



General Purpose Ball Valves

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Family Features

- 2-, 3-, 4-, and 5-way designs
- Working pressures up to 6000 psig (414 bar)
- Low operating torque
- Wide variety of end connections

ball valves

HOKE Incorporated

405 Centura Court • PO Box 4866 (29305) • Spartanburg, SC 29303
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General Purpose Ball Valves at a Glance

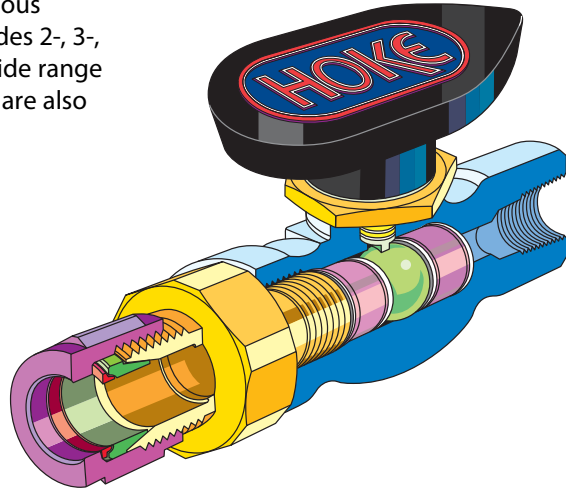
HOKE ball valves provide a wide range of capabilities for various applications. The HOKE general purpose ball valve line includes 2-, 3-, 4- and 5-way designs. Ball and trunnion designs provide a wide range of pressure capabilities. Gyrolok® and fixed end connections are also available.

Select a ball or trunnion valve for:

- simple operation
- visual indication of flow
- full porting for maximum flow
- rodability
- long cycle life

Choose a 2-way ball valve for quick, quarter-turn, on-off service. A 3-way ball valve employs 180° operation for diverting flow from one line to another. 4-way valves are dual switching valves, changing two flow paths at the same time. 5-way, or diverter, valves allow flow through any of four possible paths.

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 catalog, contact your HOKE stocking distributor or the factory.



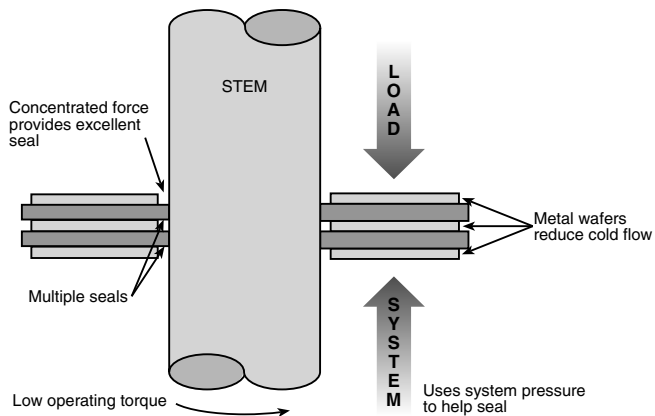
Dyna-Pak® Stem Packing System

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

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

Dyna-Pak® packing has the ability to:

- Utilize 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 -65°F to $+450^{\circ}\text{F}$ (-54°C to $+232^{\circ}\text{C}$).









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General Purpose Ball Valves at a Glance

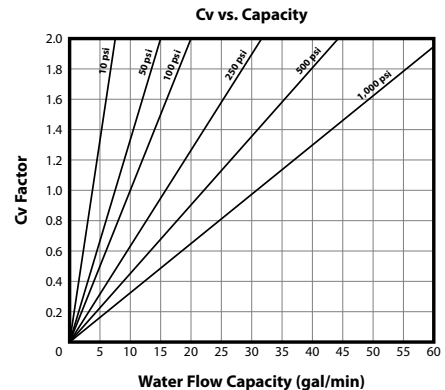
	SERIES	DESCRIPTION/APPLICATIONS	FEATURES	STANDARD BODY MATERIAL
2-WAY BALL VALVES				
	Flomite® 71 Series (pg. 4)	<ul style="list-style-type: none"> On-off service High pressure and temperature Long cycle life Corrosive fluids 	<ul style="list-style-type: none"> Dyna-Pak® packing Encapsulated seats Micro finished ball 	Brass 316 stainless steel Monel® Hastelloy® C-276
	Rotoball® 72 Series (pg. 9)	<ul style="list-style-type: none"> On-off service High cycle life High flow 	<ul style="list-style-type: none"> Encapsulated seats Blowout-proof stem Trip-proof handle 	Brass 316 stainless steel Monel®
WELDED END 2-WAY AND 3-WAY BALL VALVES				
	Ultramite™ 70 Series (pg. 12)	<ul style="list-style-type: none"> On-off service (2-Way valves) Switching & diverting (3-Way valves) High pressure High flow 	<ul style="list-style-type: none"> Fixed end fitting Trip-proof handle Floating ball design Dyna-Pak® packing 	Brass 316 stainless steel Monel®
3-WAY BALL AND TRUNNION VALVES				
	Selectomite® 71 and 76 Series Ball Valves (pg. 19)	<ul style="list-style-type: none"> Switching & diverting Corrosive fluids High cycle life 	<ul style="list-style-type: none"> Dyna-Pak® packing Encapsulated TFE seats 	Brass 316 stainless steel Monel®
	Selectomite® 76 Series Trunnion Valves (pg. 23)	<ul style="list-style-type: none"> High pressure switching High cycle life High pressure 	<ul style="list-style-type: none"> 3-Way trunnion design Spring-loaded seats Blowout-proof stem 	316 stainless steel
4- AND 5- WAY TRUNNION VALVES				
	Multimite® 79 Series (pg. 26)	<ul style="list-style-type: none"> 4-Way or 5-Way operation High cycle life High pressure 	<ul style="list-style-type: none"> 4- and 5-Way trunnion design Spring-loaded seats Blowout-proof stem 	316 stainless steel

Flow Capacity of HOKE Ball Valves

To determine the Cv or flow of a **liquid** @ 60° F (16° C):

$$Cv = \frac{GPM}{\sqrt{\frac{\Delta p}{S.G.}}} \quad \text{or} \quad GPM = Cv \sqrt{\frac{\Delta p}{S.G.}}$$

where: $p = p_1 - p_2$
 p_1 = inlet pressure in psia
 p_2 = outlet pressure in psia
 GPM = flow in gallons per minute
 S.G. = specific gravity of liquid where water = 1.0 @ 60° F (16° C)



General Purpose Ball Valves at a Glance

MAX. OPERATING PRESSURE @ 70° F (21° C)	OPERATING TEMP. RANGE	CV FLOW RANGE (VARIES W/ END CONN.)	ORIFICE SIZES	STANDARD END CONNECTIONS
2-WAY BALL VALVES				
6000 psig (414 bar)	-40° F to 480° F (-40° C to 249° C)	0.23 to 1.40	0.093" to 0.250" (2.4 mm to 6.4 mm)	1/8, 1/4, 3/8, 1/2 Gyrolok® tube fittings 1/4 Male NPT 1/4 Male NPT x 1/4 Female NPT 1/8, 1/4, 1/2 Female NPT 3, 6, 8, 10, 12 mm Gyrolok® tube fittings
5000 psig (345 bar)	-20° F to 350° F (-29° C to 177° C)	3.4	0.375" (9.5 mm)	1/2 Gyrolok® tube fittings 3/8, 1/2 Female NPT 12 mm Gyrolok® tube fittings
FIXED END 2-WAY AND 3-WAY BALL VALVES				
6000 psig (414 bar)	-40° F to 350° F (-40° C to 177° C)	0.15 to 3.4	0.23" to 0.375" (2.4 mm to 9.5 mm)	1/8, 1/4, 3/8 Gyrolok® tube fittings 1/4 Male NPT x 1/4 Female NPT 1/4, 3/8, 1/2 Female NPT
7065 Series: 500 psig (34.5 bar)	0° F to 350° F (-18° C to 177° C)	0.15 to 0.57	0.093" to 0.187"	1/8, 1/4, 3/8, 1/2 Gyrolok® tube fittings 1/4 Female NPT
3-WAY BALL AND TRUNNION VALVES				
6000 psig (414 bar)	-40° F to 350° F (-40° C to 177° C)	.015 to 0.57	0.125" to 0.187" (3.2 mm to 4.8 mm)	1/8, 1/4, 3/8 Gyrolok® tube fittings 1/8, 1/4 Female NPT 3, 6, 8 mm Gyrolok® tube fittings
6000 psig (414 bar)	0° F to 350° F (-18° C to 177° C)	0.56	0.187" (4.8 mm)	1/4, 3/8, 1/2 Gyrolok® tube fittings 1/4 Female NPT
4- AND 5- WAY TRUNNION VALVES				
6000 psig (414 bar)	0° F to 350° F (-18° C to 177° C)	0.47 to 0.66	0.166" to 0.187" (4.2 mm to 4.8 mm)	1/4 Gyrolok® tube fittings 1/4 Female NPT

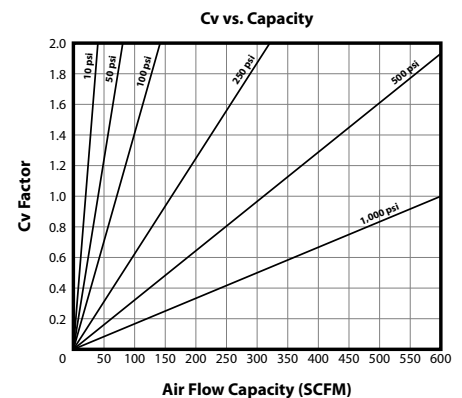
Flow Capacity of HOKE Ball Valves

To determine the Cv or flow of a **gas** @ 70° F (21° C):

$$Cv = \frac{SCFH}{1360} \sqrt{\frac{(\Delta p) (p_1)}{(460 + T) (S.G.)}} \quad \text{or} \quad SCFH = 1360 Cv \sqrt{\frac{(\Delta p) (p_1)}{(460 + T) (S.G.)}}$$

where:

- $\Delta p = p_1 - p_2$
- $p_1 =$ inlet pressure in psia
- $p_2 =$ outlet pressure in psia
- SCFH = flow in standard cubic feet per hour
- S.G. = specific gravity of gas where air = 1.0 @ 70° F (21° C) and 14.7 psia
- T = temperature in ° F





Flomite® 71 Series

2-way Integral Panel Mount Ball Valves

Used for quick on-off service with a visual indication of flow, HOKE's 2-way ball valves offer orifice sizes up to 0.25" (6.4mm). Flomite® valves feature a floating ball design, encapsulated replaceable seats and check seals to ensure leak-tight service and extended service life.



