

Moving to higher  
pressures with more  
torque, less heat

Eaton HP30 High-Pressure Motor



**EATON**

*Powering Business Worldwide*

# Optimal performance under pressure

Backed by decades of proven reliability and performance under some of the toughest conditions and harshest environments, Eaton's lineup of hydraulic motors has established a reputation as an industry leader in low-speed, high-torque technology.

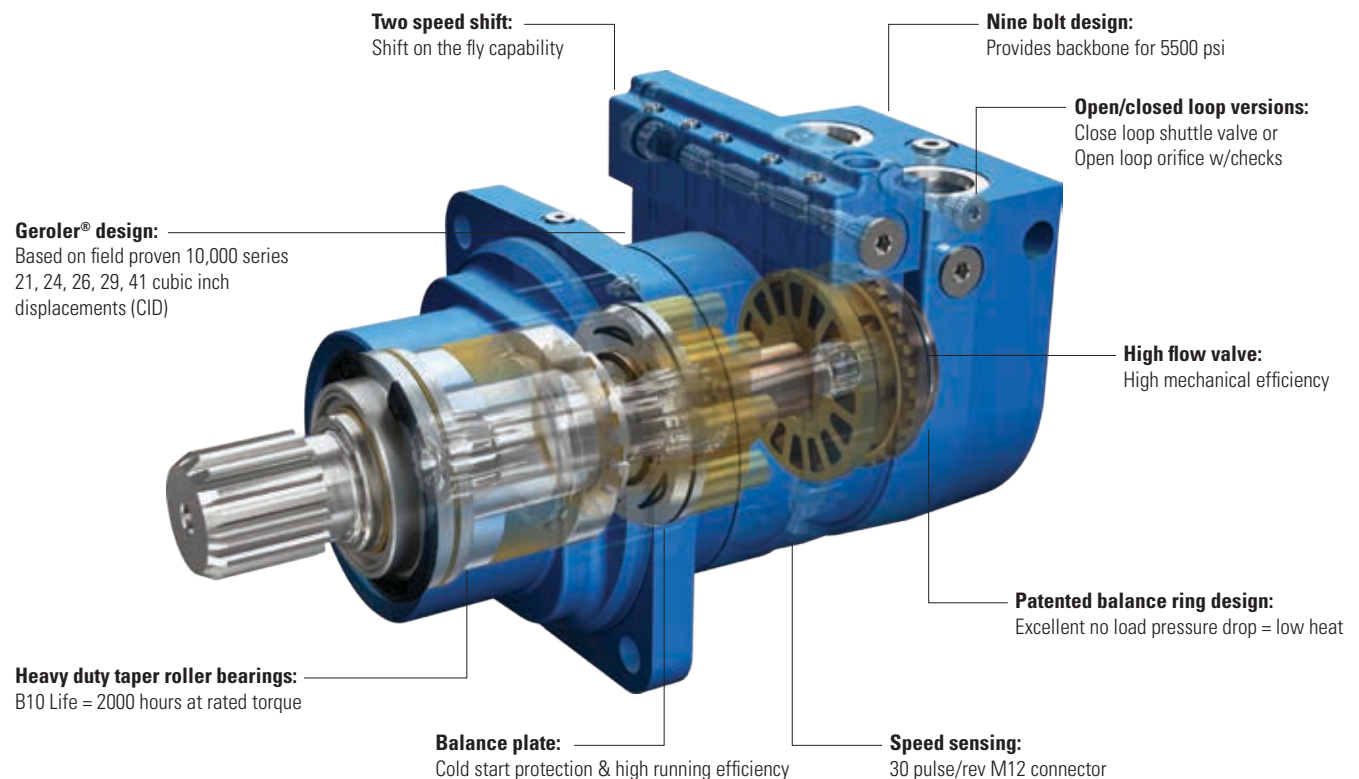
Eaton is committed to building on our proven hydraulic motor innovations with new solutions

designed to help you achieve continuous improvement in efficiency, reliability and safety. Continuing this trend, Eaton has developed the HP30 motor with the latest technology to provide an ideal solution for enhancing the performance of both mobile and stationary industrial hydraulic systems.

