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Denison GOLD CUP[®] Hydrostatic Piston Pumps and Motors



ENGINEERING YOUR SUCCESS.

GOLD CUP[®] Benefits

INCREASE PRODUCTIVITY AND SAVE POWER

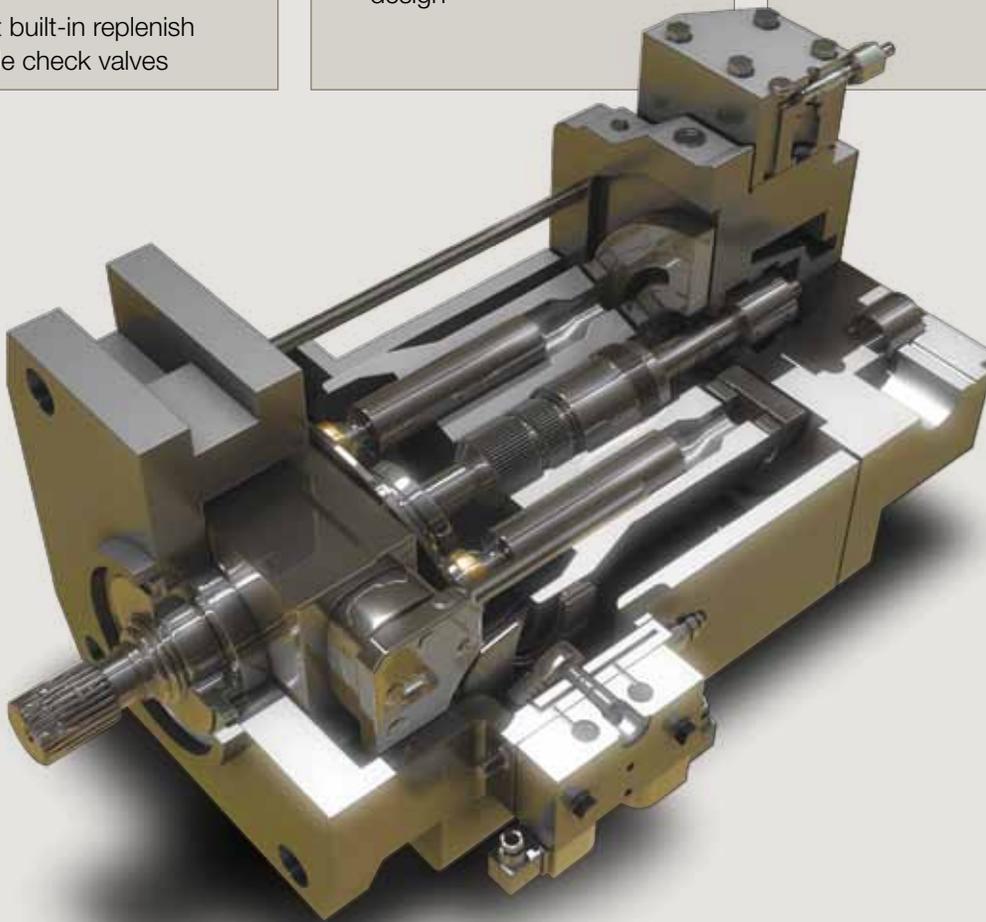
- High speed operation
- Auto-regulated control pressure based on system demand
- Efficient built-in replenish ring style check valves

LONG LIFE AND RELIABILITY

- Lifetime hydro mechanical controls
- Robust barrel bearing design

RAPID COMMISSIONING

- Visual displacement indicator
- Simple diagnostic capabilities



FAST AND ACCURATE CONTROLS

- Efficient and robust control logic
- Performance eliminates need for cross port reliefs
- Stable system flow with low resistance cam design

