

# TWO-PIECE BALL VALVES

## H-700 SERIES



## FEATURES

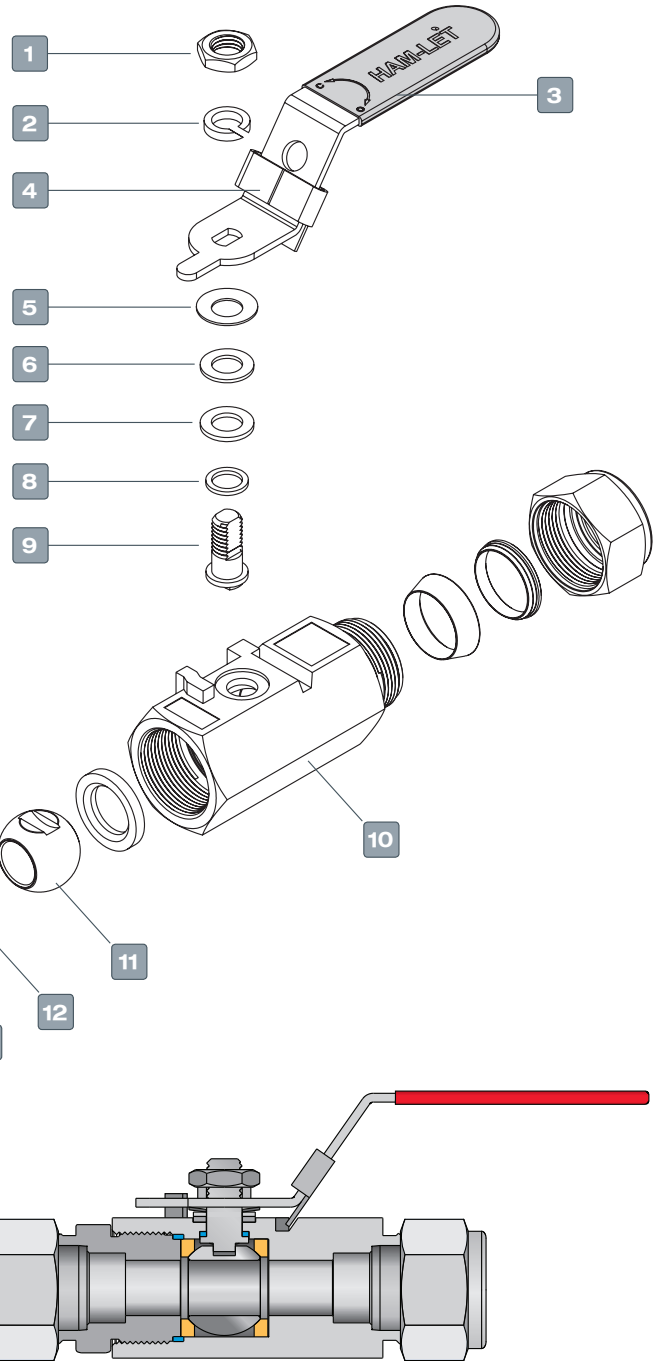
- Blow-out Proof Stem
- Stainless Steel Constructions
- Locking Handle in On and Off positions
- MAWP 2000 psi (135 Bar)
- MAWT 400°F (204°C)
- Flow coefficient (Cv) 1.25 to 17.35
- Size range: 1/4" to 1" or 6mm to 25mm

## 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 high flow, tight shutoff, long-life service, and low operating torque. The H-700 Series can be used for bi-directional flow in fully open or fully closed position only. The series is rated to max. 2000 psig (135 bar) and performs 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	TFM®1600
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 8055



A

B

C

D

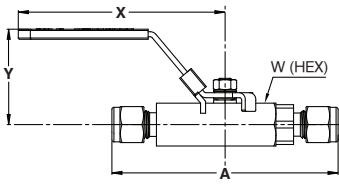
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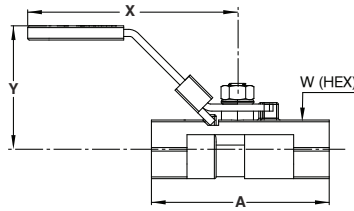
G

