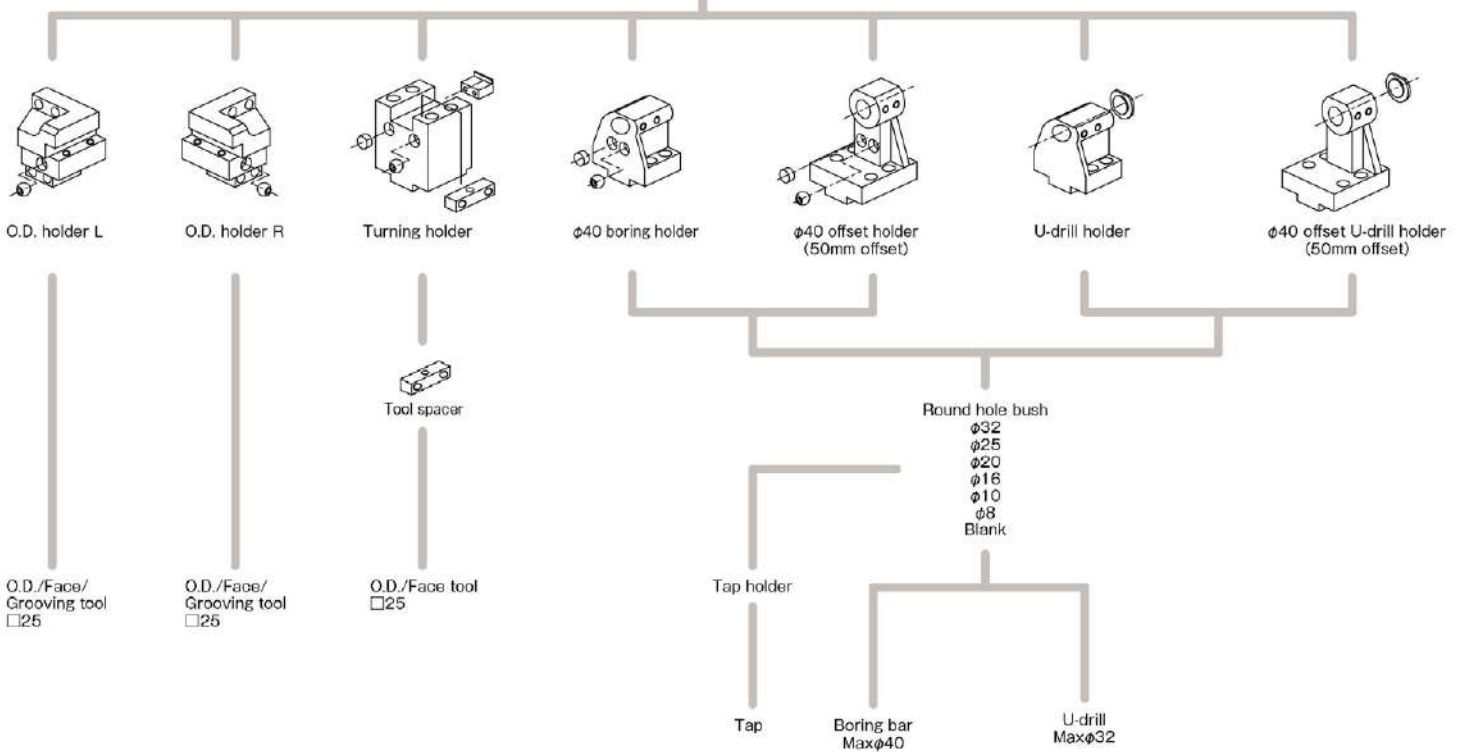
※When setup the drill, tooling space has prohibited zone.  
If you need more information, please contact to TAKAMAZ.



# XWT-10



10-station turret



※When setup the drill, tooling space has prohibited zone.  
If you need more information, please contact to TAKAMAZ.



