CNC 2 Spindle 2 Slide
Precision Lathe

X 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

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

XWG-3

CNC 2-Spindle 2-Slide Precision Lathe

XWG-3

NEW

energy saving

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^2, 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.

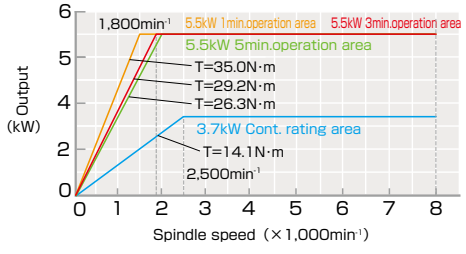
Revamped design for easier setup

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^{-1} Standard type (AC5.5/3.7kW)



※The photo shows the XW-60M.

CNC 2-Spindle 2-Turret Precision Lathe

XW-60/60M

Chuck size 6 Inch

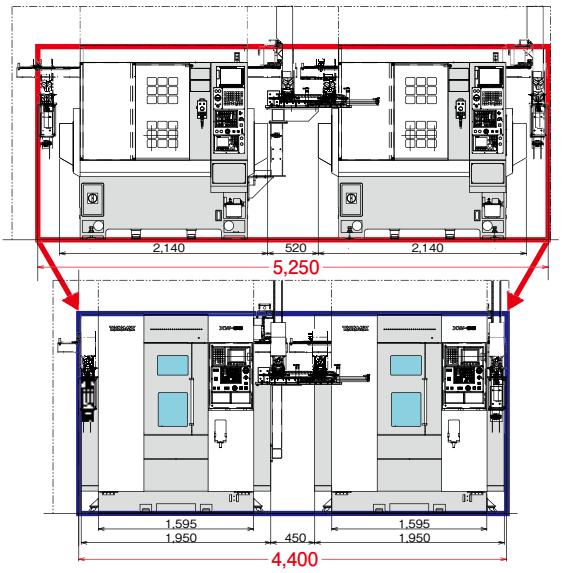
Scan the QR code with your camera phone or smartphone to see videos on YouTube.

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)

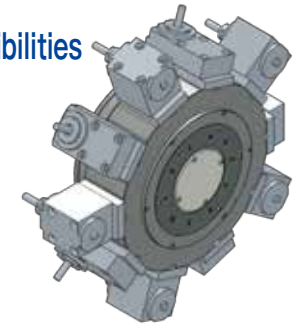


※With 2 machines linked: shortening of 850 mm

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^{-1}) 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.

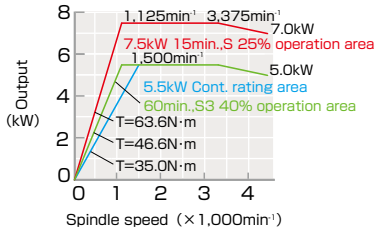
(Technology common to XW-130/XW-130M/XW-200/XWT-10)

Improved operability for setup changes For details, see page 10.

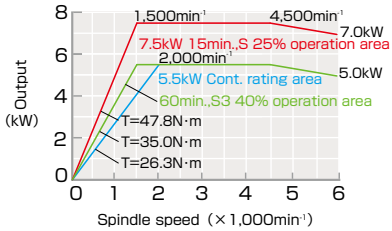
(Technology common to XW-130/XW-130M/XW-200/XWT-10)

XW-60/60M Spindle power characteristic curve

■ Max.4,500min^{-1}Standard type (AC5.5/7.5kW)

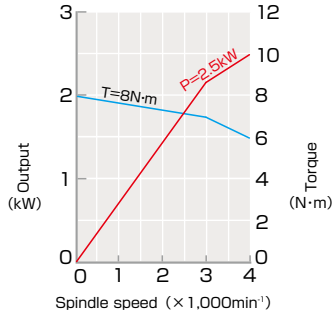


■ Max.6,000min^{-1}Option type (AC5.5/7.5kW)



XW-60M Power tool power characteristic curve

■ Max.4,000min^{-1} Standard type (AC2.5kW)



XW-130

CNC 2-Spindle 2-Turret Precision Lathe

XW-130

Chuck size 8 Inch

Recipient of the 44th Machine Design Award
Special Award by the Review Committee prize winning

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)

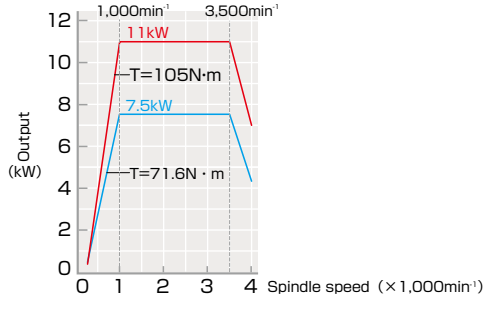
Vibration damping function installed For details, see page 10.

(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⁻¹ Standard type (AC11/7.5kW)



XW-130M

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).

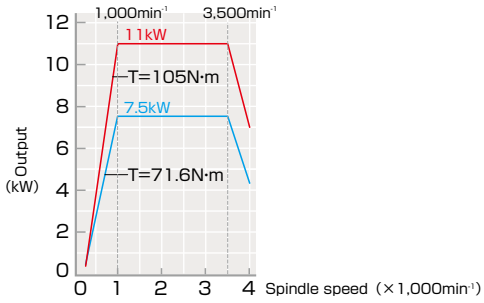
(Technology common to XW-60/XW-60M/XW-130/XW-200/XWT-10)

Improved operability for setup changes

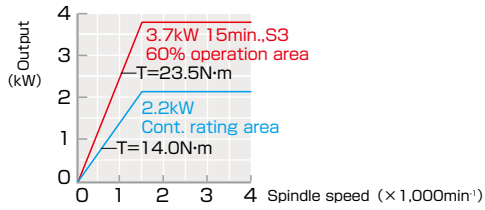
A low center of gravity construction with the spindle center height restricted to 1,000 mm allows chucks and workpieces to be changed in a comfortable posture. The work can also be done in a bright machine interior since overhead lighting is featured as standard, and this helps to shorten working times 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-130M Spindle power characteristic curve ■ Max.4,000min⁻¹ Standard type (AC11/7.5kW)



XW-130M Power tool power characteristic curve ■ Max.4,000min⁻¹ Standard type (AC3.7/2.2kW)



XW-200

CNC 2-Spindle 2-Turret Precision Lathe

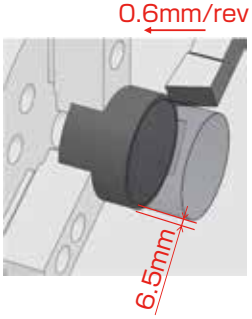
XW-200

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 ϕ120mm 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)



3 x previous area

Cutting surface area(t*f) **3.9mm²**

Short time rating result

Transfer of large workpieces enabled

The largest workpieces that Takamaz machines can handle, measuring ϕ200 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)

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/XWT-10)

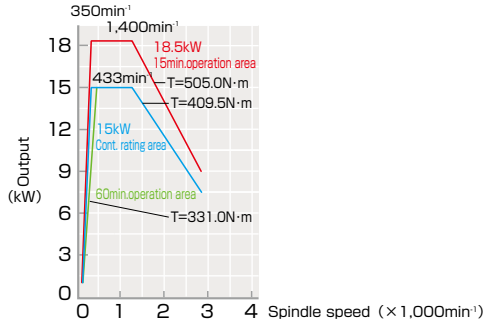
Vibration damping function installed

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⁻¹ Standard type (ϕ120 spindle AC18.5/15kW)



XWT-10

CNC 2-Spindle 2-Turret Precision Lathe

XWT-10

Chuck size 10 Inch

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

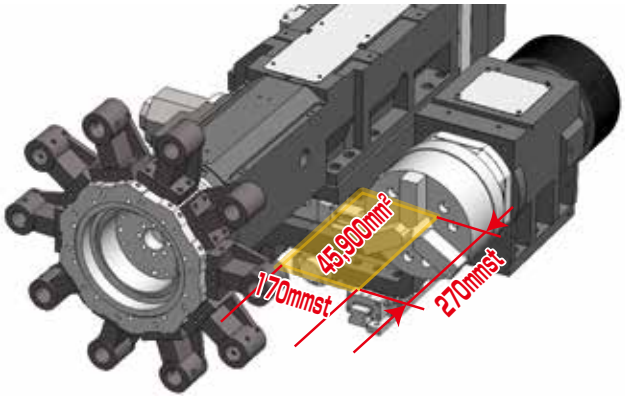
Upgraded machine realizing the largest OD turning range of the XW series!