EASE OF SERVICE

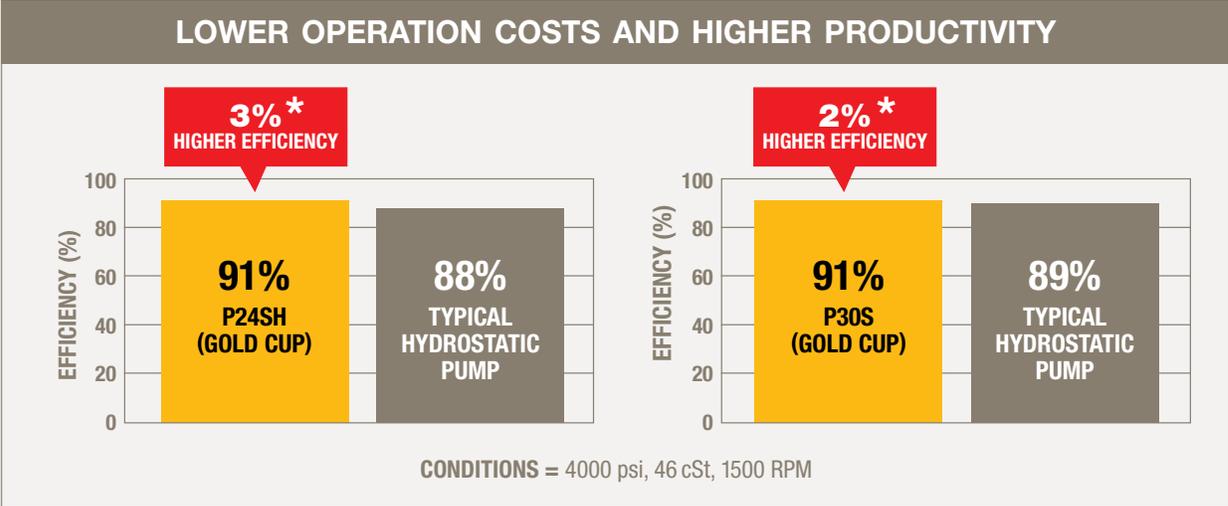
- Quick change valve block
- Modular controls (interchangeable between frame sizes)
- Replaceable shaft sleeve

DESIGN FLEXIBILITY

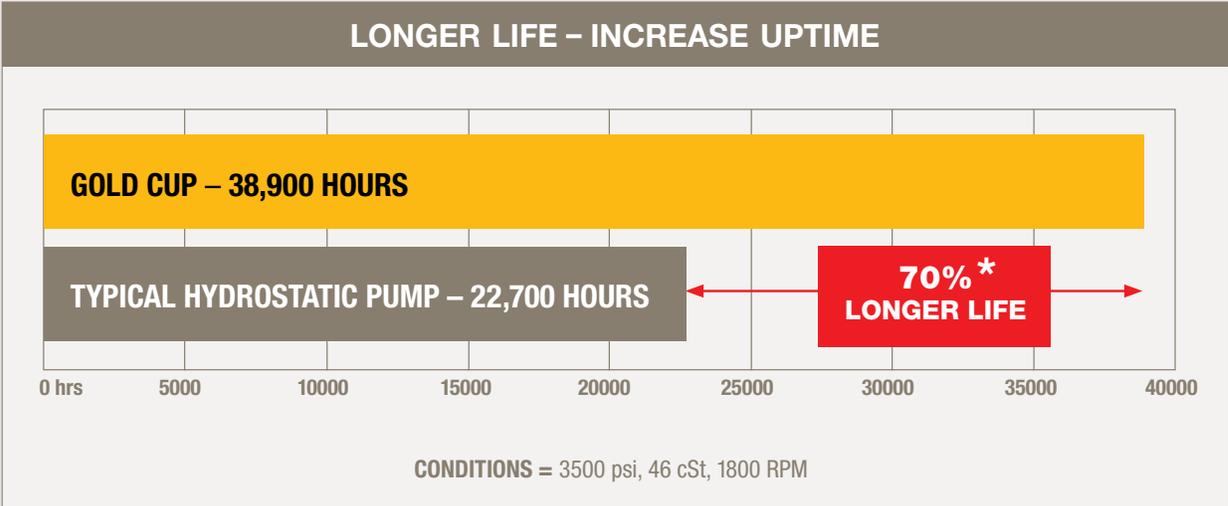
- Controls mount on either side
- Simplified plumbing with built-on hot oil shuttle
- Compact package with integrated auxiliary pumps
- Capable of individual remote pressure compensators

