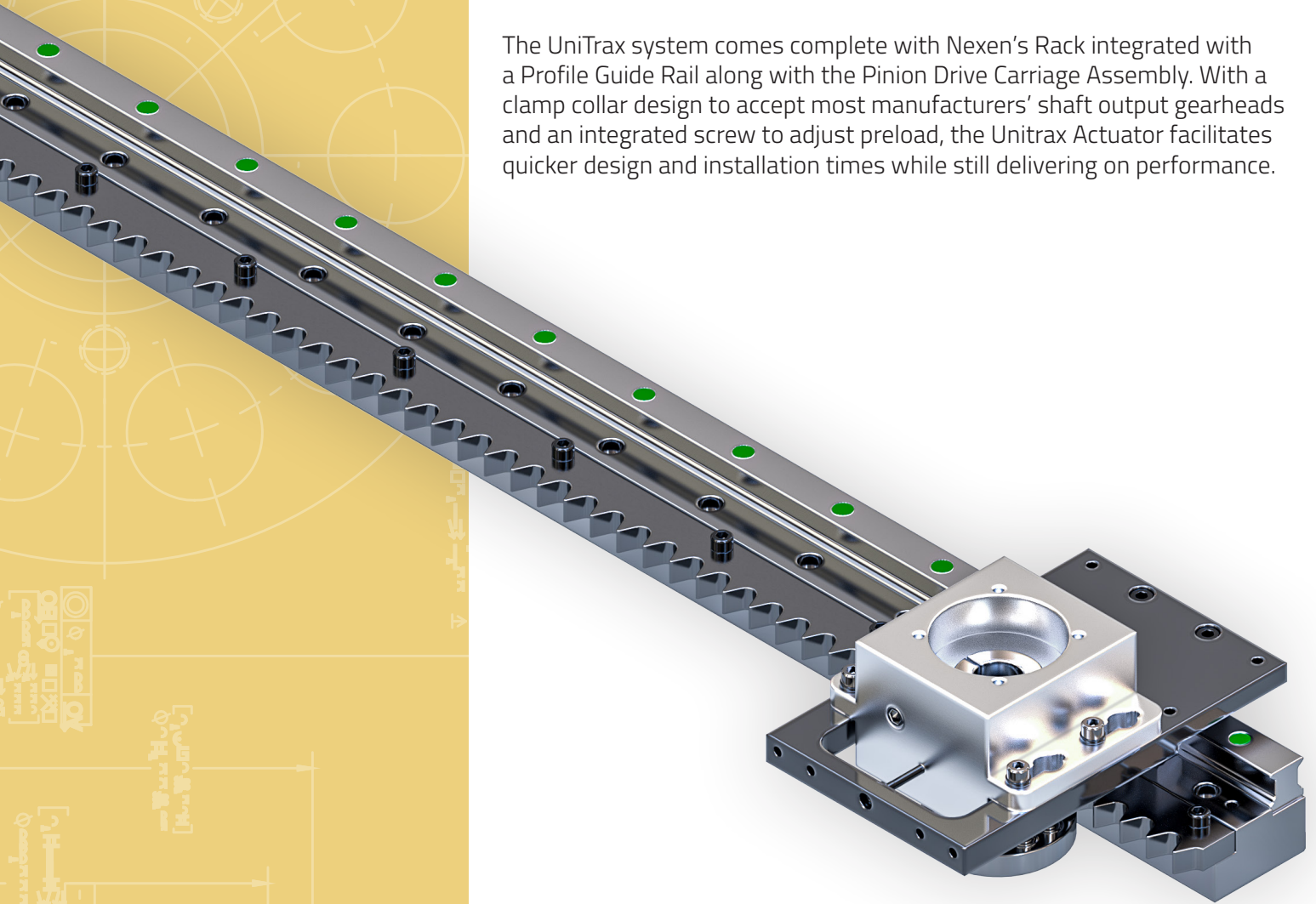




UniTrax Actuator

Utilizing Nexen Group's industry-tested Roller Pinion System, the new prepackaged UniTrax Actuator delivers high thrust forces and exceptional accuracy in an easy-to-implement design.

The UniTrax system comes complete with Nexen's Rack integrated with a Profile Guide Rail along with the Pinion Drive Carriage Assembly. With a clamp collar design to accept most manufacturers' shaft output gearheads and an integrated screw to adjust preload, the UniTrax Actuator facilitates quicker design and installation times while still delivering on performance.



