

# H1300 SERIES

## METERING VALVES

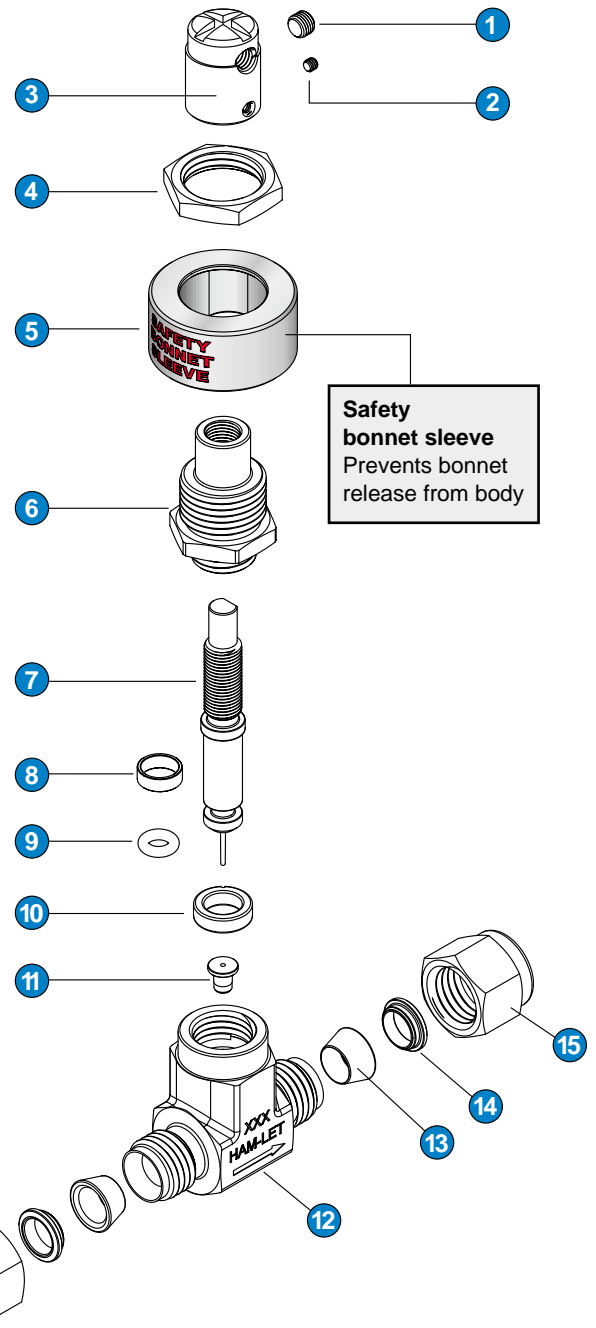
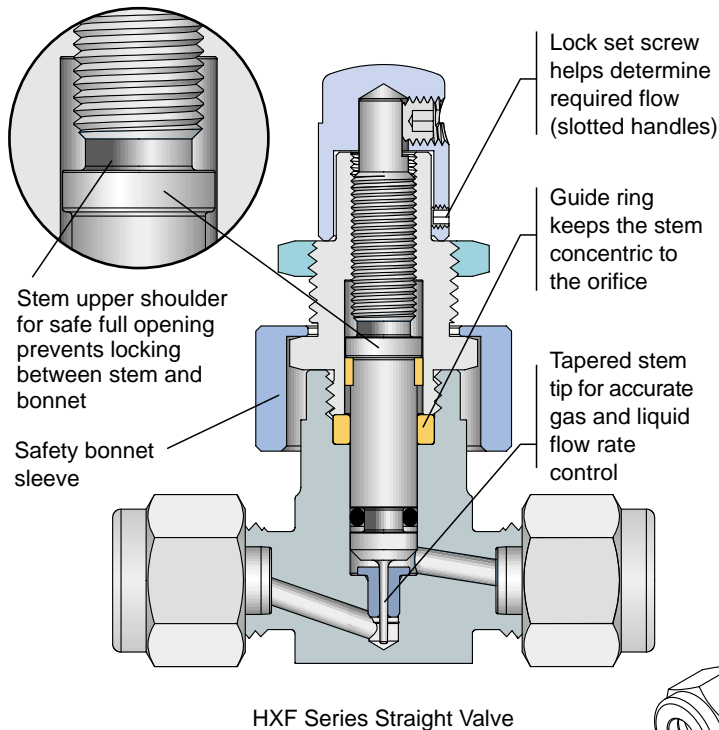