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

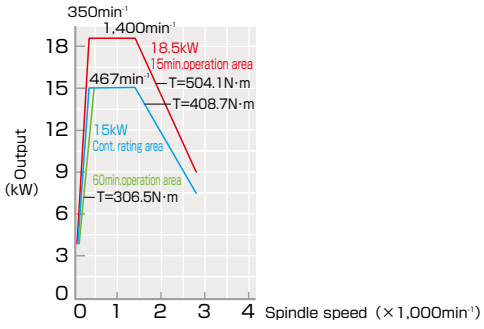
For details, see page 10.
(Technology common to XW-60/XW-60M/XW-130/XW-130M/XW-200)

Improved operability for setup changes

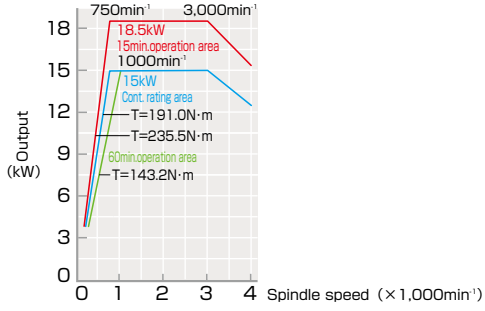
For details, see page 10.
(Technology common to XW-60/XW-60M/XW-130/XW-130M/XW-200)

XWT-10 Spindle power characteristic curve

■ Max.2,800min⁻¹ Standard type
(φ120 spindle AC18.5/15kW)



■ Max.4,000min⁻¹ Option type
(φ120 spindle AC18.5/15kW)



Equipped with the [Speed] and [Small Footprint] Servo Loader, "MG Series", "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	XWG-3		XW-60/60M		XW-130	XW-130M/200	XW-200	XWT-10
Loader Model			MG30	MG30H(High speed type)	ΣiGTH60	ΣiGTH60(High speed type)	ΣiGTH150		ΣiGTH200	
Number of axes		axes	2		3					
Loading Time (Reference)		sec.	4	2	6	2	6		7	
Transport Work Dimension	Diameter x Length (Reference)	mm	φ30×40		φ60×60	φ55(φ60)×60	φ150×50		φ200×120	φ200×220
	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	85	170	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	240		590		690	760	780	
	Rapid Traverse Rate	m/min	85	170	125	170	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 loading time, transport and work dimensions are the indicators.

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

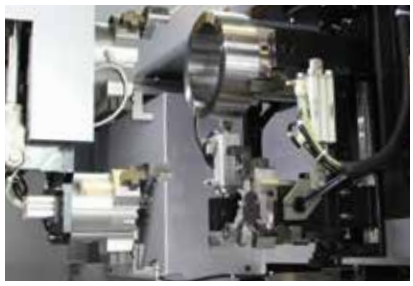
◆Loader hands that can handle a wide range of shapes, including flange workpieces, are available.

Parallel Hand

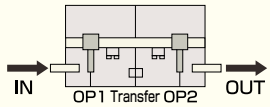
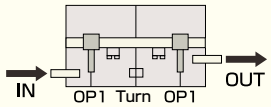
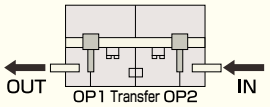
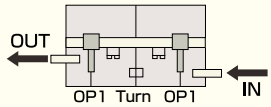
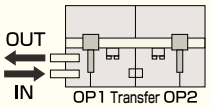
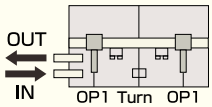
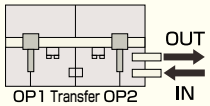
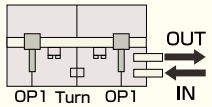
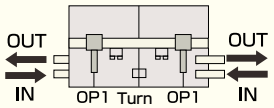
XWG-3 Standard loader

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 Flow \ Machining Type	Continuous Front and Rear Machining Line	Same Process Machining Line
L → R		
L ← R		
L L		
R R		
L R	—	

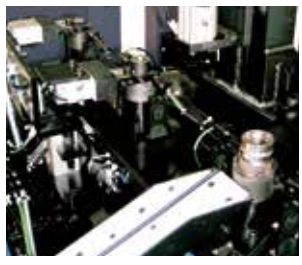
Automation Peripheral Devices

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

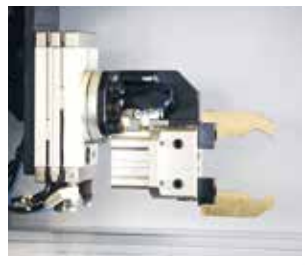
In / Out Stocker

In / Out Conveyor

Auto measurement unit



External turning device



OPTIONAL PARTS

Quality / Environment Control Unit

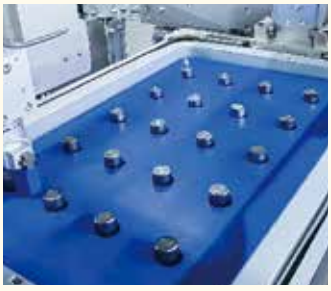
● Signal Tower
The solid and flashing lights for the operating conditions.

● 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.

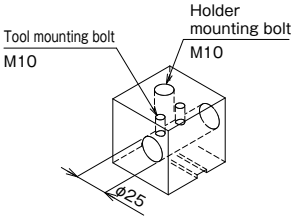
● Chip Conveyor (Spiral Type)
Mounted on the rear side
Chip disposal is done semi-automatically in minimal space.
Floor type is also available.

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

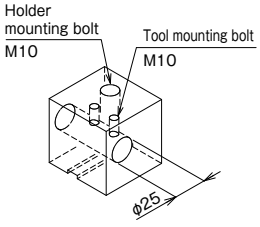
● Semi-dry machining
Ultratrace, highly-lubricating organic coolant is applied to the correct point on the cutting edge, realizing semi-dry machining.

Tooling System

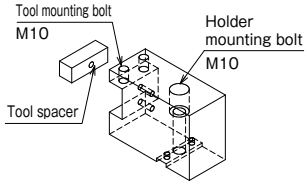
XWG-3



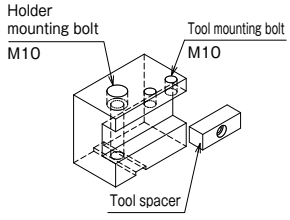
Boring holder1



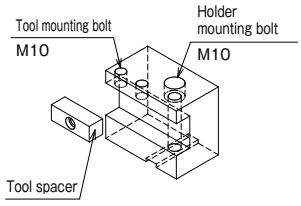
Boring holder2



O.D. holder
(□16・□20)

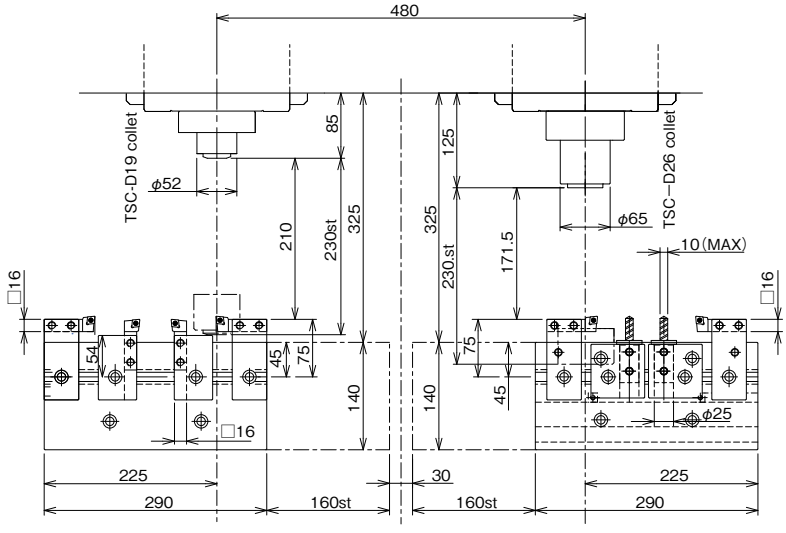


Turning holder L
(□16・□20)



