



GYROFLEX

Ultimate Multi Task Machine



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**Ultimate Multi Task Machine
with FUJI's expertise in machining and automation.**

High Rigidity & High Productivity Design

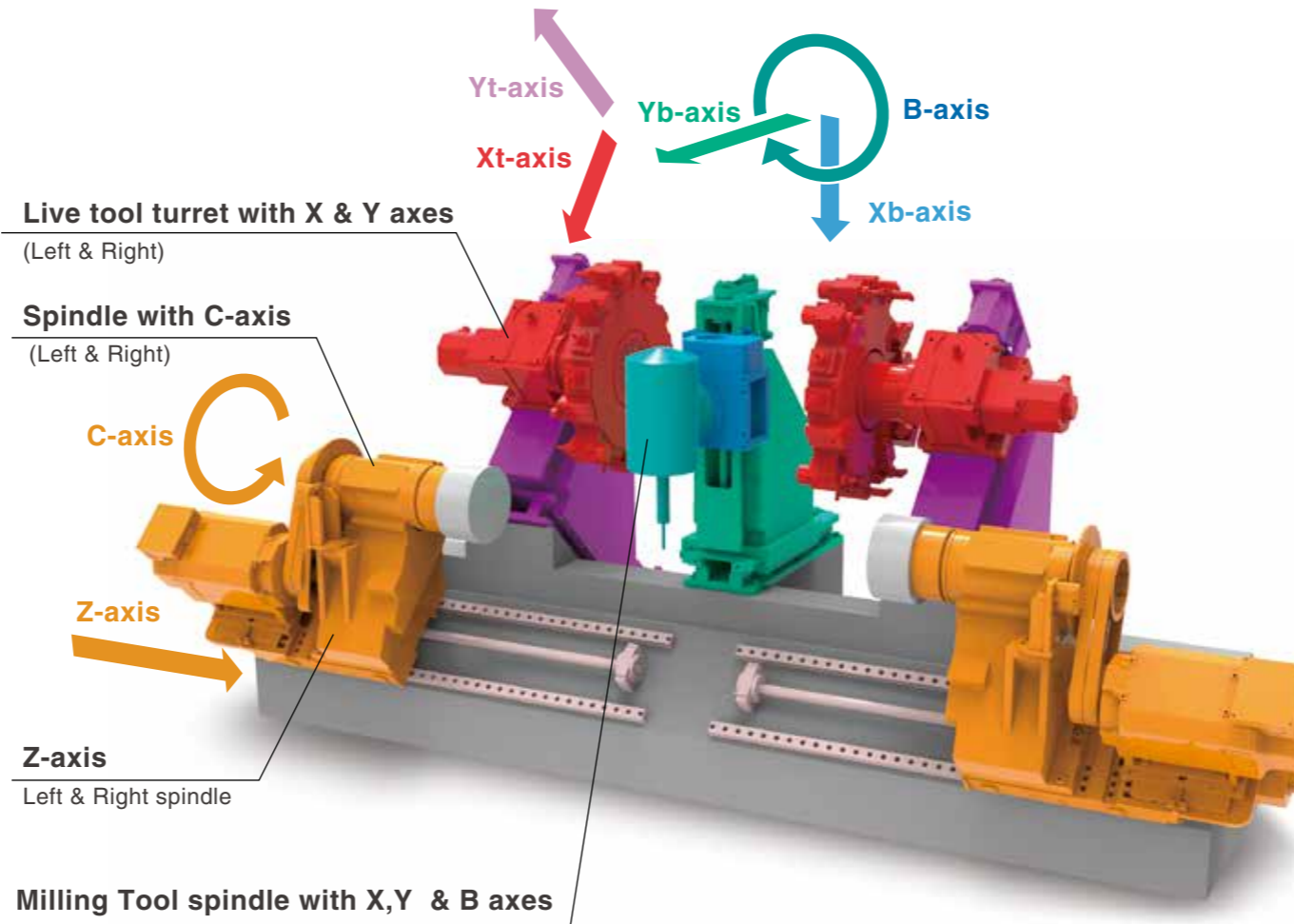
**FUJI Multi Task Machine
Dual Opposed Spindles
Perfect Chip Disposal Design
FUJI built reliable gantry robot and peripheral devices
FUJI engineered work holdings and optional items**

