

High Speed CNC Turning Centers / Lathes - GLS-150 Series



HIGH SPEED CNC TURNING CENTERS

Packed with industry leading technology and top quality components, the GOODWAY GLS series turning centers combine power, strength, and speed to bring you The Ultimate Machining Power®. These high speed machines will easily accomplish the demanding turning applications of today and tomorrow. Furthermore, with available live tooling, C-axis, and Y-axis capabilities; milling, turning applications may be completed in one single machine.

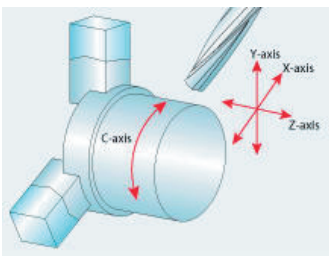
30° slant-bed design provides smooth chip disposal and easier operator access.

Stainless steel way covers and special steel wipers molded with industrial strength rubber are used for durability.

Fully enclosed splashguards keep chips and coolant contained for a safe clean working environment.

The auto lubrication system delivers metered amounts of lubrication to the slide ways, ball screws, and vital components.

Distribution is automatically shut off during idling to prevent waste.

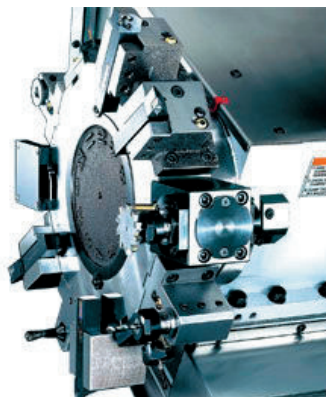


Y-axis (Opt ; For Y models)

Y-axis models perform virtually the same way as machining centers equipped with 4th-axis rotary tables, but with the benefit of built-in turning capability. The X, Y, Z axes are like that of a machining center, while the C-axis acts as the 4-axis. This configuration replaces a turning center and machining center equipped with 4th-axis with one machine, thus, saving money, time, floor space, manpower and fixture costs, while reducing accuracy lost by eliminating the part from being moved to another machine.

Live tooling turret (Opt ; For M models)

Live tooling and C-axis control capabilities on the GLS series allows the machine to perform multiple tasks on a work piece, such as turning, milling, drilling and tapping. This eliminates manpower and cycle time, while reducing accuracy lost, which will occur if the part is moved from machine to machine.



Max. swing diameter	Ø 500 mm (19.68")		
Swing over saddle	Ø 380 mm (14.96")		
Max. turning diameter *1	Ø 400 mm (15.74") / Ø 280 mm*2 (11.02")		
Standard turning diameter *1	Ø 165 mm (6.49")	Ø 204 mm (8.00")	Ø 254 mm (10.00")
Max. turning length *1	500 mm (19.68") / 340 mm*2 (13.38")		
Max. weight load *3	85 kg (187 lbs)		
Chuck size	Ø 6"		
Bar capacity	Ø 45 mm (1.77")		

SPINDLE	GLS-150
Hole through spindle	Ø 56 mm (2.20")
Spindle bearing diameter	Ø 80 mm (3.14")
Hydraulic cylinder	Ø 6"
Spindle nose	A2-5
Spindle motor type	β8 / 8,000i
Motor output (Cont.)	7.5 kW (10 HP)
Motor output (30 min.)	11 kW (15 HP)
Motor full output speed	1500 RPM
Spindle drive system	Direct Belt Drive
Spindle drive ratio	1 : 1
Spindle speed range	60 ~ 6,000 RPM
Spindle full output speed	1,500 RPM

BUILT-IN SPINDLE MOTOR (OPTIONAL)	GLS-150
Spindle motor type	αB112M / 15,000i
Motor output (Const.)	5.5 kW (7.4 HP)
Motor output (30min. / Peak)	7.5 kW (10 HP)

Cs-AXIS SPINDLE (OPTIONAL)	
Cs-axis drive motor	Spindle motor + Bz-sensor Ø125 / MPC1-9051A
Min. spindle indexing angle	0.001°
Dynamic accuracy	+/-0.02°

