

Fluid Control Components

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fluid contro

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. When selecting products, the total system design must be considered to ensure safe, trouble-free performance. 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.

Contact your authorized HOKE® sales and service representative for information about additional sizes and special alloys.

SAFETY WARNING:

HOKE® products are designed for installation only by professional suitably qualified licensed system installers experienced in the applications and environments for which the products are intended. These products are intended for integration into a system. Where these products are to be used with flammable or hazardous media, precautions must be taken by the system designer and installer to ensure the safety of persons and property. Flammable or hazardous media pose risks associated with fire or explosion, as well as burning, poisoning or other injury or death to persons and/or destruction of property. The system designer and installer must provide for the capture and control of such substances from any vents in the product(s). The system installer must not permit any leakage or uncontrolled escape of hazardous or flammable substances. The system operator must be trained to follow appropriate precautions and must inspect and maintain the system and its components including the product(s) and at regular intervals in accordance with timescales recommended by the supplier to prevent unacceptable wear or failure.



Check Valves



The CVH Series Check Valves are engineered for a competitive price with no compromise of quality and performance to meet the growing requirements of instrumentation valves. The function of this valve series is to maintain system integrity by preventing back flow of a wide variety of fluids over a broad range of pressures.

Features & Specifications

- Rapid response
- Resilient o-ring seat provides cushioned, noise-free closing and zero leakage
- Floating o-ring design: o-ring is continually cleaned so contaminants do not prevent sealing
- Various materials of construction can be used with any liquid or gas service
- Various end connections can be assembled in any system or application
- Spring-loaded poppet can be mounted in any orientation
- Full flow with minimal restriction for maximum Cv rates
- Virtually maintenance free for maximum dependability
- Pressures up to 6000 psig (414 bar)
- Cracking pressure range is 0.5 to 20 psig (0 to 1 bar) ±10%
- Flow up to 7.4 Cv maximum
- Greater than 100,000 life cycles
- Special High Tolerance NPT Thread

Technical Data

TOOTHITOUT BUTU	
Body Material*	316 stainless steel, MONEL® R-405, HASTELLOY® C-276
Operating Pressure Range	0 to 6000 psig (414 bar)
Temperature Range**	-65° F to +550° F (-54° C to +288° C)
Cv factors	0.32 to 7.4
Cracking Pressure Range	0.5 to 20 psig (0.035 to 1.379 bar) ± 10%
Leakage	External: zero
	Internal: Soft seat = zero
Connection sizes	1/8" to 1"; 6mm to 25mm
Life Cycles	In excess of 100,000 cycles

^{*} Consult factory for other materials

fluid control

^{**} Limited to +400° F (204° C) for $\frac{3}{4}$ / 12 mm sizes and higher

Specifications

Operating Temperatures

Seal Material	Temperature (°F)	Temperature (°C)
Viton®	-20° to +400°	-29° to +204°
Fluorosilicone	-80° to +350°	-62° to +177°
Kalrez®*	-40° to +550°	-40° to +288°
Buna N	-65° to +275°	-54° to 135°

^{*} Limited to +400° F (204° C) for $\frac{3}{4}$ "/ 12 mm sizes and higher

Flow Rates

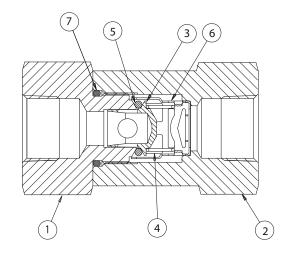
Fitting Size	1/8"	½"/4mm	3/8"/6mm	½"/8mm	10mm	3/4"/12mm	1"/16mm
fitting code*	-02	-04	-06	-08	-10	-12	-16
Cv FACTORS	0.32	0.79	1.71	3.08	3.87	7.38	7.38

^{*} See ordering matrix on page 9

Materials of Constructions

	Part	Standard Materials (Others on Request)
1	Body* (inlet)	316 stainless steel
2	Body* (outlet)	316 stainless steel
3	Poppet*	316 stainless steel
4	Spring*	302 stainless steel
5	O-ring*	Viton®
6	Spring guide	316 stainless steel
7	O-ring*†	Viton®

^{*} wetted component



Dimensions

GYROLOK® Tube Fitting, Fractional

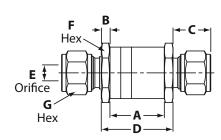
Fitting Code*	Fitting Size	Α	В	С	D	E	F	G
-02	1/8"	0.93	0.20	0.67	1.33	0.19	1.06	0.44
-04	½"/4mm	0.93	0.20	0.77	1.33	0.19	1.06	0.56
-06	3/8"/6mm	1.33	0.20	0.83	1.73	0.39	1.44	0.69
-08	½"/8mm	1.33	0.20	0.92	1.73	0.42	1.44	0.88
-12	3/4"/12mm	2.05	0.50	0.97	3.05	0.66	2.25	1.25
-16	1"/16mm	2.05	0.50	1.08	3.05	0.66	2.25	1.5

^{*} See ordering matrix on page 9

GYROLOK® Tube Fitting, Metric

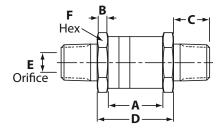
Fitting Code*	Fitting Size	Α	В	С	D	E	F	G
-04	½"/4mm	23.62	5.08	17.9	33.78	2.44	26.99	12.70
-06	3/8"/6mm	23.62	5.08	19.5	33.78	3.96	26.99	14.22
-08	½"/8mm	23.62	5.08	19.1	33.78	5.94	26.99	15.88
-10	10mm	33.78	5.08	19.8	43.94	8.03	36.51	19.05
-12	3/4"/12mm	33.78	5.08	23.4	43.94	10.01	36.51	22.23
-14	14mm	33.78	5.08	21.0	43.94	12.01	36.52	25.40
-16	1"/16mm	52.07	12.70	23.4	77.47	12.70	57.15	25.40
-18	18mm	52.07	12.70	24.6	77.47	15.88	57.15	28.58
-22	22mm	52.07	12.70	24.6	77.47	16.66	57.15	31.75
-25	25mm	52.07	12.70	27.4	77.47	16.66	57.15	38.10

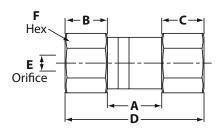
^{*} See ordering matrix on page 9

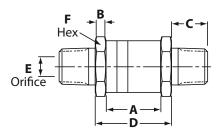


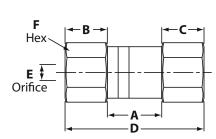
[†] Applies to ¾" / 12mm sizes and higher

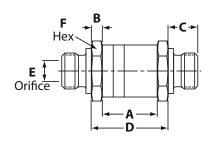
Dimensions











Male NPT, (Fractional)

Fitting Code*	Fitting Size	Α	В	С	D	E	F
-02	1/8"	0.93	0.20	0.38	1.33	0.19	1.06
-04	½"/4mm	0.93	0.20	0.56	1.33	0.19	1.06
-06	3/8"/6mm	1.33	0.20	0.56	1.73	0.39	1.44
-08	½"/8mm	1.33	0.20	0.75	1.73	0.42	1.44
-12	3/4"/12mm	2.05	0.50	0.75	3.05	0.66	2.25
-16	1"/16mm	2.05	0.50	0.94	3.05	0.66	2.25

^{*} See ordering matrix on page 9

Female NPT, (Fractional)

