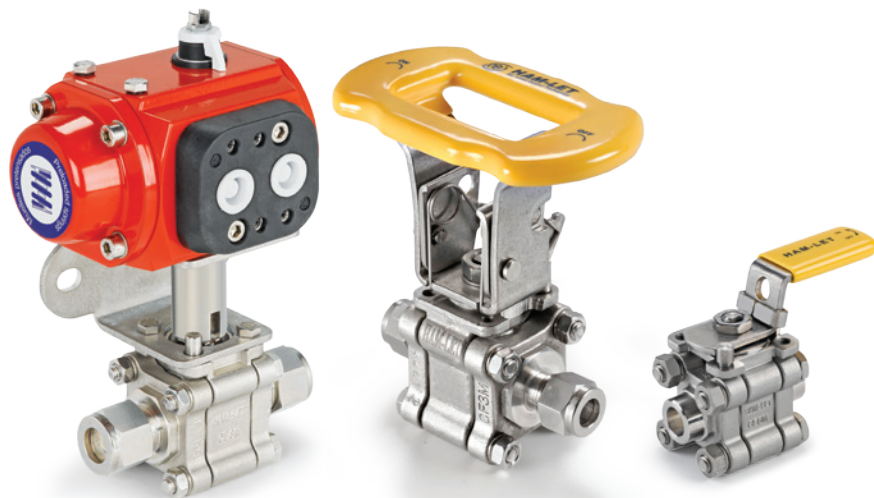


THREE-PIECE BALL VALVES

H-500 SERIES



H-500 FEATURES

3-piece heavy-duty ball valves with:

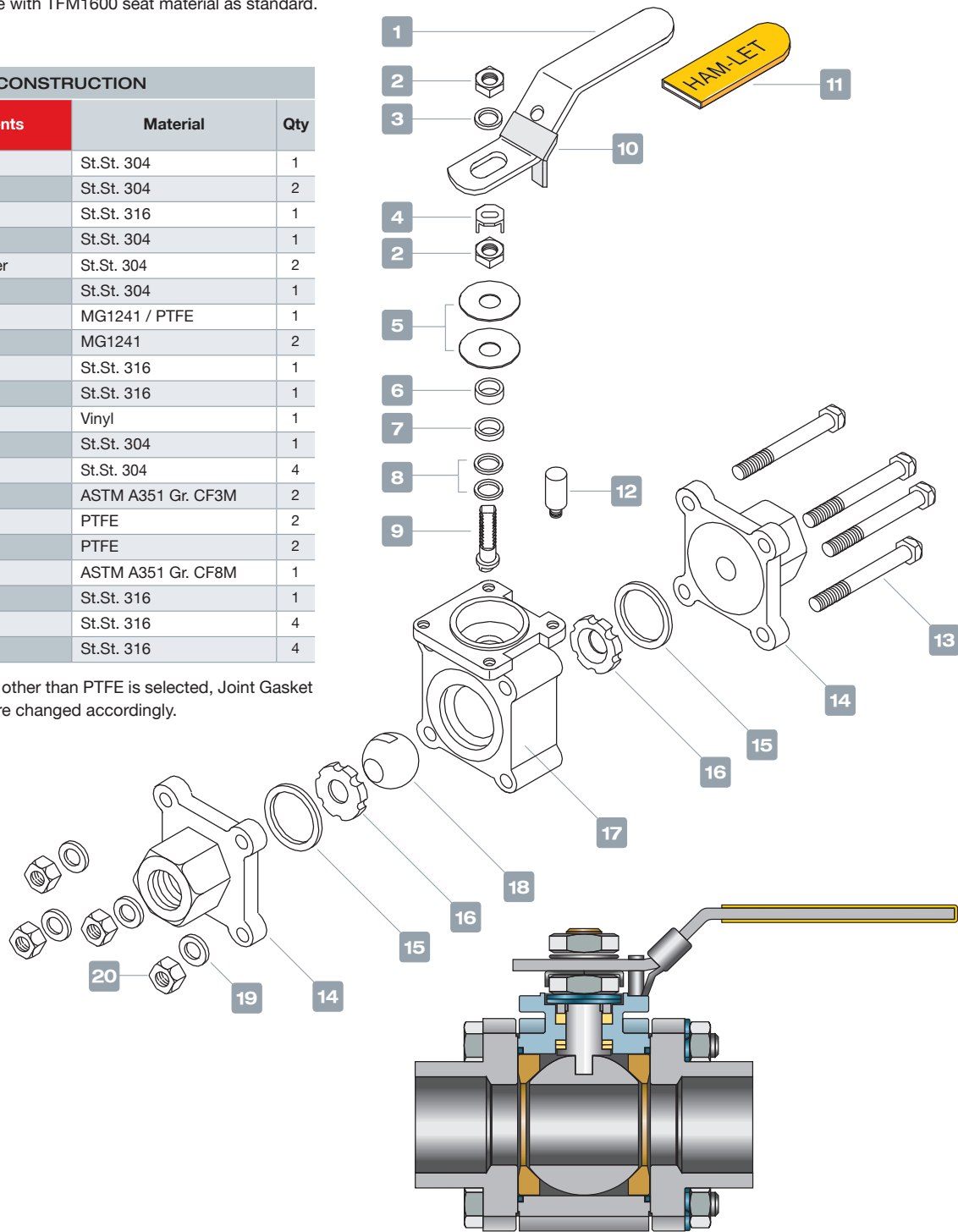
- Precision Investment cast body in CF8M stainless steel
- Precision Investment cast end caps in CF3M stainless steel
- Blow-out proof stem with Belleville washer design for long life stem sealing
- Manual Operation with integral locking device
- Flow coefficient (Cv) from 1.2 to 24.0
- MAWP 3000 psig (204 Bar)
- MAWT 450°F (232°C)
- H-500S is available with TFM1600 seat material as standard.

