



# HIGH PRESSURE RELIEF VALVES

HAM-LET H-900HP SERIES



- ✓ Adjustable Set Pressure Range: from 50 psig to 6,000 psig (3.50 to 414 bar) for various applications
- ✓ Color-Coded Springs for quick visual identification and easy maintenance.
- ✓ Versatile Connection Options of pipe threads and LET-LOK® connections, providing flexibility and compatibility with diverse system requirements.



## FEATURES

- SST 316 And Alloy C-276 construction
- Set Pressure from 50 psig to 6000 psig (3.50 to 414 bar)
- Identifying colored springs for each pressure range
- Replaceable springs for variable pressure ranges
- Available in all pipe threads and LET-LOK® connections
- Option to comply with standards CE/PED
- Sizes range: 1/4", 1/2", 6mm and 12mm
- A wide range of O-ring materials with high resistance for a variety of applications

## GENERAL

The H-900 HP Series is a relief valve designed for high-pressure services. It is most suited for use where changes in pressure can cause process issues, system damage or personal injury.

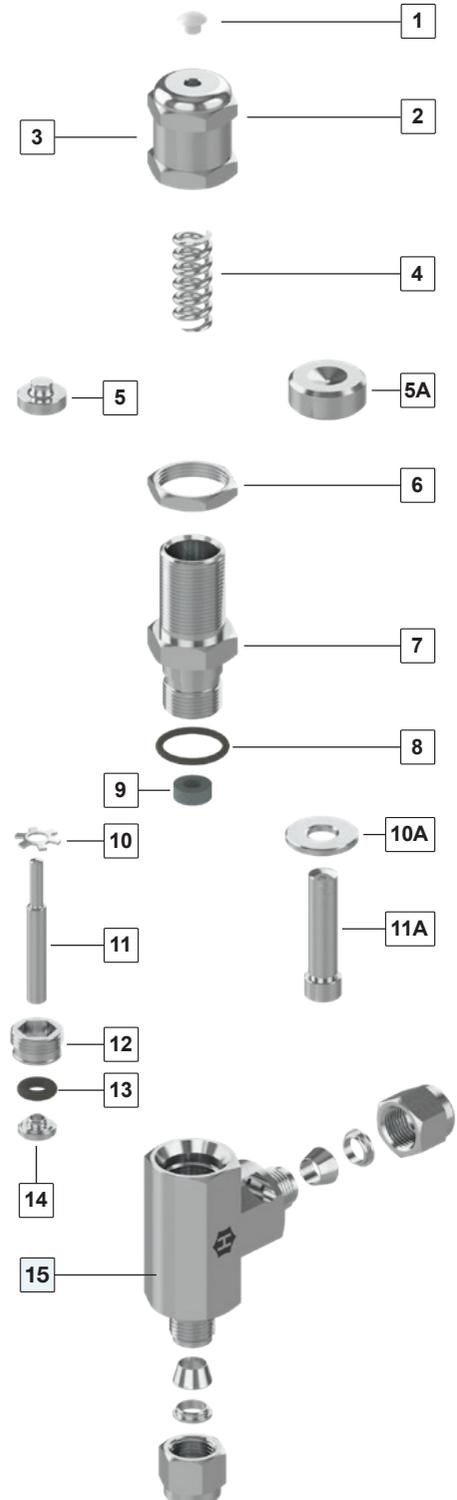
## MATERIALS OF CONSTRUCTION

Item No.	Components	Qty.	1/4" Body Size	1/2" Body Size
1	Cap plug	1	Polypropylene	Polypropylene
2	Label	1	Polyester	Polyester
3	Adjustment cap	1	SST 316	SST 316
4	Spring	1	SST 302,17-7PH	SST 302,17-7PH
5	Lower spring button	1	SST 316	-
5A	Lower spring button	1	-	SST 316
6	Locking nut	1	SST 316	SST 316
7	Bonnet	1	SST 316	SST 316
8	O-Ring	1	Fluorocarbon FKM	Fluorocarbon FKM
9	Quad ring	1	Fluorocarbon FKM	Fluorocarbon FKM
10	Retaining ring	1	PH15-7 Mo	-
10A	Location ring	1	-	SST 316
11	Stem <sup>2</sup>	1	SST 316	-
11A	Stem <sup>2</sup>	1	-	SST 316 bonded with Fluorocarbon FKM
12	Clamps screw <sup>2</sup>	1	SST 316	-
