RACER

Revolutionizing Manufacturing Processes with Cutting-Edge CNC Technology

CAX SERIES

MODELS AVAILABLE: CAX320/CAX450/CAX500

ABOUT RACER

ESTABLISHED 1983

Racer Machinery International Inc. (RACER) manufactures innovative turnkey solution CNC machine tools, metal cutting engine lathes and industrial saws providing high-quality North American built products to production operations worldwide.

As one of the remaining few machine tool builders and the only engine lathe manufacturer in North America, our technologically advanced machine tool manufacturing process and diverse experience give us the capability to handle projects of a variety of scope and scale.

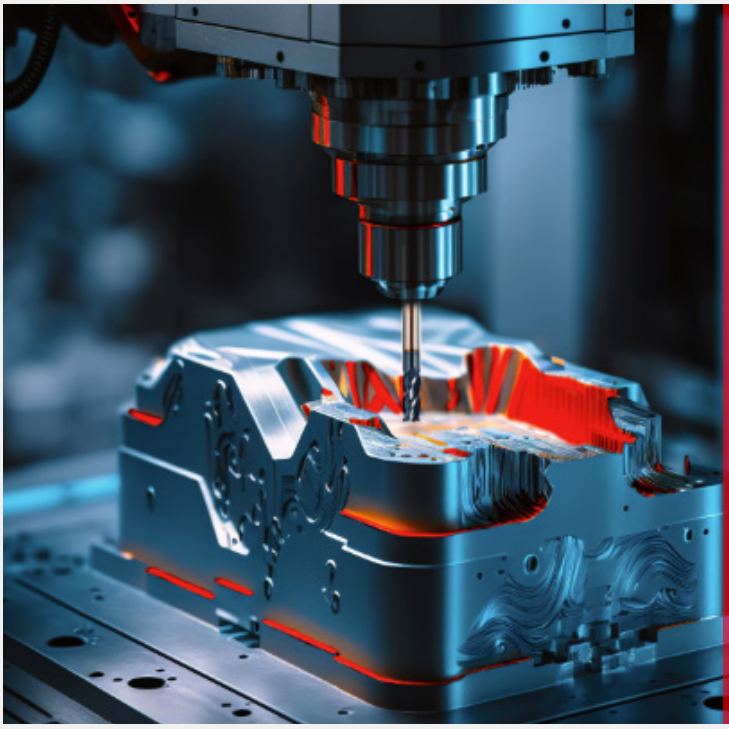
Our growing success stems from the ongoing commitment to research and development, engineering experience and dedication from our team. Our goal is to develop products that help our customers achieve their company goals while providing innovation and quality in all our products.

Capitalizing on the recent successes of RACER's brands, the company expanded its capabilities further when it acquired the assets and manufacturing rights for Standard Modern™.

With over 17,000 Standard Modern™ installations in North America, Standard Modern™ lathes are being used extensively in precision, high-tech machine shops, used by both the Canadian and United States military, and many technical colleges and trade schools.

Bringing over 80 years of experience to Racer Machinery's portfolio, Standard Modern™ machines are one of the most trusted in the machine tool industry.

The two companies have been working closely together since 1983, making this acquisition a welcomed addition to the RACER family. Still proudly produced in North America, Racer Machinery now manufactures the Standard Modern™ lathes with the same level of quality that is expected for all of its products.



Our vision is to provide our customers with creative and high-quality solutions for their machines.

OUR VISION

PHANTOM MACHINE TECHNOLOGY
... THE KEY TO SUCCESS

Racer Machinery International Inc. and its team of experts have developed a technology so advanced that it redefines all aspects of the machine tool industry. This includes everything from the production of the equipment to the end users machining time, tooling requirements, tool savings and workplace noise pollution.

BENEFITS

- Harmonized assembly allows for high quality finishing.
- Dramatically reduced machining time.
- Environmentally friendly manufacturing process.
- Extensive reduction in tooling costs; increase in tooling life.

CAPABILITIES

- Astounding cutting performance.
- Versatility in performance.
- Easy setup and use.
- Remarkable reduction in noise pollution.