Eaton's highly versatile HP30 motor delivers high starting torque at low speeds compared to radial piston motors of similar sizes. The motor also offers lower pressure drop that translates to lower internal frictional losses across all points of operation.

By remaining fully functional with high back pressure, Eaton's HP30 can be installed in series circuits without limitations on duty cycle or pressure ratings. These capabilities provide increased productivity, efficiency and flexibility for its users.

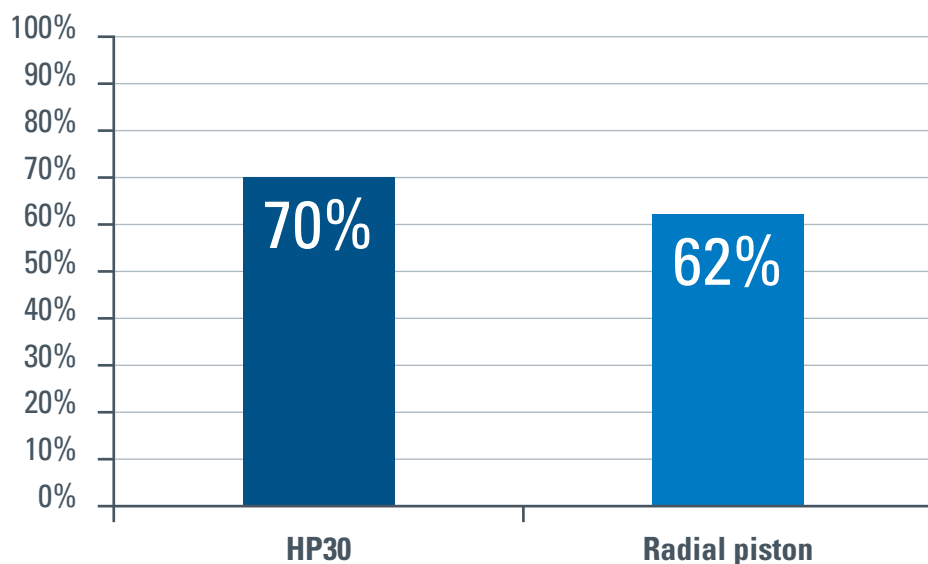
## HP30 Built to Perform



# Starting torque efficiency by the numbers

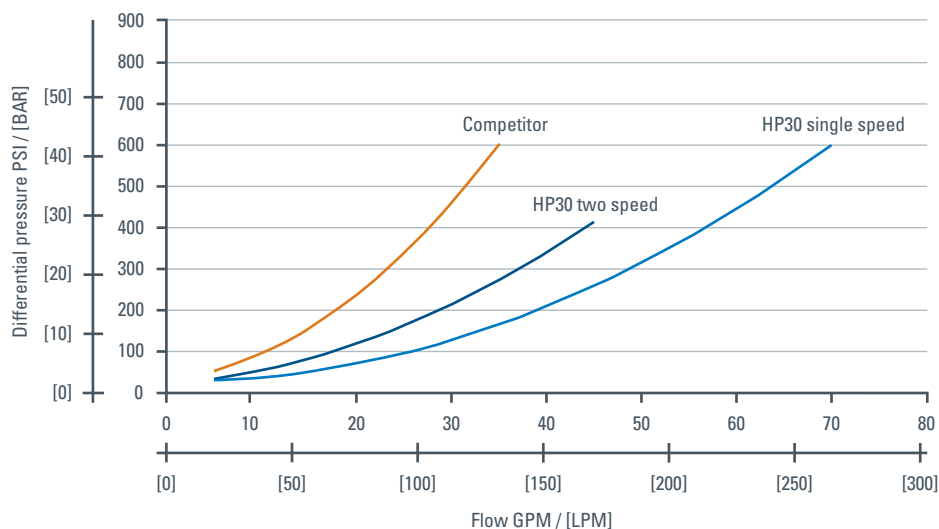
Featuring exceptional starting torque efficiency and two-speed capability, Eaton's HP30 offers significant advantages over competitive radial piston and cam lobe designs. By minimizing no load pressure drop to less than 23 bar [333 psi] at 133 lpm [35 gpm] in high-speed mode, the HP30 motor reduces parasitic heat build-up and improving vehicle operating efficiency and reducing emissions.