13	O-Ring <sup>2</sup>	1	Fluorocarbon FKM	-
14	Insert <sup>2</sup>	1	SST 316	-
15	Body <sup>2</sup>	1	SST 316	SST 316
	Lubricant <sup>2</sup>		Silicone based and PTFE based	

<sup>2</sup>Wetted parts

## PRESSURE TEMPERATURE RATING

Series	H-900HP Body Size: 1/4" & 1/2"			
	Fluorocarbon FKM	Buna N	Polychloroprene (CR)	EPDM
TEMP °C (°F)	MAX SET PRESSURE psig (bar)			
-40 (-40)	-	-	-	-
-34 (-30)				
-23 (-10)				
-18 (0)				
-12 (10)				
-4 (25)	6000 (413)	6000 (413)	6000 (413)	-
-1 (30)				
10 (50)				
65 (150)	5600 (386)	5600 (386)	5600 (386)	5600 (386)
93 (200)	5200 (358)	5200 (358)	5200 (358)	5200 (358)
121 (250)	4900 (338)	4900 (338)	4900 (338)	4900 (338)
135 (275)	-	-	4700 (324)	-
148 (300)				



## CLEANING & PACKAGING

Every H-900HP series relief valve is cleaned in accordance with Standard Cleaning and Packaging Procedure 8184. Oxygen Clean & Lubricant-Free Cleaning and packaging is conducted in accordance with Special Cleaning and Packaging Procedure 8185.

## TESTING

The H-900HP Relief Valve design has been tested for proof and burst. Every H-900HP Relief Valve is factory tested for proper assembly, set and resealing performance.

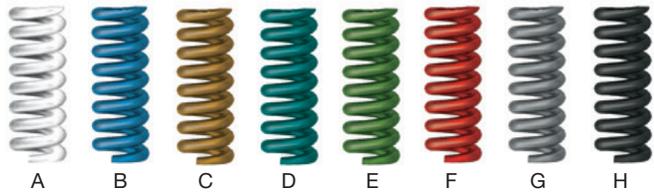
No detectable leakage is allowed during the shell test.

## NOMINAL CRACKING PRESSURE RANGE FOR 1/4"

psig	Bar	Spring Designator	Color
50-350	3.4 - 24	A	White
350-750	24 - 51.5	B	Blue
750-1500	51.5 - 103	C	Gold
1500-2250	103 - 155	D	Turquoise
2250-3000	155 - 206	E	Green
3000-4000	206 - 275	F	Red
4000-5000	275 - 344	G	Silver
5000-6000	344 - 413	H	Black

## NOMINAL CRACKING PRESSURE RANGE FOR 1/2"

psig	Bar	Spring Designator	Color
50-350	3.4 - 24	A	White
350-750	24 - 51.5	B	Blue
750-1500	51.5 - 103	C	Gold



