

CNC Spindle Slide  
Precision Lathe

# XXW series



**TAKAMAZ**

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

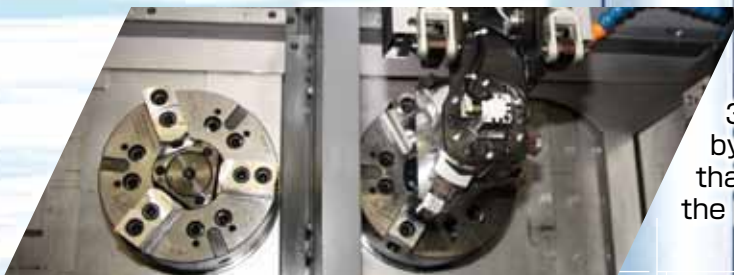
# XW series

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



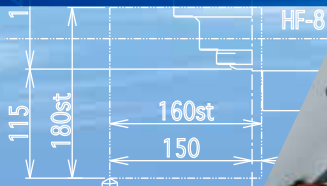
From the original spindle parallel structure, a high rigidity, compact and high precision design is achieved. This qualifies as an expert model for durability on mass production system.

*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>XW-30</b>	<b>3</b> Inch	 Gang Type	The best machine for small production!	<b>P3–P4</b>
<b>XW-30PLUS</b>	<b>4</b> Inch	 Gang Type	Achieving high-speed, high-accuracy machining!	<b>P3–P4</b>
<b>XW-60</b>	<b>6</b> Inch	 8 Drum Type	Medium-sized machine boasting high productivity!	<b>P5–P6</b>
<b>XW-60M</b>	<b>6</b> Inch	 10 Drum Type	Achieving versatile machining by mounting power tools!	<b>P5–P6</b>
<b>XW-130</b>	<b>8</b> Inch	 8 Drum Type	Fastest loading time in its class	<b>P7–P8</b>
<b>XW-130M</b>	<b>8</b> Inch	 10 Drum Type	Achieving high productivity with powerful milling!	<b>P9–P10</b>
<b>XW-200</b>	<b>10</b> Inch	 8 Drum Type	Long-awaited machine accepting 10-inch chucks	<b>P11–P12</b>



※The photo shows the XW-30PLUS.

CNC 2-Spindle 2-Slide Precision Lathe

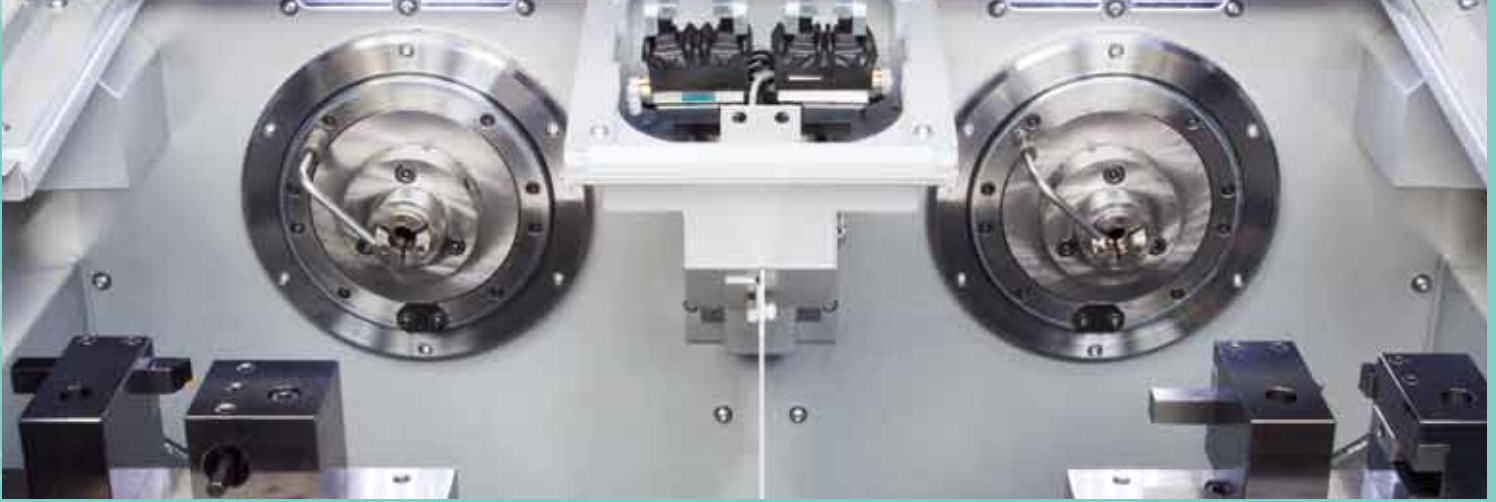
# XW-30/30

Chuck size 3 / 4 Inch

PLUS

※The XW-30 accepts 3-inch chucks only.





# High-speed, high-accuracy machining achieved in an elegant, compact body!

## Incorporating a new-type spindle unit (XW-30PLUS)

A high-efficiency motor with an output of 5.5/7 kW is adopted as the built-in motor. The unit is compatible with chucks up to 4 inches, and a hydraulic cylinder can also be equipped as an option to enable stable mass production machining of workpieces that require a strong gripping force. The reviewed cooling circuit has made the oil controller that used to be essential for short-cycle machining unnecessary\*, reducing the cost and space requirements.

※An oil controller is still required with some specifications.

## Pursuing high precision cutting by incorporating a cooling system in the machine

Generally on a machine with 2 spindles, a heat imbalance arises in cases where different cutting is performed at the left and right sides. This leads to unstable accuracy. The XW-30 series is built with a cooling tank inside the bed for the two spindles to suppress thermal displacement, achieving stable accuracy over the long term (Patented technology).

**Production improved by a high-speed loader** For details, see page 13. Either a compact “ΣiW loader” or high-speed compact “ΣiWH loader” (option) can be selected. These smallest ever Takamaz loaders have been realized through a 2-stage configuration on the vertical axis. High productivity is assured by a loading time of 4 seconds with the ΣiW loader and 2 seconds with the ΣiWH loader (not including shutter operation). In addition, placing the intermediate turnover unit in the center and providing two reversing hands makes it possible to receive and deliver workpieces simultaneously without the loader going outside the machine at any time, so substantial shortening of cycle times has been achieved.

※The intermediate turnover unit is located in the center on the XW-30PLUS only.

## New design with consideration for quick changeover

For setup changes, the top part of the front cover can be opened across the full width of the machine. The door opening has been scaled up from a width of 550mm on existing machines to 900mm, improving the working environment. The shutter also opens up well to the rear, allowing setup work to be performed safely and speedily.



## Higher performance control system

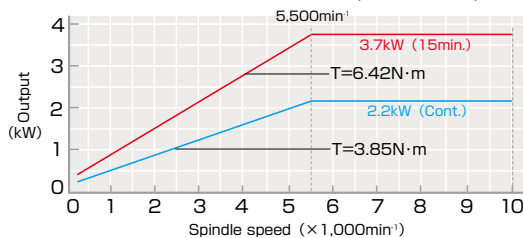
Operating convenience is improved by making the operating box more compact than on previous models, and by adopting a touch panel.

## Space-saving design and long-awaited addition of CE specifications (XW-30PLUS)

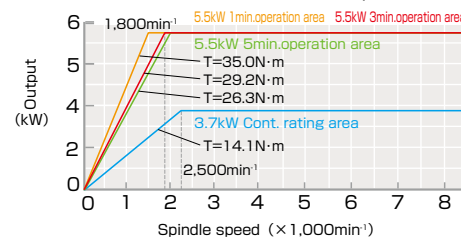
Space savings have been realized with a machine 1,340mm wide (bed width: 1,040mm), 2,120mm deep and 1,500mm high. Compliance with CE standards has been made possible too, enabling safe usage in Europe as well.

※Machines with CE specifications have different dimensions.

**XW-30 Spindle motor torque diagram** ■ Max.10,000min<sup>-1</sup> Standard type (AC3.7/2.2kW)



**XW-30PLUS Spindle motor torque diagram** ■ Max.8,000min<sup>-1</sup> Standard type (AC5.5/3.7kW)





※The photo shows the XW-60M.