Typical Applications

- Instrument panels
- High pressure instrument lines
- Gas sampling in pilot plants
- Full flow and shutoff in chromatographs
- Hydraulic test stands
- Gas sampling cylinders
- Handling corrosive and viscous fluids

Technical Data

BODY MATERIAL*	316 stainless steel, brass, Monel®
OPERATING PRESSURE RANGE***	Moderate vacuum** to 6000 psig (414 bar) @ 70° F (414 bar @ 21° C)
OPERATING TEMPERATURE RANGE	-20° F to +425° F (-29° C to +218° C) 7122 and 7142: -40° F to +350° F (-40° C to +177° C)
ORIFICE SIZES	0.093" to 0.250" (2.4 to 6.4mm)
Cv FACTORS	0.23 to 1.40
END CONNECTIONS	1/8" to 3/8" Gyrolok® 1/8" to 1/2" NPT 3 to 12mm Gyrolok®

* Consult factory for other materials

** Moderate vacuum is 10⁻³ to 20 torr.

*** Maximum pressure rating depends on valve series.

Features & Benefits

- Quarter turn handle provides a visual indication of on/off valve position, improving safety.
- Dual encapsulated TFE seats and microfinished ball ensure a leak tight seal. This combination provides greater valve reliability.
- Dyna-Pak® packing provides a leak-tight seal with low operating torque in vacuum or high pressure applications, helping to prevent fugitive emissions.
- Floating ball provides pressure-assisted sealing and temperature wear compensation for longer valve cycle life and greater value.
- 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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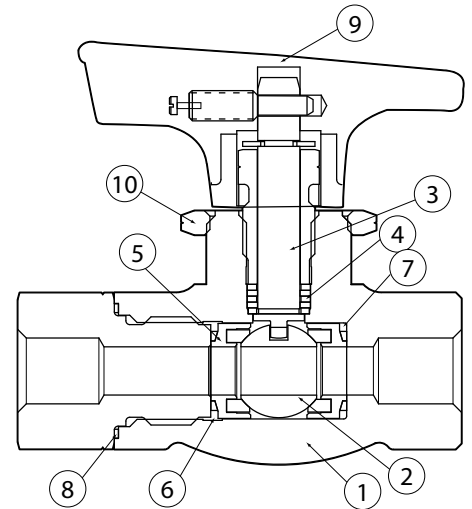
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Flomite® 71 Series

Materials of Construction

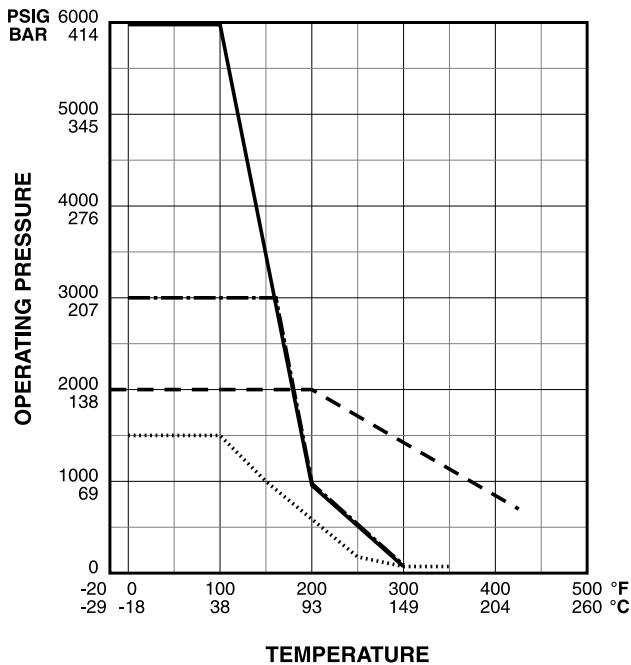
DESCRIPTION	BRASS	316 STAINLESS STEEL	MONEL®
1 Body	Brass	316 stainless steel	Monel®
2 Ball	316 stainless steel	316 stainless steel	Monel®
3 Stem	316 stainless steel	316 stainless steel	Monel®
4 Stem packing 7188 Series	—	Dyneon™ TFM 1700	—
Other valves	TFE/316 stainless steel wafers	TFE/316 stainless steel wafers	TFE/Monel® wafers
5 Seats: 7115 & 7155 Series 7122 & 7142 Series 7188 Series	PCTFE TFE —	PCTFE TFE Filled TFE	PCTFE TFE —
6 Seat retainers	Brass	316 stainless steel	Monel®
7 Seat washers† 7115, 7155 & 7188 Series 7122 & 7142 Series	Viton® TFE	Viton® TFE	Viton® TFE
8 End fitting gaskets 7188 Series	—	Dyneon™ TFM 1700	—
Other valves	TFE	TFE	TFE
9 Handle	Nylon	Nylon	Nylon
10 Panel mounting nut 7115 Series	Nickel-plated brass	Nickel-plated brass	Nickel-plated brass
Other valves	Nickel-plated brass	316 stainless steel	Nickel-plated brass



All 6000 psig valves come with long red handles for reduced operating force. All other models have a short blue handle.

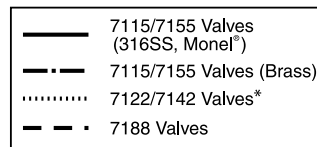
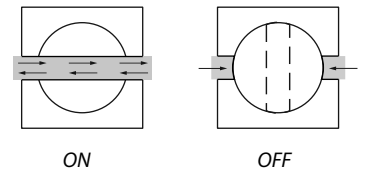
† Other elastomers are available upon request. Contact your local distributor for details.

Pressure vs. Temperature Curve



Flow Diagrams 2-way valve

Straight Pattern Valve



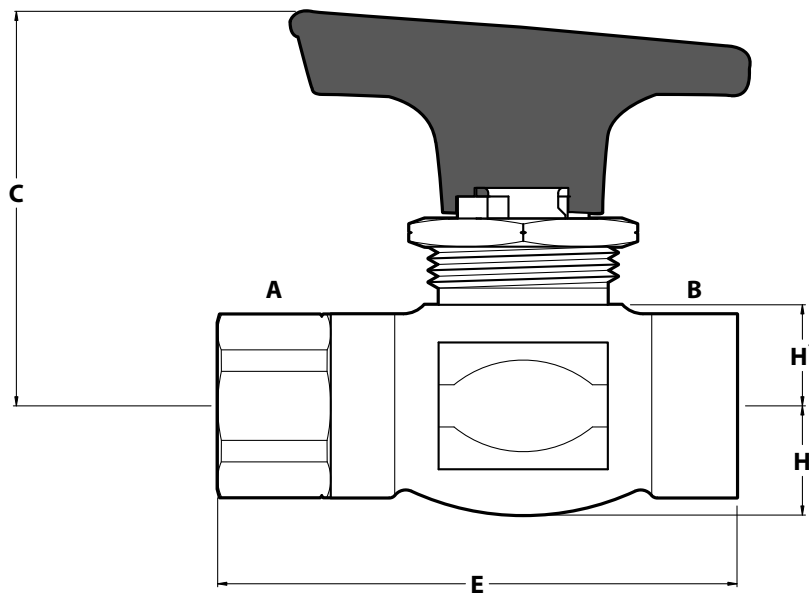
* Minimum temperature -40° F (-40° C)

Flomite® 71 Series

Dimensions

INLET A	OUTLET B	UNIT	ORIFICE	C	E	H	H ¹	PANEL MOUNTING	
								MAX. THICKNESS	HOLE SIZE
1/8" Gyrolok	1/8" Gyrolok	inch	0.093	1 1/2	2 1/2	1 3/2	1 1/2	3/16	1 1/2
		mm	2.4	33	66	10	9	5	15
1/8" female NPT	1/8" female NPT	inch	0.125	1 1/2	1 3/2	1 3/2	1 1/2	3/16	1 1/2
		mm	3.2	33	50	10	9	5	15
1/8" female NPT	1/8" female NPT	inch	0.250	1 1/2	2 1/4	1/2	7/16	1/4	4 3/4
		mm	6.4	41	58	13	11	6	19
1/4" Gyrolok®	1/4" Gyrolok®	inch	0.125	1 1/2	2 1/16	1 3/2	1 1/2	3/16	1 1/2
		mm	3.2	33	68	10	9	5	15
1/4" Gyrolok®	1/4" Gyrolok®	inch	0.187	1 1/2	3 3/2	1/2	7/16	1/4	4 3/4
		mm	4.7	41	78	13	11	6	19
1/4" male NPT	1/4" Gyrolok®	inch	0.187	1 3/4	2 7/8	1/2	7/16	1/4	4 3/4
		mm	4.7	45	73	13	11	6	19
1/4" male NPT	3/8" Gyrolok®	inch	0.250	1 3/4	2 7/8	1/2	7/16	1/4	4 3/4
		mm	6.4	45	73	13	11	6	19
1/4" male NPT	1/4" male NPT	inch	0.187	1 1/2	2 1/2	1/2	7/16	1/4	4 3/4
		mm	4.7	41	64	13	11	6	19
1/4" male NPT	1/4" female NPT	inch	0.250	1 3/4	2 1/2	1/2	7/16	1/4	4 3/4
		mm	6.4	45	64	13	11	6	19
1/4" female NPT	1/4" female NPT	inch	0.250	1 3/4	2 1/6	1/2	7/16	1/4	4 3/4
		mm	6.4	45	62	13	11	6	19
3/8" Gyrolok®	3/8" Gyrolok®	inch	0.250	1 3/4	3 1/4	1/2	7/16	1/4	4 3/4
		mm	6.4	45	83	13	11	6	19
1/2" Gyrolok®	1/2" Gyrolok®	inch	0.250	1 7/2	4 1/8	1/2	7/16	1/4	4 3/4
		mm	6.4	49	106	13	11	6	19
3mm Gyrolok®	3mm Gyrolok®	inch	0.093	1 1/2	2 1/2	1 3/2	1 1/2	3/16	1 1/2
		mm	2.4	33	66	10	9	5	15
6mm Gyrolok®	6mm Gyrolok®	inch	0.125	1 1/2	2 1/16	1 3/2	1 1/2	3/16	1 1/2
		mm	3.2	33	68	10	9	5	15
6mm Gyrolok®	6mm Gyrolok®	inch	0.187	1 1/2	3 3/2	1/2	7/16	1/4	4 3/4
		mm	4.7	41	78	13	11	6	19
8mm Gyrolok®	8mm Gyrolok®	inch	0.250	1 3/4	3 1/4	1/2	7/16	1/4	4 3/4
		mm	6.4	45	83	13	11	6	19
10mm Gyrolok®	10mm Gyrolok®	inch	0.250	1 3/4	3 3/8	1/2	7/16	1/4	4 3/4
		mm	6.4	45	79	13	11	6	19
12mm Gyrolok®	12mm Gyrolok®	inch	0.250	1 7/8	4	1/2	7/16	1/4	4 3/4
		mm	6.4	48	103	13	11	6	19

Dimensions for reference only, subject to change.



