THE ULTIMATE MACHINING POWER

GOODWAY

Wheel Turning Center

SERIES

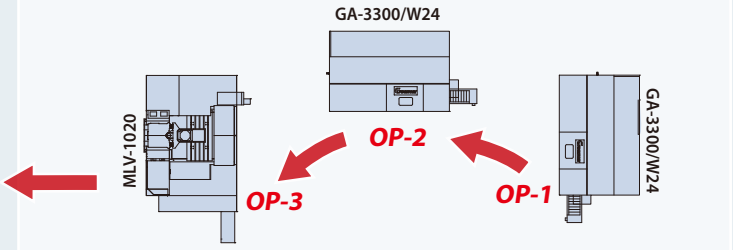
GOODWAY MACHINE CORP.

High Performance Aluminum-Wheel Turning Center

Packed with industry leading technology and top quality components, the Goodway GA-2800/W18 & GA-3300/W24 series combine strong constructions, customizable integrated interface for chucks, and efficient chip disposal capabilities to bring you the number one aluminum wheel turning center in the market. With the advantages of the load/unload feature, these series can rapidly replace cam arms and ring locators to complete 1st and 2nd operations all at once. You can also combine the GA-2800/W18 or GA-3300/W24 series with a machining center to form a high performance production line that is sure to meet your turning applications for aluminum wheels of today and tomorrow.

- Extremely powerful high-torque spindles deliver 2.5 ~ 4 times the torque output of standard spindles.
- Extra large X and Z-axis servo motors provide rapid acceleration and deceleration and powerful thrust. Max. feed rate can reach up to 20 m/min and 24 m/min.
- In order to endure the machine's high outputs with durability, heavy-duty roller bearings are used to support the spindles and axes guide ways are of super-rigid one-piece box ways.

(GA-3300/W24 series model shown.)



- While two GA-3300/W24 turning centers process 1st and 2nd operations, a MLV-1020 machining center finishes the 3rd operation to save calibrating time and increase stability, thus forming a high efficiency aluminum wheel production line.

- With the wide-angle chip conveyor and chip cart, chips can be easily taken away from the working area, preventing unwanted chips to be stuck on the workpiece.

OP-1

Rough cutting on a sloping edge, Fine Boring in the center, Fine cutting on a sloping edge, Rough cutting on the bottom of a wheel, Fine cutting on the bottom of a wheel.

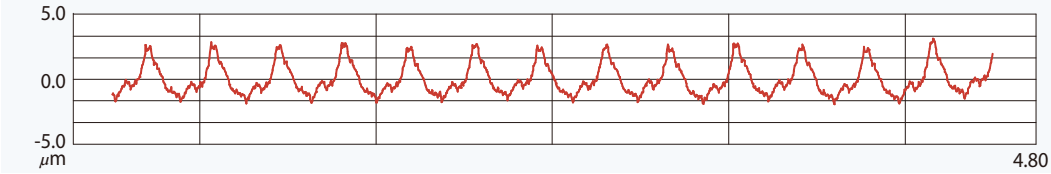
OP-2

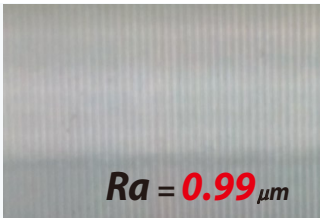
Rough cutting on the bottom of a wheel, Fine cutting on the bottom of a wheel.

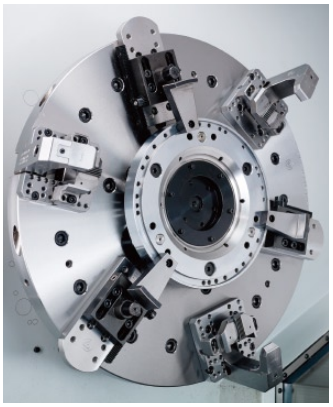
O.D. Fine Turning (GA-3300/W24)