# SPECIFICATION

## Machine Specifications

Item		Unit	XWG-3	XW-60	XW-60M
Capacity	Optimum turning diameter	mm	φ30	φ60	
	Max. turning diameter	mm	φ50	φ175	
	Max. turning length	mm	50	130	
	Chuck size	inch	Collet, 3.4×2		Collet, 6 (5) × 2
Spindle	Spindle nose	JIS	A2-3	A2-5 (A2-4)	
	Spindle bearing I.D.	mm	φ60	φ75 (φ65)	
	Through-hole on spindle	mm	φ30	φ46 (φ36)	
	Spindle speed	min <sup>-1</sup>	Max. 8,000 (6,000 <sup>*4</sup> )	Max. 4,500 (6,000)	
	Spindle indexing	deg./min	(Cs-axis) (108,000)	—	Cs-axis 18,000
Tool post	Type		Gang type×2	8-station turret×2	10-station turret×2
	Tool shank	mm	□16・□20	□20	
	Boring holder I.D.	mm	φ25	φ25	
	Max. stroke	mm	X:160 Z:230	X:125 Z:140	
	Rapid traverse rate	m/min	X:12 Z:20	X:21 Z:18	
Power tools	Tool storage capacity	pcs.	—	—	10 (One side)
	Rotation speed	min <sup>-1</sup>	—	—	Max. 4,000
	Drill	mm	—	—	φ13
	Capacity Endmill	mm	—	—	φ13
	Tap	mm	—	—	M4~M10
Motors	Spindle motor	kW	AC5.5/3.7×2	AC7.5/5.5×2	
	Feed motor	kW	X:AC0.4×2 Z:AC0.75×2	X:AC0.75×2 Z:AC1.2×2	
	Coolant motor	kW	AC0.25×2	AC0.25×2	
	Hydraulic motor	kW	(AC0.75×2)	AC0.75×2	
	Power tools motor	kW	—	—	AC2.5
Size	L×W×H	mm	1,040 (1,340 <sup>*5</sup> ) × 2,130 × 1,750	1,595 (1,950 <sup>*5</sup> ) × 2,005 × 2,400 (2,650 <sup>*5</sup> )	1,895 (1,950 <sup>*5</sup> ) × 2,005 × 2,400 (2,650 <sup>*5</sup> )
	Machine weight	kg	3,500	4,700	4,800
	Total electric capacity	KVA	16 (19 <sup>*4</sup> )	28	30

\*1 Some restrictions may apply depending on the chuck type or tool storage capacity. \*2 Air blow only. Bar materials cannot be handled. ( ): Option  
 \*3 Some restrictions may apply depending on the chucking cylinder type. \*4 The value when the hydraulic unit is mounted. \*5 Machine width with loader spec. \*6 Height including loader.

## Standard Accessories

Item	XWG-3	XW-60	XW-60M
<input type="checkbox"/> Tool holder	4sets	—	—
<input type="checkbox"/> Boring holder	—	—	4sets
<input type="checkbox"/> O.D. holder	—	—	4sets
<input type="checkbox"/> Collet flange	1set (TSC-D19)	—	1set
<input type="checkbox"/> Hydraulic chucking cylinder	(Option)	—	1set
<input type="checkbox"/> Air chucking cylinder	1set	—	—
<input type="checkbox"/> TAKAMAZ loader system	—	1 unit	—
<input type="checkbox"/> Spindle indexing device	(Option)	—	1set
<input type="checkbox"/> Power tools drive unit	—	—	1set
<input type="checkbox"/> Spindle cooling device*	—	1set	—
<input type="checkbox"/> Thread cutting unit (including constant surface speed control)	—	1set	—
<input type="checkbox"/> Front air blower	1set	—	(Option)
<input type="checkbox"/> Coolant unit	1set (170lit.)	—	1set (160lit.)
<input type="checkbox"/> Work light	—	1set	—
<input type="checkbox"/> Service tool kit	—	1set	—
<input type="checkbox"/> TAKAMAZ instruction manual	—	1set	—

\* Oil Temperature Control Type is available as an option.