### Features:

- Forged-body 316 St.St.or Brass Construction
- Straight and Angle Patterns
- Panel Mounting
- MAWP 2000 Psig - (135 Bar)
- MAWT 400°F (204°C) Flow coefficients (Cv) from 0.004 to 0.15
- Round & Slotted Handles with Screwdriver Slots
- Ham-Let Let-Lok Ends, Male & Female NPT, HTC Face Seal Bead End Connections
- 1°, 3° and 5° Stem Taper for required flow control
- Stem with Stopper Shoulder - long lifetime.

## HXF1300 - MATERIALS

Item No.	Components	QTY.	Valve Body Material	
			316 St.St.	Brass
1	Handle Set Screw	1	18-8 Stainless Steel	
2	Flow Fixing Screw	1	18-8 Stainless Steel	
3	Handle	1	St.St. ASTM A-276	Brass ASTM B-16
4	Panel Nut	1	St.St. ASTM A-276	Brass ASTM B-16
5	Safety Bonnet Sleeve	1	St.St. ASTM A-276	Brass ASTM B-16
6	Bonnet	1	St.St. ASTM A-276	Brass ASTM B-16
7	Stem	1	St.St. 174PH/A564	
8	Stem Ring	1	Glass-filled TFE	
9	O-ring	1	Viton (fluorocarbon)	
10	Guide Ring	1	Glass-filled TFE	
11	Orifice	1	St.St. ASTM A-276	Brass ASTM B-16
12	Body	1	St.St. ASTM A-276	Brass ASTM B-16
13	Front Ferrule	2	St.St. ASTM A-276	Brass ASTM B-16
14	Back Ferrule	2	St.St. ASTM A-276	Brass ASTM B-16
15	Nut	2	St.St. ASTM A-276	Brass ASTM B-16



## TECHNICAL DATA

Series	Temperature F° (C°)	Pressure - Temperature Ratings		Orifice		Shutoff Service	Stem Taper
		Pressure Psig (Bar)		in	mm		
HXF	-10°F to 400°F (-23°C- 204°C) Viton o-ring	2000 (135)		0.03	(0.8)	No	1°
HF		1000 (68.9)		0.055	(1.4)	No	3°
H	-10°F to 300°F (-23°C- 148°C) Buna-N o-ring	1000 (68.9)		0.13	(3.3)	*Yes	5°