## STANDARD CONFIGURATION DIMENSIONS

Description	Connection / size		Orifice <sup>1</sup>		Dimensions							
	Inlet	Outlet			A		B		C		D	
			mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
H-900HP	1/4" LET-LOK	1/4" LET-LOK	3.6	0.14	37	1.45	39	1.53	50	1.97	96.0	3.78
H-900HP	6 mm LET-LOK	6 mm LET-LOK			37	1.45	39	1.53	50	1.97	96.0	3.78
H-985HP	1/4" male NPT	1/4" female NPT			32	1.26	30	1.18	40	1.57	88.6	3.49
H-995HP	1/4" male NPT	1/4" LET-LOK			32	1.26	39	1.53	50	1.97	88.6	3.49
H-900HP	1/2" LET-LOK	1/2" LET-LOK	6.4	0.25	46.5	1.83	46.5	1.83	59.2	2.33	150	5.92
H-900HP	12 mm LET-LOK	12 mm LET-LOK			46.5	1.83	46.5	1.83	59.2	2.33	150	5.92
H-985HP	1/2" male NPT	1/2" female NPT			36.3	1.43	36.3	1.43	49	1.93	140	5.52
H-995HP	1/2" male NPT	1/2" LET-LOK			36.3	1.43	46.5	1.83	59.2	2.33	140	5.52

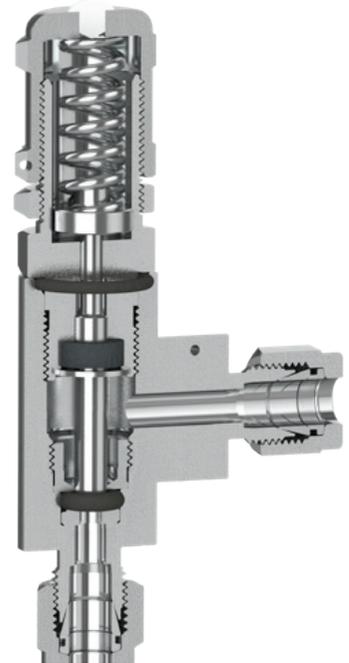
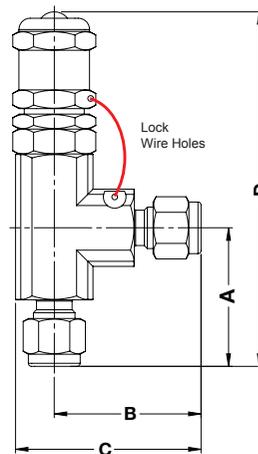
<sup>1</sup>Orifice in fully open position

