

# TWO-PIECE BALL VALVES

H-700 SERIES



## FEATURES

- Certified for ISO 15848-1 :2006(E)
- Blow-out Proof Stem
- Stainless Steel Constructions
- Locking Handle in On and Off positions
- MAWP 2000 psi (137 Barg)
- MAWT 400°F (204°C)
- Flow coefficient (Cv) 1.25 to 17.35
- Size range: 1/4" to 1" or 6mm to 25mm

## GENERAL

The H-700 Series is a moderate-pressure ball valve for general service. These valves are compact in size and structure.

They have relatively large ports for a high flow, tight shutoff, a long-life service, and a low operating torque.

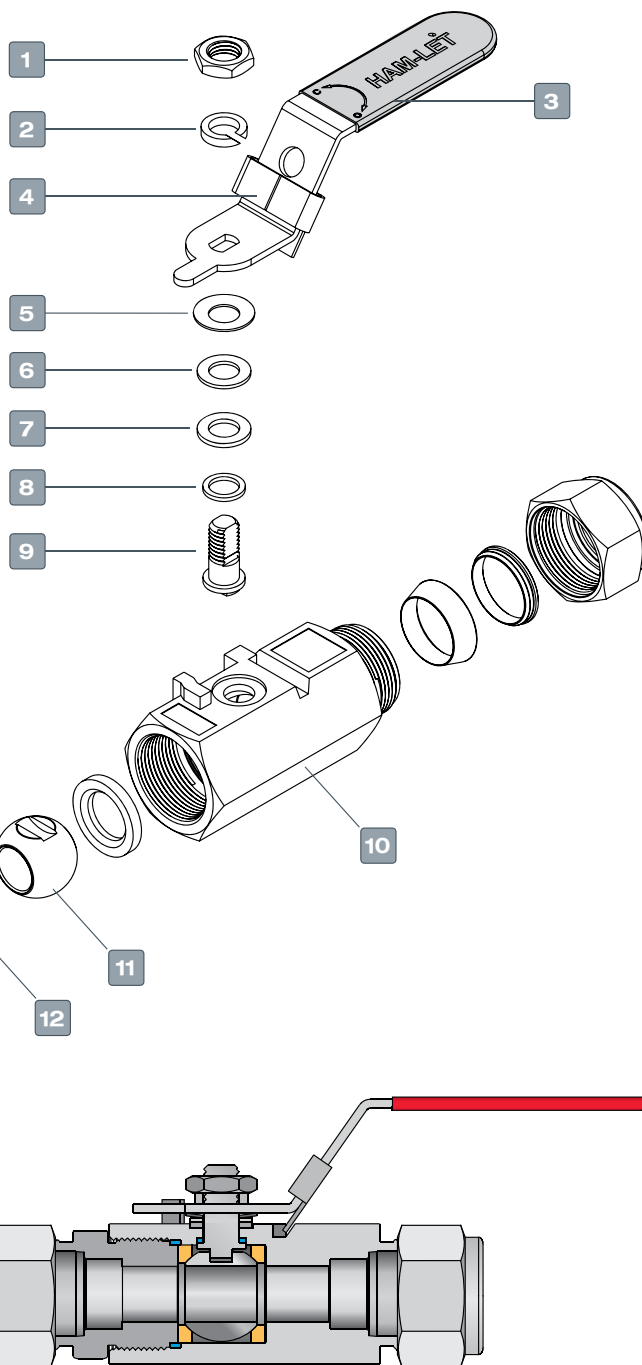
The H-700 Series can be used for bi-directional flow in a fully open or fully closed position only.

The series is rated to a max. of 2000 psig (135 bar) and performs as on/off service.

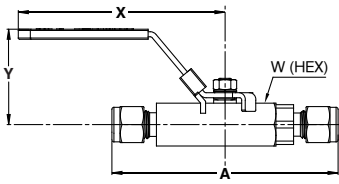
### MATERIALS OF CONSTRUCTION

No.	Components	Qty	Material
1	Nut	1	St.St.304
2	Spring Washer	1	St.St.304
3	Handle	1	St.St.304
4	Locking Device	1	St.St.304
5	Belleville Washer	1	St.St.304
6	Flat Washer	1	St.St.304
7	Stem Packing	1	PTFE
8	Stem Seal	1	PTFE
9	Stem	1	St.St.316
10	Body	1	St.St.316
11	Ball	1	St.St.316
12	Seat	2	Modified PTFE
13	Gasket	1	PTFE
14	End	1	St.St.316
15	Front Ferrule	2	St.St.316
16	Back Ferrule	2	St.St.316
17	Nut LET-LOK®	2	St.St.316