## Optional Accessories

Item	XWG-3	XW-60	XW-60M
<input type="checkbox"/> Tool holders	—	○	—
<input type="checkbox"/> Collet chucks	—	○	—
<input type="checkbox"/> Hydraulic chucks	—	○	—
<input type="checkbox"/> Thermomy® (Thermal displacement system)	—	—	○
<input type="checkbox"/> Chuck clamp detector (with restrictions depending on the cylinder)	○	—	(Standard)
<input type="checkbox"/> High-speed loader system	○ (One or two)	—	○
<input type="checkbox"/> Spimony® (Spindle condition monitoring system)	○	—	○ (Consultation required)
<input type="checkbox"/> Spindle indexing device	○	—	(Standard)
<input type="checkbox"/> Power tools	—	—	○
<input type="checkbox"/> Rear chip conveyor (Floor type/Spiral type)	—	○	—
<input type="checkbox"/> Front air blower	(Standard)	—	○
<input type="checkbox"/> Rear air blower	—	○	—
<input type="checkbox"/> Rear coolant unit	—	○	—
<input type="checkbox"/> Signal light (1-tier/2-tier/3-tier)	—	○	—
<input type="checkbox"/> Automatic fire extinguisher	—	○	—
<input type="checkbox"/> Automatic power shut-off device	—	○	—
<input type="checkbox"/> Special color	—	○	—
<input type="checkbox"/> Others*	—	○	—

\* For more information on attachments, consult our sales representative.

## Machine Specifications

Item		Unit	XW-130	XW-130M	XW-200	XWT-10	
Capacity	Optimum turning diameter	mm	φ150			φ200	
	Max. turning diameter	mm	φ280	φ320		φ320	
	Max. turning length	mm	155	220	220	270	
	Chuck size	inch	Collet, 8 × 2			10 × 2	
Spindle	Spindle nose	JIS	A <sub>2</sub> -6			A <sub>2</sub> -8	
	Spindle bearing I.D.	mm	φ100			φ120	
	Through-hole on spindle	mm	φ61			φ80	
	Spindle speed	min <sup>-1</sup>	Max. 4,000			Max. 2,800	Max. 2,800(4,000)
	Spindle indexing	deg./min	—			C-axis 18,000	
Tool post	Type		8-station turret × 2		10-station turret × 2		
	Tool shank	mm	□25			□25	
	Boring holder I.D.	mm	φ40			φ40	
	Max. stroke	mm	X:150 Z:160	X:170 Z:220	X:170 Z:220	X:170 Z:270	
	Rapid traverse rate	m/min	X:24 Z:24		X:24 Z:24		
Power tools	Tool storage capacity	pcs.	—			10 (One side)	
	Rotation speed	min <sup>-1</sup>	—			Max. 4,000	
	Drill	mm	—			φ16	
	Capacity Endmill	mm	—			φ16	
	Tap	mm	—			M4~M10	
Motors	Spindle motor	kW	AC11/7.5 × 2			AC18.5/15 × 2	
	Feed motor	kW	X:AC1.2 × 2 Z:AC1.8 × 2			X:AC1.2 × 2 Z:AC1.8 × 2	
	Coolant motor	kW	AC0.25 × 2			AC0.25 × 2	
	Hydraulic motor	kW	AC0.75 × 2			AC0.75 × 2	
	Power tools motor	kW	—			AC3.7/2.2	
Size	L × W × H	mm	1,890 (2,250 <sup>(*)1</sup> ) × 2,140 × 2,050 (2,925 <sup>(*)2</sup> )	1,990 (2,350 <sup>(*)1</sup> ) × 2,330 × 2,400 (3,080 <sup>(*)2</sup> )	1,990 (2,350 <sup>(*)1</sup> ) × 2,330 × 2,400 (3,080 <sup>(*)2</sup> )	2,030 (2,350 <sup>(*)1</sup> ) × 2,370 × 2,400 (3,080 <sup>(*)2</sup> )	
	Machine weight	kg	5,600	6,900	6,900	—	
	Total electric capacity	KVA	44	47	62	—	

\*1 Machine width with loader spec. \*2 Height including loader.