## SETTING AND RE-SEALING PRESSURE

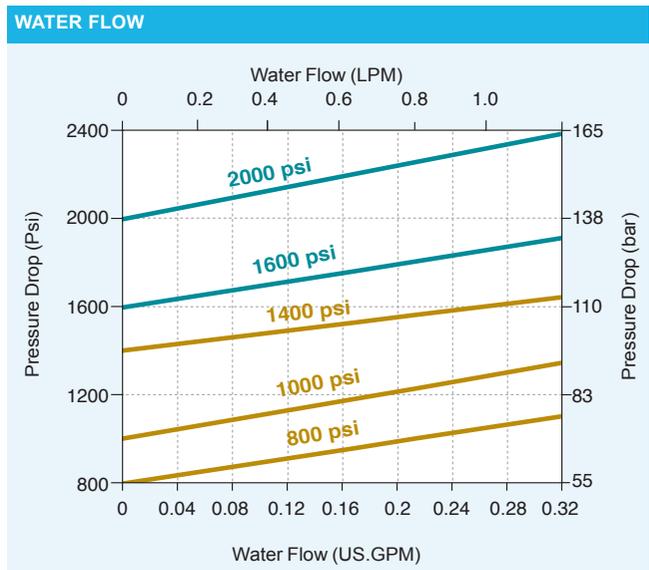
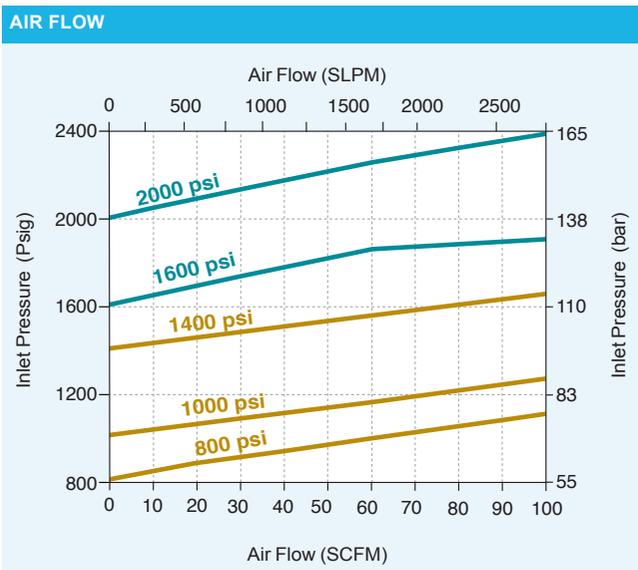
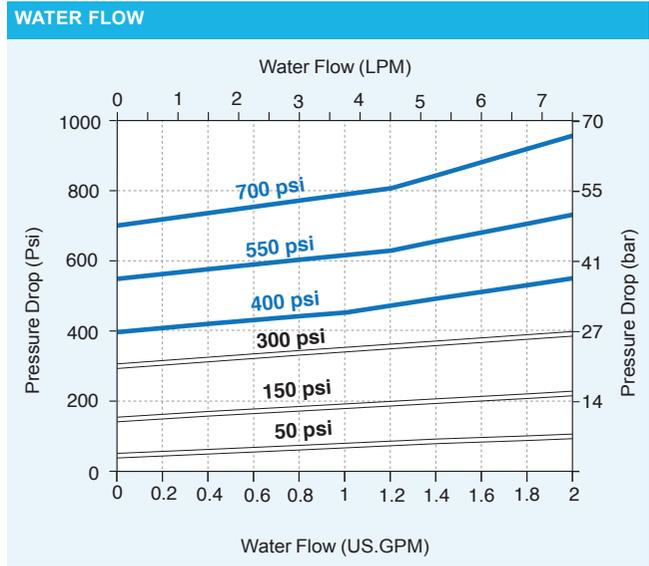
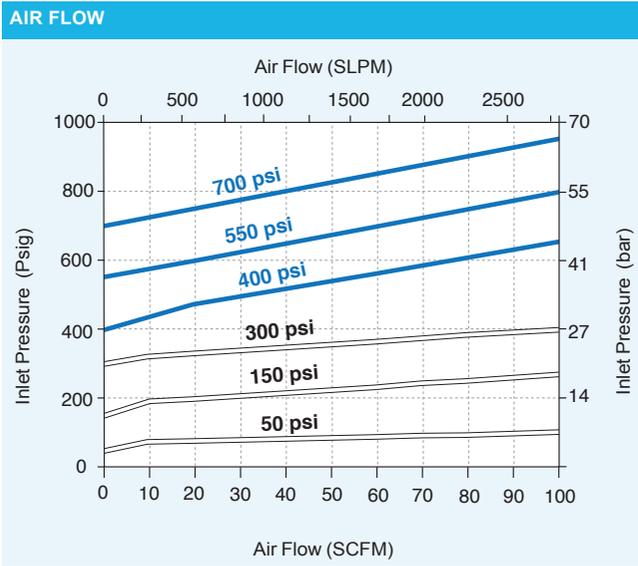
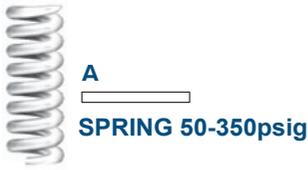
- Upstream set pressure is the first indicator of flow process  
Every pressure relief after the first is repeatable within a deviation of 5% at room temperature
- Blocked upstream set pressure is the first indicator of a stopped flow process and is always lower than the set pressure
- Lubricant-Free cleaned valves have higher reseal pressure

## H-900HP RE-SEAL PRESSURE

Series	Test Set Pressure psig (bar)	Min Resealing Pressure as a Percentage of Set Pressure, %
H-900HP	100 - 200 (6.8 to 13.7)	50
	850 - 1000 (58.5 to 68.9)	84



