COMPOSITE
INTELLIGENCE
LARGE SCALE
AUTOMATION

30 Types of Series with **500** Types of Models
GOODWAY Turning Centers
Bring YOU Extraordinary Achievements

Brand New Exterior Design
COMING SOON !

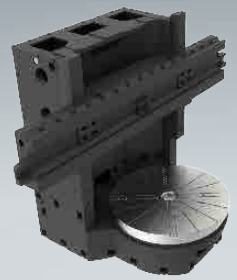
SUPER GV series

Vertical Turning Centers

Max. Work-Piece Weight
Reach up to 300,000 kg

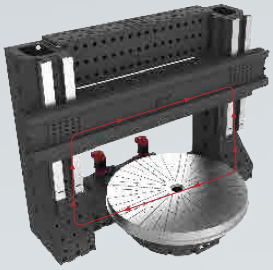
- Max. turning diameter can reach up to Ø 9,000 mm ; max. turning height 5,000 mm*1
- The bed, column and bridge casting components are integrated with Meehanite casting which ensures heavy duty cutting applications.
- Big size of Ram design for tooling spindle with the optional dual Ram structure which provide diverse machining modes.
- Adequate cross roller bearings or hydrostatic bearings for work-piece spindle supplied by different models. Max. work-piece weight can reach up to 300,000 kg*1
- 16 T / 24 T umbrella type magazine is designed by servo tool change which provides bi-directional tool selection, low noise and accurate positioning advantages.
- Optional live tooling spindle provides multiple turning, includes turning, milling and grinding ability.

*1 : GV-8000 series



One-piece Column structure (GV-2000 ~ GV-2500)

The one-piece column & bridge is firmly mounted on top of the bed, whi ch ensures machine overall rigidity and minimizes spindle overhang to provide optimal machining accuracy.

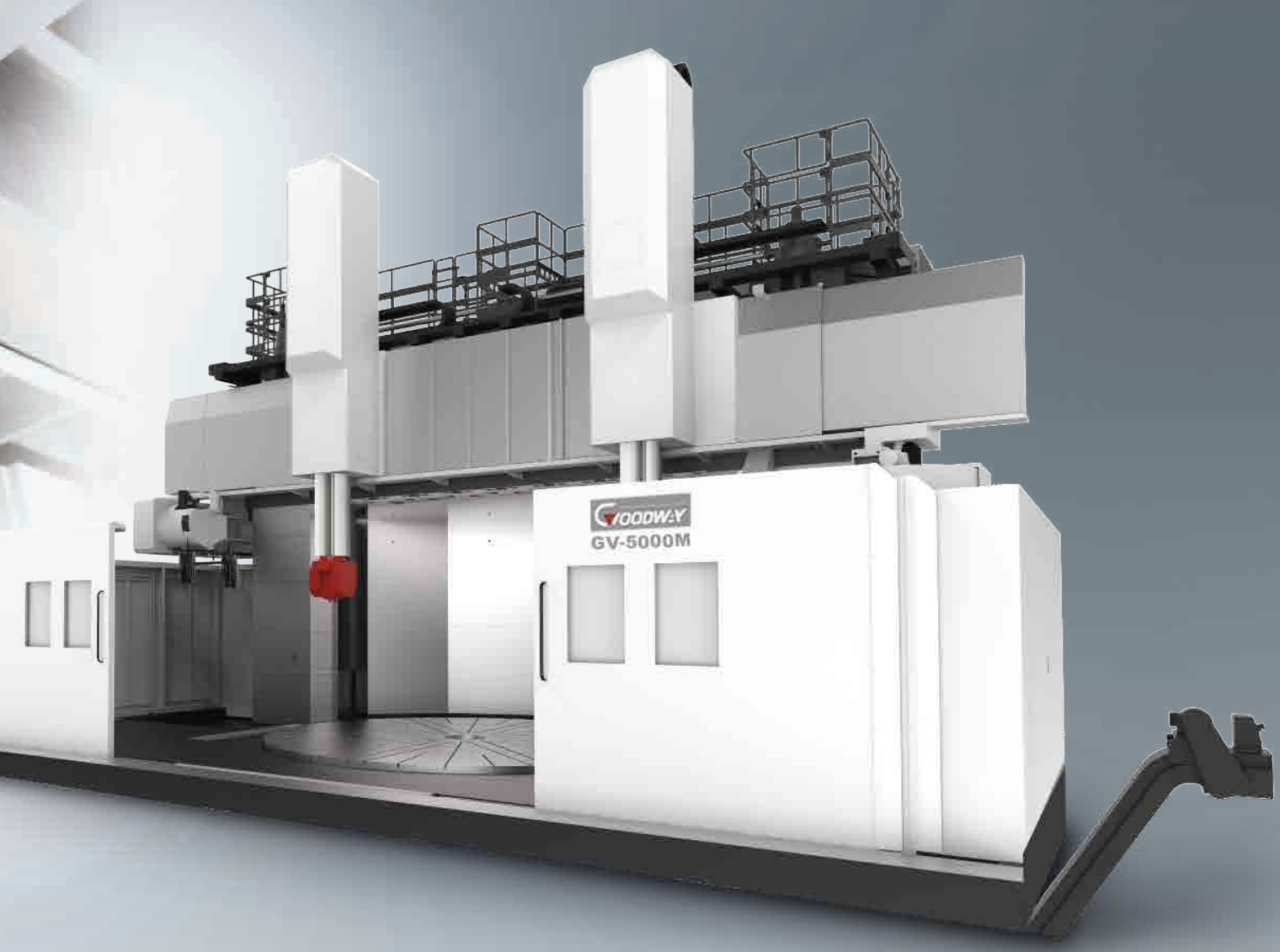


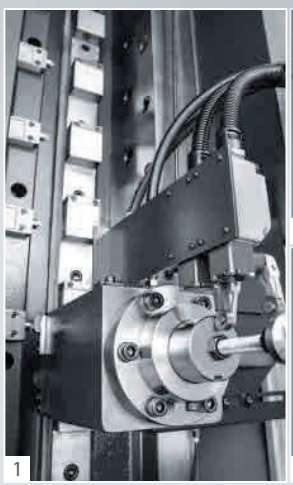
Bridge Type Structure (GV-3000 ~ GV-8000)

The super rigid construction of the base, columns and cross beam can easily fulfill heavy load and cutting requirements.

		GV-2000	GV-2500	GV-3000	GV-3500
Table diameter	mm	Ø 2,000	Ø 2,500	Ø 3,000	Ø 3,500
Max. turning diameter	mm	Ø 2,300	Ø 2,800	Ø 3,500	Ø 4,000
Max. work-piece weight	kg	10,000	15,000	20,000 / 45,000	
Work-piece spindle output (cont./30min)	kW	60 / 75		(40 / 66) x 2 , Opt. (60 / 84) x 2	
Live tooling spindle output*1 (cont./30min)	kW	11 / 15		15 / 20.5 , Opt. 17 / 22.5	
X-axis travel	mm	2,830	3,080	3,950	4,450
Z-axis travel	mm	1,200		1,500 / 1,800	
W-axis travel	mm	1,200 / 1,600		1,200 / 2,000 / 2,800	

*1 Optional

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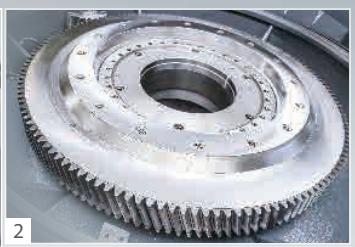
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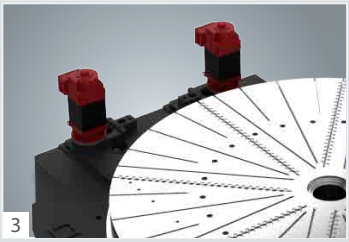
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1 W-axis driven by a set of symmetric ball screws with servo motors. After precise positioning, two sets of live locking bolts will be locked by a hydraulic clamping force to support the cross beam and ensure the overall rigidity.

2 Work-piece spindle adopts hydrostatic bearings design which can easily drive the rotary table without high torque output while maintaining great dynamic accuracy.
(GV-5000 ~ 8000)

3 The Cs-axis is driven by double spindle motors which eliminates gear backlash and provide twice torque output. The repeatability can reach up to ±5" (GV-3000 ~ 8000)

		GV-4000	GV-4500	GV-5000	GV-6000	GV-7000	GV-8000
Table diameter	mm	Ø 4,000	Ø 4,500	Ø 5,000	Ø 6,000	Ø 7,000	Ø 8,000
Max. turning diameter	mm	Ø 4,500	Ø 5,200	Ø 6,000	Ø 7,000	Ø 8,500	Ø 9,000
Max. work-piece weight	kg	30,000 / 60,000		100,000	150,000	250,000	300,000
Work-piece spindle output (cont./30min)	kW	(40 / 66) x 2 , Opt. (60 / 84) x 2		(60 / 84) x 2 , Opt. (100 / 140) x 2			
Live tooling spindle output*1 (cont./30min)	kW	17 / 22.5 , Opt. 22 / 30					
X-axis travel	mm	4,950	5,450	5,565	6,715	8,765	9,015
Z-axis travel	mm	1,500 / 1,800		1,600 / 2,000		1,600 / 2,000 / 2,500	
W-axis travel	mm	1,200 / 2,000 / 2,800		1,600 / 2,400 / 3,200		1,600 / 2,400 / 3,200 / 4000	

Specifications are subject to change without notice.