Tools	Mean Value of Diameter	Spindle Speed	Cutting Length	Cutting Speed	Repeat Time	Feed Rate	Feed Rate	Cutting Time	Non-Cutting Time	Total Time	Spindle load	Single Side
TMS HHG 630	(mm)	(rpm)	(mm)	(m/min)		(mm/rev)	(mm/min)	(sec.)	(sec.)	(sec.)		(mm)
	495.0	1,200	90.0	600	1	0.50	600	9.0	2.5	11.5	53%	4

Surface Roughness





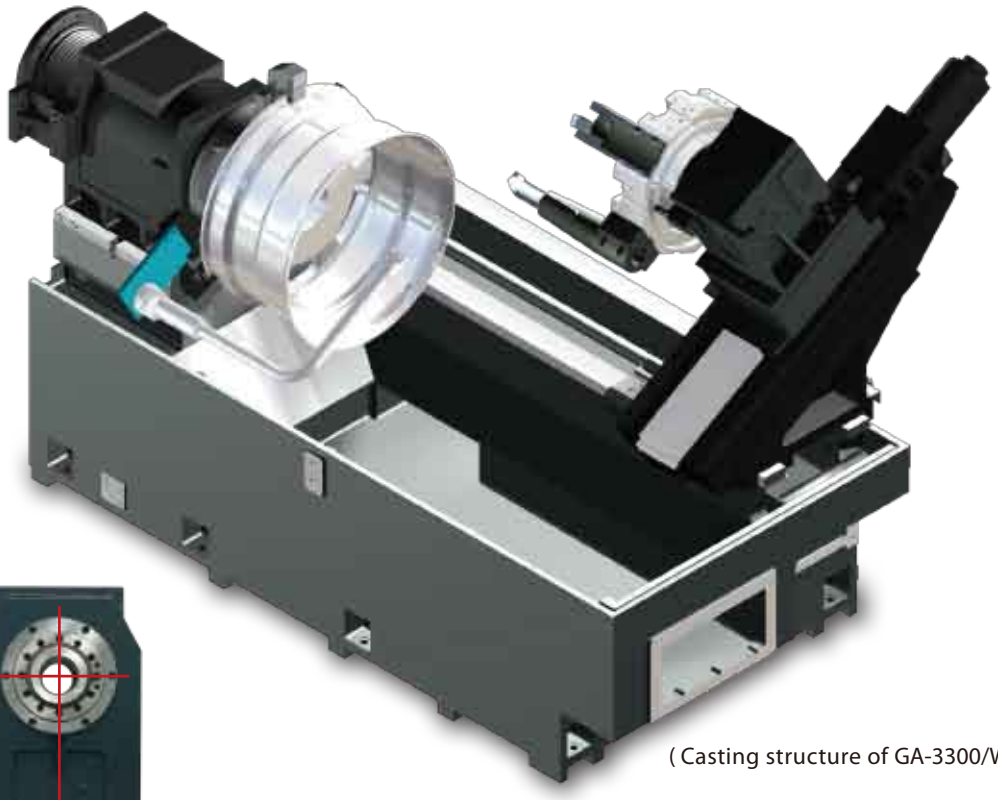


- The aluminum wheel finger chuck is adopted with a module design which enables processing different sizes of aluminum wheels by simply replacing the cam arm and adjusting the ring locator, thus saving more acquisition costs.
- The finger chuck can easily clamp materials with burs and the standard positioning disc provides accuracy which increases loading efficiency.

(Hydraulic chuck is optional based on customer's requirements. Goodway provides profound customized service.)

SUPER HEAVY-DUTY CONSTRUCTION

- Built to endure years and years of rigorous high production turning, the heavily ribbed, one-piece thermally balanced bed and casting components are of FC35-Meehanite casting (industry standard is FC25~30). FC35 grade cast iron is capable of withstanding much greater stress without deforming and provides maximum vibration damping, which result in a machine that will outlast and outperform the competition.
- All spindle and servo motors, including drives, are Fanuc alpha *i* series components to ensure peak machining performance and accuracy.



(Casting structure of GA-3300/W24 series shown.)