**FLOW DATA AT 70°F (20°C) FOR 1/4" BODY SIZE**



**FLOW DATA AT 70°F (20°C) FOR 1/4" BODY SIZE**



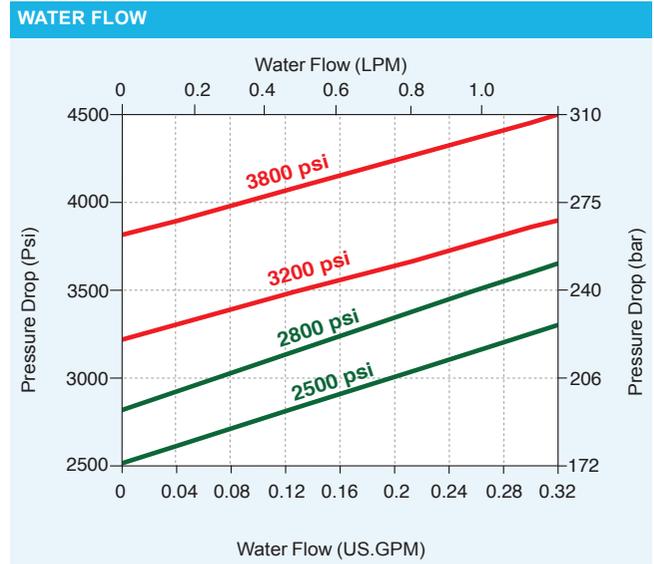
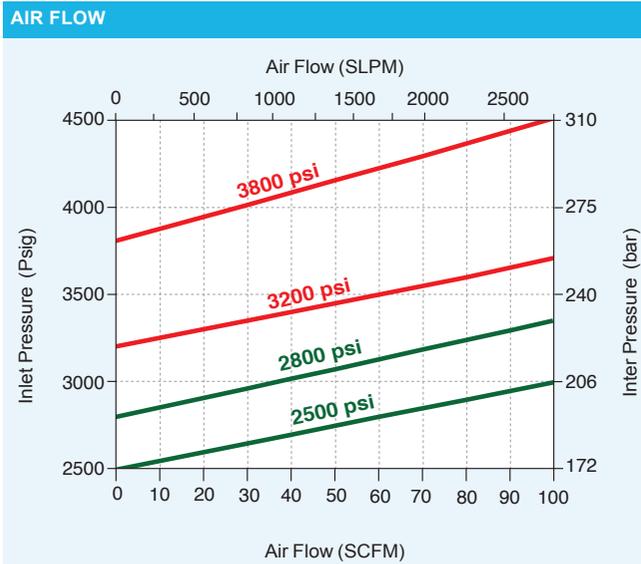
**E**

**SPRING 2250-3000psig**



**F**

**SPRING 3000-4000psig**



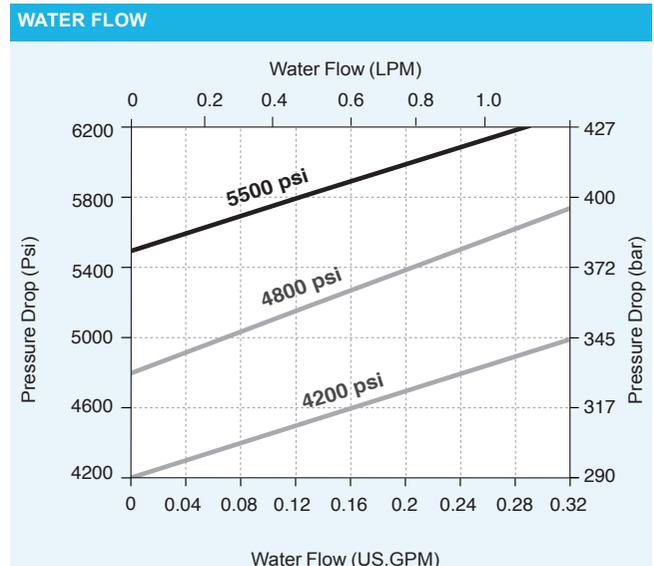
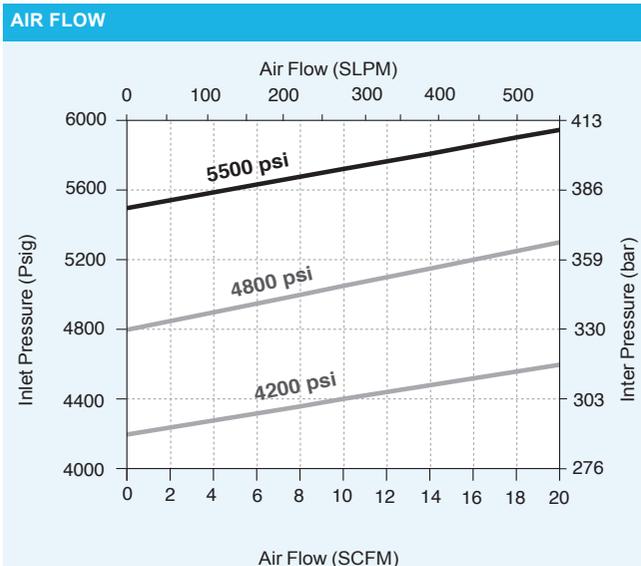
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**SPRING 4000-5000psig**