GOLD CUP® Performs

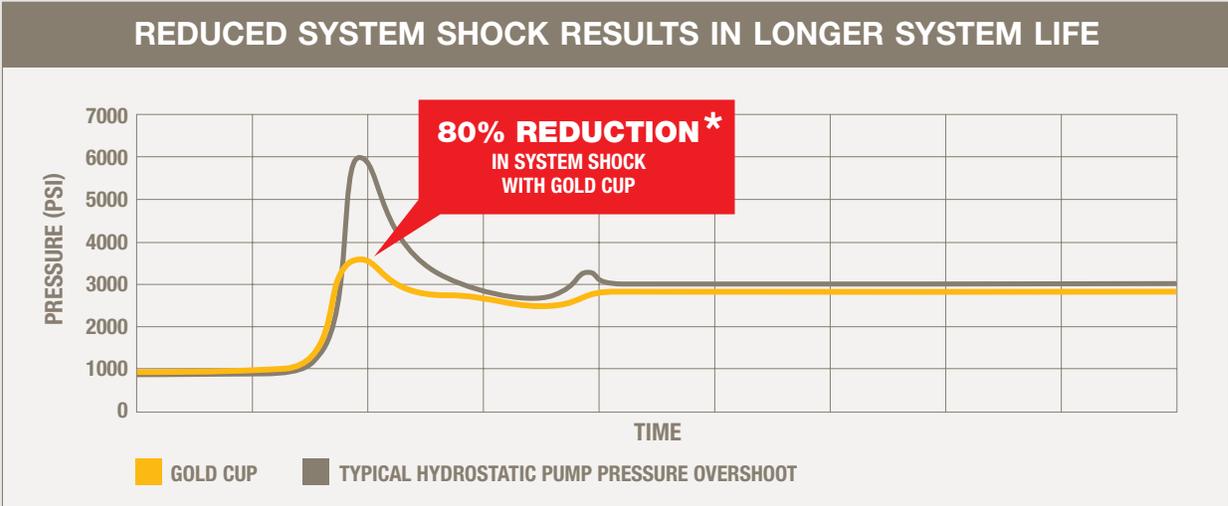
LOWER OPERATION COSTS AND HIGHER PRODUCTIVITY



LONGER LIFE – INCREASE UPTIME



REDUCED SYSTEM SHOCK RESULTS IN LONGER SYSTEM LIFE



* Consult HPD Technical Support to quantify dollar savings.

GOLD CUP[®] Hydrostatic Piston Pumps and Motors



GOLD CUP Series Design TECHNOLOGY

Parker GOLD CUP series of hydrostatic piston pumps and motors delivers exceptional, long-lasting performance in severe duty applications. Featuring a robust barrel bearing design, GOLD CUP pumps and motors provide circuit reliability at speeds up to 3600 rpm at 5000 psi continuous pressure or 6000 psi intermittent pressure.

A closed circuit design makes GOLD CUP series pumps and motors ideal for bi-directional function and eliminates energy losses associated with circuit valving. The GOLD CUP's high power-to-weight ratio, compact package, and flexibility in control options and mounting locations deliver significant value-added benefits. These include lower operating costs, ease of installation

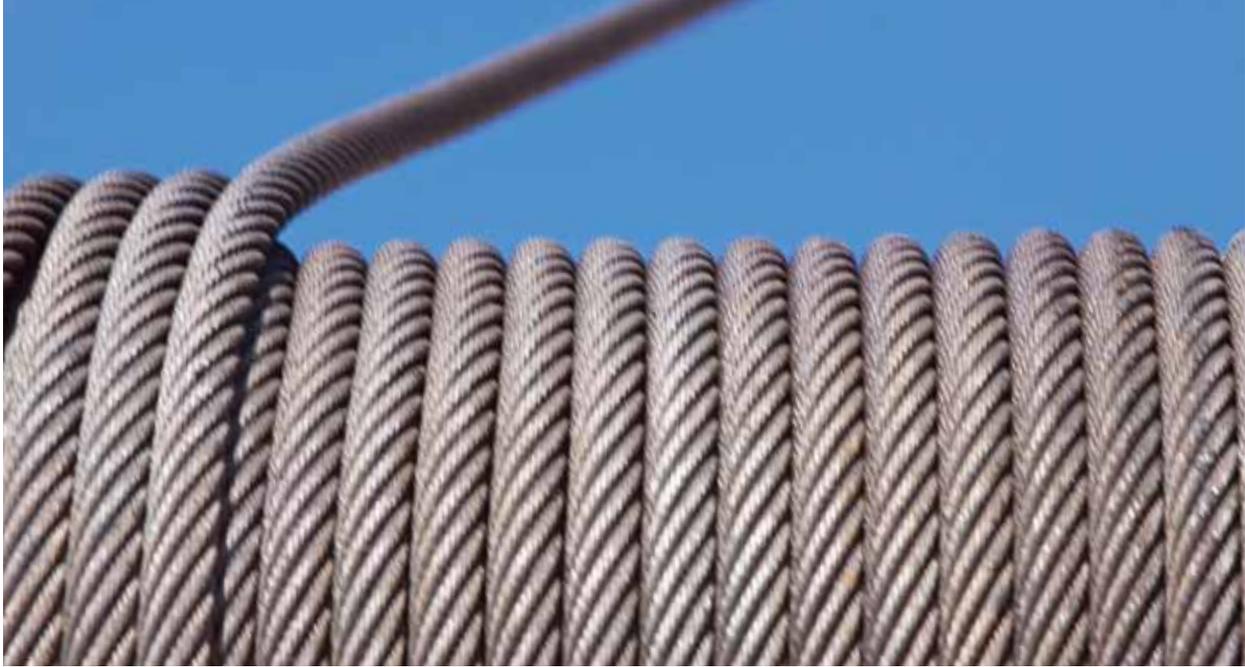
with fewer components, and longevity for reduced down-time.