MATERIALS OF CONSTRUCTION			
No.	Components	Material	Qty
1	Handle	St.St. 304	1
2	Stem Nut	St.St. 304	2
3	Stem Washer	St.St. 316	1
4	Lock Saddle	St.St. 304	1
5	Belleville Washer	St.St. 304	2
6	Gland	St.St. 304	1
7	Stem Packing	MG1241 / PTFE	1
8	Stem Seal	MG1241	2
9	Stem	St.St. 316	1
10	Locking Device	St.St. 316	1
11	Handle Sleeve	Vinyl	1
12	Stop Pin	St.St. 304	1
13	Tightening Bolt	St.St. 304	4
14	End Cap	ASTM A351 Gr. CF3M	2
15	Joint Gasket	PTFE	2
16	Seat	PTFE	2
17	Body	ASTM A351 Gr. CF8M	1
18	Ball	St.St. 316	1
19	Washer	St.St. 316	4
20	Bolt Nut	St.St. 316	4

Note: If seat material other than PTFE is selected, Joint Gasket and Stem Packing are changed accordingly.

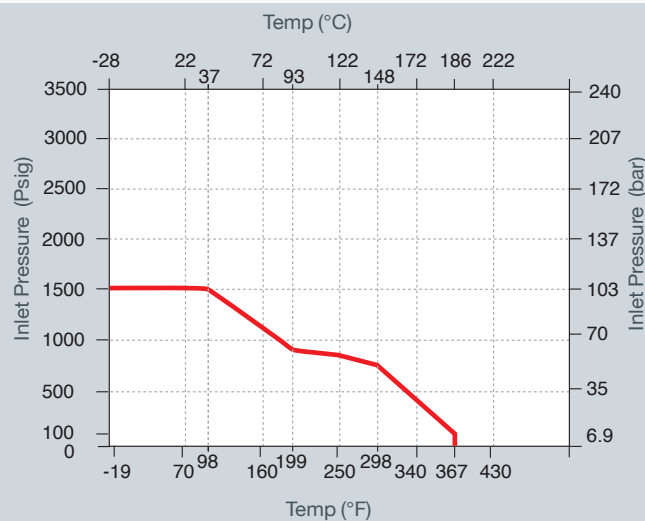
GENERAL

The H-500 Series is a moderate-pressure instrumentation Ball Valve for general service and instrumentation panels. The valves offer large ports for high flow, tight shutoff, long-life service and low operating torque. The H-500 Series can be used for bi-directional flow, is rated to max. 3000 psig (204 Bar) and performs on/off service.



PRESSURE TEMPERATURE RATING

VIRGIN PTFE SEATS

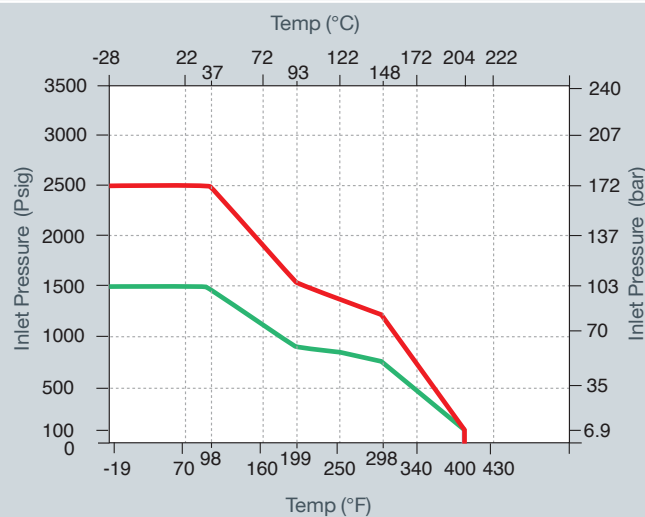


PTFE (Virgin Teflon®) Color - White

A good all around, general-purpose seat material. PTFE has outstanding resistance to chemical attack by a broad range of organic chemicals, inorganic chemicals and solvents, and is generally considered chemically inert. PTFE is a self lubricating polymer with a very low coefficient of friction, which makes an excellent seat material

— For all sizes

TFM®1600 - PTFE SEATS



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 than PTFE. Chemical resistance is equal to PTFE material.

— 1/4" to 1"
— 1-1/4" to 2"

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-500 under Installation Instructions.

HAM-LET Ball Valves are designed for operation in the fully closed or fully open position.

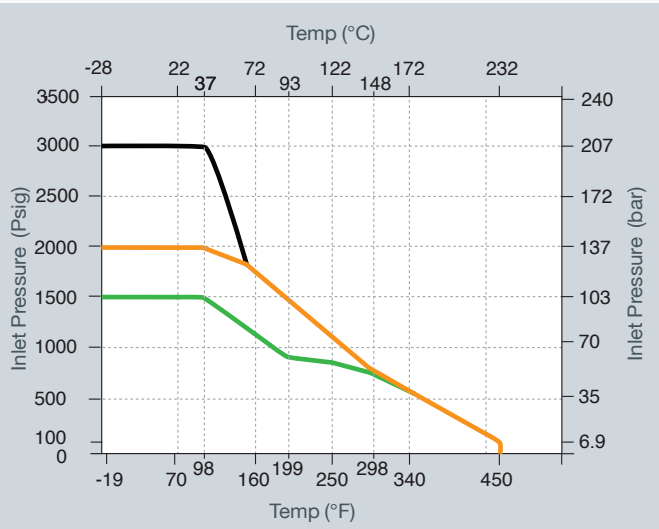
TESTING

The H-500 Series Ball Valves design has been tested for Proof and Burst. Every H500 Ball Valve is factory tested with nitrogen at 1000 psi (69 bar). Maximum allowable leakage across seat is 0.1 std cc/min.