H

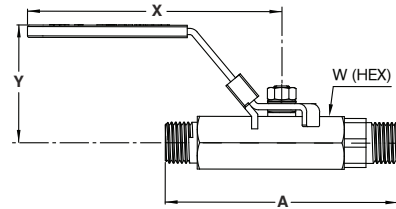
**H-700**



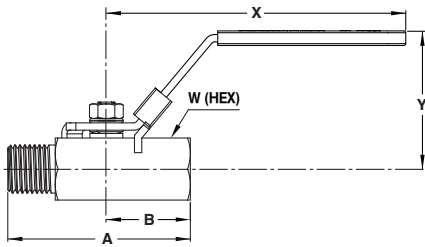
**H-710**



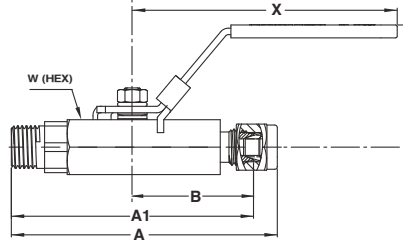
**H-780**



**H-785**



**H-795**



**STANDARD CONFIGURATION DIMENSIONS**

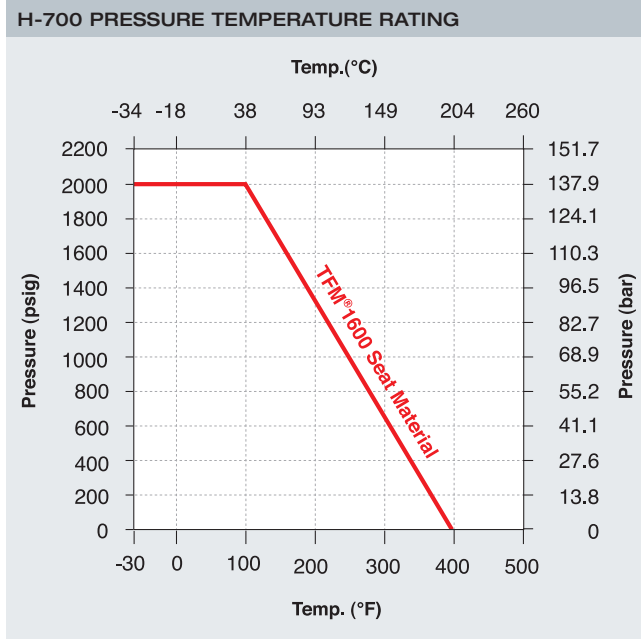
End Connection		Valve Type	Body Material	Cv	Orifice		A		A1		B		X		Y		W (HEX)		
Type	Size				mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
Fractional Let-Lok® Tube Fittings	1/4	H-700	ASTM A276 Gr.316	1.25	5	0.2	90	3.54					82	3.23	38	1.5	17		
	3/8			2.5	7	0.28	90	3.54						82	3.23	40	1.57	21	
	1/2			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	
Metric Let-Lok® Tube Fittings	1		ASTM A351 Gr.CF8M	17.35	15	0.59	129.6	5.1					102	4.02	50	1.97	38		
	6MM			1.25	5	0.2	90	3.54						82	3.23	38	1.5	17	
	8MM			1.35	7	0.28	90	3.54						82	3.23	40	1.57	21	
	10MM			2.6	7	0.28	90	3.54						82	3.23	40	1.57		13/16
	12MM	9.25		9.2	0.36	95.3	3.75						82	3.23	40.7	1.6	25		
Female NPT	25MM	ASTM A351 Gr.CF8M	17.35	15	0.59	129.6	5.1					102	4.02	50	1.97	38			
	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					90	3.54	57	2.24	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	50.3	1.98				82	3.23	38	1.5	17			
	3/8			2.5	7	0.28	62.2	2.45					82	3.23	40	1.57	21		
	1/2		9.25	9.2	0.36	74.9	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		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	62.8	2.47	37.5	1.47	82	3.23	38	1.5	17		
	3/8			2.5	7	0.28	82.3	2.99	75	2.95	37.5	1.47	82	3.23	40	1.57	21		
	1/2			9.25	9.2	0.36	85	3.35	75	2.95	37.5	1.47	82	3.23	40.7	1.6	25		
	3/4			12.65	12.5	0.49	104.66	4.12	94.5	3.72	46.55	1.83	82	3.23	44.5	1.75	32		
	1			17.35	15	0.59	117.4	4.62	105.2	4.14	52.61	2.07	102	4.02	50	1.97	38		

## CLEANING & PACKAGING

H-700 Ball Valve is treated with HAM-LET Passivation Cleaning and Packaging (Procedure 8075).  
HAM-LET H-700 Ball Valves with face seal end connections are treated with Oxygen Cleaning and Packaging (Procedure 8055).

