

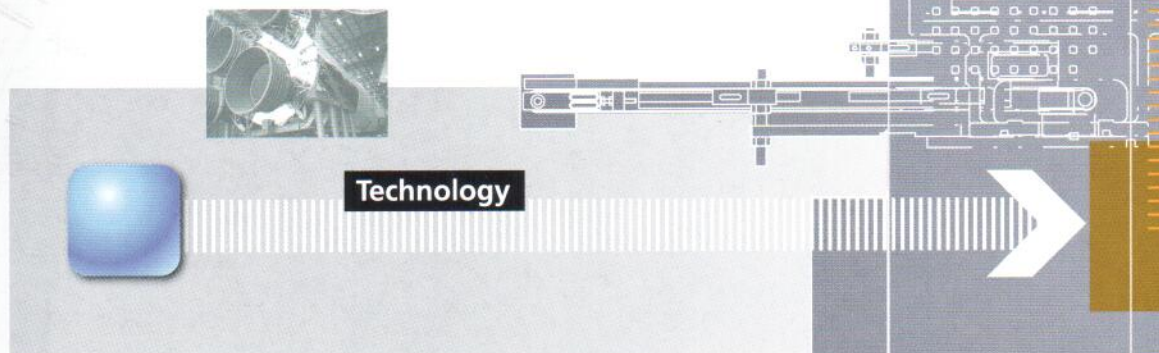
For  
Your

GENERAL CATALOG

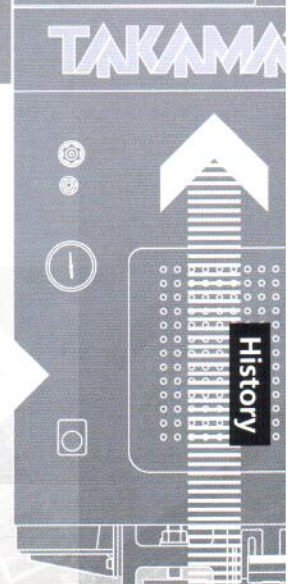
Best  
Selection

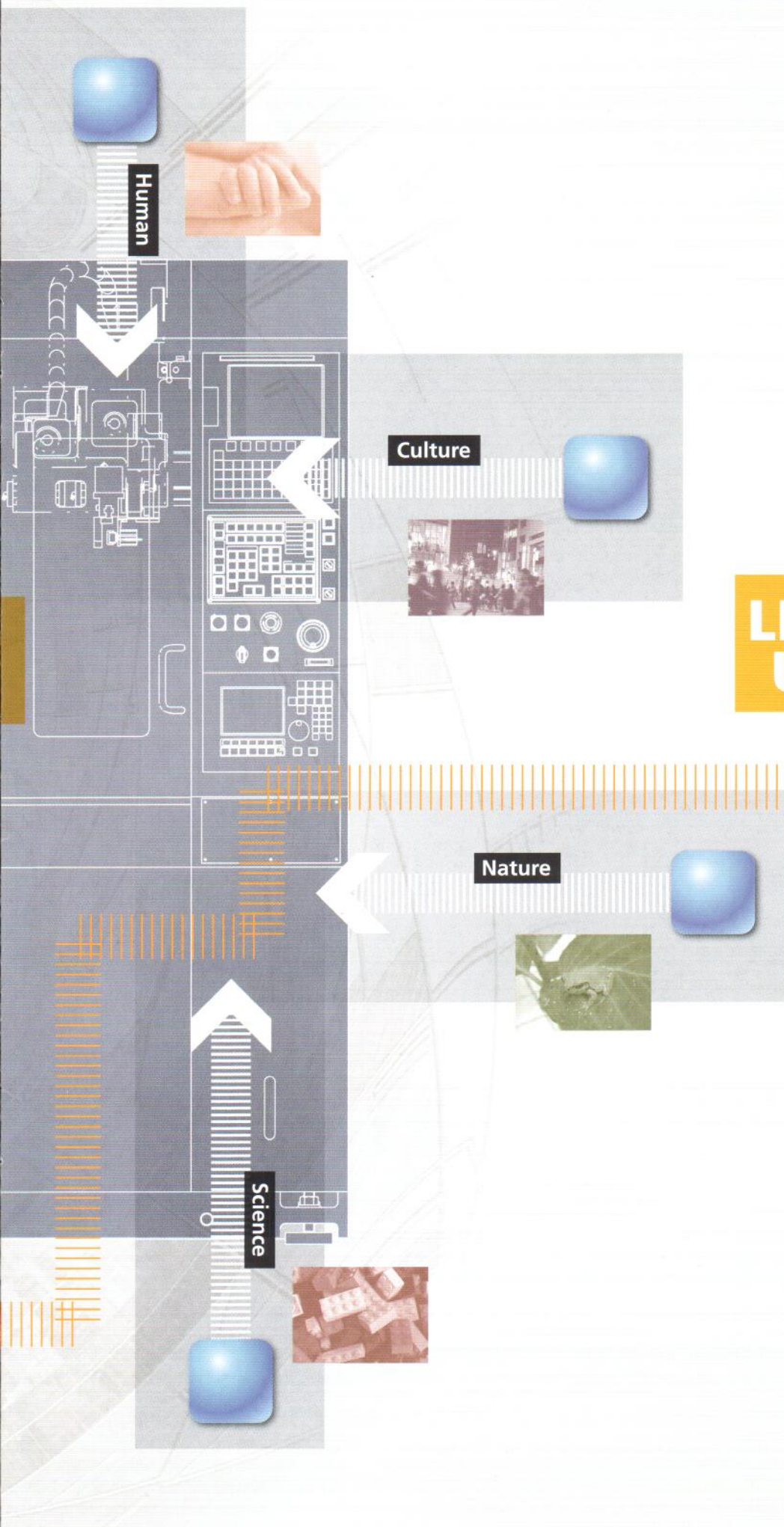
**TAKAMAZ**

# Just for you TAKAMAZ



With CUSTOMIZATION as our specialty, combined with developed products and different selections of various peripheral equipments and the human power. This combination makes the foundation of TAKAMAZ products. We make our products to “Your Color” by meeting every customer’s needs.