CLEANING & PACKAGING

HAM-LET H-500 Ball Valve is treated with HAM-LET Passivation Cleaning and Packaging (Procedure 8075). Oxygen Cleaning and Packaging (Procedure 8055) is available as an option.

ST. ST. POWDER 50% FILLED PTFE SEATS

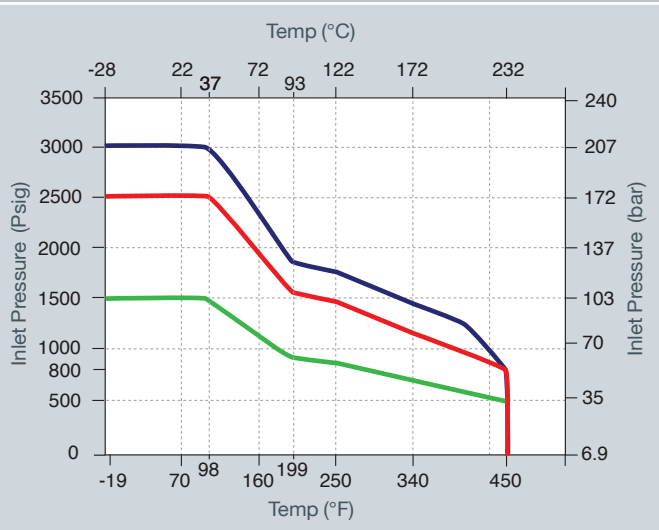


St. St. Powder Filled PTFE
Color - Gray

Excellent seat material for general applications to prevent over expansion and seat extrusion. It has lower deformation ratio than PTFE, but higher pressure and temperature rating. Chemical resistance is equal to PTFE material.

- Up to 1/2"
- 3/4" to 1"
- 1-1/4" to 2"

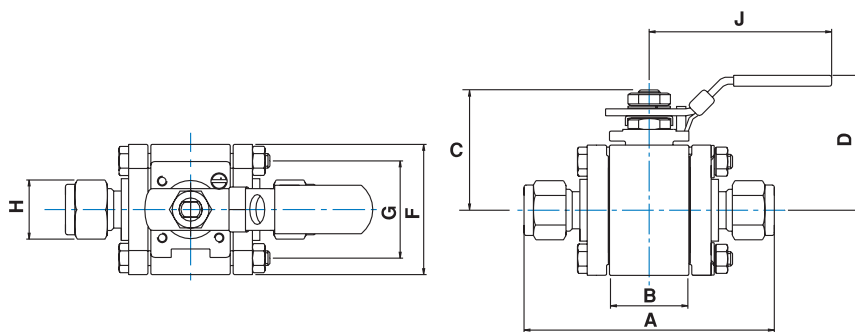
PEEK SEATS



PEEK (Poly Ether Keton)
Color - Offwhite

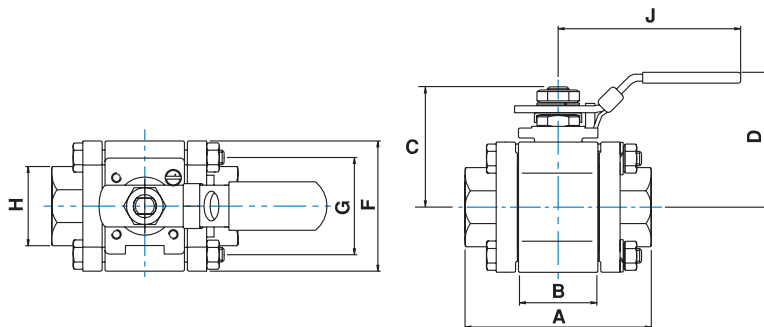
Excellent seat material for high-pressure and high-temperature applications. Excellent chemical resistance. Can be used continuously to 450°F (232°C) and in hot water or steam without permanent loss in physical properties. High strength for hostile environment and high pressure.

- Up to 1/2"
- 3/4" to 1"
- 1-1/4" to 2"



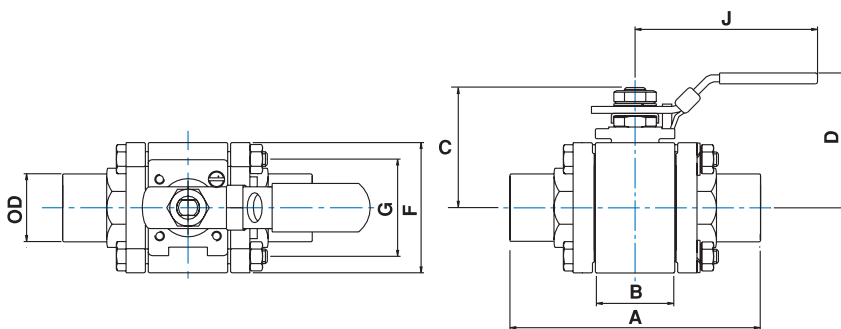
H-500 LET-LOK STANDARD CONFIGURATION DIMENSIONS