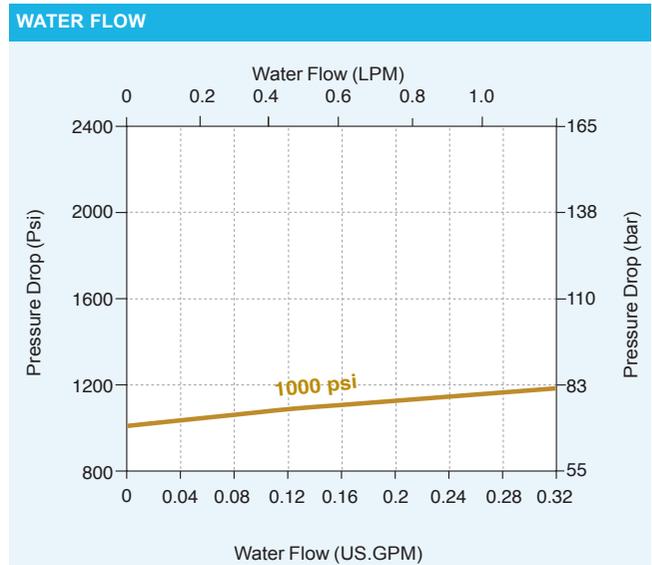
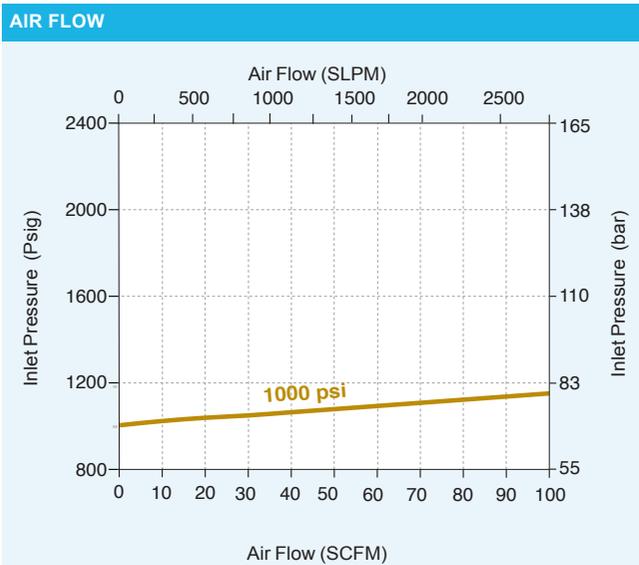
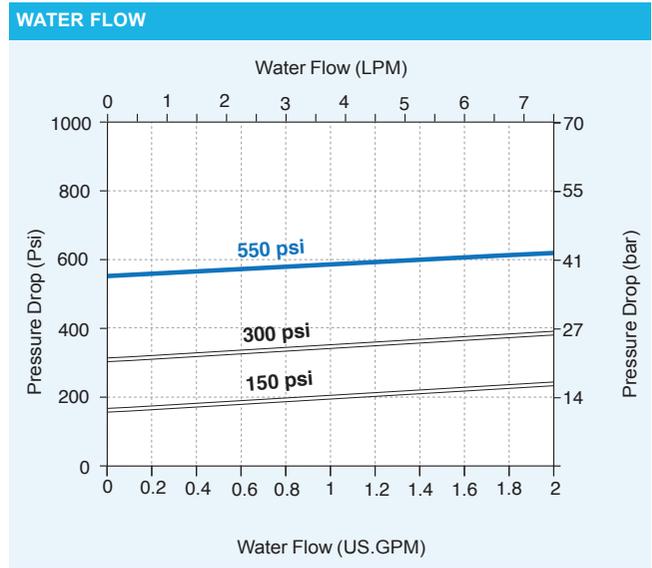
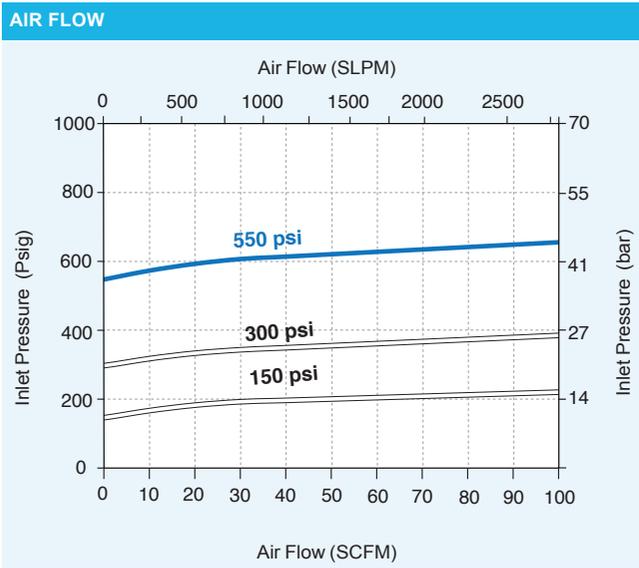
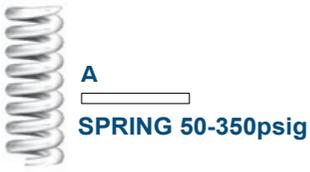


