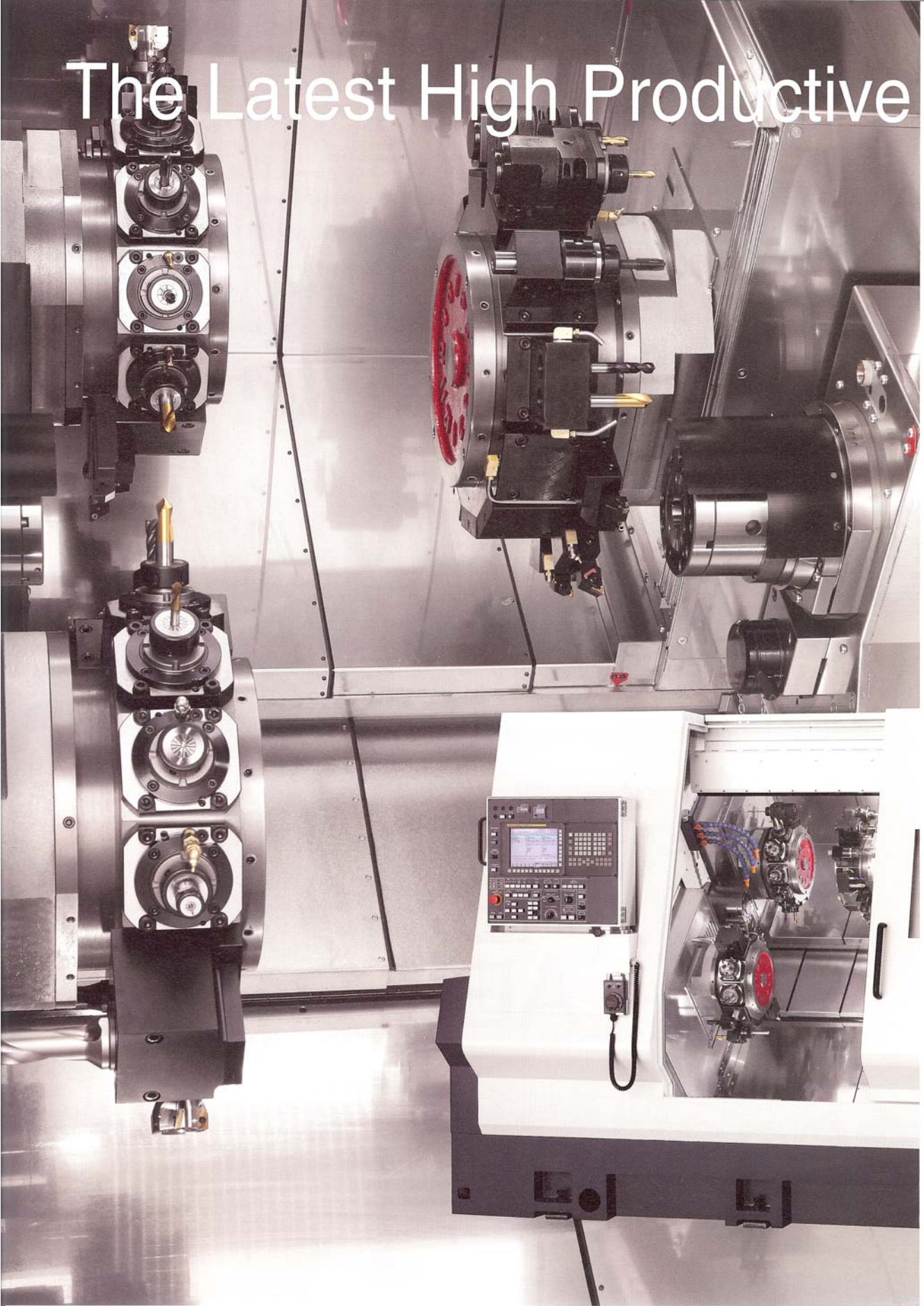


# ABX-51THY ABX-64THY

# The Latest High Productive



# Multitasking Turning Centre fr

The ABX-51THY and 64THY are designed to provide high productivity and flexibility. In addition to the advantages of simultaneous machining on both spindles, the introduction of a Y axis facility on all three turrets, contributes to optimization of production layouts and increased productivity.