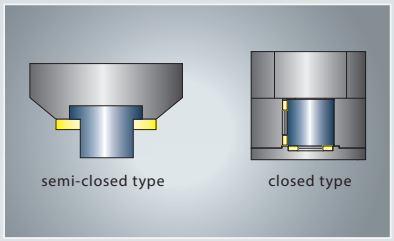
GV–1 series

Vertical Turning Centers

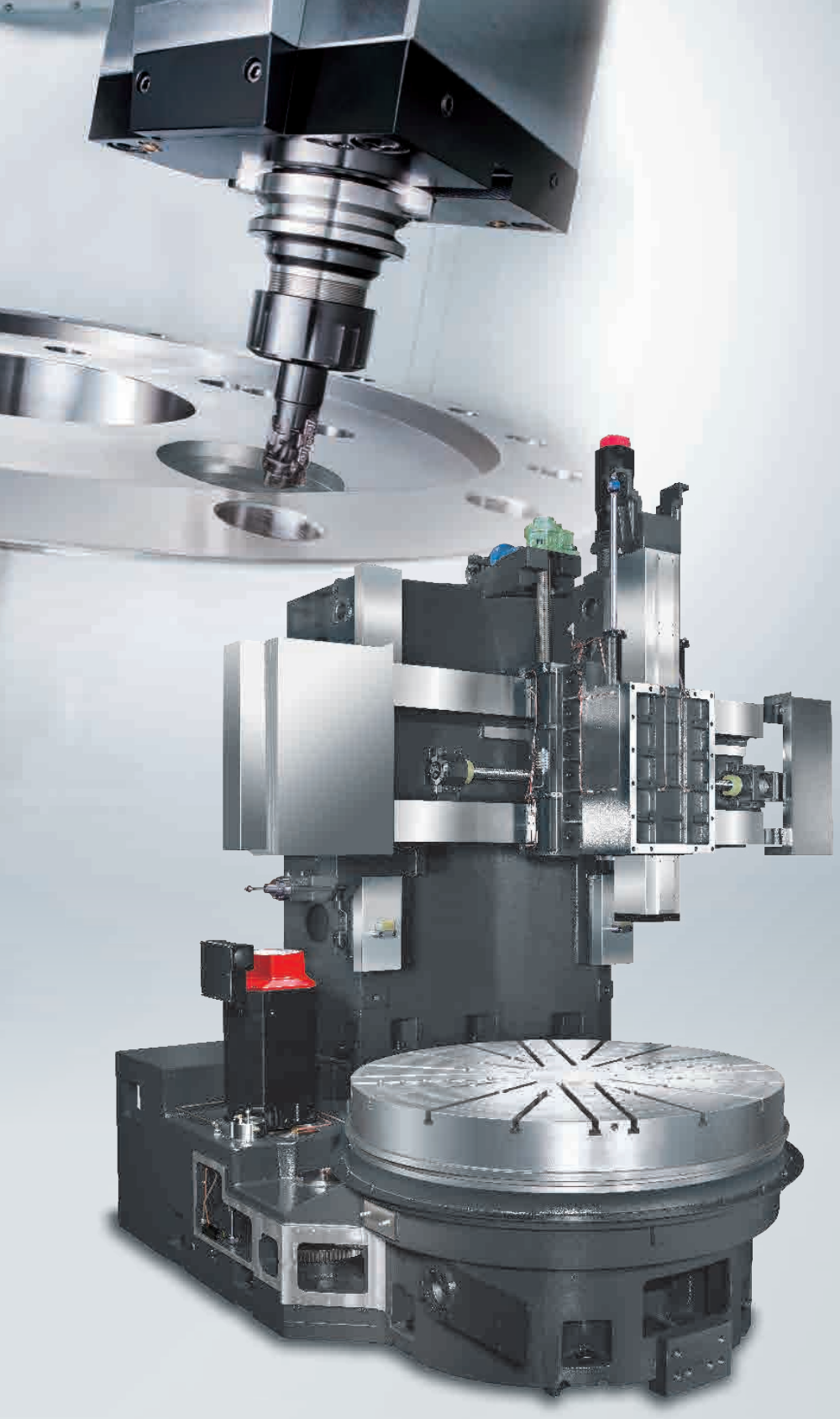
Turning, Milling and Grinding All in One

- The bed, column and bridge casting components are integrated with Meehanite casting which ensures heavy-duty cutting capacity.
- 2-speed gear box with reducer device of live tooling spindle provides max. torque output 492 N-m, and max. spindle speed 2,400 rpm. (Opt.)
- The work-piece spindle uses the high rigidity, high precision crossed roller bearings can sustain high radial, axial and torque load.
- 16T / 24T umbrella type magazine is designed with cam movement mechanism which provides bi-directional tool selection, low noise and accurate position advantages.
- Plenty room for operation is more convenient for operator to work. And the work-piece can hang and fix on the table directly by overhead crane.

- Super large 900L coolant tank capacity allows smooth coolant circulation and easy maintenance.



The square ram on the tooling spindle with a closed-type design featuring 4 sets of powerful wedges provide greater structural rigidity and machining accuracy than semi-closed square ram structure.

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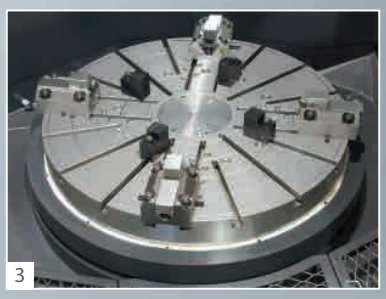
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1 W-axis driven by a set of symmetric ball screws with servo motors. After precise positioning, two sets of live locking bolts will be locked by a hydraulic clamping force to support the cross beam and ensure the overall rigidity.

2 Work-piece spindle adopts 45 kW high power spindle and driven 2-step gear box, which provide max. torque 24,100 N-m (GV-1600)

3 Standard 4-jaws individual manual chuck provides easy set-up and great heavy-duty cutting capability.

		GV-1200	GV-1600
Table diameter	mm	Ø 1,250	Ø 1,600
Max. swing diameter	mm	Ø 1,600	Ø 2,000
Max. turning diameter	mm	Ø 1,350	Ø 1,800
Max. turning height	mm	1,300	
Table load capacity	kg	5,000	8,000
Work-piece spindle output (cont./30min)	kW	37 / 45	
Live tooling spindle output (cont./30min)	kW	11 / 15	
X / Z axes travel	mm	935 / 900	1,160 / 900
W-axis travel	mm	800	

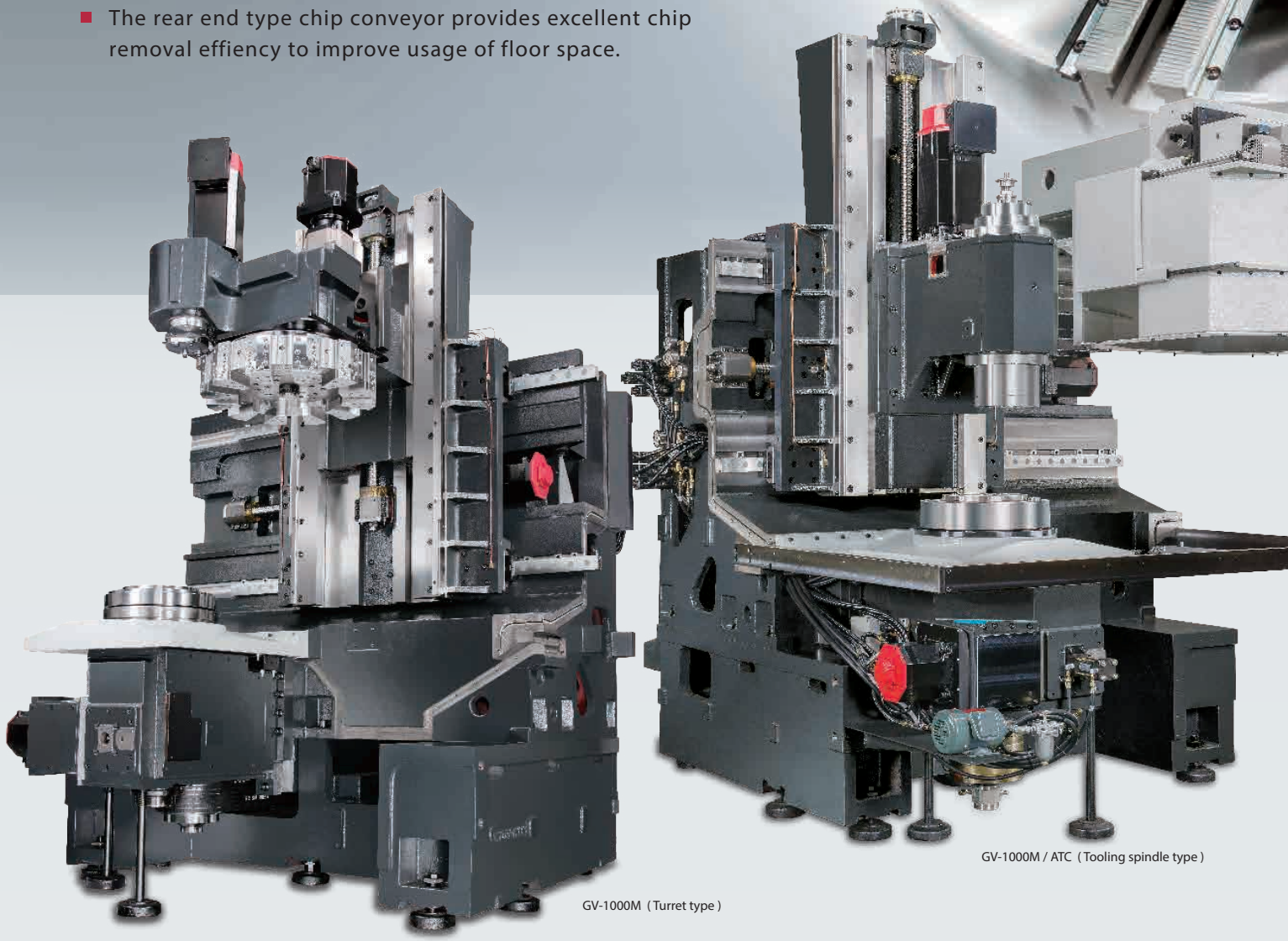
Specifications are subject to change without notice.

GV-1000 series

Vertical Turning Centers

High Rigid Construction
The Ultimate Turning Power

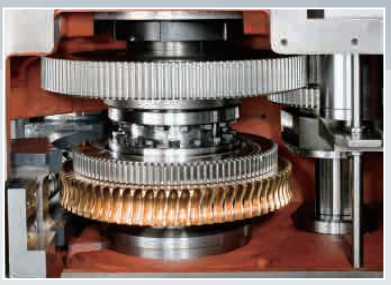
- Meehanite grade casting of base and column with good thermal equilibrium to extent long-lasting service life.
- Ø 320 mm curvic coupling precise positioning with Ø 600 mm large turret disc to ensure the rigidity of turret under any turning conditions.
- X / Z axes are driven by intelligent servo motors. The rapid feed rate are 24 / 20 m/min, and cutting feed rate can reach 18 m/min.
- According to ergonomics design, the spindle nose to floor is designed 1,080 mm and the spindle center line to the operator door is 671 mm.
- The rear end type chip conveyor provides excellent chip removal effiency to improve usage of floor space.



GV-1000M / ATC (Tooling spindle type)

GV-1000M (Turret type)

X-axis uses the high rigidity, roller type linear ways which have both advantages of the rigidity of box way and rapid movement of linear guide way.



The 2-step gear box produces 30 kW of output with over 3,138 N-m of torque.

Optional ER 50 12-station live tooling turret only spins when working, which can save energy and prevent damaged of mechanical device.