- The low center of gravity heavy-duty bed and 30° slant wedge saddle design provide a super rigid foundation for the headstock, turret, and tailstock. Creating the rigidity needed to perform super heavy-duty turning and maintaining long-term high precision accuracy. More rigidity also means extended tool life.

- Extra wide, hardened and precision ground box ways are widely space, and directly cast on to the machine bed and saddle for maximum strength and precision.

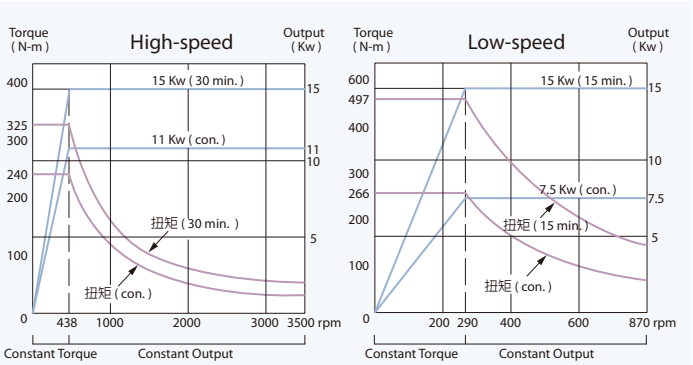
- C3 class hardened and precision ground ball screws ensure the highest accuracy and durability possible. Plus, pretension on all axes minimizes thermal distortion.

ULTIMATE TURNING POWER

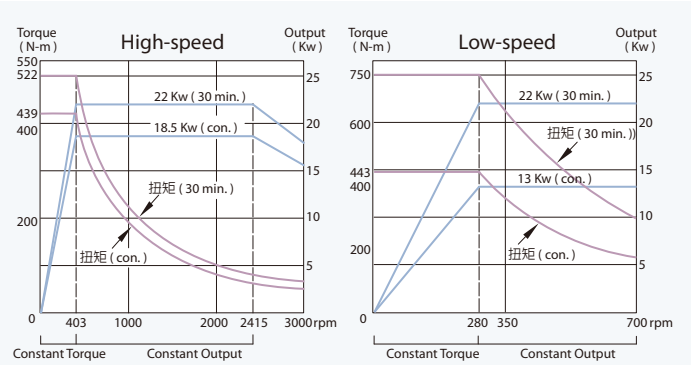
- The headstock is adopted with a symmetrical design that distributes axial loads evenly to the bottom and prevents structural deformation.

- P4 grade (Class 7) super-high precision bearings are directly assembled for maximum level of support and precision. Bearing configuration is designed for super heavy-duty cutting with ultra-smooth performance and long term durability with a higher level of accuracy.

GA-2800/W18 Standard Spindle Output

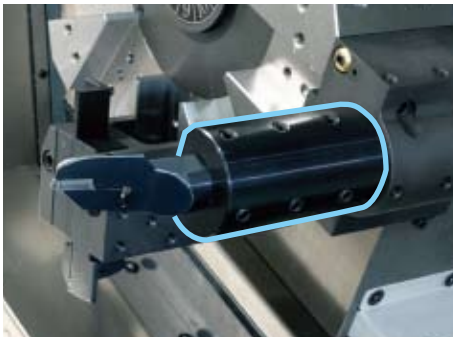


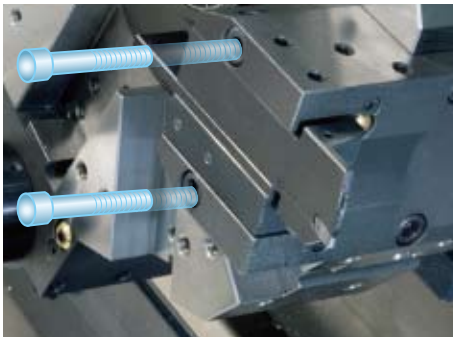
GA-3300/W24 Standard Spindle Output



- Ø 250 mm (9.84") diameter super high precision curvic couplings accurately position the turret disk and 4,000 Kg (8,800 lbs.) of clamping force ensures abundant turret rigidity for all cutting conditions.