CNC 2-Spindle 2-Turret Precision Lathe

# XW-60/60M

NEW

Chuck size 6 Inch

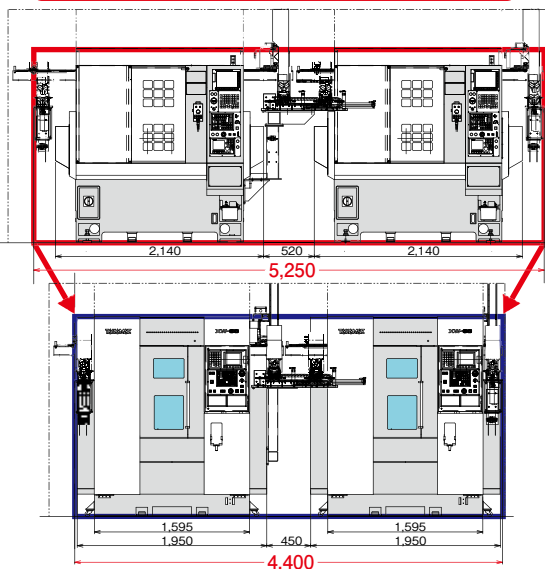


# 6-inch-chuck medium-sized machine ticking all three boxes: space savings, compound machining, and high-speed automation

## 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.

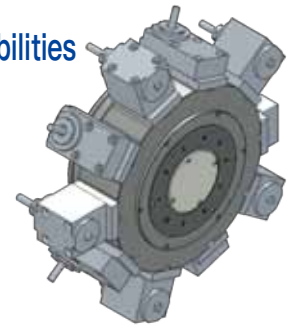
**Production lines: Up to 15% reduction (comparison with previous lines)**



※ With 2 machines linked: shortening of 850 mm

## 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)

## Vibration damping function installed

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

## Improved operability for setup changes

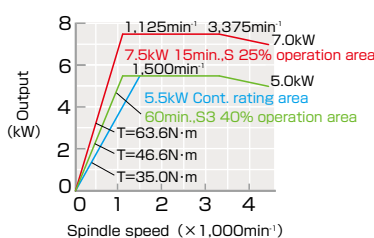
For details, see page 10. (Technology common to XW-130/XW-130M/XW-200)

## Evolved high-speed automation system

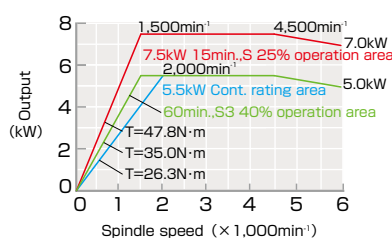
The optimum transfer system is configured by integrating a transfer loader with the machine body, contributing to cycle time reduction. (Y-axis rapid traverse rate: 60% higher than on previous models, Loading time: 10% shorter than on previous models, Shortest cycle time for front and back machining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

### XW-60/60M Spindle motor torque diagram

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

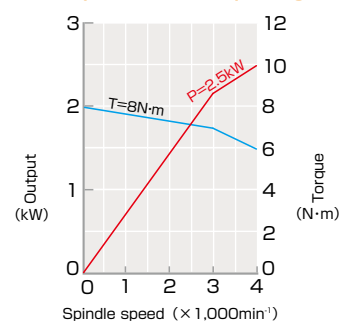


■ Max.6,000min<sup>-1</sup> Standard type (AC5.5/7.5kW)



### XW-60M Spindle motor torque diagram

■ 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.

## Low center of gravity, space-saving ease of use

Slide strokes are X-axis 150mm and Z axis 160mm, while ensuring a compact design with spindle center height 1,000mm, machine width 1,890mm, without even a room for mounting a loader. In addition, by pursuing a design for ease of use, spindle chuck and work turn device are closer to reach, making tool changeover easier.



## 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)

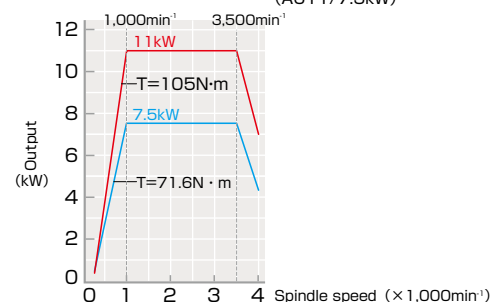
## Vibration damping function installed

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

## Improved operability for setup changes

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

**XW-130 Spindle motor torque diagram** ■ 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)

## Vibration damping function installed

When finish machining, commands to ameliorate the effects of shocks 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).

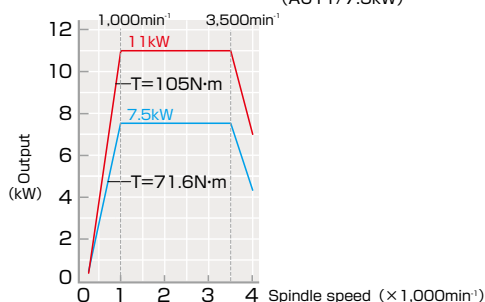
(Technology common to XW-60/XW-60M/XW-130/XW-200)

## Improved operability for setup changes

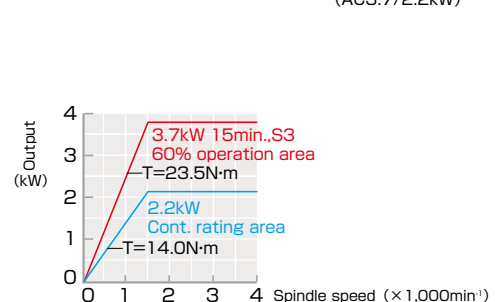
A low center of gravity construction with the spindle center height restricted to 1,000 mm allows chucks and workpieces to be changed in a comfortable posture. The work can also be done in a bright machine interior since overhead lighting is featured as standard, and this helps to shorten working times 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)

**XW-130M Spindle motor torque diagram** ■ Max.4,000min<sup>-1</sup> Standard type (AC11/7.5kW)



**XW-130M Power tools motor diagram** ■ 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

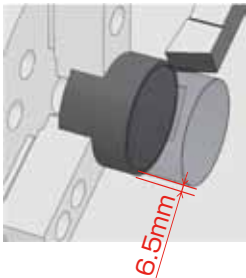


## Long-awaited 10-inch chuck compatible machines in the XW series enable high productivity with large-diameter workpieces

### 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.

0.6mm/rev



**3 x previous area**

Cutting surface area(t\*f) **3.9mm<sup>2</sup>**

Short time rating result

### 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.



Interference with the loader on one side



Easy transfer when folded back



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)

### Vibration damping function installed

For details, see page 10.

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

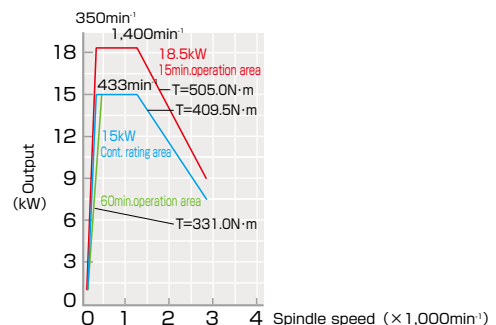
### Improved operability for setup changes

For details, see page 10.

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

### XW-200 Spindle motor torque diagram

Max. 2,800min<sup>-1</sup> Standard type ( $\phi 120$  spindle AC 18.5/15kW)



## Equipped with the [Speed] and [Small Footprint] Servo Loader, “Σi 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	XW-30/30PLUS		XW-60/60M	XW-130	XW-130M/200	XW-200
Loader Model			ΣiW30(2axes)*	ΣiW30H(2axes)*	ΣiGTH60(3axes)	ΣiGTH150		ΣiGTH200
Loading Time (Reference)		sec.	4	2		6		7
Transport Work Dimension	Diameter x Length (Reference)	mm	φ30×40		φ60×60	φ150×50		φ200×120
	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	mm	Depends on specifications					
	Rapid Traverse Rate	m/min	80	150	120	170		100
Forward/ Backward axis : X	Drive System		Servomotor					
	Stroke	mm	—		200	235		
	Rapid Traverse Rate	m/min	—		45	35		30
Arm (Vertical axis: Y)	Drive System		Servomotor					
	Stroke	mm	250	240	590	690	760	780
	Rapid Traverse Rate	m/min	80	240		125		80
Hand	Drive System		Air cylinder					
	Angle	deg.	—		90			
	Jaw Stroke	mm	9(One side)	—	10(One side)	16(One side)		12(One side)
Hand Type			Parallel Hand	Pivoting open/close hand	ΣiGTH dedicated L Hand			

※The loader installed on the XW-30 is the ΣW30/ΣW30H.