Turning holder R
(□16・□20)

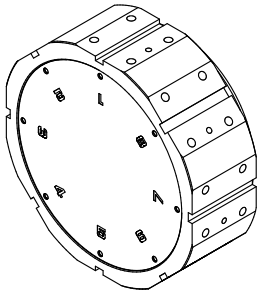
Stroke-Related Drawing



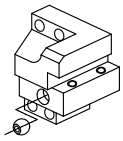
Unit(mm)

Tooling System

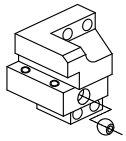
XW-60



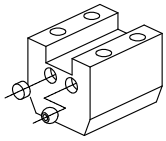
8-station turret



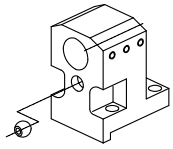
O.D. holder L



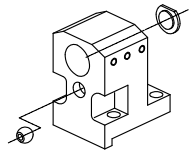
O.D. holder R



Turning holder



ϕ25 boring holder



ϕ25 U-drill holder

Clamp block C

O.D./Face/
Grooving tool
□20

O.D./Face tool
□20

Tap holder

Round hole bush
ϕ20
ϕ16
ϕ12
ϕ10
ϕ8
Blank

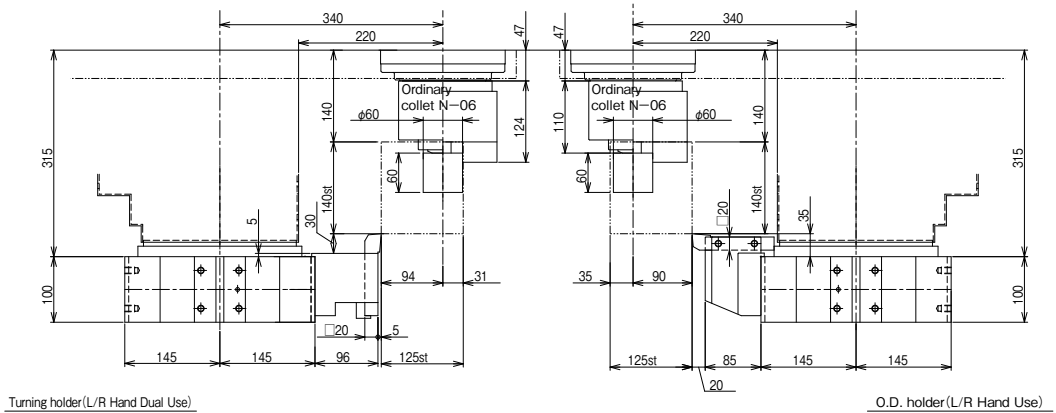
Tap

Boring bar
Maxϕ25

U-drill
Maxϕ20

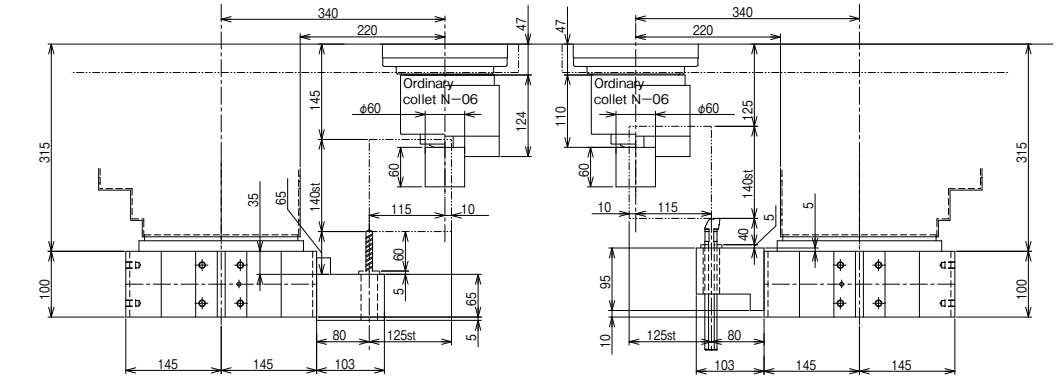
Stroke-Related Drawing

XW-60



Turning holder(L/R Hand Dual Use)

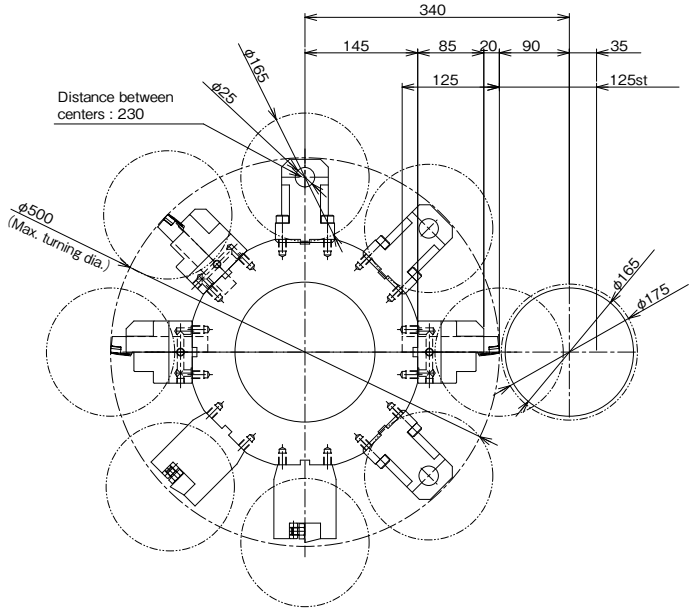
O.D. holder(L/R Hand Use)



Offset boring holder

Boring holder

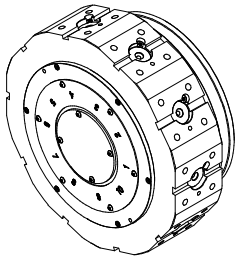
Turret Interference



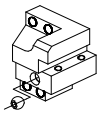
Unit(mm)

Tooling System

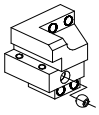
XW-60M



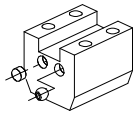
10-station turret



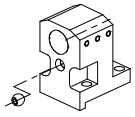
O.D. holder L



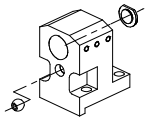
O.D. holder R



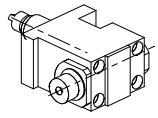
Turning holder



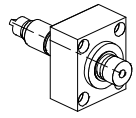
ϕ25 boring holder



ϕ25 U-drill holder



Face milling holder
(Doubles for back face use)



Side milling holder
Side milling holder
(Offset)

