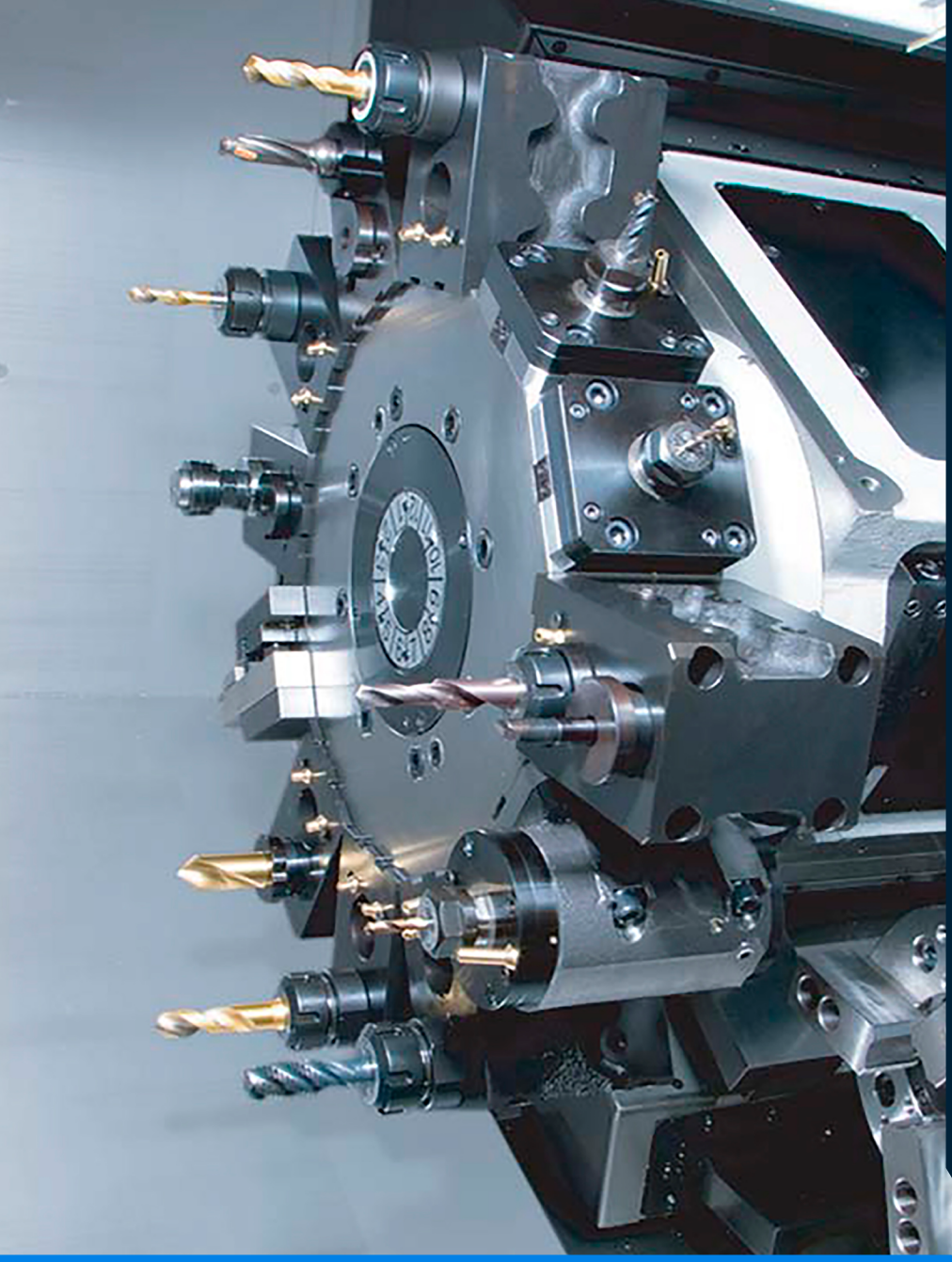


TSUGAMI
AMERICA

M08SY-II

TURNING CENTER WITH Y-AXIS

- 65mm Thru Bore Spindle Y Axis Turning Center
- 12 Station Driven Tool Turret
- Manual Tool Setter
- 8-Inch Main Spindle Chuck,
  6-Inch Sub Spindle Chuck
- Fanuc Oi-TF Plus CNC Control