Flomite® 71 Series

How to Order Standard Valves

Flomite® 7115 & 7155 Series PCTFE Seats—Viton® Washers

Brass: Pressure to 3000 psig (207 bar)

316 Stainless Steel/Monel®: Pressure to 6000 psig

Temperature range: 0° F to 300° F (–18° C to 149° C)

END CONNECTIONS		ORDER BY PART NUMBER			ORIFICE	Cv
INLET	OUTLET	BRASS	316 ST. STEEL	MONEL®		
1/8" Gyrolok®	1/8" Gyrolok®	7155G2B	7155G2Y	—	0.093	0.23
1/8" female NPT	1/8" female NPT	7155F2B	7155F2Y	—	0.125	0.40
1/8" female NPT	1/8" female NPT	—	7115F2Y	—	0.250	1.40
1/4" Gyrolok®	1/4" Gyrolok®	7155G4B	7155G4Y	—	0.125	0.40
1/4" Gyrolok®	1/4" Gyrolok®	7115G4B	7115G4Y	7115G4M	0.187	0.80
1/4" male NPT	1/4" Gyrolok®	7115H4B	7115H4Y	—	0.187	0.80
1/4" male NPT	1/4" female NPT	7115L4B	7115L4Y	—	0.250	1.40
1/4" female NPT	1/4" female NPT	7115F4B	7115F4Y	7115F4M	0.250	1.40
3/8" Gyrolok®	3/8" Gyrolok®	7115G6B	7115G6Y	—	0.250	1.40
1/2" Gyrolok®	1/2" Gyrolok®	7115G8B	7115G8Y	—	0.250	1.40
1/2" female NPT	1/2" female NPT	7115F8B	7115F8Y	—	0.250	1.40
3mm Gyrolok®	3mm Gyrolok®	—	7155G3YMM	—	0.093	0.23
6mm Gyrolok®	6mm Gyrolok®	—	7155G6YMM	—	0.125	0.40
6mm Gyrolok®	6mm Gyrolok®	—	7115G6YMM	—	0.187	0.80
8mm Gyrolok®	8mm Gyrolok®	—	7115G8YMM	—	0.250	1.40
10mm Gyrolok®	10mm Gyrolok®	—	7115G10YMM	—	0.250	1.40
12mm Gyrolok®	12mm Gyrolok®	—	7115G12YMM	—	0.250	1.40



7155G2Y

Flomite® 7122 & 7142 Series TFE Seats—TFE Washers

Pressure to 1500 psig (103 bar)

Temperature range: –40° F to +350° F (–40° C to +176° C)

END CONNECTIONS		ORDER BY PART NUMBER			ORIFICE	Cv
INLET	OUTLET	BRASS	316 ST. STEEL	MONEL®		
1/8" Gyrolok®	1/8" Gyrolok®	7142G2B	7142G2Y	—	0.093	0.23
1/8" female NPT	1/8" female NPT	7142F2B	7142F2Y	—	0.125	0.40
1/4" Gyrolok®	1/4" Gyrolok®	7142G4B	7142G4Y	—	0.125	0.40
1/4" Gyrolok®	1/4" Gyrolok®	7122G4B	7122G4Y	7122G4M	0.187	0.80
1/4" male NPT	1/4" Gyrolok®	7122H4B	7122H4Y	—	0.187	0.80
1/4" male NPT	3/8" Gyrolok®	—	7122H46Y	—	0.250	1.40
1/4" male NPT	1/4" male NPT	—	7122M4Y	—	0.250	1.40
1/4" male NPT	1/4" female NPT	7122L4B	7122L4Y	—	0.250	1.40
1/4" female NPT	1/4" female NPT	7122F4B	7122F4Y	7122F4M	0.250	1.40
3/8" Gyrolok®	3/8" Gyrolok®	7122G6B	7122G6Y	—	0.250	1.40
1/2" Gyrolok®	1/2" Gyrolok®	—	7122G8Y	—	0.250	1.40
3mm Gyrolok®	3mm Gyrolok®	—	7142G3YMM	—	0.093	0.23
6mm Gyrolok®	6mm Gyrolok®	—	7142G6YMM	—	0.125	0.40
6mm Gyrolok®	6mm Gyrolok®	—	7122G6YMM	—	0.187	0.80
8mm Gyrolok®	8mm Gyrolok®	—	7122G8YMM	—	0.250	1.40
10mm Gyrolok®	10mm Gyrolok®	—	7122G10YMM	—	0.250	1.40



7122F4B

Flomite® 7188 Series Filled TFE Seats—Viton® Washers

Pressure to 2000 psig (138 bar)

Temperature range: –20° F to +425° F (–29° C to +218° C)

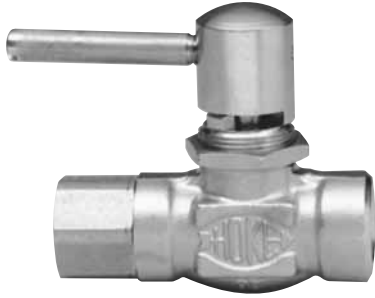
END CONNECTIONS		ORDER BY PART NUMBER		CV
INLET	OUTLET	316 STAINLESS STEEL	ORIFICE	
1/4" Gyrolok®	1/4" Gyrolok®	7188G4Y	0.187	0.80
1/4" female NPT	1/4" female NPT	7188F4Y	0.250	1.40
3/8" Gyrolok®	3/8" Gyrolok®	7188G6Y	0.250	0.80
1/2" Gyrolok®	1/2" Gyrolok®	7188G8Y	0.250	0.80



7188F4Y

Flomite® 71 Series

Ordering Options



Metal Handles

Metal handles can be ordered for Flomite® 71 Series 2-way valves with an orifice of 0.187" or 0.250". To order, specify kit 7100K13 following the valve number (Example: 7155G2Y-7100K13).

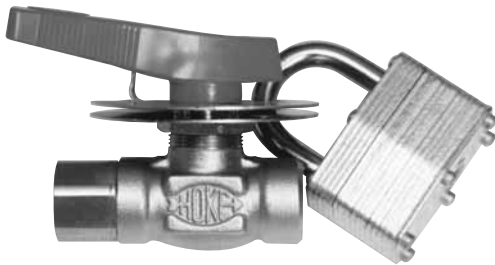
Color-coded Handles

Color-coded handles are available for Flomite® 71 Series valves. Order by the part numbers listed below.

HANDLE COLOR	7115, 7122 & 7188 SERIES	7142 & 7155 SERIES
Red	95683-030	97346-030
Blue	95683-031	97346-031
Black	95683-032	97346-032
Green	95683-033	97346-033
Orange	95683-034	97346-034

Handle Locking Kit

Safety lockout kits are available for applications which must conform to Code of Federal Regulations 29CFR Part 1910, OSHA Safety and Health Act, and other international regulations. Valves can be locked in either an opened or closed position with the stainless steel upper and lower locking plates. Lock with readily available padlocks or commercially available multiple lockout devices. Locking kits include the locking plates and assembly instructions. To order a safety lockout kit for 7115, 7122 and 7188 Series valves, specify kit 7100K18.



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.



Rotoball® 72 Series

2-way Low Profile Ball Valves

HOKE's bar stock 2-way ball valves include a 0.375" (9.5 mm) orifice. Rotoball® valves feature a floating ball design, encapsulated seats, and a trip-proof handle for safe, leak-tight service and long service life.



Typical Applications

- Hydraulic test stands
- Handling slurries
- Refinery pilot plants
- Pneumatic systems
- Corrosives handling

Technical Data

BODY MATERIAL*	316 stainless steel, brass, Monel®
OPERATING PRESSURE RANGE @ 70° F (21° C)	7222 Series Moderate vacuum** to 2000 psig (138 bar) 7223 Series Moderate vacuum** to 5000 psig (345 bar)
OPERATING TEMPERATURE RANGE	-20° F to +350° F (-29° C to +177° C)
ORIFICE SIZE	0.375 (9.5mm)
CV FACTOR	3.4
END CONNECTIONS	½" Gyrolok® ¾" to ½" female NPT 12mm Gyrolok®

* Consult factory for other materials
** Moderate vacuum is 10⁻³ to 10⁻⁵ torr.

Features & Benefits

- Oval trip-proof handle helps prevent accidental actuation.
- Quarter turn handle provides a visual indication of on/off valve position, improving safety.
- Blowout-proof stem for added safety
- Dual encapsulated TFE seats and microfinished ball ensure a leak tight seal. This combination provides greater valve reliability.
- Floating ball provides pressure-assisted sealing and temperature wear compensation for longer valve cycle life and greater value.
- TFE seats with TFE or Viton® washers provide excellent corrosion resistance, providing the correct material for the application.
- A wide variety of HOKE Gyrolok® end fittings and pipe fittings provide the correct fitting option for the application.
- Special High Tolerance NPT Thread

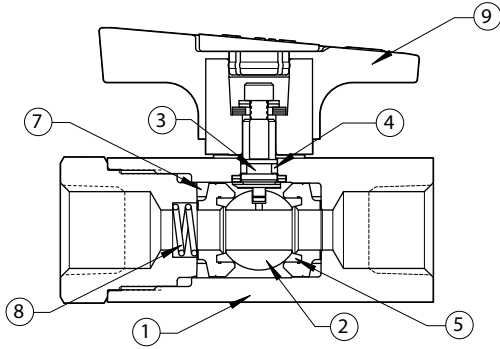
ball valves

HOKE Incorporated

405 Centura Court • PO Box 4866 (29305) • Spartanburg, SC 29303
Phone (864) 574-7966 Fax (864) 587-5608
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Rotoball® 72 Series

