

# Rhino



Focus On High Speed & 5-axis

## Horizontal 5-Axis Machining Center





# Rhino

## Application :

**Aircraft Industry** Engine Casings | Integral Components | Turbocharger Housings

**General Machining** Pinion Cages | Bevel Gear Wheels

## Horizontal 5-Axis Machining Center

This machine can process complex geometry components using **processed steel**, **nickel-based alloys**, **titanium**, and a range of other materials. Widely used in the processing of aerospace engine casings and rotary parts such as blisks and turbine blades.

### Maximum Rigidity

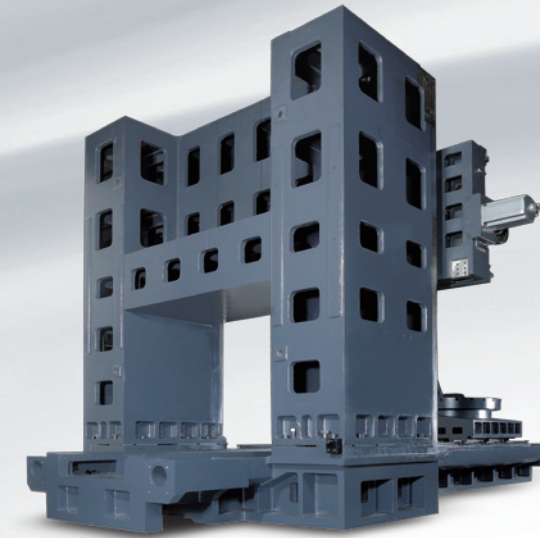
#### Y-Axis Design with Vertically Traversable Crossbeam

Y-axis motion is controlled by a traversable crossbeam with vertical up and down movement. The spindle (Y-axis) movement is in the same direction as the machine crossbeam movement and precision machining quality is ensured along the whole of the Y-axis travel whether the cutting tool is close or far from the worktable. Additionally, the vertical and horizontal double-frame structure design increases rigidity, reduces vibrations, and provides machining stability.

Rhino



Y-axis

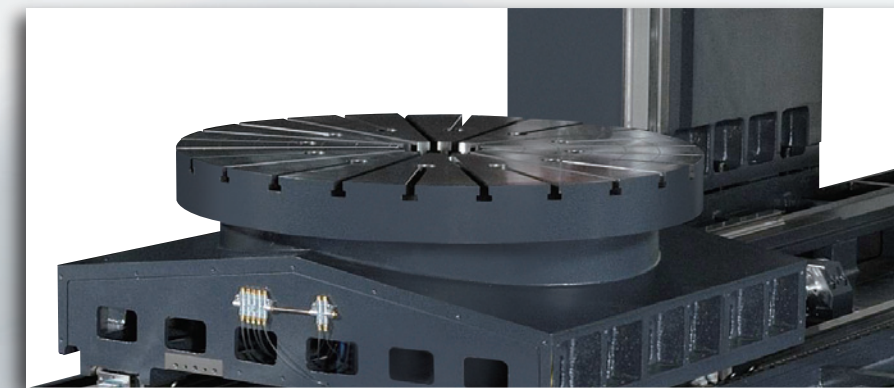
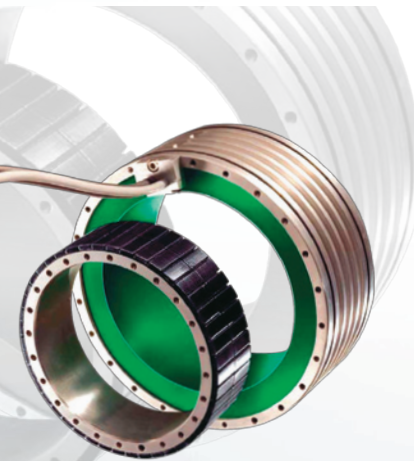


### One Piece H Type Column

For structural rigidity and constant precision along the entire Z-axis vertical stroke.