tsugamiamerica.com

M08SY-II

TURNING CENTER WITH Y-AXIS

SPEED

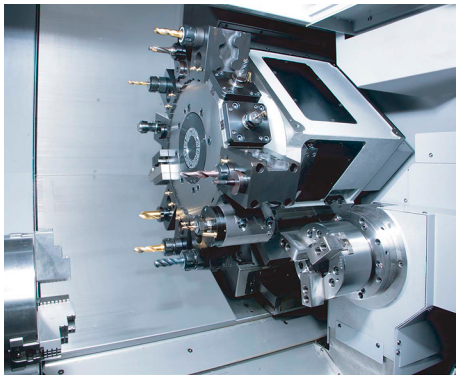
- The M08SY-II allows you to perform highly complex machining, such as turning, drilling, boring, cross-drilling and milling.
- Both the main and back spindles are equipped with state of the art integral servo motor spindles which minimize vibration and provide superior responsiveness for heavy duty cutting and fine finishing of workpieces.
- The Y-axis control enables diverse, off-center machining of complicated parts, plus incorporating the back spindle eliminates the need for secondary operations.

ACCURACY

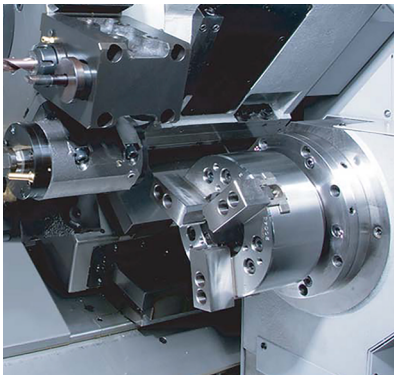
- The Y axis allows for turret tool positioning above or below center. The robust 12 station turret mounted to the Y axis allows for driven tooling to be mounted at any turret position for use on the main or back spindles.
- This tool zone flexibility coupled with the C axis provides you with the capability and flexibility to machine virtually any feature and drop your part complete.

RIGIDITY

- The M08SY-II features a very robust yet compact base, feature box way construction on the X and Y axes and weighs in at over 13,000 lbs! The box way construction allows for superior rigidity and dampening when taking heavy cuts.
- For extra peace of mind, the machines, motors, and Fanuc controls are covered by an industry leading two-year parts and service warranty.



M08SY Tool Zone



M08SY Back Spindle

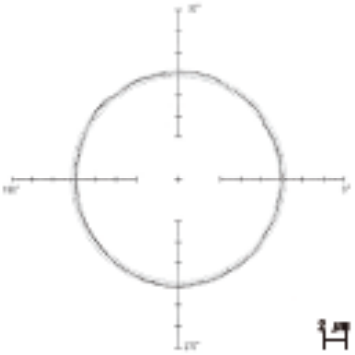
M08SY Tool Setter Standard

HIGH ACCURACY MACHINING

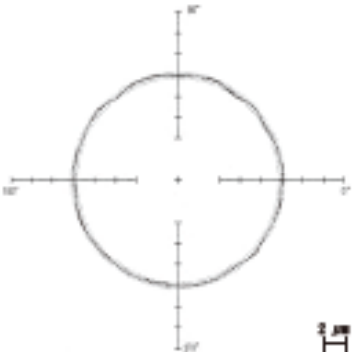
Note: The graph is an example of machining. It does not indicate guaranteed values.

Roundness

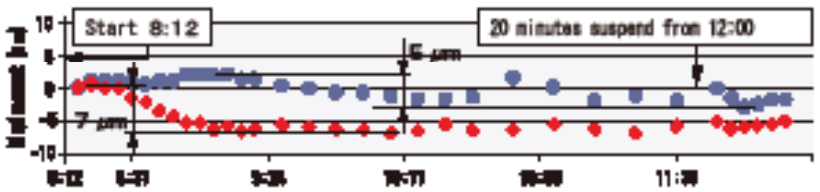
Main spindle
Rotation: 0.4 μm
Lateral diamond tool



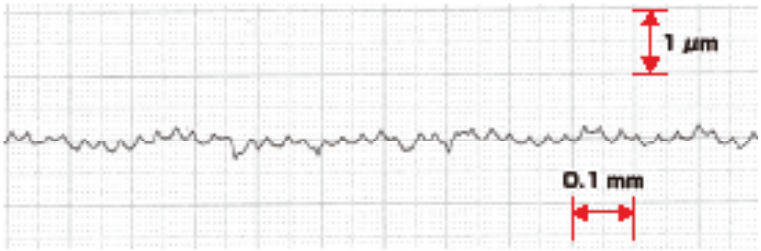
Sub spindle
Rotation: 0.4 μm
Lateral diamond tool



