



Site development

Landscaping

Ditch cleaning

Demolition

Brushcutting

Specialty applications

Ripping



Save time and increase productivity by 12 percent or more

Helac PowerTilt®, a construction equipment attachment from Helac Corporation, can increase the productivity, profitability and versatility of your backhoe or excavator by simply tilting your attachment instead of moving the entire machine. Over a decade of innovation and engineering design has gone into making PowerTilt an integral solution for increasing work site efficiency.

PowerTilt is ideal for performing every day tasks, or completing jobs that you never thought were possible. Thousands of contractors worldwide have come to rely on PowerTilt since 1990 for cleaning ditches, clearing land, digging beveled trenches, spreading rip-rap, and positioning brushcutters, mowers and hydraulic hammers.

When used in combination with Helac PowerGrip®, a multi-purpose bucket, you can achieve unmatched, hand-like manipulation and dexterity, dramatically maximizing productivity.

Use Helac PowerTilt with a variety of attachments to improve your machine's versatility



Wide bucket



Brushcutter



Narrow bucket



Hydraulic hammer



Helac PowerGrip



Ripper tooth



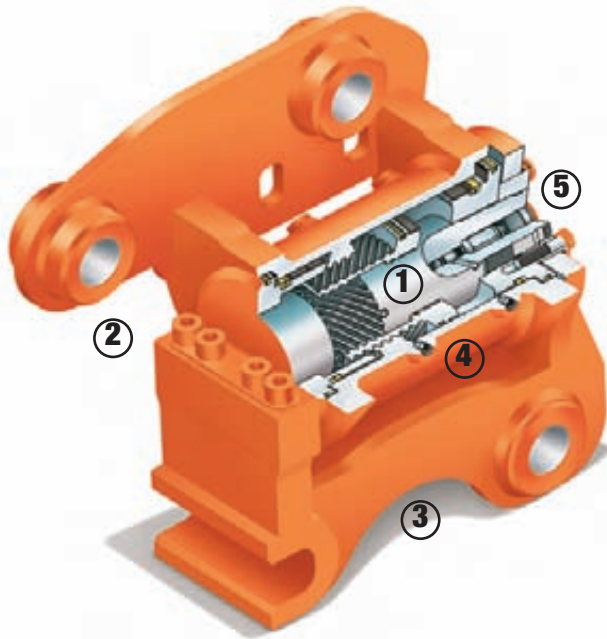
“PowerTilts have increased our machine productivity 25 to 30 percent as well as reduced undercarriage wear. We now equip all DNR backhoes and excavators with PowerTilts.”

— Don Roller, Equipment Manager,
Washington State Department of Natural Resources

Built from the inside out for durable, reliable performance

Engineered with a unique combination of features, Helac PowerTilt will provide you with the ability to get more work done in less time. Whether you buy, lease or

rent a machine with a PowerTilt, you'll receive a tilting attachment with unmatched versatility and durability.



- 1 Maximum Tilt**
Up to 180 degree side-to-side tilt achieved with our exclusive, sliding spline technology.
- 2 Narrow, Compact Configuration**
Use with any of your machine's attachments – even your narrowest trenching bucket.
- 3 Built-in Quick Coupler**
Compatible with your machine's OEM specification buckets and attachments, making tool changes fast and easy.
- 4 Moving Parts Are Enclosed**
No cylinder rods or external moving parts result in low maintenance costs and longer life.
- 5 Internal Cross-Port Relief Valve**
The built-in relief valve provides hydraulic overload protection.

Coupler Options



Standard pin-on couplers
All PowerTilt models come with a standard half-hitch coupler. Coupler option varies by model.



Universal couplers
For use with C&P Attachments and WainRoy® quick-hitch buckets



Hydraulic quick couplers
Available through partnerships with attachment manufacturers

Countless ways to perform work faster, safer and easier

The application possibilities for Helac PowerTilt are endless. Our PowerTilt attachment can be used to perform common everyday tasks, or complete jobs you haven't yet tried, allowing you to function with less equipment. The ability to tilt your bucket can reduce the need for specialty equipment on the job site, and at the same time, increase the productivity and profitability of the machines you use on a daily basis. Several common applications for PowerTilt are shown below.