		GV-1000 (Turret type)
Max. swing diameter	mm	Ø 1,020
Max. turning diameter	mm	Ø 1,000
Max. turning height	mm	760
Chuck size		Ø 15" ~ 24" (Opt. : Bearing diameter Ø 160 mm) Ø 18 " ~ 32" (Opt. : Bearing diameter Ø 200 mm)
Spindle nose		A2-11 (Opt. A2-15)
Spindle motor output (cont./30min)	kW	22 / 30
X / Z axes travel	mm	525 / 765
X / Z axes rapid feed rate	m/min	24 / 20

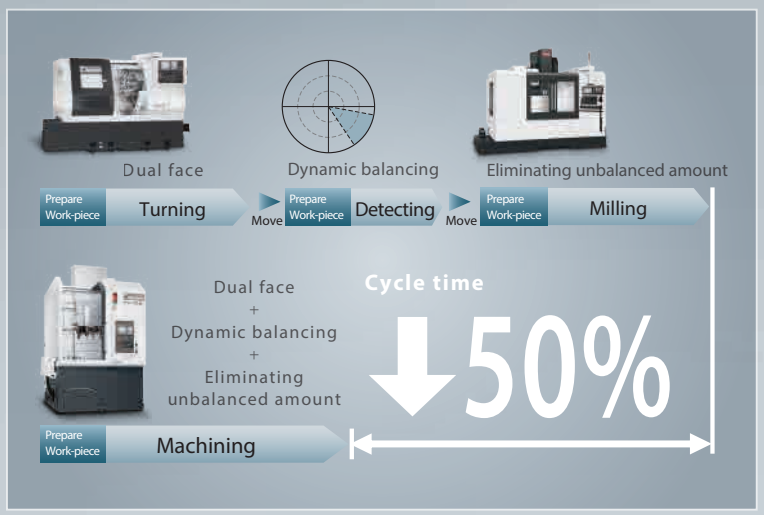
Specifications are subject to change without notice.

GV-780 series

Vertical Turning Centers

Multi-Tasking All in One Work-Piece Balancing Analyer (WBA)

- Spindle power can reach up to 22 kW, or high torque ZF Gear type spindle torque output reaches 2,817 N-m (Opt.)
- 8 / 12 station servo turret ; optional 12-station live tooling turret is available with C-axis control capabilities to become multi-tasks machine.
- One-piece bed and column casting with precision hand scrapped provides structural rigidity and load distribution.
- X / Z axes use roller type linear guide ways which provides high rigidity and fast movement.
- The rear-exit chip conveyor provides excellent chip removal effiency and improves floor space usage.
- The cutting time is 50% shorter when using the GOODWAY dual-face turning holders. (Opt.)



- The optional WBA allows work-piece can be evaluated online, then eliminate the unbalanced amount with C-axis, which save lots of operation time and prevent accuracy error from the process.

		GV-780
Max. swing diameter	mm	Ø 850
Max. turning diameter	mm	Ø 820
Max. turning height	mm	660
Chuck size		Ø 15"/ 18" (Opt.)
Spindle nose		A2-11
Spindle motor output (cont./30min)	kW	18.5 / 22
X / Z axes travel	mm	500 / 670
X / Z axes rapid feed rate	m/min	20

Specifications are subject to change without notice.

GV-500 series

Vertical Turning Centers

Various Automations High Productivity Goal

- Super compact machine size 3.3 m^2 with tough cutting ability.
- 3,000 rpm high performance spindle system, or ZF gear type spindle is also available to provide max. torque of 1,821 N-m.
- 8 / 12 station servo turret ; optional 12-station live tooling turret with C-axis is available.
- One-piece base & column structure combines with high precision hand scraped to maximum the structure strength.
- X / Z axes use high rigidity roller linear guide ways which provides high accuracy, fast movement and low abrasion advantages.

- GV-500X adopts twin spindles & turrets design featuring load & unloading system and work-piece flipping device, which task can all be completed at once to reduce setting error and increase production efficiency.

		GV-500
Max. swing diameter	mm	Ø 650
Max. turning diameter	mm	Ø 620
Max. turning height	mm	520
Chuck size		Ø 12"/ 15" (Opt.)
Spindle nose		A2-8
Spindle motor output (cont./30min)	kW	15 / 18.5
X / Z axes travel	mm	350 / 550
X / Z axes rapid feed rate	m/min	20

Specifications are subject to change without notice.

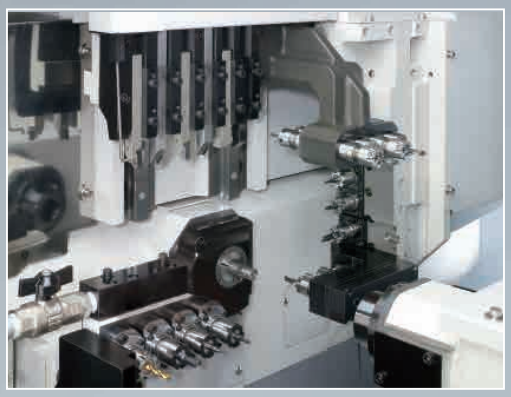
SW series

SWISS Turning Centers

Various Tooling Systems Unbeatable Machining Ability

- Max. machining diameter is from Ø20 ~ Ø42 mm. Sub-spindle carries the same processing capability as main spindle.*1
- Module bush design can be exchanged to be bush type, bushless type or replaceable bush type.*2
- Spindle uses rotary hydraulic cylinder which can firmly clamp the work-piece and provide fast response.
- Complete tooling systems. Front-end, side and rear-end cutting and milling can be completed in one process.*1
- Sub-spindle can be equipped with independent U-Drill device, which provides sufficient deep hole drilling capability without taking any station of tool system.

*1 Sub spindle is optional accessories *2 There are some differences depending on the model.



SW series tooling system

				SW-20	SW-32	SW-42
Working range	Max. machining diameter		mm	Ø 20	Ø 32	Ø 42
	Max. chuck movement	Bush	mm	207	315	110 (Bushless)
		Bushless	mm	120	315	
	Backwork processing length		mm	80	130	110
Max. speed	Spindle		rpm	10,000	7,000	6,000
	Sub-spindle		rpm	8,000	7,000	6,000
Number of tools	O.D. tools			6	6	5
	I.D. tools			4	4	5
	Side live tool			5 ~ 10	5 ~ 10	4 ~ 6
	Back working tool			4	4	4
Dimensions	O.D. tools		mm	□ 12	□ 16	□ 20
	I.D. tools		mm	Ø 10	Ø 13	Ø 13

Specifications are subject to change without notice.

SD series

SWISS Turning Centers

Fast Processing For Micro Work-pieces

- Max. machining diameter is Ø16 ~ Ø20 mm, max. chuck movement is 175 mm.
- Designed with pneumatic system which is environment friendly, safety, and easy maintenance.
- Adopted bush type to ensure the machining accuracy of long work-piece.
- Equipped with sub-spindle and automatic loading&unloading systems. From loading to unloading can process continuely to save manpower cost. (Opt.)

SD series tooling system

			SD-16	SD-20
Working range	Max. machining diameter	mm	Ø 16	Ø 20
	Max. chuck movement Bush	mm	175	175
	Backwork processing length	mm	80	80
Max. speed	Spindle	rpm	10,000	10,000
	Sub-spindle	rpm	8,000	10,000
Number of tools	O.D. tools		6 / 5 (Opt.)	6
	I.D. tools		4	4
	Side live tool		2 / 3 (Opt.)	4
	Back working tool		4	4
Dimensions	O.D. tools	mm	□ 12	□ 12
	I.D. tools	mm	Ø 10	Ø 10

Specifications are subject to change without notice.

GMS series

5-Axis Turning Centers

5-Axis Simultaneous Machining Almighty Turning Centers

- 9-axis control with 5-axis simultaneous turing, any difficult cutting tasks can be overcomed easily.
- Tooling spindle and turret support 1st spindle and 2nd spindle, which provides high efficiency processing modes.
- 1st spindle and 2nd spindle are designed by the same specification and driven by bulit-in spindle motor to ensure the accuracy of long processing time and increase the using time of spindle.
- Z1-axis and Z2-axis adopt box way and linear guide way respectively to satisfy the different processing features.
- Y-axis saddle and bed are 90˚ orthogonal design which makes the center of gravity keep on the bed to ensure the cutting rigidity.
- With the optional GOODWAY 3D simulation program can avoid the crush accidents caused by program mistake.

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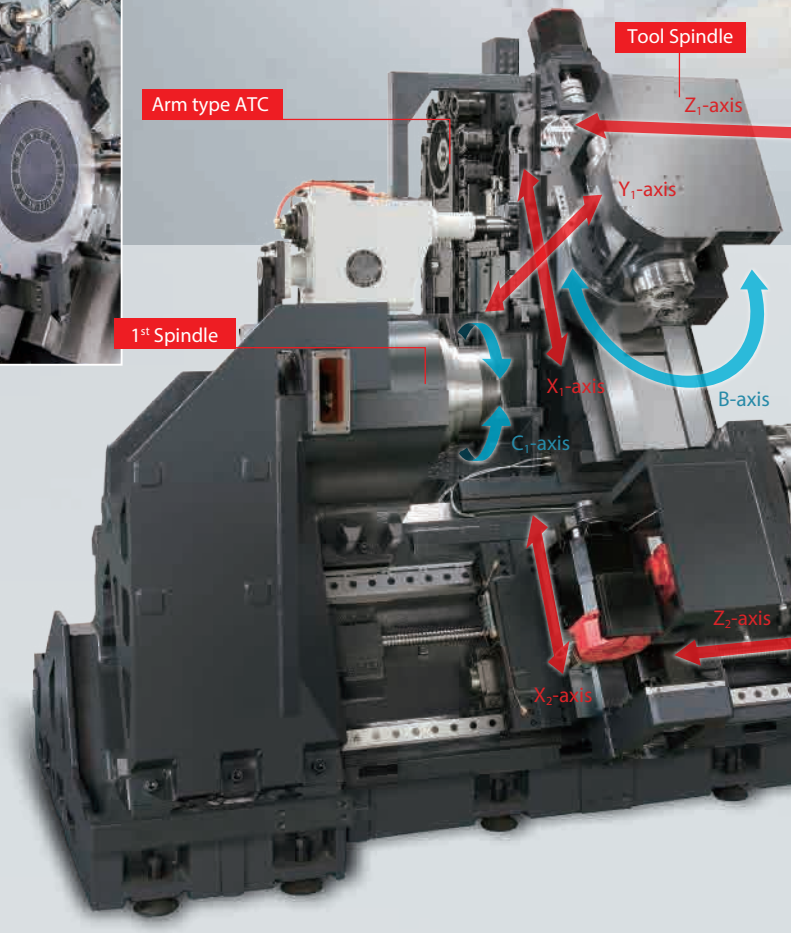
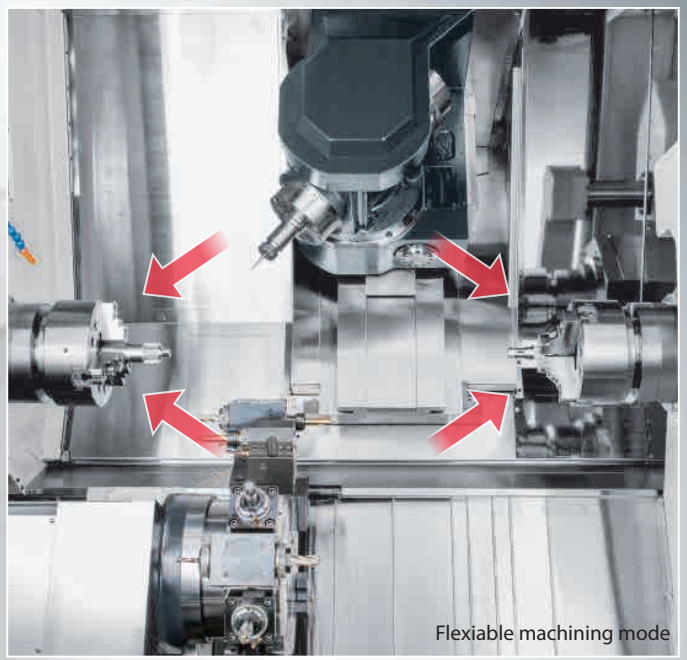