Continuous machining accuracy without warm-up operation: Main spindle: 5 μm/ Back spindle: 7 μm



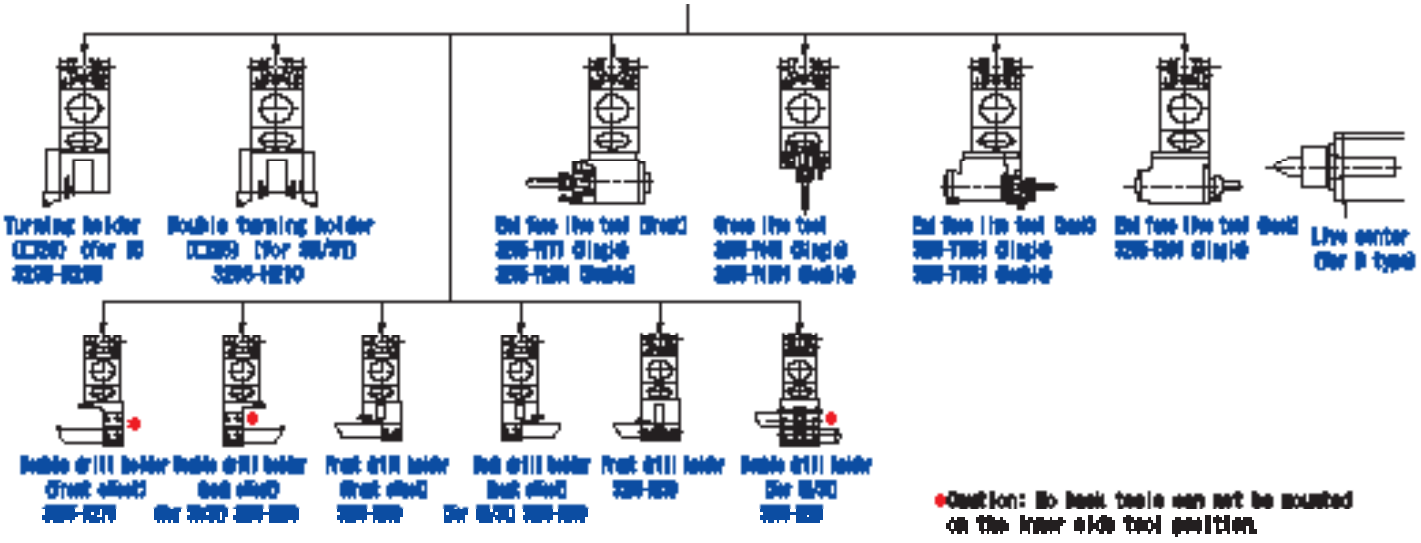
Surface roughness Material: Brass



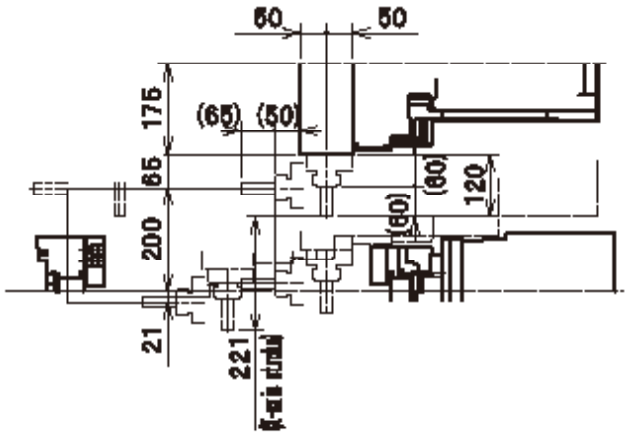
Rz = 0.005 μm Longitudinal magnification = 10,000
Ra = 0.002 μm Lateral magnification = 100