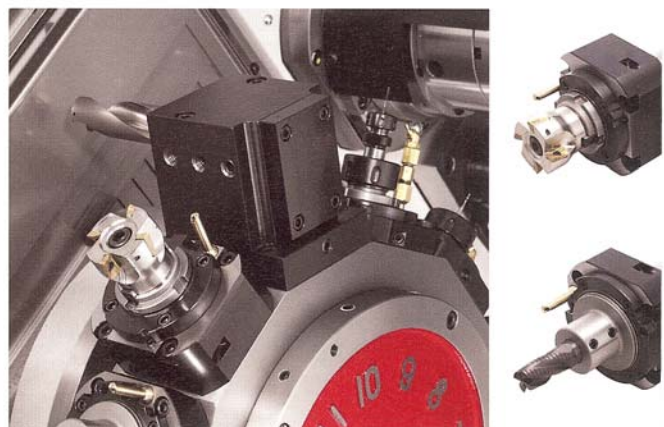
## High productivity with a Y-axis on all three turret

Simultaneous Y axis machining with the upper and lower turret on either spindle. Making one-hit machining easy.

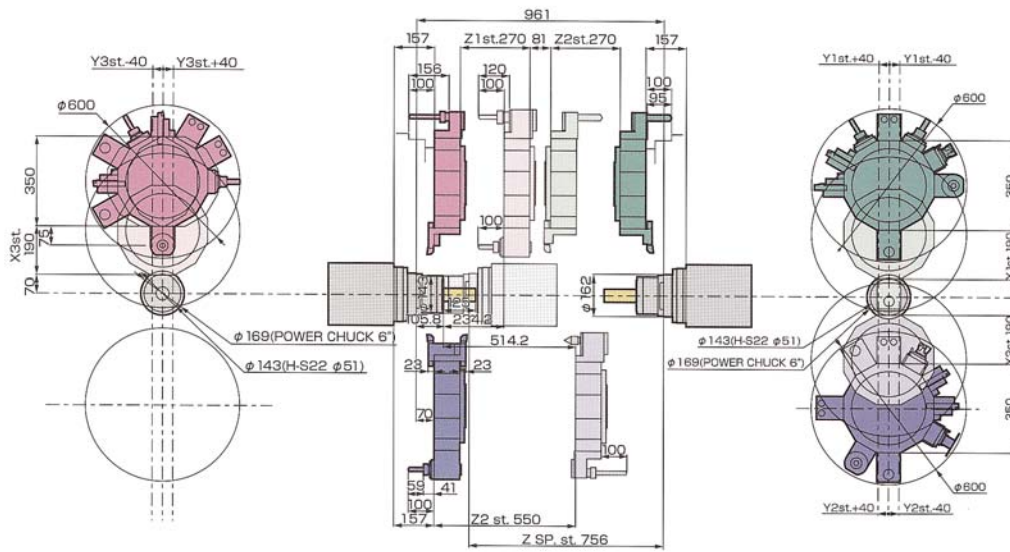


## 40Nm Revolving Tool High rigidity, High torque tool

All three turrets are built to provide high rigidity and cutting stability whether turning drilling or milling. Coupled with the extensive range of standard & revolving attachments maximises production efficiency.



## Tooling Area



## Options

### Tool Setter.

This double-arm tool setter facilitates tool setting quickly and precisely. By touching any of the internal or external cutting tools onto the sensor with four sense directions, the correct tool offset amount is set into the memory automatically.

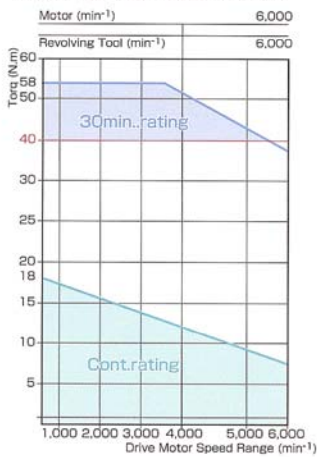
### Programmable Parts Catcher and Parts Conveyor.