O.D./Face/
Grooving tool
□20

Clamp block C

O.D./Face tool
□20

Tap holder

Tap

Round hole bush
ϕ20
ϕ16
ϕ12
ϕ10
ϕ8
Blank

Boring bar
Maxϕ25

U-drill
Maxϕ20

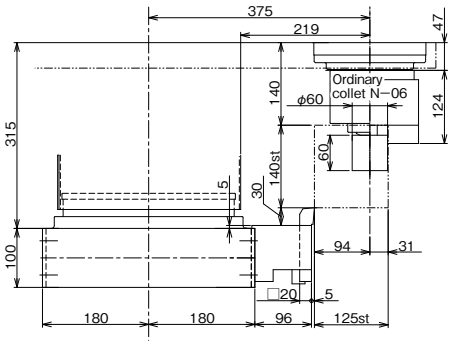
Collet chuck
ER20—ϕD

Straight drill
End mill
Max ϕ13

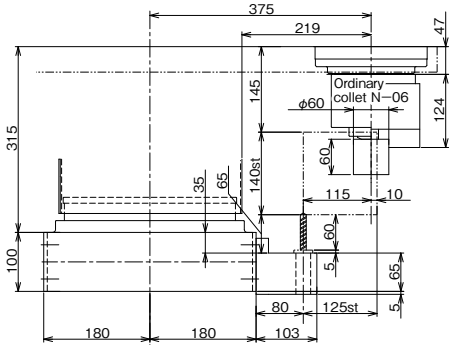
Tap
Max M10

Stroke-Related Drawing

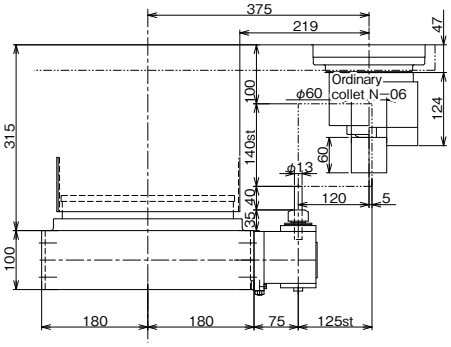
XW-60M



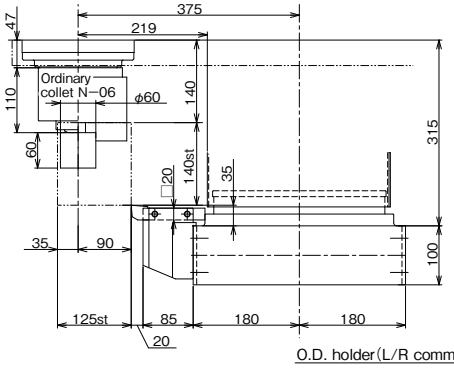
Turning holder (L/R commonness)



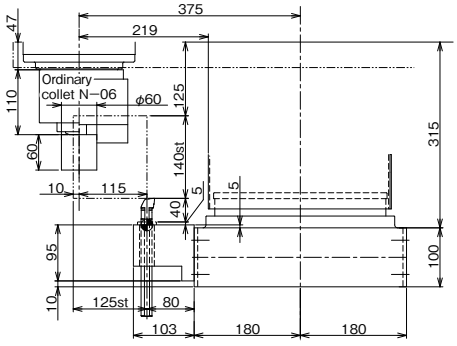
Offset boring holder



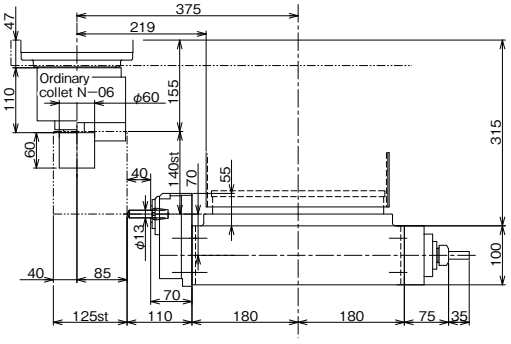
Face milling holder



O.D. holder (L/R commonness)

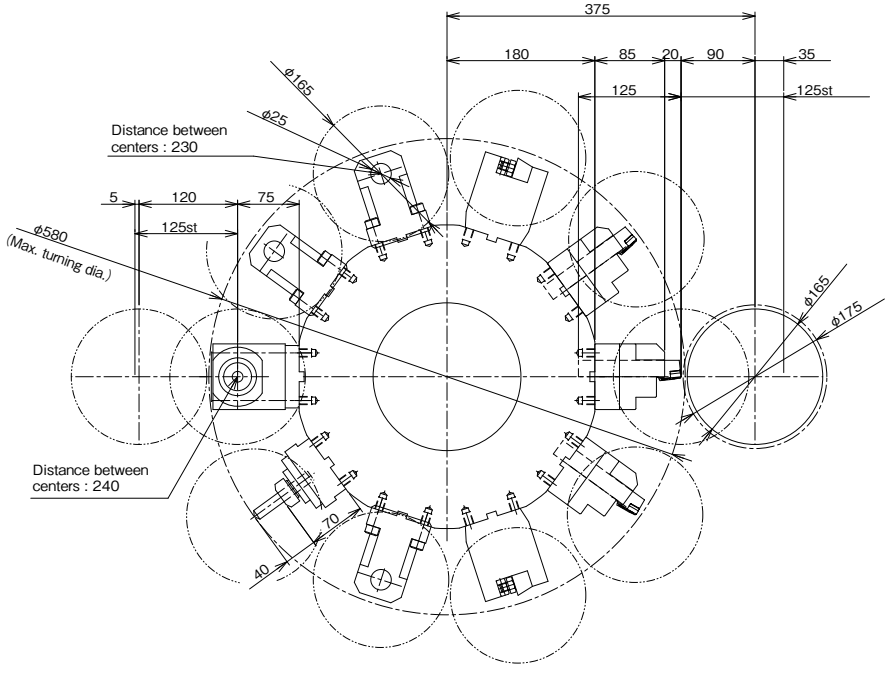


Boring/U-drill holder



Side milling holder

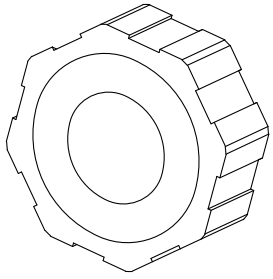
Turret Interference



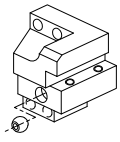
Unit (mm)

Tooling System

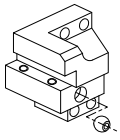
XW-130



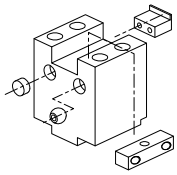
8-station turret



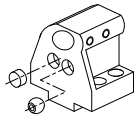
O.D. holder L



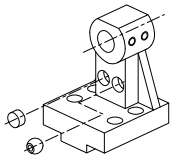
O.D. holder R



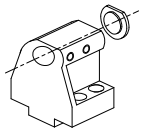
Turning holder



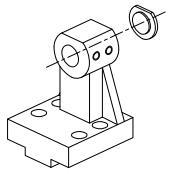
ϕ40 boring holder



ϕ40 offset holder
(50mm offset)



U-drill holder



ϕ40 offset
U-drill holder
(50mm offset)