- The heavy-duty servo indexing turret achieves 0.2 second indexing times for adjacent stations and 0.5 second for stations at the opposite end of the disk. Index movements are single step, without pauses, no matter how many stations are skipped.



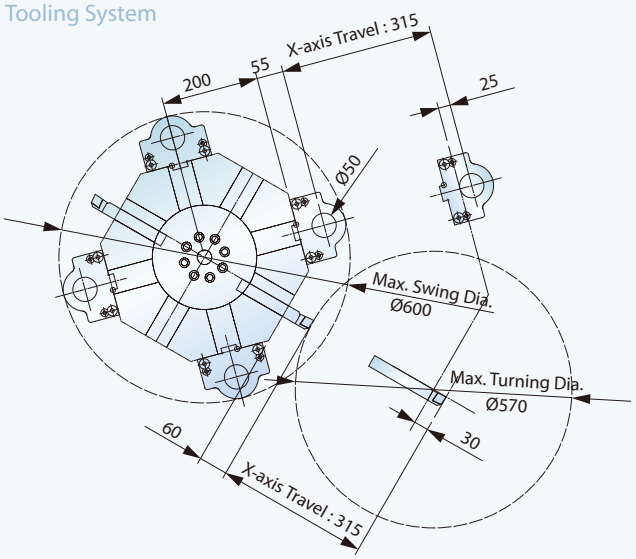


- The Goodway aluminum-wheel tool holder is reinforced with specialized structural design to eliminate vibration and increase rigidity when using long-type tools.