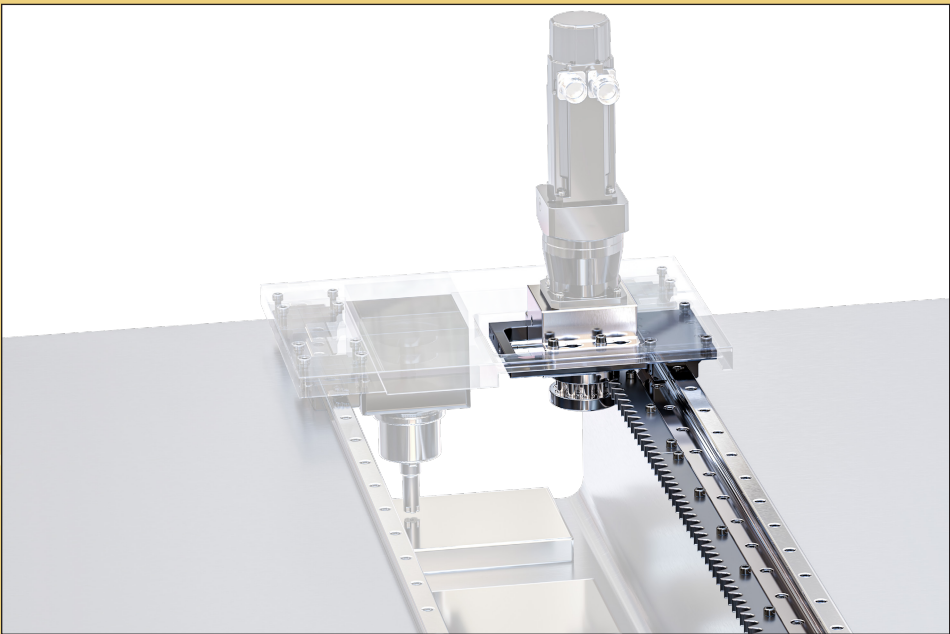
Key Features

- Integrated Rack and Rail
- Zero Backlash
- Positional Accuracy of up to $\pm 80 \mu\text{m}$
- Repeatability of $\pm 20 \mu\text{m}$
- Max Speed of 4 m/s
- Corrosion Resistant
- Designed with high capacity bearing blocks
- High thrust capacity for a variety of applications
- Lubrication free operation for speeds up to 30 m/min.
- Use as stand alone axis or configured with a carriage plate

Reliability, Accuracy and Zero-Backlash

When your design requires repeatable high positional accuracy, the UniTrax design allows machine builders and integrators a streamlined design solution that users can count on when using Nexen Group products.

Top-Mount Configuration

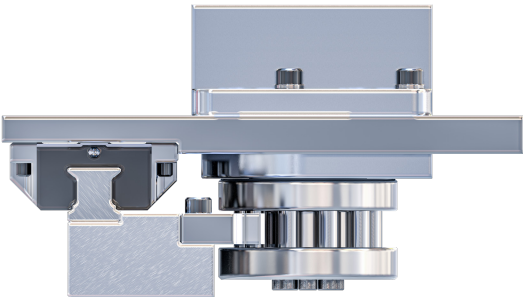
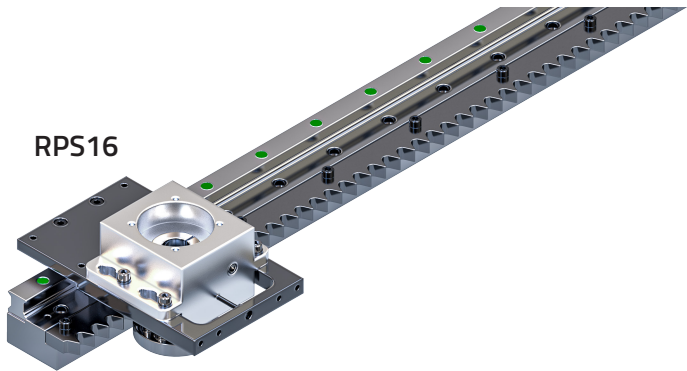


Applications

- Cartesian robots
- Dirty and corrosive environments
- Custom drilling
- Angular cutting machines
- Food processing
- Gantry router
- Non-destructive testing
- Measurement systems
- Multi-head on a common axis
- Plasma and laser cutting
- Vacuum environments
- Welding
- Woodworking

		Top Mount Accuracy ($\pm \mu\text{m}$)	Max Speed (m/s)	Thrust Capacity (N)		
				Acceleration	Average	Static
RPS16	Single Bearing	100	4	1500	1000	2000
	Fully Supported	80				