# LINE UP

## X series PAGE 3

**1 spindle 1 turret**  
 Our total production count is a proof of reliability. This is a TAKAMAZ standard that has evolved for single lathes.

## XW series 5

**2 spindle 2 turret**  
 Simultaneous machining of both or the same sides of the parts for total complete process machining. The functions of two units within the space of a single unit.

## XD series 6

**2 spindle 2 slide**  
 One spindle performs loading while the other is machining. Production rates doubled within the same space!

## XY series 7

**Multi-Turning**  
 With two spindles and two turrets, different machining methods can be performed with ease. Compound machining is possible resulting in short cycle time.

## USL series 8

**WAVE series**  
**1 spindle 1 slide**  
 A futuristic slim design with an incredible space-saving design and with high quality and low price.

## TURN series 8

**1 spindle 1 slide**  
 The CNC Linear Turret lathe that provides thorough solutions for all requirements. The best in its class for swift rapid traverse.

## Global Strategy Lathe 8

**GSL**  
**1 spindle 1 slide**  
 The best simple machine in its class among manual operated machines, focusing on cost performance.

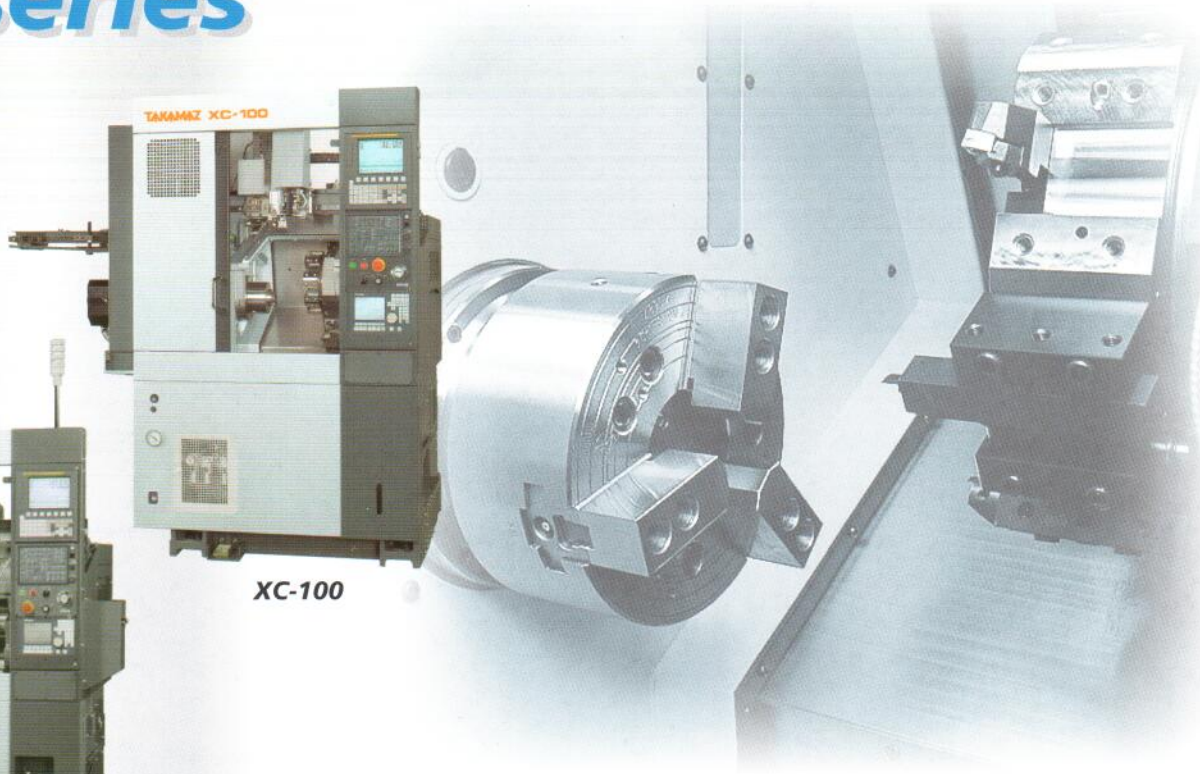
## TAKAMAZ OPTION SYSTEM 9

## TAKAMAZ LOADER SYSTEM 10

# X series

# Starting Point of TAKAMAZ.

1-spindle 1-turret



**XC-100**



**XL-100**

Our total production count is proof of reliability.  
This is a TAKAMAZ standard that has evolved for single lathes.