※The loader for the XW-30PLUS with CE specifications is the ΣW30/ΣW30H.

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(CR)

XW-30 XW-30PLUS



## ΣiGTH dedicated L Hand

XW-60 XW-60M  
XW-130 XW-130M XW-200



## 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



## 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**  
By stacking per pallet, scratches on parts are prevented because of better stacking resulting to an efficient form of delivery system.



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



● **Elevator Hopper**  
Through the stocker as first process (parts supply), the stocker is suitable for production of short delivery cycle.



● **Rotary Stocker**  
The space-saving, low-cost stocker. The position can be adjusted easily according to the size of the part.

## 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)**  
Chip disposal is done semi-automatically at a minimum 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.



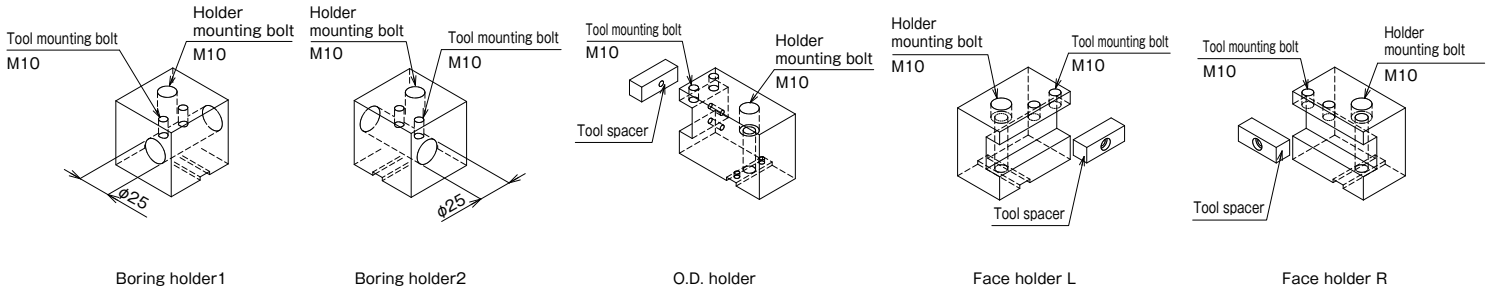
● **Semi-dry machining**  
Ultrathin, highly-lubricating vegetable coolant is applied to the correct point on the cutting edge, realizing semi-dry machining.



# TOOLING SYSTEM & STROKE

## Tooling System

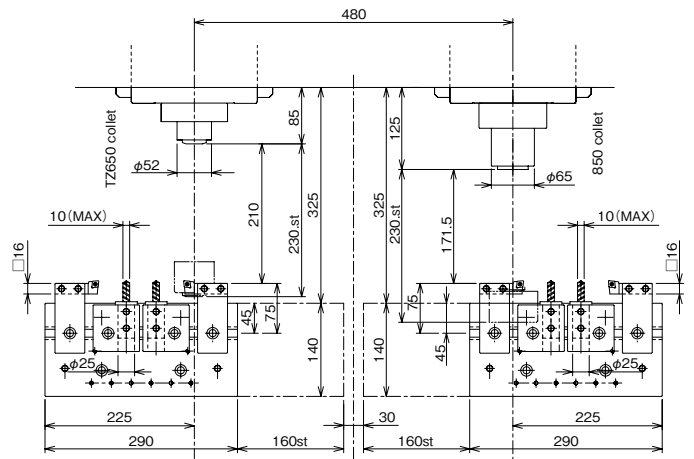
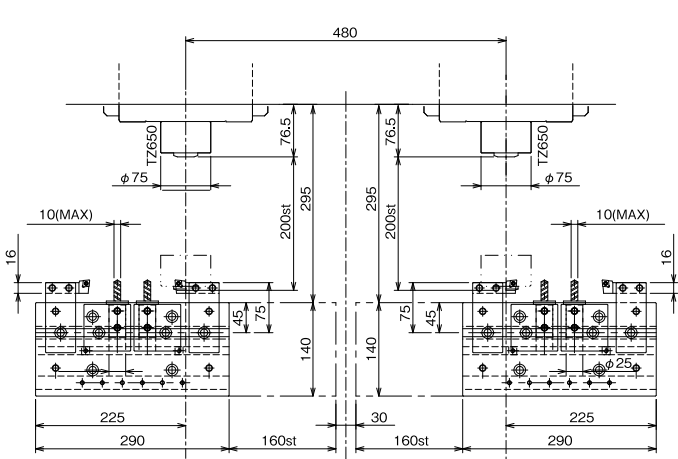
# XW-30/XW-30PLUS



## Stroke-Related Drawing

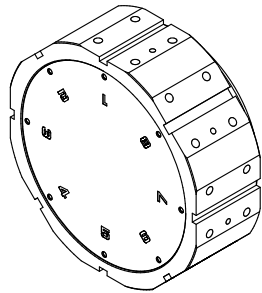
# XW-30

# XW-30PLUS

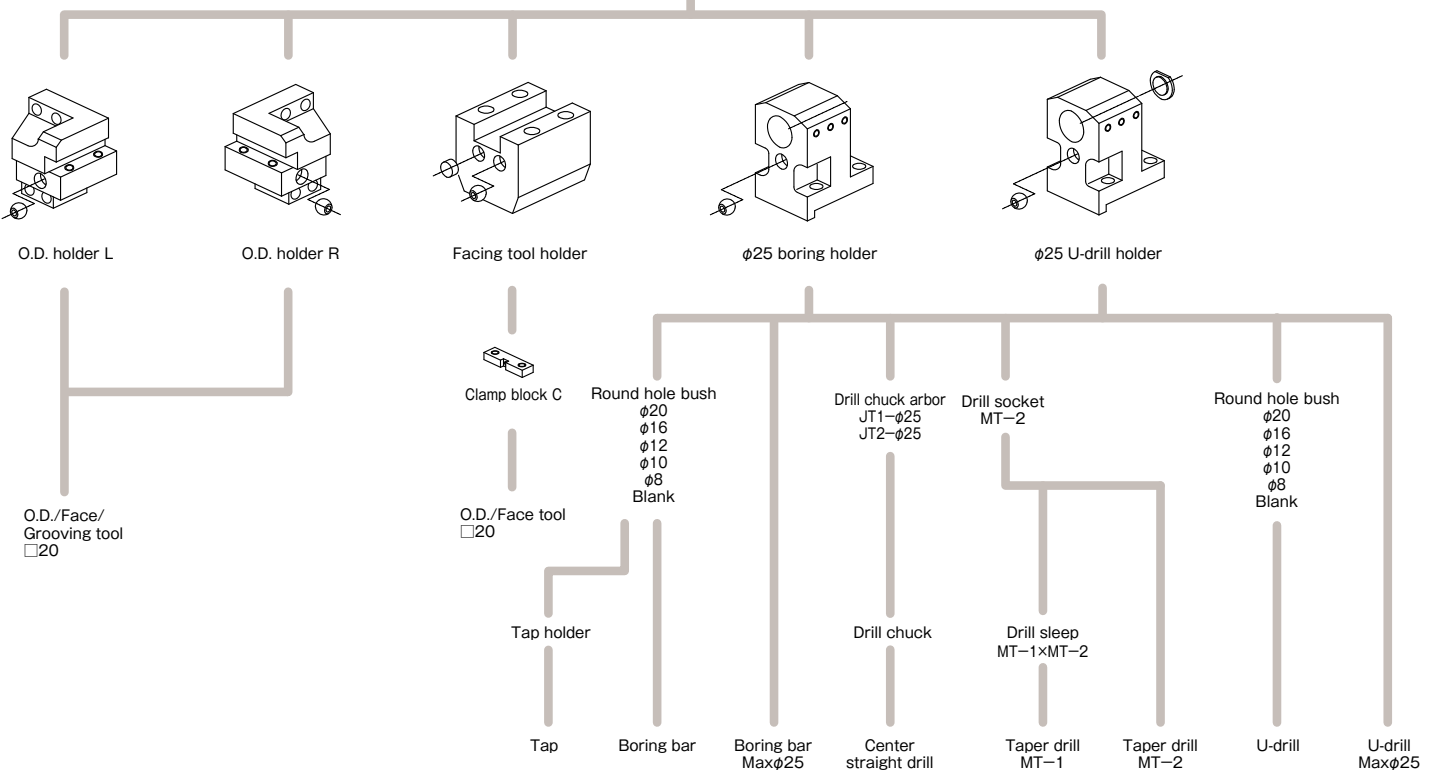


Unit(mm)