The servo driven catcher in programmed in cycle to collect the finish part from either spindle. The completed high accuracy parts are then placed onto the parts conveyor system & transported out of the machine thus eliminating handling damage.

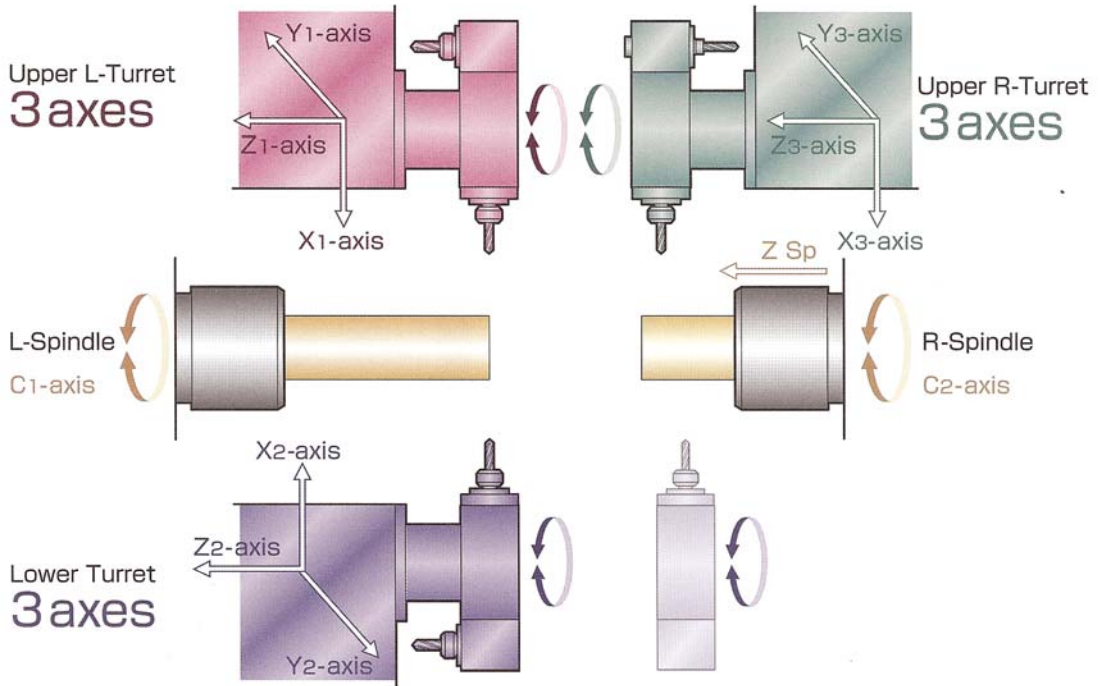
### Chip Conveyor.

Apron type conveyor for the evacuation of general purpose chips. This is an essential option for continuous unmanned running. Designed with fewer parts than hinge type system thus reducing maintenance & improving chip/swarf control.

### Revolving Power Diagram

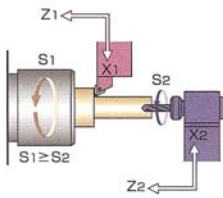


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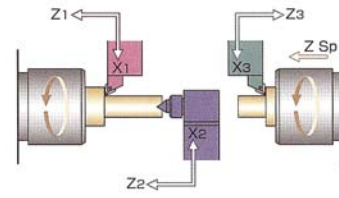