**XC-150**



**X-150PLUS**

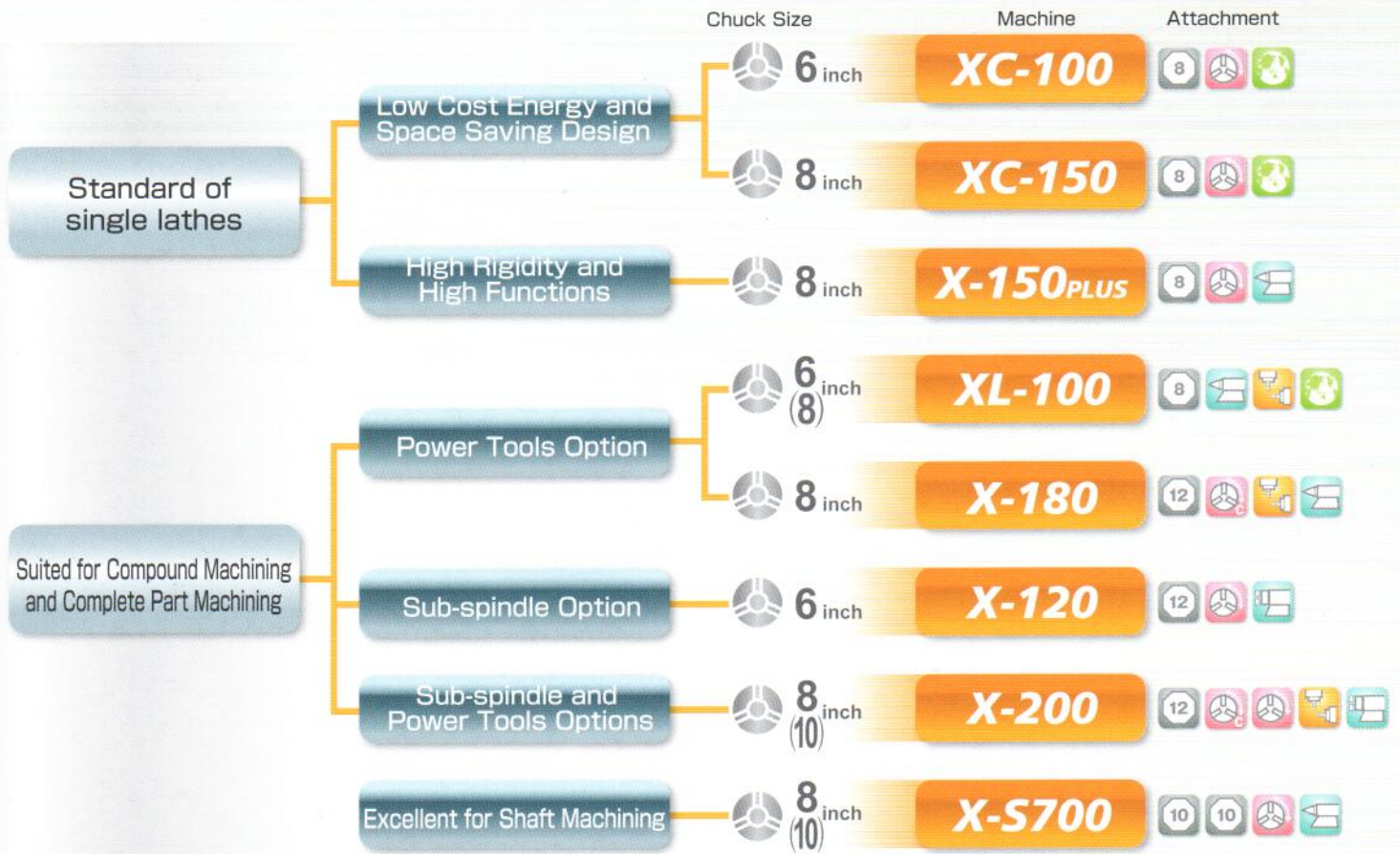


**X-120**

### Xseries Machine Specifications

Item	Unit	XC-100	XL-100	XC-150	X-150 PLUS	X-180
Chuck Size	inch	6	6(8)	8	8	8
Spindle bearing I.D.	mm	φ75	φ75 (φ85)	φ100	φ100	φ100
Spindle speed	min <sup>-1</sup>	Max.4,500	Max.4,500(6,000 · 3,500)	Max.3,500	Max.3,500 (4,000)	Max.3,500 (4,000 · 5,000)
Tool post type		8-station turret	8-station(12station)turret	8-station turret	8-station (12-station)turret	12-station turret
Max. stroke	mm	X:120 Z:230	X:120 Z:280	X:175 Z:250	X:175 Z:330	X:175 Z:330
Rapid traverse	m/min	X:12 Z:18	X:12 Z:18	X:18 Z:24	X:18 Z:24	X:18 Z:24
Spindle motor	kW	AC7.5/5.5	AC7.5/5.5(11/7.5)	AC11/7.5	AC7.5/5.5 (11/7.5)	AC7.5/5.5 (11/7.5)
Dimensions(L×W)	mm	1,150×1,360	1,360(1,480)×1,360	1,250×1,480	1,580×1,525	1,835×1,525
Controller		TAKAMAZ & FANUC Oi-TD	TAKAMAZ & FANUC Oi-TD	TAKAMAZ & FANUC Oi-TD	TAKAMAZ & FANUC Oi-TC	TAKAMAZ & FANUC Oi-TD

# Integration of the Power of Technology.



X-120		X-200		X-S700
Main-spindle	Sub-spindle	Main-spindle	(Sub-spindle)	
6	5	8 (10)	6	8 (10)
φ75 (φ85)	φ65	φ100 (φ120)	φ75	φ100 (φ120)
Max.4,500 (6,000)		Max.5,000 (4,000)	Max.5,000	Max.3,500 (3,000)
12-station turret		12-station turret		10-station turret ×2
X:170 Z:300 A:350		X:240 (225※1) Z:550 A:515		X:115 Z:650
X:18 Z:24 A:18		X:18 Z:24 A:30		X:16 Z:30
AC5.5/3.7 (7.5/5.5)	AC3.7/2.2	AC15/11(18.5/15)	AC7.5/5.5	AC15/11 (18.5/15)
2,000×1,630		2,460 (2,990)×1,960		1,960×1,720
TAKAMAZ & FANUC Oi-TC		TAKAMAZ & FANUC 21-18i-TB		TAKAMAZ & FANUC Oi-TD

※1 With Sub-spindle. ※( ):Option

## Display of Main Attachments



※Environmentally friendly product including energy efficient oil-less design in small footprint.

