



Focus On High Speed & 5-Axis



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Asia's Only Professional 5-Axis Machining Center Manufacturer

KEN ICHI MACHINE is the only company in Asia that specializes in 5-axis machining centers for the aircraft and automotive industries. We integrate European design and European key components with high-speed 5-axis machine manufacturing professionals in Taiwan, to satisfy the needs of the following industries:

Aircraft Industry

Aluminum components:

Aluminum extrusion profiles, floor beams, frames, rib spars, flap tracks, frame boards, fuel tank side covers, etc.

Very tough materials: (Titanium, inconel, stainless steel, special steel, alloy steel) High precision aircraft components, engine casings, engine brackets, blisks.

Automotive Industry

Stamping die and mold: fenders, engine covers, door panels, body sides, etc.

Plastic injection molding: bumpers, dashboards, lamp molds, inner door panels, plastic interior components, etc.

General Machining Industry

Heavy-duty components for: machine structures, boats, railways, wind turbines, gearboxes, etc.

Focus On High Speed & 5-Axis

Aircraft Industry

Aluminum Structures
Titanium Structures
Engine Casings
Turbine Blades & Blisks

Automotive Industry

Stamping Die and Mold
Plastic Injection Mold

General Machining

Heavy-duty Components



JET Series



Giant Series



Loader Series



Titan Series



Linmax Twin Series



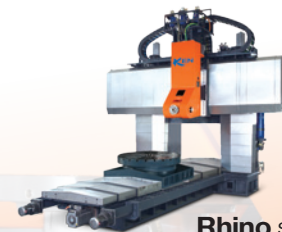
Linmax Series



Compact Series



Rotor Series



Rhino Series





HIGH TORQUE Series

Rotor	Rhino	Titan	Loader	Giant
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HIGH SPEED Series

JET	Compact	Linmax	Linmax Twin
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Rotor High Speed 5-Axis Machine Center

Aircraft Industry | Blisks, Engine Casings
Automotive Industry | Car Lamp Molds, Mold Cores



European Imported Rotary Tables

A/C Axis rotation is driven by a high torque direct-drive motor with reduced wear parts (worm and gears, belts, etc.), achieving long lasting accuracy.

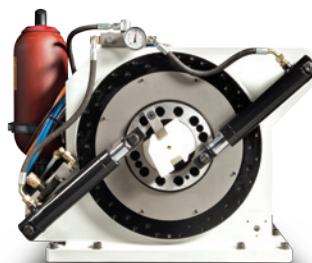
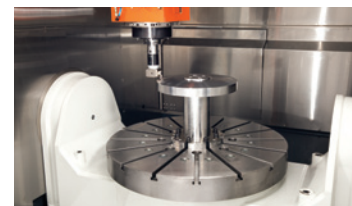


260 Nm High Torque Spindle

Uses a European imported high torque spindle, suitable for the machining of titanium, stainless steel, and superalloys, etc.

500 rpm Vertical Lathe Functions

Rotor-100 C-axis rotary table, also performs direct 500rpm lathe operations.



Rotor-100 A-Axis Swing with Exclusively-designed Hydraulic Balancing System

Rotary table can maintain stability and precision at high-speeds and at different loads.

Spec. / Model	Unit	Rotor-80	Rotor-100
Travel			
X-axis	mm	800	1,180
Y-axis		850	1,250
Z-axis		700	800
Max. Machining Size		1,050	1,400
Swivel Table A&C Axis		Torque Motor Direct Drive	
Table Size	mm	Ø800	Ø1,000
Rotation Speed	rpm	30/50	
Feedrate			
X/Y/Z-axis Rapid Feedrate	m/min	50/50/40	

Spindle

Max. Speed	rpm	24,000	12,000	8,000
Spindle Type	type	HSK A63	HSK A100	HSK A100
Max. Spindle Power	kW	55	50	26
Max. Spindle Torque	Nm	87	314	260