Live tool Turret

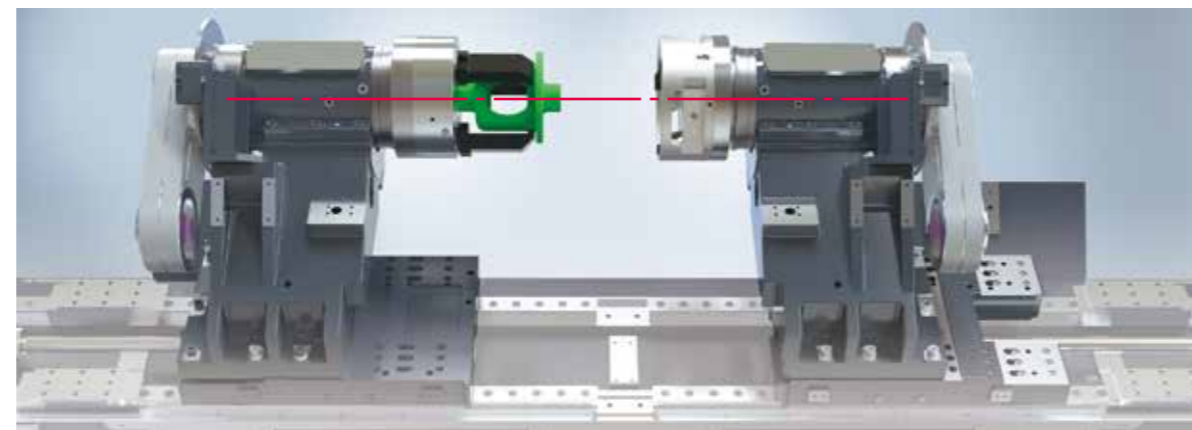
- 15 stations live tool turrets.
- The turrets are on the highly rigid X & Y axes box way slides.
- Turret index time is 0.4 sec.
- Rigid turret clamping with hyd. curvic coupling design.
- Live tools designed for heavy cutting.
Spindle speed : Max 4,000 rpm
Spindle motor : 6 HP



Machine Structure



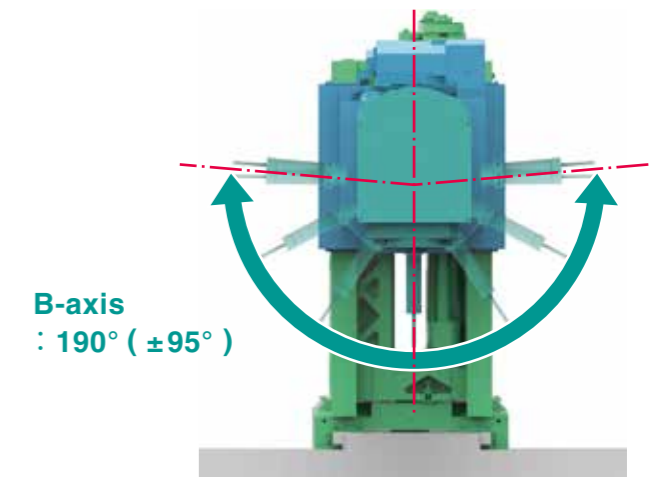
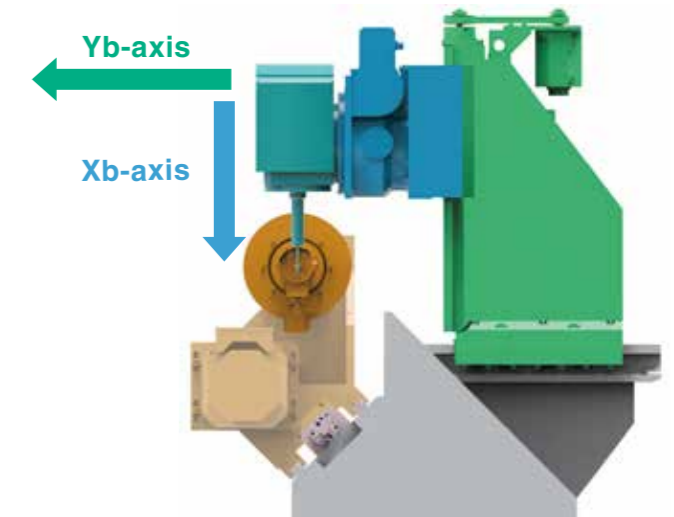
Main Spindle with C-axis