( ): Option

## Standard Accessories

Item	XW-130	XW-130M	XW-200	XWT-10
<input type="checkbox"/> Boring holder			4sets	
<input type="checkbox"/> O.D. holder			4sets	
<input type="checkbox"/> Hydraulic power chuck (Solid)			1set	
<input type="checkbox"/> Hydraulic chucking cylinder			1set	
<input type="checkbox"/> Chuck clamp detector (with restrictions depending on the cylinder)	(Option)		1set	
<input type="checkbox"/> TAKAMAZ loader system			1unit	
<input type="checkbox"/> Spindle indexing device	—	1set (C-axis)		—
<input type="checkbox"/> Power tools drive unit	—	1set		—
<input type="checkbox"/> Spindle cooling device*			1set	
<input type="checkbox"/> Thread cutting unit (including constant surface speed control)			1set	
<input type="checkbox"/> Coolant unit	1set (160lit.)		1set (200lit.)	
<input type="checkbox"/> Work light			1set	
<input type="checkbox"/> Service tool kit			1set	
<input type="checkbox"/> TAKAMAZ instruction manual			1set	

\* Oil Temperature Control Type is available as an option.

## Optional Accessories

Item	XW-130	XW-130M	XW-200	XWT-10
<input type="checkbox"/> Tool holders			○	
<input type="checkbox"/> Hydraulic chucks			○	
<input type="checkbox"/> Collet chucks	○			—
<input type="checkbox"/> Thermony® (Thermal displacement system)		○		—
<input type="checkbox"/> Chuck clamp detector (with restrictions depending on the cylinder)	○		(Standard)	
<input type="checkbox"/> Spimony® (Spindle condition monitoring system)	—		○ (Consultation required)	—
<input type="checkbox"/> Power tools	—	○		—
<input type="checkbox"/> Rear chip conveyor (Floor type / Spiral type)			○	
<input type="checkbox"/> Front air blower			○	
<input type="checkbox"/> Rear air blower			○	
<input type="checkbox"/> Rear coolant unit			○	
<input type="checkbox"/> Signal light (1-tier / 2-tier / 3-tier)			○	
<input type="checkbox"/> Automatic fire extinguisher			○	
<input type="checkbox"/> Automatic power shut-off device			○	
<input type="checkbox"/> Special color			○	
<input type="checkbox"/> Others*			○	

\* For more information on attachments, consult our sales representative.

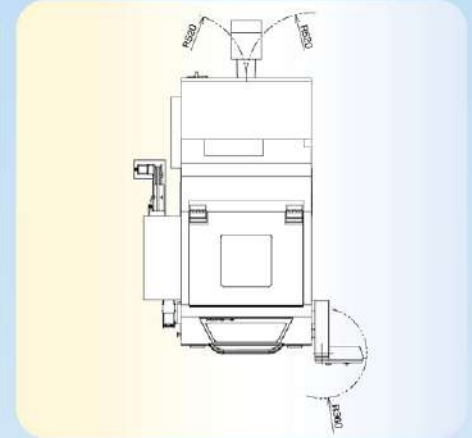
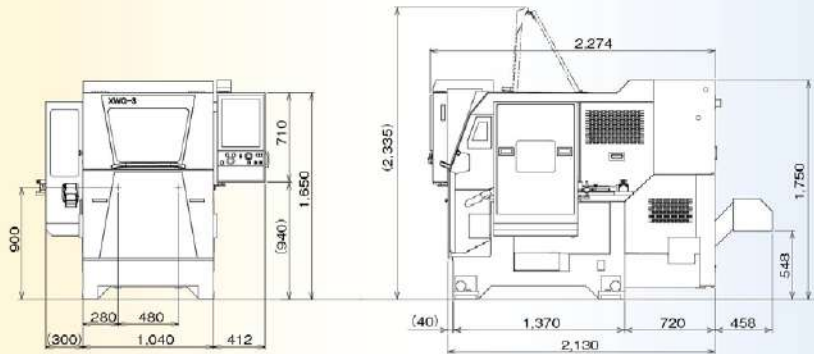
# SPECIFICATION