SERIES	VALVE SIZE		Orifice		Cv	Ball ID		A		B		F		C		D		H		J		G	
H-500S	6	1/4"	4.8	0.19	1.2	4.8	0.19	80.5	3.17	15.1	0.59	38.5	1.52	33.2	1.31	48.0	1.89	14.3	0.56	61.0	2.40	25.5	1.00
	10	3/8"	7.1	0.28	3.7	7.1	0.28	80.5	3.17	15.1	0.59	38.5	1.52	33.2	1.31	48.0	1.89	17.5	0.69	61.0	2.40	25.5	1.00
H-500	12	1/2"	10.3	0.40	7.6	11.0	0.43	92.3	3.63	20.6	0.81	44.4	1.75	40.5	1.59	56.5	2.22	22.2	0.87	121.5	4.78	32.0	1.26
	20	3/4"	13.0	0.51	13.6	14.1	0.56	92.7	3.65	24.6	0.97	50.8	2.00	44.0	1.73	60.0	2.36	28.6	1.13	121.5	4.78	38.2	1.50
	25	1"	20.0	0.79	36.0	20.0	0.79	124.4	4.90	31.8	1.25	60.0	2.36	56.7	2.23	74.5	2.93	38.1	1.50	151	5.94	44.0	1.73



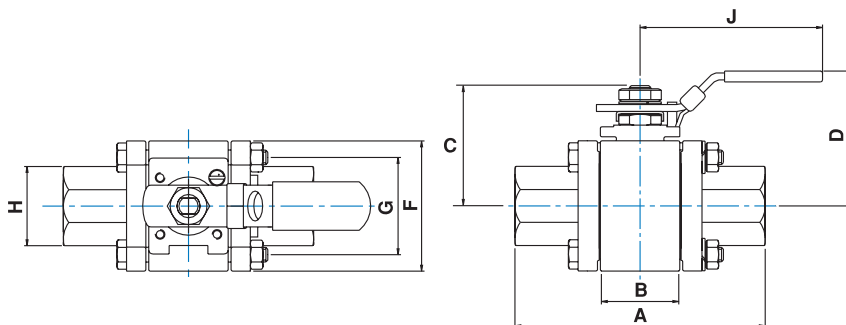
H-510 FEMALE NPT / BSPT STANDARD CONFIGURATION DIMENSIONS

SERIES	VALVE SIZE	Orifice		Cv	Ball ID		A		B		F		C		D		H		J		G	
H-500S	1/4"	7.1	0.28	1.2	7.1	0.28	54.9	2.16	15.1	0.59	38.5	1.52	33.2	1.31	48.0	1.89	19.0	0.75	61.0	2.40	25.5	1.00
H-500	3/8"	11.0	0.43	10	11.0	0.43	70.0	2.76	20.6	0.81	44.4	1.75	40.5	1.59	56.5	2.22	27.0	1.06	121.5	4.78	32.0	1.26
	1/2"	11.0	0.43	10	11.0	0.43	70.0	2.76	20.6	0.81	44.4	1.75	40.5	1.59	56.5	2.22	27.0	1.06	121.5	4.78	32.0	1.26
	3/4"	14.1	0.56	12.0	14.1	0.56	74.0	2.91	24.6	0.97	50.8	2.00	44.0	1.73	60.0	2.36	33.0	1.30	121.5	4.78	38.2	1.50
	1"	20.0	0.79	36.0	20.0	0.79	99.0	3.90	31.8	1.25	60.0	2.36	56.7	2.23	74.5	2.93	42.0	1.65	151	5.94	44.0	1.73



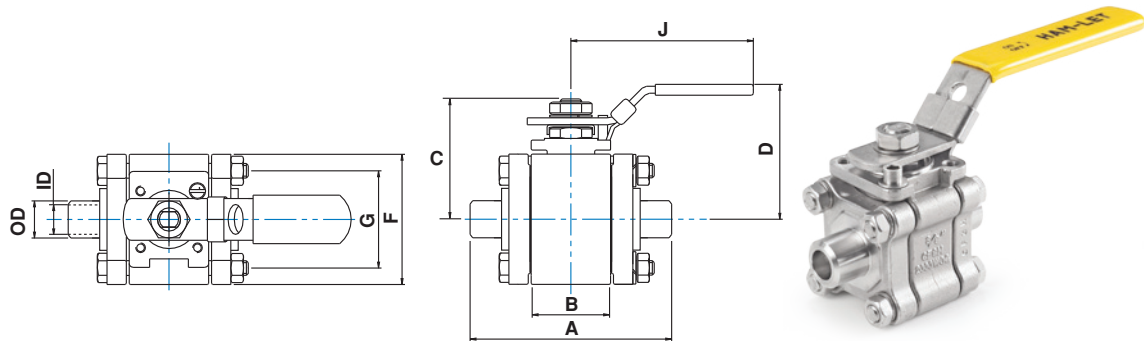
H-510 TUBE SOCKET WELD STANDARD CONFIGURATION DIMENSIONS

SERIES	VALVE SIZE		Orifice		Cv	Ball ID		A		B		F		C		D		OD		J		G	
	mm	inch	mm	inch		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
H-510S	6	1/4"	4.8	0.19	1.2	4.8	0.19	54.9	2.16	15.1	0.59	38.5	1.52	33.2	1.31	48.0	1.89	19.0	0.75	61.0	2.40	25.5	1.00
	10	3/8"	7.1	0.28	3.7	7.1	0.28	54.9	2.16	15.1	0.59	38.5	1.52	33.2	1.31	48.0	1.89	19.0	0.75	61.0	2.40	25.5	1.00
H-510	12	1/2"	10.3	0.40	7.5	11.0	0.43	70.0	2.76	20.6	0.81	44.4	1.75	40.5	1.59	56.5	2.22	20.5	0.81	121.5	4.78	32.0	1.26
	20	3/4"	14.1	0.56	12.0	14.1	0.56	74.0	2.91	24.6	0.97	50.8	2.00	44.0	1.73	60.0	2.362	27.0	1.06	121.5	4.78	38.2	1.50
	25	1"	22.35	0.88	38.0	22.35	0.88	99.0	3.90	31.8	1.25	60.0	2.36	56.7	2.23	74.5	2.93	34.0	1.34	151.0	5.94	44.0	1.73