# XW-60



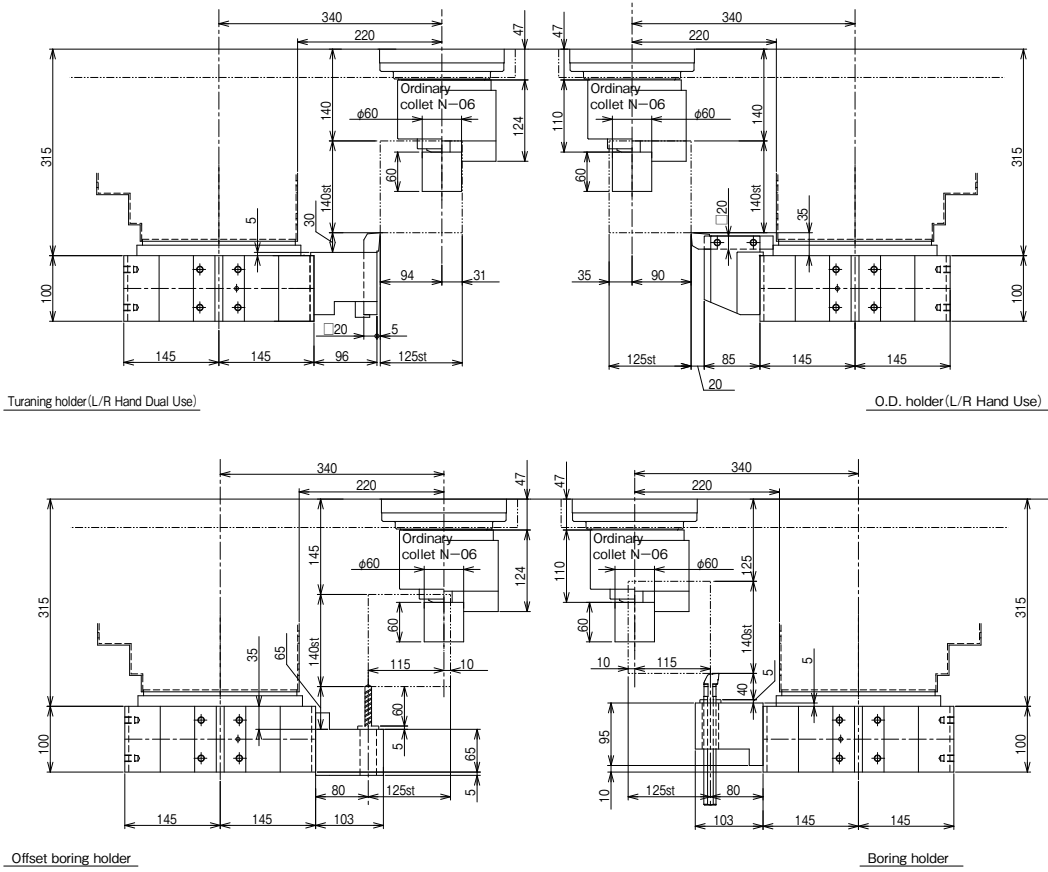
8-station turret



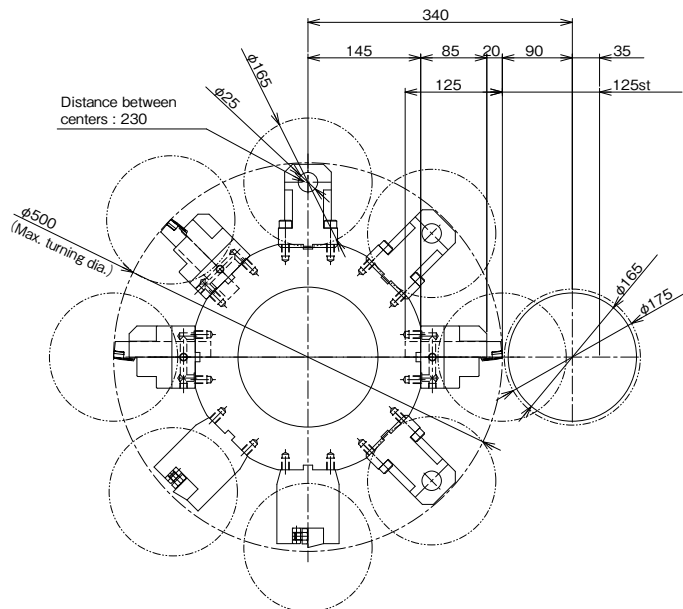
# STROKE & TURRET

## Stroke-Related Drawing

# XW-60

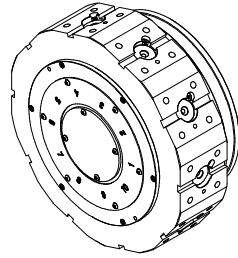


## Turret Interference

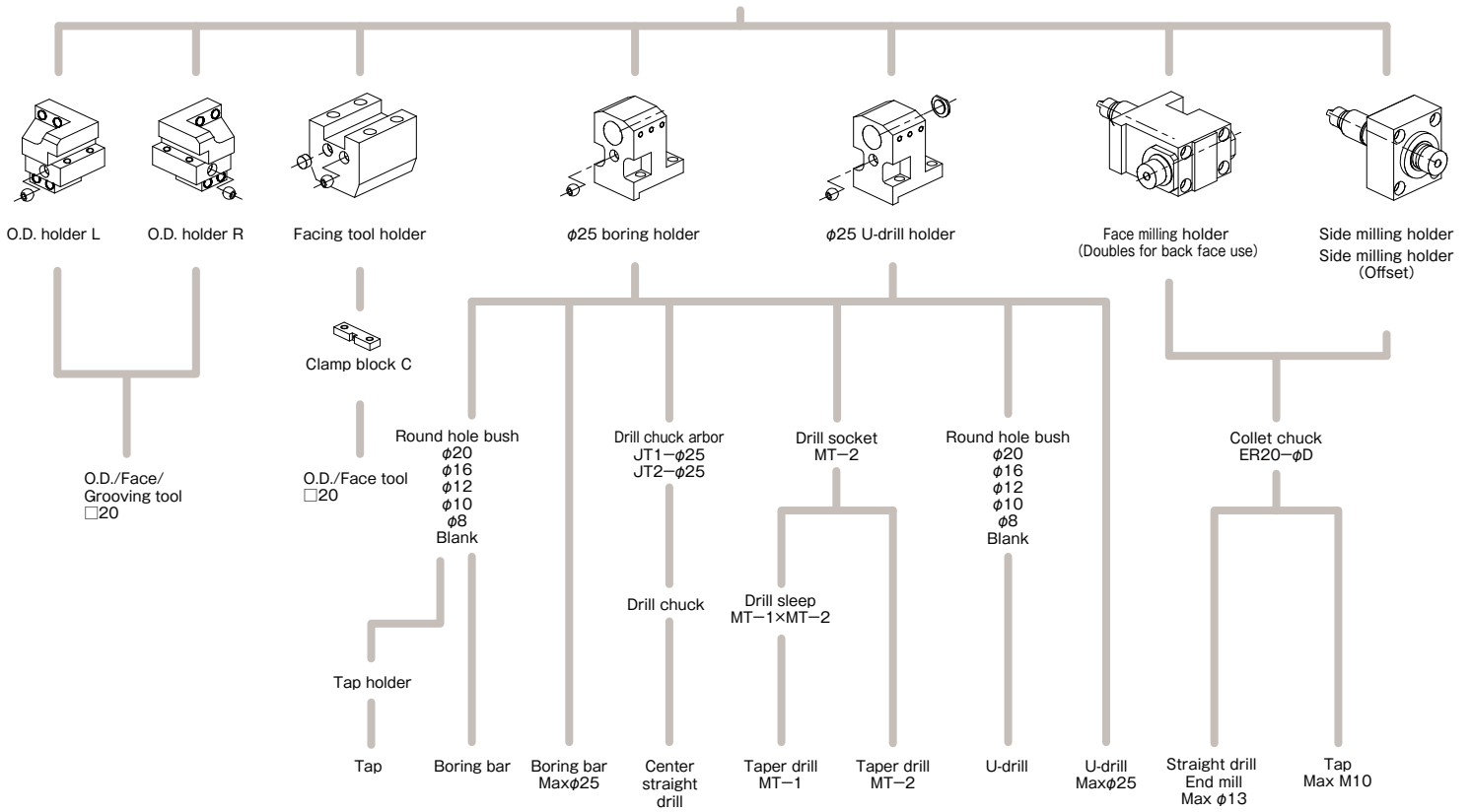


Unit(mm)

