



# Selectomite® 71 and 76 Series

## 3-way Ball Valves

Selectomite® 3-way ball valves use 180° operation for diverting flow from one line to another. The handle points to the side port in use; when perpendicular to the side ports, it indicates the shutoff position.



### Typical Applications

- Instrument air lines
- Sampling systems
- 2-way gauge readout of line pressure
- Manual cylinder actuation

### Technical Data

<b>BODY MATERIAL*</b>	316 stainless steel, brass, Monel®
<b>OPERATING PRESSURE RANGE***</b>	Moderate vacuum** to 6000 psig @ 70° F (414 bar @ 21° C)
<b>OPERATING TEMPERATURE RANGE</b>	<b>7165 Series</b> -40° F to +350° F (-40° C to +177° C) <b>7177 Series</b> 0° F to +350° F (-18° C to +177° C) <b>7671, 7673 Series</b> -40° F to +250° F (-40° C to +121° C)
<b>ORIFICE SIZES</b>	0.093" to 0.187" (2.4 to 4.8mm)
<b>Cv FACTORS</b>	0.15 to 0.57
<b>END CONNECTIONS</b>	½" to ½" <b>GYROLOK</b> ® ¾" to ¼" NPT 3 to 8mm <b>GYROLOK</b> ®

\* Consult factory for other materials

\*\* Moderate vacuum is 10<sup>-3</sup> to 20 torr. Pressure rating is for inlet through Port 3. For side loading (inlet at Port 1 or 2), see note under How to Order table for each series on page 21 and 22. For differential pressures up to 6000 psig, see Selectomite® 76 Series 3-way trunnion valves.

\*\*\* Depending on valve series.

### Features & Benefits

- Handle points to port in use or to closed position, providing a visual cue and improved safety.
- Dyna-Pak® packing provides a leak-tight seal with low operating torque in vacuum or high pressure applications, helping to prevent fugitive emissions.
- Dual encapsulated TFE seats and microfinished ball ensure a leak tight seal. This combination provides greater valve reliability.
- TFE seats and washers provide excellent corrosion resistance, providing the correct material for the application.
- A wide variety of HOKE **GYROLOK**® end fittings or pipe fittings provide the correct fitting option for the application.
- Special High Tolerance NPT Thread

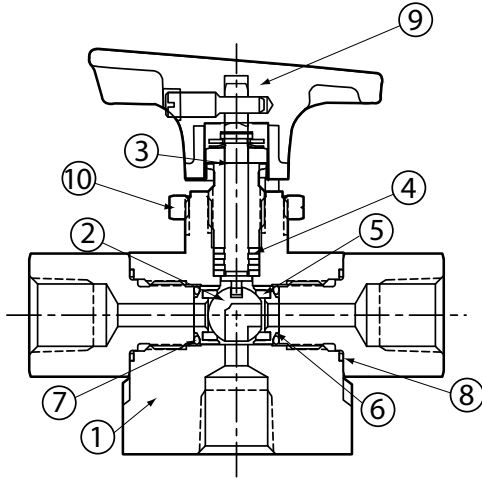
ball valves

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# Selectomite® 71 and 76 Series