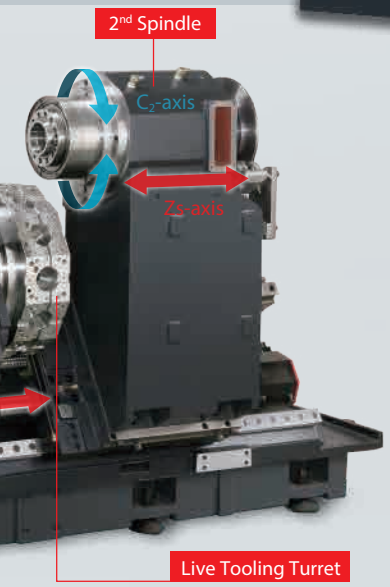
1 Tool spindle uses triple plate curvic coupling with worm gear drive structure. Swiveling range: ±120° Indexing resolution: 0.001°

2 Arm type ATC uses servo index mechanism, and the index time only needs 1.5 second. (T-T)

3 Live tooling turret can be installed ER40 live tools, and the index time just needs 0.3 second.



Flexiable machining mode

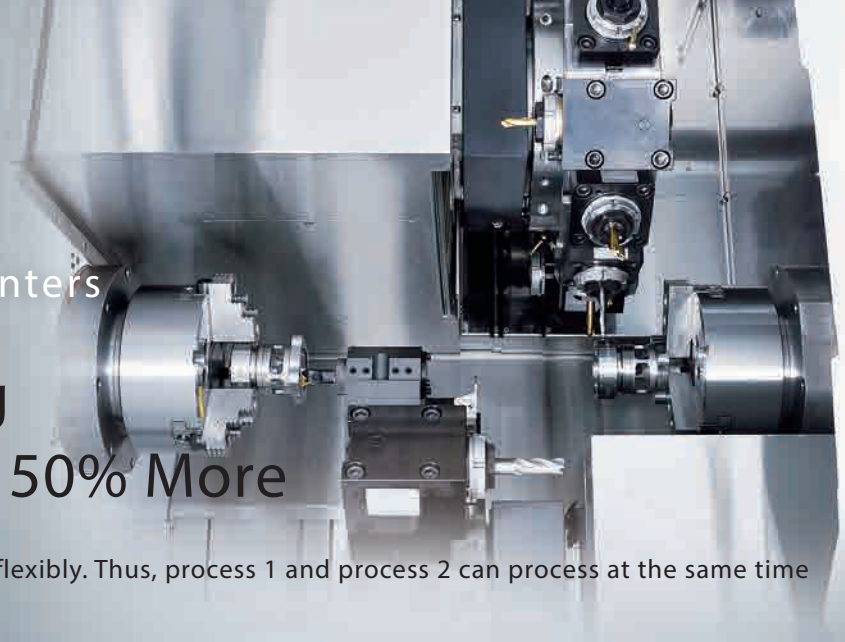


		GMS-2000ST	GMS-2600ST
Max. swing diameter	mm	Ø 900	
Max. turning diameter	mm	Tool spindle：Ø 550 Turret：Ø 340	
Max. turning length	mm	Tool spindle：1,100 (8"), 1,094 (10") Turret：960 (8"), 960 (10")	
Chuck size		Ø 8"	Ø 10"
Bar capacity	mm	Ø 51	Ø 65
Hole through spindle	mm	Ø 61	Ø 76
Spindle motor output (cont. / 30 min)	kW	22 / 25	
Tool spindle taper		KM 63 / HSK-T63	
Shank of Tool		☐ 25 / Ø 40 mm / ER 32	
Magazine capacity / Turret station		24 (40 Opt.) / 15	

Specifications are subject to change without notice.

GTZ series

Multi-Tasking Turning Centers



Flexible Processing
Productivity Gain 150% More

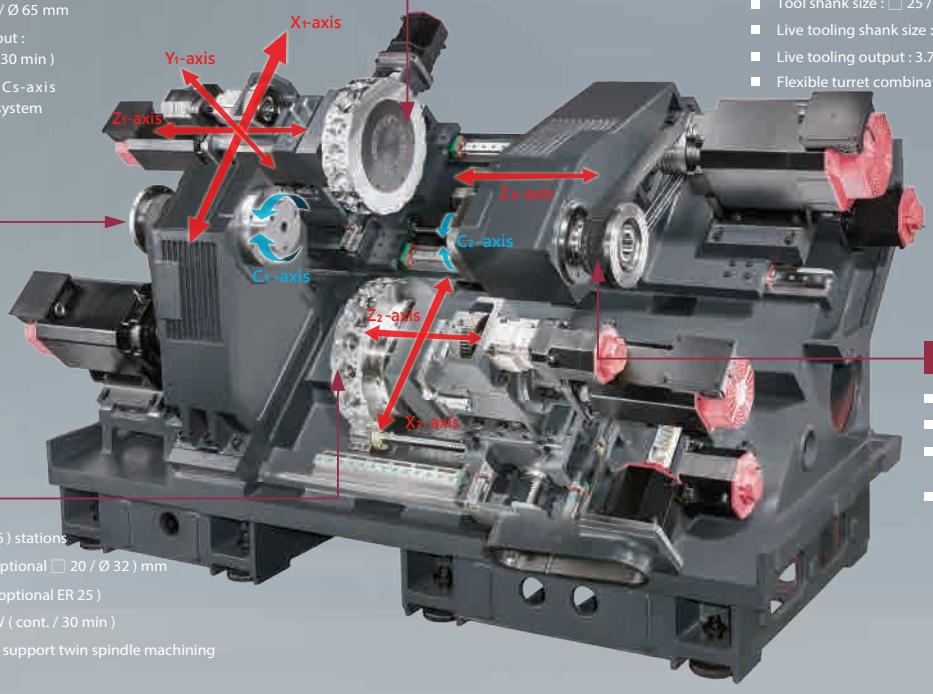
- Upper and lower turret can be arranged flexibly. Thus, process 1 and process 2 can process at the same time to increase the production capability.
- Upper and lower turret can process the long bar simultaneously to decrease the cycle time and increase roundness of work-piece.
- The low center of gravity 45° slant bed design provide a super rigid foundation for the headstock and turret.
- With the optional 16-station live tooling turret, maximum tool station capacity is up to 32 tools, which can easily satisfy various machining requirements.

First spindle

- Chuck size : 6" / 8"
- Bar capacity : Ø 51 / Ø 65 mm
- Spindle motet output : 11 / 15 kW (cont. / 30 min)
- High resolution Cs-axis close-loopcontrol system

Upper turret

- Turret capacity : 12 (optional 16) stations
- Tool shank size : □ 25 / Ø 40 (optional □ 20 / Ø 32) mm
- Live tooling shank size : ER 32 (optional ER 25)
- Live tooling output : 3.7 / 5.5 kW (cont. / 30 min)
- Flexible turret combination can support twin spindle machining



Second spindle

- Chuck size : 6" / 8"
- Bar capacity : Ø 51 / Ø 65 mm
- Spindle motet output : 11 / 15 kW (cont. / 30 min)
- High resolution Cs-axis close-loop control system

Lower turret

- Turret capacity : 12 (optional 16) stations
- Tool shank size : □ 25 / Ø 40 (optional □ 20 / Ø 32) mm
- Live tooling shank size : ER 32 (optional ER 25)
- Live tooling output : 3.7 / 5.5 kW (cont. / 30 min)
- Flexible turret combination can support twin spindle machining

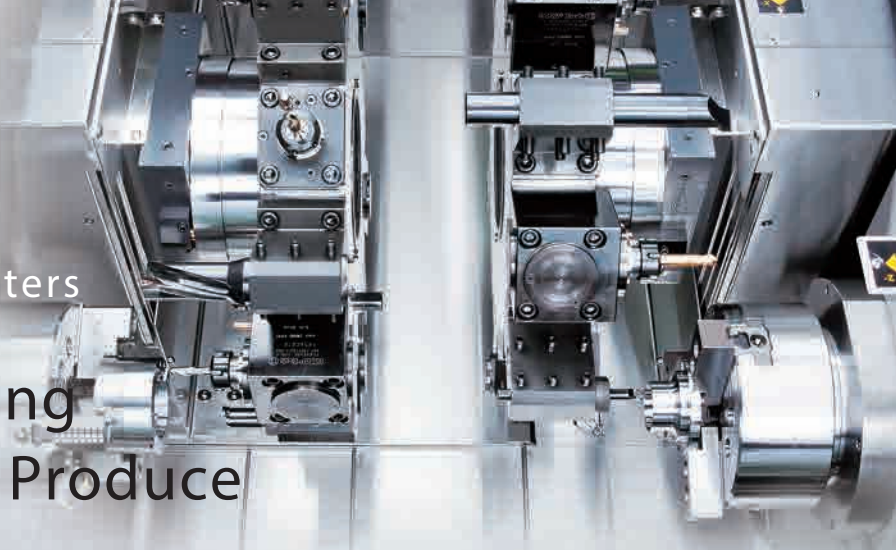
		GTZ-2000	GTZ-2600
Max. swing diameter	mm	Ø 270	
Max. turning diameter	mm	Ø 250	
Max. turning length	mm	604 (615) *1	592 (603) *1
Chuck size		6"	8"
Spindle motor output (Cont. / 30 min)	kW	11 / 15	
Turret / Live tooling turret station	rpm	12 + 12 (Opt. 16 + 16)	
X1 / X2 / Z1 / Z2 axes travel	mm	195 / 210 / 620 / 620	
Y-axis travel	mm	100 = ±50	
X / Z axes rapid feed rate	m/min	24	

*1 16 turret station

Specifications are subject to change without notice.