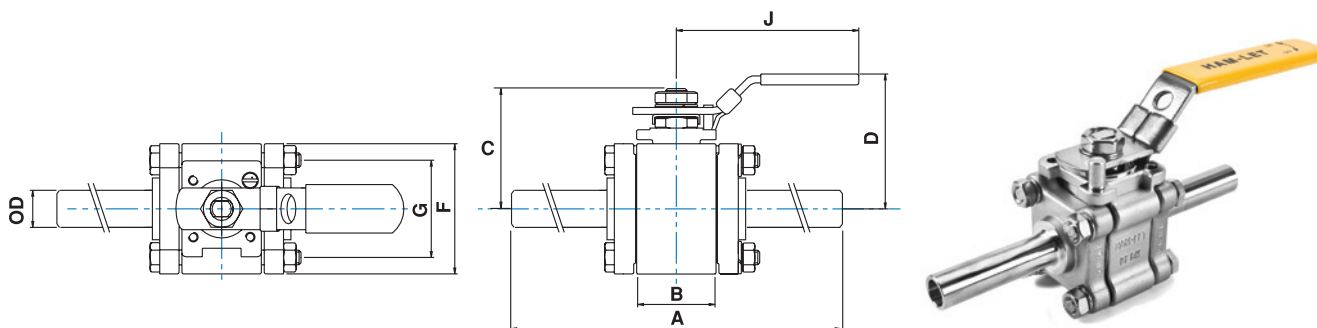
H-510 PIPE SOCKET WELD STANDARD CONFIGURATION DIMENSIONS

SERIES	VALVE SIZE	Orifice		Cv	Ball ID		A		B		F		C		D		H		J		G	
		mm	inch		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
H-500	1/4"	11.0	0.43	10	11.0	0.43	70.0	2.76	20.6	0.81	44.4	1.75	40.5	1.59	56.5	2.22	27.0	1.06	121.5	4.78	32.0	1.26
	3/8"	11.0	0.43	10	11.0	0.43	70.0	2.76	20.6	0.81	44.4	1.75	40.5	1.59	56.5	2.22	27.0	1.06	121.5	4.78	32.0	1.26
	1/2"	11.0	0.43	10	11.0	0.43	70.0	2.76	20.6	0.81	44.4	1.75	40.5	1.59	56.5	2.22	27.0	1.06	121.5	4.78	32.0	1.26
	3/4"	14.1	0.56	12.0	14.1	0.56	74.0	2.91	24.6	0.97	50.8	2.00	44.0	1.73	60.0	2.36	33.0	1.30	121.5	4.78	38.2	1.50
	1"	20.0	0.79	36.0	20.0	0.79	99.0	3.90	31.8	1.25	60.0	2.36	56.7	2.23	74.5	2.93	42.0	1.65	151	5.94	44.0	1.73



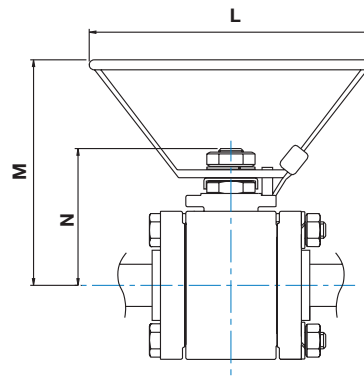
H-580 PIPE BUTTWELD STANDARD CONFIGURATION DIMENSIONS

SERIES	VALVE SIZE	Orifice		Cv	Ball ID		A		B		F		C		D		OD		ID		J		G	
		mm	inch		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
H-580S	1/4"	7.1	0.28	3.7	7.1	0.28	52.8	2.08	15.1	0.59	38.5	1.52	33.2	1.31	48.0	1.89	13.7	0.54	9.20	0.36	61.0	2.40	25.5	1.00
	3/8"	7.1	0.28	3.7	7.1	0.28	52.8	2.08	15.1	0.59	38.5	1.52	33.2	1.31	48.0	1.89	17.1	0.67	10.7	0.42	61.0	2.40	25.5	1.00
H-580	1/2"	11	0.43	10	11.0	0.43	67	2.64	20.6	0.81	44.4	1.75	40.5	1.59	56.5	2.22	21.3	0.84	15.8	0.62	121.5	4.78	32.0	1.26
	3/4"	14.1	0.56	12	14.1	0.56	72	2.83	24.6	0.97	50.8	2.00	44.0	1.73	60.0	2.36	27.1	1.07	21.0	0.83	121.5	4.78	38.2	1.50
	1"	20	0.79	36	20.0	0.79	97	3.82	31.8	1.25	60.0	2.36	56.7	2.23	74.5	2.93	34.1	1.34	26.6	1.05	151	5.94	44.0	1.73