O.D./Face/
Grooving tool
□25

O.D./Face/
Grooving tool
□25

Tool spacer

O.D./Face tool
□25

Round hole bush
ϕ32
ϕ25
ϕ20
ϕ16
ϕ10
ϕ8
Blank

Tap holder

Tap

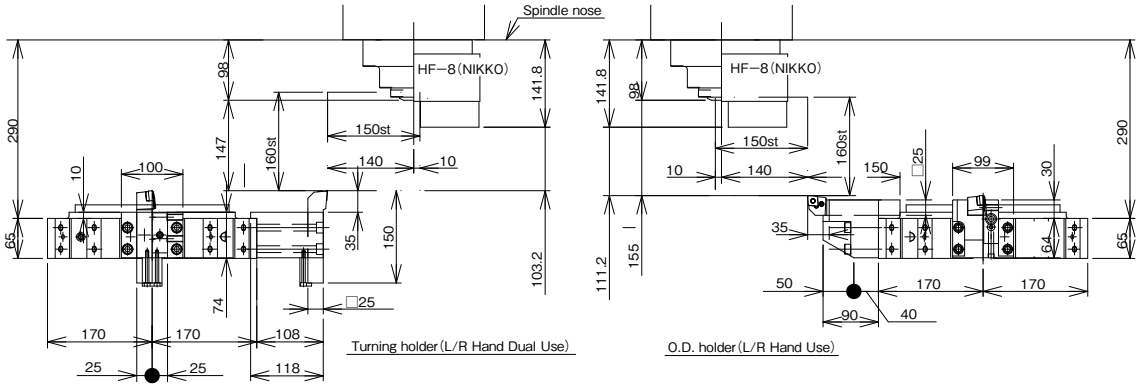
Boring bar
Maxϕ40

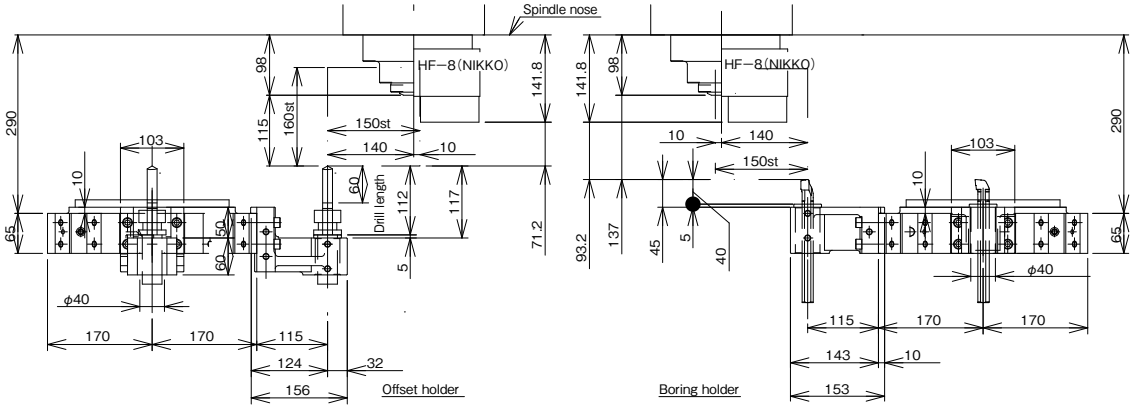
U-drill
Maxϕ32

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

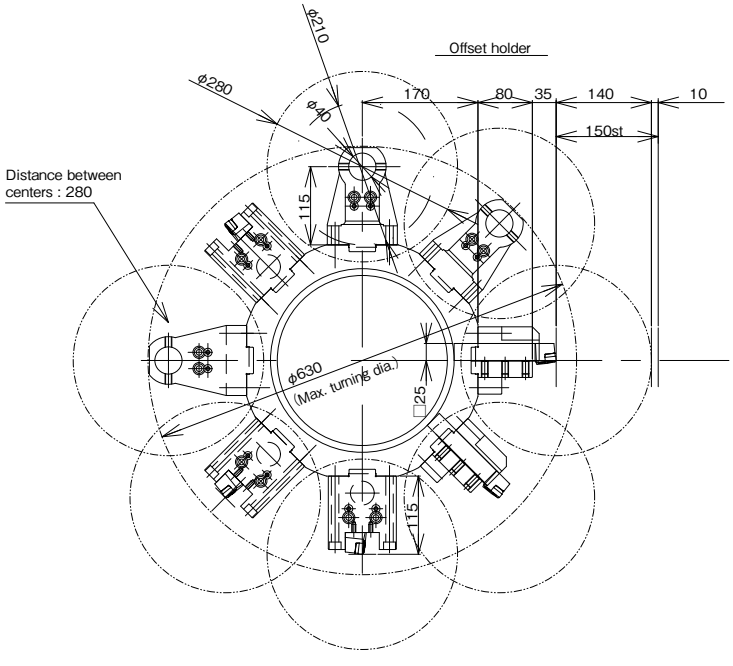
Stroke-Related Drawing

XW-130





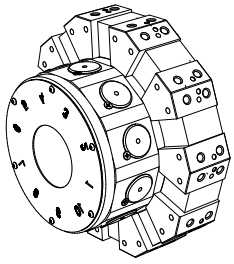
Turret Interference



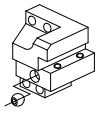
Unit(mm)

Tooling System

XW-130M

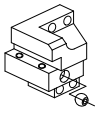


10-station turret



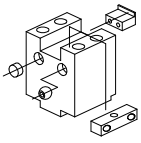
O.D. holder L

O.D./Face/
Grooving tool
□25



O.D. holder R

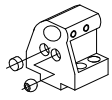
O.D./Face/
Grooving tool
□25



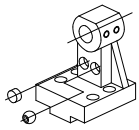
Turning holder

Tool spacer

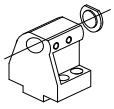
O.D./Face tool
□25



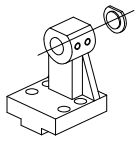
ϕ40 boring holder



ϕ40 offset holder
(50mm offset)



U-drill holder



ϕ40 offset U-drill holder
(50mm offset)

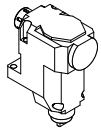
Round hole bush
ϕ32
ϕ25
ϕ20
ϕ16
ϕ10
ϕ8
Blank

Tap holder

Tap

Boring bar
Maxϕ40

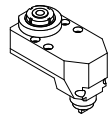
U-drill
Maxϕ32



Face milling holder

Collet chuck
AR25–ϕD

Straight drill※
End mill
Maxϕ16



Side milling holder

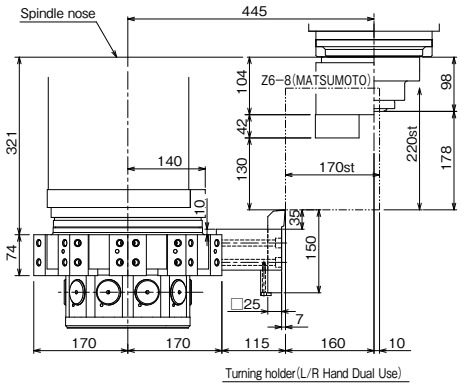
Collet chuck
AR25–ϕD
AR25–ϕGB

Tap
Max.M10

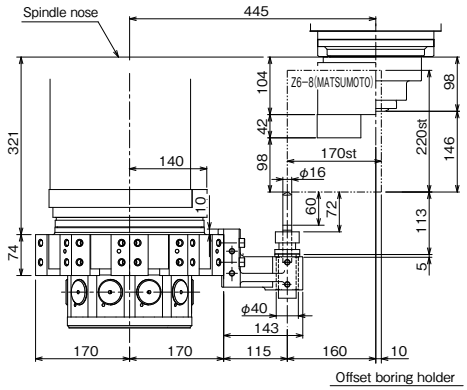
※When setup the drill, tooling space has prohibited zone.
If you need more information, please contact to TAKAMAZ.

Stroke-Related Drawing

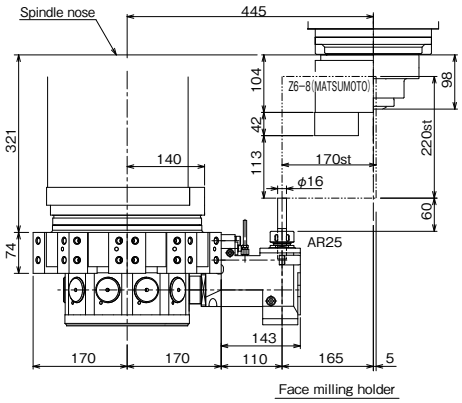
XW-130M



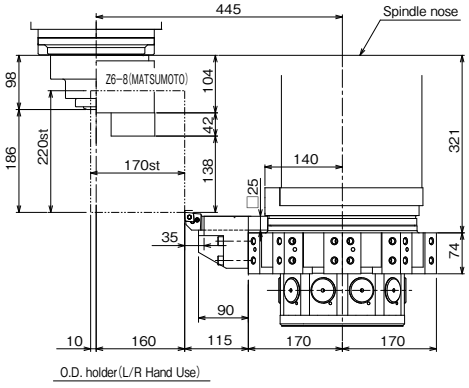
Turning holder(L/R Hand Dual Use)