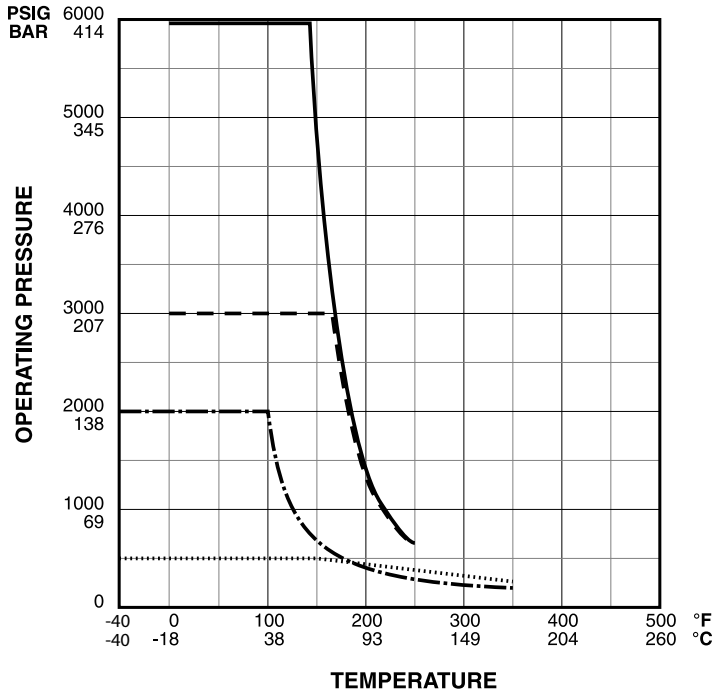
## Materials of Construction



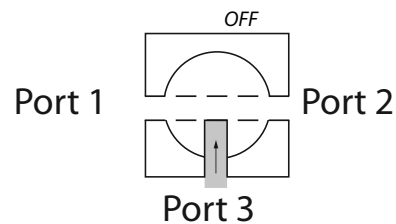
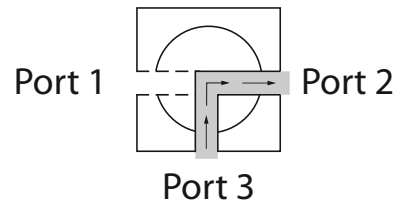
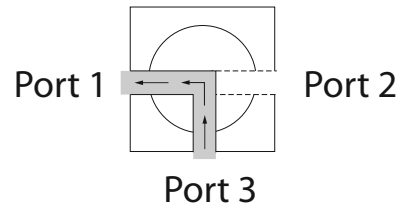
DESCRIPTION	BRASS	316 STAINLESS STEEL	MONEL®
1 Body	Brass	316 stainless steel	Monel®
2 Ball	316 stainless steel	316 stainless steel	Monel®
3 Stem	316 stainless steel	316 stainless steel	Monel®
4 Stem packing	TFE/316 stainless steel wafers	TFE/316 stainless steel wafers	TFE/Monel® wafers
5 Seats			
7165, 7177 Series	TFE	TFE	TFE
7671 Series	Nylatron®	—	—
7673 Series	—	Nylatron®	—
6 Seat retainers	Brass	316 stainless steel	Monel®
7 Seat washers†			
7177, 7673 Series	—	Viton®	—
7165 Series	TFE	TFE	TFE
7671 Series	Buna-N	—	—
8 End fitting gaskets	TFE	TFE	TFE
9 Handle	Nylon	Nylon	Nylon
10 Panel mounting nut	Nickel-plated brass	316 stainless steel	Nickel-plated brass

† Other elastomers are available upon request. Contact your local distributor

## Pressure vs. Temperature Curve



## Flow Diagrams 3-way valve



# Selectomite® 71 and 76 Series

## Dimensions

### Selectomite® 7177 Series

END CONNECTIONS		C	E	G	H	H <sup>1</sup>
1/8" GYROLOK®	inch	1 <sup>27</sup> / <sub>64</sub>	2 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>23</sup> / <sub>32</sub>	2 <sup>3</sup> / <sub>64</sub>
	mm	36	73	32	44	9
1/8" female NPT	inch	1 <sup>27</sup> / <sub>64</sub>	2 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	3/4	2 <sup>3</sup> / <sub>64</sub>
	mm	36	57	32	19	9
1/4" GYROLOK®	inch	1 <sup>27</sup> / <sub>64</sub>	3 <sup>3</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>13</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>64</sub>
	mm	36	78	32	46	9
3mm GYROLOK®	inch	1 <sup>27</sup> / <sub>64</sub>	2 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>23</sup> / <sub>32</sub>	2 <sup>3</sup> / <sub>64</sub>
	mm	36	73	32	44	9
6mm GYROLOK®	inch	1 <sup>27</sup> / <sub>64</sub>	3 <sup>3</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>13</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>64</sub>
	mm	36	78	32	46	9

