HAS
Hybrid Actuation System
Active tracking solutions for Solar Tracking

Customer Value Proposition:
Reinvented Active Solar Tracking by the use of Parker’s Hybrid Actuation System (HAS) actuators. Controllability of electromechanical actuators with the power density, resistive force capabilities and longer life as found on traditional hydraulic systems offering robust, long lasting tracking solutions for solar power.

Parker HAS actuators offer low cost, ease of maintenance and durable choice for large and small arrays.

Hybrid hydraulics achieve exceptional economies of scale, with the ability to move over a megawatt from a single point. Serviceability is built into the design that can be serviced on site. Simple line of use replacement ability allows for quick change out in the field.

Product Features:
- Simple two wire operation
- AC and DC supply voltages available
- Low amp draw, 50% duty cycle, high efficiency tracking solutions
- No hydraulic hoses, no hydraulic power unit, self contained system
- High locked hold force to withstand wind gusts
- No reduction in life commonly found with screw-type actuators when loaded
- Modular system allows for various traditional cylinder mounting configurations and stroke lengths
- Surface preparation for outdoor installations
- Heavy chrome plated rods with optional Global Shield™ rod coating, stainless steel rods for extreme corrosion prevention
- Available with Intellinder™ continuous feedback or end of stroke, stroke to go switch options

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ENGINEERING YOUR SUCCESS.
**HAS Hybrid Actuation System Actuators**

*Ideal for residential, commercial or utility tracking applications such as:*

- Photovoltaics (PV)
- Concentrated solar power (CSP)
- Heliostat
- Push-pull dual actuator systems

### General Specifications (Sensor)

<table>
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<tr>
<th>Bore</th>
<th>*Model No</th>
<th><strong>Push Force (typical)</strong></th>
<th>Locked Force Rating</th>
<th>Amp Draw (typical)</th>
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* Consult Factory for sizing, complete model number; various stroke lengths and custom configurations available

** Increase in force will result in higher amp draw up to locked force rating

*** Rating on 0.100 series pump

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Stainless steel transfer tubes, no extra plumbing required

Complete self contained hydraulic system

Epoxy Paint Standard

Manifold with fluid exchange ports standard for on panel servicing

Mid trunnion mount standard other mounting available

Heavy Chrome Plated Rod standard, Global Shield Coated and Stainless also available.

Simple 2-wire control

Low amp draw 12 and 24V Motor options

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