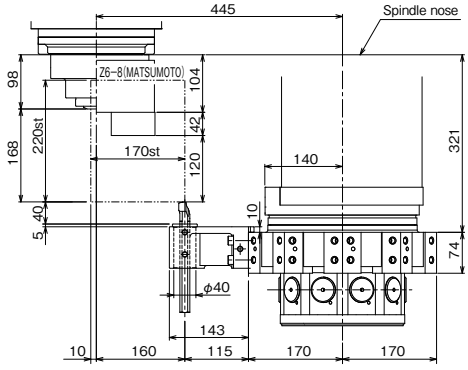
Offset boring holder



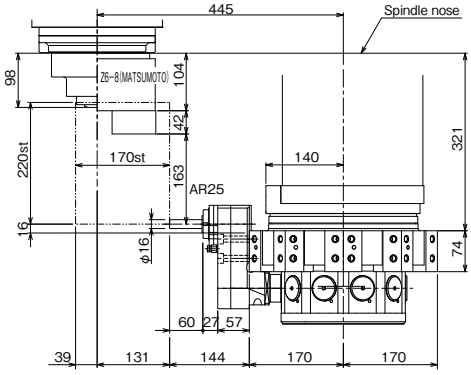
Face milling holder



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

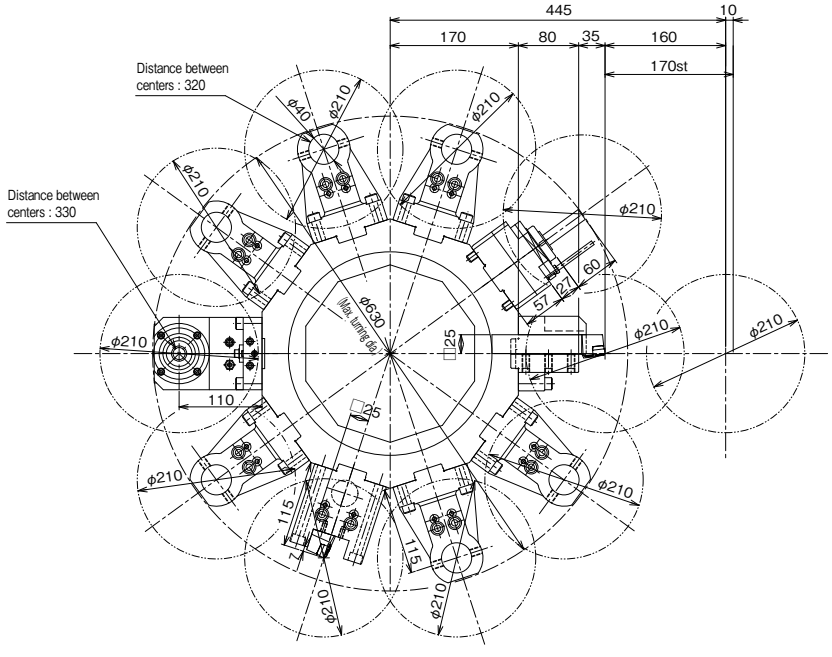


Boring holder



Side milling holder

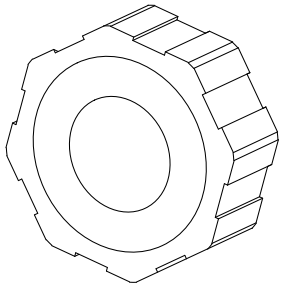
Turret Interference



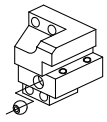
Unit(mm)

Tooling System

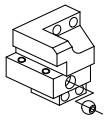
XW-200



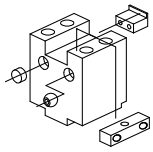
8-station turret



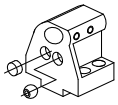
O.D. holder L



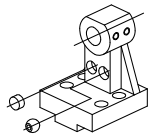
O.D. holder R



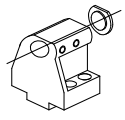
Turning holder



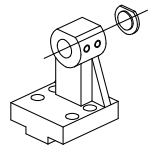
ϕ40 boring holder



ϕ40 offset holder
(50mm offset)



U-drill holder



ϕ40 offset U-drill holder
(50mm offset)

O.D./Face/
Grooving tool
□25

O.D./Face/
Grooving tool
□25

Tool spacer

O.D./Face tool
□25

Round hole bush
ϕ32
ϕ25
ϕ20
ϕ16
ϕ10
ϕ8
Blank

Tap holder

Tap

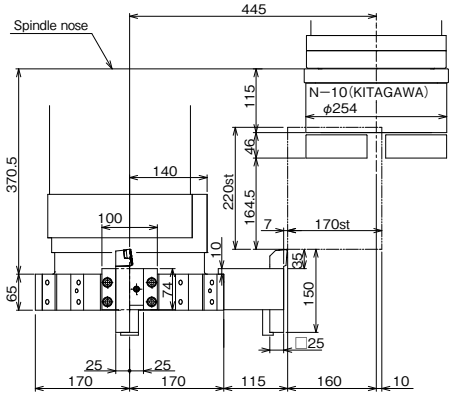
Boring bar
Maxϕ40

U-drill
Maxϕ32

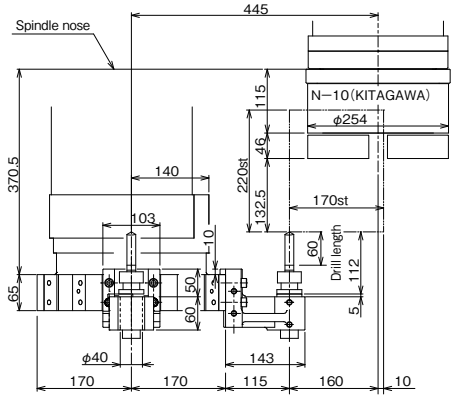
※When setup the drill, tooling space has prohibited zone.
If you need more information, please contact to TAKAMAZ.

Stroke-Related Drawing

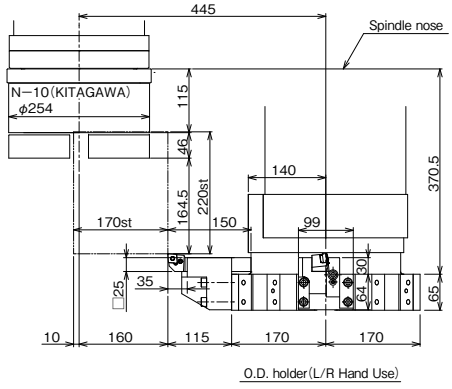
XW-200



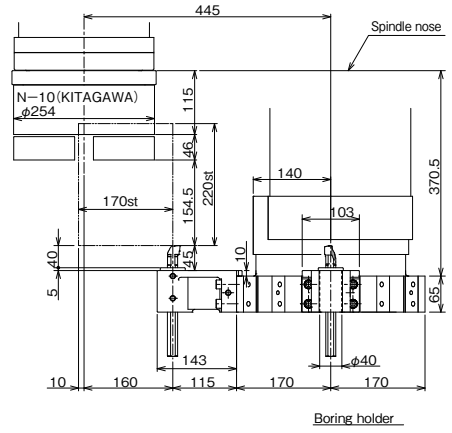
Turning holder(L/R Hand Dual Use)



Offset holder

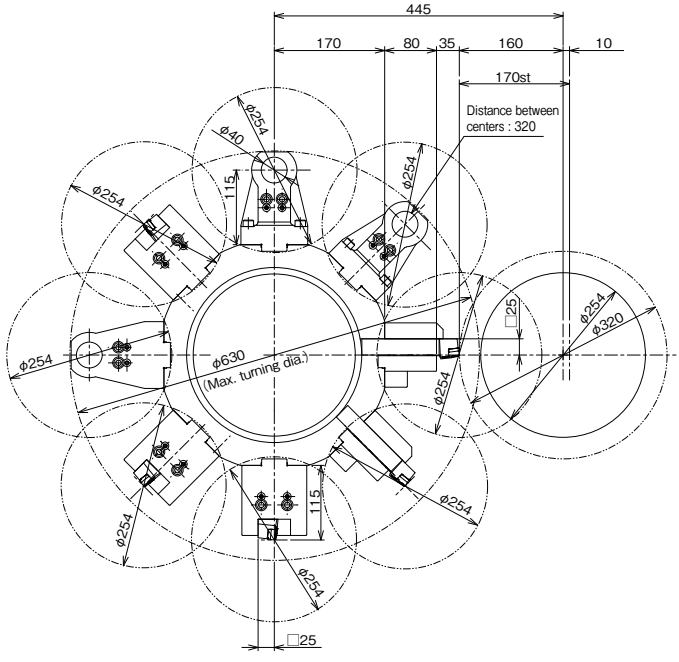


O.D. holder(L/R Hand Use)