### Panel mounting

Panel hole: 1<sup>9</sup>/<sub>32</sub>" (15.1mm) diameter

Panel thickness: 3/16" (4.8mm) diameter

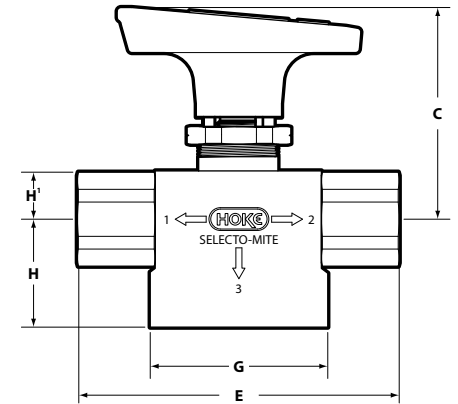
### Selectomite® 7165, 7671, 7673 Series

END CONNECTIONS		C	E	G	H	H <sup>1</sup>
1/8" GYROLOK®	inch	1 <sup>15</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	2	7/16
	mm	49	87	44	51	11
1/4" GYROLOK®	inch	1 <sup>15</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>16</sub>	7/16
	mm	49	92	44	52	11
1/4" female NPT	inch	1 <sup>3</sup> / <sub>4</sub>	3	1 <sup>3</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>16</sub>	7/16
	mm	44	76	44	24	11
3/8" GYROLOK®	inch	1 <sup>15</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>16</sub>	7/16
	mm	49	98	44	56	11
3mm GYROLOK®	inch	1 <sup>15</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	2	7/16
	mm	49	87	44	51	11
6mm GYROLOK®	inch	1 <sup>15</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>16</sub>	7/16
	mm	49	92	44	52	11
8mm GYROLOK®	inch	1 <sup>15</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>16</sub>	7/16
	mm	49	98	44	56	11

### Panel mounting

Panel hole: 5<sup>7</sup>/<sub>64</sub>" (22.6mm) diameter

Panel thickness: 3/16" (4.8mm) diameter



Dimensions for reference only, subject to change.

## How to Order Standard Valves

### Selectomite® 7165 Series Pressure to 500 psig (34 bar), TFE Seats—TFE Washers

END CONNECTIONS	ORDER BY PART NUMBER				Cv
	BRASS	316 ST. STEEL	MONEL®	ORIFICE	
1/8" GYROLOK®	7165G2B	7165G2Y	—	0.093" (2.4mm)	0.15 <sup>‡</sup>
1/4" GYROLOK®	7165G4B	7165G4Y	7165G4M	0.187" (4.7mm)	0.57
1/4" female NPT	7165F4B	7165F4Y	7165F4M	0.187" (4.7mm)	0.57
3/8" GYROLOK®	7165G6B	7165G6Y	—	0.187" (4.7mm)	0.57
1/2" GYROLOK®	7165G8B	7165G8Y	7165G8M	0.189" (4.8mm)	0.57
3mm GYROLOK®	—	7165G3YMM	—	0.093" (2.4mm)	0.15 <sup>‡</sup>
6mm GYROLOK®	—	7165G6YMM	—	0.187" (4.7mm)	0.57
8mm GYROLOK®	—	7165G8YMM	—	0.187" (4.7mm)	0.57

NOTE: Maximum differential pressure between side ports is 500 psig (34 barg).

‡ Orifice restricted by end connection.



7165G4B

#### FOR YOUR SAFETY

IT IS SOLELY THE RESPONSIBILITY OF THE SYSTEM DESIGNER AND USER TO SELECT PRODUCTS SUITABLE FOR THEIR SPECIFIC APPLICATION REQUIREMENTS AND TO ENSURE PROPER INSTALLATION, OPERATION AND MAINTENANCE OF THESE PRODUCTS. MATERIAL COMPATIBILITY, PRODUCT RATINGS AND APPLICATION DETAILS SHOULD BE CONSIDERED IN THE SELECTION. IMPROPER SELECTION OR USE OF PRODUCTS DESCRIBED HEREIN CAN CAUSE PERSONAL INJURY OR PROPERTY DAMAGE.

