



We have one priority...YOU.



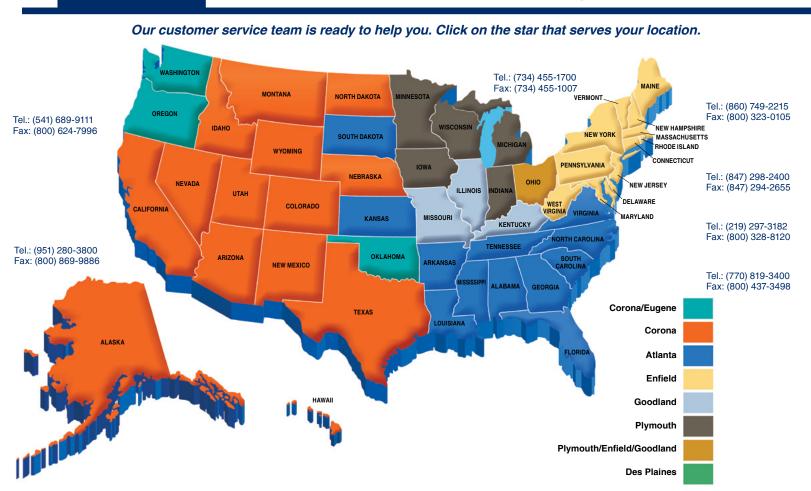
**ENGINEERING YOUR SUCCESS.** 





**Locations / People** 

# We have one priority...YOU.







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#### **SERIES H**

**SERIES L** 

**SERIES CHE / CHD** 

**AHM SERIES** 

**SERIES RDH** 

**SERIES MH** 

**A SERIES** 

**SERIES VE** 

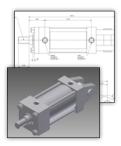
POSITION INDICATING SWITCHES

MOUNTING ACCESSORIES

**CUSTOM CYLINDERS** 







### Series H

- Heavy duty hydraulic service with industrial tie rod construction – ANSI (NFPA) T3.6.7R3-2009
- Nominal pressures up to 3000 psi (207 bar)
- Standard bore sizes 1.50" 20.00"
- Piston rod diameters 0.625" 10.000"
- Strokes available in any practical length
- 16 standard mounting styles
- Bolt-On Rod Gland with Tri-Lip Rod Seal
- Stepped Floating Cushion for increased performance and productivity
- Rod ends: five standard choices, specials to order





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### Series L

- Medium duty hydraulic service with industrial tie rod construction – ANSI (NFPA) T3.6.7R3-2009
- Nominal pressure up to 1000 psi (70 bar)
- Standard bore sizes 1.50" 8.00"
- Piston rod diameters 0.625" 2.500"
- Strokes available in any practical length
- 14 standard mounting styles
- Bolt-On Rod Gland with "Tuffseal" Rod Seal
- Optional Stepped Floating Cushion for increased performance and productivity
- Rod ends: five standard choices, specials to order





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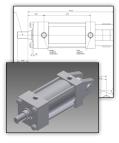
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### Series CHE / CHD

- 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





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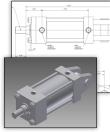
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### **AHM Series**

- Metric hydraulic cylinders with bore sizes 25mm – 200mm
- 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 12mm 140mm
- Single and double rod designs
- 12 standard mounting styles
- Removable Rod Gland with "Tuffseal" Rod Seal
- Seal types to suit a wide variety of operating environments
- Stepped Floating Cushion for increased performance and productivity





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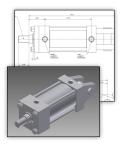
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### **Series RDH**

- Heavy Duty Hydraulic 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<sup>™</sup> 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





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### Series MH

- Meets All NFPA Mounting Dimensions
- Heavy Duty Service Mill Type Construction
- Nominal Pressure 2000 PSI
- Standard Bore Sizes 1.50" through 14.00"
- Piston Rod Diameters 0.625" through 10.000"
- Chrome-plated, induction hardened piston rods
- Heads retained with ASTM A-574 socket head cap screws
- Floating cushions with float-check action and positive metal-to-metal seal
- Stepped Cushion for faster cycle time, reduced hydraulic shock and machine noise, lower machine maintenance





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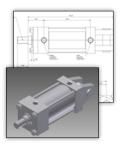
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### **A Series**

- Heavy Duty Service ANSI/(NFPA) T3.6.7R3-2009 Specifications and Mounting Dimension Standards
- Standard Construction Square Head Tie Rod Design
- Nominal Pressure Up to 250 PSI Air Service
- Standard Fluid Filtered Air
- Standard Temperature -10°F to +165°F
- Bore Sizes 1.50" through 14.00"
- Piston Rod Diameters 0.625" through 4.000"
- 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 Four Standard Choices Specials to Order





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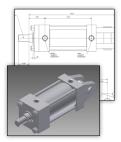
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### Series VE

- Bore diameters 2.00" to 24.00"
- Maximum Working Pressure 150 psi Pneumatic
- Piston Rod Diameters 0.625" to 3.500"
- Stroke Lengths Bore Diameter Dependent
- Single and Double Piston Rod Construction Available
- Spring Extend or Retract
- Double Acting
- Cylinder body material options include steel with chrome plated I.D., aluminum and composite
- 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





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### **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 TM3
- Working pressure series and tube material dependent

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

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

Series A – 250 psi regardless of tube material





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## **Mounting Accessories**

- Traditional mounting attachments
- Available in inch or metric sizes
  - 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





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## **Custom Cylinders**

- 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, counterbalance 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