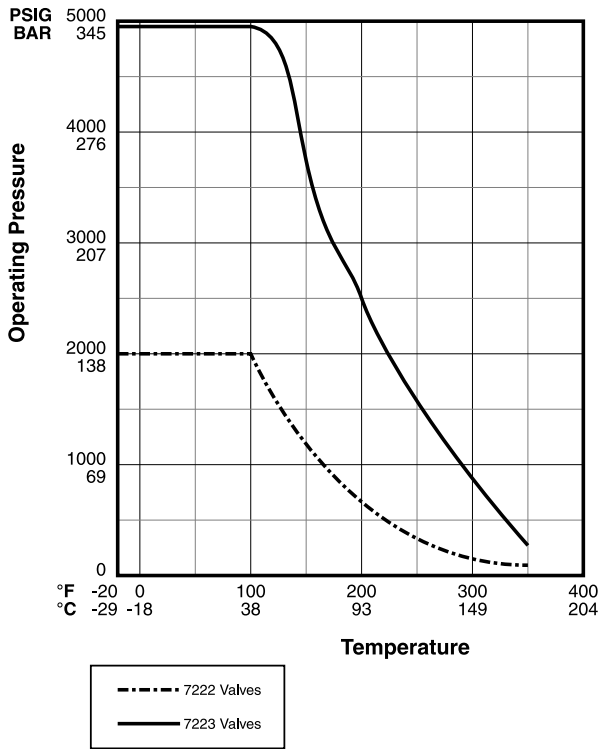
Materials of Construction



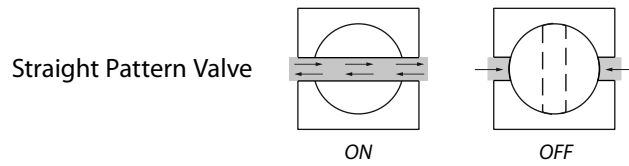
DESCRIPTION	BRASS	316 STAINLESS STEEL	MONEL®
1 Body	Brass	316 stainless steel	Monel®
2 Ball	316 stainless steel	316 stainless steel	Monel®
3 Stem	316 stainless steel	316 stainless steel	Monel®
4 Stem packing†	Viton®	Viton®	Viton®
5 Seats	TFE	TFE	TFE
6 Seat retainers	316 stainless steel	316 stainless steel	Monel®
7 Seat washers†			
7222 Series	TFE	TFE	TFE
7223 Series*	—	Viton®	—
8 Spring	316 stainless steel	316 stainless steel	Monel®
9 Handle	Nylon	Nylon	Nylon

† Other elastomers are available upon request. Contact your local distributor
 * 7223 only available in 316 stainless steel body

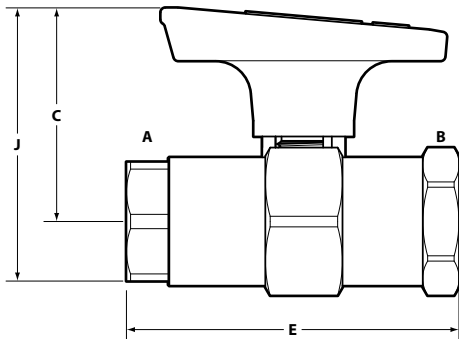
Pressure vs. Temperature Curve



Flow Diagrams 2-way valve



Dimensions



INLET A & OUTLET B	C	E	J
3/8" female NPT	inch 1 1/8	3 1/2	2 1/8
	mm 48	89	65
1/2" female NPT	inch 1 7/8	3 1/2	2 1/8
	mm 48	89	65
1/2" Gyrolok®	inch 1 7/8	4 7/8	2 1/8
	mm 48	124	65
12mm Gyrolok®	inch 1 1/8	4 7/8	2 1/8
	mm 48	124	65

Dimensions for reference only, subject to change.

Rotoball® 72 Series

How to Order Standard Valves

Rotoball® 7222 Series Pressure to 2000 psig (138 bar), TFE Seats—TFE Washers

END CONNECTIONS INLET & OUTLET	ORDER BY PART NUMBER			ORIFICE	Cv
	BRASS	316 ST. STEEL	MONEL®		
3/8" female NPT	—	7222F6Y	—	0.375	3.4
1/2" female NPT	7222F8B	7222F8Y	7222F8M	0.375	3.4
1/2" Gyrolok®	7222G8B	7222G8Y	7222G8M	0.375	3.4
12mm Gyrolok®	—	7222G12YMM	—	0.375	3.4



7223F8Y

Rotoball® 7223 Series Pressure to 5000 psig (345 bar), TFE Seats—Viton® Washers

END CONNECTIONS INLET & OUTLET	ORDER BY PART NUMBER		ORIFICE	Cv
	316 STAINLESS STEEL			
3/8" female NPT	7223F6Y		0.375	3.4
1/2" female NPT	7223F8Y		0.375	3.4
1/2" Gyrolok®	7223G8Y		0.375	3.4
12mm Gyrolok®	7223G12YMM		0.375	3.4

Ordering Options

Metal Lever Handle

A metal lever handle is available for Rotoball® 7222 and 7223 Series valves. To order, specify 90043-1 with plug button 5982.



7223F8Y with Metal Lever Handle

Handle Locking Kit

Safety lockout kits are available for applications which must conform to Code of Federal Regulations 29CFR Part 1910, OSHA Safety and Health Act, and other international regulations. Valves can be locked in either the opened or closed position with the stainless steel upper and lower locking plates. Lock with readily available padlocks or commercially available multiple lockout devices. Locking kits include the locking plates and assembly instructions. To order a safety lockout kit for Rotoball® 72 Series valves, specify kit 7200K7.



Ball Valve with Handle Lock

Panel Mounting

To order panel mounting, specify kit 7200K1.

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.



Ultramite™ 70 Series

Fixed End 2- and 3-way Ball Valves

Ultramite™ 70 Series valves are designed to guard against accidental disassembly. The tamper-proof fixed end fittings are welded in place, with the exception of the 7065 Series which are pinned.



Typical Applications

- High pressure test stands
- Sampling lines
- Instrument lines
- Analyzer labs

Technical Data

BODY MATERIAL*	316 stainless steel, brass, Monel®
MAXIMUM OPERATING PRESSURE**	6000 psig @ 70° F (414 bar @ 21° C)
OPERATING TEMPERATURE RANGE	-40° F to +350° F (-40° C to +177° C)
ORIFICE SIZES	0.093 to 0.375 (2.3 to 9.5mm)
Cv FACTORS	0.15 to 1.40

* Consult factory for other materials

** Depending on individual series.

Features & Benefits

- Fixed end fittings prevent accidental disassembly, enhancing safety.
- Floating ball provides pressure-assisted sealing and temperature wear compensation for longer valve cycle life and greater value.
- Encapsulated seats extend cycle life, reducing cost of ownership.
- Check seals improve leak tightness thereby increasing seat life.
- Oval trip-proof handle helps prevent accidental actuation. Quarter turn handle provides a visual indication of on/off valve position, improving safety.
- Special High Tolerance NPT Thread

HOKE Incorporated

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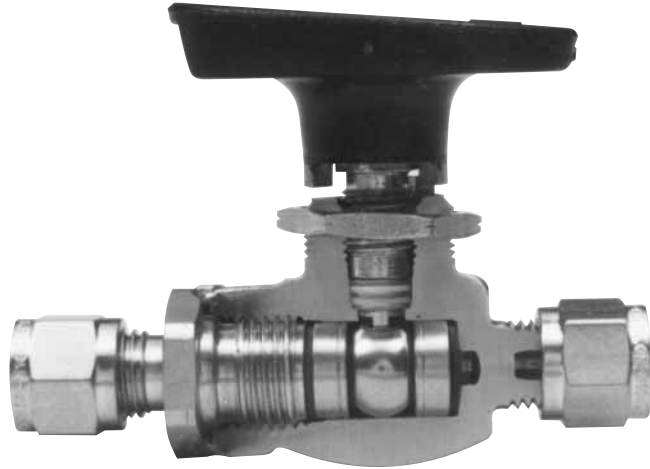
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ball valves

Ultramite™ 70 Series

Ultramite™ 7015, 7022 Series (2-way valves)



Cv Factors: 0.23 to 1.40

Typical Applications

- High pressure test stands
- Sampling lines
- Instrument lines
- Analyzer labs

Technical Data

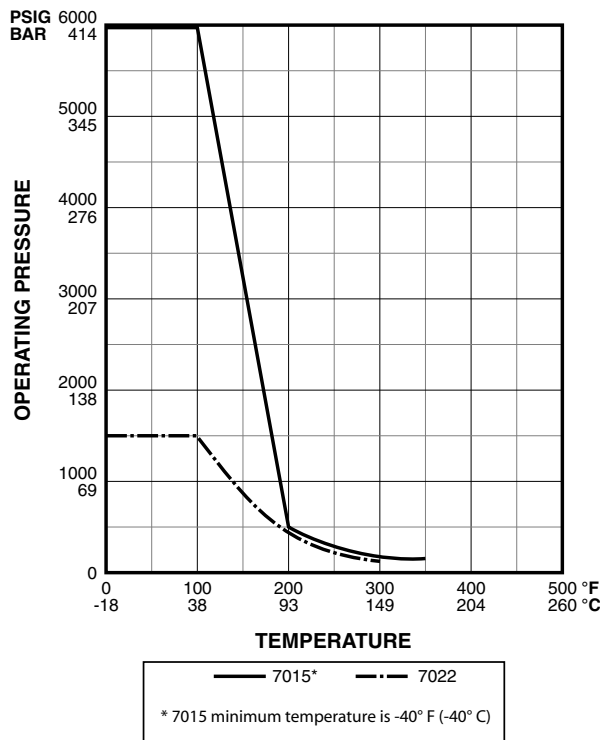
BODY MATERIAL	316 stainless steel, brass, Monel®
OPERATING PRESSURE RANGE @ 70° F (21° C)	7015: Moderate vacuum* to 6000 psig (414 bar) 7022: Moderate vacuum* to 1500 psig (103 bar)
OPERATING TEMPERATURE RANGE	7015: -40° F to +350° F (-40° C to +177° C) 7022: 0° F to +350° F (-18° C to +177° C)
ORIFICE SIZES	0.093" to 0.250" (2.3 to 6.3mm)
Cv FACTORS	0.23 to 1.40
END CONNECTIONS	1/8" to 3/8" Gyrolok® 1/4" NPT

* Moderate vacuum is 10⁻³ to 20 torr.

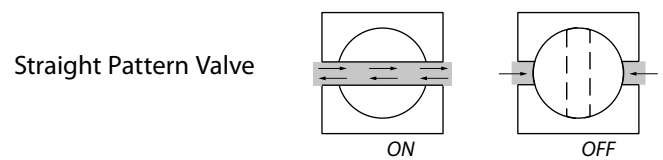
Features & Benefits

- Fixed end fittings prevent accidental disassembly, enhancing safety.
- Oval trip-proof handle helps prevent accidental actuation. Quarter turn handle provides a visual indication of on/off valve position, providing improved safety.
- Dual encapsulated TFE seats and microfinished ball ensure a bidirectional, leak tight seal. This provides greater valve versatility and operator peace of mind.
- Floating ball provides pressure-assisted sealing and temperature wear compensation for longer valve cycle life and greater value.
- Dyna-Pak® packing provides a leak-tight seal with low operating torque in vacuum or high pressure applications, helping to eliminate fugitive emissions.
- A wide variety of Hoke Gyrolok® end fittings or pipe fittings provide the correct fitting option for the application.

