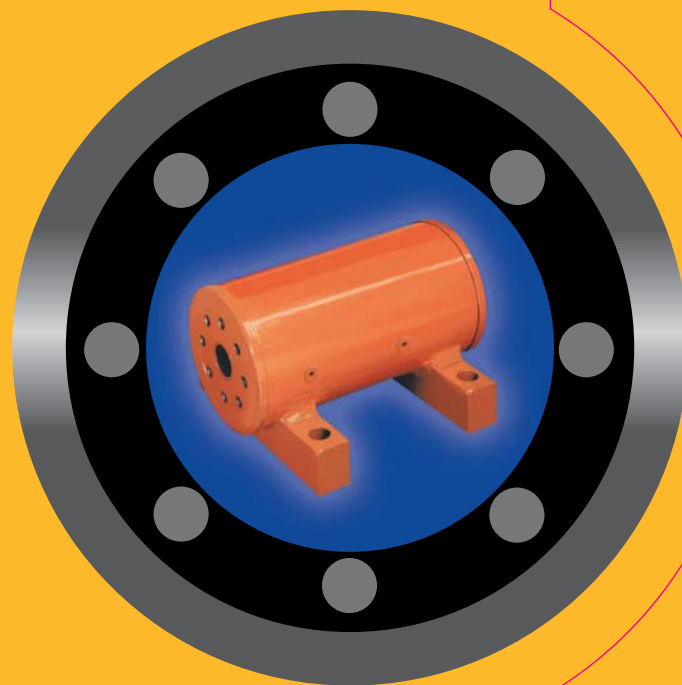


Helical, hydraulic rotary actuators



Helac product lines meet your individual needs







1 L-Series LoadBear
Offers integral bearings to carry heavy axial and side loads. Available with large diameter shaft flange with drilled and tapped bolt circle.

3 Custom designs
Over 50 percent of Helac's rotary actuators for OEMs are customized to meet our customers' application requirements.

2 T-Series TorqBear
Offers a thru-shaft configuration for torque applications. Available with splined output shafts.

4 Construction equipment attachments
Helac PowerTilt® and PowerGrip® products increase the utilization of backhoes and excavators.

Helac's Quick Reference Guide

Design Features	Helical Rotary Actuators				Construction Equipment Attachments	
	L10 Series	L20 Series	L30 Series	T20 Series	PowerTilt	PowerGrip
Standard Configuration						
Machine Size	—	—	—	—	From 2t to 35t	From 6t to 21t
Torque Range						
in-lb	1,700-25,000	4,500-15,000	17,000-740,000	25,000-60,000	25,000-220,000	65,000-180,000
Nm	190-2,825	508-1,690	1,920-83,600	2,830-6,780	2,830-24,820	7,330-20,300
Pressure Rating						
psi	3,000	3,000	3,000	3,000	3,000	3,000
bar	210	210	210	210	210	210
Bearing Capacity	High	High	High	High	High	High
Internal Leakage	None	None	None	None	None	None
Standard Rotations	180, 360	180	180, 360	200, 220 Select Models	134, 180 Select Models	120
Shock Resistance	High	High	High	High	High	High
Backlash	Low	Low	Low	Low	Low	Low

We created the first load-carrying, helical rotary actuator. Today, we're still leading the way.

Helac Corporation's success began in the early 1980s when we focused our business solely on manufacturing helical, hydraulic rotary actuators. Our reputation and business grew rapidly because of the unique combination of features offered — high load-bearing capacity and torque output, shock resistance with zero leakage, and compact configurations. Today, over 1,000 OEM customers around the world rely on Helac to move, support and position rotary loads.

FOUR big reasons to partner with Helac Corporation



Innovation

- Over 50 U.S. and International patents
- First helical, load-bearing product line available to OEMs
- First helical rotary actuator used for tilting buckets in after-market construction attachments



High Quality Solutions

- Continuous quality and process improvements in all areas of our business
- Sophisticated, computerized technology used throughout our production process



On-time Customer Delivery

- Kanban product replenishment system
- Just-in-time (JIT) delivery
- Vendor managed inventory (VMI)



Responsive Service

- 24 hour turnaround on parts for common items
- Actuator Refurbishment service



1968



Founded as custom fabrication and machine shop

1974



Manufactured first production rotary actuator

1982



Turned focus exclusively to helical rotary actuators and changed company name to Helac