### Direct-Drive Motor Rotary Table 300rpm Turning Functions

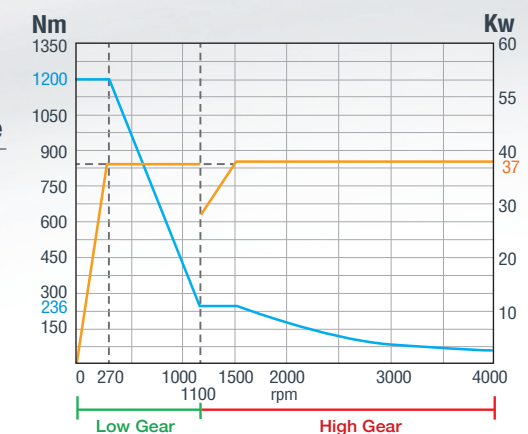
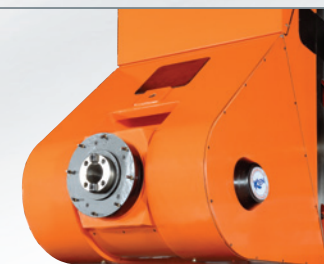
- Direct-drive motor for high speed, high torque, high precision.
- Eliminate worm and gear wear, and wear of other components.
- No backlash and low wear design for long-lasting accuracy.
- Simple structure for easy maintenance.



### Short Throat Depth Tilting Milling Head

A-Axis with 1200Nm Mechanical Transmission Spindle

Spindle Speed  
4000rpm





# Specifications

Model	Unit	Rhino-1250	Rhino-1700	Rhino-2200
Travel				
X-Axis (Spindle Head Travel Right/Left)	mm	2000	2400	2800
Y-Axis (Spindle Head Travel Up/Down)	mm	1400	1400	1400
Z-Axis (Table Forward/Backward)	mm	2200	2600	3000
Distance between (B-Axis= +0°) Spindle End and Table Center (Z-Axis at Home)	mm	1350	1750	2150
Distance between B-Axis Rotation Center and Table Center (Z-Axis at -End)	mm	-593	-468	-218
Distance between Spindle End and Table Center (B-Axis = +90°)(Z-Axis at Home)	mm	1665	2065	2465
Distance between B-Axis Rotation Center and Table Top Face (Y-Axis at Home)	mm	1399		
Distance between Spindle End and Table Top Face (B-Axis = +90°)(Y-Axis at Home)	mm	1084		
Rotary Table (B-Axis)				
Rotary Table Dimensions	mm	Ø1250	Ø1700	Ø2200
Max. Workpiece Diameter	mm	Ø2000	Ø2400	Ø2800
T-Slot Size	mm	22		
Rotary Table Minimum Scale	deg	0.001		
Rotating Angle (Continuous)	deg	360°		
Rotating Speed	rpm	20		
Rotating Speed for Vertical Lathe	rpm	300		
Max. Table Load for Vertical Lathe	kg	1500		
Rated Power	Kw	45		
Motor Torque S1-100% (S6-40%)	Nm	4000 (5200)		
Brake Torque (Hydraulic)	Nm	10000		
Milling Head (A-Axis)				
Max. Motor Torque	Nm	3000		
Brake Torque (Hydraulic)	Nm	4000		
Positioning Accuracy	+/-	0.003		
Rotating Angle	+/-	+40° /-120		
Spindle				
Spindle Taper		BT-50		
Spindle Speed	rpm	4000		
Spindle Power (S6-40%)	kW	36		
Spindle Torque (S6-40%)	Nm	1200		
Feed Rate				
X/Y/Z Axis Rapid Feed Rate	m/min	50/50/50		
Automatic Tool Changer				
Tool Magazine Capacity	pc	40		
Max. Tool Length	mm	250		
Max. Tool Dimensions	mm	Ø100		
Max. Tool Weight per Piece	kg	12		

Specifications are subject to change without notice.



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