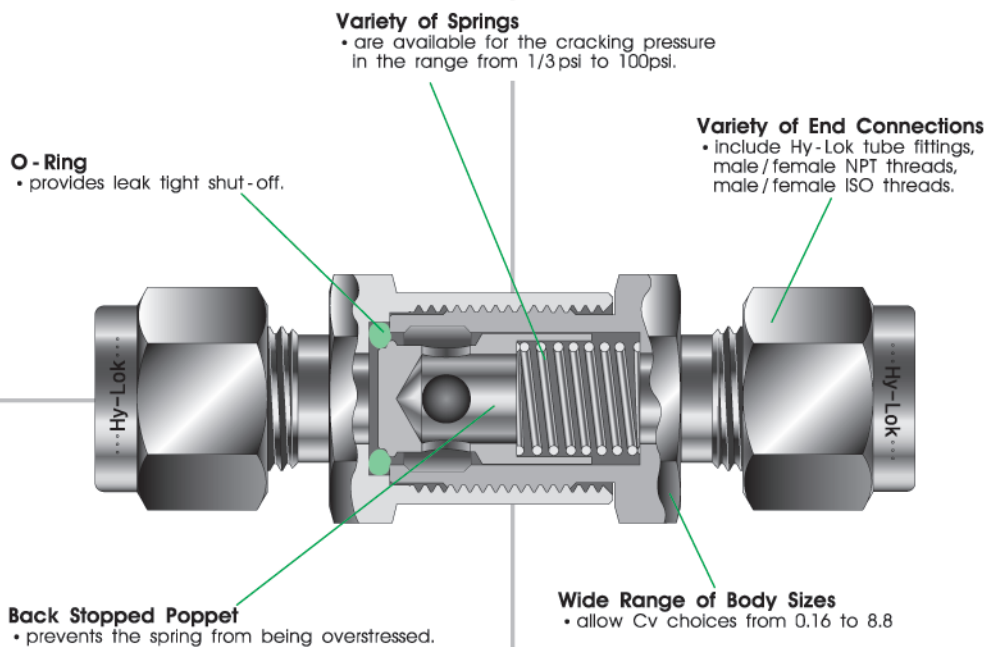


Hy-Lok 700 Series

Check Valves

Catalog No. H-700CV
Oct. 2003



Features

- **Pressure rating** up to 3000psig (206bar) @ 70°F(21°C)
- **Temperature rating** up to 375°F (191°C) with standard Viton O-ring
- **Body materials** available in 316 stainless steel and brass
- **100% factory tested** for cracking and reseal



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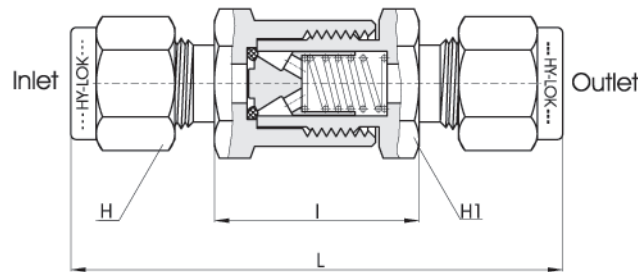