GTS series

Multi-Tasking Turning Centers



One Setup Processing Automaticaly Mass Produce

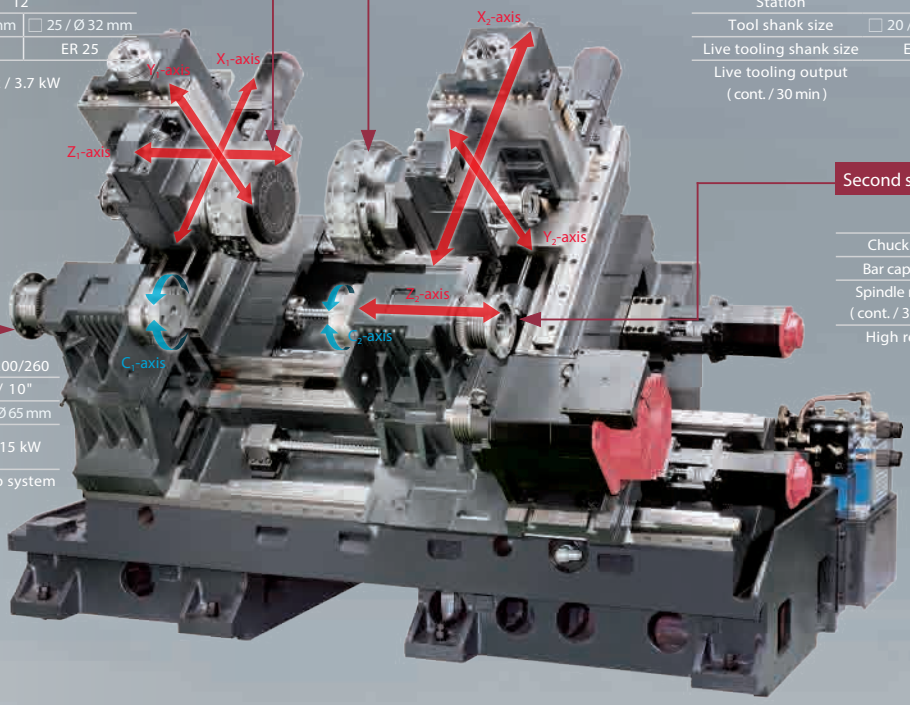
- 4-axis simultaneous turing, or optional twin Y axes maximize ability up to 8-axis control.
- The efficiency of twin spindles and twin turrests machine equals 2 turning centers.
- Featuring automatic loading & unloading system greatly reduce the manpower and the movement error of work-piece.
- The low center of gravity 45° slant bed design provide high rigidity foundation for the headstock and turret.

First turret

	GTS-150	GTS-200/260
Station	12	
Tool shank size	□ 20 / Ø 25 mm	□ 25 / Ø 32 mm
Live tooling shank size	ER 20	ER 25
Live tooling output (cont. / 30 min)	2.2 / 3.7 kW	

Second turret

	GTS-150	GTS-200/260
Station	12	
Tool shank size	□ 20 / Ø 25 mm	□ 25 / Ø 32 mm
Live tooling shank size	ER 20	ER 25
Live tooling output (cont. / 30 min)	2.2 / 3.7 kW	



Second spindle

	GTS-150	GTS-200/260
Chuck size	6"	8" / 10"
Bar capacity	Ø 42 mm	Ø 51 / Ø 65 mm
Spindle motor (cont. / 30 min)	5.5 / 7.5 kW	11 / 15 kW

High resolution Cs-axis closed loop system

First spindle

	GTS-150	GTS-200/260
Chuck size	6"	8" / 10"
Bar capacity	Ø 42 mm	Ø 51 / Ø 65 mm
Spindle motor (cont. / 30 min)	5.5 / 7.5 kW	11 / 15 kW

High resolution Cs-axis closed loop system

		GTS-150	GTS-200 / 260
Max. turning diameter	mm	Ø 180	Ø 280
Max. turning length	mm	180 ~ ∞	200 ~ ∞
Chuck size		Ø 6"	Ø 8" / 10"
Bar capacity	mm	Ø 42	Ø 51 / 65
Spindle nose		A2-5	A2-6 / A2-8
Spindle motor output (Cont. / 30 min)	kW	5.5 / 7.5	11 / 15
X1 / X2 axes travel	mm	155	190
Z1 / Z2 axes travel	mm	180 / 500	270 / 740
Y-axis travel	mm	±30	± 60
Guide way		Linear	Box

Specifications are subject to change without notice.

GTH series

Parallel Twin Spindle, Turrets Turning Centers

First Choice of Automotive Industry New Arrival !!

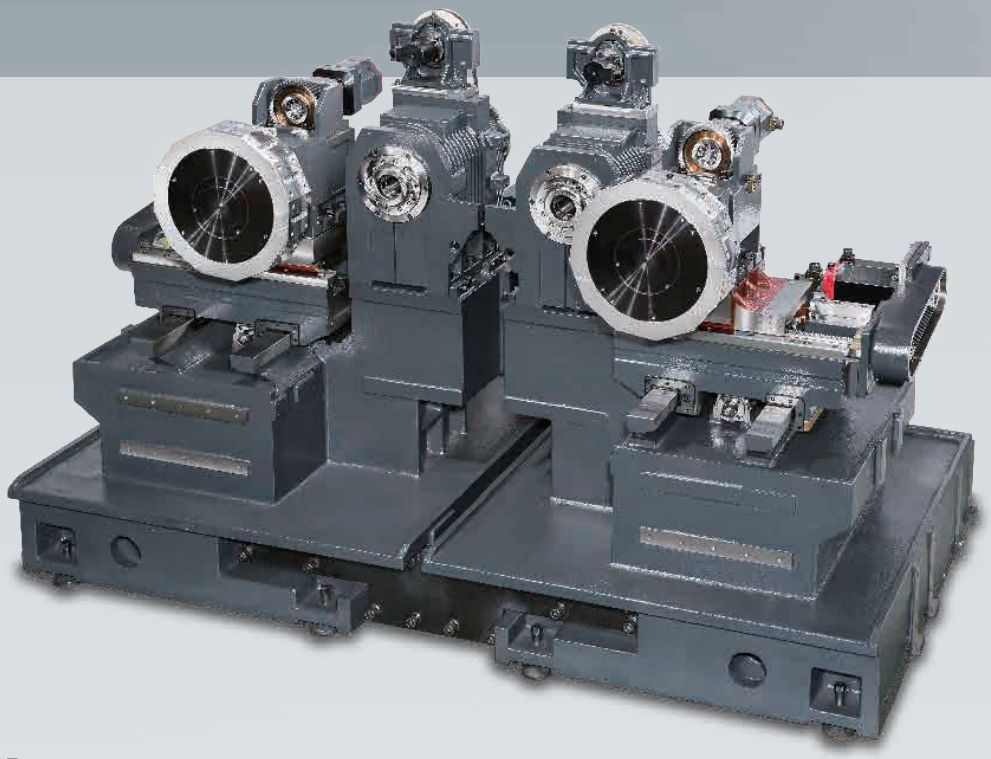
- Parallel twin spindles and twin turrets structure can effectively reduce turret interference to fulfill all kinds of plate-shape work-piece machining needs.
- Loading & unloading can be modularized to achieve the optimal production efficiency.
- The maximum clamping load capacity of robot arm for gantry type loading/unloading system is 3.0 Kg.-/jaw. and the rapid feed rate of X-axis are 2,500 mm/sec. With the optional Goodway made work-piece detecting system can achieve unmanned manufacturing facility.
- Spindle can be equipped with detector of pneumatic work-piece positioning to ensure the positioning accuracy and safety while loading & unloading.

Engaging work-piece

Unloading / loading

Flipping work-piece

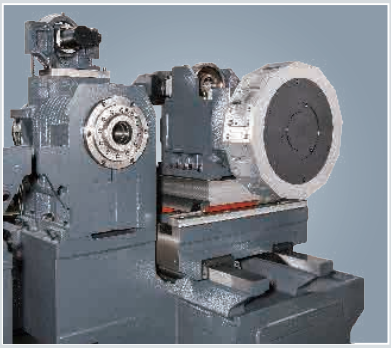
Work-piece detection / unloading



High rigidity structure

- Parallel twin spindles, twin turrets structure adopts modular isolating bed design which can efficiently decrease cutting resonance of two spindle systems to ensure machining accuracy.
- X / Z axes adopt high rigidity box ways design which is through heat treatment and precise finishing processes provides the demands of heavy cutting and interrupted turning.

Full travel support on X-axis saddle ensures the minimum overhang of turret to increase cutting rigidity



		GTH-2600
Max. turning diameter	mm	Ø 300
Max. turning length	mm	205
Chuck size		10"
Spindle motor output (Cont. / 30 min)	kW	11 / 15
Spindle speed	rpm	4,000
Turret / Live tooling turret station		12
X / Z axes travel	mm	195 / 220
X / Z axes rapid feed rate	m/min	24

Specifications are subject to change without notice.

HA series

Flat-bed Turning Centers

Energy Industry Solution
Large Diameter, Long Work-Piece

Ø 1,700 mm Max. turning diameter

10,000 mm Max. turning length

15,000 kg Table load capacity

- One-piece 4 box ways Meehanite casting base provides enough structure rigidity for heavy cutting.
- 45 kW high power spindle motor driven with 3-step gear box provides max. torque up to 8,320 N-m (HA-2000)
- Standard turret and live tooling turret provide 8 or 12 stations, which fulfills various machining needs.
- Heavy load steady rest fulfills various machining needs, and there is no interference between saddle and steady rest while machining to reduce the burden of disassemble steady rest. (work-piece outer diameter < Ø 600 mm)
- Chips removal system adopts twin chips conveyors design to ensure the best removal efficiency.

1

2

3

1 Separated rails of saddle and tailstock design on X-axis allows tailstock no need to cross saddle to support work-piece, which ensure the rigidity of tailstock.

2 Ø 200 mm[*1] high rigidity tailstock with rotary quill featuring MT#6 steady thimble and ample hydraulic thrust to provide firmly support for work-piece.

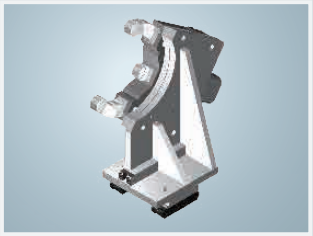
3 Square turret can fulfill extremely heavy turning or deep drilling machining needs. (Opt.)

*1 Ø 250 mm Opt.

		HA-1400	HA-1600	HA-2000
Max. swing diameter	mm	Ø 1,400	Ø 1,600	Ø 2,000
Max. turning diameter	mm	Ø 1,100	Ø 1,300	Ø 1,700
Max. turning length	mm	2,000 / 3,000 / 4,000 / 5,000 / 6,000 / 7,000 / 8,000 / 9,000 / 10,000		
Max. work-piece weight	kg	10,000 ~ 15,000 kg (Need to be supported by steady rest)		
Flat bed width	mm	1,350		
Spindle motor output (cont. / 30 min)	kW	37 / 45		
Turret / Live tooling turret station		8 / 12		
X-axis travel	mm	595	695	895
Z-axis travel	mm	2,150 / 3,150 / 4,150 / 5,150 / 6,150 / 7,150 / 8,150 / 9,150 / 10,150		
Tailstock base travel	mm	2,150 / 3,150 / 4,150 / 5,150 / 6,150 / 7,150 / 8,150 / 9,150 / 10,150		

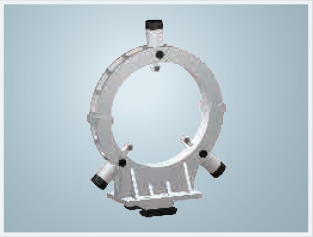
Specifications are subject to change without notice.