Pressure vs. Temperature Curve

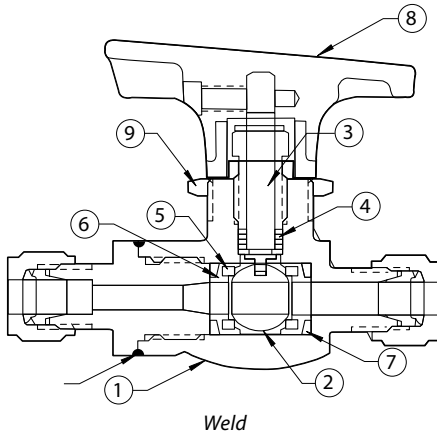


Flow Diagrams 2-way valve



Ultramite™ 70 Series

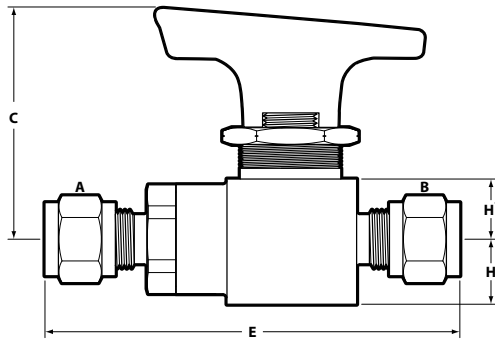
Materials of Construction



DESCRIPTION	BRASS	316 ST. 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			
7015 Series	—	PCTFE	—
7022 Series	TFE	TFE	TFE
6 Seat retainers	Brass	316 stainless steel	Monel®
7 Seat washers†			
7015 Series	—	Viton®	—
7022 Series	TFE	TFE	TFE
8 Handle	Nylon	Nylon	Nylon
9 Panel mounting nut	Nickel-plated brass	316 stainless steel	Nickel-plated brass

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

Dimensions



INLET A	OUTLET B	C	E	H	H'	
1/8" Gyrolok®	1/8" Gyrolok®	inch	1 ¹³ / ₃₂	2 ¹⁹ / ₃₂	1 ³ / ₃₂	1 ¹¹ / ₃₂
		mm	36	66	10	9
1/4" Gyrolok®	1/4" Gyrolok®	inch	1 ³ / ₄	3 ¹ / ₁₆	1/2	7/16
		mm	44	78	13	11
1/4" male NPT	1/4" Gyrolok®	inch	1 ⁷ / ₈	2 ⁷ / ₈	1/2	7/16
		mm	48	73	13	11
1/4" male NPT	1/4" male NPT	inch	1 ⁷ / ₈	2 ¹⁷ / ₃₂	1/2	7/16
		mm	48	64	13	11
1/4" male NPT	1/4" female NPT	inch	1 ⁷ / ₈	2 ¹⁷ / ₃₂	1/2	7/16
		mm	48	64	13	11
1/4" female NPT	1/4" female NPT	inch	1 ³ / ₄	2 ⁷ / ₁₆	1/2	7/16
		mm	44	62	13	11
3/8" Gyrolok®	3/8" Gyrolok®	inch	1 ³ / ₄	3 ⁷ / ₃₂	1/2	7/16
		mm	44	82	13	11

Panel Mounting

Panel hole: for 1/8" Gyrolok® 1⁹/₃₂" (15mm) diameter
for all other models 4⁹/₆₄" (19mm) diameter

Panel thickness: for 1/8" Gyrolok® 3/16" (5mm) diameter
for all other models 1/4" (6mm) diameter

Dimensions for reference only, subject to change.

How to Order Standard Valves



7022F4B

Ultramite™ 7015 Series Pressure to 6000 psig (414 bar), PCTFE Seats—Viton® washers
Temperature range: -40° F to 300° F (-40° C to +149° C)

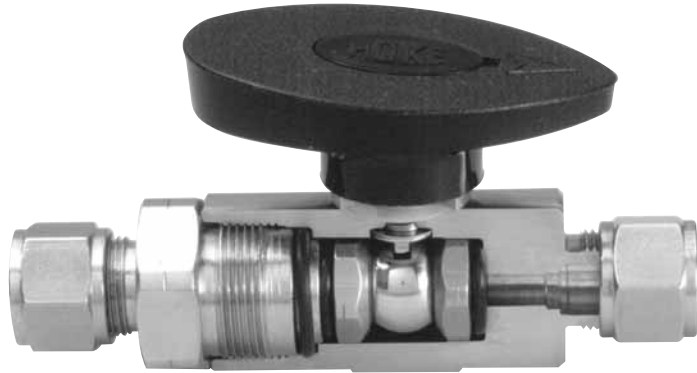
END CONNECTIONS		ORDER BY PART NUMBER		ORIFICE	Cv
INLET	OUTLET	316 ST. STEEL			
1/4" Gyrolok®	1/4" Gyrolok®	7015G4Y		0.187	0.80
1/4" male NPT	1/4" Gyrolok®	7015H4Y		0.187	0.80
1/4" male NPT	1/4" female NPT	7015L4Y		0.250	1.40
1/4" female NPT	1/4" female NPT	7015F4Y		0.250	1.40
3/8" Gyrolok®	3/8" Gyrolok®	7015G6Y		0.250	1.40

Ultramite™ 7022 Series Pressure to 1500 psig (103 bar), TFE Seats—TFE Washers
Temperature range: 0° F to 350° F (-18° C to +177° C)

END CONNECTIONS		ORDER BY PART NUMBER			ORIFICE	Cv
INLET	OUTLET	BRASS	316 ST. STEEL	MONEL®		
1/8" Gyrolok®	1/8" Gyrolok®	—	7022G2Y	—	0.093	0.23
1/4" Gyrolok®	1/4" Gyrolok®	7022G4B	7022G4Y	7022G4M	0.187	0.80
1/4" male NPT	1/4" Gyrolok®	—	7022H4Y	—	0.187	0.80
1/4" male NPT	1/4" male NPT	—	7022M4Y	—	0.250	1.40
1/4" male NPT	1/4" female NPT	7022L4B	7022L4Y	—	0.250	1.40
1/4" female NPT	1/4" female NPT	7022F4B	7022F4Y	7022F4M	0.250	1.40
3/8" Gyrolok®	3/8" Gyrolok®	7022G6B	7022G6Y	7022G6M	0.250	1.40

Ultramite™ 70 Series

Ultramite™ 7092, 7093 Series (2-way Valves)



Cv Factor: 3.4

Features & Benefits

- Fixed end fittings prevent accidental disassembly, enhancing safety.
- Oval trip-proof handle helps prevent accidental actuation. Quarter turn handle provides a visual indication of on/off valve position, providing improved safety.
- Dual encapsulated TFE seats and microfinished ball ensure a leak tight seal. This provides greater valve reliability and operator peace of mind.
- Floating ball provides pressure-assisted sealing and temperature wear compensation for longer valve cycle life and greater value.

Typical Applications

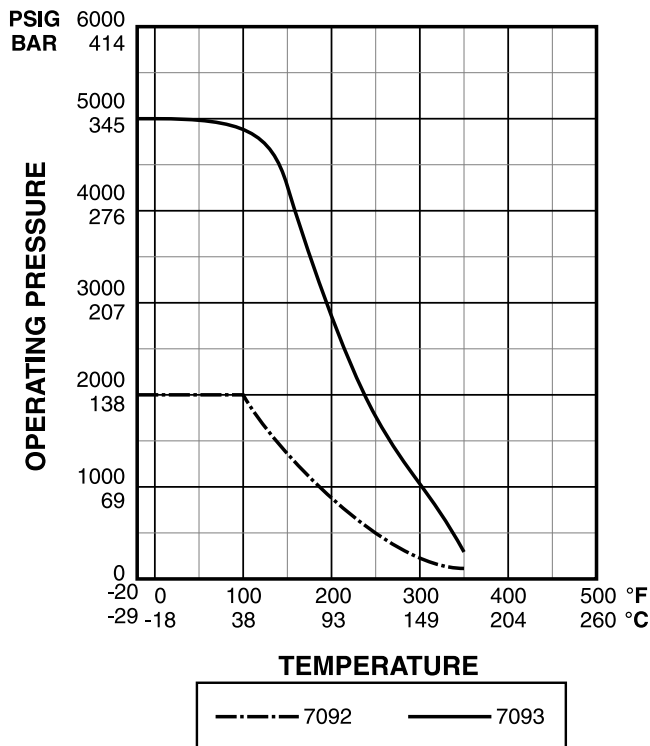
- Slurry handling
- Refinery pilot plants
- Pneumatic systems
- Corrosives handling

Technical Data

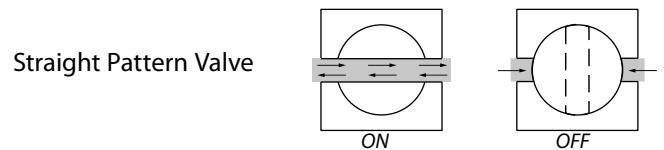
BODY MATERIAL	316 stainless steel, brass, Monel®
OPERATING PRESSURE RANGE @ 70° F (21° C)	7092 Series Moderate vacuum* to 2000 psig (138 bar) 7093 Series Moderate vacuum* to 5000 psig (345 bar)
OPERATING TEMPERATURE RANGE	-20° F to +350° F (-29° C to +177° C) (both series)
ORIFICE SIZE	0.375" (9.5mm)
Cv FACTOR	3.4
END CONNECTIONS	½" Gyrolok® ⅜" to ½" NPT

* Moderate vacuum is 10⁻³ to 20 torr.

