

INSTRUMENTATION Hoke® valves









HOKE[®] valves are available with GYROLOK[®] compression fitting ends

HOKE[®] manufactures a complete line of precision needle valves for both general purpose and severe service applications. A variety of user benefits including reduced fugitive emissions and extended product life, are provided by features such as HOKE[®]'s Dyna-Pak[®] packing and positive handwheel drive.



DYNA-PAK® STEM PACKING SYSTEM

Dyna-Pak® provides superior sealing performance while reducing maintenance costs. Consisting of alternate wafers of PTFE and metal spacers, stem leakage is virtually eliminated while the problems associated with PTFE cold flow are minimised.

As the packing nut is tightened, metal spacers squeeze the PTFE wafers, driving the PTFE against the stem. At the stem, forces are concentrated and the PTFE wafers provide multiple line seals. In addition to squeezing the PTFE wafers, the metal spacers help contain the PTFE and drastically reduce its ability to creep.

Dyna-Pak® packing has the ability to:

- Utilise system pressure to increase effectiveness in eliminating leakage.
- Provide reduced operating torque.
- Help eliminate fugitive emissions.
- Reduce the need for frequent packing adjustments.
- Operate in temperatures from -54 to 232°C (-65 to 450°F).

HOKE® Needle Valves are offered with a choice of Stem Tip options to provide greater flexibility



Blunt Vee-Point The blunt vee-point stem tip provides full flow with only a few turns of the valve handle.

Regulating

The regulating stem tip has a gradually tapered tip which allows for greater control of flow.



Vee-Point The vee-point stem tip

is used to provide leak-tight shutoff in small orifice valves.

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PCTFE

A PCTFE stem tip requires a lower seating torque than a metal stem tip. It will provide full flow through the valve with only a few handle turns. The PCTFE tip is replaceable and has a maximum temperature of +121° C (+250° F).

Non-rotating Metal Stem Tip



A non-rotating stem tip is typically used in high cycle applications to extend the service life of the valve. Its purpose is to prevent galling in the seat and on the stem tip. As the valve is closed, the stem tip contacts the valve seat, and is driven straight into it without rotating.



Non-rotating PCTFE Stem Tip

A non-rotating PCTFE stem tip operates in the same fashion as the non-rotating metal stem tip but requires less seating torque.

Each stem tip has its own unique flow characteristics with some typical flow curves shown below. Refer to the complete HOKE® Needle Valve catalogue for the flow curves for each valve.







Metering Valves

HOKE[®] offers a range of fine control needle valves, called metering valves, in three different series – 1300, 1600 and 2300.

Using between 18 and 20 turns of the handle from closed to fully open, these valves offer extremely precise flow control.

Micrometer handles are available with some having a clip lock function to prevent any changes to the setting.

Refer to the complete HOKE[®] metering valve catalogue for the flow curves for each valve.



Typical metering valve flow curve showing 18 handle turns from closed to fully open



PROCHEM INSTRUMENTATION





The HOKE® industrial and high performance line of ball valves are available in 2, 3, 4 and 5-way designs.

2-way valves provide an on/off isolation function with a 90° turn of the handle.







true.

7-Series-





3-way valves divert flow from the common port (usually the bottom port) to either one of the other ports with a 180° turn of the handle.





4-way valves are dual switching valves changing two flow paths at the same time.



5-way valves, or diverter valves, allow flow from the common port (bottom) to any of the other four ports.





Trunnion Design

BALL VALVES

- Are available with NPT ends or with **GYROLOK®** Compression Fitting Ends.
- Have indication of flow direction via the position of the handle.
- Are available with floating ball as standard or trunnion design for higher pressure service.
- Are available with welded ends (fixed ends) to prevent accidental disconnection and for enhanced emissions safety.
- Are available in many materials such as Brass, 316 Stainless Steel, Monel[®], Duplex and Hastelloy[®] with other materials available on request.
- Utilise Dyna-Pak for superior sealing and reduced wear.



Dyna-Pak[®] Stem Packing System





DL & TL Series

Uni-directional, High Cycle, Zero Leak Ball Valves

HOKE[®] DL/TL ball valves are uni-directional, high cycle valves that exceed 100,000 cycles with zero seat leakage.* In applications where bi-directional flow is required, HOKE[®] T and D series valves exceed 50,000 cycles. HOKE[®] ball valves can be ordered in brass, 316 stainless steel or Monel[®] materials* with a manual handle as standard. Consult Prochem if other materials are required.

For remote actuation, factory assembled HOKE[®] Space Saver[®] Actuators are available. D, DL, T and TL series valves can be ordered with welded end fittings to prevent accidental disassembly or with gasketed end fittings, if valve rebuild becomes necessary.

* Depending on seat, seal and washer material selected. See full HOKE® Ball Valve catalogue for ordering details.

Actuated Valves



Select HOKE® valves can be remotely actuated. Pneumatic or electric operators provide flexibility and convenience. HOKE® pneumatic actuators feature a unique space saving concept and the ability to operate two valves on the same actuator (pictured). Electric actuators are offered both as weather-proof or explosion-proof units in 115 Volt AC or 24 Volt DC versions.



