Series 2H / 2HD / 2HB, 3H / 3HD / 3HB and 3H Large Bore

- Heavy duty hydraulic service with industrial tie rod construction
- Nominal pressures up to 3000 psi (207 bar)
- Standard bore sizes 1.50” – 20.00”
- Piston rod diameters 0.625” – 10.00”
- Strokes available in any practical length
- 18 standard mounting styles
- New universal piston with 4 interchangeable seal styles in 1.50” - 8.00” Bore
- Exclusive threaded “Jewel” Rod Gland with TS-2000 Rod Seal or Bolt-on Gland with Tri-Lip Rod Seal
- Parker Stepped Cushion for increased performance and productivity
- Rod ends: four standard choices, specials to order
Series 3L

- Medium duty hydraulic service with industrial tie rod construction
- Nominal pressure up to 1000 psi (70 bar)
- Standard bore sizes 1.00" – 8.00"
- Piston rod diameters 0.500" – 5.500"
- Strokes available in any practical length
- 15 standard mounting styles
- Exclusive "Jewel" Rod Gland with TS-2000 Rod Seal
- Parker Stepped Cushion for increased performance and productivity
- Rod ends: four standard choices, specials to order
Series CHE / CHD

- Compact Hydraulic Cylinder
- Repairable construction, aluminum alloy extruded or steel body design
- Bore sizes from 20mm – 100mm
- Strokes in 1mm increments up to 150mm dependent on bore size
- Piston rod diameters 12mm – 56mm
- Single and double rod designs
- Up to 13 standard mounting styles
- Nominal CHD pressures up to 207 bar (3000 psi)
- Nominal CHE pressures to 150 bar (2175 psi) dependent on bore size
- Four standard rod end styles with special ends available
- Available with SAE, NPTF and BSPP ports
- Manifold ports available on foot mounting
- Magnetic piston and position sensing switches available
Series HMI

- Metric hydraulic cylinders with bore sizes 25 mm – 200 mm
- Nominal pressures up to 210 bar (3045 psi)
- ISO 6020/2 mounting interchangeable
- Up to three rod sizes per bore
- Wide range of mounting accessories
- Up to three male and three female rod end threads per bore
- Strokes available in any practical length
- Piston rod diameters 12 mm – 140 mm
- Single and double rod designs
- 12 standard mounting styles
- Exclusive “Jewel” Rod Gland with TS-2000 Rod Seal
- Seal types to suit a wide variety of operating environments
- Parker Stepped Cushion for increased performance and productivity
Series RDH

- Heavy Duty Hydraulic Welded Roundline Cylinder
- Standard threaded head and welded cap construction
- Nominal pressures up to 3000 psi (207 Bar)
- Bore sizes from 1.50" – 8.00"
- Piston rod diameters 0.625" – 5.500"
- WearGard™ piston wear rings and rod bearing
- Strokes available in any practical length
- Rod ends: five standard choices, specials to order
- 9 standard mounting styles
- Mates with NFPA mounting accessories
WaveScale

- Linear displacement transducer (LDT) feedback
- WaveScale embedded design maintains NFPA dimensions 2.00" – 6.00" bores
- Eliminates need for limit switches, deceleration valves, shock absorbers and mechanical linkages in many applications
- Nominal pressures up to 3000 psi (207 bar)
- Piston rod diameters 1.000" – 6.000"
- Wide variety of stroke lengths available
- Exclusive "Jewel" Rod Gland with TS-2000 Rod Seal
- Parker Stepped Cushion for increased performance and productivity
- Low friction seals available
- Seven bolt-on and four integral manifolds available
- Simplifies machine design and reduces number of hydraulic lines
- Integral mounted valve eliminates assembly time and fittings
Series 2A

- Steel pneumatic with industrial tie rod construction
- Nominal Pressure – Up to 250 PSI Air Service
- Standard Fluid – Filtered Air
- Standard Temperature – -10°F to +165°F
- Bore Sizes – 1" through 14" (Larger sizes available)
- Piston Rod Diameter – 1/2" through 5-1/2"
- Mounting Styles – 14 standard styles at various application ratings
- Strokes – Available in any practical stroke length
- Cushions – Optional at either end or both ends of stroke. "Float Check" at cap end
- Rod Ends – Three Standard Choices – Specials to Order
Series VE

- “Jewel” Rod Gland Assembly is externally removable without disassembling the cylinder
- Piston rods are hard chrome plated and polished to a 10 RMS surface finish
- Wear compensating lip seals are used throughout to assure leak free operation and optimal performance over the life of the cylinder
- Cylinder body material options include steel with chrome plated I.D., aluminum and composite
- Tie rods are made from high strength 100,000 psi minimum yield material
- Align-A-Groove design assures tube to head alignment and leak free operation
- NPT ports are standard in all bore sizes
- Magnetic piston sensing option relays piston position in all stroke lengths
- Solid state or reed switches are available with quick disconnect or flying lead terminations
- Heads and caps are made from heavy duty steel and are machined to provide concentricity
Series XFC