Heavy Load Steady Rest

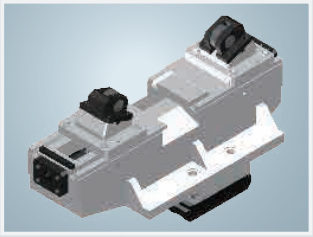


(Hydraulic) Ø 125 ~ 460 mm*1

(Manual) Ø 300 ~ 600 mm*1



(Manual) Ø 500 ~ 800 mm



(Manual) Ø 800 ~1,000 mm

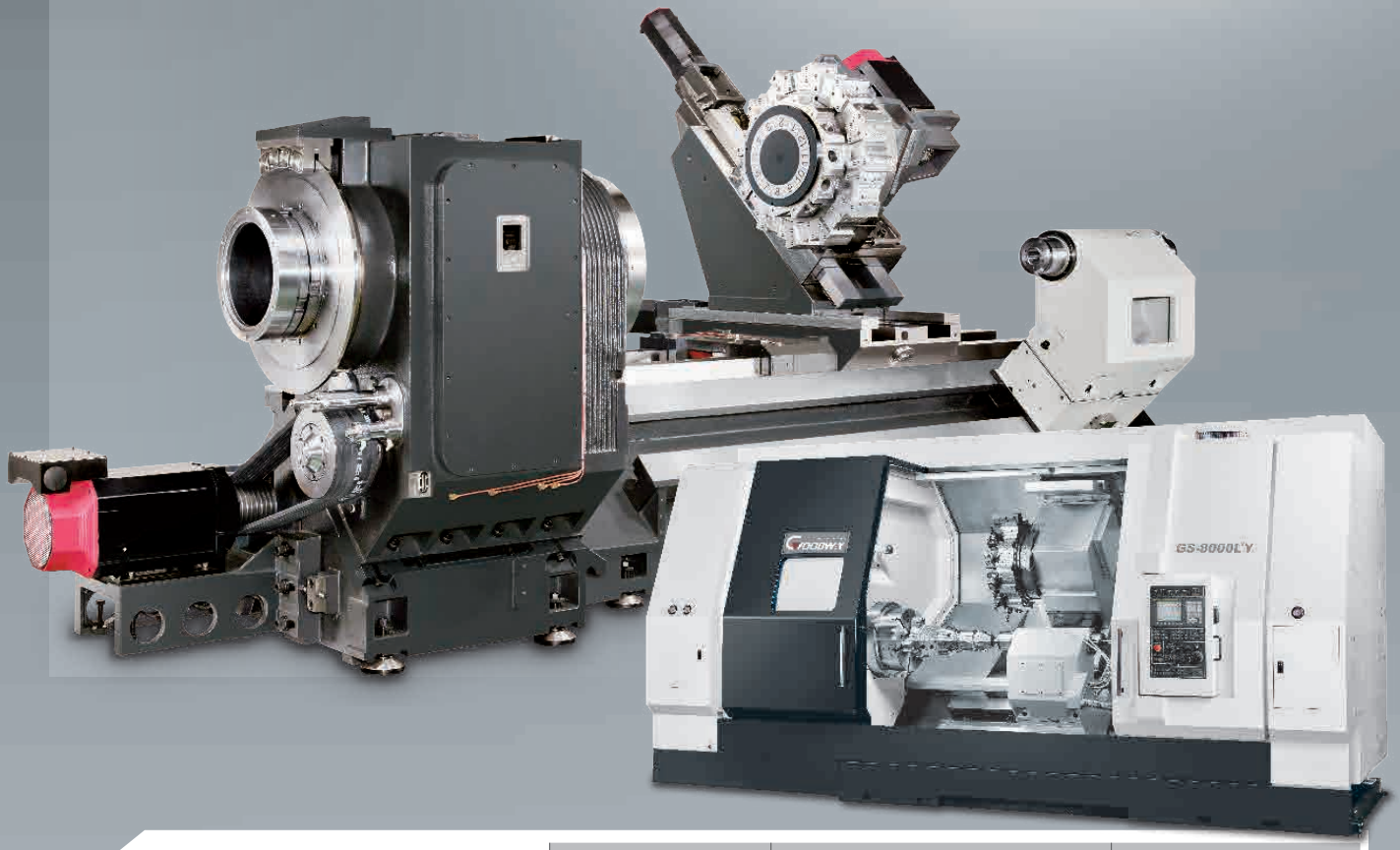
*1 Steady rest is no need to dissamble while machining.

GS-8000 series

Horizontal Turning Centers

Hole Through Spindle Ø 320 mm
The Largest Y-Axis Travel 320 mm

- 45 kW high power spindle motor driven with 3-step gear box provides max. torque up to 7,330 N-m
- Large size one-piece box ways and base structure achieve the best strength and precision with wide span design.
- Large diameter C3 class ball screw ensure the optimal durability and axial accuracy.
- Ø 750 mm turret diameter with Ø 450 mm curvic coupling provide the toughest rigidity of turret.
- Ø 160 mm high rigidity tailstock with rotary quill with ample hydraulic thrust provides firmly support for work-piece.
- 320 mm, the largest Y-axis travel can easily overcome any difficult machining tasks.



		GS-8000	GS-8600	GS-8800
Max. swing diameter	mm	Ø 1,030		
Max. turning diameter	mm	Ø 970		
Max. turning length	mm	1,200 / 2,200 / 3,200		
Chuck size		18" (Opt 24")		
Hole through spindle	mm	Ø 205	Ø 260	Ø 320
Spindle nose		A2-15	A2-15	A2-20
Spindle motor output (Cont. / 15 min)	kW	30 / 45		

Specifications are subject to change without notice.

GS-6000 series

Horizontal Turning Centers

Remarlable And the Toughest Heavy Cutting

- 37 kW high power spindle motor driven with 3-step gear box provides max. torque up to 4,912 N-m[*1]
- 45˚ slant bed design provides the solid foundation for spindle head, turret and tailstock.
- Large diameter C3 class ball screw ensure the optimal durability and axial accuracy.

*1 German ZF gear box Opt.

- Ø 750 mm turret diameter with Ø 450 mm curvic coupling provide the toughest rigidity of turret.
- Ø 110 mm high rigidity tailstock with rotary quill with ample hydraulic thrust provides firmly support for work-piece.

		GS-6000	GS-6600		GS-6800
Max. swing diameter	mm	Ø 980			
Max. turning diameter	mm	Ø 880			
Max. turning length	mm	950 / 1,980 / 3,300			
Chuck size		15" (18" Opt.)	20" *1	22" *2	24" *2
Hole through spindle	mm	Ø 130	Ø 205		Ø 260
Spindle nose		A2-11	A2-15		A2-15
Spindle motor output (Cont. / 30 min)	kW	30 / 37			

*1 Hydraulic chuck opt.

*2 Pneumatic chuck opt.

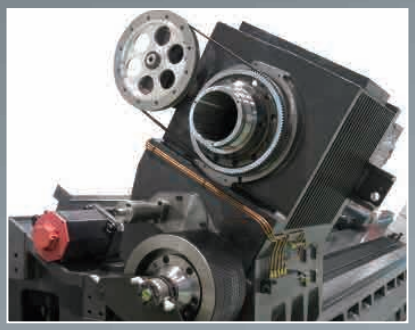
Specifications are subject to change without notice.

GS-4000 series

Horizontal Turning Centers

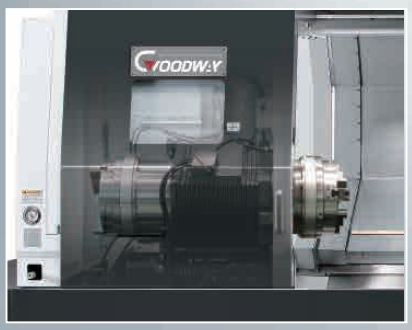
Meet the Need of Market Series

- Complete series models with 4 types of base length and 2 types of hole through spindle provides total 8 combinations.
- 30˚ slant bed design provides the solid foundation for spindle head, turret and tailstock.
- Large size box ways and one-piece bed structure achieve the best strength and precision with wide span design.
- Ball screw of Z-axis travel 2 m longer equips high class ball screw support mechanism to ensure the optimal axial accuracy.
- Programmable tailstock design allows positioning of tailstock and stretching of quill are programmable.
- Live tooling turret and sub-spindle are available. Front and back machining can be done in one set-up. (Opt.)

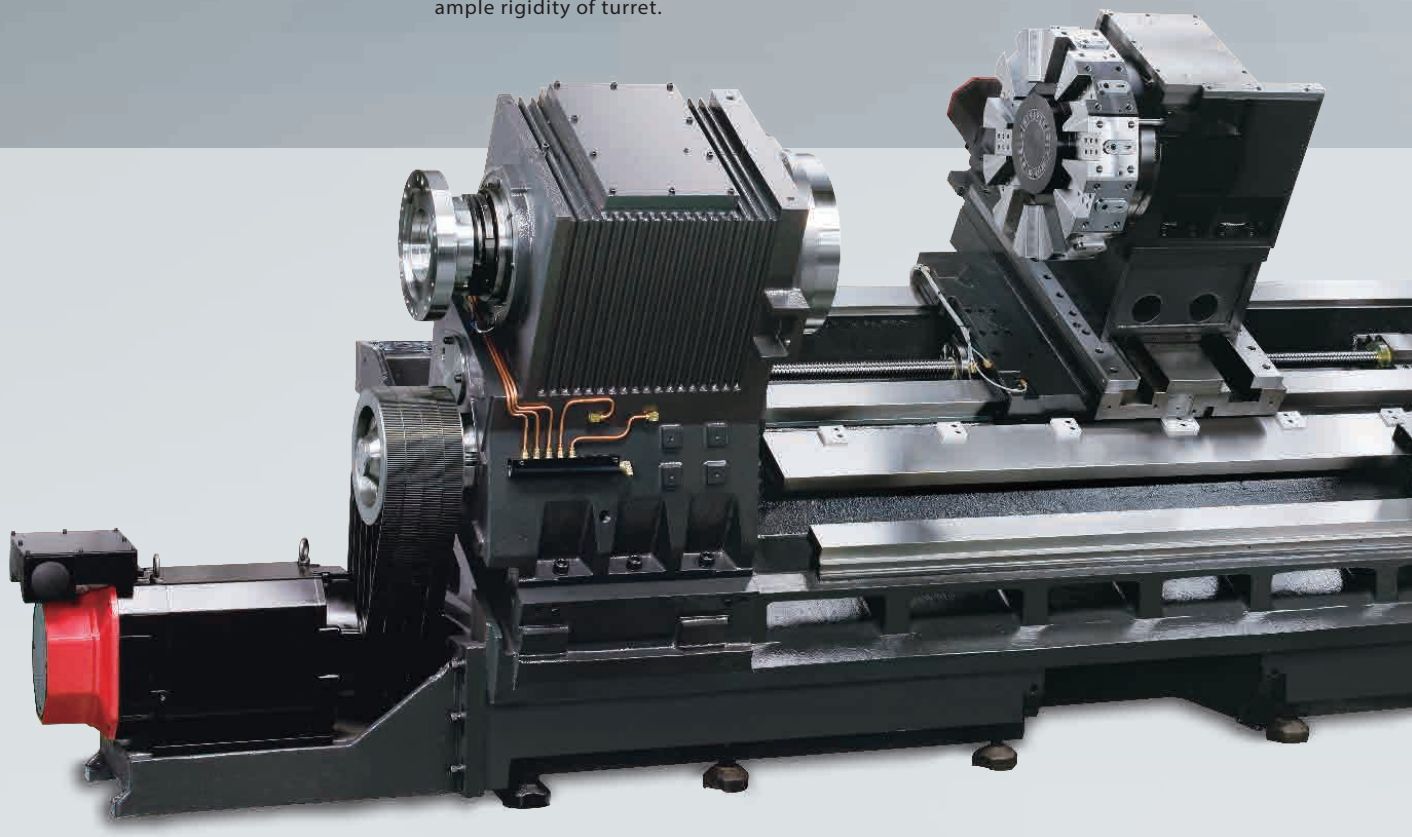


▸ 2-step gear box adopts advanced mechanic design, which is driven by high power spindle motor.