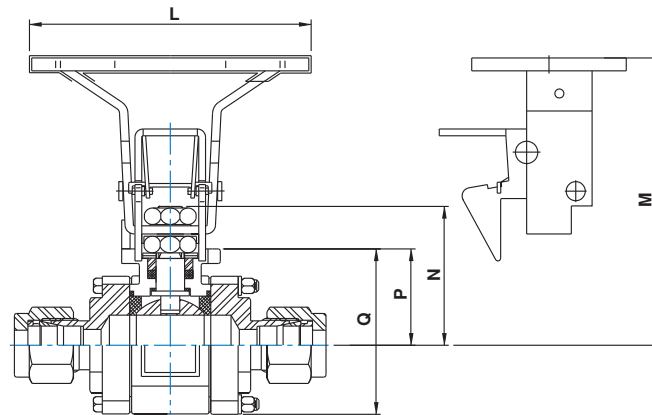
H-580 EXTENDED AND SHORT TUBE BUTTWELD STANDARD CONFIGURATION DIMENSIONS

SERIES	VALVE SIZE		Orifice		Cv	Ball ID		A extended		A short		B		F		C		D		OD		J		G	
	mm	inch	mm	inch		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
H-580	6	1/4"	4.4	0.17	1	9.4	0.37	-	-	71.5	2.81	20.6	0.81	44.4	1.75	40.5	1.59	56.5	2.22	6.4	0.25	121.5	4.78	32.0	1.26
	10	3/8"	7.7	0.3	3.8	9.4	0.37	-	-	71.5	2.81	20.6	0.81	44.4	1.75	40.5	1.59	56.5	2.22	9.57	0.38	121.5	4.78	32.0	1.26
	12	1/2"	9.4	0.37	7	9.4	0.37	140	5.5	-	-	20.6	0.81	44.4	1.75	40.5	1.59	56.5	2.22	12.7	0.5	121.5	4.78	32.0	1.26
	20	3/4"	15.75	0.62	18	15.8	0.87	150	5.9	-	-	24.6	0.97	50.8	2.00	44.0	1.73	60.0	2.36	19.05	0.75	121.5	4.78	38.2	1.50
	25	1"	22.1	0.87	38	22.35	0.88	161.2	6.35	-	-	31.8	1.25	60.0	2.36	56.7	2.23	74.5	2.93	25.4	1	151	5.94	44.0	1.73



H-500 OVAL HANDLE

VALVE SIZE	N		L		M	
	mm	inch	mm	inch	mm	inch
1/4", 3/8", 1/2"	40.5	1.6	105.0	4.13	66	2.6
3/4"	44	1.73	105.0	4.13	70	2.75
1"	56.7	2.23	105.0	4.13	88.7	3.49



H-500 GRIP HANDLE (OVAL)

VALVE SIZE	L		M		N		P		Q	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
1/4"	104	4.09	94.5	3.72	40.5	1.59	27.5	1.08	49.5	1.95
3/8"	104	4.09	94.5	3.72	40.5	1.59	27.5	1.08	49.5	1.95
1/2"	104	4.09	94.5	3.72	40.5	1.59	27.5	1.08	49.5	1.95
3/4"	104	4.09	98	3.86	44	1.73	30.5	1.2	56	2.2

H-500 - PNEUMATIC ACTUATED VALVES

FEATURES

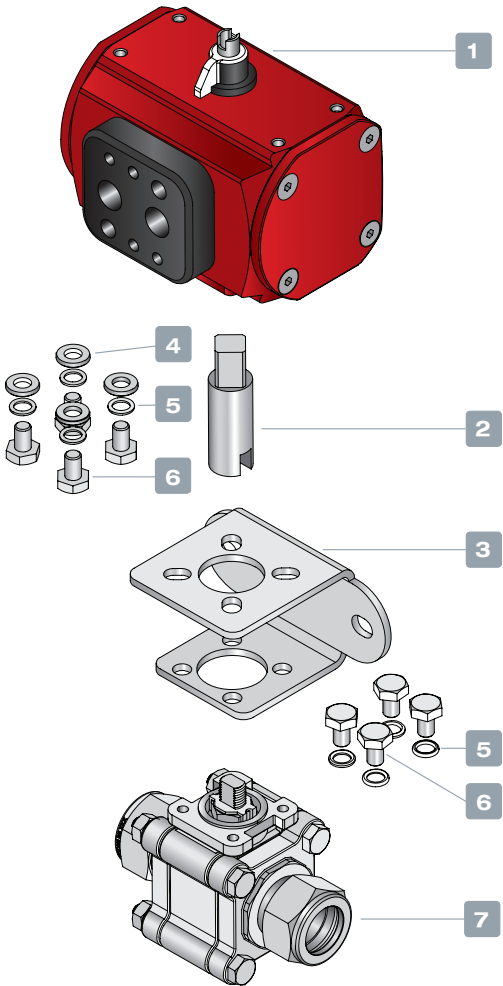
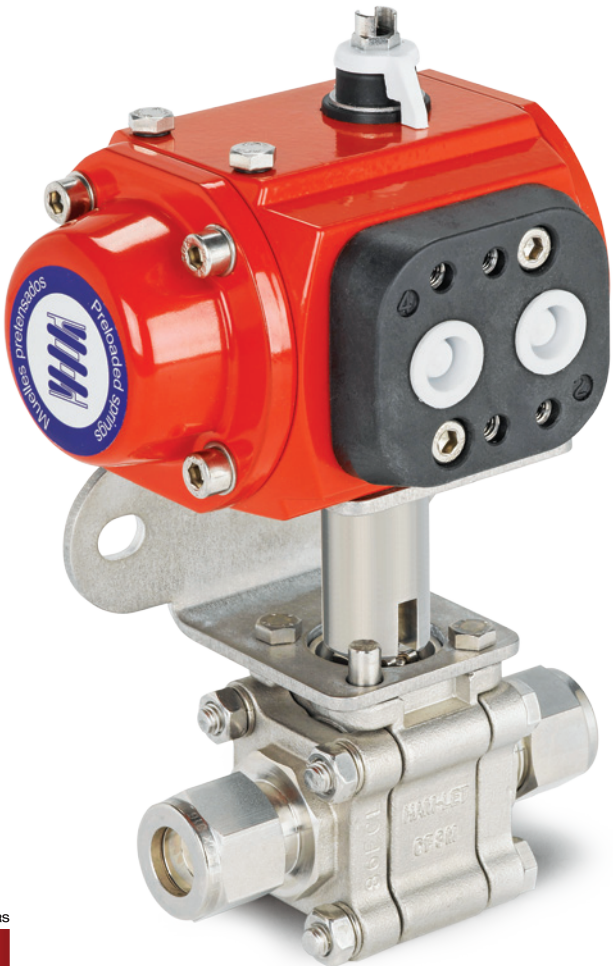
- 90° Actuation for 2-way valves
- Actuators comply with industry standards for interface with ISO 5211, NAMUR and VDI/VDE 3845
- Actuated valves are available factory assembled or separately, actuator and mounting kits
- Limit switches, proximity sensors, position indicators, pilot valves and other accessories are available upon request
- Standard Temperature range: -32°C to 90°C (-25.6°F to 194°F)
Optional: High Temperature, Low Temperature