- All Steel Construction
- Elastomeric Seals throughout
- Standard Metric Hydraulic Tie Rod Construction
- Opposed Preloaded Angular Contact Bearings
- Roller Screw Drive System
- Inline and Parallel Gear Drive Configurations
- Speeds up to 40 Inches per Second
- 178kN Continuous Thrust (40,000 Pounds)
- Parker Bayside Stealth Gearhead Direct Mount
- Parker MPP Max Plus Motors Standard
- Strokes from 50mm to 2000 mm in 1 mm increment
HAS Hybrid Actuation System

- 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 are standard, Global Shield™ rod coating and stainless steel rods for extreme corrosion prevention are optional
- Available with Intellinder™ continuous feedback or end of stroke, stroke to go switch options
Intellinder™ Absolute Position Sensor

- Integrates a highly engineered sensor into the hydraulic cylinder, eliminating the time and cost associated with gun drilling
- Cylinder feedback installation is virtually plug-and-play
- Signals absolute positioning, rather than position relative to the starting location of the rod
- Position identifying bar codes are marked right on the rod, position is communicated continually and directly to the controller
- Position report occurs at power-on
- Allows for full utilization of double-rod cylinder applications requiring position feedback
- Sustains performance in applications exposed to vibration, dust, gravel, corrosives, chemicals, axial load, side load, and immersion
- Remains impervious to electronic noise and has been tested to ensure signal strength in the most rigorous applications
- Performs across a wide range of temperatures and provides long stroke capabilities of 20 feet (6,096 mm)
Mounting Accessories

- Traditional mounting attachments
  - Rod clevis
  - Eye bracket (cast iron or forged steel)
  - Pivot pin
  - Knuckle
  - Clevis bracket (cast iron or fabricated steel)

- Spherical bearing

- Alignment aids
  - Dual axis knuckle
  - Alignment coupler
  - Split flange coupler
  - Weld plate

- Stainless steel attachments
  - Rod clevis
  - Eye bracket
  - Pivot pin
  - Knuckle
  - Clevis bracket
Position Indicating Switches

- Bore diameters – 1.50" to 6.00"
- Strokes – up to 120" (Contact factory for longer strokes)
- Piston rod diameters – 0.625" to 4.000"
- Temperature range – -10°F (-23°C) to +250°F (+121°C) (depending on seal class)
- Switch position may be restricted on mounting style DD
- Working pressure – series and tube material dependent

**Series 2H** – 3000 psi with either carbon steel or stainless steel tube

**Series 3L** – 1000 psi nominal (dependent on bore size) with either carbon steel or stainless steel tube; reduced pressure with aluminum tube

**Series 2A** – 250 psi regardless of tube material
Telescopic Hydraulic Cylinders

- Longer sleeve overlap for improved stability and higher column loading
- Nylon tipped set screws that conform to the shape of the packing nut threads. It is nearly impossible for the packing nut to back off accidentally.
- Snap-on, glass-filled bearings that absorb contaminants without damaging cylinder walls
- Threaded steel stop rings for easier servicing and more reliable stopping action
- External packing nuts give added support to the tube exterior while making service procedures easier
- Wave springs and chevron packing for self-compensating seals
- Polyurethane rod wipers that resist higher temperatures without extrusion
- Positive manual air bleeder prevents cavitation and “mushy” cylinder action
- Cast steel mountings offer dependable strength. Pin-eye and rod-end are welded into a single unit.
Custom Cylinder Solutions

- Custom Cylinders are uniquely designed to the customer’s application and specifications
- Bores to 48" (1219 mm)
- Strokes to 876" (22250 mm)
- Operating pressures to 15,000 psi (1034 bar) Intensifier pressures to 60,000 psi (4138 bar)
- Any construction style: tie rod, extruded, bolted, mill-type, welded, telescopic, crimped, intensifier
- Many construction materials: carbon steels, stainless steels, exotic steels, aluminum, composite
- Wide variety of rod coatings: hard chrome, nickel-chrome, Nano Shield Technology, nitrotec/nitriding, ceramic and laser clad
- Common options include submersible service, counter-balance valves, epoxy paint, continuous feedback devices, low friction seals, external supports and many more
- Available third party approvals and certifications include ABS, DNV, BV, USCG, Lloyd’s Register, ASME, Nuclear (NUPIC) and MIL-I-45208