# XW series

2-spindle 2-turret

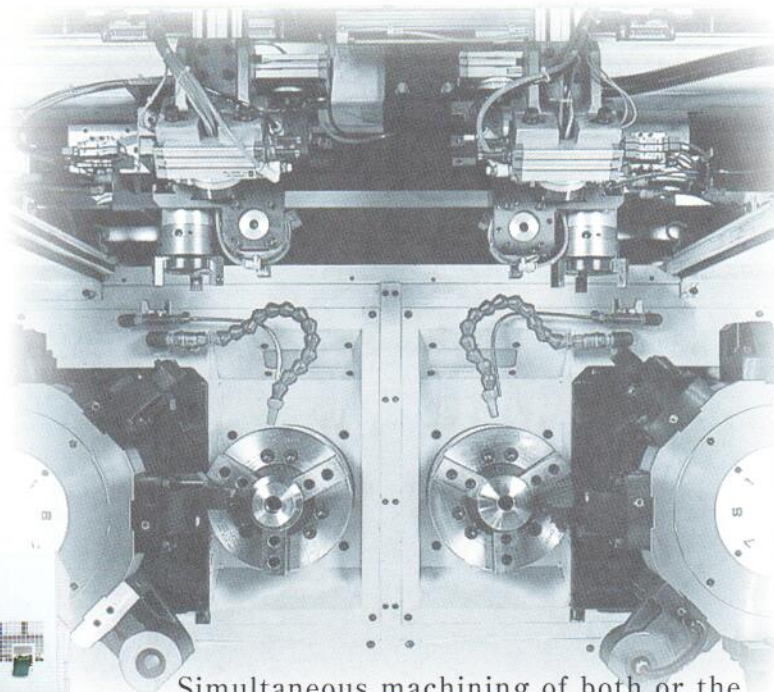


From high volume machining to heavy cutting.

Revolutionary machine with 2-spindle and 2-turret.



XW-30



Simultaneous machining of both or the same sides of the parts for total complete process machining. The functions of two units within the space of a single unit.



XW-80



XW-80M

Chuck Size

Machine

Attachment

Ideal for small part processing



3 inch

**XW-30**



Recipient of Superior Energy Saver Equipment Award  
JMF Chairman's Award  
Recipient of 2010 fiscal year The Japan Society of Mechanical Engineers Superior Product Award

Integrating Various Process



6 inch

**XW-80**



Power Tools Option



6 inch

**XW-80M**



Excellent Efficiency for Heavy Cutting



8 inch

**XW-150**



XW-150

## XWseries Machine Specifications

Item	Unit	XW-30	XW-80	XW-80M	XW-150
Chuck Size	inch	3 (Air) ×2	6 ×2		8 ×2
Spindle bearing I.D.	mm	φ50	φ75		φ100
Spindle speed	min <sup>-1</sup>	Max.10,000 *1	Max.4,500 (6,000)		Max.4,000
Tool post type		Horizontal linear ×2	8-station turret ×2		8-station turret ×2
Max. stroke	mm	X:160 Z:200	X:120 Z:160		X:160 Z:180
Rapid traverse	m/min	X:12 Z:15	X:18 Z:18		X:16 Z:16
Spindle motor	kW	AC3.7/2.2	AC5.5/3.7 (7.5/5.5) ×2		AC7.5/5.5 (11/7.5) ×2
Dimensions(L×W)	mm	1,300 (Bed width:1,000)×2,000	1,720×1,825		2,360×1,905
Controller		TAKAMAZ & MITSUBISHI	TAKAMAZ & FANUC 32i-A	TAKAMAZ & FANUC 0i-TTC	TAKAMAZ & FANUC 21i-TB

\*1 Available as an option depending on the chucking cylinder. ※( ):Option

# XD series

2-spindle 1-slide

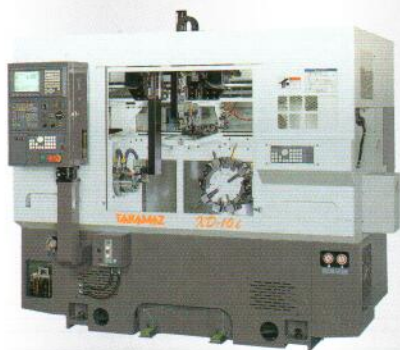
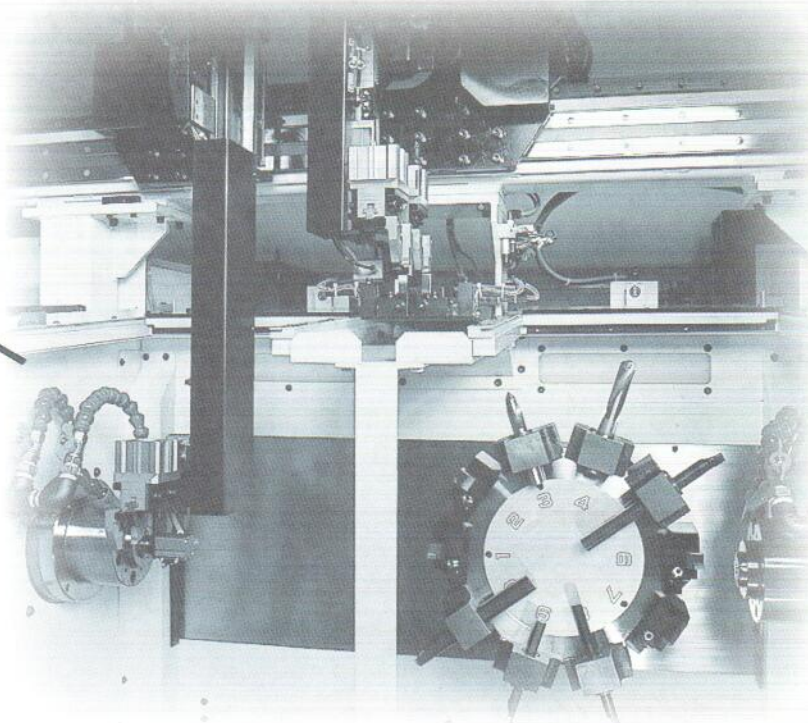


## 2 Spindles and 1 Slide

## TAKAMAZ Specialized Structure



**XD-8(t)PLUS**



**XD-10i**

One spindle performs loading while the other is machining. Production rates doubled within the same space!