GENERAL DIMENSION

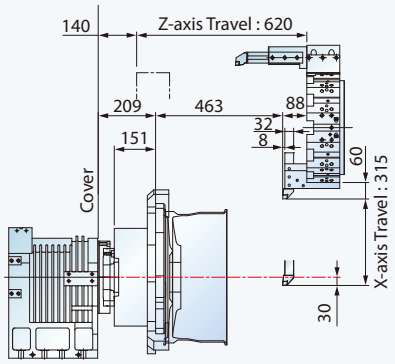
GA-2800/W18

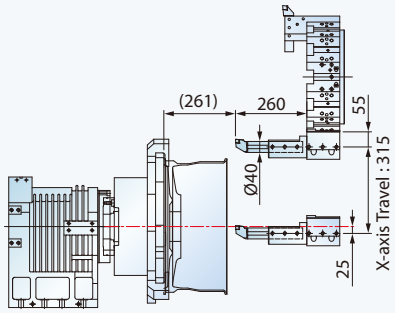
Tooling System



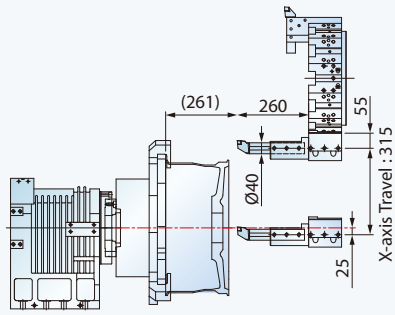
Work Range

OP-1

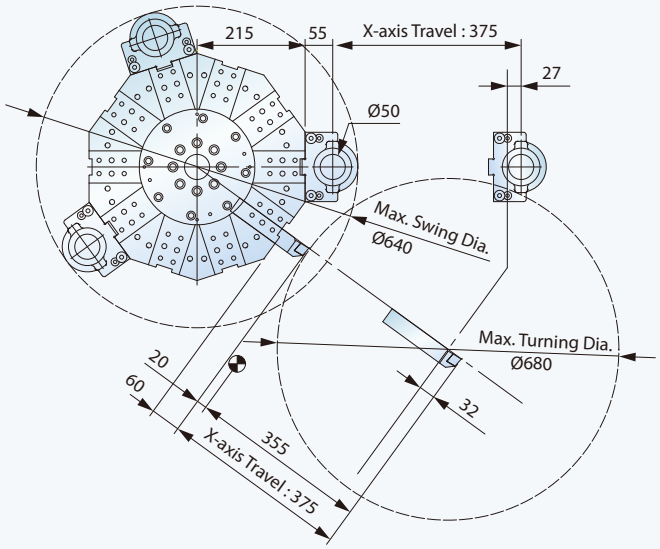




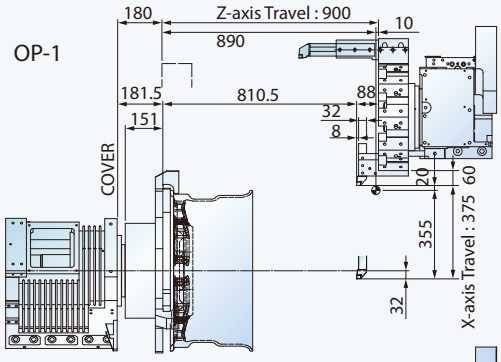
OP-2

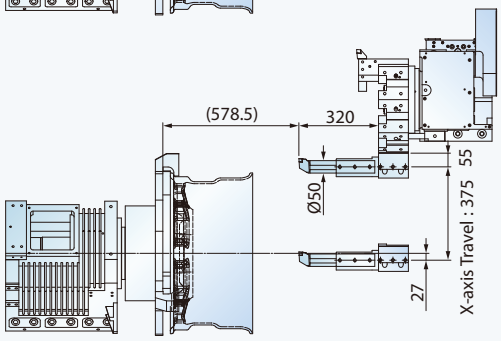


GA-3300/W24

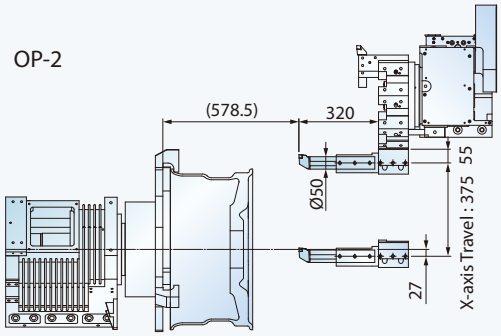


OP-1





OP-2



Unit : mm

MACHINE SPECIFICATIONS

CAPACITY	GA-2800/W18	GA-3300/W24
Max. swing diameter	Ø 700 mm	Ø 930 mm
Swing over saddle	Ø 520 mm	Ø 650 mm
Max. turning length	Ø 570 mm	Ø 680 mm
Hydraulic hollow 3-jaw chuck size	12"	15"
Wheel size	12" ~ 18"	13" ~ 24"
SPINDLE		
Spindle nose	A2-8	A2-8
Hole through spindle	Ø 90 mm	Ø 101 mm
Spindle bearing diameter	Ø 130 mm	Ø 140 mm
Max. spindle speed range	3,500 rpm	3,000 rpm
Spindle motor output (High torque wide speed range motor)	15 Kw	22 Kw
Max. spindle torque	497 N-m	750 N-m
Max. bar bore	Ø 75 mm	Ø 90 mm
X & Z AXES		
X-axis travel	315 mm	375 mm
Z-axis travel	620 mm	900 mm
X / Z axes rapids	20 / 24 m/min.	20 / 24 m/min.
X / Z axes servo motor	1.6 / 3.0 Kw	2.7 / 4.5 Kw
TURRET		
Turret type	Tower type	Tower type
Stations	8	10
OD tool shank size	25 × 25 mm	32 × 32 mm
ID tool shank size	Ø 50 mm	Ø 50 mm
Indexing speed (Adjacent)	0.3 sec.	0.4 sec.
GENERAL		
Hydraulic tank capacity	40 L	40 L
Coolant tank capacity	120 L	140 L
Dimensions (L × W × H)	2,445 × 1,780 × 1,900 mm	3,062 × 1,905 × 1,900 mm
Machine weight	5,000 Kg	6,800 Kg

Specifications are subject to change without notice.

Please refer to the manufacturer for max. speed of the aluminum-wheel hydraulic chuck.

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