### Example of Simultaneous Machining

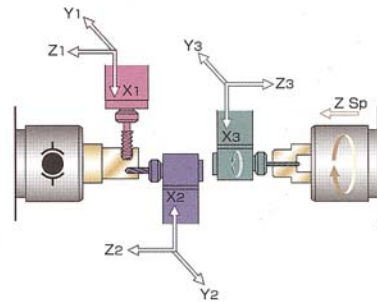
#### ■ Differential Cut



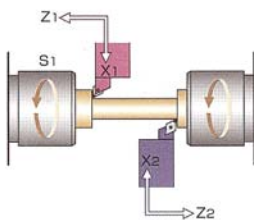
#### ■ Centre Support



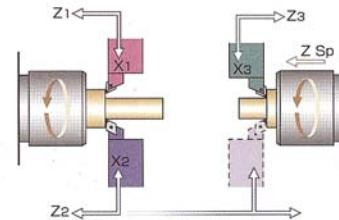
#### ■ Drilling & Tapping



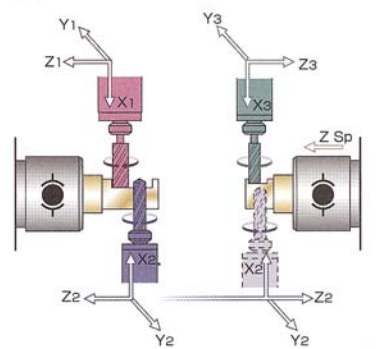
#### ■ 4-Axis Turning



#### ■ 6-Axis Turning



#### ■ 11-Axis Combined



## MACHINE SPECIFICATIONS

ITEM	MODEL NAME	ABX-51THY	ABX-64THY
<b>Machining Capacity and Chuck System</b>			
Max Machining Diameter of Bar Work	L/R spindle	φ51 mm	φ64 mm
Collet Chuck Type	L/R spindle	Stationary type	Stationary type
Power Chuck	L/R spindle	6"/6" hydraulic drive	6"/6" hydraulic drive
Standard Machining Length		125 mm	125 mm
<b>Spindle</b>			
Spindle Nose	L/R spindle	A2-6 / A2-6	A2-8 / A2-6
Spindle Motor (30 min. / Cont.)	L spindle	15 / 11 kW	15 / 11 kW
	R spindle	7.5 / 5.5 kW	7.5 / 5.5 kW
Spindle Speed Range	L/R spindle	50 ~ 5,000 min <sup>-1</sup>	40 ~ 4,000 min <sup>-1</sup>
R Spindle Travel	Zsp axis	756 mm	756 mm
R Spindle Rapid Traverse Rate	Zsp axis	30 m/min	30 m/min
<b>Turrets (Upper L/R Turrets &amp; Lower Turret)</b>			
Type of Turret		12 St Turret	12 St Turret
Shank Height of Square Turning Tool		□20 mm	□20 mm
Diameter of Drill Shank		φ40, φ25, φ20	φ40, φ25, φ20
Turret Indexing & Clamp Method		AC Servo & Curvic C	AC Servo & Curvic C
Slide Travel	X1, X2, X3 axis	190 mm	190 mm
	Z1, Z3/Z2 axis	270 mm / 550 mm	270 mm / 550 mm
	Y1, Y2, Y3 axis	±40 mm	±40 mm
Rapid Traverse Rate	X1, X2, X3 axis	16 m/min	16 m/min
	Z1, Z3/Z2 axis	20 / 30 m/min	20 / 30 m/min
	Y1, Y2, Y3 axis	12 m/min	12 m/min
<b>Revolving Tools (Option)</b>			
Max. Number of Revolving Tools		36	36
Tool Spindle Speed Range		60 ~ 6,000 min <sup>-1</sup>	60 ~ 6,000 min <sup>-1</sup>
Tool Spindle Driving Motor		AC Servo 4.5 kW	AC Servo 4.5 kW
<b>Machine dimensions</b>			
Machine Height		2,180 mm	2,180 mm
Floor Space		3,210 × 1,855 mm	3,210 × 1,855 mm
Machine Weight		11,100 kg	11,250 kg
<b>Others</b>			
Splash Guard Interlock, Coolant, Pneumatic Unit, Machine Light			
<b>Options</b>			
Collet Chuck System, Power Chuck System, Revolving Tools & Drive Unit, Air Blow (L/R Spindle)			
High Pressure Coolant (Turret), R Spindle Inner High Pressure Coolant & Air Blow, Hinge Type Chip Conveyor			
Chip Box, Parts Catcher & Parts Conveyor, Parts Carrier System (for long shaft work), Automatic Bar Feeder			
Coolant Mist Collector & Explosion-Proof Damper, Automatic Power Off			