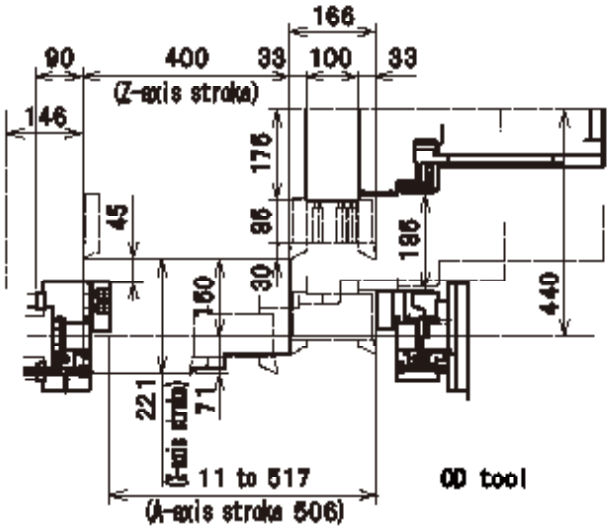
Note: The accuracy described above may not be obtained according to machined material, processing condition or the ambient conditions.

TOOL HOLDER (OPTION)



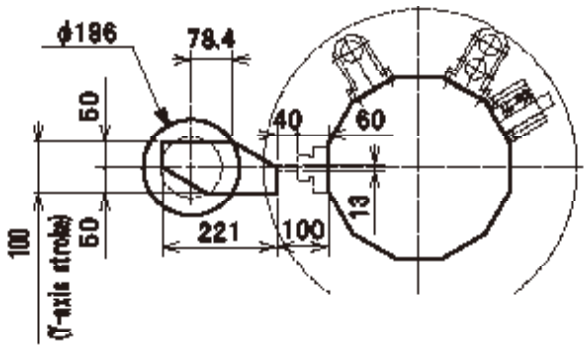
WORK ZONE & MODULAR TOOLING

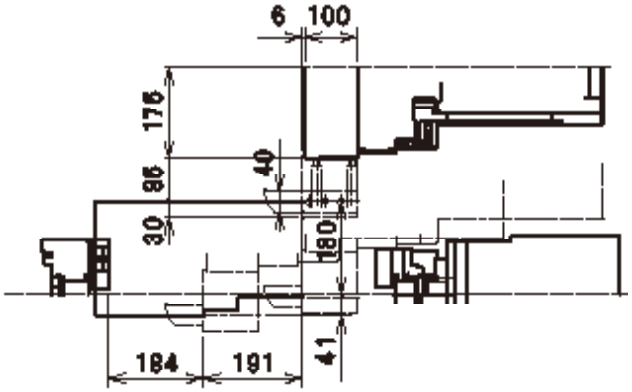




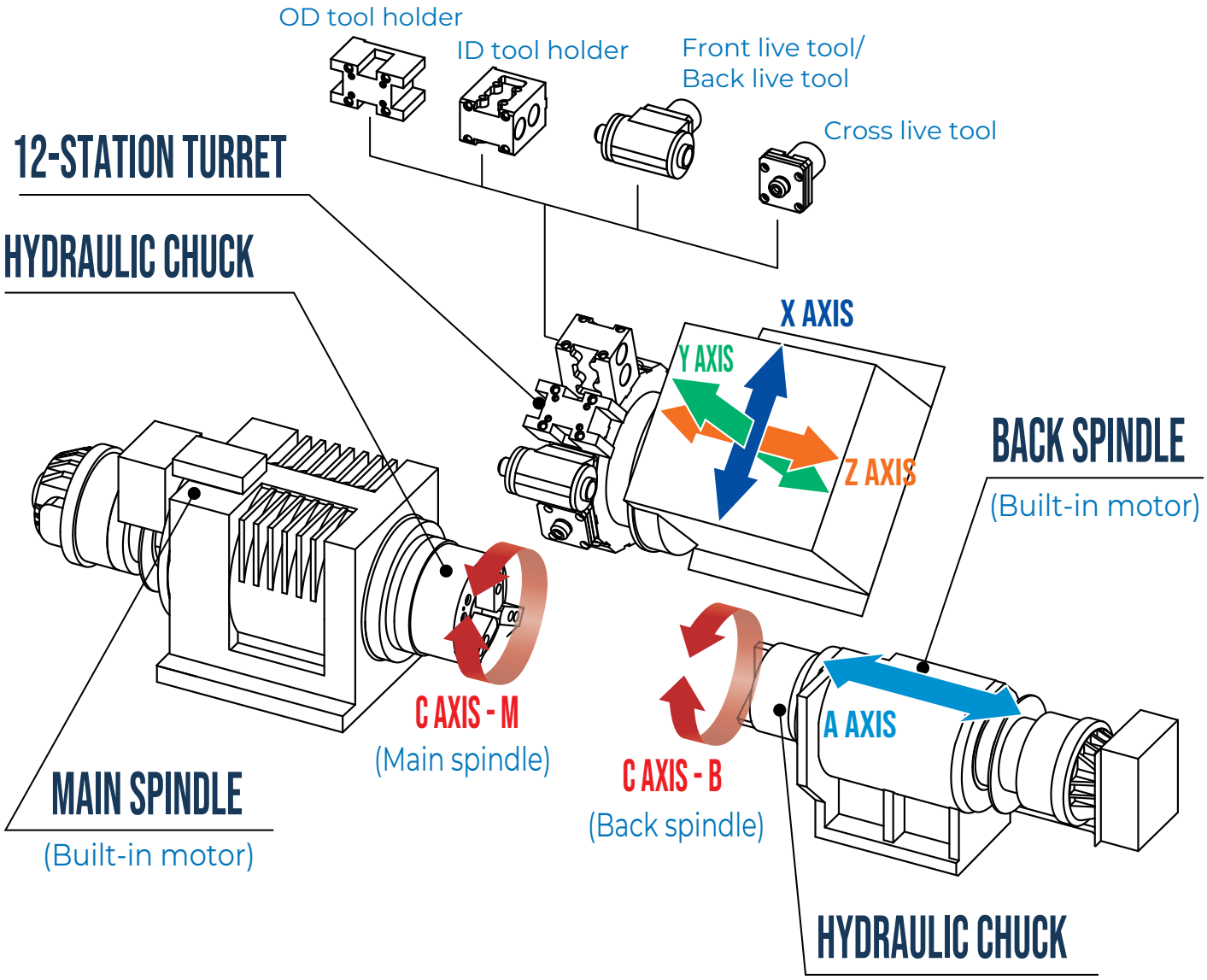
OD tool

Live tool





ID holder



Note: Shown figure includes options.

MACHINE STANDARD SPECIFICATIONS

STANDARD SPECIFICATIONS

ITEMS	M08SY-II
Max. Machining Diameter	Ø280/Ø65 (Barstock) Mm (Ø11.02/Ø2.56 (Barstock) In.)
Max. Machining Length	380 Mm (14.96 In.)
Chuck Size	8 Inch
Max. Main Spindle Speed	4,500 Rpm
Main Spindle Interface	A2-6
Main Spindle Bore	Ø73 Mm (2.87 In.)
Number Of Stations	12
Od Tool Shank	1.0”
Drill Holder 1D Bore	1.5”
Max. Back Spindle Speed	4,500 Rpm