Table of Dimensions

Basic Part No.	Orifice	Cv	End Connections		Dimensions					
			Inlet	Outlet	L	I	H	H1		
CV1	- H - 2T	4.8	0.16	1/8" Hy - Lok	1/8" Hy - Lok	55.60	25.00	11.11	15.88	
	- M - 2N			1/8" Male NPT	1/8" Male NPT	44.40		-		
	- F - 2N			1/8" Female NPT	1/8" Female NPT	46.60		-		
	- H - 4T			1/4" Hy - Lok	1/4" Hy - Lok	60.00		14.29		
	- H - 6M		0.47	6mm Hy - Lok	6mm Hy - Lok	56.40	25.00	14.00		
	- MH - 4N4T			1/4" Male NPT	1/4" Hy-Lok			14.29		
	- M - 4N			1/4" Male NPT	1/4" Male NPT			53.40		-
	- F - 4N			1/4" Female NPT	1/4" Female NPT			54.60		-
CV2	- H - 6T	7.1	1.48	3/8" Hy-Lok	3/8" Hy-Lok	74.80	36.20	17.46	22.22	
	- H - 10M			10mm Hy-Lok	10mm Hy-Lok			19.00		
	- M - 6N			3/8" Male NPT	3/8" Male NPT			64.60		-
CV3	- F - 6N	10.0	1.7	3/8" Female NPT	3/8" Female NPT	80.20	36.20	-	22.22	
	- H - 8T			1/2" Hy - Lok	1/2" Hy - Lok			22.22		
	- H - 12M			12mm Hy - Lok	12mm Hy - Lok			22.00		
	- M - 8N			1/2" Male NPT	1/2" Male NPT			74.40		-
CV4	- F - 8N	13.5	2.6	1/2" Female NPT	1/2" Female NPT	84.70	-	-	28.58	
	- H - 10T			5/8" Hy - Lok	5/8" Hy - Lok			91.80		48.10
CV5	- H - 12T	16.0	5.2	3/4" Hy - Lok	3/4" Hy - Lok	110.70	67.00	28.58	31.75	
	- M - 12N			3/4" Male NPT	3/4" Male NPT			105.30		-
	- F - 12N			3/4" Female NPT	3/4" Female NPT			103.00		-
CV6	- H - 16T	18.0	8.0	1" Hy - Lok	1" Hy - Lok	121.20	68.40	38.1	34.93	
	- M - 16N			1" Male NPT	1" Male NPT			116.20		-
	- F - 16N			1" Female NPT	1" Female NPT			111.40		-

All dimensions in millimeters. Dimensions shown with Hy-Lok nuts in finger-tight position, where applicable.

Technical Data

End Connection Sizes	1 / 8", 1 / 4", 6mm	3 / 8", 1 / 2", 5 / 8", 10mm, 12mm	3 / 4", 1"
Max. Working Pressure @21°C (70°F)	3000 psig (206 bar)		Brass : 1500 psig (103 bar) 316SS : 2000 psig (137 bar)
Operating Temperature Range	Viton : -10°F to 375°F (-23°C to 191°C) Buna - N : -10°F to 250°F (-23°C to 121°C)		
Nominal Cracking Pressure	1 / 3, 1, 3, 10, 25, 100psi		1/3, 1, 3, 10, 25
Max Back Pressure	1000psi for 10psi or lower cracking pressure ; 3000psi for others	200psi	

Materials of Construction

Body Materials Inlet & Outlet	316SS / A479	Brass
Poppet	316SS / A479	Brass
O - Ring	Viton	
Spring	302SS	302SS

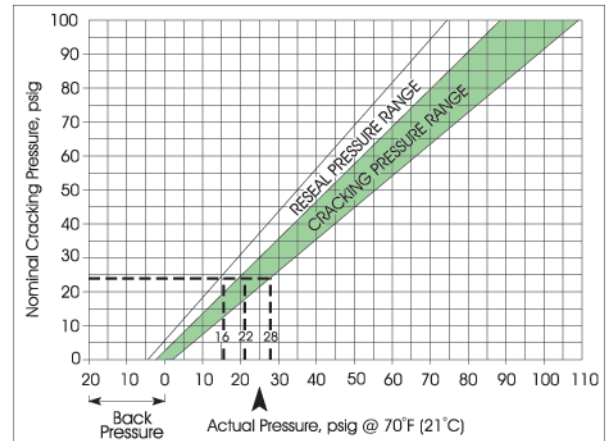
Molybdenum dry film lubricant is used for outer body made of 316SS

Silicone based lubricant is used for poppet.