# Selectomite® 71 and 76 Series

## How to Order Standard Valves (continued)



7177G2Y

### Selectomite® 7177 Series Pressure to 2000 psig (138 bar)

TFE Seats—Viton® Washers

END CONNECTIONS	ORDER BY PART NUMBER		
	316 STAINLESS STEEL	ORIFICE	Cv
1/8" GYROLOK®	7177G2Y	0.093" (2.4mm)	0.15 <sup>‡</sup>
1/8" female NPT	7177F2Y	0.125" (3.2mm)	0.30
1/4" GYROLOK®	7177G4Y	0.125" (3.2mm)	0.30
3mm GYROLOK®	7177G3YMM	0.125" (3.2mm)	0.15 <sup>‡</sup>
6mm GYROLOK®	7177G6YMM	0.093" (2.4mm)	0.15 <sup>‡</sup>

Note: Maximum differential pressure between side ports is 1500 psig (103 bar).

‡ Orifice restricted by end connection.

### Selectomite® 7671 Series Pressure to 3000 psig (207 bar)

Nylatron® Seats—Buna-N Washers

END CONNECTIONS	ORDER BY PART NUMBER		
	BRASS	ORIFICE	Cv
1/4" GYROLOK®	7671G4B	0.187" (4.7mm)	0.53
1/4" female NPT	7671F4B	0.187" (4.7mm)	0.57
1/2" GYROLOK®	7671G8B	0.188" (4.8mm)	0.53

Note: Maximum differential pressure between side ports is 1500 psig (103 bar).



7673F4Y

### Selectomite® 7673 Series Pressure to 6000 psig (414 bar)

Nylatron® Seats—Viton® Washers

END CONNECTIONS	ORDER BY PART NUMBER		
	316 STAINLESS STEEL	ORIFICE	Cv
1/4" GYROLOK®	7673G4Y	0.187" (4.7mm)	0.57
1/4" female NPT	7673F4Y	0.187" (4.7mm)	0.57
3/8" GYROLOK®	7673G6Y	0.187" (4.7mm)	0.57
1/2" GYROLOK®	7673G8Y	0.187" (4.7mm)	0.66
6mm GYROLOK®	7673G6YMM	0.187" (4.7mm)	0.57

Note: Maximum differential pressure between side ports is 1500 psig (103 bar).



# Selectomite® 76 Series

## 3-way Trunnion Valves

Developed for high pressure, side-loading applications, the 316 stainless steel trunnion is supported and held securely in position by two composite bearings. Encapsulated Nylatron® seats provide a positive seal, resulting in leak-tight sealing between all ports to 6000 psig differential, reducing operating torque and increasing cycle life. The handle points to the side port in use; when perpendicular to the side ports, it indicates the shutoff position.



### Typical Applications

- Compressed natural gas dispensing
- Instrument air lines
- Sampling systems
- 2-way gauge readout of line pressure
- Down hole control systems on offshore drilling platforms

### Features & Benefits

- Blowout-proof stem for added safety
- Trunnion design assures leak-tight sealing at full 6000 psig (414 bar) differential pressure for high pressure applications.
- Handle points to port in use or to closed position, providing a visual cue and improved safety.
- Encapsulated dual Nylatron® seats and Viton® stem seals ensure a leak tight seal. This combination provides greater valve reliability.
- Special High Tolerance NPT Thread

### Technical Data

<b>BODY MATERIAL*</b>	316 stainless steel, brass, Monel®
<b>MAXIMUM OPERATING PRESSURE @ 70° F (21° C)</b>	7644 Series 6000 psig(414 bar) 7654 Series 2000 psig(138 bar)
<b>OPERATING TEMPERATURE RANGE</b>	7644 Series 0° F to +250° F (-18° C to +121° C) 7654 Series 0° F to +350° F (-18° C to +177° C)
<b>ORIFICE SIZE</b>	0.187" (4.8mm)
<b>Cv FACTOR</b>	0.56
<b>END CONNECTIONS</b>	¼" to ¾" GYROLOK® ¼" female NPT