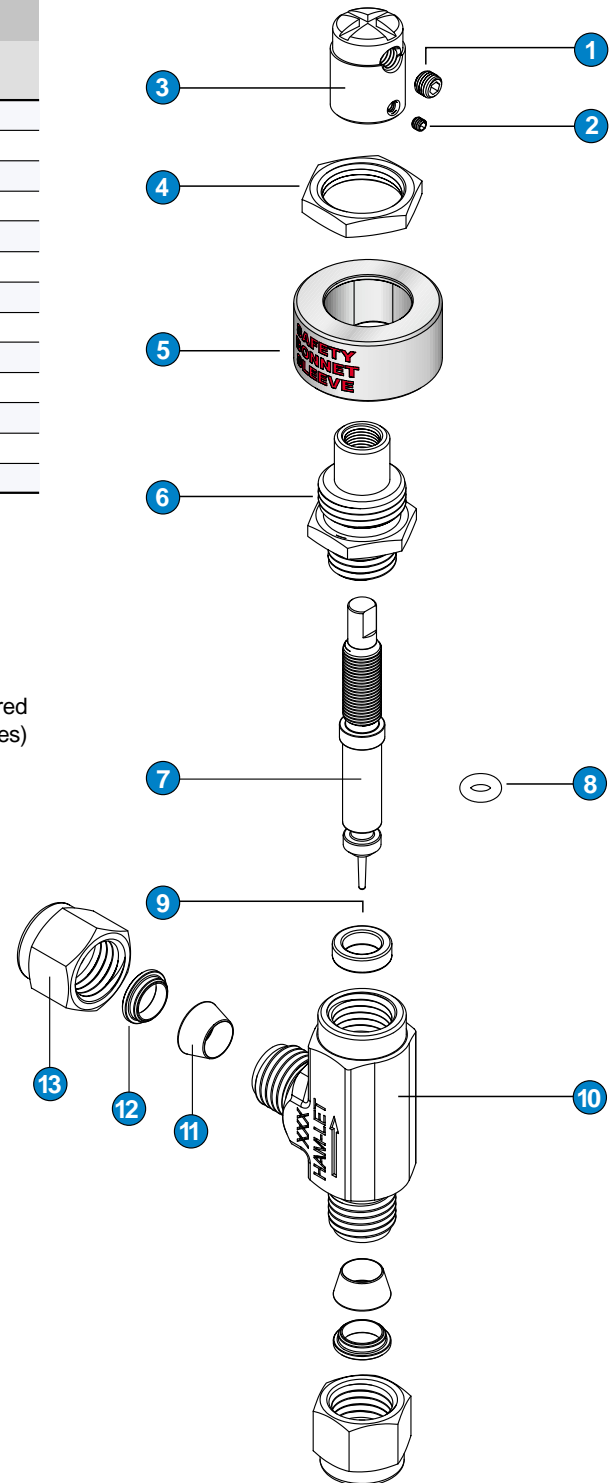
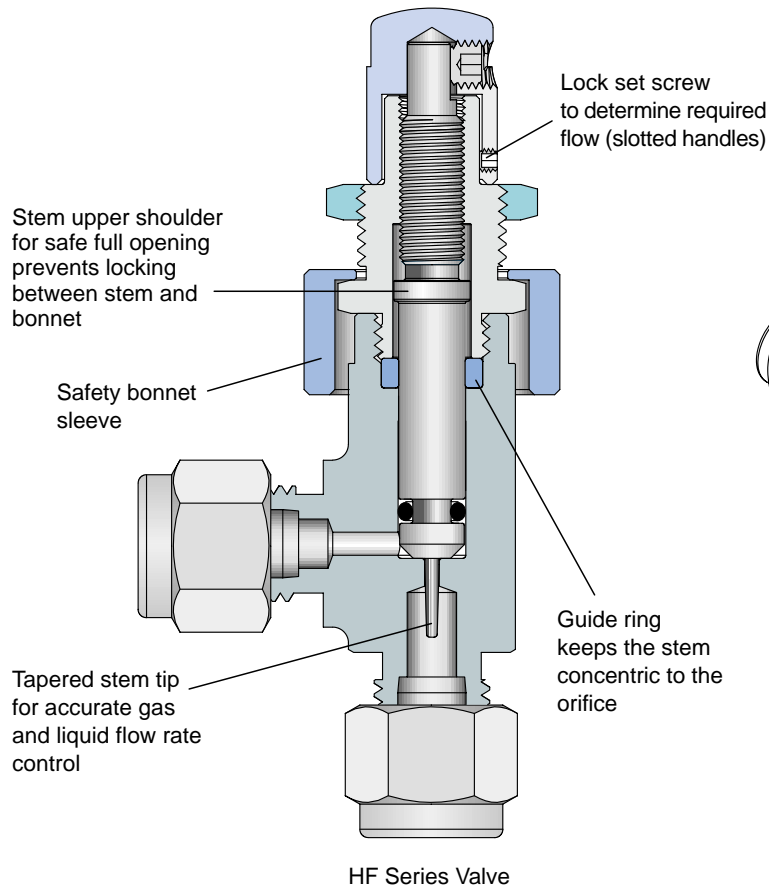
**\*Shutoff Service:**

In Stainless steel construction only.