X & Z AXES	GLS-150
Max. X-axis travel*1	220 / 215 mm (8.66" / 8.46") ; [10-St. / 12-St.]
Max. Z-axis travel*1	520 mm (20.47")
X / Z axes rapids	24 / 30 m / min. (945 / 1,182 IPM)
Slide way type	Linear Guide Way
Feed rates	1 ~ 4,800 mm / min. (1 ~ 189 IPM)
X-axis servo motor	AC 1.2 kW (1.6 HP , FANUC β8 / 3,000i, Absolute encoder, 1,000,000/rev.)
Z-axis servo motor	AC 1.2 kW (1.6 HP , FANUC β8 / 3,000i, Absolute encoder, 1,000,000/rev.)
X-axis ball screw Ø / pitch	Ø 32 mm (1.26") / 10 mm (0.39")
Z-axis ball screw Ø / pitch	Ø 32 mm (1.26") / 10 mm (0.39")
X / Z axes thrust (Const.)	448 Kg (985 lbs.)

TURRET	GLS-150
Stations	12-Station (Opt. 10)
Indexing drive	FANUC AC Servo motor
Indexing speed	0.2 sec. Adjacent / 0.5 sec. 180 degrees (Single step)
Accuracy	Positioning: +/- 0.00069°, Repeatability: +/- 0.00027°
OD tool shank size	□ 20 mm (3/4")
ID tool shank size	Ø 32 mm (Ø 1-1/4")

LIVE TOOLING TURRET (OPTIONAL)	GLS-150
Max. turning length	340 mm (13.38")
Stations	12
Live tooling stations	6 (Live tooling tools rotate together.)
Live tooling drive motor	AC 1.2 kW (1.6 HP , FANUC β8/3,000 is, Absolute encoder, 1,000,000 / rev.)
Live tooling torque	7 N-m (5 ft-lbs.) [Const.]
Indexing drive type	FANUC AC Servo motor
Index speed	0.2 sec. Adjacent / 0.5 sec. 180 degrees (Single step)
OD tool shank size	□ 20 mm (3/4")
ID tool shank size	Ø 25 mm (1")
Live tooling shank size	1 ~ 13 mm (0.04" ~ 0.51") ER 20
Live tooling RPM range	10 ~ 4,400 RPM

Y-AXIS (OPTIONAL)	GLS-150
Max. turning diameter	Ø 280 mm (11.02")
Max. X-axis travel	195 mm (7.68")
Max. Y-axis travel	70 mm = +/- 35 mm (2.76" = +/- 1.38")
X / Y axes rapids	24 / 10 m / min. (945 / 393 IPM)
Slide way type	Linear Ways
Feed rates	1 ~ 4,800 mm / min. (1 ~ 189 IPM)
X-axis servo motor	AC 1.2 kW (1.6 HP , FANUC α8/3,000 i, Absolute encoder, 1,000,000 / rev.)
Y-axis servo motor	AC 1.2 kW (1.6 HP , FANUC α8/3,000 i, Absolute encoder, 1,000,000 / rev.)
X-axis ball screw Ø / pitch	Ø 32 mm (1.26") / Pitch 10
Y-axis ball screw Ø / pitch	Ø 32 mm (1.26") / Pitch 6
X / Y axes thrust (Const.)	513 / 855 Kg (1,129 / 1,881 lbs.)

TAILSTOCK (OPTIONAL)	GLS-150
Quill center taper	MT#4 (Live center required.)
Quill diameter / travel	Ø 70 / 150 mm (2.75" / 5.90")
Tail stock base travel*1	290 mm (11.41")
Programmable quill / base	Yes / No
Optional programmable base type	Servo motor + Ball screw

GENERAL	GLS-150
Positioning accuracy (X / Y / Z / B)	+/- 0.005 mm (+/- 0.0002")
Repeatability (X / Y / Z / B)	+/- 0.003 mm (+/- 0.0001")
Standard CNC control	FANUC Oi-Mate (Oi-TD)
Voltage / Power requirement	AC 200 / 220 +10% to -15% 3 phase / 26 kVA
Hydraulic tank capacity	50 L (11 gal.)
Coolant tank capacity	120 L (26 gal.)
Coolant pump	0.5 kW (3/4 HP , 60 Hz) rated at 4.2 bar (60 PSI)
Machine weight	3,200 kg (7,040 lbs.)
Machine weight (Y models)	3,500 kg (7,700 lbs.)
Dimensions L × W × H	Machine : 2,260 x 1,490 x 1,675 mm (89" x 59" x 66") Machine w/ Y-axis : 2,450 x 1,655 x 2,060 mm (97" x 65" x 81")