Fitting Code*	Fitting Size	Α	B Inlet	C Outlet	D	E	F
-02	1/8"	0.93	0.62	0.65	2.20	0.19	1.06
-04	½"/4mm	0.93	0.62	0.88	2.43	0.19	1.06
-06	3/8"/6mm	1.33	0.78	0.78	2.89	0.39	1.44
-08	½″/8mm	1.33	0.93	0.98	3.24	0.42	1.44
-12	3/4"/12mm	2.05	1.08	0.95	4.08	0.66	2.25
-16	1"/16mm	2.05	1.37	1.16	4.58	0.66	2.25

^{*} See ordering matrix on page 9

Male British Tapered Pipe, (Fractional)

Fitting code*	Fitting Size	Α	B Inlet	C Outlet	D	E	F
-02	1/8"	0.93	0.20	0.38	1.33	0.19	1.06
-04	1/4"/4mm	0.93	0.20	0.56	1.33	0.19	1.06
-06	3/8"/6mm	1.33	0.20	0.56	1.73	0.39	1.44
-08	½"/8mm	1.33	0.20	0.75	1.73	0.42	1.44
-12	3/4"/12mm	2.05	0.50	0.75	3.05	0.66	2.25
-16	1"/16mm	2.05	0.50	0.94	3.05	0.66	2.25

^{*} See ordering matrix on page 9

Female British Tapered Pipe, (Fractional)

Fitting Code*	Fitting Size	Α	B Inlet	C Outlet	D	E	F
-02	1/8"	0.93	0.63	0.64	2.20	0.19	1.06
-04	½"/4mm	0.93	0.88	0.89	2.70	0.19	1.06
-06	3/8"/6mm	1.33	0.98	0.97	3.28	0.39	1.44
-08	½"/8mm	1.33	1.25	1.24	3.82	0.42	1.44
-12	3/4"/12mm	2.05	1.58	1.22	4.85	0.66	2.25
-16	1"/16mm	2.05	1.80	1.46	5.31	0.66	2.25
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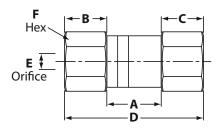
^{*} See ordering matrix on page 9

Male British Parallel Pipe, (Fractional)

	,								
Fitting Code*	Fitting Size	Α	В	С	D	E	F		
-02	1/8"	0.93	0.20	0.38	1.33	0.19	1.06		
-04	½"/4mm	0.93	0.20	0.56	1.33	0.19	1.06		
-06	3/8"/6mm	1.33	0.20	0.56	1.73	0.39	1.44		
-08	½"/8mm	1.33	0.20	0.75	1.73	0.42	1.44		
-12	3/4"/12mm	2.05	0.50	0.75	3.05	0.66	2.25		
-16	1"/16mm	2.05	0.50	0.94	3.05	0.66	2.25		

^{*} See ordering matrix on page 9

Dimensions



Female British Parallel Pipe, (Fractional)

Fitting Code*	Fitting Size	Α	B Inlet	C Outlet	D	E	F
-02	1/8"	0.93	0.66	1.05	2.64	0.19	1.06
-04	½"/4mm	0.93	0.89	1.06	2.88	0.19	1.06
-06	3/8"/6mm	1.33	1.04	0.96	3.33	0.39	1.44
-08	½"/8mm	1.33	1.17	1.20	3.70	0.42	1.44
-12	3/4"/12mm	2.05	1.51	1.17	4.73	0.66	2.25
-16	1"/16mm	2.05	1.61	1.37	5.03	0.66	2.25

^{*} See ordering matrix below

How to Order

Standard items in bold CVH <u>G</u> <u>4</u> <u>Y</u> <u>3</u> <u>1</u> <u>\$</u> - <u>I\$</u> ADDITIONAL OPTIONS FITTING TYPE -F Female NPT IS Inconel spring G GYROLOK® tube fitting, fractional ("Y" Body Only, "IS" is std on all others) J Male British parallel pipe Norsok Complaint NK K Female British parallel pipe SLF Sulfinert Coating Buna-N Oring (90 Duro) M Male NPT 22 Q Male British tapered pipe 93 HNBR Oring (90 Duro) T Female British tapered pipe 82 Kalrez® 6375 Oring Z GYROLOK® tube fitting, metric **CLEANING OPTIONS** Standard FITTING SIZE S Fractional Metric 0 Oxygen cleaning 2 1/2" N/A **SEAL MATERIALS** 4 1/4" 4mm 1 Viton® 3%" 6 6mm 2 Buna-N (not for oxygen service) 8 1/2" 8mm 3 Fluorosilicone 10 N/A 10mm Kalrez® 4079 4 12 3/4" 12mm **EPDM** 6 14 N/A 14mm 16 1″ 16mm **CRACK PRESSURE** 18 N/A 18mm 0.5 psig (0.034 bar) 22mm 22 N/A 1.0 psig (0.07 bar) 25mm 25 N/A 3.0 psig (0.21 bar) 10 psig (0.70 bar) **BODY MATERIAL** 20 psig (1.38 bar) Υ 316 stainless steel (standard) 0.33 psig (0.023 bar) Н HASTELLOY® C-276 7 5.0 psig (0.345 bar) MONEL® R-405 M 2.0 psig (0.14 bar) ΤI Titanium D50 2507 Super Duplex SST 6MO 254 SMO SST DX3 2205 Duplex SST 625 Inconel 625

Please consult HOKE® or your local distributor for information on special connections, o-rings, operating pressures and temperature ranges.

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MONEL® is a registered trademark of Special Metals Corporation.

HASTELLOY® is a registered trademark of Haynes International, Inc.

Kalrez® and Viton® are registered trademarks of DuPont Dow Elastomers.

825

Inconel 825



Excess 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. The XVH Series is available in automatic and manual reset versions, depending on system requirements. Automatic reset XVH Series have an "anti-clog" wire which increases reliability by preventing a build up of system fluid in the bleed port. The XVH Series are high pressure (0 to 6000 psig [414 bar]), high performance, quick acting, zero leakage, low maintenance excess flow valves that will help provide a reliable and safe working environment.

- Lower cost
- Versatile
- Reliable
- Safety
- Flexible

Features

Automatic reset

The bleed vent allows the valve to automatically reset

Manual reset

• Zero leakage: the valve must be manually reset

2-piece design

• Allows for simple spring and seal maintenance

O-ring or metal seat

• Can be used with any liquid or gas service

Various body materials

• Can be used with any liquid or gas service

Various end connections

• Can be assembled in any system or application

Spring-loaded poppet

• Can be mounted in any orientation

Anti-clog wire

- Prevents clogging of bleed port
- Special High Tolerance NPT Thread

Technical Data

Body Material*	316 stainless steel, MONEL®, HASTELLOY® C-276, 254 SMO
Temperature Range	-320° to +900° F (-196° to +482° C)
Operating Pressure	Zero to 6000 psig (414 bar)
Leakage Rate	External: zero leak
	Internal soft seat: zero leak
Flow/Trip Point Ranges	Low, standard/low, medium, and high

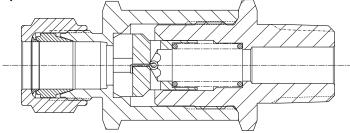
^{*} Consult factory for other materials

fluid control

Function

Excess Flow Valves are designed to limit flow of fluid to a predetermined rate. When flow reaches a predetermined rate the poppet will close, limiting or stopping flow. When pressure is equalized across the valve, the poppet will reset to the open position.

Open Position

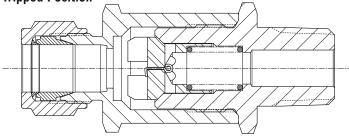


The spring holds the poppet in the open position during normal flow. When flow increases to the predetermined rate or trip point, the poppet will close.