Flexible Usability depending on Production Needs

Chuck Size

Machine

Attachment



5 inch

**XD-8PLUS**



5 inch

**XD-8tPLUS**



Power Tools Option



6  
(8) inch

**XD-10i**



### XDseries Machine Specifications

Item	Unit	XD-8(t) PLUS		XD-10 i
Chuck Size	inch	5 × 2		6 (8) × 2
Spindle bearing I.D.	mm	φ65		φ75
Spindle speed	min <sup>-1</sup>	Max.4,500 (8,000)		Max.4,500 (6,000)
Tool post type		Horizontal linear	6-station turret	10-station turret
Max. stroke	mm	X:200 Z:380 (±190)	X:140 Z:380 (±190)	X:120 Z:520
Rapid traverse	m/min	X:18 Z:24		X:18 Z:24
Spindle motor	kW	AC3.7/2.2 (5.5/3.7*) × 2		AC5.5/3.7 (7.5/5.5) × 2
Dimensions(L×W)	mm	1,580×1,550		2,310×1,695
Controller		TAKAMAZ & FANUC Oi-TC		TAKAMAZ & FANUC 21i-TA

\*1 XD-8PLUS : 5.5/3.7kW is exclusive to the specifications for spindle rotations speed of 8,000 min<sup>-1</sup> \*( ) : Option

# XY series

Multi-turning



## TAKAMAZ Compact Machines Suitable for Compound Machining



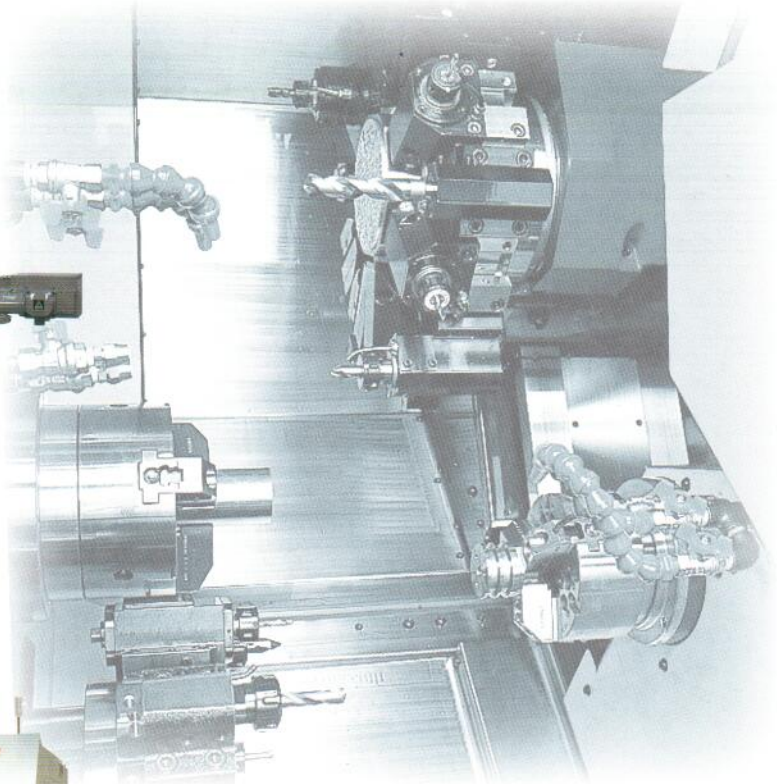
XY-1000



XY-120



XY-2000PLUS



With two spindles and two turrets, different machining methods can be performed with ease. Compound machining is possible resulting in short cycle time.

	Chuck Size	Machine	Attachment
Sub-spindle + Power Tools	5 inch (6)	<b>XY-120</b>	
Simultaneous 4-Axis Controller + Power Tools	6 inch	<b>XY-1000</b>	
Best for Processing Large Bar Materials	8 inch	<b>XY-2000PLUS</b>	

Recipient of the 39th Machine Design Award  
Special Award by Awarding Committee

### XYseries Machine Specifications

Item	Unit	XY-120		XY-1000		XY-2000 PLUS	
		Main-spindle	Sub-spindle	#1-spindle	#2-spindle	#1-spindle	#2-spindle
Chuck Size	inch	6	5	6		8	
Spindle bearing I.D.	mm	φ75(φ85)	φ65	φ85		φ100(φ120)	φ100
Spindle speed	min <sup>-1</sup>	Max.4,500 (6,000)		Max.5,000		Max.4,000	
Tool post type		12-station turret		12-station turret		12-station turret	
Max. stroke	mm	X:150 Z:330 Y:±30 A:380		X:162.5(160 : #2 turret) Z:450 Y:±30 A:475		X:170 Z:510 Y:±40	X:170 Z:510 A:570
Rapid traverse	m/min	X:18 Z:24 Y:12 A:18		X:18 Z:24 Y:12 A:30		X:18 Z:24 Y:12 A:30	
Spindle motor	kW	AC5.5/3.7 (7.5/5.5)	AC3.7/2.2	AC7.5/5.5		AC18.5/15	AC11/7.5
Dimensions(L×W)	mm	2,400×1,650		2,950×2,015		3,050×2,125	
Controller		TAKAMAZ & FANUC 18i-TB		TAKAMAZ & FANUC 18i-TB		TAKAMAZ & FANUC 31i-A	
Power to- Drill	mm	φ13		φ13		φ16	
ols capacity End mill	mm	φ13		φ13		φ16	
Tap	mm	M8		M8		M16	

※( ):Option



# USL WAVE series series

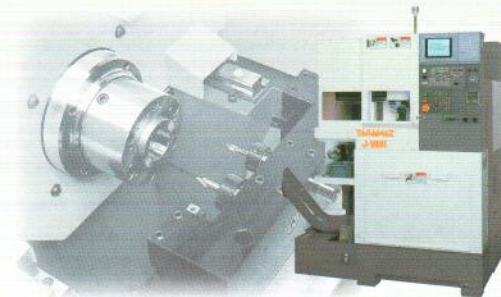
A futuristic slim design with an incredible space-saving design and with high quality and low price.