Before making your valve selection, be sure to consider the system pressure, operating temperature, required flow and materials of construction. If your application requires a valve not available in this catalogue, contact your local Prochem office.



HOKE® 70 Series ball valve with welded ends

Check Valves

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A check valve is designed to prevent back-flow of media by closing when the inlet pressure is reduced below that of the spring (cracking pressure).

Check valves are manufactured in two types: Ball or Poppet with four different cracking pressures offered as standard.

The 691F Series is a check valve for high flow applications.

Ball Check Valve

Poppet Check Valve





Filters

Filters are manufactured in three styles: in-line, by-pass and removable with five filter ranges available.







316 Stainless Steel Elements

Micron Range	For 1/8" & 1/4" Size Housings	For 3/8" & 1/2" Size Housings	Identifying Digit	Cv Factor
2 to 5µ	80410-1 80409-1*	_	-1	0.006
5 to 9µ	80410-2 80409-2*	_	-2	0.055
10 to 15µ	80410-3 80409-3*	91442-1	-3	0.33
20 to 30µ	80410-4 80409-4*	—	-4	0.39
40 to 55µ	80410-5 80409-5*	—	-5	0.42
0.5µ	80410–6	_	-6	
100µ	80410–7	—	-7	

HOKE® valves are available with **GYROLOK®** compression fitting ends

Excess Flow

* For use with 6330 Series Bypass-type housing

xcess Flow Valves

XVH Series Excess Flow Valves act as flow switches that automatically close when a flow spike occurs preventing uncontrolled release of system fluid.

Open Position



The spring holds the poppet in the open position during normal flow. When flow increases to the predetermined rate or trip point. the poppet will close.

Tripped Position

Manual Reset

The poppet will remain in the tripped position with zero leakage and zero flow until pressure is manually equalized across the poppet. When the pressure becomes equal, the spring will then reset the poppet to the open position, allowing normal flow.





Automatic Reset

The poppet will remain in the tripped position until system pressure becomes equal across the poppet. The bleed orifice in the poppet will allow the pressure to slowly equalize across the valve if the downstream line is closed or repaired. When the pressure becomes equal, the spring will then reset the poppet to the open position, allowing normal flow.

HOKE[®] INSTRUMENTATION VALVES

Bleed Valves &



Bleed Valves

Bleed valves are available in many different configurations including threaded, compression tee, compression cross and a popular new bleed union.

Plug Valves

The 7300 series Plug Valves provide full flow or leak-tight shut off with a quarter turn. A down stream vent can be added as an option where down stream pressure is relieved through a small hole in the body when the valve is closed.



Cylinders

With sizes from 10ml to 15.1L (4 gallons), with pressure ratings up to 345 bar (5000 psi) in a range of different alloys, HOKE[®] has the sampling cylinder for your application.

The cylinders can be formed or spun during manufacture and are available with a range of different certifications including Department of Transport (DOT) and Transportable Pressure Equipment Directive (TPED).

Isolation valves, safety relief devices and dip tubes are available to compliment the cylinders.

Refer to the HOKE® Cylinder catalogue for complete details.

Manifolds

General Purpose Instrument Manifolds at a Glance

HOKE[®] offers a variety of 2, 3, and 5-valve instrument manifolds in direct and remote mount styles with vent configurations to meet most flow, pressure, and level measurement application requirements. HOKE[®] 2-valve manifolds are designed for static pressure and liquid level applications; the 3 and 5-valve manifolds are well suited for use with most differential pressure transmitters and can accept both female and flange process impulse line connections.

HOKE[®] also produce a manifold with integral compression fittings which reduces the number of connections required and eliminates leak paths giving greater integrity of connection.

Quick Couplers

- Redundant o-ring seals in couplers provide quick leak tight sealing in vacuum or pressurized systems.
- Dependable poppet valves with integral o-ring seals are standard in coupler and plug (Double shutoff applications).
- Built-in positive valve stops prevent flow checking in the coupling. Valve guides align valves exactly to the coupler's valve seat preventing chance of leakage when in a disconnected mode.
- Smooth positive sleeve engagement and firm grip of the plug portion of the coupling assembly is assured with HOKE[®]'s PTFE- bonded stainless locking "dogs".
- All coupler and valving springs are constructed from 316 material.
- Keyed sleeves for all sizes.







Relief Valve

R6000 relief valves are available for applications ranging from 0.34 bar (5 psi) to 414 bar (6000 psi) cracking pressure.

R6000 right angle relief valves provide users with the highest accuracy and consistency of cracking and reseat pressures due to narrow spring pressure ranges. (Cracking pressures).

PED certification and CE marking are standard for all models. Valves can be factory preset according to customer specifications.

All R6000 relief valves are offered with multiple end connections to ensure application versatility.



FOR FURTHER DETAILS PLEASE CONTACT YOUR LOCAL PROCHEM OFFICE

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