GOLD CUP hydrostatic pumps and motors perform in such severe duty applications such as:

- **Mining, exploration equipment, well drilling**
- **Drilling, drill rigs, oil exploration**
- **Construction and construction equipment**
- **Material handling**
- **Logging equipment**
- **Land and sea military equipment**
- **Shredding/reducing equipment**
- **Gas turbine starting**
- **Cranes and winches**
- **Water jet cutting systems**
- **Energy recovery applications**

Long-lasting
Performance
for Severe Duty
Applications





The POWER of GOLD CUP®



Unique barrel bearing extends pump life.

Extended Life and Long-term Efficiency

Increased bearing life is a key GOLD CUP advantage. Unlike most pump designs that use conventional roller bearings to support a large diameter shaft, GOLD CUP pumps utilize a bearing centered around the barrel. This design eliminates the need for conventional large pump shafts and support bearings and allows for a smaller diameter main shaft that permits the

location of the rotating pistons to be closer to the center.

With a smaller diameter piston bore circle, fluid velocity is reduced and the pump can run at speeds up to 3600 rpm. Thus, while GOLD CUP pumps' higher operating speeds generate more flow, their smaller size saves space, energy and costs.



Superior Performance and Durability

The GOLD CUP pumps feature a low-inertia rocker cam and are controlled hydraulically with equalized pressure acting within the vane chambers located on each side of the cam. The mass of the cam is hydrostatically balanced, a design feature that permits not only fast cam stroking but also ensures pump longevity. The ability to compensate quickly serves to protect the pump and the entire hydraulic system when pressure peaks, helping to extend the life of system components.



The hydrostatically balanced cam and cradle design promote efficient stroking and pump longevity.



Reduce downtime and make service easier with GOLD CUP's quick change valve block.

Conserve Energy and Save Power

Greater efficiency is obtained with variable servo pressure. The GOLD CUP modulated servo design automatically changes the force available to stroke the cam as servo pressure follows the increases and decreases in system pressure. This feature conserves energy, resulting in cooler operating systems and more available power.

Reduce Down Time

The uniquely designed GOLD CUP pump valve block contains multiple poppet valves to provide relief and control pressure functions along with a built-in compensator. Standardized to ensure complete interchangeability among all GOLD CUP pump sizes, a simple exchange to replace a malfunctioning valve block alleviates down time and ensures greater productivity.



Easy Maintenance and Upgrades

GOLD CUP pumps offer a wide choice of quick change control options to fit application requirements including:

- **Adjustable displacement stops**
- **Manual screw adjustment**
- **Automatic brake and neutral bypass control**
- **Torque limit override**
- **Hydraulic stroker**
- **Electro-hydraulic stroker**
- **Electro-hydraulic servo**
- **Cylinder control**
- **Electro-hydraulic cylinder control**
- **Manual rotary servo**

The pump function remains the same regardless of the control option because there is no metal-to-metal mechanical linkage between the controls and pump.

Our servo control system allows for low hysteresis. A thin film of oil provides a hydro dynamic balance between the control and cam that eliminates component wear typically found in unbalanced designs.

Additionally, this design allows for manual override when needed to control machine operation for troubleshooting or installing a new system. The ability to control the pump manually during a breakdown situation, such as loss of input control electronics, builds reliability and safety into the machine design.

GOLD CUP Series Motors

Parker GOLD CUP series motors are available in either fixed or variable displacement configurations to provide the optimum hydrostatic drive solution for your needs.



Control interchange between frame size is easily upgradable.

Parker's GOLD CUP series of hydrostatic piston pumps provides opportunities to simplify circuitry for lower procurement and install costs, reduce system shock for lower warranty costs, and operate with higher efficiencies for lower energy costs. These benefits are obtained by utilizing the GOLD CUP hot oil shuttle package, integrated relief valving, along with our innovative system solution for handling pressure spikes. **The result is lower total cost for applications that benefit from GOLD CUP's superior design and performance.**



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