# XW-60M



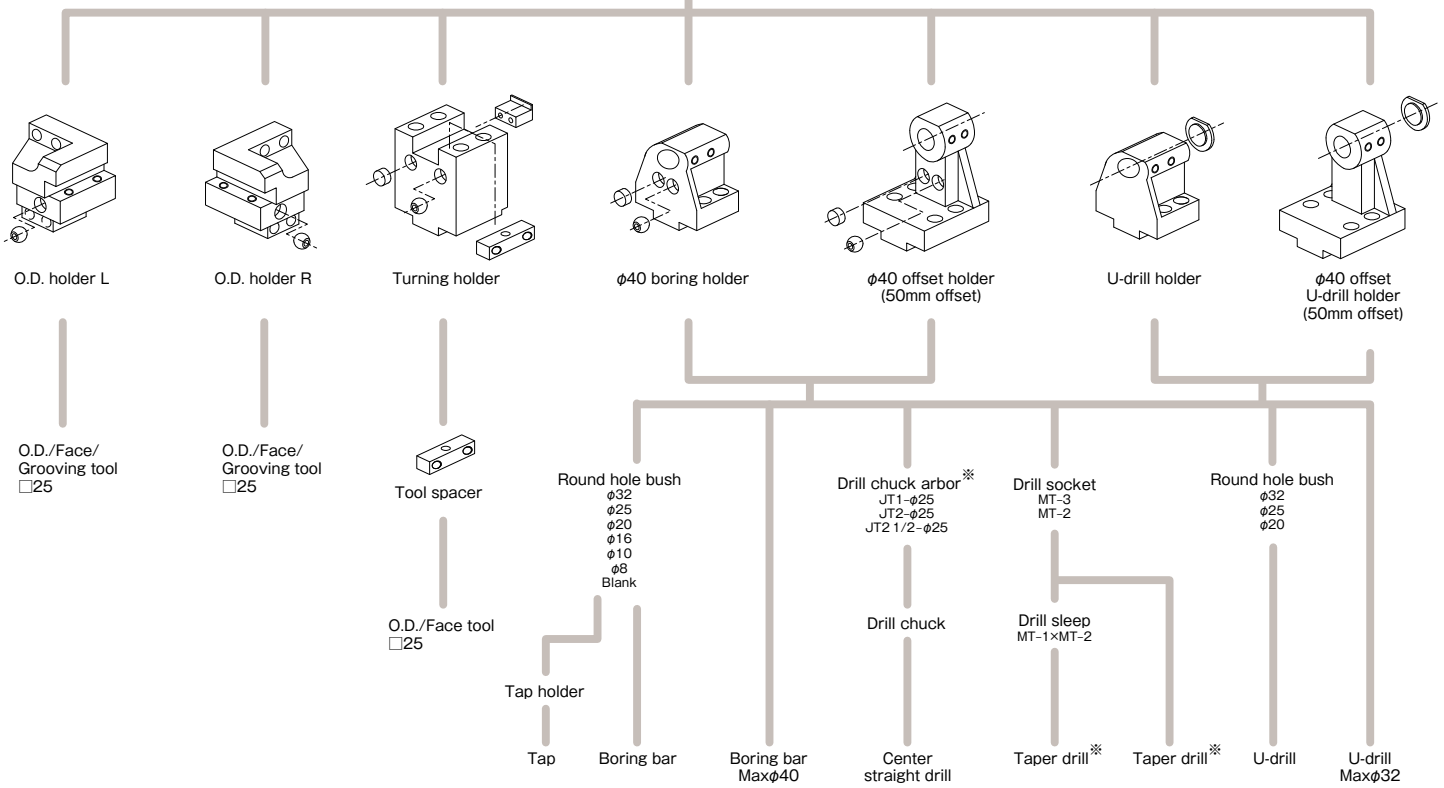
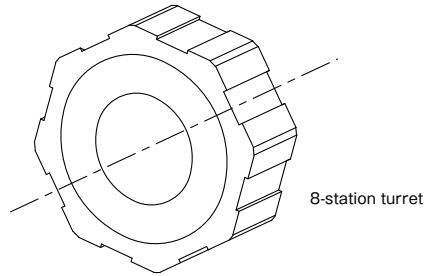
10-station turret





## Tooling System

# XW-130

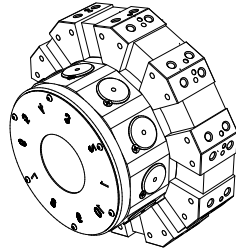


\*\*When setup the drill, tooling space has prohibited zone.  
If you need more information, please contact to TAKAMAZ.