Pressure vs. Temperature Curve

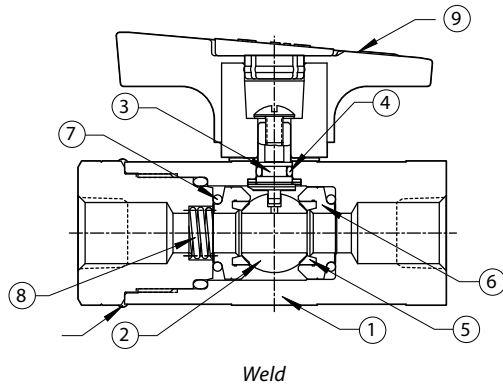


Flow Diagrams 2-way valve



Ultramite™ 70 Series

Materials of Construction

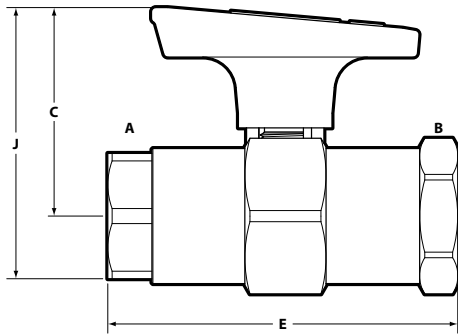


DESCRIPTION	BRASS	316 STAINLESS STEEL	MONEL®
1 Body	Brass	316 stainless steel	Monel®
2 Ball	316 stainless steel	316 stainless steel	Monel®
3 Stem	316 stainless steel	316 stainless steel	Monel®
4 Stem packing†	Viton®	Viton®	Viton®
5 Seats	TFE	TFE	TFE
6 Seat retainers	316 stainless steel	316 stainless steel	Monel®
7 Seat washers† 7092 Series 7093 Series*	TFE —	TFE Viton®	TFE —
8 Spring	316 stainless steel	316 stainless steel	Monel®
9 Handle	Nylon	Nylon	Nylon

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

* 7093 series only available in 316 stainless steel

Dimensions



INLET A	OUTLET B		C	E	J
3/8" female NPT	3/8" female NPT	inch	1 7/8	3 1/2	2 9/16
		mm	48	89	65
1/2" female NPT	1/2" female NPT	inch	1 7/8	3 1/2	2 9/16
		mm	48	89	65
1/2" Gyrolok®	1/2" Gyrolok®	inch	1 7/8	4 7/8	2 9/16
		mm	48	124	65

Dimensions for reference only, subject to change.

Ordering Options



Optional metal lever handle

Metal Lever Handle

A metal lever handle is available for 7092 and 7093 Series valves. To order, specify 90043-1 with plug button 5982.

Panel Mounting

Panel mounting is available for 7092 and 7093 valves by specifying kit 7200K1.

How to Order Standard Valves



7093F8Y

Ultramite™ 7092 Series Pressure to 2000 psig (138 bar), TFE Seats—TFE Washers

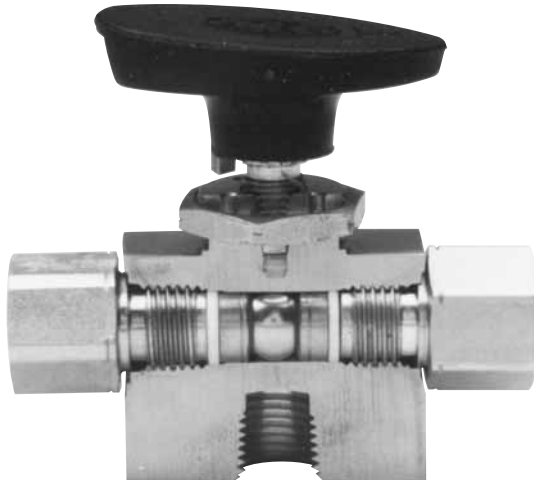
END CONNECTIONS		ORDER BY PART NUMBER				
INLET	OUTLET	BRASS	316 ST. STEEL	MONEL®	ORIFICE	Cv
3/8" female NPT	3/8" female NPT	—	7092F6Y	7092F6M	0.375	3.4
1/2" female NPT	1/2" female NPT	7092F8B	7092F8Y	7092F8M	0.375	3.4
1/2" Gyrolok®	1/2" Gyrolok®	7092G8B	7092G8Y	7092G8M	0.375	3.4

Ultramite™ 7093 Series Pressure to 5000 psig (345 bar), TFE Seats—Viton® Washers

END CONNECTIONS		ORDER BY PART NUMBER				
INLET	OUTLET	BRASS	316 ST. STEEL	MONEL®	ORIFICE	Cv
3/8" female NPT	3/8" female NPT	—	7093F6Y	7093F6M	0.375	3.4
1/2" female NPT	1/2" female NPT	—	7093F8Y	7093F8M	0.375	3.4
1/2" Gyrolok®	1/2" Gyrolok®	—	7093G8Y	7093G8M	0.375	3.4

Ultramite™ 70 Series

Ultramite™ 7065 Series (3-way Valve)



Cv Factors: 0.15 to 0.57

The Ultramite™ 7065 3-way ball valve uses 180° handle rotation for diverting flow from one line to another. The oval handle points to the port in use. When the handle is perpendicular to the valve body it is in the shutoff position.

Typical Applications

- Analyzer labs
- Sampling systems
- Fluid diverting/switching

Technical Data

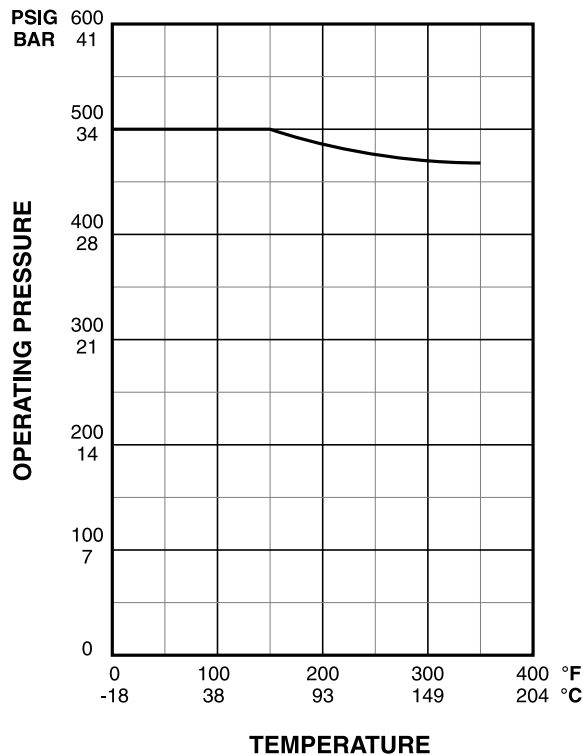
BODY MATERIAL	316 stainless steel, brass, Monel®
OPERATING PRESSURE RANGE	Moderate vacuum* to 500 psig @ 70° F (34.5 bar @ 21° C)
OPERATING TEMPERATURE RANGE	0° F to +350° F (-18° C to +177° C)
ORIFICE SIZE	0.187" (4.8mm)
Cv FACTORS	0.15 to 0.57
END CONNECTIONS	1/8" to 3/8" Gyrolok® 1/4" NPT

* Moderate vacuum is 10⁻³ to 20 torr.

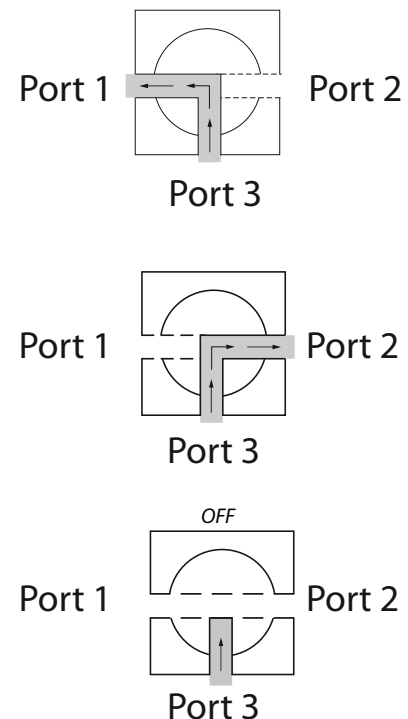
Features & Benefits

- Welded ends secure the end fittings preventing accidental disassembly, enhancing safety.
- Oval trip-proof handle helps prevent accidental actuation for safer operation. The handle also serves as a visual indicator of the port in use, or closed position for increased safety.
- Dyna-Pak® packing provides a leak-tight seal with low operating torque in vacuum or high pressure applications, helping to prevent fugitive emissions.

Pressure vs. Temperature Curve

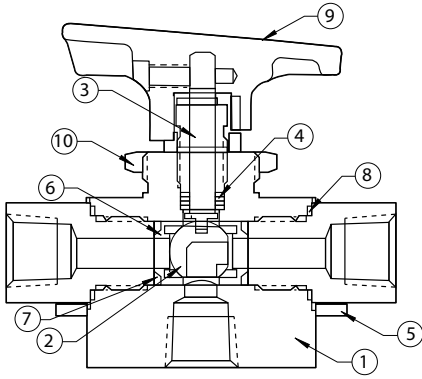


Flow Diagrams 3-way valve



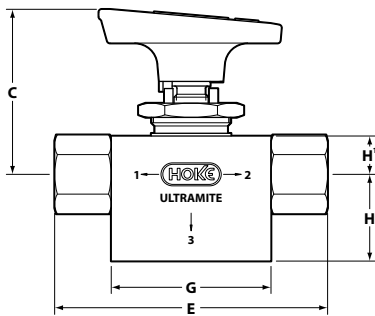
Ultramite™ 70 Series

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	TFE	TFE	TFE
6 Seat retainers	Brass	316 stainless steel	Monel®
7 Seat washers	TFE	TFE	TFE
8 End fittings gaskets	TFE	TFE	TFE
9 Handle	Nylon	Nylon	Nylon
10 Panel mounting nut	Nickel-plated brass	316 Stainless Steel	Nickel-plated brass

Dimensions



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

Panel Mounting

Panel hole: 5⁷/₆₄" (23mm) diameter

Panel thickness: 3³/₁₆" (5mm) diameter

Dimensions for reference only, subject to change.

How to Order



7065F4Y

Ultramite™ 7065 Series Pressure to 500 psig (35 bar)

END CONNECTIONS		ORDER BY PART NUMBER				
INLET	OUTLET	BRASS	316 ST. STEEL	MONEL®	ORIFICE	Cv
1/8" Gyrolok®	1/8" Gyrolok®	7065G2B	7065G2Y	—	0.093	0.15
1/4" Gyrolok®	1/4" Gyrolok®	7065G4B	7065G4Y	7065G4M	0.187	0.57
1/4" female NPT	1/4" female NPT	7065F4B	7065F4Y	7065F4M	0.187	0.57
3/8" Gyrolok®	3/8" Gyrolok®	7065G6B	7065G6Y	7065G6M	0.187	0.57

Ultramite™ 70 Series Ball Valve Options

Handle Locking Kit

Safety lockout kits are available for applications which must conform to Code of Federal Regulations 29CFR Part 1910, OSHA

Safety and Health Act, and other international regulations. Valves can be locked in either an opened or closed position with the stainless steel upper and lower locking plates. Lock with readily available padlocks or commercially available multiple lockout devices. Locking kits include the locking plates and assembly instructions. To order a safety lockout kit for Ultramite™ 7015 and 7022 Series valves, specify kit 7100K18; for Ultramite™ 7092 and 7093 Series valves, specify kit 7200K7; for 7065 Series valve, specify kit 7600K1.