Stainless steel H1300 series valves are not recommended for shutoff in vacuum or gas service, or for repetitive shutoff in liquid service.

## H&amp;HF1300 - MATERIALS

Item No.	Components	QTY.	Valve Body Material	
			316 St.St.	Brass
1	Handle Set Screw	1	St.St. ASTM A-276	Brass ASTM B-16
2	Flow Fixing Screw	1	18-8 Stainless Steel	
3	Handle	1	St.St. ASTM A-276	
4	Panel Nut	1	St.St. ASTM A-276	Brass ASTM B-16
5	Safety Bonnet Sleeve	1	St.St. ASTM A-276	Brass ASTM B-16
6	Bonnet	1	St.St. ASTM A-276	Brass ASTM B-16
7	Stem	1	St.St. 174PH/A564	
8	O-ring	1	Viton (fluorocarbon)	
9	Guide Ring	1	Glass-filled TFE	
10	Body	1	St.St. ASTM A-276	Brass ASTM B-16
11	Front Ferrule	2	St.St. ASTM A-276	Brass ASTM B-16
12	Back Ferrule	2	St.St. ASTM A-276	Brass ASTM B-16
13	Nut	2	St.St. ASTM A-276	Brass ASTM B-16

**CLEANING & PACKAGING:**

Ham-Let metering valves are treated with Ham-Let Passivation Cleaning and Packaging ( Procedure 8075 ).

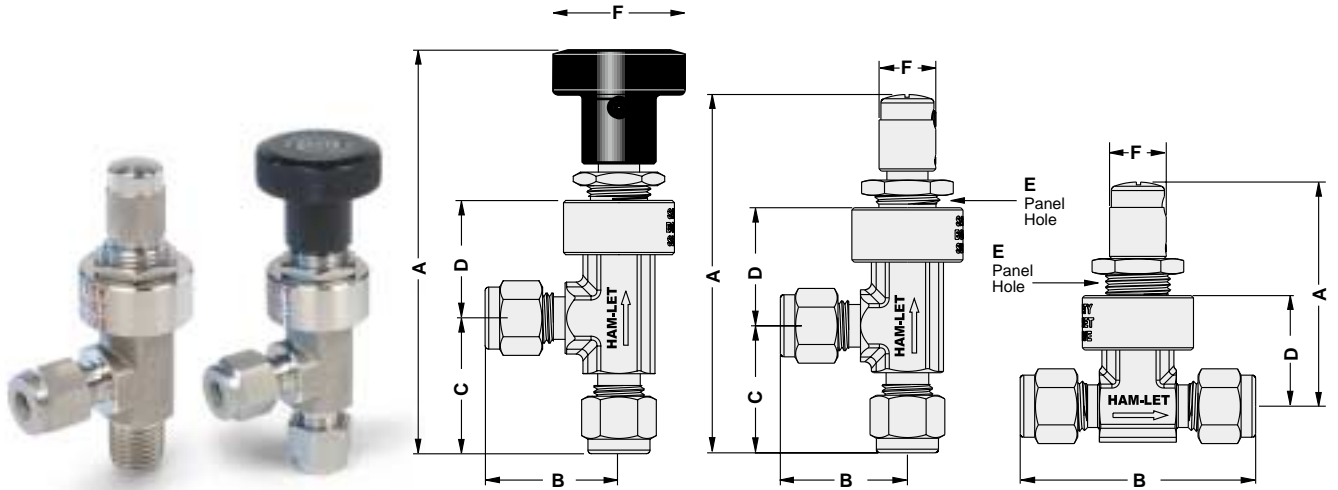
Ham-Let metering valves with face seal end connections are treated with Ham-let Oxygen Cleaning and Packaging (Procedure 8055). Oxygen Cleaning and Packaging for other end connections is available as an option.