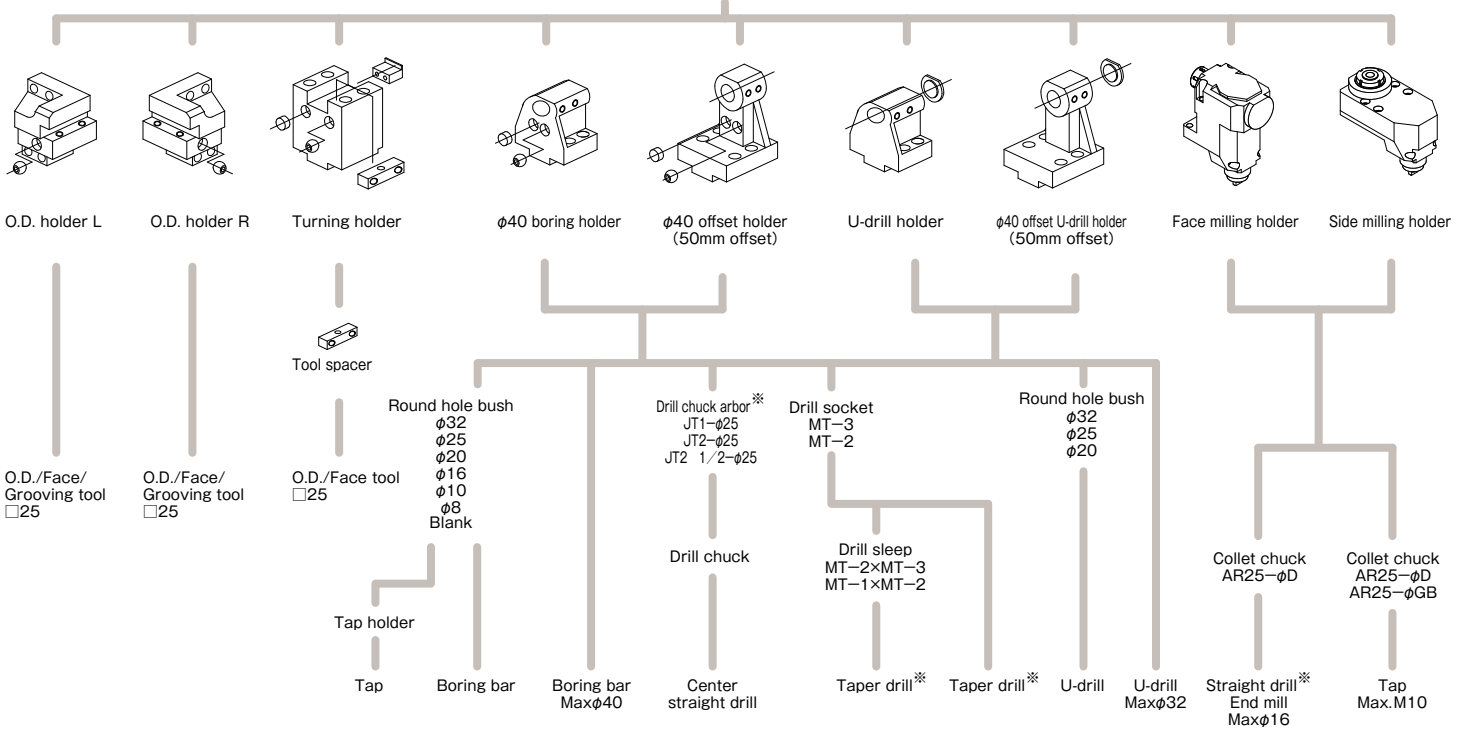


## Tooling System

# XW-130M



10-station turret

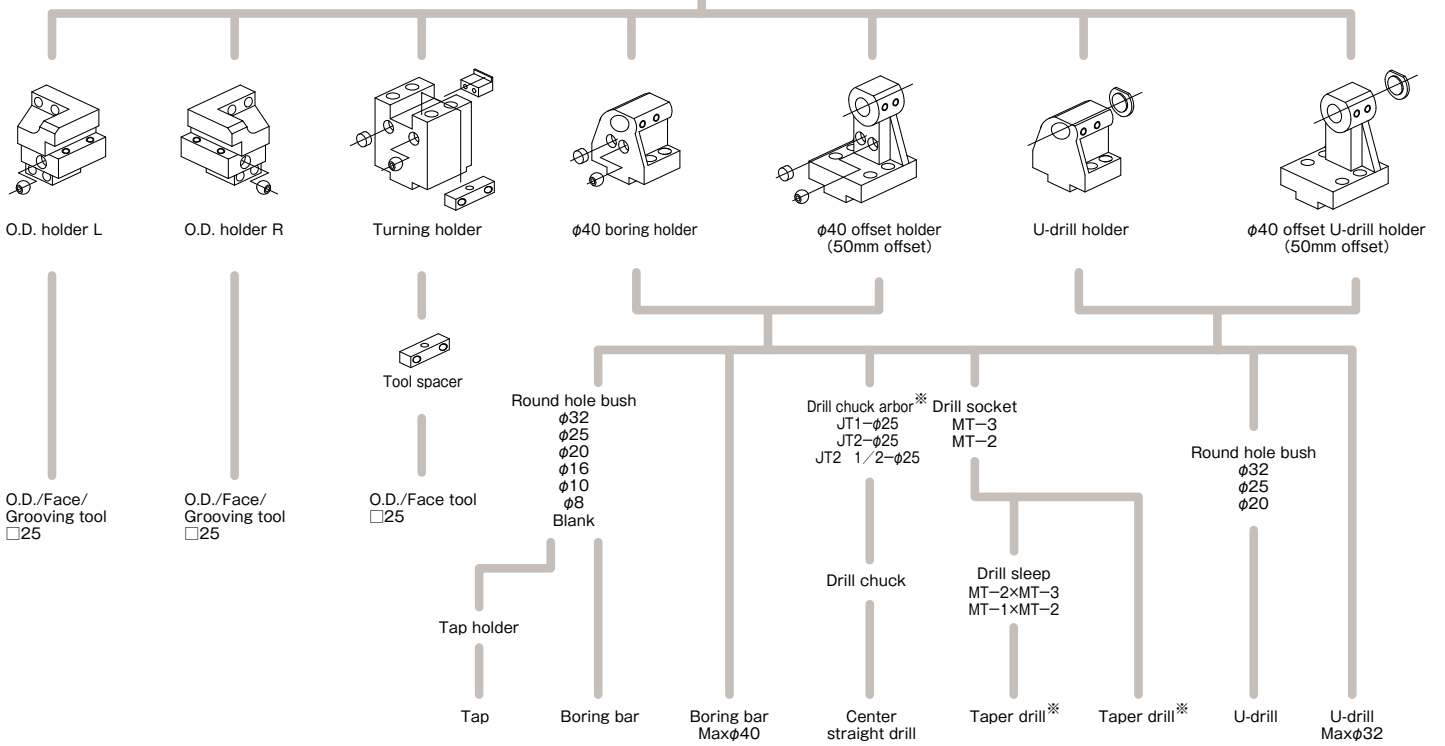
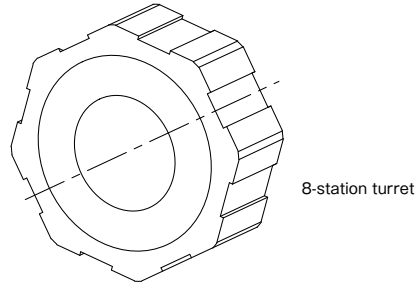


<sup>※</sup>When setup the drill, tooling space has prohibited zone.  
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# XW-200

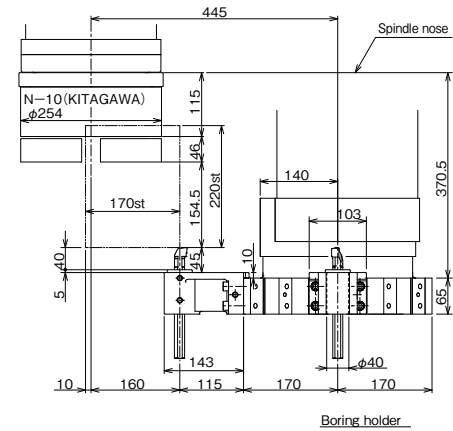
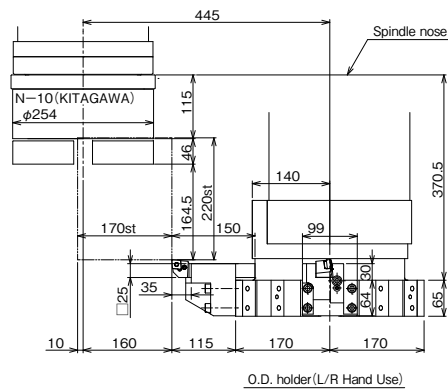
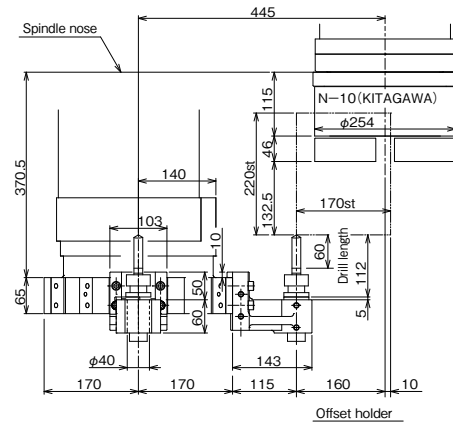
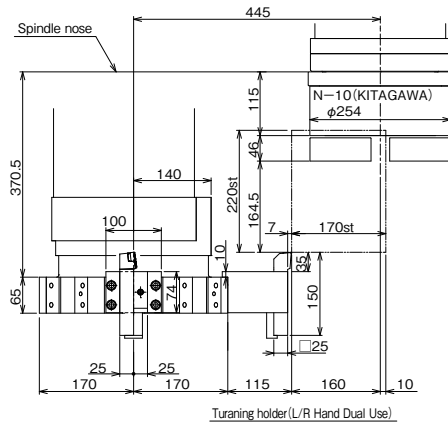


※When setup the drill, tooling space has prohibited zone.  
If you need more information, please contact to TAKAMAZ.