RACER

COMPREHENSIVE SUPPORT

FOR THE ULTIMATE PEACE OF MIND

RACER provides the highest level of training service, and support in the industry. Training includes three days of programming/ applications training at a local university. Additionally, the customer's maintenance personnel are invited for the last week of assembly and run off at our plant.

After installation at the customer's facility, RACER service personnel and engineers, work with three groups of customer personnel, namely, maintenance, operators and high level engineers to ensure understanding of the equipment to make in house support as effective as possible.

Technical support is available at 519-498-6118. Both our local dealer and our internal field service group are available to assist when required.

- RACER's team of experts are here to service you in times of need.
- Our service team can assist with machine troubleshooting issues, preventative maintenance, increasing the productivity of your machine, programming issues, other technical issues, or spare parts.
- In some cases, support can be provided over the phone but otherwise our team is ready to provide support at your facility.
- Assistance includes but not limited to: Programming, Machine Service & Maintenance, Operator Training, and Customer Training.

Training

Applications

Installation

Customer Support

TECHNICAL COMPONENTS

5 Axis Vertical Machining Center- CAX Series

1 As with all RACER machines, our patented Phantom Technology is applied in the design process. Our design using a rigid ribbed weldment enable RACER to offer machines with minimal vibration and superior accuracy.

2 RACER integrates a dual axis rotary table into the machine table to provide two axes of motion. These rotary tables are driven by a dual drive system of positioning thereby affording fast response and the best positioning accuracy. Feedback scales are also employed.

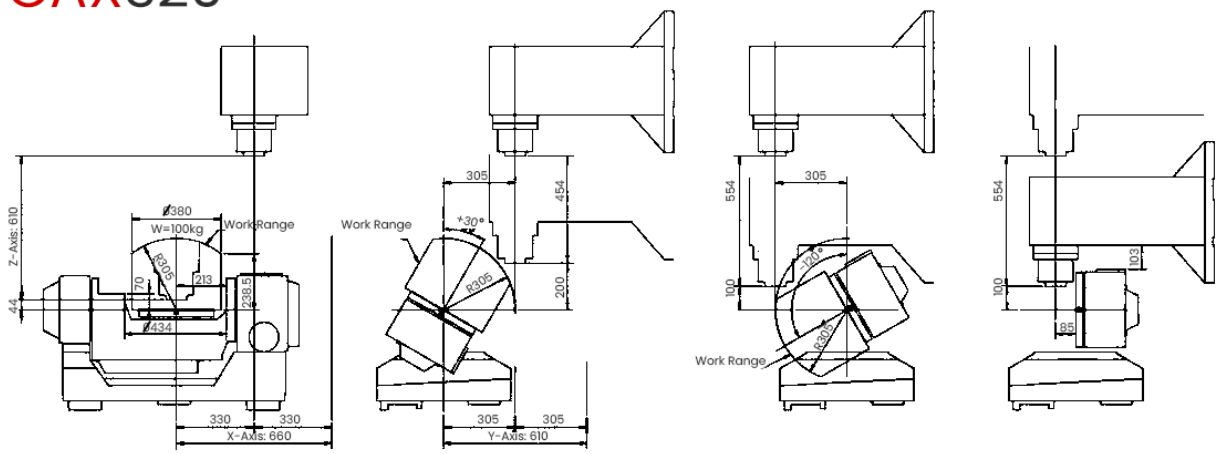
3 RACER has developed a Window based CNC control. This control, running on WINDOWS 10, offers a touchscreen display, large program size, 2000 block look ahead, reads at 1200 blocks per second, and as standard, five axes simultaneous machining. Additionally, this cost effective control, has all the features of the higher cost CNC controls.

4 Glass scales are standard to ensure accurate positioning. Additionally the cooled spindle and ball screws eliminate thermal expansion of the frame. This combination makes the machine very accurate.