MATERIAL OF CONSTRUCTION

No.	Part	Qty	Material
1	Actuator	1	AL 356-T5
2	Coupling	1	St.St.316
3	Bracket	1	St.St.304
4	Washer Flat	4	St.St.304
5	Washer Spring	8	St.St.304
6	Screw	8	St.St.304
7	H500	1	St.St.316

GENERAL

Four standard actuator sizes are available upon request: Mini (designator "A1"), Small (designator "A2"), Medium (designator "A3"), and Large (designator "A4").
Improved operational speed enables better valve opening and closing control.
ATEX certification of Valves-Actuators' assemblies are available on request at the time of order quotation.



ACTUATED H-500 SERIES

Selection of Valve-Actuator assemblies provided herein is based on:

- Valve maximum allowable working pressure
- Ambient temperature (50 to 100°F / 10 to 37°C)
- Actuator fits to valve based on operating pressure of 6 bar, as per table.

To order H-500 ball valve factory assembled with an actuator, the actuator designator shall be added to the valve part number/description per the below table. For example:

H-500-SS-L-3/4-T with standard Double Acting Aluminum Actuator

H-500-SS-L-3/4-T-A2

To order an actuator and mounting kit for field assembly:

Spring Return Actuator ordering number: **Z-A2**

Corresponding mounting kit: **Z-500-MK-3/4 -F03-F04-A2**

**Please contact your local representative
for ordering information on Lubricant Free Actuated Valves**

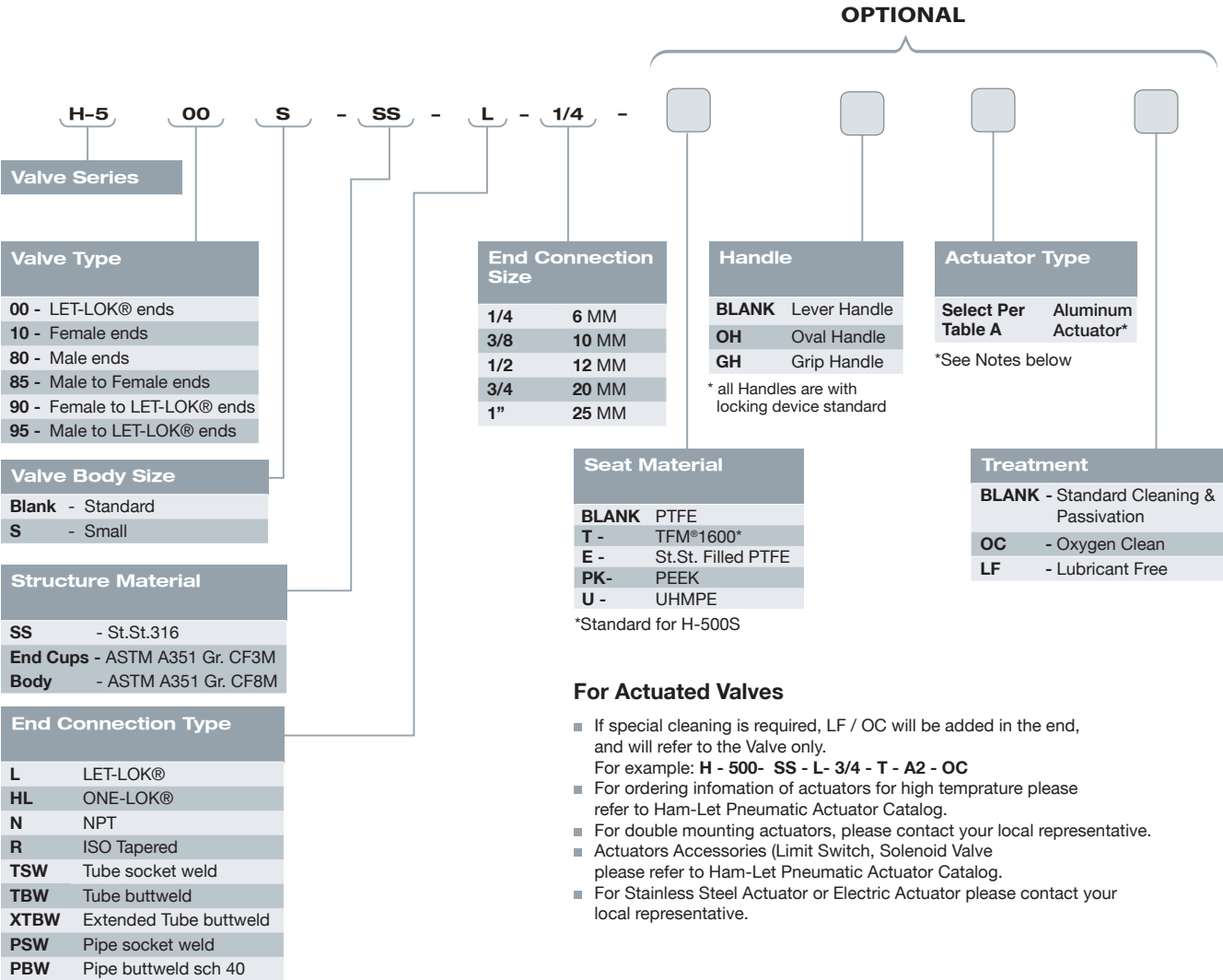


Table A: Ordering information for Actuated Valves

Series	Ends Size	Seats	Minimum Actuator Operating Pressure Bar (Psi)	Actuator Designators (Factory Assembled)			Actuator Ordering Code		Mounting Kit Ordering Info
				Spring Return		Double Acting	Spring Return	Double Acting	
				NO	NC				
H-500S	1/4", 3/8" (6 mm, 10 mm)	TFM 1600	5 (72.5)	A1O	A1C	A1	Z-A1S	Z-A1	Z-500-MK-1/4"-F03-F04-A1