1-spindle 1-slide

(Horizontal linear type)



USL-480



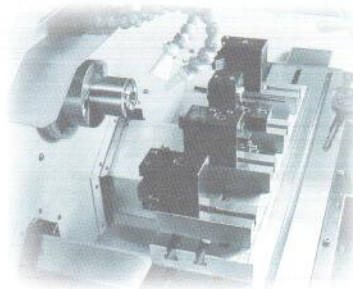
J-WAVE

# TURN series

The CNC Linear Turret lathe that provides thorough solutions for all requirements. The best in its class for swift rapid traverse.

1-spindle 1-slide

(Horizontal linear type)



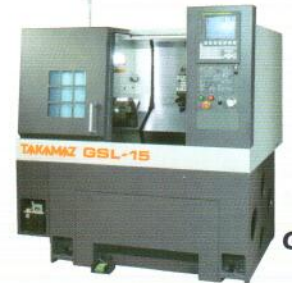
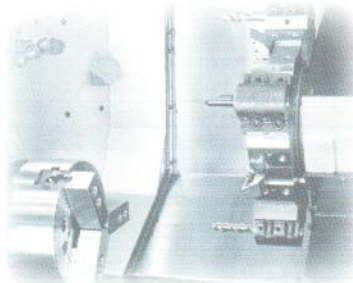
TOP-TURN II

# GSL

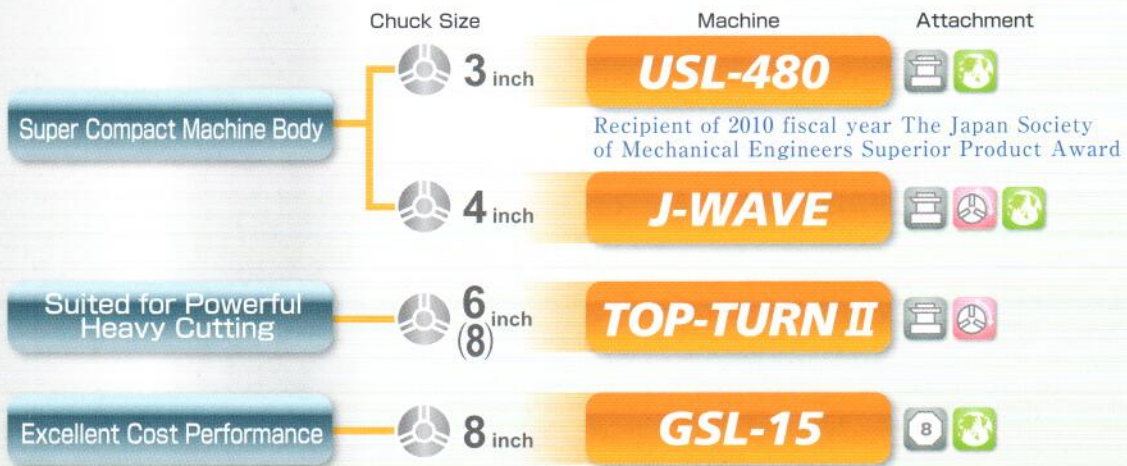
Global Strategy Lathe

A simple machine best in its class among manual operated machines, focusing the cost performance.

1-spindle 1-slide



GSL-15



## USL/WAVE/TURN/GSL Machine Specifications

Item	Unit	USL-480	J-WAVE	TOP-TURN II		GSL-15
				Type A	Type B	
Chuck Size	inch	3	4	6	8	8
Spindle bearing I.D.	mm	φ50	φ65	φ75	φ85	φ100
Spindle speed	min <sup>-1</sup>	Max. 10,000	Max. 4,500	Max. 6,000	Max. 4,500	Max. 3,500
Tool post type		Horizontal linear	Horizontal linear	Horizontal linear		8-station turret
Max. stroke	mm	X:160 Z:200	X:160 Z:160	X:300 Z:300		X:175 Z:330
Rapid traverse	m/min	X:12 Z:15	X:12 Z:12	X:12 Z:18		X:12 Z:16
Spindle motor	kW	AC5.5/3.7	AC3.7/2.2	AC7.5/5.5		AC7.5/5.5
Dimensions(LxW)	mm	480x1,810	1,160x1,055	1,820x1,510		1,600x1,460
Controller		TAKAMAZ & FANUC 21I-TB / TAKAMAZ & MITSUBISHI	TAKAMAZ & MITSUBISHI	TAKAMAZ & FANUC Oi-TC		TAKAMAZ & FANUC Oi mate-TD