\* Consult factory for other materials

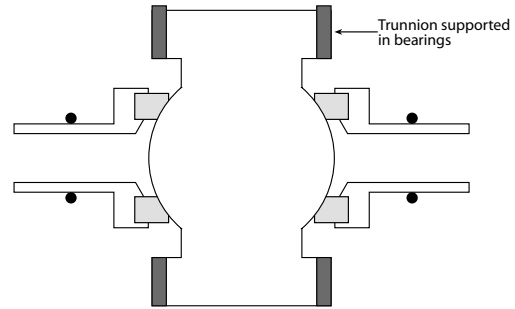
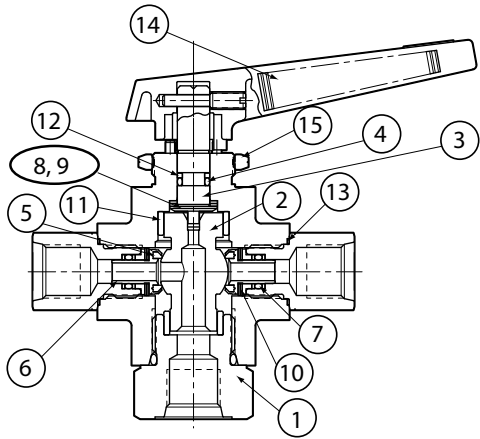
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ball valves

# Selectomite® 76 Series

## Materials of Construction



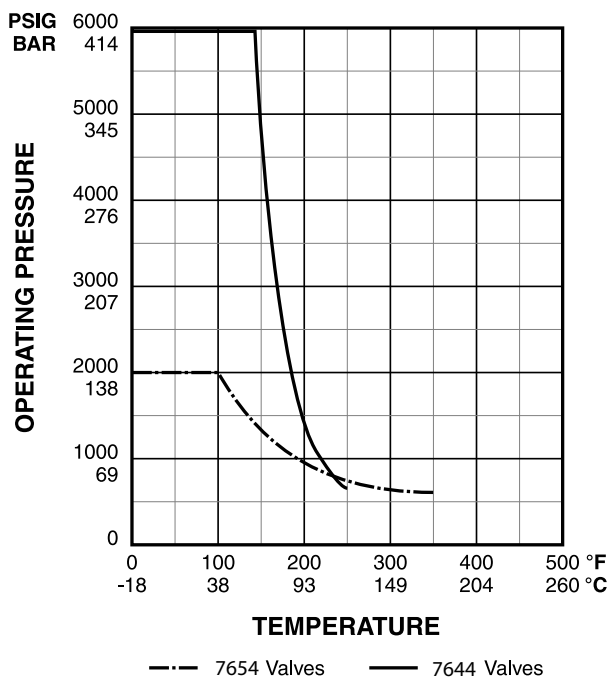
DESCRIPTION	MATERIAL
1 Body	316 stainless steel
2 Trunnion	316 stainless steel
3 Stem	316 stainless steel
4 Stem packing†	Viton®
5 Seats 7644 Series 7654 Series	Nylatron® TFE
6 Seat retainers	316 stainless steel
7 Seat washers†	Viton®
8 Thrust washer	Nylatron®
9 Spacer	316 stainless steel
10 Belleville washers	316 stainless steel
11 Bearings	Nylon/TFE
12 Backup ring	TFE
13 End fitting gaskets	TFE
14 Handle	Nylon
15 Panel mounting nut	316 stainless steel

† Other elastomers are available upon request. Contact your local distributor.