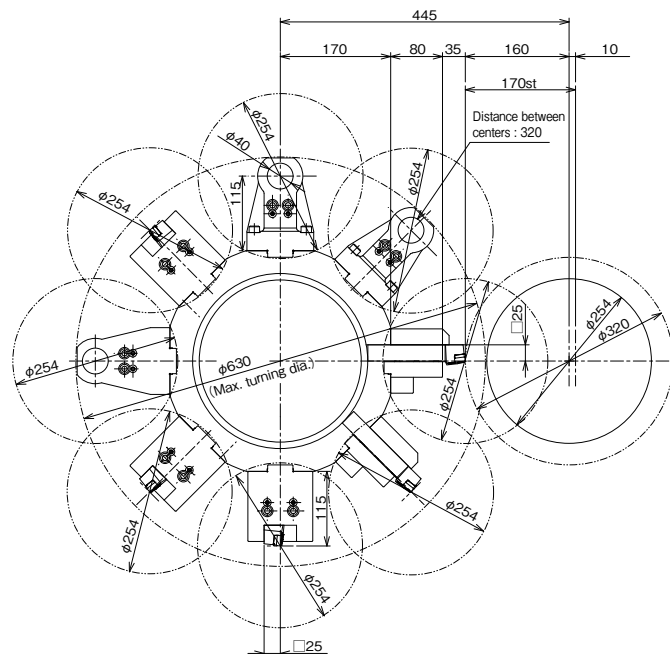
# STROKE & TURRET

## Stroke-Related Drawing

# XW-200



## Turret Interference



Unit (mm)

# SPECIFICATION

## Machine Specifications

Item		Unit	XW-30	XW-30PLUS	XW-60	XW-60M
Capacity	Optimum turning size	mm	φ30* <sup>1</sup>	φ30	φ60	
	Max. turning diameter	mm	φ50	φ50	φ175	
	Max. turning length	mm	50	50	130	
	Chuck size	inch	3: Air ×2	Collet, 3.4×2	Collet, 6 (5) ×2	
Spindle	Spindle nose	JIS	A3-S2	A2-3	A2-5 (A2-4)	
	Spindle bearing I.D.	mm	φ50	φ60	φ75 (φ65)	
	Through-hole on spindle	mm	φ20* <sup>2</sup>	φ25	φ46 (φ36)	
	Spindle speed	min <sup>-1</sup>	Max. 10,000* <sup>3</sup>	Max. 8,000 (6,000* <sup>4</sup> )	Max. 4,500 (6,000)	
	Spindle indexing	deg./min	—	—	—	Cs-axis 18,000
Tool post	Type		Gang type×2	Gang type×2	8-station turret×2	10-station turret×2
	Tool shank	mm	□16	□16	□20	
	Boring holder I.D.	mm	φ25	φ25	φ25	
	Max. stroke	mm	X:160 Z:200	X:160 Z:230	X:125 Z:140	
	Rapid traverse rate	m/min	X:12 Z:15	X:12 Z:20	X:21 Z:18	
Power tools	Tool storage capacity	pcs.	—	—	—	10 (One side)
	Max. rotating speed	min <sup>-1</sup>	—	—	—	Max. 4,000
	Capacity Drill	mm	—	—	—	φ13
	Capacity Endmill	mm	—	—	—	φ13
	Tap	mm	—	—	—	M4~M10
Motors	Spindle motor	kW	AC 3.7/2.2 ×2	AC 5.5/3.7×2	AC 7.5/5.5×2	
	Feed motor	kW	X:AC 0.75×2 Z:AC 0.75×2	X:AC 0.4×2 Z:AC 0.75×2	X:AC 0.75×2 Z:AC 1.2×2	
	Coolant motor	kW	AC 0.18 ×2	AC 0.25×2	AC 0.25×2	
	Hydraulic motor	kW	—	—	AC 0.75×2	
	Power tools motor	kW	—	—	—	AC 2.5
Size	L×W×H	mm	1,000 (1,300* <sup>5</sup> ) ×2,000×1,500	1,040 (1,340* <sup>5</sup> ) ×2,120×1,500	1,595 (1,950* <sup>5</sup> ) ×2,005×2,400 (2,650* <sup>6</sup> )	1,695 (1,950* <sup>5</sup> ) ×2,005×2,400 (2,650* <sup>6</sup> )
	Machine weight	kg	2,700	3,400	4,700	4,800
	Total electric capacity	KVA	20	20 (23* <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.

\*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.

( ) : Option

## Standard Accessories

Item	XW-30	XW-30PLUS	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 (TZ650)		—	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	—	—	—	1set (Cs-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"/> Front air blower	1set		—	(Option)
<input type="checkbox"/> Coolant unit	1set (140ℓ)	1set (160ℓ)	—	1set (160ℓ)
<input type="checkbox"/> Work light	(Option)		—	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-30	XW-30PLUS	XW-60	XW-60M
<input type="checkbox"/> Tool holders	—	—	○	—
<input type="checkbox"/> Collet chucks	—	—	○	—
<input type="checkbox"/> Hydraulic chucks	—	—	—	○
<input type="checkbox"/> Chuck clamp detector(with restrictions depending on the cylinder)	—	—	○	—
<input type="checkbox"/> High-speed loader system	○	—	—	—
<input type="checkbox"/> Spindle indexing device	Electrical/Mechanical		—	—
<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"/> Work light	○	—	—	(Standard)
<input type="checkbox"/> Signal light(1-color/2-color/3-color)	—	—	○	—
<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
Capacity	Optimum turning size	mm	φ150	φ200	φ200
	Max. turning diameter	mm	φ280	φ320	φ320
	Max. turning length	mm	155	220	220
Spindle	Chuck size	inch	Collet, 8 × 2		10 × 2
	Spindle nose	JIS	A2-6		A2-8
	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
	Spindle indexing	deg./min	—	C-axis 18,000	—
Tool post	Type		8-station turret×2	10-station turret×2	8-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
	Rapid traverse rate	m/min	X:24 Z:24		X:24 Z:24
Power tools	Tool storage capacity	pcs.	—	10 (One side)	—
	Max. rotating speed	min <sup>-1</sup>	—	Max.4,000	—
	Capacity	Drill	—	—	φ16
		Endmill	—	—	φ16
Tap	mm	—	M4~M10	—	
Motors	Spindle motor	kW	AC 11/7.5×2		AC 18.5/15×2
	Feed motor	kW	X:AC 1.2×2 Z:AC 1.8×2		X:AC 1.2×2 Z:AC 1.8×2
	Coolant motor	kW	AC 0.25 × 2		AC 0.25 × 2
	Hydraulic motor	kW	AC 0.75 × 2		AC 0.75 × 2
	Power tools motor	kW	—	AC 3.7/2.2	—
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 × 2,100 (3,080 <sup>*2</sup> )	1,990 (2,350 <sup>*1</sup> ) × 2,330 × 2,100 (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.

## Standard Accessories

Item	XW-130	XW-130M	XW-200
<input type="checkbox"/> Boring holder		4sets	
<input type="checkbox"/> O.D. holder		4sets	
<input type="checkbox"/> Hydraulic chucks		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 indexer device	—	1set (C-axis)	—
<input type="checkbox"/> Power tools drive unit	—	1set	—
<input type="checkbox"/> Spindle cooling device※		1set	
<input type="checkbox"/> Rear chip conveyor (Floor type / Spiral type)	(Option)		Floor Type
<input type="checkbox"/> Thread cutting unit (including constant surface speed control)		1set	
<input type="checkbox"/> Coolant unit	1set (160ℓ)		1set (200ℓ)
<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
<input type="checkbox"/> Tool holders		○	
<input type="checkbox"/> Collet chucks		○	—
<input type="checkbox"/> Chuck clamp detector (with restrictions depending on the cylinder)	○		(Standard)
<input type="checkbox"/> Spindle indexing device		Electrica / Mechanical	
<input type="checkbox"/> Power tools	—	○	—
<input type="checkbox"/> Rear chip conveyor (Floor type / Spiral type)	○		(Standard : Floor 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-color / 2-color / 3-color)		○	
<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.