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.

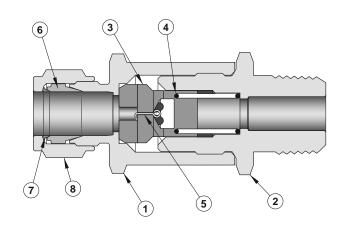
Tripped Position



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.

Materials of Construction



	Part	Standard Material (others available on request)
1	Body* (outlet)	316 stainless steel
2	End adapter* (inlet)	316 stainless steel
3	Poppet*	316 stainless steel
4	Spring*	302 stainless steel or INCONEL®**
5	Anti-clog wire*	302 stainless steel
6	Front ferrule*	316 stainless steel
7	Rear ferrule	316 stainless steel
8	Nut	316 stainless steel

^{*} Wetted component

Operating Temperatures

Soft Seal, Manual Reset Valve

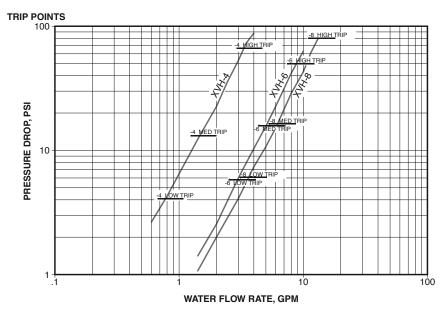
0-ring		Temperature		
Code	0-ring Material	°F	°C	
-32	Viton®	-20° to $+400^{\circ}$	-29° to +204°	
-62	Ethylene propylene	-65° to +300°	-54° to +149°	
-64	Fluorosilicone	-80° to +350°	-62° to $+177^{\circ}$	
-65	Kalrez®	-40° to +550°	-40° to $+288^{\circ}$	

^{**}INCONEL® springs installed with 254 SMO, (-65) Kalrez®, and (-00) seals, HASTELLOY C®.

Water Flow Rates: Standard

Using the graph below, look up your desired normal flow rate (including normal surges) on the X axis. Read vertically on the graph to the Cv line and then left on the graph from the Cv line to the pressure drop. Then select a valve and trip range higher than normal expected flow. For example: With a normal flow rate of 1 GPM, a ½ valve (XVH-4) will have a pressure drop of approximately 6.5 psi. Selecting a ½ valve with a medium trip option, the valve will close when the flow reaches 1.5 GPM and a pressure drop of approximately 15 psi.

Water Flow – Standard Inlet/Outlet Sizes = $\frac{1}{4}$, 6mm, 8mm



Note:

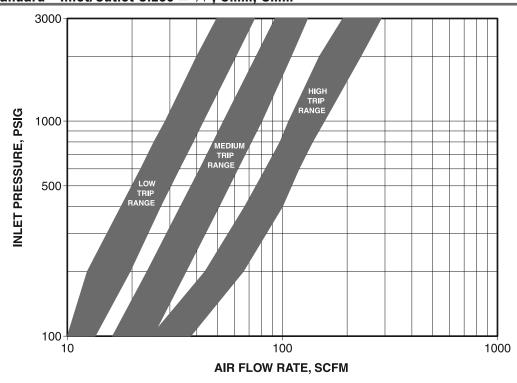
XVH-4 is inlet/outlet size of 1/4"
XVH-6 is inlet/outlet size of 6mm

XVH-8 is inlet/outlet size of 8mm

Air Flow Rates - Standard

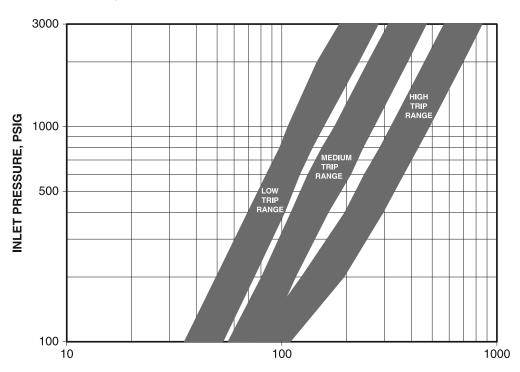
Using the graphs below, find the intersection of your normal flow rate (including normal surges) and the inlet pressure of the excess flow valve. From there, move to the right on the graph and select a valve with a trip range greater than your normal flow. For example: reading the chart below, if normal flow is 20 scfm and the inlet pressure is 200 psig, you would select a ¼" valve with a medium trip range.

Air Flow – Standard Inlet/Outlet Sizes = $\frac{1}{4}$, 6mm, 8mm

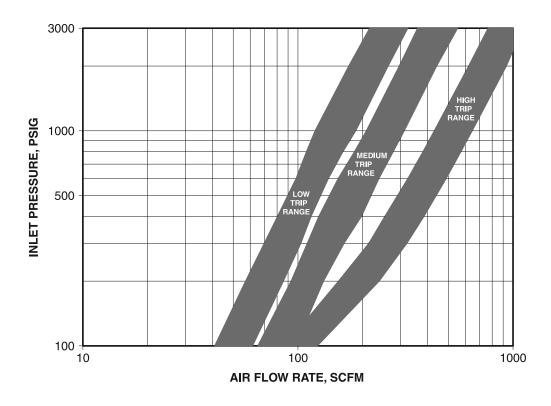


Air Flow – Standard Inlet/Outlet Sizes = 3/8", 10mm

Inlet/Outlet sizes: 3/8", 10mm



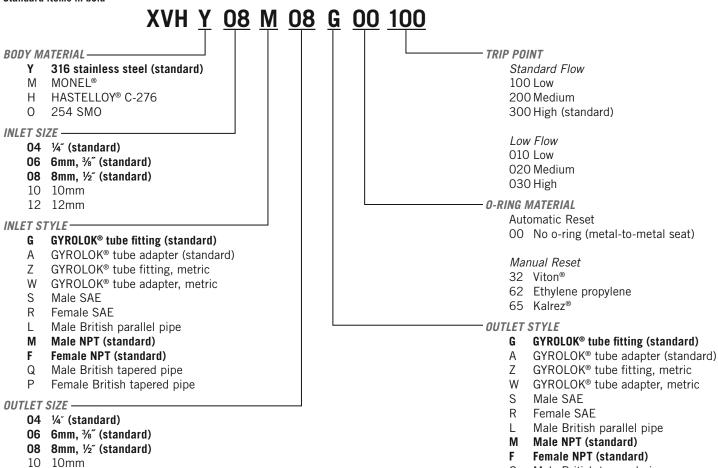
Air Flow – Standard Inlet/Outlet Sizes = ½", 12mm



How to Order

Standard items in bold

12 12mm



Note: Inlet and outlet fittings can be the same or mixed styles.

GYROLOK® is a registered trademark of HOKE®.