## Controller Specifications

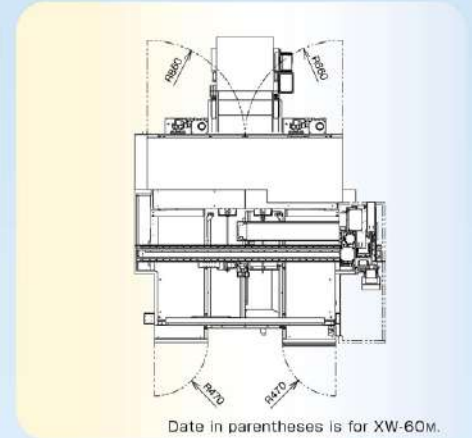
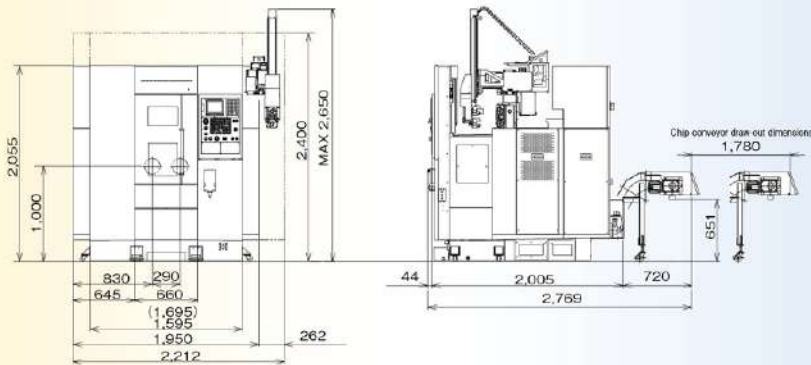
Item	XWG-3	XW-60	XW-60M	XW-130	XW-130M	XW-200	XWT-10
	TAKAMAZ & MITSUBISHI M830VW	TAKAMAZ & FANUC Oi-TF		TAKAMAZ & FANUC Oi-TD	TAKAMAZ & FANUC Oi-TF		
Controlled axes	2axes(X,Z) ×2		3axes(X,Z,C) ×2	2axes(X,Z) ×2	3axes(X,Z,C) ×2	2axes(X,Z) ×2	
Simultaneously controllable axes	Simultaneous 2 axes ×2		Simultaneous 3 axes ×2	Simultaneous 2 axes ×2	Simultaneous 3 axes ×2	Simultaneous 2 axes ×2	
Least input increment	0.0001mm(X in diameter)		0.001mm (X in diameter)				
Least command increment	X:0.00005mm Z:0.0001mm		X:0.0005mm Z:0.001mm				
Auxiliary function	M-code 3 digit						
Spindle function	S-code 4 digit						
Tool function	T-code 4 digit						
Tape code	EIA(RS232C)/ISO(840)automatic recognition						
Cutting feedrate	1~7,000mm/min		1~5,000mm/min				
Command system	Incremental/Absolute						
Linear interpolation	G01						
Circular interpolation	G02,G03						
Cutting feedrate override	0~150%						
Rapid traverse override	F0,100%						
Program number	Program file name 32 characters			4 digit	Program file name 32 characters		
Backlash compensation	0~999,999.9μm		0~9,999μm				
Program memory capacity	500Kbyte(1.280m)		1Mbyte(2.560m)(Dual systems total)				
Tool offsets	64sets(Dual systems total)		128sets (Dual systems total)				
Registered programs	1,000pcs.(Dual systems total)		800pcs.(Dual systems total)				
Tool geometry /Wear offset	Standard						
Canned cycle	G90,G92,G94						
Radius designation on arc	Standard						
Tool offset measurement input	Standard						
Background editing	Standard						
Direct drawing dimension programming	Standard						
Custom macro	Standard						
Custom macro common variables	#100~#199,#500~#999						
Pattern data input	Standard(Equivalent Functions)		Standard				
Nose R compensation	G40,G41,G42						
Inch / Metric conversion	G20 /G21						
Programmable data input	G10						
Run hour / Parts count display	Standard(Equivalent Functions)		Standard				