▸ Large diameter curvic couplings with precisely positioning turret provides 6,400 kg clamping force to ensure ample rigidity of turret.



▸ Long bar turning for screw thread provides the best machining solution with twin chucks.



		GS-4000	GS-4300
Max. swing diameter	mm	Ø 770	
Max. turning diameter	mm	Ø 620	
Max. turning length	mm	819 / 1,569 / 2,369 / 3,169	
Chuck size		15" (18" Opt.)	24"
Hole through spindle	mm	Ø 130	Ø 190
Spindle nose		A2-11	A2-15
Spindle motor output (Cont. / 30 min)	kW	30 / 37	
X / Y axes travel	mm	350 (Model with Y-axis : 300) / ± 60	
Z-axis travel	mm	850 / 1,600 / 2,400 / 3,200	

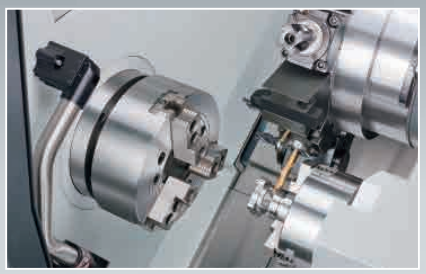
Specifications are subject to change without notice.

GS-2000
GS-3000 series

Horizontal Turning Centers

High Accuracy, Composite Next Generation Machine

- High strength and class core components features diverse functions to provide the toughest turning centers.
- Low gravity 30˚ box ways slant bed design, which the rail span is raised 23% more than last generation, width of rails are increasing 14%.
- Modular spindle design provides belt drive, built-in or ZF gear box to fulfill various machining needs.
- X / Z axes are driven AC servo direct driven motor to provide great thrust and rapid feed rate is up to 30 m/min.
- 12-station high speed servo indexing turret with adjacent tool changing only 0.3 sec, and opposite tool changing 0.8 sec.
- High rigidity programmable tailstock and high precision servo tailstock provides the best support rigidity for work-piece.

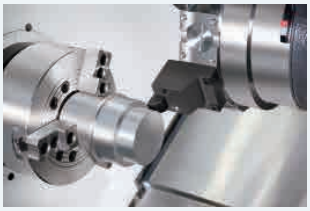


- Live tooling turret and sub-spindle are available. Front and back machining can be done in one set-up.

		GS-2000	GS-2600	GS-2800	GS-3300	GS-3600
Max. swing diameter	mm	Ø 630				
Max. turning diameter	mm	Ø 570				
Max. turning length	mm	780 / 1,530				746 / 1,496
Chuck size		Ø 8"	Ø 10"	Ø 10"	Ø 12"	Ø 15"
Hole through spindle	mm	Ø 51	Ø 65	Ø 75	Ø 90	Ø105
Spindle nose		A2-6	A2-8			A2-11
Spindle motor output (Cont. / 30 min)	kW	15 / 18.5		15 / 18.5 (18.5 / 22 Opt.)	18.5 / 22	
X / Y axes travel	mm	300 / ±50				
Z-axis travel	mm	780 / 1,530				
X / Z axes rapid feed rate	m/min	30 / 30				

Specifications are subject to change without notice.

— Heavy Cutting —

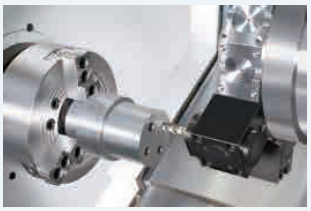


7
Depth of Cut (mm)

0.4
Feed Rate (mm/rev)

417
Speed (rpm)

— Tapping —

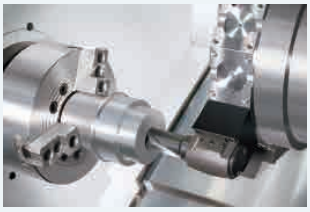


M24 x P2.5
Tool Size (mm)

240
Tool Speed (r/min)

530
Speed (rpm)

— U Drilling —



50
Tool Diameter (mm)

0.15
Feed Rate (mm/rev)

764
Speed (rpm)

— Milling —

15
Depth of Cut (mm)

260
Feed Rate (mm/rev)

20
Tool Diameter (mm)

640
Speed (rpm)

Model : GS-3600M
Material : S45C

GA series

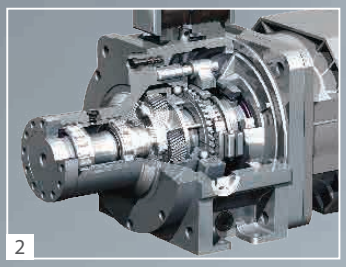
Horizontal Turning Centers

Complete Specifications
The Highest CP Value

- Torque of spindle delivers 2.5 ~ 4 times than general models, which provide excellent heavy turning ability while low speed.
- Spindle adopts P4 grade roller type bearing with the best two-point span support designed to meet the needs of long-term precision machining.
- One-piece high rigidity box ways with base and saddle ensures heavy cutting durability.
- Z-axis adopts high performance sevro motor with rapid acceleration / deceleration movement and powerful thrust.
- Programmable tailstock design. Tailstock positioning and quill are programmable control.[*1]

*1 GA-2000C is not available.


1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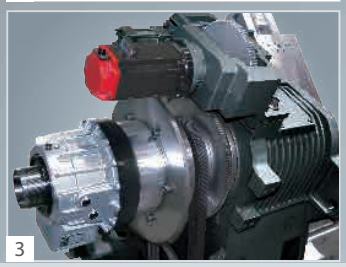

3

1 12-Station high speed servo indexing turret achieves 0.2 sec indexing time for adjacent station and 0.5 sec for stations at the opposite end on the disk.

2 Adopted German ZF enclosed bath oil 2-speed gear type spindle provides tremendous torque output to fulfill heavy cutting needs.

3 Adopt Cf-axis with disk break system can provide the strongest rigidity C-axis function.

- Compact Type: GA-2000C Series features robot arm system to upload and unload the work-piece, which minimizes the floor space and maximizes productivity.

		GA-2000	GA-2600	GA-2800	GA-3000	GA-3300	GA-3600
Max. swing diameter	mm	Ø 580			Ø 600		
Max. turning diameter	mm	Ø 350			Ø 500		
Max. turning length	mm	309 / 624 / 1,204	291 / 606 / 1,186	260 / 575 / 1,155	629 / 929 / 1,229	624 / 924 / 1,224	596 / 896 / 1,196
Chuck size		Ø 8"	Ø 10"	Ø 10"	Ø 10" (12")	Ø 12" (15")	Ø 15"
Bar capacity	mm	Ø 51	Ø 65	Ø 75	Ø 75	Ø 90	Ø 105
Spindle nose		A2-6	A2-8				A2-11
Spindle motor output	kW	11 / 15 (cont. / 30 min)			18.5 / 22 (cont. / 30 min)		
X-axis travel	mm	205			260		
Z-axis travel	mm	350 / 650 / 1230			630 / 930 / 1230		
X / Z axes rapid feed rate	m/min	20 / 24 m/min					

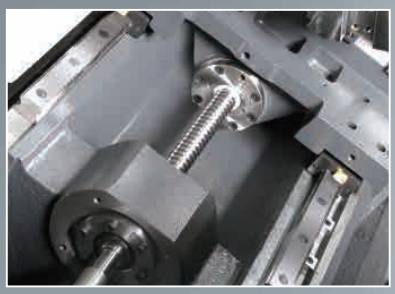
Specifications are subject to change without notice.

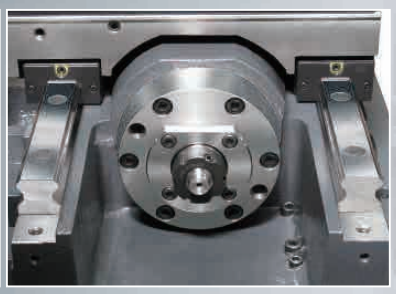
GLS series

Horizontal Turning Centers

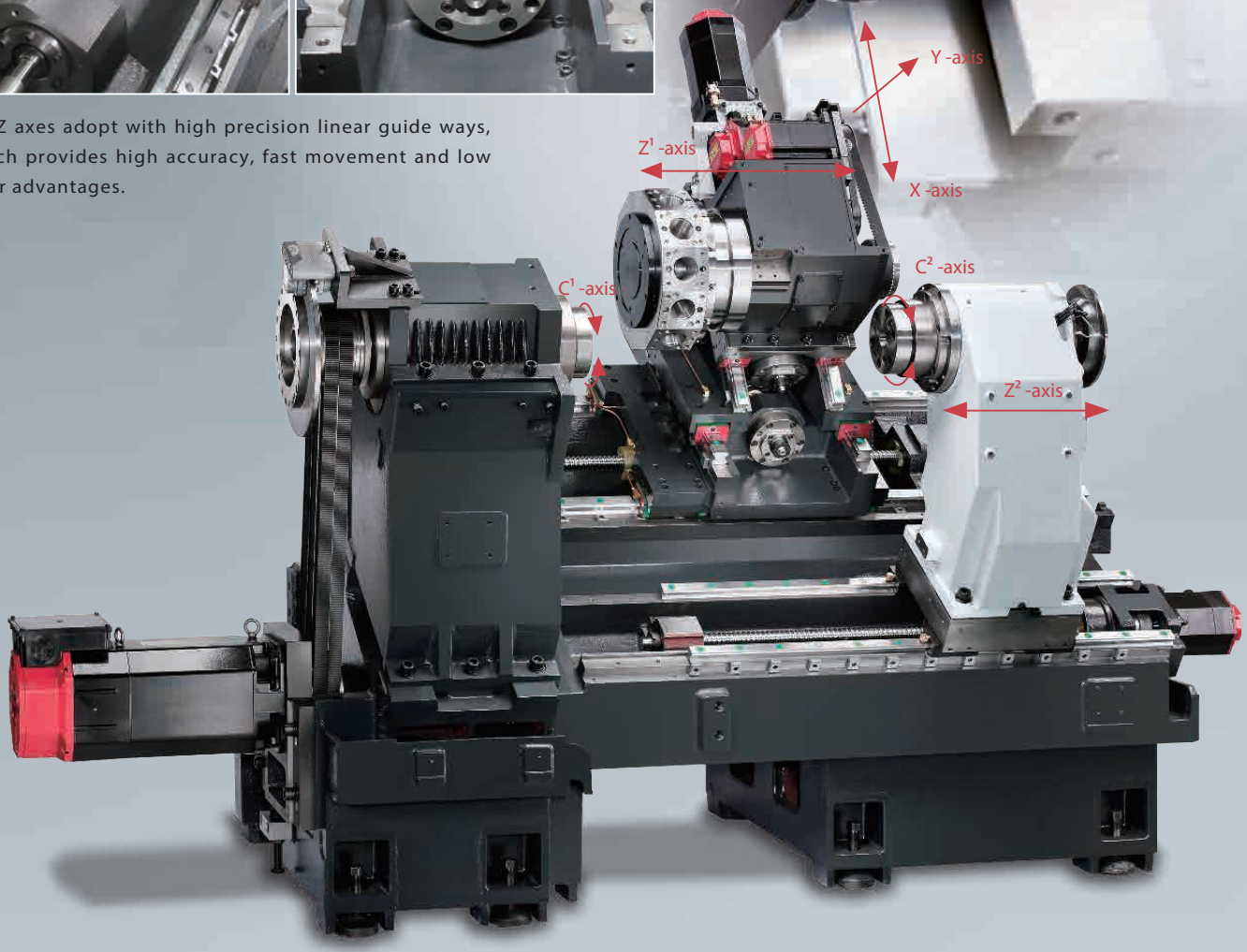
Compact Machine Size Multi-Tasking Turning Capabilities