Boring holder

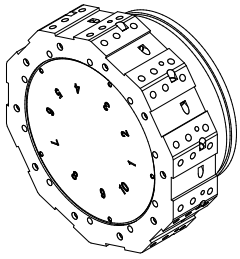
Turret Interference



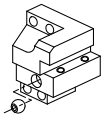
Unit(mm)

Tooling System

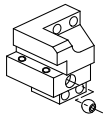
XWT-10



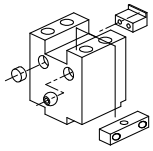
10-station turret



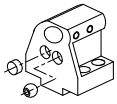
O.D. holder L



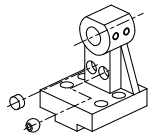
O.D. holder R



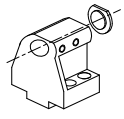
Turning holder



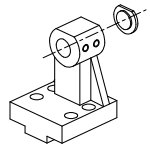
ϕ40 boring holder



ϕ40 offset holder
(50mm offset)



U-drill holder



ϕ40 offset U-drill holder
(50mm offset)

O.D./Face/
Grooving tool
□25

O.D./Face/
Grooving tool
□25

Tool spacer

O.D./Face tool
□25

Round hole bush
ϕ32
ϕ25
ϕ20
ϕ16
ϕ10
ϕ8
Blank

Tap holder

Tap

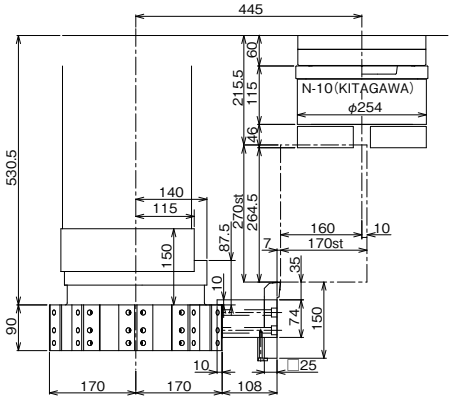
Boring bar
Maxϕ40

U-drill
Maxϕ32

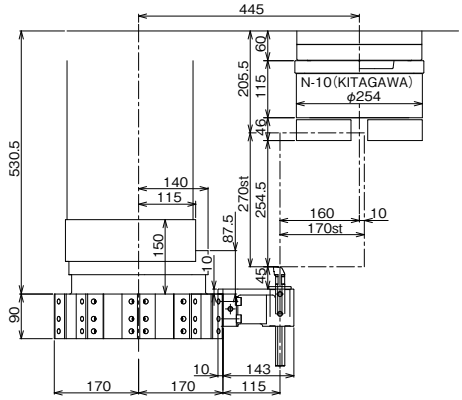
※When setup the drill, tooling space has prohibited zone.
If you need more information, please contact to TAKAMAZ.

Stroke-Related Drawing

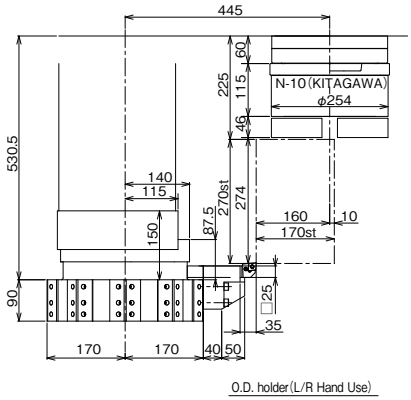
XWT-10



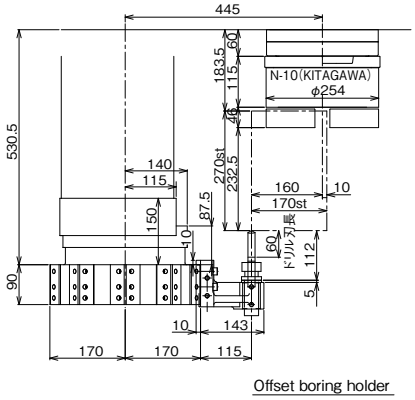
Turning holder(L-/R-hand type dual use)



Boring holder

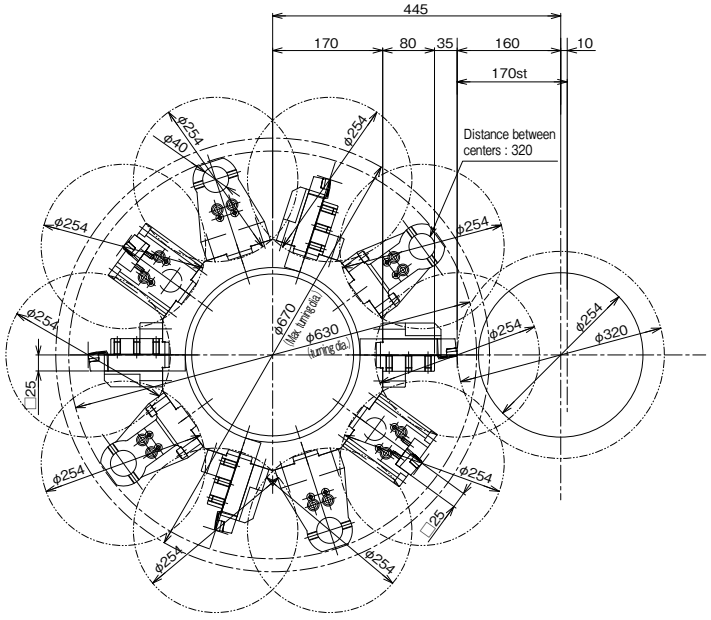


O.D. holder(L/R Hand Use)



Offset boring holder

Turret Interference



Unit(mm)

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-1	Max.8,000 (6,000※4)	Max.4,500 (6,000)	
	Spindle indexing			(Cs-axis)	—	Cs-axis
			deg./min	(108,000)	—	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-1	—	—	Max.4,000
	Capacity	Drill	mm	—	—	φ13
		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※5) ×2,130×1,750	1,595 (1,950※5) x2,005x2,400 (2,650※6)	1,695 (1,950※5) x2,005x2,400 (2,650※6)
	Machine weight		kg	3,500	4,700	4,800
Total electric capacity			KVA	16 (19※4)	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
□Tool holder	4sets	—	
□Boring holder	—	4sets	
□O.D. holder	—	4sets	
□Collet flange	1set (TSC-D19)	1set	
□Hydraulic chucking cylinder	(Option)	1set	
□Air chucking cylinder	1set	—	
□TAKAMAZ loader system	1 unit		
□Spindle indexing device	(Option)	—	1set
□Power tools drive unit	—		1set
□Spindle cooling device※	1set		
□Thread cutting unit(Including constant surface speed control)	1set		
□Front air blower	1set	(Option)	
□Coolant unit	1set (170lit.)	1set (160lit.)	
□Work light	1set		
□Service tool kit	1set		
□TAKAMAZ Instruction manual	1set		

※ Oil Temperature Control Type is available as an option.

Optional Accessories

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

※ For more information on attachments,consult our sales repres entative.