**TESTING:**

The H, HF and HXF series Metering Valves designs have been tested for Proof, Burst and Leakage.

Every H, HF & HXF1300 metering valve is factory tested for proper assembly, using leak detection.

Every H1300 metering valve is tested for leakage & bubble-tight at 100psig (6.8bar).

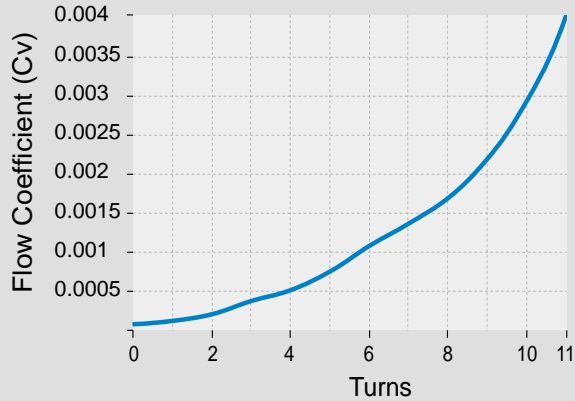


DIMENSIONS (MM) H1300, HF1300 & HXF1300																
Basic Ordering Number	Stem Taper Angle	Orifice mm / inch	Cv	Inlet	Outlet	A-Open		B		C		D		E		F
						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	
H-1300 Angle	5°	3.3 mm 0.13"	0.13 Max	1/4" Let-Lok	1/4" Let-Lok	95.7	3.77	29.6	1.17	30.0	1.18	26.0	1.02	14.8	0.58	29 mm
				6mm Let-Lok	6mm Let-Lok	95.7	3.77	29.6	1.17	30.0	1.18	26.0	1.02	14.8	0.58	1.14"
H1300 Straight	5°	3.3 mm 0.13"	0.13 Max	1/4" Let-Lok	1/4" Let-Lok	71.5	2.81	29.5	2.34	-	-	32.0	1.26	14.8	0.58	29 mm
				3/8" Let-Lok	3/8" Let-Lok	71.5	2.81	62.4	2.46	-	-	32.0	1.26	14.8	0.58	
				6mm Let-Lok	6mm Let-Lok	71.5	2.81	59.5	2.34	-	-	32.0	1.26	14.8	0.58	
HF1300 Angle	3°	1.4 mm 0.055"	0.03 Max	1/4" Male NPT	1/4" Male NPT	71.5	2.81	50.8	2.00	-	-	32.0	1.26	14.8	0.58	1.14"
				1/8" Let-Lok	1/8" Let-Lok	83.5	3.29	25.8	1.02	25.8	1.02	27.0	1.06	14.8	0.58	
				1/4" Let-Lok	1/4" Let-Lok	85.0	3.35	28.0	1.10	28.0	1.10	27.0	1.06	14.8	0.58	
				3mm Let-Lok	3mm Let-Lok	83.5	3.29	25.8	1.02	25.8	1.02	27.0	1.06	14.8	0.58	
				6mm Let-Lok	6mm Let-Lok	85.0	3.35	28.0	1.10	28.0	1.10	27.0	1.06	14.8	0.58	
				1/8" Male NPT	1/8" Male NPT	77.0	3.03	19.0	0.75	19.0	0.75	27.0	1.06	14.8	0.58	
				1/4" Male NPT	1/4" Male NPT	83.0	3.27	25.0	0.98	26.0	1.02	27.0	1.06	14.8	0.58	
				1/8" Male NPT	1/8" Let-Lok	77.0	3.03	25.8	1.02	19.0	0.75	27.0	1.06	14.8	0.58	
				1/4" Male NPT	1/4" Let-Lok	81.5	3.2	28.3	1.11	23.5	0.92	27.0	1.06	14.8	0.58	