Male British tapered pipe

Female British tapered pipe



6100 & 6200 Series

Ball and Poppet Check Valves





Features

- O-ring seat provides leak-tight shutoff
- Internal design guides flow around or inside spring, not through coils, when valve is open
- All models are tested in production to assure a leak-tight body joint and seat
- Ball and poppet designs are available as standard
- Ball type provides effective leak-tight closure with minimum flow resistance
- Poppet models provide large flows with a minimum of chatter and fluctuation
- Valves are available with various cracking pressures, from ½ to 25 psig (0 to 2 bar).
- 2-piece body permits interchangeability of end connections
- Special High Tolerance NPT Thread

Applications

- Prevents reversed flow to protect solenoids, regulators, and pumps
- Locks pressure in hydraulic cylinders
- Low pressure inline relief valve
- Vent valve to purge a system

Technical Data

Body Material*	316 stainless steel, brass, MONEL®
Maximum Operating Pressure	Brass: 3000 psig @ 70° F (206.84 bar @ 21° C) Stainless steel, MONEL®: 6000 psig @ 70° F (414 bar @ 21° C)
Standard cracking pressure	2 psig
Operating Temperature Range	Buna N: -40° F to +200° F (-40° C to +93° C) Viton®: -20° F to +350° F (-29° C to +177° C)
Orifice Sizes	0.187" (4.75mm), 0.422" (10.7mm)
Cv Factors	0.3, 2.4

Consult factory for other materials

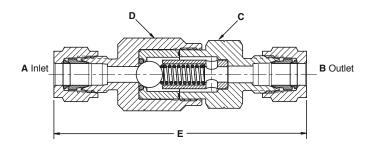
6100 & 6200 Series

Materials of Construction

		Ball Type		Poppet Type
Part	Brass	316 Stainless Steel	MONEL®	316 Stainless Steel
Body	Brass	316 stainless steel	MONEL®	316 stainless steel
Ball/Poppet	302 stainless steel	316 stainless steel	MONEL®	316 stainless steel
Spring	302 stainless steel	316 stainless steel	MONEL®	316 stainless steel
O-ring seat	Buna N	Viton®	Viton®	Viton®/Buna N*
Gasket (body)	Mylar®	PTFE	PTFE	PTFE/Buna N*

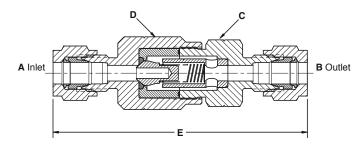
^{*} For poppet check valves with %" and %" NPT female connections.

Dimensions



6100 Series Ball Check Valves

A & B Connections		C Hex	D Hex	E
½" NPT female	inch	¹¹ / ₁₆	3/4	2¾
/8 INFT Terriale	mm	17	19	60
½″ NPT male	inch	¹¹ ⁄ ₁₆	3/4	2¾
/8 INFT IIIale	mm	17	19	60
1/4" NPT female	inch	3/4	3/4	21/2
74 INFT Terriale	mm	19	19	64
1/4" NPT male	inch	11/16	3/4	2%
74 INFT IIIale	mm	17	19	60
1/4" NPT male x 1/4"	inch	11/16	3/4	2¾
GYROLOK®	mm	17	19	70
6mm GYROLOK®	inch	11/16	3/4	3
olilli dikolok	mm	17	19	76
1/4" GYROLOK®	inch	11/16	3/4	3
-/4 GTRULUK	mm	17	19	76
¾″ GYROLOK®	inch	1	3/4	31/8
78 GTRULUN	mm	25	19	79



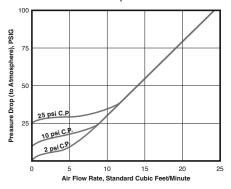
6200 Series Poppet Check Valves

A & B Connections		C Hex	D Hex	E
1/4" NPT female	inch	3/4	3/4	21/2
74 INFT Terriale	mm	19	19	64
1/4" NPT male	inch	11/16	3/4	2%
74 INFT IIIdle	mm	17	19	60
1/4" GYROLOK®	inch	11/16	3/4	3
4 GIROLON	mm	17	19	76
¾″ GYROLOK®	inch	1	3/4	3%
% GIROLON	mm	25	19	79
1/" NDT famala	inch	11/4	11/4	41/8
½" NPT female	mm	32	32	105

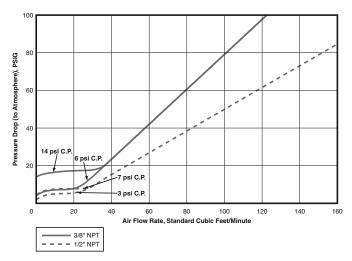
6100 & 6200 Series

Flow Diagrams

For all models except %" and ½" NPT female

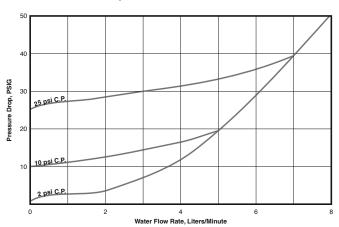


%" and 1/2" NPT female models

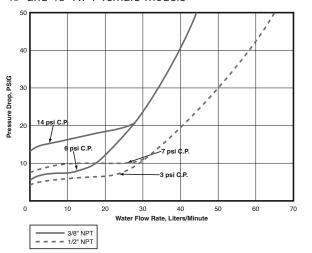


Water

For all models except %" and ½" NPT female



3/4" and 1/2" NPT female models



How to Order: Standard Valves (factory preset at cracking pressure of 2 psig) 6200 Series Poppet Check Valves

6100 Series Ball Check Valves

		Part Number		
A & B Connections	Brass	MONEL®	316 St. Steel	Orifice
½" NPT female	6113F2B	_	6133F2Y	0.187
½" NPT male	6113M2B	_	6133M2Y	0.187
1/4" NPT female	6113F4B	_	6133F4Y	0.187
1/4" NPT male	6113M4B	_	6133M4Y	0.187
1/4" GYROLOK®	6113G4B	6133G4M	6133G4Y	0.187
¾" GYROLOK®	6113G6B	6133G6M	6133G6Y	0.187
1/4" NPT male × 1/4" GYROLOK®	6113H4B	_	_	0.187
GYROLOK®	_	_	6133G6YMM	0.187

Part Number	
316 St. Steel	Orifice
6233F4Y	0.187
6233M4Y	0.187
6233G4Y	0.187
6233G6Y	0.187
6253F8Y	0.422
6253G8Y	0.422
	316 St. Steel 6233F4Y 6233M4Y 6233G4Y 6233G6Y 6253F8Y

Other Differential Cracking Pressures

Cracking Pressure	Digit
⅓ psig	-1
10 psig	-5
25 nsig	-6

All check valves except \%" and \1/2" female NPT models can be furnished with other than the standard 2 psig cracking pressure. To order, change the fourth digit ("-3") of the desired valve part number.

Example: 6115G4B is a 6100 Series brass ball check valve with 1/4" GYROLOK® ends and a 10 psig cracking pressure

GYROLOK® is a registered trademark of HOKE®. Viton® is a registered trademark of DuPont Dow Elastomers. MONEL® is a registered trademark of Special Metals Corporation. Mylar® is a DuPont Teijin Films registered trademark for its polyester film.



Right Angle Relief Valve

Available in low, medium, high and extra high pressure models, R6000 right angle relief valves provide users with high accuracy and consistency of cracking and reseat pressures. Furthermore, narrow pressure ranges (cracking pressures) for each model can be factory pre-set according to customer specifications. PED certification and CE marking are standard for all models. All R6000 relief valves are offered with multiple end connections to ensure application versatility.

Features & Benefits

Low Pressure (5 - 550 psig)* Zero friction poppets

- · Increases accuracy of cracking pressure and reseat pressure.
- Improves consistency of cracking pressure and reseat pressure.

Encapsulated Seat Seal

- Maintains small contact surface area.
- Protects seat from erosion due to flow.