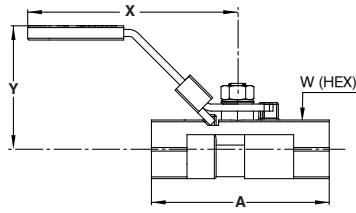
Lubricant: silicon-based grease for oxygen applications, according to HAM-LET Procedure 8185



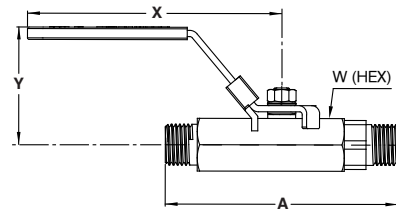
**H-700**



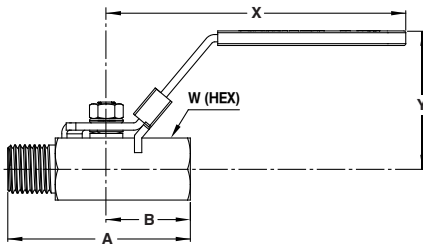
**H-710**



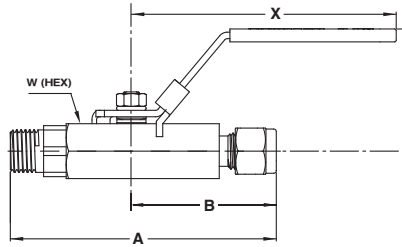
**H-780**



**H-785**



**H-795**



Drawings are for reference only.

**STANDARD CONFIGURATION DIMENSIONS**

End Connection		Valve Type	Body Material	Cv	Orifice		A		B		X		Y		W (Hex)	
Type	Size				mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
Fractional Let-Lok® Tube Fittings	1/4	H-700	ASTM A276 Gr.316	1.25	4.8	0.19	90	3.54			82	3.23	38	1.5	17	
	3/8			2.5	7.2	0.28	90	3.54			82	3.23	40	1.57	21	
	1/2		ASTM A351 Gr.CF8M	9.25	9.2	0.36	95.3	3.75			82	3.23	40.7	1.6	25	
	3/4			12.65	12.5	0.49	113.4	4.46			82	3.23	44.5	1.75	32	
	1			17.35	15	0.59	129.6	5.1			102	4.02	50	1.97	38	
Metric Let-Lok® Tube Fittings	6MM		ASTM A276 Gr.316	1.25	4.8	0.19	90	3.54			82	3.23	38	1.5	17	
	8MM			1.35	4.8	0.19	90	3.54			82	3.23	40	1.57	17	
	10MM			2.6	7.2	0.28	90	3.54			82	3.23	40	1.57		13/16
	12MM			ASTM A351 Gr.CF8M	9.25	9.2	0.36	95.3	3.75			82	3.23	40.7	1.6	25
	25MM		17.35		15	0.59	129.6	5.1			102	4.02	50	1.97	38	
	Female NPT	1/4	H-710	ASTM A351 Gr.CF8M	1.35	5	0.2	50	1.97			67	2.64	47	1.85	16.5
3/8		2.6			7	0.28	60	2.36			67	2.64	49	1.93		13/16
1/2		9.25			9	0.35	75	2.95			82.5	3.25	42.9	1.69	25	
3/4		12.65			12.5	0.49	59	2.32			85	3.35	44	1.73	32	
1		17.35			15	0.59	71	2.8			102	4.02	50	1.97	41	
Male NPT	1/4	H-780	ASTM A276 Gr.316	1.35	5	0.2	75.0	2.95			82	3.23	38	1.5	17	
	3/8			2.5	7	0.28	75.0	2.95			82	3.23	40	1.57	21	
	1/2		ASTM A351 Gr.CF8M	9.25	9.2	0.36	75.0	2.95			82	3.23	40.7	1.6	25	
Male to Female NPT	1/4	H-785	ASTM A276 Gr.316	1.35	5	0.2	50	1.97	24.85	0.98	82	3.23	38	1.5	17	
	1/2		ASTM A351 Gr.CF8M	9.25	9	0.35	70	2.95	37.5	1.47	82	3.23	56.6	2.23	27	
1	17.35	15		0.59	90	3.54	45.5	1.79	102	4.02	53	2.09		1-3/4		
Male NPT to Let-Lok® Tube Fittings	1/4	H-795	ASTM A351 Gr.CF8M	1.25	5	0.2	70.15	2.76	45.0	1.77	82	3.23	38	1.5	17	
	3/8			2.5	7	0.28	82.3	2.99	45.0	1.77	82	3.23	40	1.57	21	
	1/2			9.25	9.2	0.36	85	3.35	47.7	1.88	82	3.23	40.7	1.6	25	
	3/4			12.65	12.5	0.49	104.66	4.12	56.7	2.23	82	3.23	44.5	1.75	32	
	1			17.35	15	0.59	117.4	4.62	64.8	2.55	102	4.02	50	1.97	38	