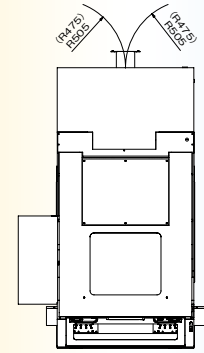
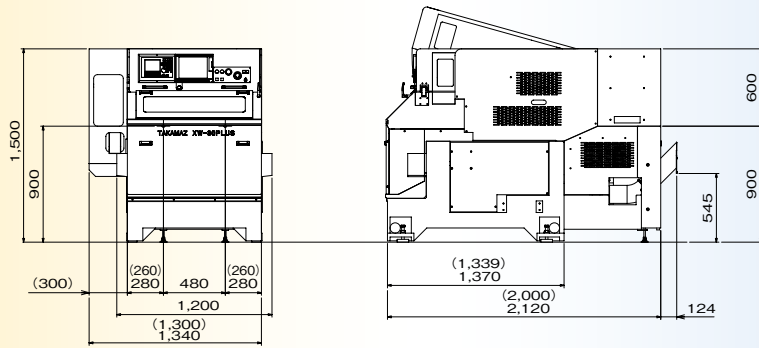
# SPECIFICATION

## Controller Specifications

Item	XW-30	XW-30Plus	XW-60	XW-60M	XW-130	XW-130M	XW-200
	TAKAMAZ & MITSUBISHI M70	TAKAMAZ & MITSUBISHI M70V	TAKAMAZ & FANUC Oi-TF	TAKAMAZ & FANUC Oi-TF	TAKAMAZ & FANUC Oi-TD	TAKAMAZ & FANUC Oi-TF	TAKAMAZ & FANUC Oi-TF
Controlled axes	2axes(X,Z) ×2		3axes(X,Z,C) ×2		2axes(X,Z) ×2		2axes(X,Z) ×2
Simultaneously controllable axes	Simultaneous 2 axes ×2		Simultaneous 3 axes ×2		Simultaneous 2 axes ×2		Simultaneous 3 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 5 digit		S-code 4 digit				
Tool function	T-code 2 digit		T-code 4 digit				
Tape code	EIA(RS232C)/ISO(840)automatic recognition						
Cutting feedrate	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	0~999999.9μm		0~9999μm				
Program memory capacity	230Kbyte(600m) 500Kbyte(1,280m)		1Mbyte(2,560m)(Dual systems total)				
Tool offsets	80sets(Dual systems total)		128sets (Dual systems total)				
Registered programs	400pcs.(Dual systems total) 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						
Additional 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	—		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)	Standard		(Option)				
Input / Output interface(USBFlash 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)		—		
Graphic check(MITSUBISHI)	Standard		—				
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 option functions	—		Work/Tool counter,Tool load monitor,Other				
TAKAMAZ maintenance functions	—		Standard				
Set of Instruction Manuals for Control Device	CD-ROM		DVD-ROM		CD-ROM		DVD-ROM

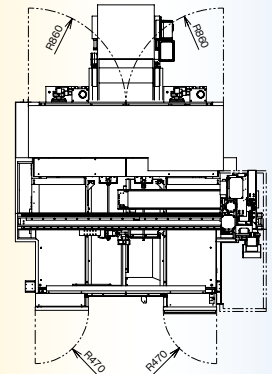
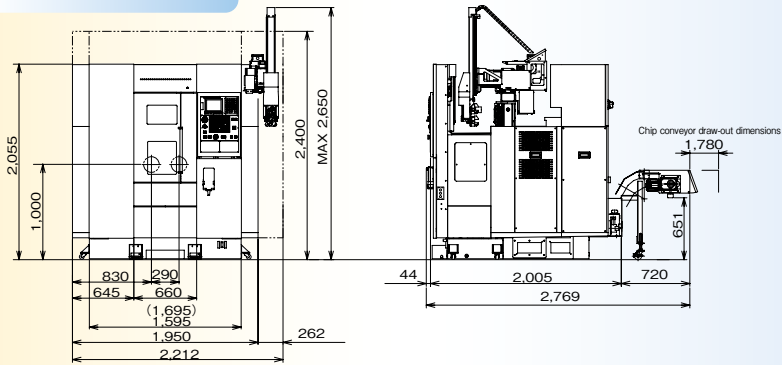
# FLOOR SPACE

## XW-30/XW-30PLUS



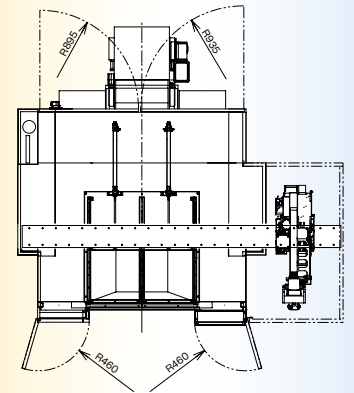
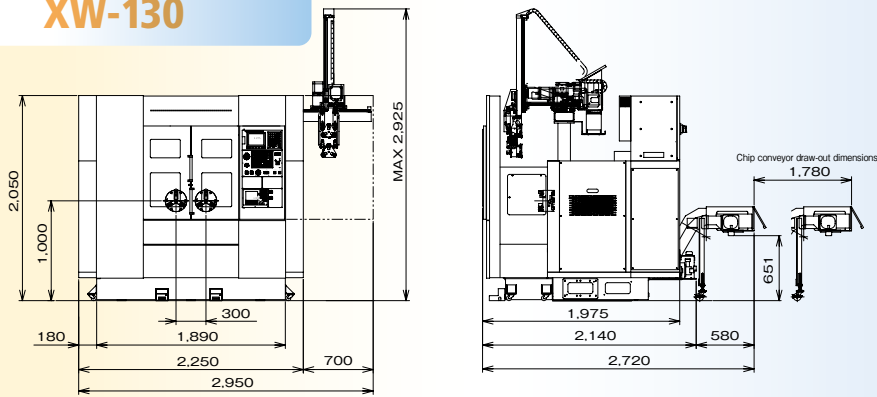
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## XW-60/XW-60M

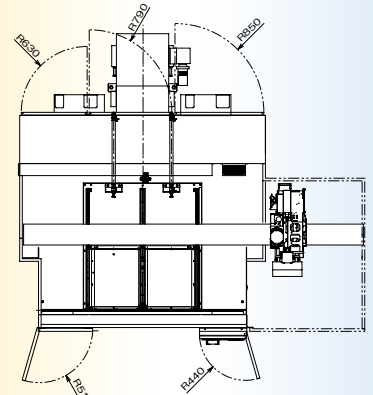
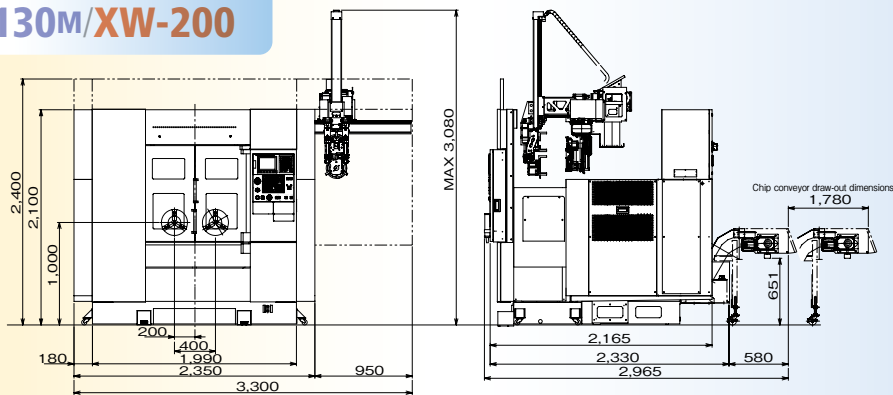


Data in parentheses is for XW-60M.

## XW-130



## XW-130M/XW-200



Unit (mm)



# XW series

# TAKAMAZ

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