Extended part program editing	Standard						
Multiple repetitive cycle	G70~G76						
Multiple repetitive cycle II	Pocket-shaped						
Canned drilling cycle	Standard						
Chamfering / Corner R	Standard		(Option)				
Constant surface speed control	G96,G97						
Continuous thread cutting	G32						
Variable lead thread cutting	G34						
Thread cutting retract	Standard						
Clock function	Standard						
Help function	Standard						
Alarm history display	512pcs.		50pcs.				
Self-diagnosis function	Standard						
Sub-program call	Up to 8 loops		Up to 10 loops				
Decimal point input	Standard						
2nd reference point return	G30						
Work coordinate system setting	G50,G54~G59						
Rigid tapping	(Spindle:Option)	—	For Power Tools only	—	For Power Tools only	—	
Polar coordinate interpolation	—		Standard	—		Standard	—
Cylindrical interpolation	—		Standard	—		Standard	—
Stored stroke check 1	Standard						
Input / Output interface	Memory card,Ethernet						
Input / Output interface (RS232C)	(Option)						
Input / Output interface (USPFlash Memory)	Standard						
Alarm message	Standard						
Graphic display(FANUC)	Standard						
Graphic trace(MITSUBISHI)	Standard						
Spindle orientation	(Option)						
G code guidance	Standard		—				
Simple programming function(FANUC)	Standard		—				
NAVI LATHE(MITSUBISHI)	Standard		—				
Dynamic graphic display(FANUC)	Standard		(Option)	—		(Option)	
Graphic check(MITSUBISHI)	Standard		(Option)				
Tool life management	Standard		(Option)				
Multiple M codes in one block	Max. 3		(Max. 3:Option)				
Conversational programming with graphic function	—		Standard				
Abnormal load detection	—		Standard				
Manual handle trace	—		Standard				
Automatic data backup	—		Standard				
Automatic screen deletion function	—		Standard				
TAKAMAZ management support function	Work/Tool counter		Work/Tool counter,Tool load monitor,Other				
TAKAMAZ maintenance functions	—		Standard				
Set of Instruction Manuals for Control Device	CD-ROM(Bound:Option)		DVD-ROM(Bound:Option)	CD-ROM(Bound:Option)	DVD-ROM (Bound:Option)		