An inside look at how our helical actuator features set us apart

Powerful

- High Torque
- High Bearing Capacity

Drift Free Positioning

- Zero Internal Leakage
- Smooth Operation
- No External Brake Required

Backdrives in Overload Conditions

- Hydraulic Fuse
- Prevents Mechanical Damage

Ultra Compact

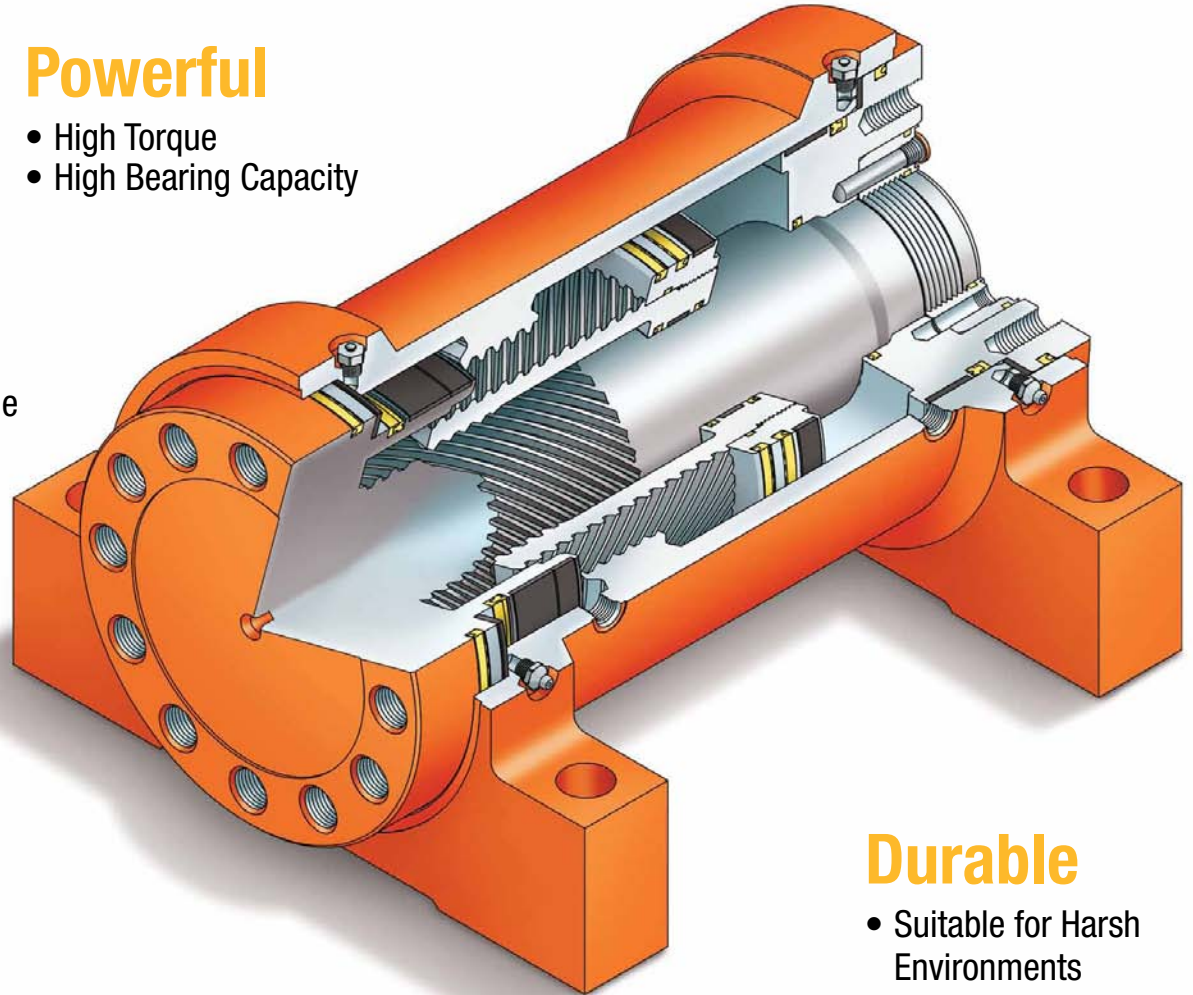
- High Power Density
- Fits in Tight Spaces

Streamlined Design

- Eliminates Linkages and Bearings
- Reduced Bill of Materials

Durable

- Suitable for Harsh Environments
- Moving Parts Enclosed



1983



Moved to a larger facility and expands the company

1985



Expanded into the European market

1989



Shipped 10,000th actuator

Countless ways to improve your machine designs

TOP INDUSTRIES SERVED

Agriculture

Construction

Energy

Marine

Material handling

Military

Mining

Truck/Trailer



Aerial Work Platforms
Platform, basket and jib rotation



Mining Equipment
Carousel rotation, drill positioning, rod handling, shotcrete, roof bolting



Refuse / Recycling Vehicles
Arm articulation and cart lifting



Construction Equipment
Bucket swing, gripping, specialty attachments



Agricultural Harvesters
Boom positioning, head rotation, wheel steering



Paving and Curbing Equipment
Wheel and track steering



Sweepers / Scrubbers
Brush positioning, steering, tipping and dumping



Forklifts
Fork swing, specialized attachment rotation, steering

1990



Expanded into the Asian market

2003



Obtained 50th patent and continues to be a leader in technology

2009



500,000th actuator shipped

Our helical rotary actuator in motion

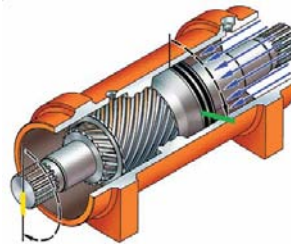
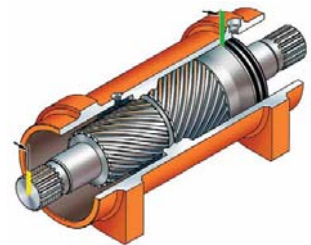
Operating Technology

Helac actuators are designed to replace multiple components and function as a rotating device, mounting bracket and bearing, all-in-one.

Helac's innovative, sliding-spline operation technology converts linear piston motion into powerful shaft rotation. Each actuator is composed of a housing and two moving parts — the central shaft and piston. Helical spline teeth on the shaft engage matching teeth on the piston's inside diameter. A second set of helical splines on the piston's outside diameter mesh with the gear in the housing.

STARTING POSITION

The piston is completely bottomed out. Bars indicate starting positions of piston and shaft. Arrows indicate directions they will rotate. The housing with integral gear remains stationary.



ENDING POSITION

When hydraulic pressure is applied to the piston, it moves axially, while the helical gearing causes the piston and shaft to rotate simultaneously. Applying pressure to the opposite port will return the piston and shaft to their original starting positions.

➤ To learn more about Helac Corporation:

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Construction attachments **+1 800 797 8458**

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U.S., Europe and other international patents may apply.
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