

### PISTON ROD

The piston rod is made from hard chrome plated C1045/C1050 carbon steel with a typical minimum yield strength of greater than 75,000 psi. Material strengths may vary depending on rod diameter.

Other standard material options are Induction Hardened Chrome Polished (IHCP), Chrome plated 17-4PH Stainless or Nitrotec treated piston rods. Nitrotec material is an alternative to chrome plated and provides a hardened surface (up to 71 Rc) with very good corrosion resistance.

If you require a rod material or size that is not included in this catalogue please contact the factory.

### BARREL

Our cylinder barrel is very heavy-walled, providing a very robust and rigid cylinder assembly. The inside surface is micro-honed for low friction and long reliable seal life.

### HYTHANE® SEALS

**Hythane®** piston seals are standard on the Royal H-Series. They have an exceptional temperature range of from -50 to 230°F.

The Hythane®\* rod seal is a high performance, high temperature seal compound having ultra low friction and long seal life. The Hythane/Hyslip rod wiper, with internal ribs for extra stability and prevention of pressure trapping, cleans the rod on the return stroke. The static o-rings are Buna-N with Viton as an option for higher temperatures.

### ROTOCAST BRONZE GLAND BUSHING

The gland bushing is manufactured from Rotocast bronze for low friction and long bearing life. Other materials such as Zinc-alloy are available upon request. Optional gland bushings with wear rings may be available, please contact our factory.

### COLD FINISHED HEADS

Heads are precision machined from high quality cold finished steel for perfect alignment of barrel and moving parts.

### CUSHIONING

The standard needle valve position is at position #4 (P4). The Ball check position is at P2. The Ball checks are designed to eliminate the need for a spring. As fluid flows through the check valve the ball is pulled into the low pressure zone, sealing when required and allowing the fluid to bypass for fast break away from the cushions.

2 1/2" and 3 1/4" bores with the #3 rod are now available with adjustable cushions both ends.

### PISTON

The ductile iron piston is a one-piece design, incorporating a replaceable wear ring to prevent metal to metal contact and increase the life of the cylinder.

### SAE PORTS

SAE O-Ring Boss (ORB) ports are the standard port on the H-Series cylinders. SAE CODE 61 Flange ports and NPTF are among the other standard options. For NPTF ports, WCI recommends an SAE to NPTF Female adapter. Custom ports are also available.

### PISTON STOP

Depending on stop length, internal or external piston stops are available to reduce side load stress on the piston rod, gland bushing and piston for all cylinder sizes.

### END-OF-STROKE POSITION SENSORS

WCI offers Proximity sensors to signal when the piston is at the end of stroke. Topworx is our standard however we can manufacture our cylinders to suit the proximity you would like to supply. Please contact our factory for details.

### CYLINDER FLUSHING

A cylinder flushing service is available as a standard option. To choose this, select "-F" in the Options section of the Cylinder Nomenclature (back cover).

### CUSTOM CYLINDERS

If our standard product does not meet your specifications, Westcoast Cylinders has a long history of manufacturing custom cylinders for many applications. Please contact our factory with your requirements.

### SPARE PARTS

Genuine Royal seal kits include all seal components, and wear rings. Specify genuine Royal replacement parts to ensure you will receive all feature benefits.

\* *Hythane®* is a registered trademark of Hallite Seals International Ltd.

Factory contact 604.527.1120 or [sales@royalcylinders.com](mailto:sales@royalcylinders.com)

#### Westcoast Cylinders Inc.:

The Company has been manufacturing high quality, reliable ROYAL cylinders for over 50 years. Production started with a single cylinder design and expanded to a full range of multi-use, hydraulic, pneumatic cylinders and accessories.

#### Quality:

WCI is a leader in the design and manufacture of custom heavy duty cylinders. The materials, machinery and tools used to produce our products are continuously being updated. Our cylinders are built to the highest standards utilizing the latest technology and processes.

#### Delivery:

WCI maintains a large range of stock parts which gives us the flexibility to respond to your needs in emergency situations. Please contact the factory to expedite your special requirements.