- Site development
- Landscaping
- Ditch cleaning
- Demolition
- Brushcutting
- Specialty applications
- Combined with Helac PowerGrip multi-purpose bucket
- Ripping



“When I use the PowerTilt/PowerGrip combination, I never have to get out of my seat. I can easily and efficiently manipulate any task on the job site, saving me both time and money.”

—Bruce Craik, President,
Nor Cal Construction and Excavating

Models available for a wide variety of machines

Helac PowerTilt is available in a range of models, sized for backhoes and excavators to 75,000 lbs. Each model is engineered for a specific class of machinery and individually customized to fit your machine. If you are purchasing a new or used

machine, it's easy to roll the cost of the PowerTilt into the financing package. You will begin saving time—up to an hour per day—and increasing productivity as soon as your equipment is delivered.

Model		PT-6	PT-6W	PT-7	PT-8	PT-9	PT-10	PT-11	PT-12
Maximum Machine Weight	lb (kg)	8,400 (3,800)	10,500 (4,775)	15,000 (6,800)	20,000 (9,100)	28,700 (13,000)	45,000 (20,000)	60,000 (27,000)	75,000 (34,000)
Approximate PowerTilt Weight	lb (kg)	160 (75)	180 (85)	320 (145)	425 (195)	575 (260)	850 (385)	1,200 (545)	1,500 (680)
Total Tilt		180°*	180°*	180°	180°	134°	134°	134°	134°
Required Oil Flow	gpm (l/min)	.8 – 1.5 (3 – 6)	.8 – 1.5 (3 – 6)	1.5 – 3 (6 – 12)	3 – 5 (12 – 20)	6 – 7 (24 – 28)	6 – 8 (24 – 32)	8 – 11 (32 – 44)	9 – 13 (36 – 52)
Operating Pressure Range		2,200 – 3,750 psi (150 – 250 bar) (Applies to all models)							

Note: A two-way auxiliary hydraulic circuit is required for operation.

* Actual rotation may vary slightly.

Special PowerTilt Designs

Helac PowerTilts are available in several configurations for special applications and for bucket and attachment manufacturers to integrate into their products.



PT Series

Standard housing with welded-on ears. Lower end can be welded directly to a quick coupler or bucket.



PTA/PTB Series

The housing and shaft are designed for customization. Ideal for integrating quick couplers at both the top and bottom. PTA Series housing is designed for welding; PTB Series incorporates blind drilled and tapped holes for bolt mounting.



Custom Designs

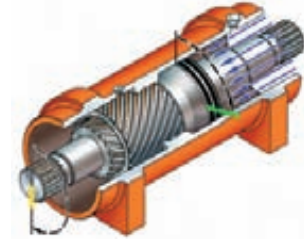
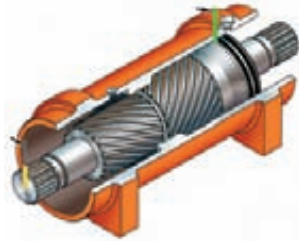
Depending on the order quantity, custom-engineered configurations can be provided.

Our exclusive sliding spline operating technology

PowerTilt uses Helac Corporation's innovative, sliding-spline operating technology to convert 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 ring 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.

Helac PowerGrip



Handle multiple tasks with Helac Corporation's PowerGrip multi-purpose backhoe or excavator bucket.

PowerGrip can be used as a trenching, grading or clamshell bucket, or as a grapple or hydraulic thumb. When used in combination with PowerTilt, you will maximize work site efficiency and productivity.

About Helac Corporation

A leader in the fluid power industry for over 30 years, Helac Corporation manufactures a comprehensive line of helical, hydraulic rotary actuators. Our products are used as component parts by OEMs and after-market attachments by the construction equipment industry. Helac rotary actuators are best known for their tremendous torque output, compact dimensions and exceptional load bearing capability. Thousands of worldwide customers in diverse industries depend on Helac actuators for quality, reliability, ease-of-use and durability.



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