Raised seal lip on poppet minimizes contact with seat, eliminating friction and preventing overstressing of the O-ring

6 pressure spring ranges improve accuracy Caps and bonnets are pre-drilled for lockwire Multiple end connections available

Special High Tolerance NPT Thread

High Pressure (150-6000 psig)

3 models available:

- Medium (150–2500 psig)—6 spring ranges improve accuracy
- High (150–5000 psig)—7 spring ranges improve accuracy
- Extra High (5000-6000 psig)—one spring

Delta stem seal design prevents friction which increases accuracy of cracking pressure and reseat

Balanced poppet design allows cracking pressure to stay the same regardless of backup pressure.

Orifice sizes: 0.082", 0.094", 0.188"

Multiple end connections available.

Optional manual override handle

For European Pressure Equipment Directive (PED 97/23/EC) applications, due to the R6000 valve's small poppet seat design, it is imperative that the R6000 valve be used in clean gas service ONLY (free from dust particles, contamination, and etc. (gas group 1 &2)).



Typical Applications

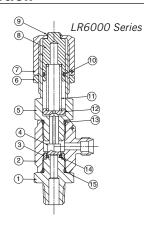
- Beverage dispensing equipment
- · Gas pilot plants
- Petrochemical test labs
- Offshore oil platform heating lines
- · Pharmaceutical sterilization and packaging systems



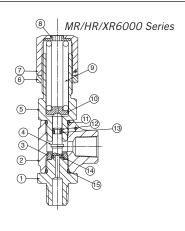
^{*} Back pressure affects cracking pressure on low pressure version

Materials of Construction





	MR/HR/XR
1	End
2	Body
3	Shroud ring
4	Poppet
5	Bonnet
6	Jam nut
7	Cap
8	Spring holder
9	Spring
10	Spring equalizer
11	O-ring
12	Delta ring
13	O-ring
14	Seat o-ring
15	O-ring
	_

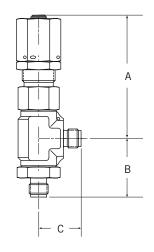


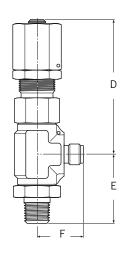
	Specifications				
BODY CONSTRUCTION	316 stainless steel				
SPRING MATERIAL	17-7PH CRES				
SEAL MATERIAL	Viton® • Buna N • EPR • Kalrez® • Silicone (not available for the XR Series)				
CONNECTION SIZES	1/4"				
ORIFICE SIZE	LR6000, MR6000: 0.188" HR6000: 0.094" XR6000: 0.082"				

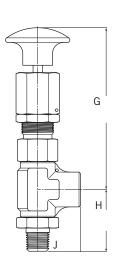
Dimensions

	1⁄4″ GYRO	LOK® x ¼ ″ GYR	OLOK®	1⁄4″ M a	ile NPT x ¼″ G	YROLOK®	1⁄4" Mal	e NPT x ¼" Fem	ale NPT
Model No.	А	В	С	D	Е	F	G*	Н	J
LR	3.10" max	1.34″	0.97″	3.10" max	1.44"	0.97″	n/a	1.44"	1.00″
	(7.87cm)	(3.40cm)	(2.39cm)	(7.87cm)	(3.66cm)	(2.39cm)		(3.66cm)	(2.54cm)
MR	2.94" max.	1.34″	0.97″	2.94" max.	1.44"	0.97"	2.94" max.	1.44"	1.00″
	(7.47cm)	(3.40cm)	(2.39cm)	(7.47cm)	(3.66cm)	(2.39cm)	(7.47cm)	(3.66cm)	(2.54cm)
HR	2.94" max.	1.34"	0.97″	2.94" max.	1.44"	0.97″	2.94" max.	1.44″	1.00"
	(7.47cm)	(3.40cm)	(2.39cm)	(7.47cm)	(3.66cm)	(2.39cm)	(7.47cm)	(3.66cm)	(2.54cm)
XR	2.94" max.	1.34″	0.97″	2.94" max.	1.44"	0.97"	n/a	1.44"	1.00″
	(7.47cm)	(3.40cm)	(2.39cm)	(7.47cm)	(3.66cm)	(2.39cm)		(3.66cm)	(2.54cm)

^{*} Manual override not available for LR and XR Series







Operating Pressures

Pressures	LR6000	MR6000	HR6000	XR6000
Cracking Pressure	5-550 psig	150-2500 psig	150-5000 psig	5000-6000 psig
Gracking Flessure	(0-38 bar)	(10-172 bar)	(10-345 bar)	(345-414 bar)
Maximum Operating	5-700 psig	150-6000 psig	150-7000 psig	5000-7000 psig
Pressure	(0-48 bar)	(10-414 bar)	(10-482 bar)	(345-482 bar)
Proof	1050 psig (72 bar)	9000 psig (620 bar)	9000 psig (620 bar)	9000 psig (620 bar)
Burst	Over 2800 psig (193 bar)	Over 24,000 psig	Over 24,000 psig	Over 24,000 psig
Duist	Over 2000 psig (193 bai)	(1655 bar)	(1655 bar)	(1655 bar)
Reseat Pressure	85% min. of CP > 10 psig 70% of CP < 10 psig	85% min. of CP	85% min. of CP	85% min. of CP

C_v Ratings

, natiligs								
Cracking	LR6	000	MR	C _v 6000	HR6		XR	C _v 6000
Pressure	0.1	88″	0.1	88″	0.0	94″	0.0)82″
PSIG	Air	Water	Air	Water	Air	Water	Air	Water
5	0.63	0.47	_	_	_	_	_	_
25	0.63	0.47	_	_	_	_	_	_
26	0.64	0.43	_	_	_	_	_	_
80	0.64	0.43	_	_	_	_	_	_
81	0.4	0.31	_	_	_	_	_	_
150	0.4	0.31	_	_	_	_	_	_
151	0.42	0.26	0.79	0.59	0.25	0.16	_	_
250	0.42	0.26	0.79	0.59	0.25	0.16	_	_
251	0.3	0.19	0.79	0.59	0.25	0.16	_	_
350	0.3	0.19	0.79	0.59	0.25	0.16	_	_
351	0.35	0.18	0.61	0.59	0.27	0.16	_	_
550	0.35	0.18	0.61	0.59	0.27	0.16	_	_
650	_	_	0.61	0.59	0.27	0.16	_	_
651	_	_	0.38	0.29	0.27	0.16	_	_
700	_	_	0.38	0.29	0.27	0.16	_	_
701	_	_	0.38	0.29	0.2	0.16	_	_
1001	_	_	0.37	0.20	0.2	0.14	_	_
1300	_	_	0.37	0.20	0.2	0.14	_	_
1301	_	_	0.37	0.20	0.21	0.14	_	_
1500	_	_	0.37	0.20	0.21	0.13	_	_
1501	_	_	0.28	0.14	0.21	0.13	_	_
2000	_	_	0.28	0.14	0.21	0.13	_	_
2001	_	_	0.24	0.10	0.19	0.13	_	_
2500	_	_	0.24	0.10	0.19	0.13	_	
3000	_	_	_	_	0.19	0.13	_	_
3001	_	_	_	_	0.15	0.07	_	_
4000	_	_	_	_	0.15	0.07	_	_
5000	_	_	_	_	_	_	0.15	0.009
6000	_	_	_	_	_	_	0.12	0.006