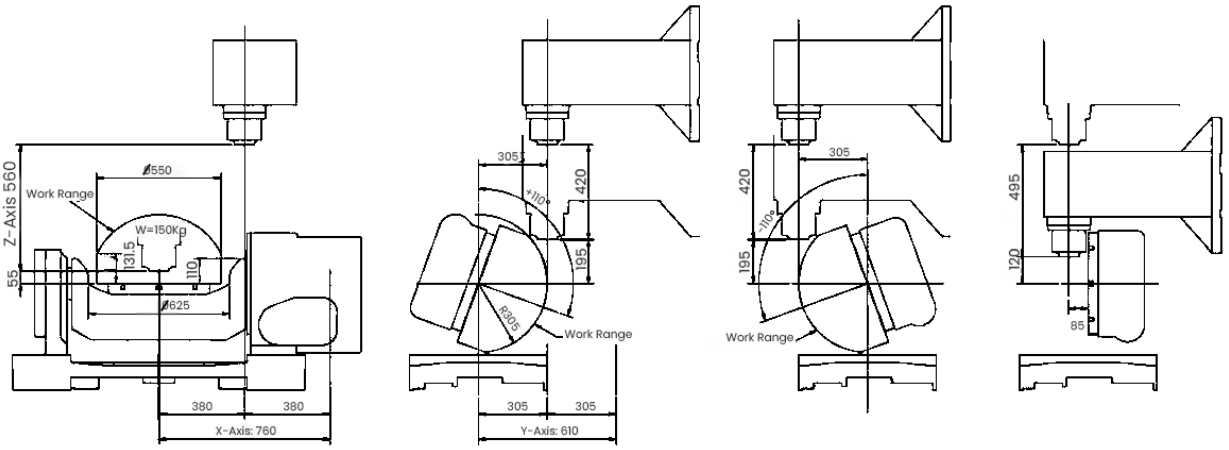
5 RACER offers a selection of spindle speeds and designs that can be applied for specific applications. Belt, direct or in-line designs with speed ranging from 12,000 RPM to 24,000 RPM.