Dimensions are for reference only, and are subject to change without notice.

## CLEANING & PACKAGING

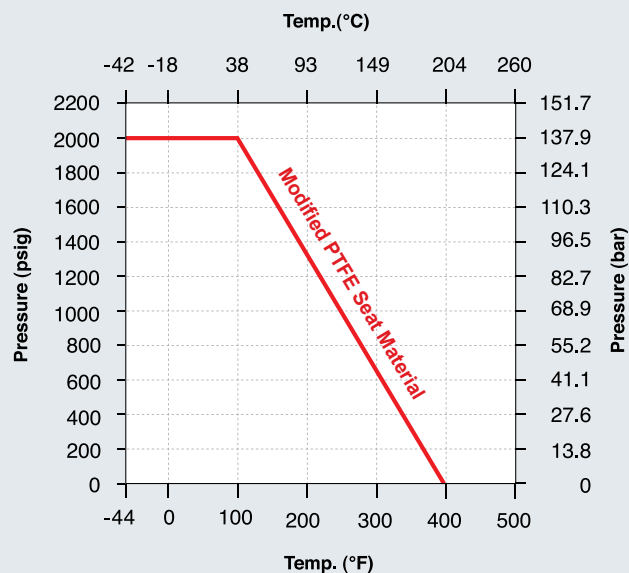
Every H-700 series ball valve is cleaned in accordance with Standard Cleaning and Packaging (procedure 8184). Oxygen Clean & Lubricant Free Cleaning and packaging, in accordance with Special Cleaning and Packaging (procedure 8185), is available as an option.

**Lubricant free cleaned valves** have significantly higher actuation torque.

## TESTING

The H-700 design has been tested for Burst and Proof. Standard testing for each H-700 valve includes testing with nitrogen at 80 & 1000 psig. Each valve is tested for leakage through the shell, packing and ball seats. The maximum allowable leakage across the ball seats is 0.1 std cc/min.

H-700 PRESSURE TEMPERATURE RATING



## SEAT MATERIAL CHARACTERISTICS

**Modified PTFE-(PFA and PTFE composite)-Color: Bright white.**

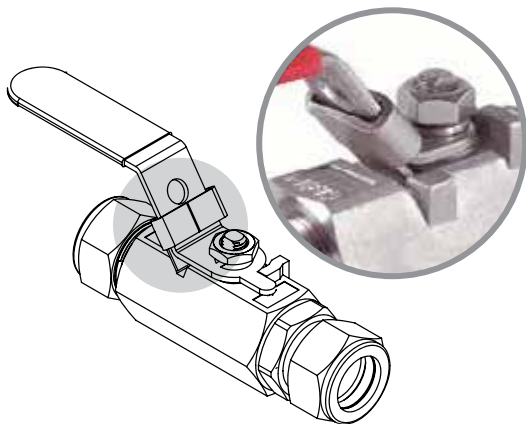
Modified PTFE is an excellent seat material for purity applications and has a very low residual material during operation. It has a lower deformation ratio than PTFE, but a higher pressure and temperature rating. Chemical resistance is equal to PTFE material.