**H**

**SPRING 5000-6000psig**



**FLOW DATA AT 70°F (20°C) FOR 1/2" BODY SIZE**

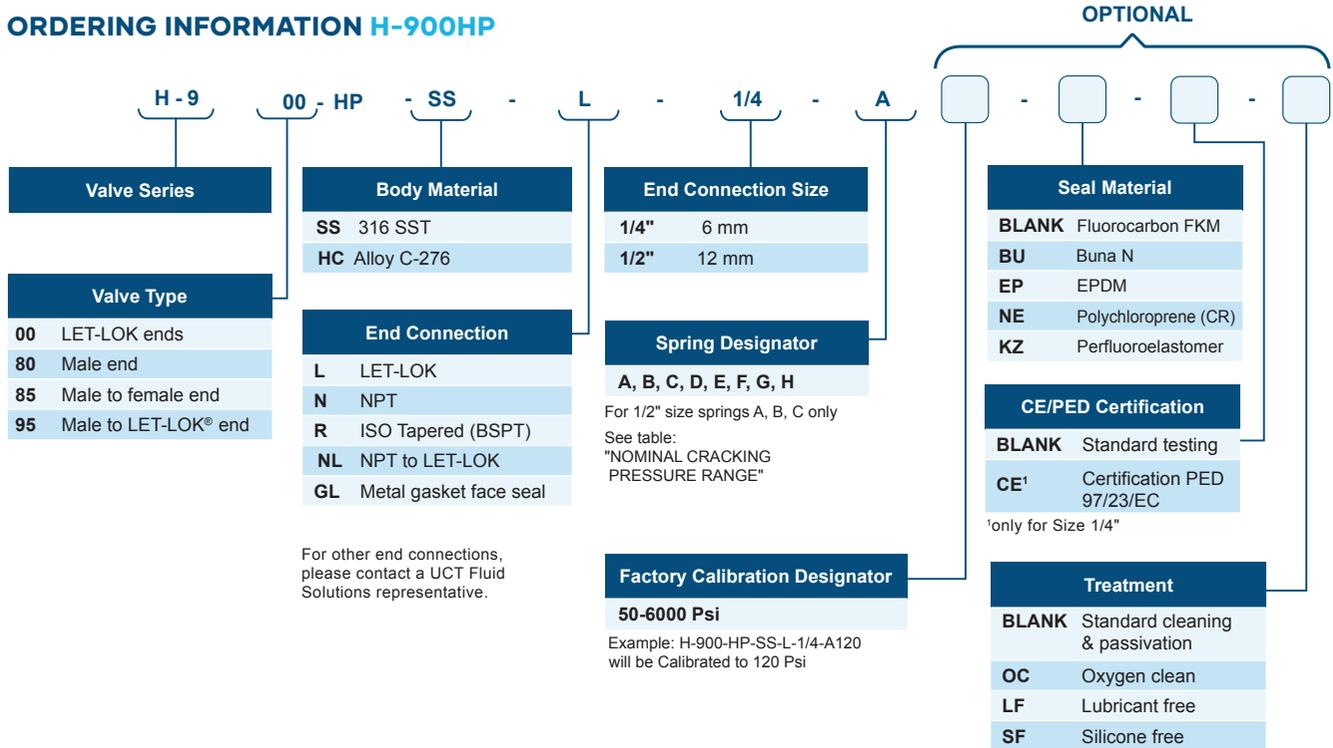


## OPERATION

H-900HP relief valves open when the system pressure reaches the set pressure and closes when the system pressure drops below the set pressure.

**⚠ Valves that have not been actuated for some time may contain initial relief pressure higher than the set pressure.**

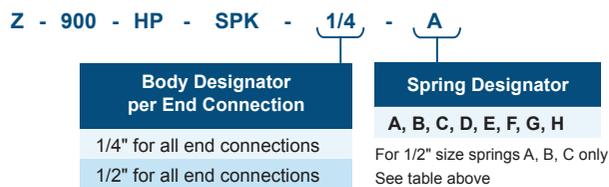
## ORDERING INFORMATION H-900HP



## ORDERING INFORMATION FOR SPARE KITS

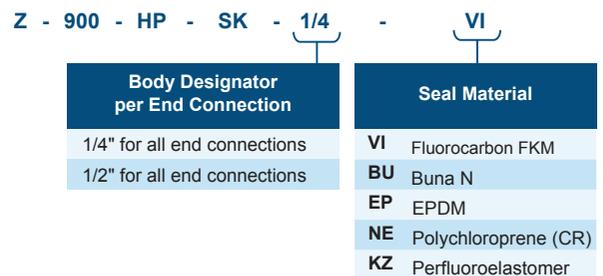
### SPRING KIT

Includes: Spring (specific to desired set pressure range) and label.



### SEAL KIT

Includes: O-Rings and label



For oxygen applications work shall be carried out according to procedures for working with oxygen. In case spare kits are ordered for oxygen clean valves, such kits must be ordered as oxygen clean by adding "-OC" designator. Example: Z-900-HP-SK-1/4-VI-OC

### WARNING!

The system designer and user have the sole responsibility for selecting products suitable for their special application requirements, ensuring their safe and trouble-free installation, operation, and maintenance. Application details, material compatibility and product ratings should all be considered for each selected product. Improper selection, installation or use of products can cause property damage or personal injury.