WORKSPACE

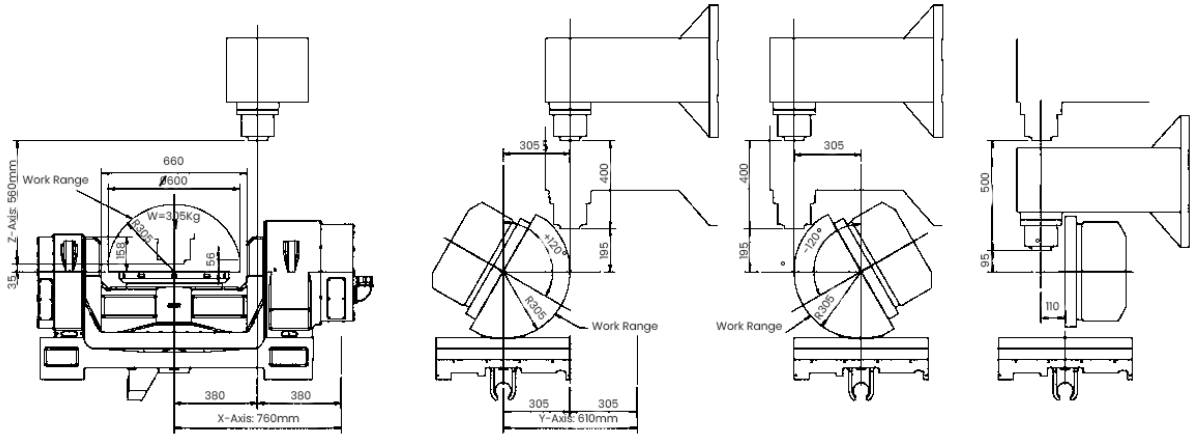
CAX320



CAX450

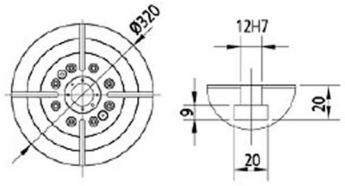


CAX500



WORKSPACE

TABLE SIZE: CAX320



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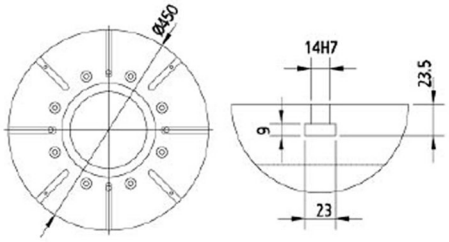
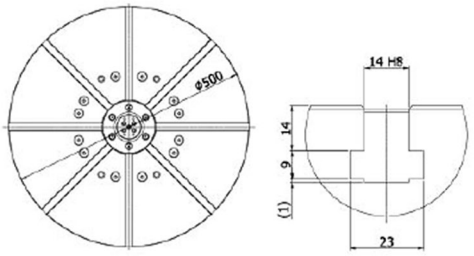
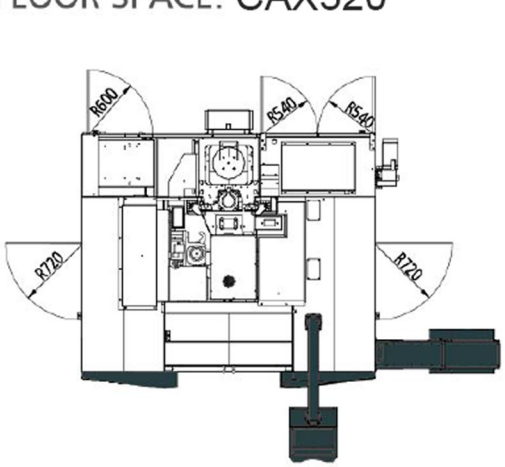
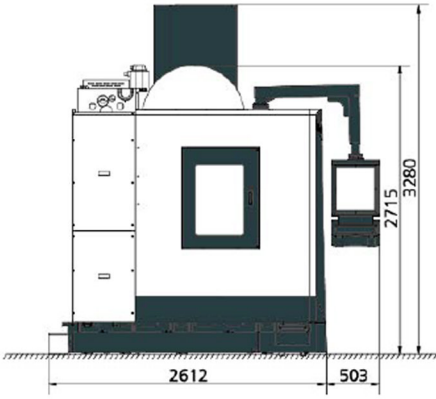