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	A2-6		A2-8	
	Spindle bearing I.D.	mm	φ100		φ120	
	Through-hole on spindle	mm	φ61		φ80	
	Spindle speed	min^{-1}	Max.4,000		Max.2,800	Max.2,800(4,000)
	Spindle indexing		—	C-axis	—	
		deg./min	—	18,000	—	
Tool post	Type		8-station turret×2	10-station turret×2	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^{-1}	—	Max.4,000	—	
	Capacity Drill	mm	—	φ16	—	
	Capacity Endmill	mm	—	φ16	—	
	Capacity 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※1) ×2,140×2,050 (2,925※2)	1,990 (2,350※1) ×2,330×2,400 (3,080※2)	1,990 (2,350※1) ×2,330×2,400 (3,080※2)	2,030(2,350※1)×2,370×2,400(3,080※2)
	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
□Boring holder	4sets			
□O.D. holder	4sets			
□Hydraulic power chuck (Solid)	1set			
□Hydraulic chucking cylinder	1set			
□Chuck clamp detector(with restrictions depending on the cylinder)	(Option)	1set		
□TAKAMAZ loader system	1unit			
□Spindle indexing device	—	1set (C-axis)	—	
□Power tools drive unit	—	1set	—	
□Spindle cooling device※	1set			
□Thread cutting unit(Including constant surface speed control)	1set			
□Coolant unit	1set (160lit.)	1set (200lit.)		
□Work light	1set			
□Service tool kit	1set			
□TAKAMAZ Instruction manual	1set			

※ Oil Temperature Control Type is available as an option.

Optional Accessories

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

※ For more information on attachments,consult our sales repres entative.

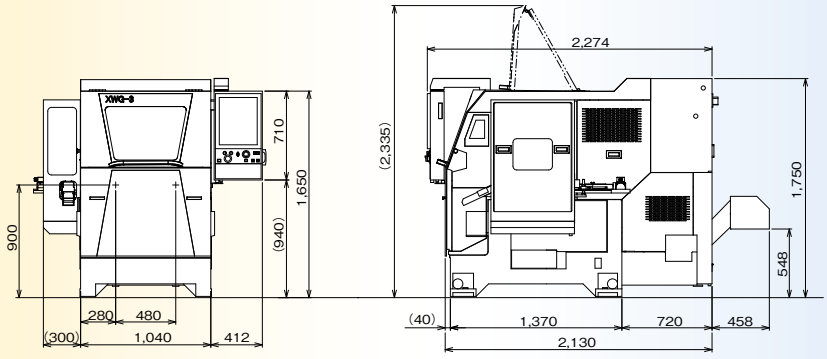
SPECIFICATION

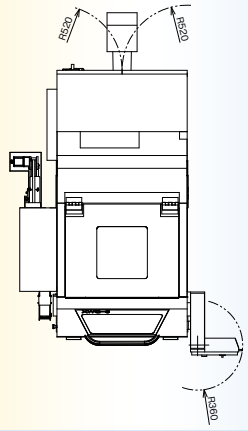
Controller Specifications

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(USBFlash Memory)	Standard						
Alarm message	Standard						
Graphic display(FANUC) Graphic trace(MITSUBISHI)	Standard						
Spindle orientation	(Option)						
G code guidance	Standard	—					
Simple programming function(FANUC) NAVI LATHE(MITSUBISHI)	Standard	—					
Dynamic graphic display(FANUC) Graphic check(MITSUBISHI)	Standard	(Option)		—		(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)		

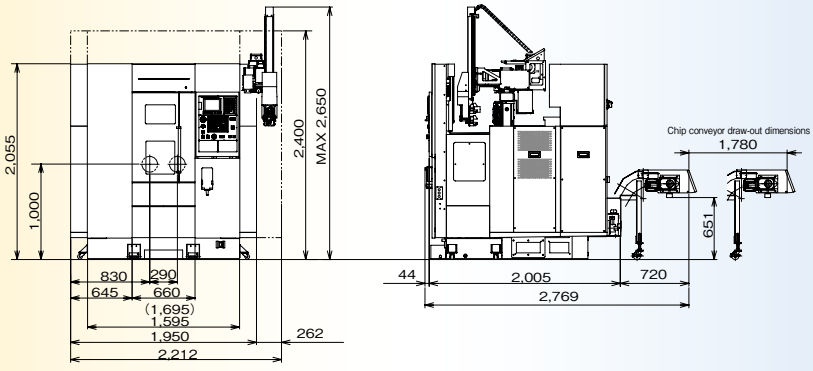
FLOOR SPACE

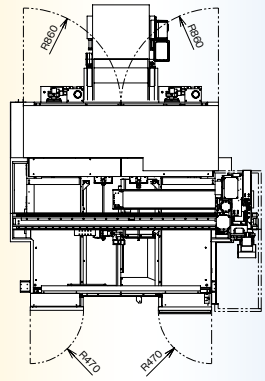
XWG-3





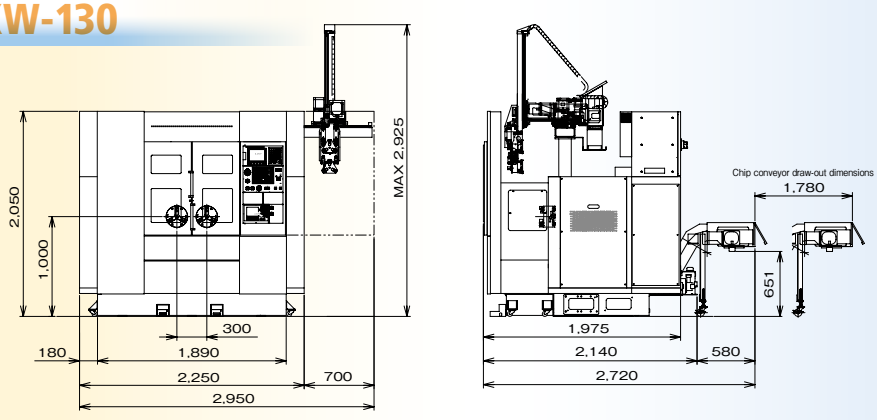
XW-60/XW-60M

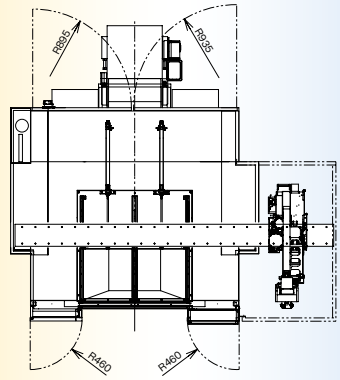




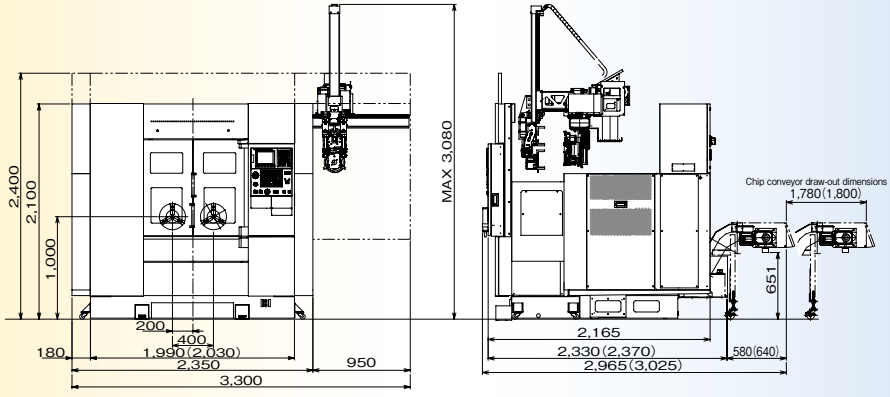
Date in parentheses is for XW-60M.

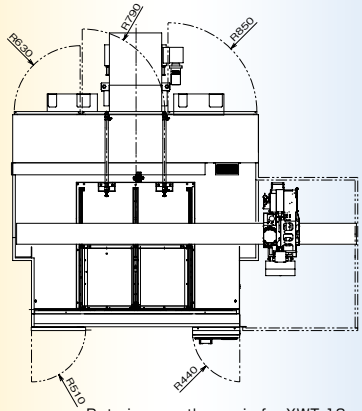
XW-130





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





Date in parentheses is for XWT-10.

Unit (mm)

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