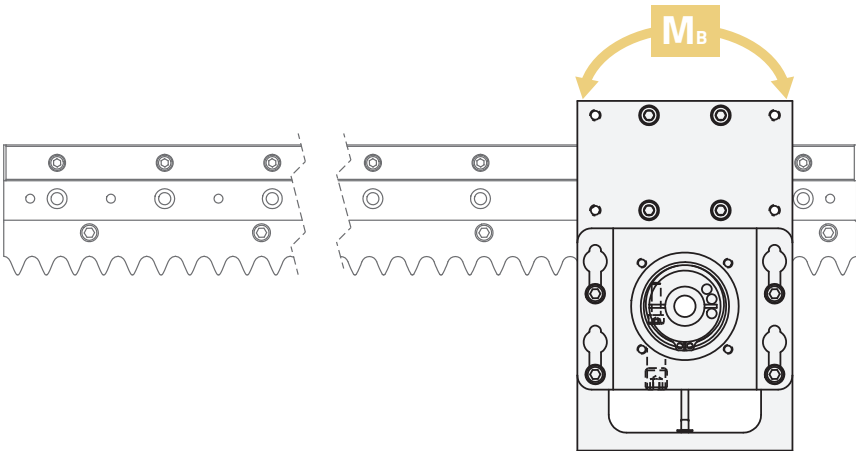
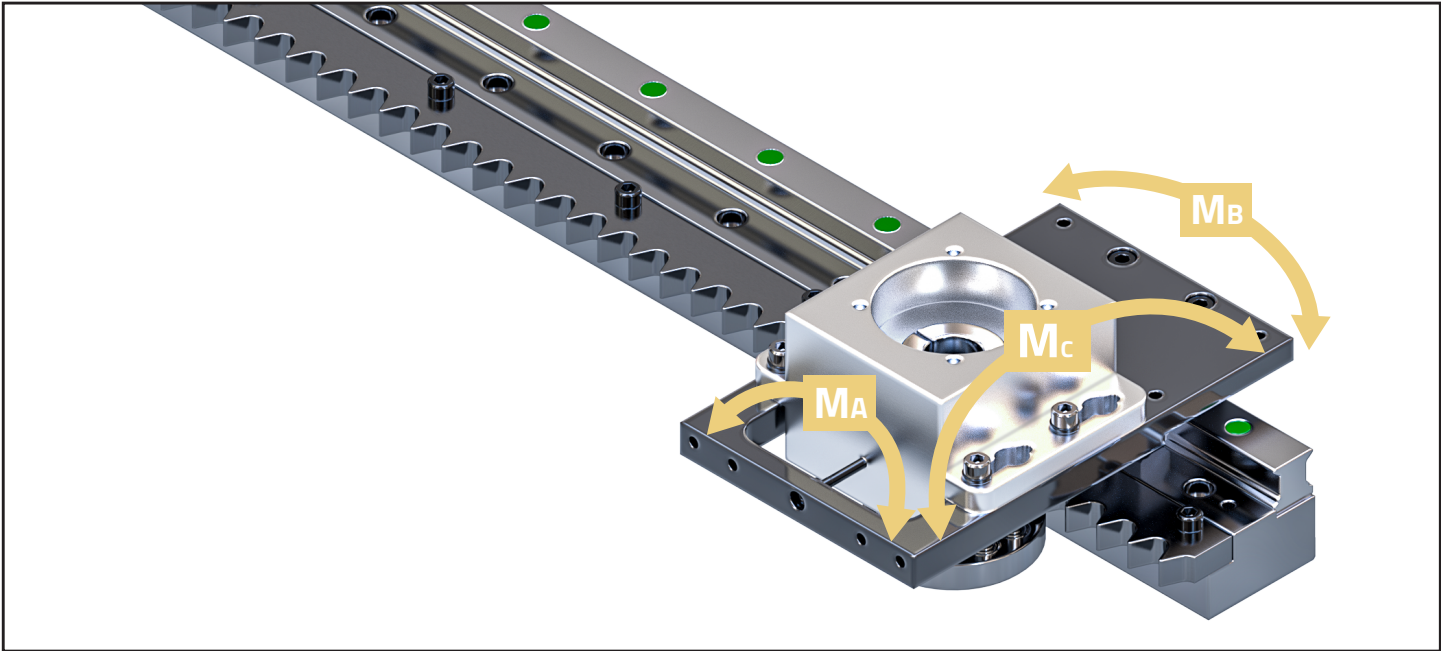
The Top-Mount Rack Configuration is ideal for mounting on a flat surface, allowing for versatility in machine design. The gearhead and motor are mounted on top of the drive station allowing for easier access for maintenance. Standard actuator lengths: 1 and 1.5 meter [3.3 and 4.9 feet]. Please contact Nexen if a different length is required for your application.



Side View

	Overall Height (without Gearhead)	Overall Width	Drive Carriage Length	Mounting Platform Bolt Pattern
RPS16	110 mm	195 mm	120 mm	M6, 53 X 100 mm

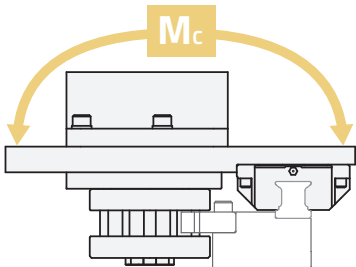
Applied Load



Moment in the yawing direction



Moment in the pitching direction



Moment in the rolling direction

	Profile Rail Size	Dynamic - C (N)	Static - C0 (N)	M_A - Pitch (Nm)	M_B - Yaw (Nm)	M_C - Roll (Nm)
RPS16	20	23,700	30,510	280	280	370

Engineering Support

Nexen Group engineers and manufactures precision motion control for OEM machine designers, system integrators, and maintenance personnel, keeping equipment running trouble-free in the harshest environments.

Contact Nexen Group to see how our engineers can help design the must-have motion control products for your next project.



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nexen

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