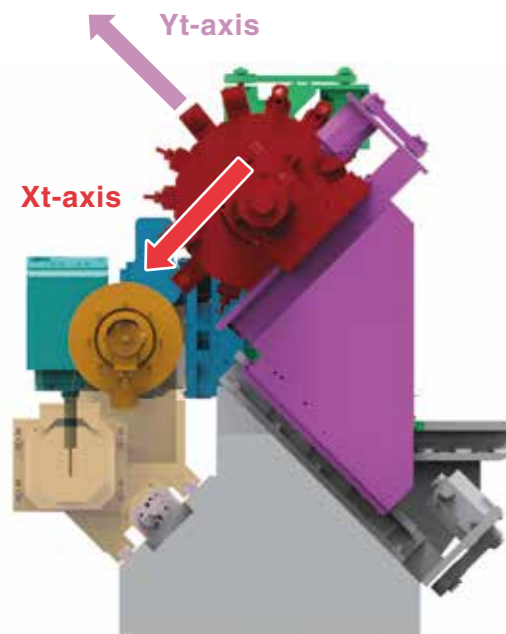
- The opposed twin spindles are positioned on the Z-axis slide ways with 960mm of stroke.
- Both spindles are the same size and have the same machining capability.
Same operations (OP-10A/10B) on both spindles is possible.
- The 1st spindle can pass a part to the 2nd spindle while keeping positioning accuracy.
- The Z-axis slide can move at high speed to reduce the loading time to the 2nd spindle.

Milling Tool spindle

- The Milling tool spindle is mounted on the rigid X & Y axes box way slides.
- The milling tool spindle can access to both Z-axis spindles and swing up to 190 degrees.
This allows for various different types of machining.
- Capto C6 : Standard equipment.
- High performance milling tool spindle.
Spindle speed : 12,000 rpm
Spindle motor : 15 HP

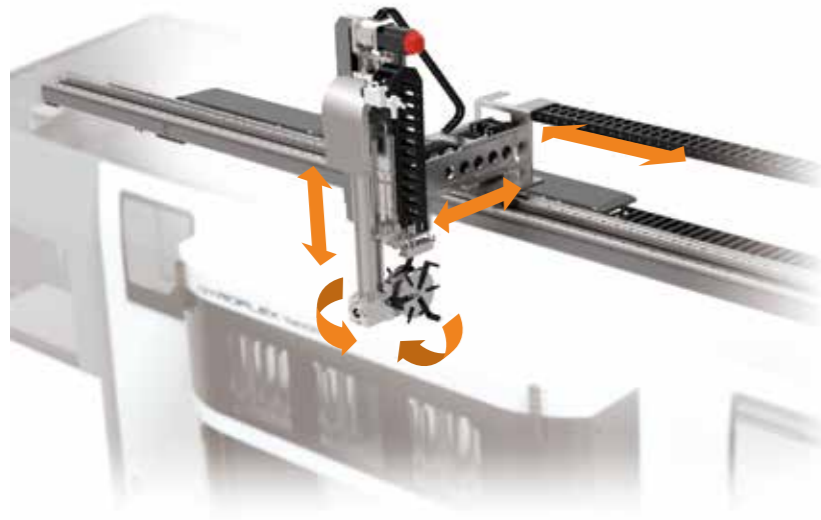


Turning by Milling Tool spindle



3-axes gantry robot

- The 3-axes gantry robot can access peripheral devices at the left and right sides of the machine.
- The robot has two arms (primary and secondary) to reduce the machines overall height.
- The hydraulic robot chuck enables stable clamping and workpiece handling with minimum space requirements due to the innovative thin type double hand design.
- A robot chuck clamp confirmation sensor is available as an optional item.



3-axes gantry robot



Double action mechanism

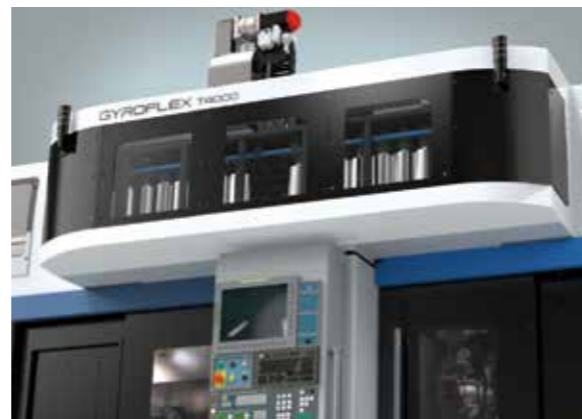
Control

- The new operation panel has expanded features and is user friendly.
- 15 inch touch panel screen.
- The machine and robot are controlled by FANUC 31i-B Plus.
- iPendant enables remote operation of control panel.