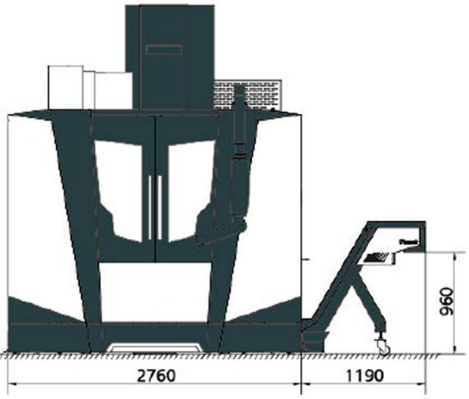
TABLE SIZE: CAX500



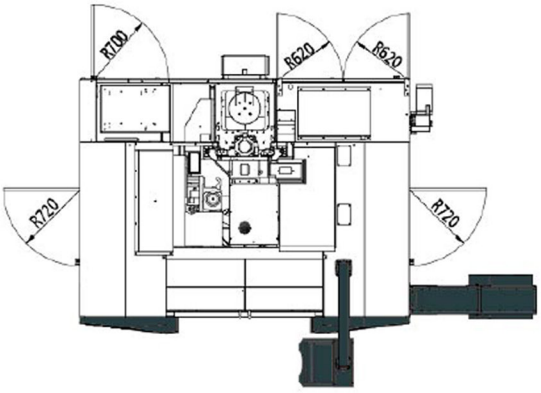
FLOOR SPACE: CAX320

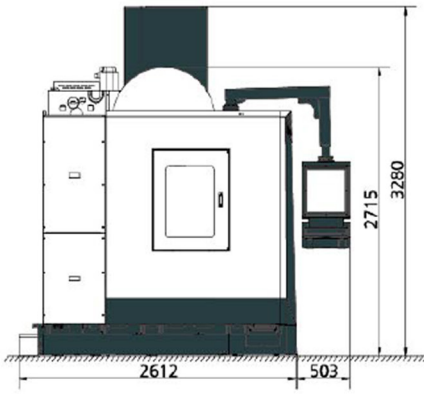


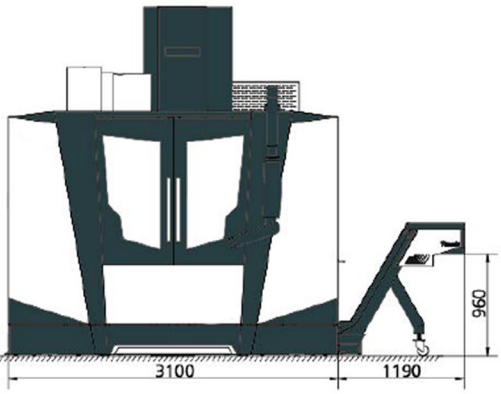




FLOOR SPACE: CAX450/500







SPECIFICATIONS

Trunnion Type	CAX 320	CAX 450	CAX 500
MOVE TYPE	Fix column	Fix column	Fix column
TABLE			
Table Size & Number (mm)	Ø320	Ø450	Ø500
Travel Ranges (X/Y/Z mm)	660 x 610 x 610	760 x 610 x 560	760 x 610 x 560
Screw Size (Size X Pitch mm)	12 x 90	14 x 45	14 x 45° x 8
Max. Table Load (Kg)	150	250	350
Max. Workpiece Size (Wxh mm)	Ø420x 300	Ø600x 300	Ø600 x 305
Diameter Of Table Hole (mm)	Ø50	Ø171	Ø50
Spindle Nose To Table Surface (mm)	50~605	50~565	35~595
A Axis, Tilt (Deg)/(0.001°)	150°(-120°/+30°)	220°(±110°)	220°(±110°)
C Axis, Rotary (Deg)/(0.001°)		360°	
SPINDLE			
Distance Between Column (mm)		CAT 40	
Spindle Inner Diameter (mm)		Ø70	
Spindle Speed (Rpm) Belt		12000 (15000)	
Spindle Speed (Rpm) Direct Drive		18000 (20000/24000)	
Spindle Speed (Rpm) Built-In			20000
MAIN MOTOR (Con/30min Kw)		9KW / 12KW	
AXIS SERVO MOTOR			
Rapid Feed Rate (X/Y/Z M/Min)		30/30/24	
Feed Rate (X/Y/Z M/Min)		10	
Feed Rate (A/C Rev/Min) D.D Motor		5.5/11.5	30/90
X-Axis Rated Torque (Nm)		10	
Yaxis Rated Torque(Nm)		10	
Z-Axis Rated Torque(Nm)		10	
A-Axis Rated Torque(Nm)	5	10	
C-Axis Rated Torque(Nm)	3.8	10	
A-Axis Rated Torque(Nm) D.D Motor			860
C-Axis Rated Torque(Nm) D.D Motor			435
ATC			
Atc Type		DISK (30) / Chain (40/60)	
Cam Type	ARM	ARM	ARM
Tool Selection (Bi-Direction)	RANDOM	RANDOM	RANDOM
Tool Storage Capacity (Pcs)	30(40/60)	30(40/60)	30(40/60)
Max. Tool Diameter (Mm)	90 (76)	90 (76)	Ø90 (Ø76)
Max. Tool Length	300	300	250
Max. Tool Weight	8	8	8
MISCELLANEOUS			
Air Requirement (Kg/Cm2)	6	6	6
Voltage	380	380	380
Power Requirement (Kva)	40	40	40
Coolant Tank Capacity (L)	300	300	300
Machine Weight (Kgs)	6500	7000	7100
Machine Height (Mm)	2900	2900	3280

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TO LEARN MORE ABOUT THE CAX SERIES

www.racerinternational.com

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