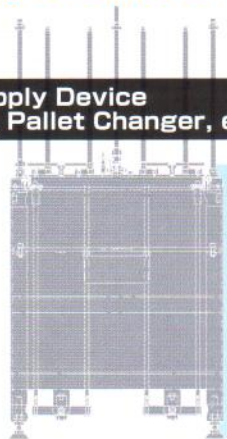
\*1 With Sub-spindle. \*( ) Option

# TAKAMAZ OPTION SYSTEM

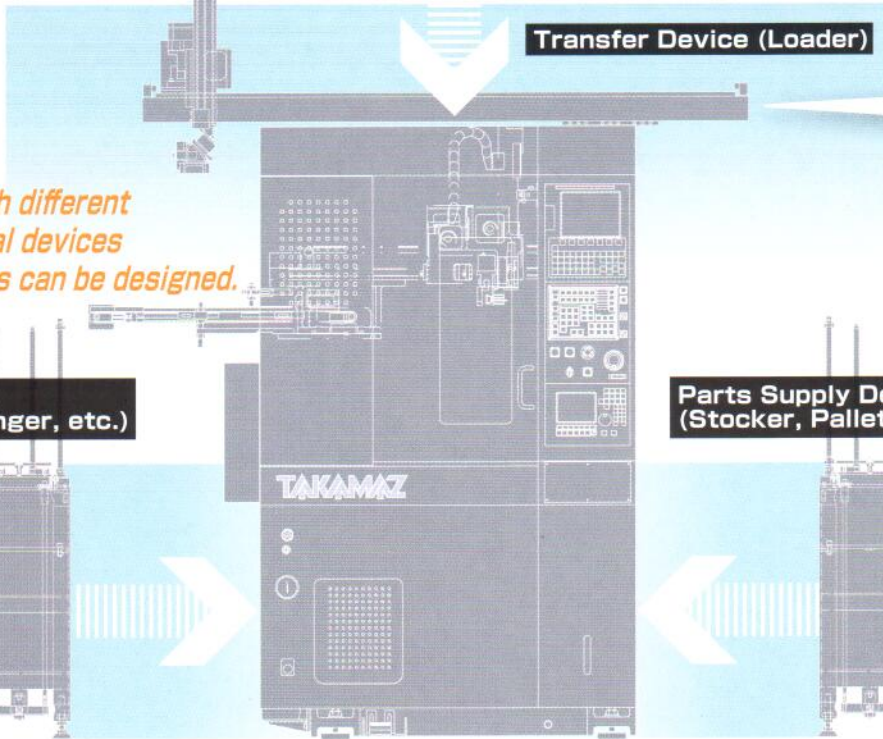
Through our wide knowledge and a variety of peripheral equipments to offer, we can meet customers' needs.

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

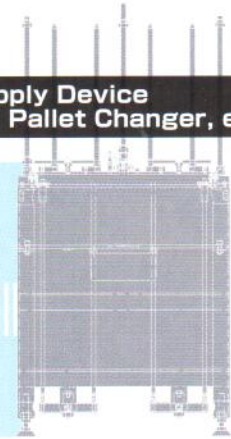
**Parts Supply Device (Stocker, Pallet Changer, etc.)**



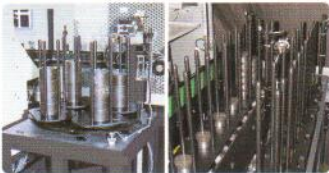
**Transfer Device (Loader)**



**Parts Supply Device (Stocker, Pallet Changer, etc.)**



## Automation Peripheral Devices



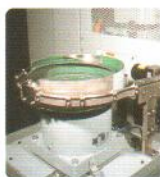
**Station stocker**  
Flexible Multi-layer stocker to accommodate different part diameter sizes.



**Flat stocker**



**Stocker for Shaft type parts**



**Parts feeder**  
A cylindrical stocker with minimum footprint for storing small parts.



**Tray changer**  
Workpieces can be stored together with the tray.

## Quality/Environment control unit



**External measurement instrument**  
Dimensional errors are fed back to the machine to maintain high dimensional accuracy.



**Cleaning unit**  
Without operator intervention, cleaning is performed automatically.

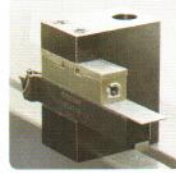


**Oil mist collector**  
Oil mist collection facilitates a clean production environment.



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

## Cutting efficiency/Chip disposal



**Alloyed Clamp Holder for vibrations 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 in the minimum space.



**Chip conveyor (Floor type)**  
Chips are reliably discharged outside the machine.



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



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



## TAKAMAZ Collet Chuck

The collet chuck developed and marketed under the TAKAMAZ brand is manufactured in the factory where an integrated system is used to streamline every part of the production, from machining to heat treatment. Collet run-off accuracy conforms to TAKAMAZ standard, which is even higher than Japanese Industrial Standards (JIS), allowing us to provide our customers with exceptionally dependable products.

● Standard included model

XC-100, XL-100, X-120, XW-80(M), XD-8(t)PLUS, XD-10i, XY-120, USL-480, J-WAVE

# TAKAMAZ LOADER SYSTEM

Encouraged from sales of more than 60 years, with "Integral loader" design philosophy in mind, TAKAMAZ will lead the consistent support service follow up and support system built on trust, leading to increased productivity.