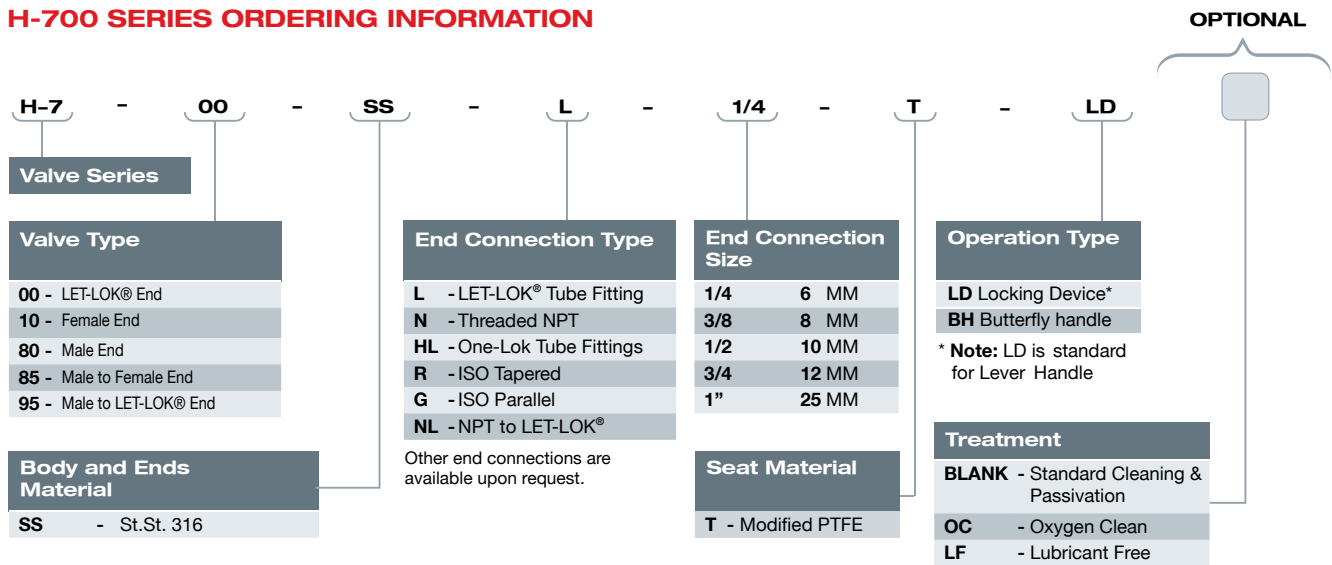
## PACKING ADJUSTMENT

Due to the varied service applications of the valve, packing adjustment may occasionally be necessary. Packing is factory adjusted to 1000 psig service. Initial packing adjustment is recommended after installation and prior to start-up. Please find more information on H-700 under the installation instructions.

HAM-LET Ball Valves are designed to be operated in the fully closed or fully open position.

## LOCKING DEVICE MECHANISM



**H-700 SERIES ORDERING INFORMATION****ORDERING INFORMATION FOR SPARE KITS**

Valve Type	End Connection Size	Seal Kit* Order No.	Handle Kit** Order No.
<b>H-700</b>	1/4", 6mm	Z-700-SK-1/4-T	Z-700-HK-1/4-LH
	3/8", 8mm, 10mm	Z-700-SK-3/8-T	Z-700-HK-3/8-LH
	1/2", 12mm	Z-700-SK-1/2-T	Z-700-HK-1/2-LH
	3/4"	Z-700-SK-3/4-T	Z-700-HK-3/4-LH
	1", 25mm	Z-700-SK-1"-T	Z-700-HK-1"-LH
<b>H-710</b>	1/4"	Z-710-SK-1/4-T	Z-710-HK-1/4-LH
	3/8"	Z-710-SK-3/8-T	Z-710-HK-3/8-LH
	1/2"	Z-710-SK-1/2-T	Z-710-HK-1/2-LH
	3/4"	Z-710-SK-3/4-T	Z-710-HK-3/4-LH
	1"	Z-710-SK-1"-T	Z-710-HK-1"-LH
<b>H-780</b>	1/4"	Z-700-SK-1/4-T	Z-700-HK-1/4-LH
	3/8"	Z-700-SK-3/8-T	Z-700-HK-3/8-LH
	1/2"	Z-700-SK-1/2-T	Z-700-HK-1/2-LH
<b>H-795</b>	1/4"	Z-700-SK-1/4-T	Z-700-HK-1/4-LH
	3/8"	Z-700-SK-3/8-T	Z-700-HK-3/8-LH
	1/2"	Z-700-SK-1/2-T	Z-700-HK-1/2-LH
<b>H-785</b>	1/4"	Z-710-SK-1/4-T	Z-710-HK-1/4-LH
	1/2"	Z-710-SK-1/2-T	Z-710-HK-1/2-LH

\* The kit includes gaskets, seats, stem packing and stem seal.

\*\* The kit includes Handle, Spring washer, Handle nut, Ball and Stem

**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.

H-700, Rev.09, January 2015