ATC

- The ATC magazine is located at the top of the machine for easy access and operation.
- 40 tools can be stocked in the magazine.
- Rapid tool change time : 4 sec
- Maximum tool diameter : 130 mm
- Tool length : 300 mm
- Tool weight : 8 kg



Flexibility to Customer's Production Style

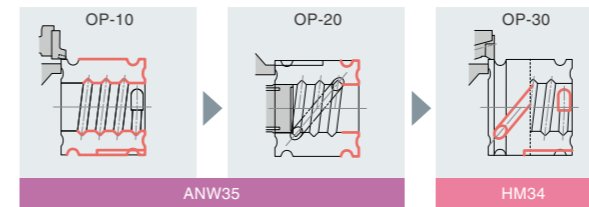
Advantage of FUJI GYROFLEX machine

- Integrated Robot for Fast Parts Handling and Unattended Operation.
- Complex Parts Completed Efficiently and Accurately with one single machine.
- Increased Machining Functionality and Flexibility.
- Reduced Set-up / Change-over time for high mixed production.
- Minimum Capital investment for low production volumes and parts prototyping.
- Reduction of other machine types and floor space.

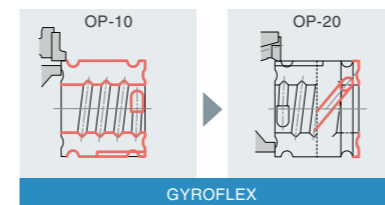
FUJI can offer both high volume & high mixed production line by customer's request.