Rotor



Rhino

Horizontal Type Mobile Crossbeam 5-Axis Lathe / Milling Machine Center

Aircraft Industry | Engine Casings

General Machining | Bevel Gear Wheels, Gearboxes



Crossbeam with Up and Down Travel

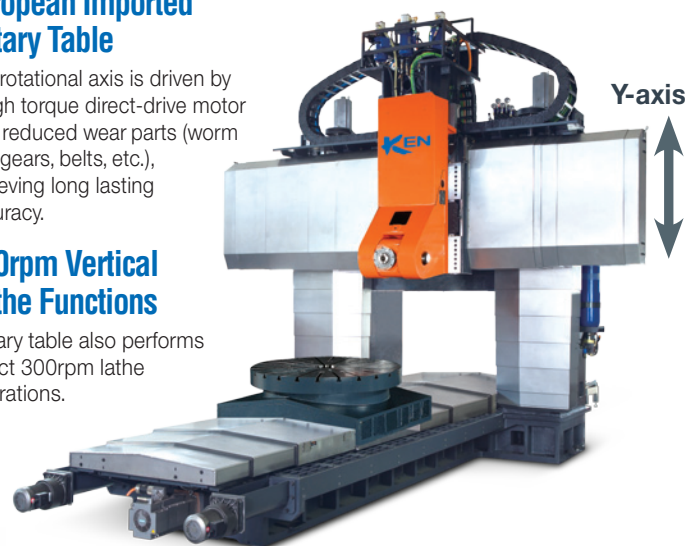
The Y-axis design uses a crossbeam that moves up and down so the spindle head can travel to any position, while ensuring rigidity and cutting precision.

European Imported Rotary Table

The rotational axis is driven by a high torque direct-drive motor with reduced wear parts (worm and gears, belts, etc.), achieving long lasting accuracy.

300rpm Vertical Lathe Functions

Rotary table also performs direct 300rpm lathe operations.



European Imported High Torque Swing Milling Head

1,200Nm high torque spindle, can machine titanium, inconel, stainless steel, special steel, alloy steel, as well as other hard-to-cut materials.



Spindle

Tool Shank	BT-50	
Max. Spindle Power S6-40%	kW	36
Max. Spindle Torque S6-40%	Nm	1,200
Max. Speed	rpm	4,000

Rhino



Spec. / Model	Unit	Rhino-1250	Rhino-1700	Rhino-2200
Travel				
X-axis	mm	2,000	2,400	2,800
Y-axis		1,400	1,400	1,400
Z-axis		2,200	2,650	3,000
Swivel Table		Torque Motor Direct Drive		
Table Size	mm	Ø1,250	Ø1,700	Ø2,200
Rotation Range	deg	360° (Continuous)		
Turning rpm	rpm	300		
Feedrate				
X/Y/Z-axis Rapid Feedrate	m/min	50/50/50		

Titan

Fixed Column Mobile Crossbeam 5-Axis Machine Center

**Aircraft Industry | Titanium Alloy Components,
Aircraft Landing Gears**

General Machining | Heavy-Duty Machining



Outstanding High Rigidity Cutting Capabilities

Crossbeam with Up and Down Travel

Crossbeam up and down moving design has no ram overhang vibration problems, so when spindle travels to any position, this ensures rigidity and cutting precision.



MTK



European Imported High Torque Mechanical Transmission Milling Head

- 1,200Nm high torque spindle, can machine titanium, inconel, stainless steel, special steel, alloy steel, as well as other hard-to-cut materials.
- B-axis rotation center shifts down so it can be closer to the working table surface, effectively increasing the machining area.

Spindle

Spindle Type		MTK
Tool Shank		BT-50
Max. Spindle Power S6-40%	kW	40
Max. Spindle Torque S6-40%	Nm	1,200
Max. Speed	rpm	5,000

Spec. / Model	Unit	Titan-1630	Titan-2240	Titan-3050
Travel				
X-axis	mm	3,000	4,000	5,000
Y-axis		2,350	2,900	3,700
Z-axis		750	1,000	1,250
W-axis		300	300	300
Distance Between Column		1,650	2,200	3,000
Two-axis Milling Head (B&C Axis)		High Torque Mechanical Transmission Milling Head		
Max.Torque B/C	Nm	4,500 / 3,500		
Clamping Torque B/C		4,500		
Measuring Resolution B&C	+/-	0.001 / 0.001		
Rotation Angle B/C		+10° to-105° / ± 185°		
Table				
Table Size	mm	3,000x1,350	4,000x1,850	5,000x2,600
Feedrate				
X/Y/Z-axis Rapid Feedrate	m/min	24		

Titan



Loader Moving Column Type 5-Axis Machine Center

General Machining | Heavy-Duty Machining



Spacious Working Area

All the axes of this machine (X/Y/Z/B/C axis) can travel along the moving column. Also the fixed worktable design ensures this machine is suitable for heavy-duty cutting, high precision and large component machining, and also provides a spacious working area.