# FLOOR SPACE

## XWG-3

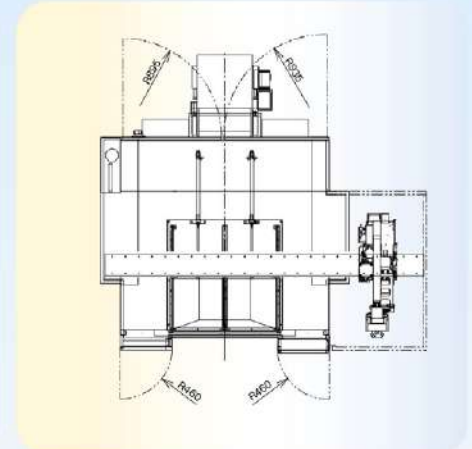
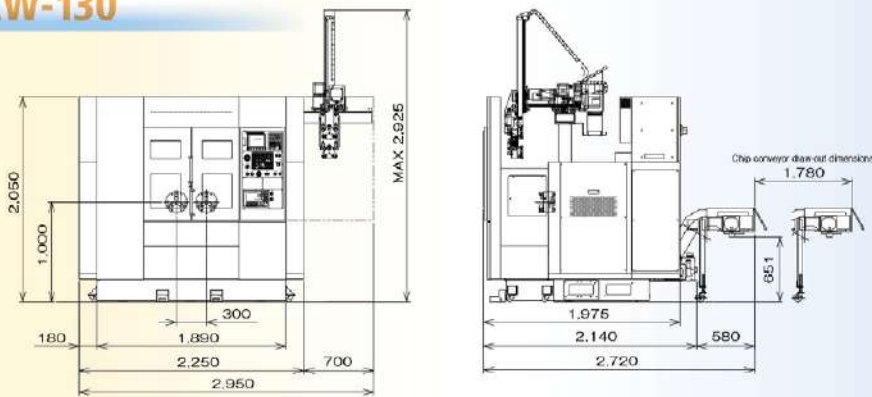


## XW-60/XW-60M

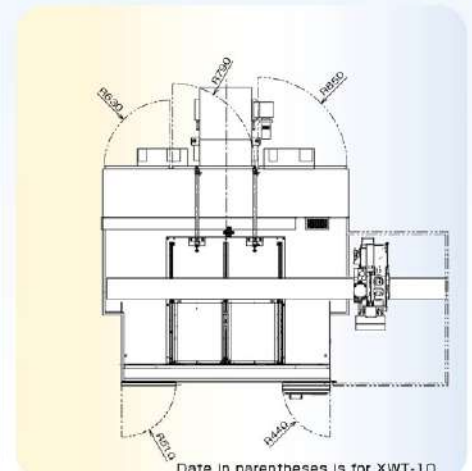
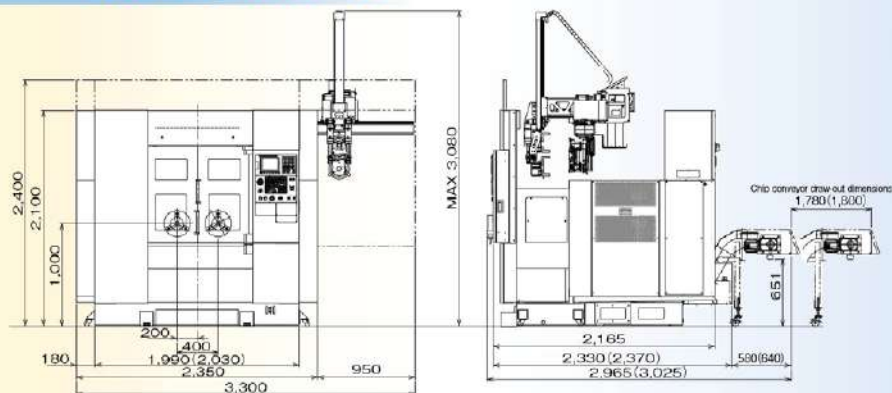


Date in parentheses is for XW-60M.

## XW-130



## XW-130M/XW-200/XWT-10



Date in parentheses is for XWT-10.

Unit(mm)



# XW series

# TAKAMAZ

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### Precautions Related to Foreign Exchange and Foreign Trade Control Laws

This product (machine and ancillary equipment) may fall under the category of controlled goods by the foreign exchange and foreign trade control laws.

As such, the exportation must be authorized by the Japanese government as stipulated in the laws. This product is manufactured in accordance with the regulations and standards that prevail in the country or region of destination.

The user must not export, sell, or relocate the product, to any country with different regulations or standards.