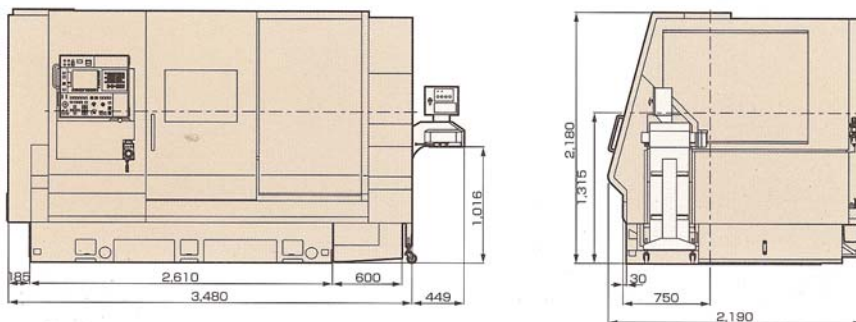
The specifications are subject to change without notice. Standard equipment package may vary by region. Machines in photos may not look exactly the same as the actual products.

## NC SPECIFICATIONS

MIYANO-FANUC

Simultaneously Controlled Axes	4-axis (3 Channel)
Min. Input Increment	0.001 mm (Diameter for X-axis), 0.001 deg.
Min. Output Increment	X-axis: 0.0005 mm, Z-axis: 0.001 mm
Part Program Storage Capacity	128 KB (320 m tape length)
	63 Programs
Spindle Function	S4-digit spindle speed direct specification (G97)
	Constant surface speed control (G96)
Cutting feed Rate	F3. 4-digit, direct specification
	(feed per rev : min/rev, feed per min : mm/min)
Cutting Feed Rate Override	0 to 150 % (in 10 % increments)
Interpolation	G01, G02, G03
Threading	G32, G92
Canned Cycle	G90, G92, G94
Tool Selection and Work Coordinate Settings, and Tool Wear Compensation	Tool selections and work coordinate settings are selected from 1 to 32 by T□□□□ □□ at the specified position for each turret. Tool wear compensation is selected by ΔΔ.
Direct Input of Tool Position	Measured value can be directly key in
Input/Output Interface	RS-232C, PC Card Slot
Automatic Operation	1 Cycle Operation/Continuous Operation
	Single Block, Block Delete, Machine Lock
	Optional Block Skip, Dry run, Feed hold
<b>Others</b>	
Manual Pulse Generator, 10.4" Color LCD, Decimal Point Input	
Memory Protect, Absolute Positioning Coder, Polar Coordinate Interpolation	
Synchronous and Combined Control, Retracing Function, Cs-axis Control (L/R Spindle)	
<b>NC Option</b>	
Chamfering/Corner R Control, Tool Nose R Compensation, Background Editing	
Part Program Storage Capacity (Total: 256 kB, 512 kB, 1 MB)	
Run hour / Parts number counting, Multiple Repetitive Canned Cycle (G70 to G76)	
Rigid Tapping Function for L/R Spindle and Revolving Tools (Drilling Canned Cycle is required)	
Custom Macro, Variable Lead Thread Cutting, Cylindrical Interpolation, Multiple Threading (G33)	
Continuous Threading, Drilling Canned Cycle (G80 to G86), Helical Interpolation	
Tool Life Management	

## EXTERNAL VIEW



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<http://www.miyano.de>



ISO 9002  
Certificate Number: 35819



ISO 14001  
JQA-EM5711

HEADQUARTERS  
KITAKAWA PLANT  
THE DESIGN, DEVELOPMENT,  
MANUFACTURE AND SERVICE  
OF MACHINE TOOLS, TOOLING,  
MACHINE PARTS, CENTER  
DRILLING MACHINES,  
CNC CENTER, BRIDGE AND  
MC POSITIONING EQUIPMENTS



ISO 9001  
JQA-QM4675

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