X/Y Axis Drive

X/Y Axis uses a European imported double servo motor with electronic backlash eliminating technology. By combining a high-grade decelerator with a high accuracy rack and pinion drive, this provides high precision, no backlash, low noise, low maintenance, and extended service life.



European Imported High Torque Mechanical Transmission Auto Indexing Milling Head



Index

European Imported High Torque Mechanical Transmission Milling Head

B-axis rotation center shifts down so it can be closer to the working table surface, effectively increasing the machining area.



MTK

Spec. / Model	Unit	Loader-33	Loader-43	Loader-53
Travel				
X-axis	mm	8,000 or more		
Y-axis		4,300	5,300	6,300
Z-axis		1,200	1,600	1,600
Distance Between Column		3,300	4,300	5,300
Table Width		2,800	3,300	4,300
Two-axis Milling Head (B&C Axis)		High Torque Mechanical Transmission Auto Indexing Milling Head		High Torque Mechanical Transmission Milling Head
Max. Torque B/C	Nm	—		4,500 / 3,500
Clamping Torque B/C		15,000 / 15,000		4,500
Measuring Resolution B&C	+/-	2.5°(Opt. 1°/ 5°)		0.001 / 0.001
Rotation Angle B/C		120°/ 185°		+10° to-105° / ± 185°
Table				
Table Length	mm	8,000 or more		
Table Width	mm	2,800	3,800	4,800
Feedrate				
X/Y/Z-axis Rapid Feedrate	m/min	30/30/20		

Spindle

Spindle Type		Index	MTK
Tool Shank	type	BT-50	BT-50
Max. Spindle Power S6-40%	kW	46	40
Max. Spindle Torque S6-40%	Nm	1,200	1,200
Max. Speed	rpm	4,000	5,000

Loader



Giant

Moving Column Mobile Crossbeam Type 5-Axis Machine Center

General Machining | Heavy-Duty Machining



Spacious Working Area

All the axes of this machine (X/Y/Z/W/B/C axis) can travel along the moving column. Also the fixed worktable design ensures this machine is suitable for heavy-duty cutting, high precision and large component machining, and also provides a spacious working area.

W-Axis Crossbeam

This machine features a W-axis crossbeam up and down moving design with no ram overhang vibration problems, so when spindle travels to any position this ensures rigidity and cutting precision.

X/Y Axis Drive

X/Y Axis uses a European imported double servo motor with electronic backlash eliminating technology. By combining a high-grade decelerator with a high accuracy rack and pinion drive, this provides high precision, no backlash, low noise, low maintenance, and extended service life.



European Imported High Torque Mechanical Transmission Auto Indexing Milling Head

European Imported High Torque Mechanical Transmission Milling Head

B-Axis rotation center shifts down so it can be closer to the working table surface, effectively increasing the machining area.



Index



MTK

Spindle

Spindle Type		Index	MTK
Tool Shank	type	BT-50	BT-50
Max. Spindle Power S6-40%	kW	46	40
Max. Spindle Torque S6-40%	Nm	1,200	1,200
Max. Speed	rpm	4,000	5,000

Spec. / Model	Unit	Giant-33	Giant-43	Giant-53
Travel				
X-axis	mm	8,000 or more		
Y-axis		4,300	5,300	6,300
Z-axis		1,200	1,500	1,500
W-axis		1,500	2,000	2,000
Distance Between Column		3,300	4,300	5,300
Table Width		2,800	3,300	4,300
Two-axis Milling Head (B&C Axis)		High Torque Mechanical Transmission Auto Indexing Milling Head		High Torque Mechanical Transmission Milling Head
Max. Torque B/C	Nm	—		4,500 / 3,500
Clamping Torque B/C		15,000 / 15,000		4,500
Measuring Resolution B&C	+/-	2.5° (Opt. 1°/ 5°)		0.001 / 0.001
Rotation Angle B/C		120° / 185°		+10° to-105° / ± 185°
Table				
Table Length	mm	8,000 or more		
Table Width	mm	2,800	3,800	4,800
Feedrate				
X/Y/Z-axis Rapid Feedrate	m/min	30/30/20		

Giant



JET

Moving Column Type Long Base 5-Axis Machine Center

**Aircraft High-Speed | Floor Beams, Extrusion Profiles,
Long & Narrow Components**

Fixed Type Worktable

With a fixed worktable and moving column design, the X/Y/Z/B/C axes all travel along the long and narrow worktable, so when manufacturing extrusion profiles this machine can meet professional design demands.