				1/8" Female NPT	1/8" Female NPT	82.5	3.25	24.9	0.98	24.9	0.98	27.0	1.06	14.8	0.58	
HF1300 Straight	3°	1.4 mm 0.055"	0.03 Max	1/8" Let-Lok	1/8" Let-Lok	70.0	2.76	51.0	2.01	-	-	27.0	1.06	14.8	0.58	1.14"
				1/4" Let-Lok	1/4" Let-Lok	85.0	3.35	28.0	1.10	-	-	27.0	1.06	14.8	0.58	
				3mm Let-Lok	3mm Let-Lok	83.5	3.29	25.8	1.02	-	-	27.0	1.06	14.8	0.58	
				6mm Let-Lok	6mm Let-Lok	85.0	3.35	28.0	1.10	-	-	27.0	1.06	14.8	0.58	
				1/8" Male NPT	1/8" Male NPT	77.0	3.03	19.0	0.75	-	-	27.0	1.06	14.8	0.58	
				1/4" Male NPT	1/4" Male NPT	83.0	3.27	25.0	0.98	26.0	1.02	27.0	1.06	14.8	0.58	
				1/8" Female NPT	1/8" Female NPT	77.0	3.03	25.8	1.02	19.0	0.75	27.0	1.06	14.8	0.58	
				1/8" Male Face Seal	1/8" Male Face Seal	82.5	3.25	24.9	0.98	-	-	27.0	1.06	14.8	0.58	
HXF1300 Angle	1°	0.8 mm 0.03"	0.004 Max	1/8" Let-Lok	1/8" Let-Lok	84.0	3.31	24.8	0.98	24.8	0.98	23.4	0.92	14.8	0.58	1.14"
				1/4" Let-Lok	1/4" Let-Lok	85.0	3.35	25.8	1.02	25.8	1.02	23.4	0.92	14.8	0.58	
				3mm Let-Lok	3mm Let-Lok	84.0	3.31	24.8	0.98	25.0	0.98	23.4	0.92	14.8	0.58	
				1/8" Male NPT	1/8" Let-Lok	77.5	3.05	24.8	0.98	24.8	0.98	23.4	0.92	14.8	0.58	
HXF1300 Straight	1°	0.8 mm 0.03"	0.004 Max	1/4" Male NPT	1/4" Let-Lok	82	3.22	27.3	1.07	29.3	1.15	23.4	0.92	14.8	0.58	1.14"
				1/8" Let-Lok	1/8" Let-Lok	59.6	2.34	48.0	1.89	-	-	24.4	0.96	14.8	0.58	
				1/4" Let-Lok	1/4" Let-Lok	59.6	2.34	51.9	2.04	-	-	24.4	0.96	14.8	0.58	
				3mm Let-Lok	3mm Let-Lok	59.6	2.34	48.0	1.89	-	-	24.4	0.96	14.8	0.58	
				6mm Let-Lok	6mm Let-Lok	59.6	2.34	51.9	2.04	-	-	24.4	0.96	14.8	0.58	
1/4" Male Face Seal	1/4" Male Face Seal	59.6	2.34	52.0	2.05	-	-	24.4	0.96	14.8	0.58					

"HXF" Series - 4.3 mm (0.17") maximum panel thickness  
 "H" and "HF" - 3.3 mm (0.13") maximum panel thickness