Back Spindle Interface	Ø140 Flat Nose
Back Spindle Bore/ Ø	Ø59 / Ø2.32
Back Spindle Chuck	6 Inch
Max. Live Tool Speed	5,000 Rpm
Main Spindle Motor	7.5/11 Kw (10/14.8 Hp)
Back Spindle Motor	5.5/7.5 Kw (7.4/10 Hp)
Live Tool Motor	1.5/3.7 Kw
X/Z-Axis Motor	1.8 Kw (2.4 Hp)
A/Y-Axis Motor	A: 1.2 Kw Y: 1.8 Kw (A: 1.6 Hp Y: 2.4 Hp)
Stroke X/Z	X: 221 Mm Z: 400 Mm (X: 8.70 In. Z: 15.75 In.)
Stroke A/Y	A: 506 Mm Y: ±50 Mm (A: 19.92 In. Y: ±1.97 In.)
Rapid Traverse Rate X/Z	X: 24 M/Min Z: 27 M/Min (X: 945 Ipm Z: 1,062 Ipm)
Rapid Traverse Rate A/Y	A: 30 M/Min Y: 12 M/Min (Z: 1,181 Ipm Y: 472 Ipm)
Power Source Requirements	30 Kva
Compressed Air Requirement	0.5 Mpa
Air Discharge Rate	100 Nl/Min
Coolant Capacity	42 Gallons
Size (Width X Depth X Height)	2,470mm X 1,850mm X 1,930mm (97.24 In. X 72.83 In. X 75.98 In.)
Weight	5,900 Kg (13,007 Lbs)