H-500	1/4"-1/2" (6 mm-12 mm)	PTFE TFM 1600	5 (72.5)	A2O	A2C	A1	Z-A2S	Z-A1	SR: Z-500-MK-1/2"-F03-F04-A2 DA: Z-500-MK-1/2"-F03-F04-A1
		St.St. PTFE	5 (72.5)	A2O	A2C	A2	Z-A2S	Z-A2	Z-500-MK-1/2"-F03-F04-A2
		PEEK	5 (72.5)	A4O	A4C	A3	Z-A4S	Z-A3	SR: Z-500-MK-1/2"-F05-F07-A4 DA: Z-500-MK-1/2"-F04-F05-A3
	3/4" (20 mm)	PTFE TFM 1600	5 (72.5)	A2O	A2C	A2	Z-A2S	Z-A2	Z-500-MK-3/4"-F03-F04-A2
		St.St. PTFE	5 (72.5)	A3O	A3C	A2	Z-A3S	Z-A2	SR: Z-500-MK-3/4"-F04-F05-A3 DA: Z-500-MK-3/4"-F03-F04-A2
		PEEK	5 (72.5)	A4O	A4C	A4	Z-A4S	Z-A4	Z-500-MK-3/4"-F05-F07-A4
	1" (25 mm)	PTFE TFM 1600 St.St. PTFE	5 (72.5)	A4O	A4C	A3	Z-A4S	Z-A3	SR: Z-500-MK-1"-F05-F07-A4 DA: Z-500-MK-1"-F04-F05-A3
		PEEK	5 (72.5)	A4O	A4C	A4	Z-A4S	Z-A4	Z-500-MK-1"-F05-F07-A4

Note: For dimensions of Actuators assembled on the H-500 series please refer to the HPA section

H-500 SERIES ORDERING INFORMATION

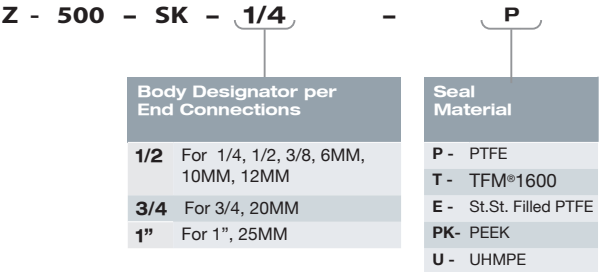


For Actuated Valves

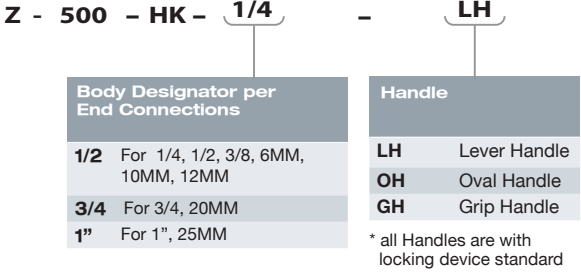
- If special cleaning is required, LF / OC will be added in the end, and will refer to the Valve only.
For example: **H - 500- SS - L- 3/4 - T - A2 - OC**
- For ordering information of actuators for high temperature please refer to Ham-Let Pneumatic Actuator Catalog.
- For double mounting actuators, please contact your local representative.
- Actuators Accessories (Limit Switch, Solenoid Valve please refer to Ham-Let Pneumatic Actuator Catalog.
- For Stainless Steel Actuator or Electric Actuator please contact your local representative.

ORDERING INFORMATION FOR SEAL KITS

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



ORDERING INFORMATION FOR HANDLE KITS



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.

TFM® - TM DuPont, Teflon® - TM DuPont

H-500, Rev.08, July 2011



A

B

C

D

E

F

G

H

