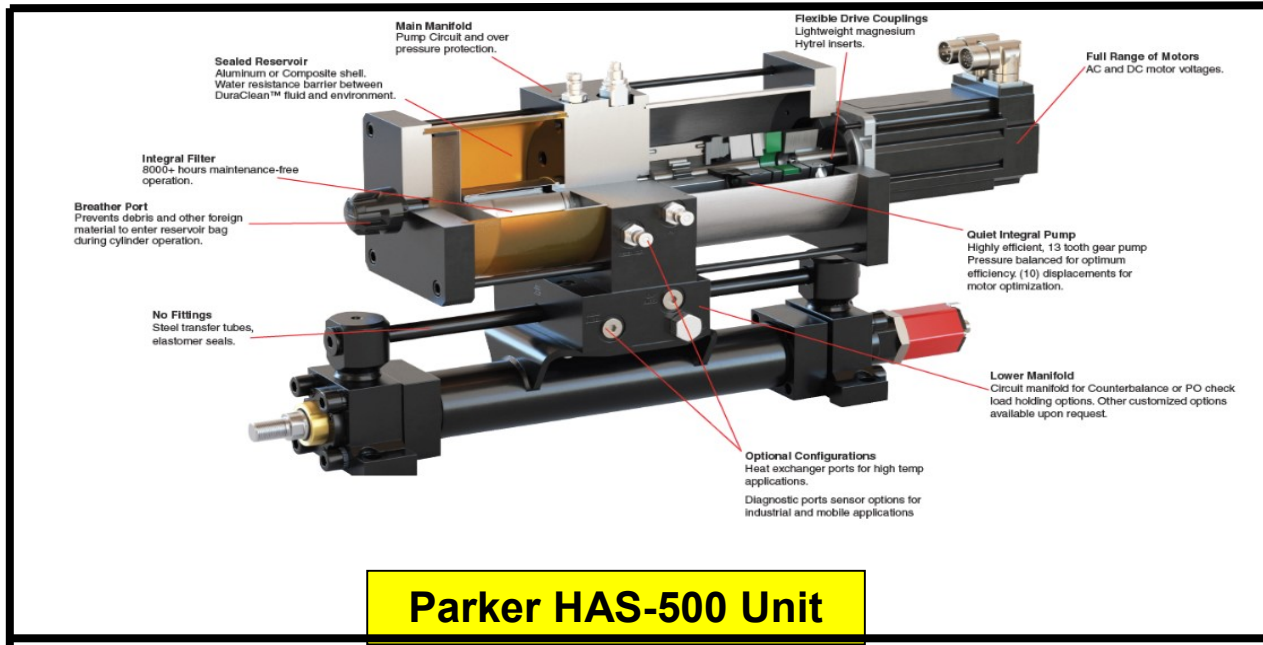




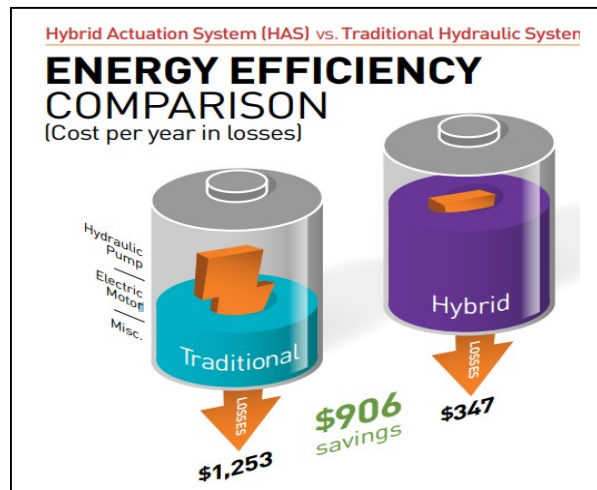
6200 Harvard Ave.
Cleveland, Ohio
44105
P. - 216-432-3240
F. 216-432-3241

Actuation Method Advantages - Parker HAS-500



Highlights:

- East to install
- Easy to set-up
- Easy to operate
- 25 Year Product Life
- Industry leading warranty
- Proven Hydraulics, complete self-contained.
- Local discrete operation.
- Simple 2 wire on/off operation.
- Virtually maintenance free for low operating costs.
- A “Parker Hannifin” product, a prominent fluid power company known worldwide for quality and service.
- Serial bus connectivity, network connectivity.
- No plumbing, hoses or oil needed, plug and play actuation.
- The sealed system keeps external contaminants out.



- Reservoir volume is LESS than 1 gallon.
- The fluid is pre-flushed and cleaned for worry free operation.
- The integral filter allows for maintenance free operation (over 8000 hours of operation).
- NO hoses, fittings or other connectors required.
- Integral flow tubes with elastomeric seals ensure leak free operation.
- Compact brushless permanent magnet motor provides power on demand in small envelope.
- Proportional speed and directional control standard.
- Unit delivered filled with fluid and ready for service, simply connect via a power and control wire.

Why HAS-500 is the best solution for Mine Door Actuation?

- The HAS-500 delivers three times the power density of a comparably sized Electro-Mechanical solution.
- Heavy chrome plated rods with optional Global Shield™ rod coating, stainless steel rods for extreme corrosion prevention.
- No hydraulic hoses, no hydraulic power unit, self contained system. Significantly less costly to install vs. traditional hydraulic systems.
- No reduction in life commonly found with screw-type actuators when loaded.
- Very low power consumption compared to other linear actuator systems.
- Able to manually adjust pressure output of the HAS actuator unlike electric actuators. HAS-500 actuators can be adjusted from 0-3000 PSI to achieve the right amount of force for each application. To adjust pressure on an electric actuator, an HMI or PC is required to make any pressure adjustments.
- Able to easily adjust stroke speed manually on the HAS-500 unit. Speed of stroke on electric actuators can only be adjusted via HMI or using a PC.
- The HAS-500 used fluid to actuate the cylinder rod and handles shock loads well. Electric actuators are driven by an acme threaded rod and nut assembly, which is not as forgiving to shock loads.
- HAS-500 units are similar in weight to an electric actuator.
- HAS-units have been tested up to 30,000 hours, while running peak force and pressure without any failures or leaks. Electric actuators have a shorter life span and when an electric actuator needs to be rebuilt, this rebuilding can only be completed in the manufactures factory clean room.
- The HAS-500 cost is approximately 25%-35% less than a comparable electric actuator with similar force.
- When using a HAS-500 unit, since there is not an accumulator installed like a traditional HPU system. AMD can provide a UPS system that would maintain the power to the entire PLC system (NOT just the PLC as current UPS system operates) and allow the HAS-500 actuator to operate 50+ door cycles using the UPS system. A pushbutton or hand switch would be installed on each side of the door to operate the HAS-500 unit during a power failure.

American Mine Door Co. has uncovered this latest technology of the HAS-500 in an effort to provide our clients with the longest lasting, lowest cost actuation method available in the marketplace.

We feel this technology will save our clients time and money while providing a better solution than traditional hydraulic pumps, pneumatic systems and electric actuator systems.

Please inquire if there are any additional questions in regards to using a Parker - HAS-500 actuation system on your next mine door project!

American Mine Door Co.