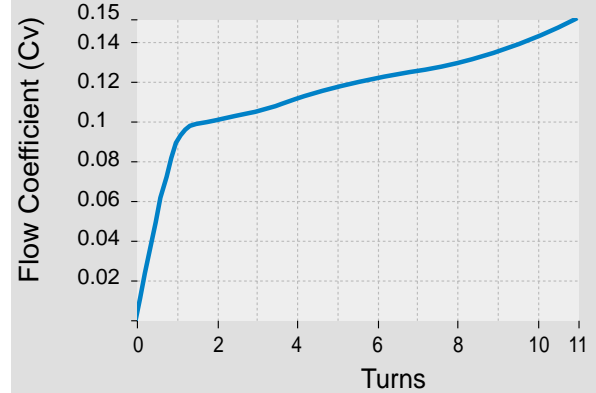
Dimensions are for reference only, and are subject to change

HXF1300 (Metering Valve 1°)



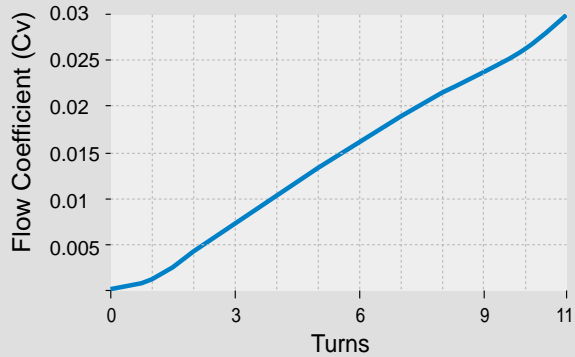
<b>Maximum Flow Coefficient (C<sub>v</sub>) 0.004</b>	Pressure Drop to Atmosphere psi (bar)	Water Flow U.S gal/min (L/min)	Air flow stb ft <sup>3</sup> / min (stb L / min)
	10 (0.68)	0.01 (0.03)	0.04 (1.1)
	50 (3.4)	0.02 (0.07)	0.1 (2.8)
	100 (6.8)	0.04 (0.15)	0.2 (5.5)

H1300 (Metering Valve 5°)



<b>Maximum Flow Coefficient (C<sub>v</sub>) 0.15</b>	Pressure Drop to Atmosphere psi (bar)	Water Flow U.S gal/min (L/min)	Air flow stb ft <sup>3</sup> / min (stb L / min)
	10 (0.68)	0.47 (1.7)	1.6 (45.3)
	50 (3.4)	1.0 (3.7)	4.5 (127)
	100 (6.8)	1.5 (5.6)	7.9 (223)

HF1300 (Metering Valve 3°)



<b>Maximum Flow Coefficient (C<sub>v</sub>) 0.03</b>	Pressure Drop to Atmosphere psi (bar)	Water Flow U.S gal/min (L/min)	Air flow stb ft <sup>3</sup> / min (stb L / min)
	10 (0.68)	0.09 (0.34)	0.33 (9.3)
	50 (3.4)	0.21 (0.79)	0.9 (25.4)
	100 (6.8)	0.3 (1.1)	1.5 (42.4)

### FLOW SETTING

The handle dead stop position is set at 4 to 10 std cm<sup>3</sup>/min with 15 psig (1 bar) inlet pressure.