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.



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

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

* Consult factory for other materials

** Moderate vacuum is 10⁻³ 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

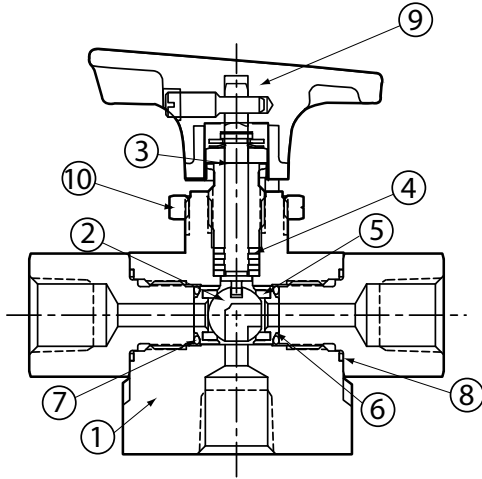
ball valves

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Selectomite® 71 and 76 Series

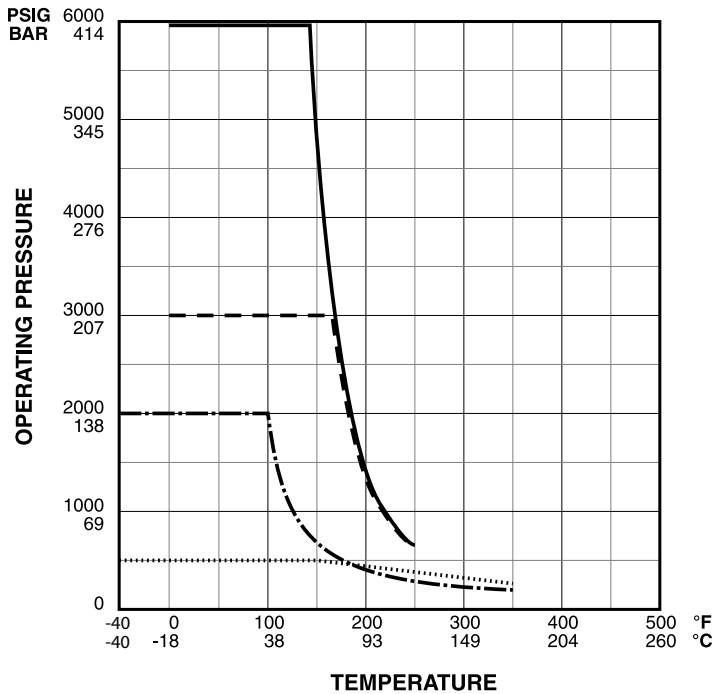
Materials of Construction



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

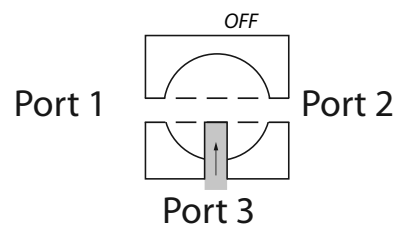
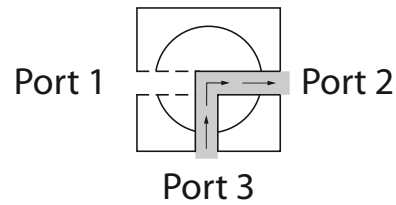
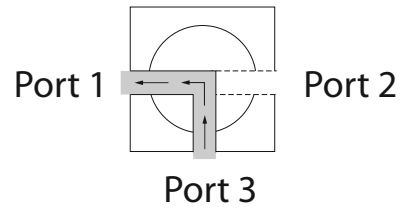
† Other elastomers are available upon request. Contact your local distributor

Pressure vs. Temperature Curve



- 7165 Valves
- — — 7177 Valves
- - - 7671 Valves
- 7673 Valves

Flow Diagrams 3-way valve



Selectomite® 71 and 76 Series

Dimensions

Selectomite® 7177 Series

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

Panel mounting

Panel hole: 1⁹/₃₂" (15.1mm) diameter

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

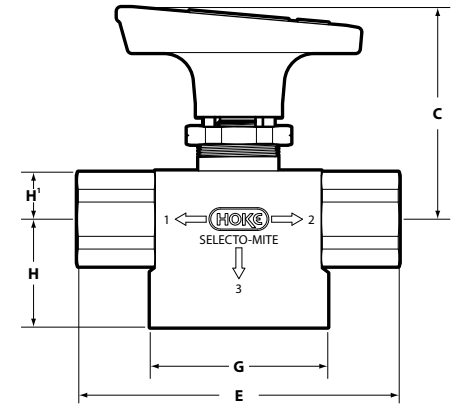
Selectomite® 7165, 7671, 7673 Series

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

Panel mounting

Panel hole: 5⁷/₆₄" (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				
	BRASS	316 ST. STEEL	MONEL®	ORIFICE	Cv
1/8" Gyrolok®	7165G2B	7165G2Y	—	0.093" (2.4mm)	0.15 [‡]
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 [‡]
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

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 [‡]
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 [‡]
6mm Gyrolok®	7177G6YMM	0.093" (2.4mm)	0.15 [‡]

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

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

* Consult factory for other materials

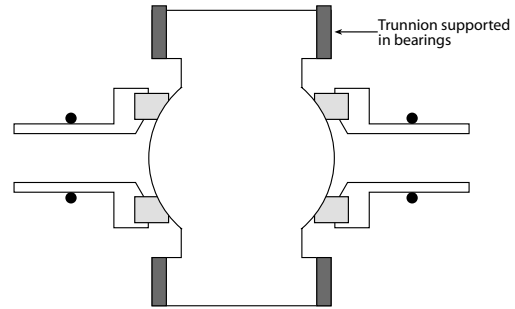
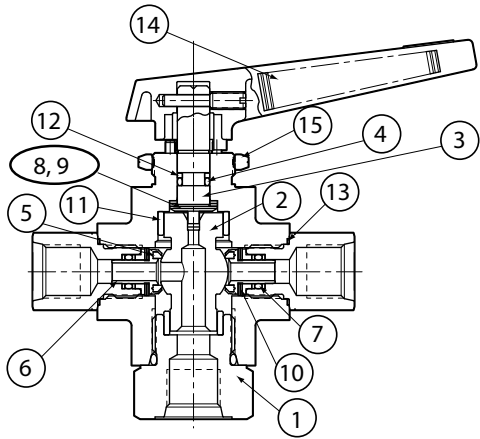
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ball valves

Selectomite® 76 Series

Materials of Construction



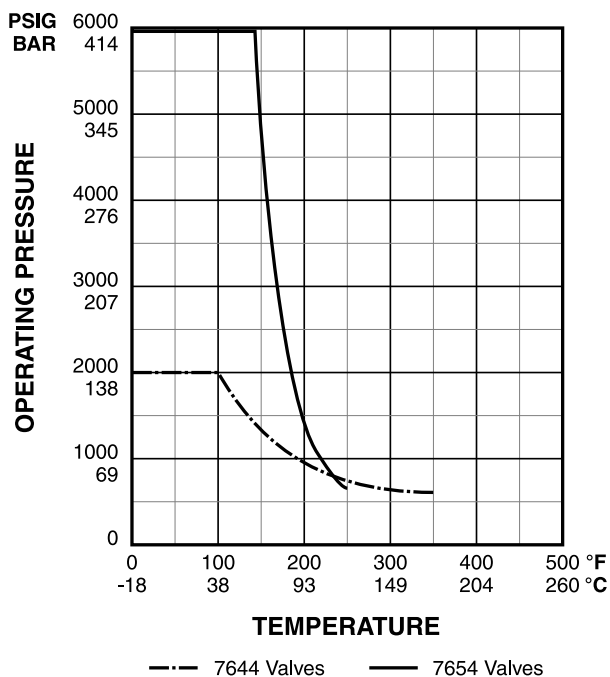
DESCRIPTION	MATERIAL
1 Body	316 stainless steel
2 Trunnion	316 stainless steel
3 Stem	316 stainless steel
4 Stem packing†	Viton®
5 Seats 7644 Series 7654 Series	Nylatron® TFE
6 Seat retainers	316 stainless steel
7 Seat washers†	Viton®
8 Thrust washer	Nylatron®
9 Spacer	316 stainless steel
10 Belleville 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.

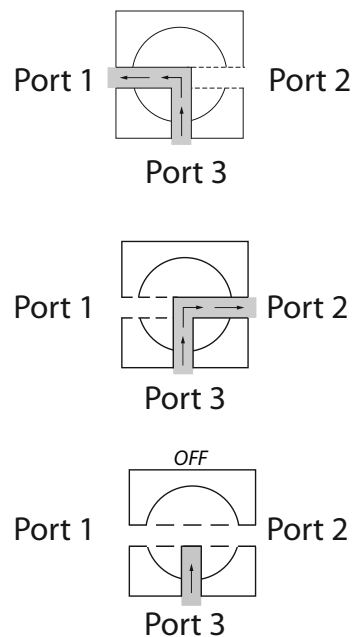
Trunnion Design

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

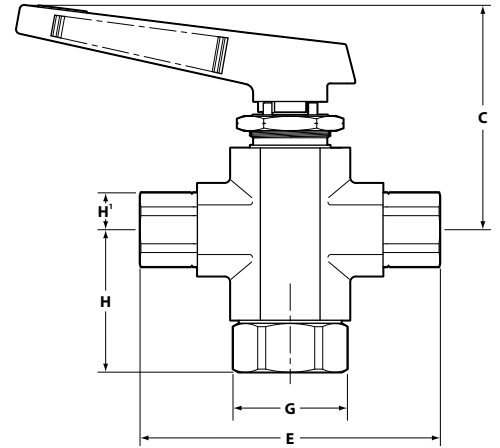
Dimensions

END CONNECTIONS		C	E	G	H	H ¹
¼" Gyrolok®	inch	2½	4	1⅛	2¾	2 ⁹ / ₃₂
	mm	64	102	27	70	23
¼" female NPT	inch	2½	3 ⁵ / ₁₆	1⅛	1 ⁹ / ₁₆	2 ⁹ / ₃₂
	mm	64	84	27	40	23
⅜" Gyrolok®	inch	2½	4 ¹ / ₁₆	1⅛	2 ²⁵ / ₃₂	2 ⁹ / ₃₂
	mm	64	104	27	71	23

Panel mounting

Panel hole = ⁵/₆₄" (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
¼" Gyrolok®	7644G4Y	0.187" (4.7mm)	0.56
¼" female NPT	7644F4Y	0.187" (4.7mm)	0.56
⅜" 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
¼" Gyrolok®	7654G4Y	0.187" (4.7mm)	0.56
¼" female NPT	7654F4Y	0.187" (4.7mm)	0.56



7644F4Y

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.