Rapid Feed Rate Up to 60,000 mm/min

The X-Axis uses a European imported double servo motor with electronic backlash eliminating technology. By combining a high-grade decelerator with a high accuracy rack and pinion drive, this provides high precision, no backlash, low noise, low maintenance, and extended service life.

**European Imported
Torque Motor Drive
Milling Head**

VS-20



TCH-20F



TCH-L13



Spec. / Model	Unit	JET-3	JET-5	
Travel				
Crossbeam	Set	1	2	more
X-axis	mm	8,000, 15,000 or more		
Y-axis		1,000	1,300	
Z-axis		700	760	
Distance Between Column		1,000	1,300	
Five-axis Milling Head (B&C Axis)			TCH-20F	TCH-L13
Rotation Speed	rpm		50 / 50	
Max.Torque (S1-100%)	Nm		1,400 / 1,300	312 / 447
Clamping Torque		4,000 / 4,000	2,000 / 2,000	
Rotation Angle	degree		± 100° / ± 240°	± 100° / ± 270°
Feedrate				
X/Y/Z-axis Rapid Feedrate	m/min	60/60/40		

Spindle

Spindle Type		VS-20	TCH-20F	TCH-L13
Tool Shank		HSK A-63	HSK A-63	HSK A-63
Max. Spindle Power S1-100% (S6-40%)	kW	18 (23)	42 (55)	22 (25)
Max. Spindle Torque S1-100% (S6-40%)	Nm	29 (37)	67 (87)	28 (32)
Max. Speed	rpm	24,000	24,000	20,000

JET



Compact

Gantry Type High-Speed 5-Axis Machine Center

Automotive Industry | Automotive Plastic Injection Molds
Aircraft High-Speed | Aluminum Alloy Components



Linear Motor Drive

X/Y Axes are driven by a linear motor drive, the advantages are no backlash, no wear and tear, easy maintenance, and extended service life.



One Piece Structure Design

Improves the overall structural rigidity and ensures the stability and precision of the mechanical performance.



Compact, Minimal Interference Torque Motor Driven Two-Axis Milling Head

This machine offers three different torque motor driven two-axis milling heads specially designed for the molding industry.

TCH-19



L13EVO



Spec. / Model	Unit	Compact-1625		Compact-2232
Travel				
X-axis	mm	2,500		3,200
Y-axis		1,600		2,200
Z-axis		1,000		1,000
Distance Between Column		2,310		2,910
Two-axis Milling Head (B&C Axis) Torque Motor Direct Drive		TCH-L13(EVO)	TCH-19(A63)	TCH-19(A100)
Rotation Speed B/C	rpm (360°/S)	50/50		
Max.Torque B/C	Nm	312 / 447	1,100 / 900	
Clamping Torque B/C		2,000 / 2,000	4,000 / 4,000	
Measuring Resolution B/C	Arc.sec	±3/±3		
Feedrate				
X/Y/Z-axis Rapid Feedrate	m/min	60		

Spindle

Spindle Type	type	L13EVO	TCH-19 (A63)	TCH-19 (A100)
Tool Shank		HSK A63	HSK A63	HSK A100
Max. Spindle Power S1-100% (S6-40%)	kW	28 (33)	42 (55)	50 (65)
Max. Spindle Torque S1-100% (S6-40%)	Nm	39 (56)	67 (87)	96 (124)
Max. Speed	rpm	24,000	24,000	15,000

COMPACT



Linmax

Gantry Type High-Speed 5-Axis Machine Center

Automotive Industry | Stamping Dies and Molds
Aircraft High-Speed | Aluminum Alloy Components

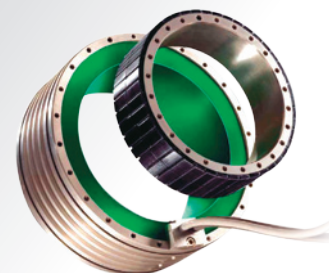
Gantry Structure

As all the axes move along the crossbeam and fixed worktable, it can handle very heavy workpieces without affecting the efficiency and precision of the machining.



Linear Motor Drive

X/Y Axes are driven by a linear motor drive, the advantages are no backlash, no wear and tear, easy maintenance, and extended service life.