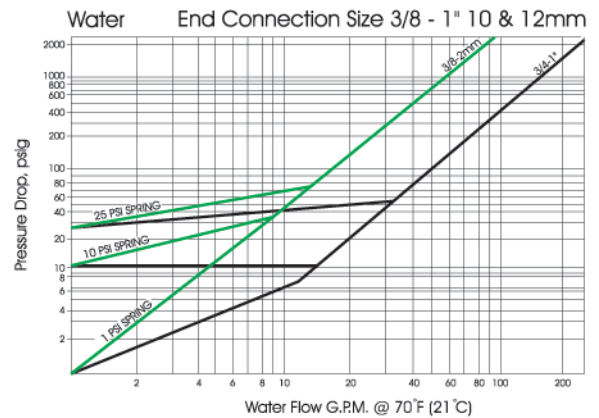
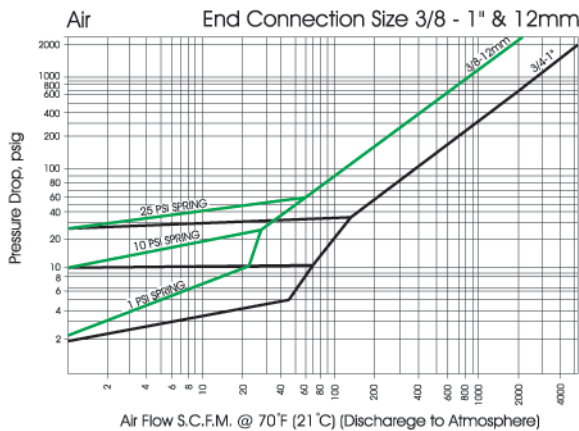
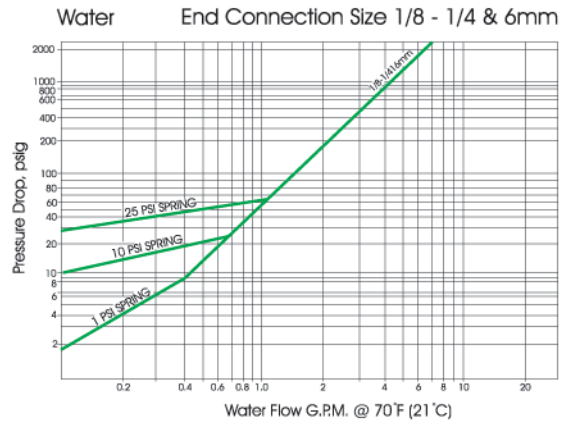
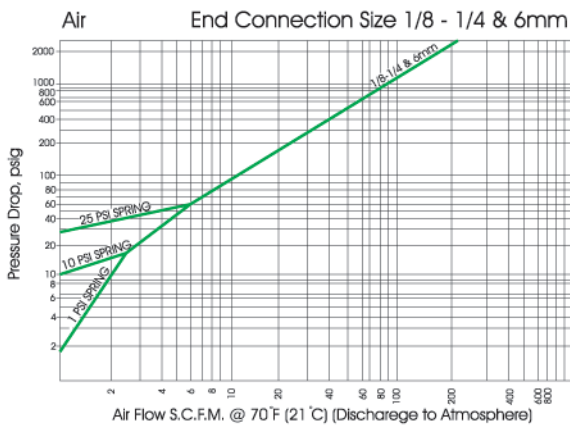
Cracking and Reseal Pressure

From the graph, the actual cracking pressure of nominal 25psi is shown to range between 22psi to 28psi, and the reseal pressure 16psi to 22psi.

Back pressure may be required to reseal the valves with nominal cracking pressure of 5psi or lower.



Flow Rate Curves



Cleaning

Each valve is cleaned and packaged according to the company standard cleaning procedures.

Testing

- Each valve is tested with nitrogen for cracking and reseal performance.
- Optional tests are available upon request.