## Minimum starting torque efficiency (@5000 psid and 0.1 rpm)



Note: HP30 testing (TR-8137), radial piston (TR-5412A)

## HP30 NLPD - No load pressure drop



## Eaton's HP30 motor benefits

- High starting torque efficiency to provide maximum power at start-up
- Lowest pressure drop motor in the industry
- Minimal heat generation to reduce system cooling costs and space requirements
- Two-speed capability

## Technical specifications

- A high pressure (5800 psi) and high flow (70 GPM) Geroler® motor
- Displacement: 21.0 – 41.3 in<sup>3</sup>/r (344 - 677 cm<sup>3</sup>/r)
- Torque: Up to 25602 in lbs. (2893 Nm)
- Two-speed capabilities with option of spring applied hydraulic release brake

## Standard options available

- Standard, wheel and bearingless mounts
- Two-speed option – 1:1.5 speed ratio
- Fully integrated brake option
- Series circuit ready



To learn more about how the HP30 motor can help you experience performance and productivity on a whole new level, visit [eaton.com/HP30](https://eaton.com/HP30) or contact your local distributor.

### Maximizing productivity through high starting torque efficiency

- The HP30 has an optimized eccentricity to improve starting torque efficiency without sacrificing overall torque capacity or endurance. This capability allows the HP30 motor to provide maximum power to the output shaft at start-up where frictional drag is at its worst, providing the right amount of torque needed for the most demanding mobile and stationary applications.

### Maximizing reliability and performance

- Eaton's HP30 Series motors are available with an integral two-speed feature that allows the operator to shift the motor between low speed high torque (LSHT) mode and high speed low torque (HSLT) mode.
- A patented pressure compensated dual balance ring design minimizes leakage and improves volumetric efficiency.

- Eaton's Extreme Duty Seal Guard option is the best answer to keep dirt, grime and other foreign matter out of equipment. The unique seal helps protect equipment by using a "two-piece" sealing technology.
- Patented balance plate design protects motor from cold starts while allowing increased mechanical and volumetric efficiency.

### Minimizing heat with low no load pressure drop (NLPD)

- More heat means more lost energy and a greater need for cooling, costing your operation money. Eaton is getting rid of the heat by optimizing the motor in ways that our competitors can't. The HP30 uses a disc valve with large flow passages to minimize fluid losses. As a result, less heat is generated as the fluid travels through the motor.

- The unique valve design minimizes NLPD in both single and two-speed operating modes.

### Minimizing space to keep your business competitive

- It's all about space and smaller is better. Eaton's HP30 motor can handle higher pressures meaning the same amount of work can be done in a smaller package, giving you an advantage in the marketplace.

### Maximizing flexibility – capabilities built to perform

- Series circuit capability reduces the overall connections required over parallel circuits. This gives system engineers more options when designing circuits.
- Speed sensing for real time control of your machine.
- Open or closed loop circuit capability allows Eaton's HP30 motor to work with primary or auxiliary circuits.

## Committed to excellence

Decision makers turn to Eaton for an unwavering commitment to personal support that makes customer success a top priority. Each product is independently tested and backed by industry-leading warranties, and the largest engineering and technical support teams in the industry.

» To learn more about Eaton's HP30 Series motors, visit [eaton.com/HP30](http://eaton.com/HP30)