Pressure/Temperature Ratings

Low Pressure

Valve No.	Seal Material	Temperature °F (°C)	Pressure Range psig (bar)
LR6032	Viton®	-20° to +400° (-29° to +204°)	Up to 25 (Up to 1.4) 26-350 (1.8-24.1) 351-550 (24.2-37.9)
LR6077	Buna-N	-65° to +275° (-54° to +135°)	Up to 25 (Up to 1.4) 26-350 (1.8-24.1) 351-550 (24.2-37.9)
LR6062	Ethylene Propylene	-65° to +300° (-54° to +149°)	Up to 25 (Up to 1.4) 26-350 (1.8-24.1) 351-550 (24.2-37.9)
LR6065	Kalrez [®]	-40° to +550° (-40° to +288°)	Up to 25 (Up to 1.4) 26-350 (1.8-24.1) 351-550 (24.2-37.9)
LR6024	Silicone	-70° to +450° (-57° to +232°)	Up to 25 (Up to 1.4) 26-350 (1.8-24.1) 351-550 (24.2-37.9)

Medium Pressure

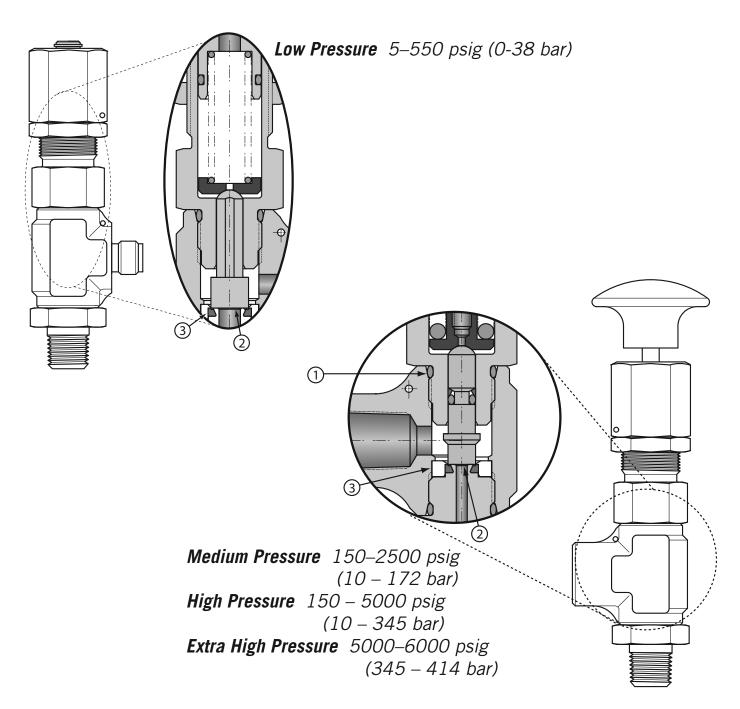
Valve No.	Seal Material	Temperature °F (°C)	Pressure Range psig (bar)
MR6032	Viton®	-20° to +400° (-29° to +204°)	150–350 (10.3–24.1) 351–2500 (24.2–172.4)
MR6077	Buna-N	-65° to +275° (-54° to +135°)	150–350 (10.3–24.1) 351–2500 (24.2–172.4)
MR6062	Ethylene Propylene	-65° to +300° (-54° to +149°)	150–350 (10.3–24.1) 351–2500 (24.2–172.4)
MR6065	Kalrez®	-40° to +550° (-40° to +288°)	150–350 (10.3–24.1) 351–2500 (24.2–172.4)
MR6024	Silicone	-70° to +450° (-57° to +232°)	150–350 (10.3–24.1)

High Pressure

Valve No.	Seal Material	Temperature °F (°C)	Pressure Range psig (bar)
HR6032	Viton®	-20° to +400° (-29° to +204°)	150–300 (10.3 to 20.7) 301–5000 (20.8 to 344.8)
HR6077	Buna-N	-65° to +275° (-54° to +135°)	150–300 (10.3 to 20.7) 301–5000 (20.8 to 344.8)
HR6062	Ethylene Propylene	-65° to +300° (-54° to +149°)	150–300 (10.3 to 20.7) 301–5000 (20.8 to 344.8)
HR6065	Kalrez [®]	-40° to +550° (-40° to +288°)	150–300 (10.3 to 20.7) 301–5000 (20.8 to 344.8)
HR6024	Silicone	-70° to +450° (-57° to +232°)	150–300 (10.3 to 20.7)

Extra High Pressure

Valve No.	Seal Material	Temperature °F (°C)	Pressure Range psig (bar)
XR6032	Viton®	-20° to +400° (-29° to +204°)	5000-6000 (344.8-414)
XR6077	Buna-N	-65° to +275° (-54° to +135°)	5000-6000 (344.8-414)
XR6062	Ethylene Propylene	-65° to +300° (-54° to +149°)	5000-6000 (344.8-414)
XR6065	Kalrez [®]	-40° to +550° (-40° to +288°)	5000-6000 (344.8-414)



Features

① O-ring & Delta backup ring



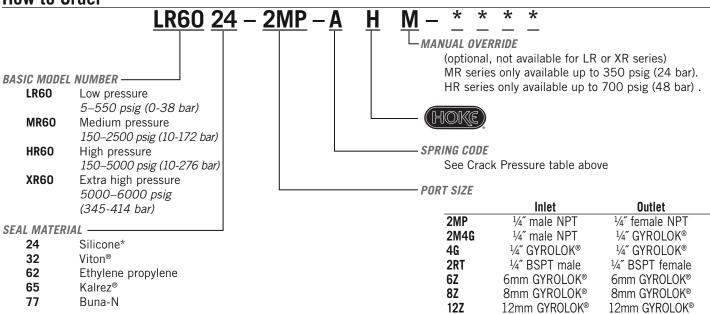
3 Fully encapsulated seat seal

Crack Pressure Range

Select appropriate spring code

LR6000	Low Pressure	MR6000	Medium Pressure	HR6000	High Pressure	XR6000	Extra High Pressure
Spring Code	Range in PSIG (BAR)						
Α	5-25 (0-2)	В	150-350 (10-24)	A	150-300 (10-21)	A	5000-6000 (345-414)
В	26-80 (2-6)	С	351-650 (24-45)	В	301–700 (21–48)		
C	81-150 (6-10)	D	651-1000 (45-69)	C	701-1300 (48-90)		
D	151–250 (10–17)	E	1001-1500 (69-103)	D	1301-2000 (90-138)		
E	251-350 (17-24)	F	1501-2000 (104-138)	E	2001-3000 (138-207)		
F	351-550 (24-38)	G	2001–2500 (138–172)	F	3001-4000 (207-276)		
				G	4001-5000 (276-345)		

How to Order



R6000 valves are CE 0035 / PED approved

* Silicone seals are not available for XR series.

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- * Silicone seals for MR series only available up to 350 psig (spring code B)
- * Silicone seals for HR series only available up to 300 psig (spring code A)

****Customer can request a specific cracking pressure when ordering. To specify, add the cracking pressure as -PSIG (not BAR) after the M for Manual Override (if no override, add value after "H"). Otherwise, the factory sets the valve at the nominal midpoint of the cracking pressure range selected. Valves with specific cracking pressure include standard factory installed lockwire.

R6000 Service Kits

LR Kit includes: end seat-to-body O-ring, bonnet-to-body O-ring, and bonnet seal O-ring.

MR/HR/XR Kit includes: end seat-to-body O-ring, bonnet-to-body O-ring, seat O-ring, and Delta seal. Replacement of Delta seal requires use of installation tool and resizing tool. Consult factory for details.

To Order, add K to front of valve part number (example: KLR6024-2MP-AH).



Bleed Valves



HOKE® 6600 Series bleed valves allow for quick, easy manual bleed-off of system pressure. These valves come in a variety of configurations, including straight, elbow, union, and tee.