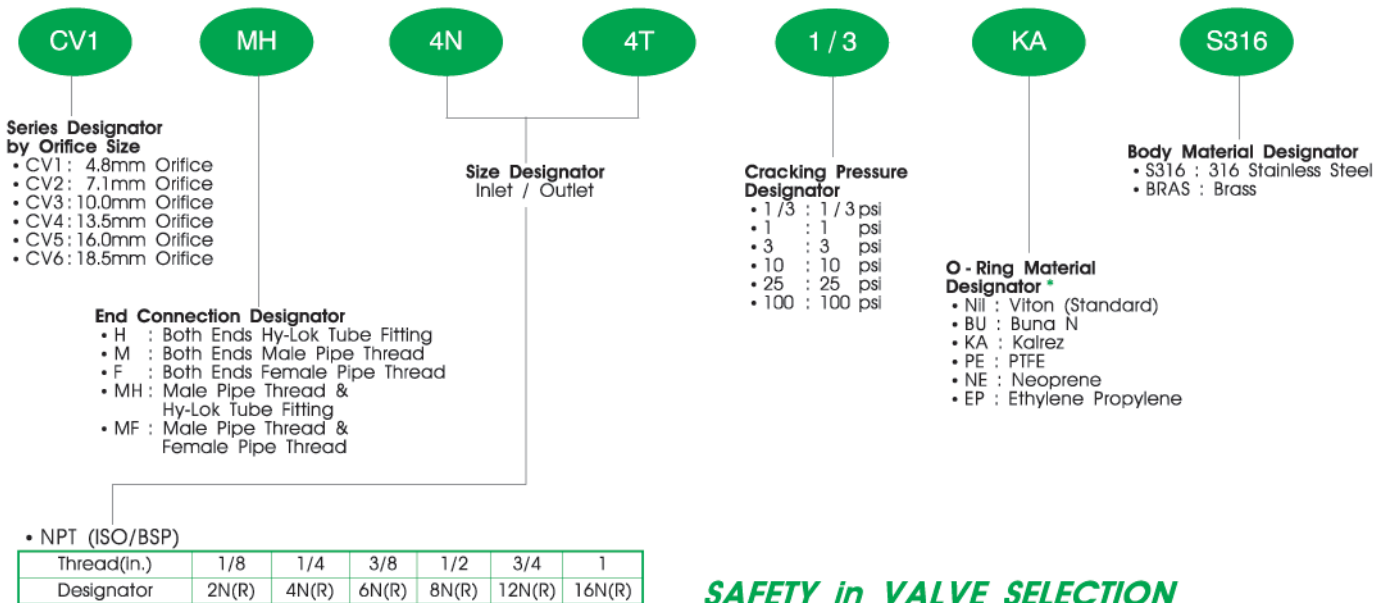
O - Ring Materials

Available are various O-ring materials, whose temperature ratings are shown below.

Material	Temperature Rating
Viton	-23°C to 191°C (-10°F to 375°F)
Buna N	-23°C to 121°C (-10°F to 250°F)
Kalrez	-23°C to 315°C (-10°F to 600°F)
PTFE	-46°C to 232°C (-50°F to 450°F)
Neoprene	-40°C to 121°C (-40°F to 250°F)
Ethylene Propylene	-46°C to 149°C (-50°F to 300°F)

* High back pressure is required for PTFE to seal leak-tight.

Ordering Information



Note * : No designator is required for standard, e.g. CV1MH-4N4T-1/3-S316.

SAFETY in VALVE SELECTION

Proper installation, materials compatibility, operation and maintenance of these valves are the responsibility of the user. The total system design must be taken into consideration to ensure optimal performance and safety.

■ QUALITY SYSTEM CERTIFICATES



ISO 9001
CERTIFICATE NO.GQC 212

ASME SECT III (MO)
CERTIFICATE NO. QSC 584

■ TYPE APPROVALS (for Hy-Lok Tube Fittings)



American Bureau Shipping
CERTIFICATE NO.00-BK50288-X



Lloyd's Register
CERTIFICATE NO.01/10075



GERMANISCHER LLOYD
CERTIFICATE NO.57798-91 HH



DET NORSE VERITAS
CERTIFICATE NO.P-9100



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