Space Saving Accessory Devices

Improving Durability

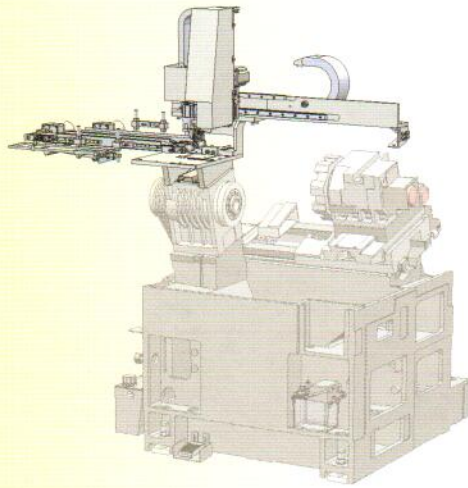
Pursuing of the Low Cost

Short Loading Time

Flexible System Line Configuration

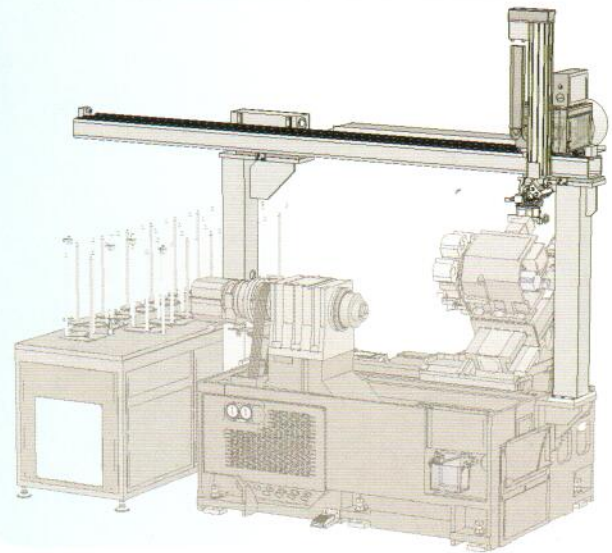
Improving Operability

## Compact Loader 《Σ60》



- Hi Speed Loader mounted on the machine to save space.
- A dedicated servo controller allows speedy setup.

## Gantry Loader 《ΣGH 150》



- Gantry-type servo loader with high rigidity.
- The traverse distance can be extended, ensuring extremely flexible line configuration and systemization of peripheral equipment.



Two connected compact loaders



Connected Gantry Loaders

Loader type		Compact Type						Gantry Type						
		WA30	MD50	ΣW30	ΣU30	ΣC60	Σ80	ΣGT60	ΣGT700	ΣG80/150	ΣGH80/150	SRT150	ΣGT150	
Model		J-WAVE	XD-8(t)PLUS	XW-30	USL-480	XC-100 XL-100	X-150 PLUS XD-10i	XW-80 XW-80M	X-5700	X-150 PLUS X-180 X-200 XD-10i	XC-100 XL-100 XC-150 X-150 PLUS X-180 X-120 TOP-TURN II	XW-150	XW-150	
Workpiece dimensions	Diameter(Max.)	mm	φ30	φ50	φ30	φ30	φ60	φ80	φ60	φ70	φ80/150	φ80/150	150	150
	Weight (per side)	kg	0.3	0.5	0.3	0.3	1.0	1.5	1.0	10 (20)	1.0/1.5	1.5	3.0	3.0
Shoulder <small>Traverse axis · Z-axis</small>	Stroke	mm	525	600	※1	※1	390	440	※1	※1	※1	※1	※1	※1
	Rapid traverse	m/min	45	75	80	70	84	90	110	90	90	155	100	130
Anteroposterior axis <small>X-axis</small>	Stroke	mm	—	—	—	—	—	—	200	260	—	—	—	—
	Rapid traverse	m/min	—	—	—	—	—	—	45	50	—	—	—	—
Arm <small>Vertical axis · Y-axis</small>	Stroke	mm	125	540	235	260 (235※2)	300	460	470	1,000	500/600	460/580	680 (340×2)	680 (340×2)
	Rapid traverse	m/min	—	75	80	60	71	90	75	90	90	125	90	120

※1 Depends on specifications. ※2 Two-jaw hand specifications. (USL-480 only)

# Service Network & Support

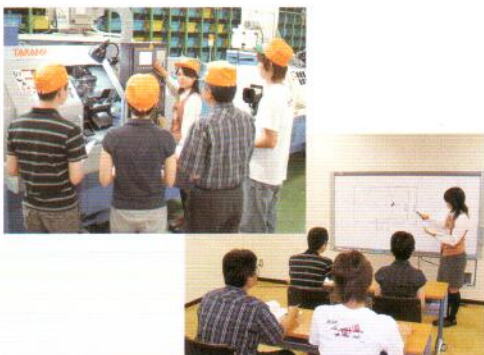
## Global Network Built Up on Reliability

**TAKAMAZ** aim is to create a corporate entity that can flexibly respond to the needs of our customers both at home and abroad. In order to do this, **TAKAMAZ** is active in collecting data about products and user needs and then utilizing them in the engineering process. This is our way of showing that the customer is a first priority.

One of our overseas strategies is to keep a close relationship with our customers by using a one agent system. We also emphasize a before and after sales system to help us keep in better touch with our customers and their continually changing needs. For customers not familiar with NC operation we also provide NC training in operation and maintenance.

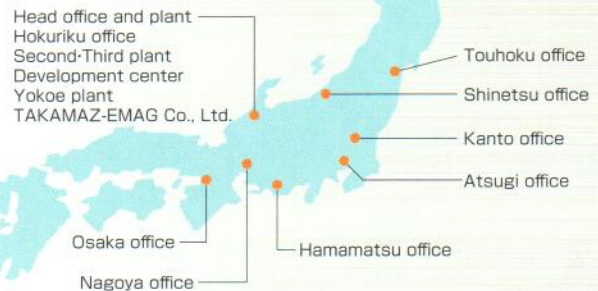


Flourishing domestic exhibitions



NC schooling as part of our after-care services

### Domestic network



### Overseas network



To meet the globalization of business, TAKAMAZ has established sales offices in USA, Europe, Thailand and China to strengthen overseas activities.

# TAKAMAZ

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Precautionary Remarks in connection with the Export Trade Control Ordinance  
The export of this product is subject to an authorization from the government of the exporting country.  
Check with the government agency for authorization.

The product shipped to you (the machine and accessory equipment) has been manufactured in accordance with the laws and standards that prevail in the relevant country or region. Consequently it cannot be exported, sold, or relocated, to a destination in a country with different laws or standards.

Specifications and accessories are subject to change without notice.  
Standard specifications of the machine may differ according to destinations.



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