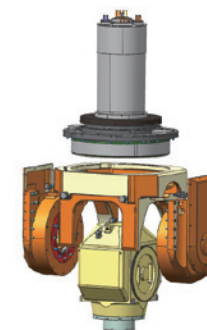


Torque Motor Driven Two-Axis Milling Head

TCH-20



TCH-30F



Spec. / Model	Unit	Linmax-25	Linmax-30	Linmax-40
Travel				
X-axis	mm(in)	4,000 / 5,000	5,000 / 6,000 / 8,000	6,000 / 8,000 / 10,000
Y-axis		2,500	3,000	4,000
Z-axis		1,000	1,100 (Opt. 1,250)	1,100 (Opt. 1,250/1,500)
Two-axis Milling Head (B&C Axis) Torque Motor Direct Drive		TCH-20F	TCH-20A	TCH-30F
Rotation Speed B/C	rpm (360°/S)	50 / 50		
Max.Torque B/C	Nm	1,400 / 1,300		2,400 / 2,200
Clamping Torque B/C		4,000 / 4,000		8,000 / 8,000
Measuring Resolution B/C	Arc.sec	±3 / ±3		
Rotation Angle B/C	+/-	±100° / ±240°		
Feedrate				
X/Y/Z-axis Rapid Feedrate	m/min	50		
X/Y/Z-axis Acceleration	m/sec²	4		

Spindle

Spindle Type		TCH-20F	TCH-20A	TCH-30F
Tool Shank		HSK A63	HSK A100	HSK A100
Max. Spindle Power S1-100% (S6-40%)	kW	42 (55)	50 (65)	40 (55)
Max. Spindle Torque S1-100% (S6-40%)	Nm	67 (87)	96 (124)	248 (314)
Max. Speed	rpm	24,000	15,000	12,000

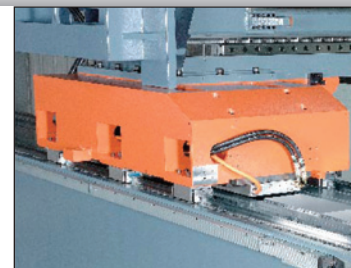
Linmax



Linmax Twin

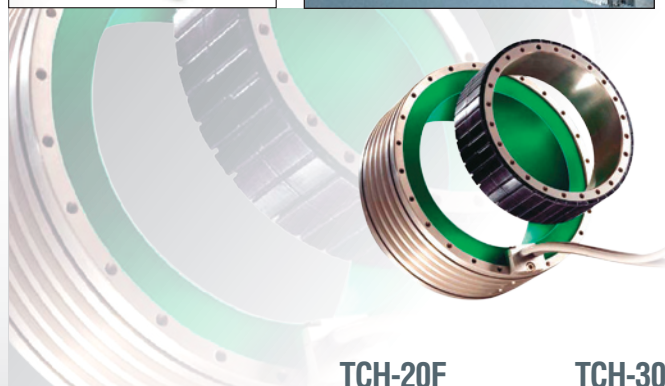
Double Gantry Type High-Speed 5-Axis Machine Center

Aircraft High-Speed I Extra-large / Extra-long Components



Linear Motor Drive

X/Y/Z Axes are driven by a linear motor drive, the advantages are no backlash, no wear and tear, easy maintenance, and extended service life.



Torque Motor Driven Two-Axis Milling Head

Highly Efficient Machining

The double crossbeam design is combined with highly efficient milling heads, resulting in high performance manufacturing.

TCH-20F



TCH-30F



MTK



Spec. / Model	Unit	Linmax Twin		
Travel				
X-axis	mm (in)	12,000 or more		
Y-axis		4,000	5,000	
Z-axis		1,500		
Two-axis Milling Head (B&C Axis)		Torque Motor Direct Drive		High Torque Mechanical Transmission Milling Head
		TCH-30F	TCH-20F	MTK
Rotation Speed B/C	rpm (360°/S)	50 / 50		
Rotation Angle B/C	+/-	± 100° / ± 240°		+10° to-105° / ± 185°
Feedrate				
X/Y/Z-axis Rapid Feedrate	m/min	50		
X/Y/Z-axis Acceleration	m/sec²	4		

Spindle

Spindle Type	type	TCH-20F	TCH-30F	MTK
Tool Shank		HSK A63	HSK A100	BT-50
Max. Spindle Power S1-100% (S6-40%)	kW	42 (55)	50 (65)	40
Max. Spindle Torque S1-100% (S6-40%)	Nm	67 (87)	96 (124)	1,200
Max. Speed	rpm	24,000	15,000	5,000

Linmax Twin