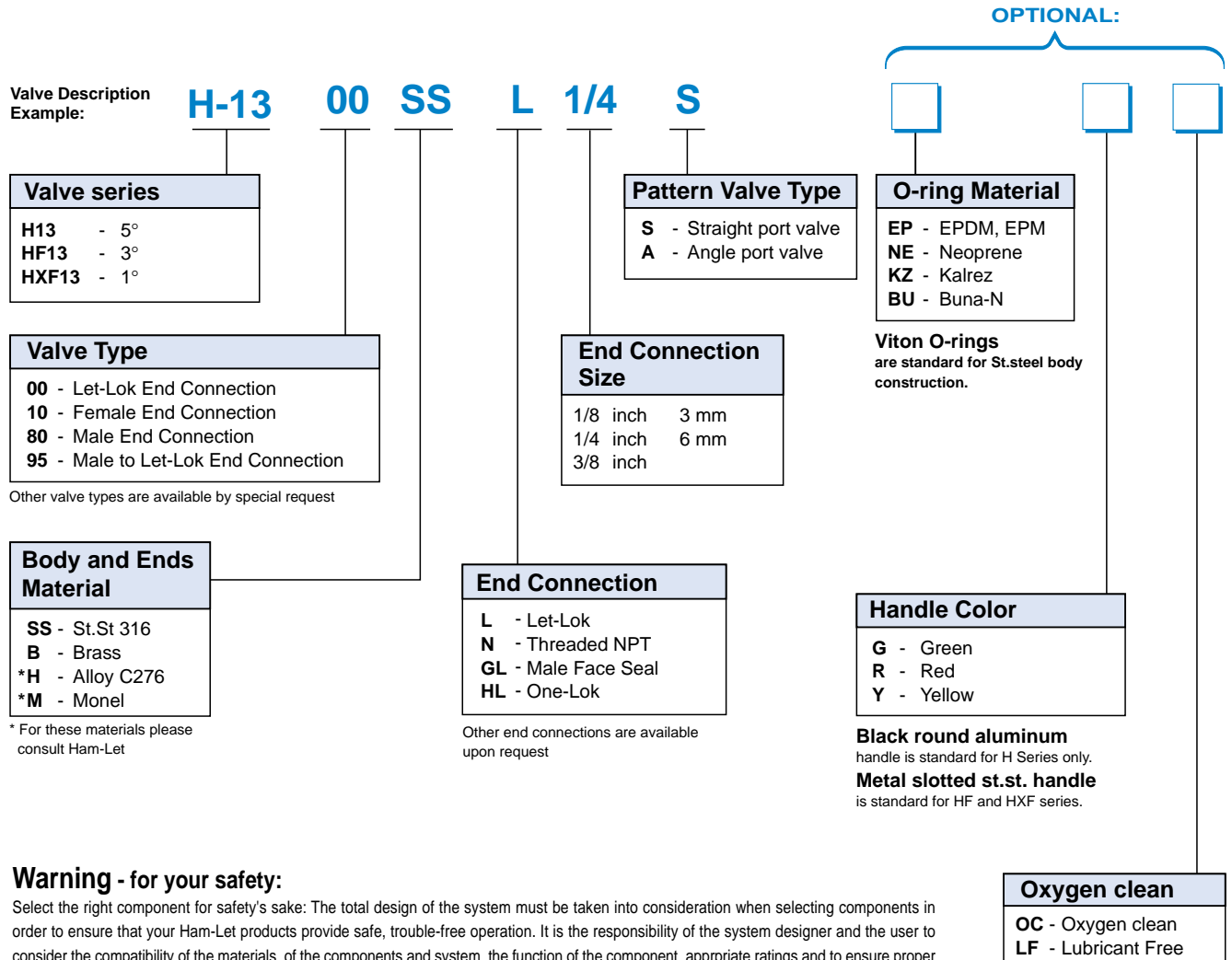
### O-RINGS

Different materials are available for special applications.

O-Ring Material	Temperature rating °F (°C)
Buna N	-30 to 250 (-34 to 121)
Ethylene Propylene	-70 to 250 (-57 to 121)
Viton (Fluorocarbon)	-15 to 400 (-26 to 204)
Kalrez	-15 to 500 (-26 to 260)
Neoprene	-35 to 225 (-37 to 107)

## ORDERING INFORMATION

Your Safety is important to us. Please ensure proper reference to our latest catalog



### Warning - for your safety:

Select the right component for safety's sake: The total design of the system must be taken into consideration when selecting components in order to ensure that your Ham-Let products provide safe, trouble-free operation. It is the responsibility of the system designer and the user to consider the compatibility of the materials, of the components and system, the function of the component, appropriate ratings and to ensure proper installation, operation and maintenance.

Improper selection or use of products can cause property damage or personal injury, in respect of which the system designer and/or the user shall be solely liable and responsible.