- Compact machine size. Provides full multi-tasking turning capabilities by live turret, sub-spindle, and Y axis.
- 30˚ slant bed Meehanite casting structure provides extremely solid base.
- One-piece high rigidity headstock with heat sink can reduce the body heat displacement and improve precision.
- X / Z axes are driven by high performance AC servo motor. Rapid feed rate reachs up to 30 m/min.
- Standard 12-stantion servo indexing turret achieves 0.2 sec indexing time for adjacent stations, and 0.5 sec for stations at the oppoiste end of disk.





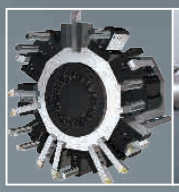
- X / Z axes adopt with high precision linear guide ways, which provides high accuracy, fast movement and low wear advantages.



GLS–1500 series

Variety of Tooling Systems

24-station servo indexing turret, gang tooling and live tooling turret are available for option to fulfill various turning needs.



3.6 m²
Floor Space

		GLS-1500	GLS-2000
Max. swing diameter	mm	Ø 560	
Max. turning diameter	mm	Ø 390	
Max. turning length	mm	330 / 630	
Chuck size		Ø 6" (Big bore)	Ø 8" (Big bore)
Bar capacity	mm	Ø 51	Ø 65
Spindle motor output (Cont. / 30 min)	kW	11 / 15	
X / Y axes travel	mm	230 / ±35	
Z-axis travel	mm	330 / 630	
X / Z axes rapid feed rate	m/min	30 / 30	

Specifications are subject to change without notice.

GLS–150 series

5,000 Units
Sales Achievement

3.3 m²
Floor Space

		GLS-150	GLS-200	GLS-260
Max. swing diameter	mm	Ø 500		
Max. turning diameter	mm	Ø 360		
Max. turning length	mm	500		
Chuck size		Ø 6" (Big bore)	Ø 8" (Big bore)	Ø 10"
Bar capacity	mm	Ø 51	Ø 65	Ø 65
Spindle motor output (Cont. / 30 min)	kW	11 / 15		
X / Y axes travel	mm	210 (Model with Y-axis : 195) / ± 30		
Z-axis travel	mm	520		
X / Z axes rapid feed rate	m/min	30 / 30		

Specifications are subject to change without notice.

High Performance Turning Centers

GS-200 series

- 30˚ Box ways slant bed design
- Spindle is driven by 15 kW high power motor
- 12-station servo indexing turret
- Programmable tailstock, rotary quill
- Live tooling turret, C-axis, sub-spindle and Y-axis

	GS-200	GS-260	GS-280
Max. swing diameter		Ø 670 mm	
Max. turning diameter		Ø 420 mm	
Max. turning length	591 / 1191 mm	560 / 1,160 mm	534 / 1,134 mm
Chuck size	Ø 8"	Ø 10"	Ø 10"
Bar capacity	Ø 51	Ø 65	Ø 75
Spindle nose	A2-6	A2-8	
Spindle motor output (Cont. / 30 min)		11 / 15 kW	
X / Y axes travel		300 / ±50 mm	
Z-axis travel		600 / 1,200 mm	
X / Z / Y axes rapid feed rate		20 / 24 / 10 m/min.	

High Performance Lathe

GCL-2 series

10,000 Units
Sales Achievement

- High CP value with great durability
- Low gravity bed featuring 30˚ saddle design on X-axis
- Spindle is driven by 15 kW high power motor
- 8 / 12 station servo indexing turret
- Manual tailstock, programmable quill

	GCL-2
Max. swing diameter	Ø 400 mm
Max. turning diameter	Ø 230 mm
Max. turning length	300 / 600 mm
Chuck size	Ø 8"
Spindle nose	A2-6
Spindle motor output (Cont. / 30 min)	11 / 15 kW
X-axis travel	125 mm
Z-axis travel	320 / 620 mm
X / Z axes rapid feed rate	20 m/min.

High Performance Wheel Turning Centers

GA–W series

	GA-3600 / W24
Max. swing diameter	Ø 930 mm
Chuck size	15"
Spindle nose	A2-11
Spindle speed	2,500 rpm
Spindle motor output (Cont. / 30 min)	30 / 45 kW
Turret capacity	10
X / Y axes travel	400 / 900 mm

Gang Type Turning Centers

TS–150 series

	TS-150
Max. swing diameter	Ø 330 mm
Max. turning length	290 mm
Bar capacity	Ø 45 mm
Chuck size	6" or 42 collet
Spindle motor output (Cont. / 15 min)	5.5 / 7.5 kW
X / Z axes travel	305 / 320 mm
X / Z axes rapid feed rate	24 m/min.

High Speed Tapping Centers

TLV series

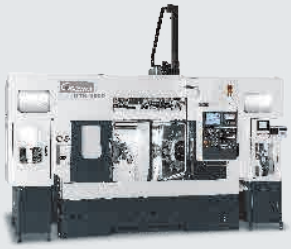
	TLV-500	TLV-700
X-axis travel	500 mm	700 mm
Y / Z axes travel	400 / 300 mm	
Dist. from spindle nose to table top	180 ~ 480 mm	
Table size (X x Y)	600 x 400 mm	800 x 400 mm
Table load capacity	250 kg	
Spindle taper	BT30	
Spindle motor output (cont. / peak)	3.7 / 5.5 kW (SIEMENS)	
Spindle speed	10,000 / 12,000 rpm	
Machine weight	2,500 kg	

Specifications are subject to change without notice.

Multi-Axis Turning Centers

GTH Series
Parallel Twin Spindle
Turning Centers

Chuck Size | 10"



GMS Series
Tool Spindle Type
5-axis Turning Centers

Chuck Size | 8" / 10"

GTW Series
Turret / Gang Tooling
Turning Centers

Chuck Size | 8" / 10"

GTZ Series
Twin spindles & Turrets
Turning Centers

Chuck Size | 6" / 8"

GTS Series
Twin spindles & Turrets
Turning Centers

Chuck Size | 6" / 8" / 10"

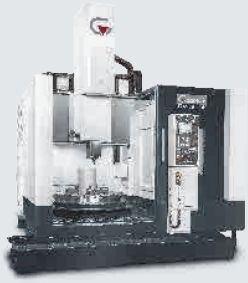
Vertical Turning Centers

SUPER GV Series
Super Size
Vertical Turning Centers

Table diameter | Ø 2,000 ~ 8,000 mm

GV-1 Series
Heavy-Duty
Vertical Turning Centers

Table diameter | Ø 1,250 / 1600 mm



GV-1000 Series
High Rigidity
Vertical Turning Centers

Chuck Size | 15" ~ 24"
18" ~ 32"

GV-780 Series
High Speed
Vertical Turning Centers

Chuck Size | 15" ~ 24"

GV-500 Series
High Speed
Vertical Turning Centers

Chuck Size | 12" ~ 15"

SWISS Turning Centers

SW-42 Series
Multi-tasking
SWISS Turning Centers

Max. machining dia. | Ø 42 mm

SW-32 Series
Multi-tasking
SWISS Turning Centers

Max. machining dia. | Ø 32 mm

SW-20 Series
Multi-tasking
SWISS Turning Centers

Max. machining dia. | Ø 20 mm

SD-20 Series
Compact
SWISS Turning Center

Max. machining dia. | Ø 20 mm

SD-16 Series
Compact
SWISS Turning Centers

Max. machining dia. | Ø 16 mm

Horizontal Turning Centers

HA Series
Flat-bed
Turning Centers

Chuck Size | 24" ~ 63"

GS-8000 Series
Heavy-Duty Super Size
Turning Centers

Chuck Size | 20" ~ 32"

GS-6000 Series
Heavy-Duty
Turning Centers

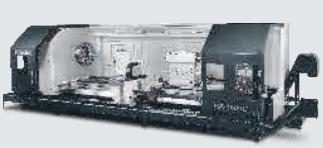
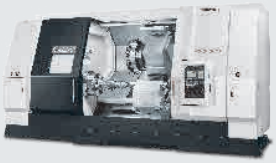
Chuck Size | 15" / 20" / 24"

GS-4000 Series
Maximum Performace
Turning Centers

Chuck Size | 15" / 20"

GS-3000 Series
Maximum Performance
Turning Centers

Chuck Size | 10" / 12" / 15"


Large Scale Machines

Composite Capability

Horizontal Turning Centers

GS-2000 Series
Maximum Performance
Turning Centers

Chuck Size | 8" / 10"

GS-200 Series
Maximum Performace
Turning Centers

Chuck Size | 8" / 10"

GA-3000 Series
High Performance
Turning Centers

Chuck Size | 10" / 12" / 15"

GA-2000 Series
High Performance
Turning Centers

Chuck Size | 8" / 10"

GCL-2 Series
High C/P Value
Lathe

Chuck Size | 8"





Composite Capability

High CP Value

Horizontal Turning Centers

GLS Series
High Speed
Turning Centers

Chuck Size | 6" / 8" / 10"

TS-150 Series
Gang Type
Turning Centers

Chuck Size | 6"


High Speed

Vertical Machining Centers

MLV Series
High Rigidity
Vertical Machining Centers

Travel | X : 610 ~ 1,020 mm
Y : 610 mm
Z : 610 mm

Tapping Center

TLV Series
High Speed
Tapping Centers

Travel | X : 500 / 700 mm
Y : 400 mm
Z : 300 mm

Wheel Turning Center

GA-W Series
High Performance
Wheel Turning Centers

chuck size | 12" / 15"

The Ultimate Machining Power of All Aspects

THE ULTIMATE MACHINING POWER

GOODWAY®

GOODWAY MACHINE CORP.

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