INCLUDED ACCESSORIES

ITEMS
Work Catcher With Conveyor
Pneumatic Ejector
Sub Spindle Chuck 6” - 3 Jaw Hollow
(3) Double Turning Holder
(4) Double Drill Holder
(2) Boring Sleeve (.75” Id)
(2) Boring Sleeve (1.0” Id)
(2) Cross Drill Head
(2) Front/Back Drill Head
Work Stopper
Cut-Off Holder
Internal Illumination Light
Door Interlock
300 Psi Coolant Thru Turret
300 Psi Coolant Thru Ejector
Hydraulic Cylinder Unit
Standard Tools
Plate, Leveling Bolt
Transit Clamps
Spindle Air Purge
Thermal Compensation
Live Tool Rigid Tap
Main/Back Spindle C-Axis (With Brake)
Foot Switch
Tool Setter - Manual Swivel Type

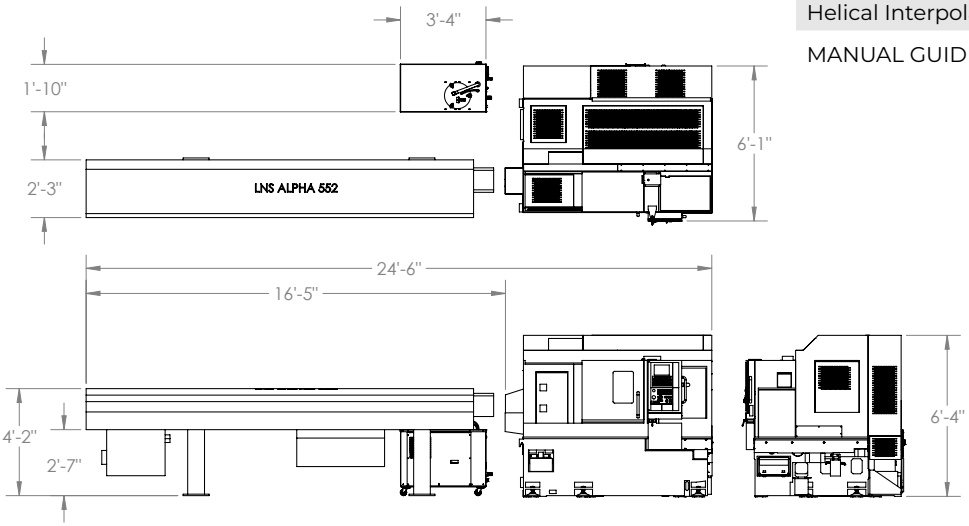
NC SPECIFICATIONS

NC UNIT

ITEMS	M08SY-II
Nc Unit	FANUC Oi-TF Plus
Controllable Axes	X,Y, Z, C^M, C^B, A
Least Input Increment	0.001 mm (.000040 in.)
Maximum Commandable Value	± 8 digits
Interpolation Method	Linear / circular
Cutting Feed Rate	1 to 6,000 mm/min (1 to 236 in/min)
Feed Rate Override	0 to 150%, 10% step
Dwell	G04, 0 to 99999.999
Absolute/Incremental Command	X, Y, Z, CM, CB, A: Absolute U, V, W, HM, HB: Incremental
Tool Offset Value	± 6 digits
Tool Offset Pairs	64 pairs
Lcd/Mdi	10.4” color LCD
Display Language	English
Part Program Storage Size	2 MB (equivalent to tape length 2,560 m)
No. Of Registerable Programs	1,000
Miscellaneous Function	M Code 4 digits
Spindle Function	S Code 4 digits
Tool Function	T Code 4 digits

NC ACCESSORIES

ITEMS	M08SY-II
Chasing Function	Standard
Continuous Thread Cutting	Standard
Manual Pulse Generator	Standard
Memory Card I/O Interface	Standard
Rs232c I/O Interface	Option
Back Ground Editing	Standard
Run Time/Parts Number Display	Standard
Custom Macro	Standard
Constant Surface Speed Control	Standard
Tool Geometry / Wear Offset	Standard
Programmable Data Input	Standard
Chamfering And Corner R	Standard
Multiple Repetitive Cycle	Standard
Expanded Program Editing	Standard
Direct Drawing Dimension Input	Standard
Inch/Metric Conversion	Standard
Canned Cycle For Drilling	Standard
Rigid Tapping	Standard
Abnormal Load Detection	Standard
Manual Handle Retrace	Option
Variable-Lead Thread Cutting	Standard
Thread Cutting Cycle Retract	Standard
Cylindrical Interpolation	Standard
Polar Coordinate Interpolation	Standard
Helical Interpolation	Standard
MANUAL GUIDE i	Option



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