Multimite® 79 Series

4- and 5-way Trunnion Valves

Multimite® 4-way, or dual switching valves allow two distinct flow paths to be used at the same time. The 5-way, or diverter valves offer the same functionality as 3-way valves except with four alternate paths.



Typical Applications

4-way valves

- Actuator cycling
- Pressure selecting and venting
- Alternate sampling and distribution

5-way valves

- Sampling systems
- Distribution systems
- Instrument range selection

Technical Data

BODY MATERIAL*	316 stainless steel, brass, Monel®
OPERATING PRESSURE RANGE @ 70° F (21° C)	TFE Seats Moderate vacuum** to 2000 psig (138 bar) Nylatron® Seats Moderate vacuum** to 6000 psig (414 bar)
OPERATING TEMPERATURE RANGE	• TFE seats: 0° F to +350° F (-18° C to +177° C) • Nylatron® seats: 0° to +250° F (-18° C to +121° C)
ORIFICE SIZES	• 4-way models: 0.166" (4.2mm) • 5-way models: 0.187" (4.7mm)
Cv FACTORS	0.47 to 0.66
END CONNECTIONS	¼" Gyrolok® ¼" female NPT

* Consult factory for other materials

** Moderate vacuum is 10⁻³ to 20 torr

Features & Benefits

- Blowout-proof stem for added safety
- Spring-loaded detent engages every 90° to indicate full port position, increasing operator confidence.
- Trunnion bearings eliminate galling, increasing valve life and reducing cost of ownership.
- 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

HOKE Incorporated

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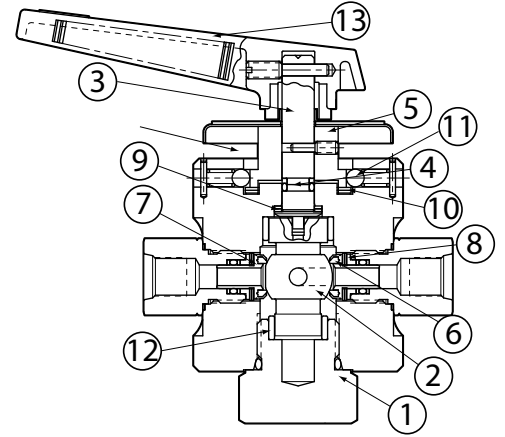
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Multimite® 79 Series

Materials of Construction

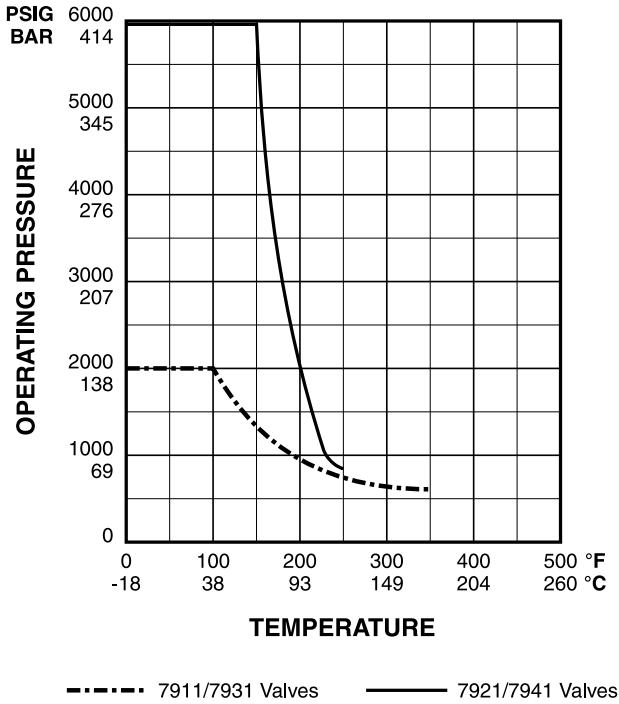
DESCRIPTION	2000 PSIG MODELS	6000 PSIG MODELS
1 Body	316 stainless steel	316 stainless steel
2 Trunnion	316 stainless steel	316 stainless steel
3 Stem	316 stainless steel	316 stainless steel
4 Stem packing†	Viton®	Viton®
5 Stem bushing	316 stainless steel	316 stainless steel
6 Seats	TFE	Nylatron®
7 Seat retainers	316 stainless steel	316 stainless steel
8 Seat washers†	Viton®	Viton®
9 Thrust washer	Rulon®	Nylatron®
10 Friction & wave washers	Nylon & 302 stainless steel	Nylon & 302 stainless steel
11 Spring & ball detent	302 stainless steel & 440 CSS	302 stainless steel & 440 CSS
12 Bearings	TFE	Nylon/TFE (fiberglass filament wound backing)
13 Handle	Nylon	Nylon

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



Panel Mounting

Pressure vs. Temperature Curve

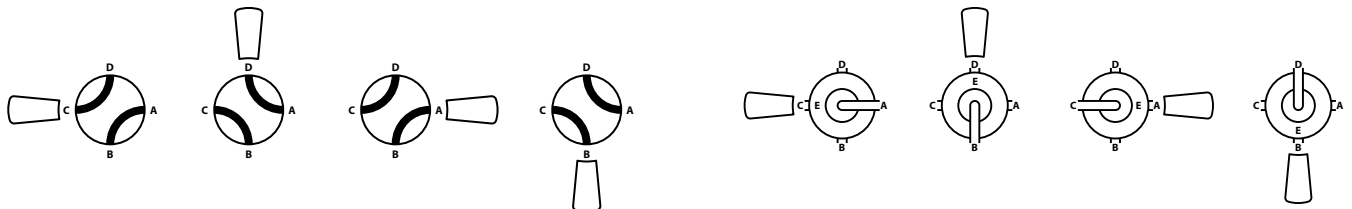


Flow Diagrams 4-way & 5-way

Flow Patterns

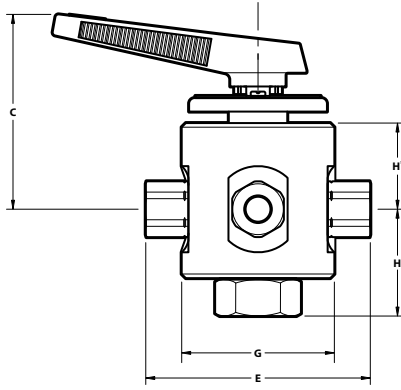
4-way models indicate ports connected

5-way models indicate side ports in use



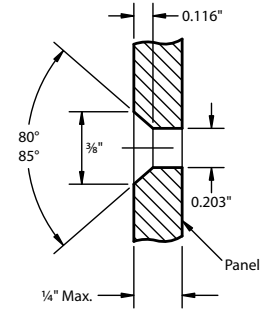
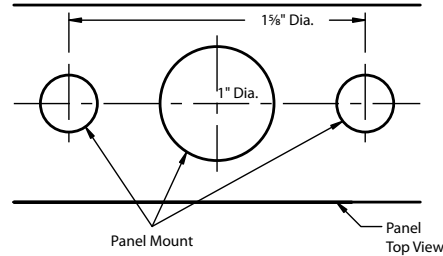
Multimite® 79 Series

Dimensions



END CONNECTIONS		C	E	G	H	H¹
¼" Gyrolok® for 4-way valves	inch	2⅞	3 ²⁹ / ₃₂	2¼	1 ⁹ / ₁₆	1¼
	mm	73	99	57	40	32
¼" Gyrolok® for 5-way valves	inch	2⅞	3 ²⁹ / ₃₂	2¼	2½	1¼
	mm	73	99	57	64	32
¼" female NPT (4- and 5-way)	inch	2⅞	3¼	2¼	1 ⁹ / ₁₆	1¼
	mm	73	83	57	40	32

Panel Mounting Dimensions



Dimensions for reference only, subject to change.

How to Order Standard Valves



7911G4Y



7931G4Y

Multimite® 7911, 7921 Series 4-way Models

END CONNECTIONS	ORDER BY PART NUMBER			
	2000 PSIG @ 350° F (138 BAR/177° C)		6000 PSIG @ 250° F (414 BAR/121° C)	
	TFE SEATS	NYLATRON® SEATS	ORIFICE	Cv
¼" Gyrolok®	7911G4Y	7921G4Y	0.166" (4.2mm)	0.47
¼" female NPT	7911F4Y	7921F4Y	0.166" (4.2mm)	0.54

Multimite® 7931, 7941 Series 5-way Models

END CONNECTIONS	ORDER BY PART NUMBER			
	2000 PSIG @ 350° F (138 BAR/177° C)		6000 PSIG @ 250° F (414 BAR/121° C)	
	TFE SEATS	NYLATRON® SEATS	ORIFICE	Cv
¼" Gyrolok®	7931G4Y	7941G4Y	0.187" (4.7mm)	0.51
¼" female NPT	7931F4Y	7941F4Y	0.187" (4.7mm)	0.66

Ordering Options



Electric Actuators

For remote control of Multimite® 79 Series valves, order an electric actuator. Electric actuators are supplied in either 115 VAC or 24 VDC with weatherproof or explosion-proof housings. 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.

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.

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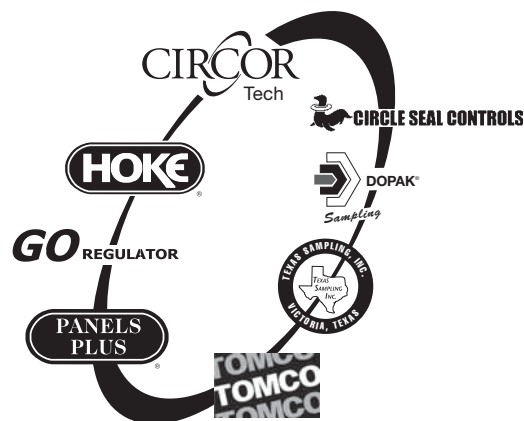
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Texas Sampling, Inc

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CIRCOR Instrumentation

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CIRCOR Instrumentation Technologies

CIRCOR Instrumentation Technologies (CIT) is a product group of CIRCOR International (NYSE: CIR), specializing in fluid process control solutions with orifice sizes typically up to 1". Our main product lines include ball, needle, packless, diaphragm, solenoid, and metering valves, pressure regulators, quick couplers, Gyrolok® compression tube fittings, and fully integrated sampling systems.

CIT markets primarily to the petrochemical, refining, power generation, food and beverage, semiconductor, and pharmaceutical industries, and to OEM's. CIT separates itself from the competition by offering highly engineered components manufactured to exacting standards and a variety of custom options.