## TESTING

The H-700 Series Ball Valve designs have been tested for Proof and Burst. Every H-700 Ball Valve is factory tested with nitrogen at 1000 psi (69 bar). Maximum allowable leakage across seat is 0.1 std cc/min.



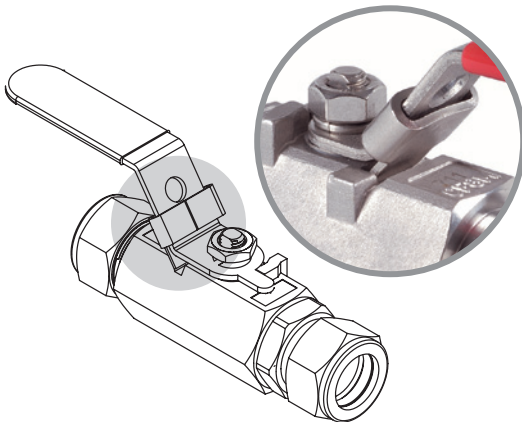
## SEAT MATERIAL CHARACTERISTICS

**TFM®1600 - (PFA and PTFE composite) - Color: Bright White.**  
Excellent seat material for purity applications, very low residual material during operation. It has lower deformation ratio than PTFE, but higher pressure and temperature rating. Chemical resistance is equal to PTFE material.

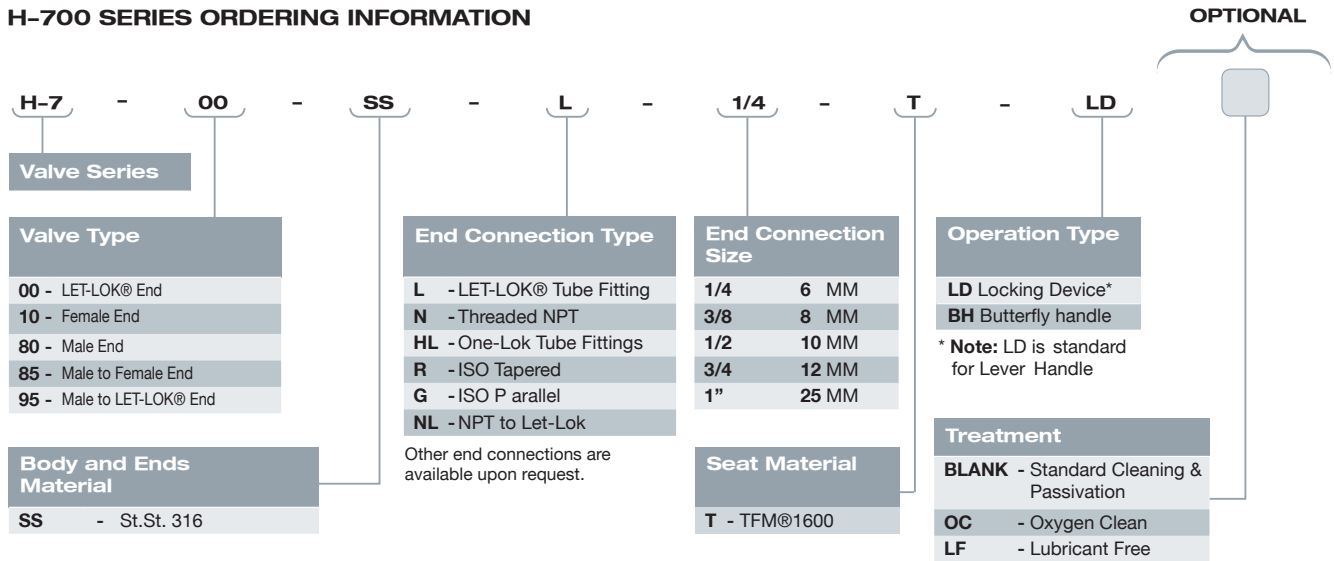
## PACKING ADJUSTMENT

Due to the varied service applications of the valve, packing adjustment may be occasionally necessary. Packing adjustment may be occasionally 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 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.
H-700	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
H-710	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
H-780	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
H-795	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
H-785	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

### Warning! For your safety

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.

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

TFM® - TM DuPont  
H-700, Rev.06, July 2011



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