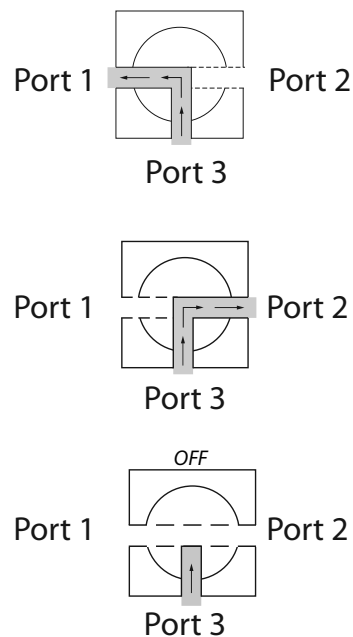
### Trunnion Design

While the floating ball is superior in 2-way and many 3-way designs, the trunnion is the preferred choice in 4- and 5-way valves and higher pressure 3-way valves because of the fluid dynamics. The design of the trunnion allows it to be secured in position with composite bearings, assuring a very precise relationship between the trunnion and seats. As a result, trunnion 3-, 4- and 5-way valves have few limitations on pressure ratings.

### Pressure vs. Temperature Curve



### Flow Diagrams 3-way valve



# Selectomite® 76 Series

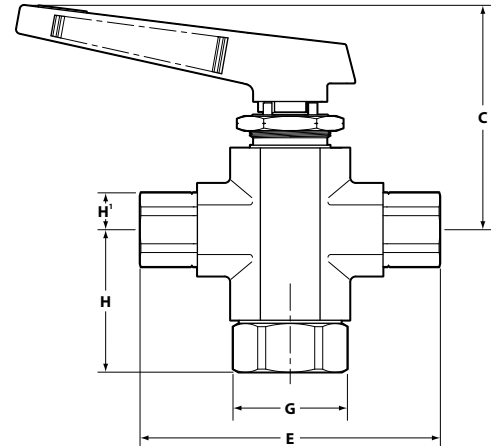
## Dimensions

END CONNECTIONS		C	E	G	H	H <sup>1</sup>
1/4" GYROLOK®	inch	2 1/2	4	1 1/8	2 3/4	2 9/32
	mm	64	102	27	70	23
1/4" female NPT	inch	2 1/2	3 5/16	1 1/8	1 9/16	2 9/32
	mm	64	84	27	40	23
3/8" GYROLOK®	inch	2 1/2	4 1/16	1 1/8	2 25/32	2 9/32
	mm	64	104	27	71	23

### Panel mounting

Panel hole = 57/64" (22.6mm) diameter

Panel thickness = 3/16" (4.8mm) diameter



## How to Order Standard Valves

**Selectomite® 7644 Series** Pressure to 6000 psig (414 bar)

Nylatron® Seats for service to 250° F (121° C)

END CONNECTIONS	ORDER BY PART NUMBER		
	316 STAINLESS STEEL	ORIFICE	Cv
1/4" GYROLOK®	7644G4Y	0.187" (4.7mm)	0.56
1/4" female NPT	7644F4Y	0.187" (4.7mm)	0.56
3/8" GYROLOK®	7644G6Y	0.187" (4.7mm)	0.56

**Selectomite® 7654 Series** Pressure to 2000 psig (138 bar)

TFE Seats for service to 350° F

END CONNECTIONS	ORDER BY PART NUMBER		
	316 STAINLESS STEEL	ORIFICE	Cv
1/4" GYROLOK®	7654G4Y	0.187" (4.7mm)	0.56
1/4" female NPT	7654F4Y	0.187" (4.7mm)	0.56



7644F4Y

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## Ordering Options

### Electric and Pneumatic Actuators

For remote control of Selectomite® 76 Series valves, order an electric or pneumatic actuator. Electric actuators are supplied in either 115 VAC or 24 VDC with weatherproof or explosion-proof housings. Pneumatically actuated ball valves using HOKE's rack and pinion actuator can be used for both 90° and 180° double acting and spring return applications. Refer to HOKE's *Actuator Catalog* (79005) or contact your local factory-authorized distributor for more details.

### Spare Parts

Spare parts and repair kits are available for all ball valves. Please contact your distributor for specific information.

### Cleaning and Testing

When ordering, please specify if oxygen cleaning or helium leak testing is required.

### Additional Sizes

Additional sizes and options are available on special request. Please consult your local HOKE distributor.