Features

- Compact installation
- 316 stainless steel construction
- Straight, union, elbow or tee flow configurations
- Integral tube ends
- Special High Tolerance NPT Thread

Benefits

- Safe
- Reliable
- GYROLOK® fitting connections eliminate pipe thread leak paths

Typical Applications

- Air, hydraulic systems, or natural gas
- Venting or purging of liquids and gases
- For use on instrument manifolds

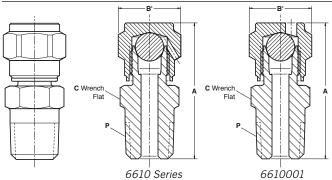
Technical Data

Body Material	316 stainless steel
Maximum Operating Pressure	6000 psig @ 70° F (414 bar @ 21° C)
Operating Temperature Range	-40° F to +600° F (-40° C to +316° C)
End Connections	1/4", 3%", 1/2" GYROLOK®
Average Operating Torque @	40 in-lbs

Operating Instructions

- Valve is operated by turning the bleed port nut with a wrench. Use appropriate back-up wrench to hold body, while turning bleed nut.
- As the bleed nut is turned, pressure forces the ball off the seat. Pressure is vented through a hole drilled in the nut, angled back toward the body of the valve. Make sure flow is directed away from user.
- Those using the valves should wear protective clothing, especially goggles.
- · No attempt should be made to repair or dismantle the valve.

Dimensions



6610 Series: Straight Valve

Part Number	P Thread NPT	A Open	B' Hex	C Wrench Flat
I dit italiiboi	I III Caa III I	Open	IIOA	Wilding Flat
6610M2Y	1/8″	1% (35mm)	%"	1/2"
6610M4Y	1/4"	113/32 (39mm)	5/8″	%16 "
6610M6Y	¾ ″	11%2 (40mm)	%"	¹¹ / ₁₆ "
6610M8Y	1/2"	113/16 (46mm)	5/8″	7/8 "
6610001	1/4"	113/2 (39mm)	%"	%16″

6631 Series Directed Bleed Valves

HOKE®'s 6631 Bleed Valve allows the user to direct the bled fluid as desired. The valve can be ordered with a $1\frac{1}{2}$ " (38mm) press fit handle by adding an "H" suffix to the valve part number (e.g., **6631H4YH**). To operate, simply turn the $\frac{7}{16}$ " nut with a wrench or the optional loose fit stainless steel bar handle, part number **59-878**. Please consult your local distributor for details.

Caution: If the vented fluids are not going to be contained, the vent tube must be positioned at installation so that it is directed away from the operating personnel.

Technical Data

Body Material	316 stainless steel
Maximum Operating Pressure	5000 psig @ 70° F (345 bar @ 21° C)
Operating Temperature Range	-20° F to +425° F (-29° C to +218° C)
Orifice	0.125 (3.2mm)

Benefits

Safety

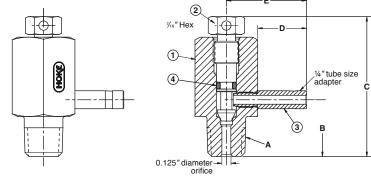
O-ring packaging prevents leakage through stem threads

Reliability

• All valves are tested for bubble-tight leakage

Typical Applications

- Venting or purging of liquids and gases
- For use on gauge valves



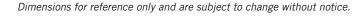
Dimension Chart

Part Number	A Inlet	В	С	D	E
6631H4Y	1/4"	34" (19mm)	2" (51mm)	¹¹ / ₁₆ "(17mm)	13/16" (30.5mm)
6631H84Y	1/2"	² % ₂ " (23mm)	2½" (54mm)	¹ 1/16" (17mm)	13/16" (30.5mm)

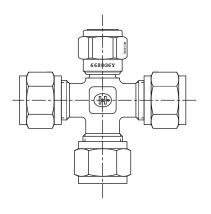
Materials of Construction

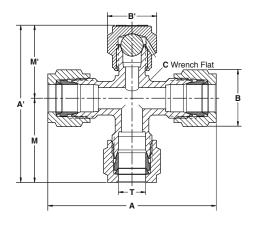
	Part	Material
1	Body	316 stainless steel
2	Stem	316 stainless steel
3	Vent tube	316 stainless steel
4	0-ring	Fluoroelastomer

GYROLOK® is a registered trademark of HOKE®.



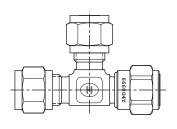
Dimensions

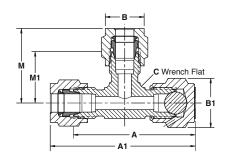




6680 Series: Tee Valve

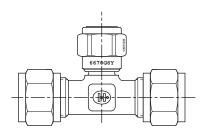
	T			В	B'	C		
Part Number	Tube O.D.	Α	A'	Hex	Hex	Wrench Flat	M	M'
6680G4Y	1/4"	2%4" (54mm)	2%4" (53mm)	%6 ″	%"	¾6″	1½6" (27mm)	11/4" (27mm)
6680G6Y	3⁄ ₈ "	2 ²³ / ₆₄ " (60mm)	213%4" (52mm)	¹ / ₁₆ "	%"	1/2"	2¾6" (56mm)	11/4" (27mm)
6680G8Y	1/2"	257/64" (73mm)	213%4" (68mm)	7/8 "	%"	¹¹ / ₁₆ "	12%4" (37mm)	11/32" (31mm)

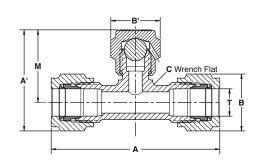




6660 Series: Elbow Valve

	T			В	B'	C		
Part Number	Tube O.D.	Α	A'	Hex	Hex	Wrench Flat	M	M'
6660G4Y	1/4"	125/32" (45mm)	21/4" (52mm)	%6"	%"	¾6″	13%4" (27mm)	23/32" (18mm)



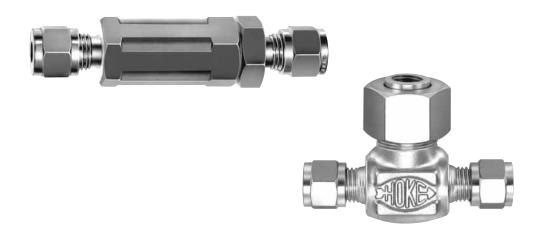


6670 Series: Union Valve

	T			.В	.B'	C	
Part Number	Tube O.D.	Α	A'	Hex	Hex	Wrench Flat	M
6670G4Y	1/4"	²³ / ₃₂ " (53mm)	123%4" (35mm)	%16"	%"	7/16"	1%4" (27mm)
6670G6Y	3/8"	2 ² 1/64" (59mm)	11/16" (37mm)	¹¹ / ₁₆ "	%"	1/2"	1¾2" (28mm)
6670G8Y	1/2"	257/64" (73mm)	121/32" (42mm)	7/2"	5%″	11/16"	1½° (31mm)



Micron Filters



Features

- Choice of in-line, removable, or bypass filter
- NPT female and GYROLOK® tube fitting connections
- Variety of micron filtering ranges from 2 to 55µ
 Filter elements are available in 316 stainless
- Filter elements are easily replaced
- Bypass models permit purging and sampling of process fluid
- Bodies available in brass and 316 stainless steel
- Special High Tolerance NPT Thread