Example 1: Ball nut

High volume production

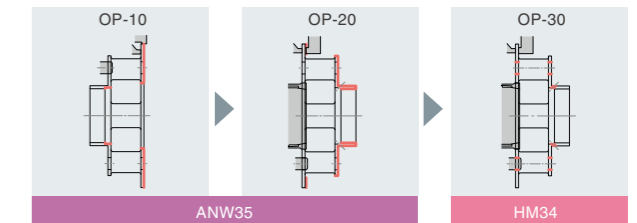


High mixed production

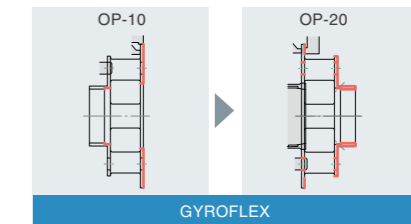


Example 2: Carrier

High volume production

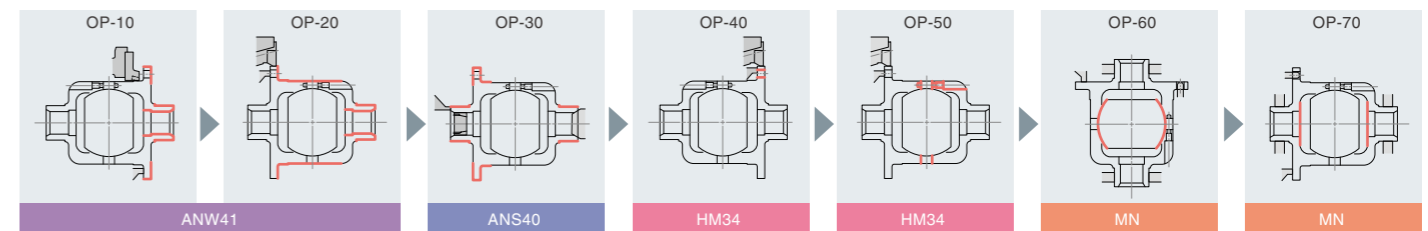


High mixed production

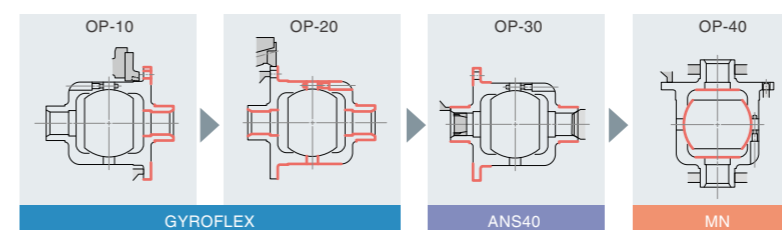


Example 3: Differential Case

High volume production



High mixed production



Specifications

GYROFLEX T4000

Machine Specifications

Recommended work size		mm [inch]	$\phi 300 \times 150$ [$\phi 11.8 \times 5.9$]	
Spindle slide	Spindle dia	mm [inch]	$\phi 120$ [$\phi 4.7$]	
	Spindle nose		A2-8	
	Spindle bore		$\phi 67$ [$\phi 2.6$]	
	Spindle speed	mm [inch]	Max. 4000	
	Spindle motor	min ⁻¹	Max. 4000	
	Slide stroke	Z-axis	mm [inch]	18.5 / 22 [25 / 30]
	Feed motor	Z-axis	mm [inch]	960 [37.80]
Turret slide	Number of tool stations		4.5 [6.0]	
	Turret index time		15 + 15	
	Turret mechanism	sec	0.4	
	Spindle speed for live tool		Curvic coupling	
	Spindle motor for live tool	min ⁻¹	Max. 4000	
	Slide stroke	X-axis	mm [inch]	4.5 [6.0]
		Y-axis	mm [inch]	295 [11.61]
	Feed motor	X-axis	mm [inch]	100 [3.94]
		Y-axis	mm [inch]	4.5 [6.0]
	Tool spindle slide	Spindle speed	min ⁻¹	Max. 12000
Spindle motor		kw [hp]	7.5 / 11 [10 / 15]	
Slide stroke		X-axis	mm [inch]	480 [18.90]
		Y-axis	mm [inch]	200 [7.87]
		B-axis	degree	190
Feed motor		X-axis	kw [hp]	4.5 [6.0]
		Y-axis	kw [hp]	3.0 [4.0]
		B-axis	kw [hp]	2.7 [3.6]
Tool shank type			Capto C6	
ATC	Tool change time	sec	4	
	Number of tool stocks		40	
	Max. Tool diameter	mm [inch]	130 [5.12]	
	Max. Tool length	mm [inch]	300 [11.81]	
	Max. Tool weight	kg [lb.]	8 [17.6]	
CNC Control			FANUC 31i-B Plus	

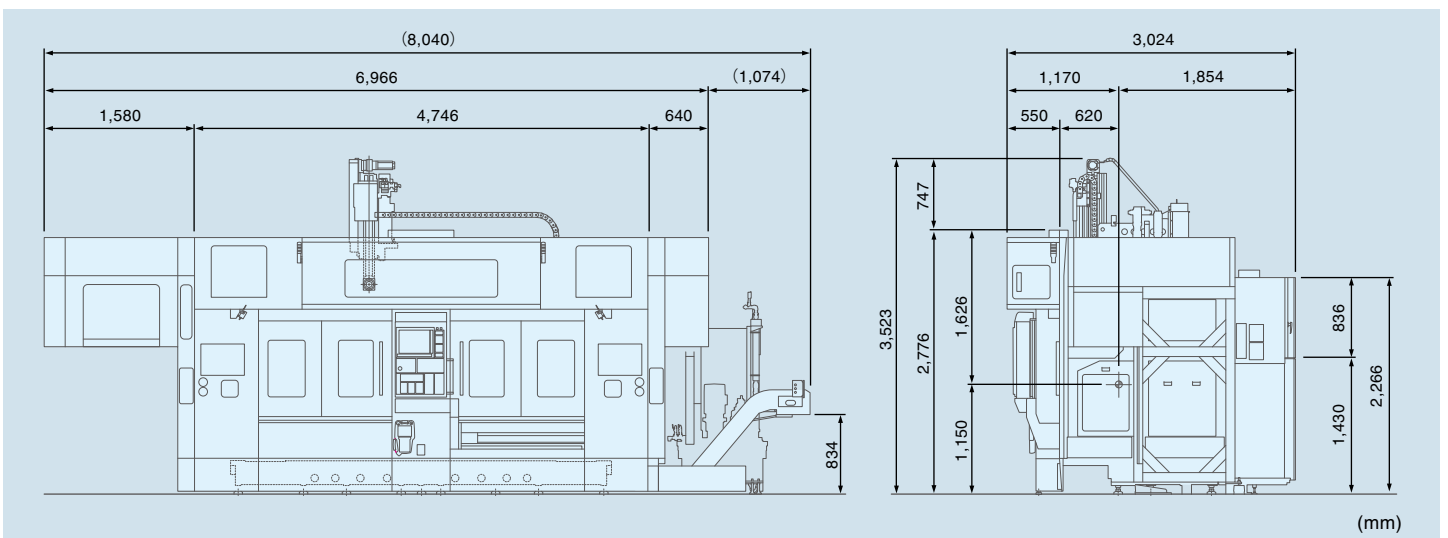
Robot Specifications

Robot type		LX-40
Carrying capacity	kg [lb.]	10 + 10 [22 + 22] Option : 15 + 15 [33 + 33]
Robot controller		FANUC

Machine Size

Footprint	mm [feet,inch]	5000 x 3000 [16'5" x 9'10"]
Machine height	mm [feet,inch]	3530 [11'7"]
Machine weight	kg [lb.]	18000 [39600]

Machine Overview



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■ Specifications are subject to change without notice.

■ The photos include options.



<https://www.fuji.co.jp/en/>

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