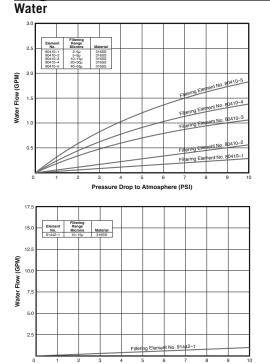
Applications

- Trap foreign particles
- Protect sensitive equipment
- System purging
- Pressure damper

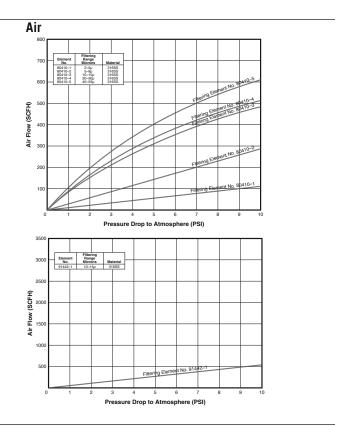
Technical Data

ICCIIIICUI DUIU	
Body Material	316 stainless steel, brass
Maximum Operating Pressure	Brass: 3000 psig @ 70° F (211 kg/cm² @ 21° C) Stainless steel: 5000 psig @ 70° F (352 kg/cm² @ 21° C)
Operating Temperature Range	-60° F to +450° F (-51° C to +232° C)
Micron Range	2 to 55µ
Cv Factor Range	0.006 to 0.42

Diagrams & Flow Curves

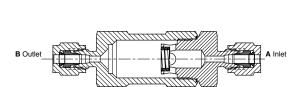


Pressure Drop to Atmosphere (PSI)



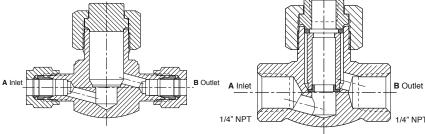
How to Order

Select and specify filter by part number, according to desired connections and materials of construction. Be sure to add the identifying digit of the desired filter element to the filter part number from the chart below. To order a 316 stainless steel in-line type, $\frac{1}{6}$ NPT female filter with an element range of 5 to 9μ , add "-2" (e.g., 6312F2Y). To order a filter without a filter element, insert the number "-0" in the model number desired (e.g., 6310F2Y).



6310 Series: In-line Filters

A & B Connections	Brass	316 Stainless Steel
1/8" NPT female	631xF2B	631xF2Y
1/4" NPT female	631xF4B	631xF4Y
1/8" GYROLOK®	_	631xG2Y
1/4" GYROLOK®	631xG4B	631xG4Y



6320 Series: Removable Filters

A & B Connections	Brass	316 Stainless Steel
⅓" GYROLOK®	632xG2B	632xG2Y
1/4" NPT female	632xF4B	632xF4Y
1/4" GYROLOK®	632xG4B	632xG4Y
6mm GYROLOK®	_	632xG6YMM

6330 Series: Bypass Filters

A & D CONNECTIONS	210 Stailliess 2feet
1/4" NPT female	633xF4Y
⅓" GYROLOK®	633xG2Y
1/4" GYROLOK®	633xG4Y

316 Stainless Steel Elements

Micron Range	For ¼" & ¼" Size Housings	For %" & ½" 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	

^{*} For use with 6330 Series Bypass-type housing

fluid control



6800 Series

Gauge Valves



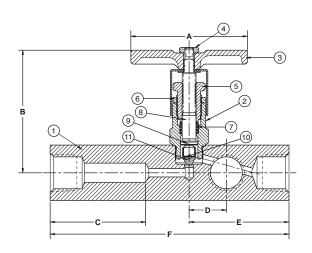
Features

- Corrosion-resistant bar stock 316 stainless steel bodies
- Packing below stem threads prevents contamination and wash away of thread lubricants to assure long valve life
- Hardened 17-4 PH 2-piece, non-rotating stem point minimizes seat galling and provides an excellent metal-to-metal seat for positive shutoff
- Low profile bonnet assembly and large diameter stem reduces damage to bonnet and stem assembly
- Roll pin locks bonnet in the valve body to prevent accidental removal
- Choice of 5%" long body for standard process use or 7%" body for insulated piping applications
- Three outlets meet individual gauge requirements
- Polyethylene cap protects stem and bonnet from external damage
- Rugged large handle provides easy grip and control
- All models are stamped with maximum operating pressures on valve body
- High temperature packing is available on special order
- Special High Tolerance NPT Thread

Technical Data

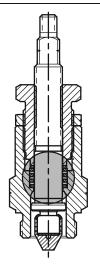
iechnicai Data	
Body Material	316 stainless steel
Maximum Operating Pressure	• 6000 psig @ -65° to +200° F
	(414 bar @ -54° C to +93° C)
	• 3000 psig @ +450° F
	(207 bar @ +232° C)
Operating Temperature Range	-65° F to +450° F (-54° C to +232° C)
Orifice Sizes	6801L8Y : 0.156" (3.96mm)
	All others: 0.187" (4.75mm)

Materials of Construction

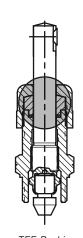


	Part	316 Stainless Steel Models
1	Body	316 stainless steel
2	Housing	316 stainless steel
3	Handle	303 stainless steel
4	Hex nut	18-8 stainless steel
5	Packing nut	XM-28 stainless steel
6	Lock nut	316 stainless steel
7	Packing*	Dyna-Pak®
8	Stem	316 stainless steel
9	Washer	316 stainless steel
10	Disc	17-7 PH stainless steel
11	Stem point	17-4 PH stainless steel

^{*} Model **6801L8Y** uses a single-piece molded PTFE packing system.



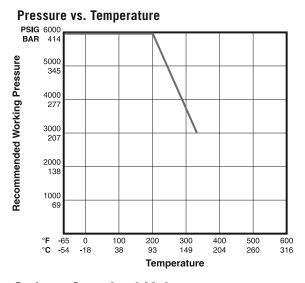


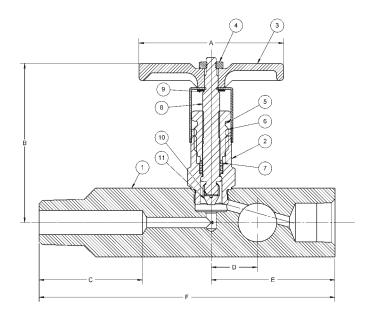


TFE Packing (6801L8Y only)

Dimensions

Model Number		Α	В	С	D	E	F
6801L8Y	inch	11/4	211/32	1	%6	1¾	31/4
DOUILOT	mm	32	64	25	14	44	83
6802L8Y	inch	2%	3	21/32	27/32	21/4	5%
	mm	67	75	55	21	57	136
6803L128Y	inch	2%	3	21/32	27/32	21/4	5%
000311201	mm	67	75	55	21	57	136
6805L128Y	inch	2%	3	41/32	27/32	21/4	7%
	mm	67	75	106	21	57	188





How to Order: Standard Valves

Connections		Order by Part Number	Body Length	
Inlet	Outlet	316 Stainless Steel	Inch	mm
½" NPT male	1/2" NPT female	6801L8Y*	31/4	83
½" NPT male	½" NPT female (3x)	6802L8Y	5%	136
½" NPT female	½" NPT female (3x)	6802F8Y	5%	136
3/4" NPT male	½" NPT female (3x)	6803L128Y	5%	136
34" NPT male	1/2" NPT female (3x)	6805L128Y	7%	188

^{*} Furnished with bleed plug drilled in body Model **6801L8Y** uses a single-piece molded PTFE packing system

Dyna-Pak® is a registered trademark of HOKE®.

Notes	
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