

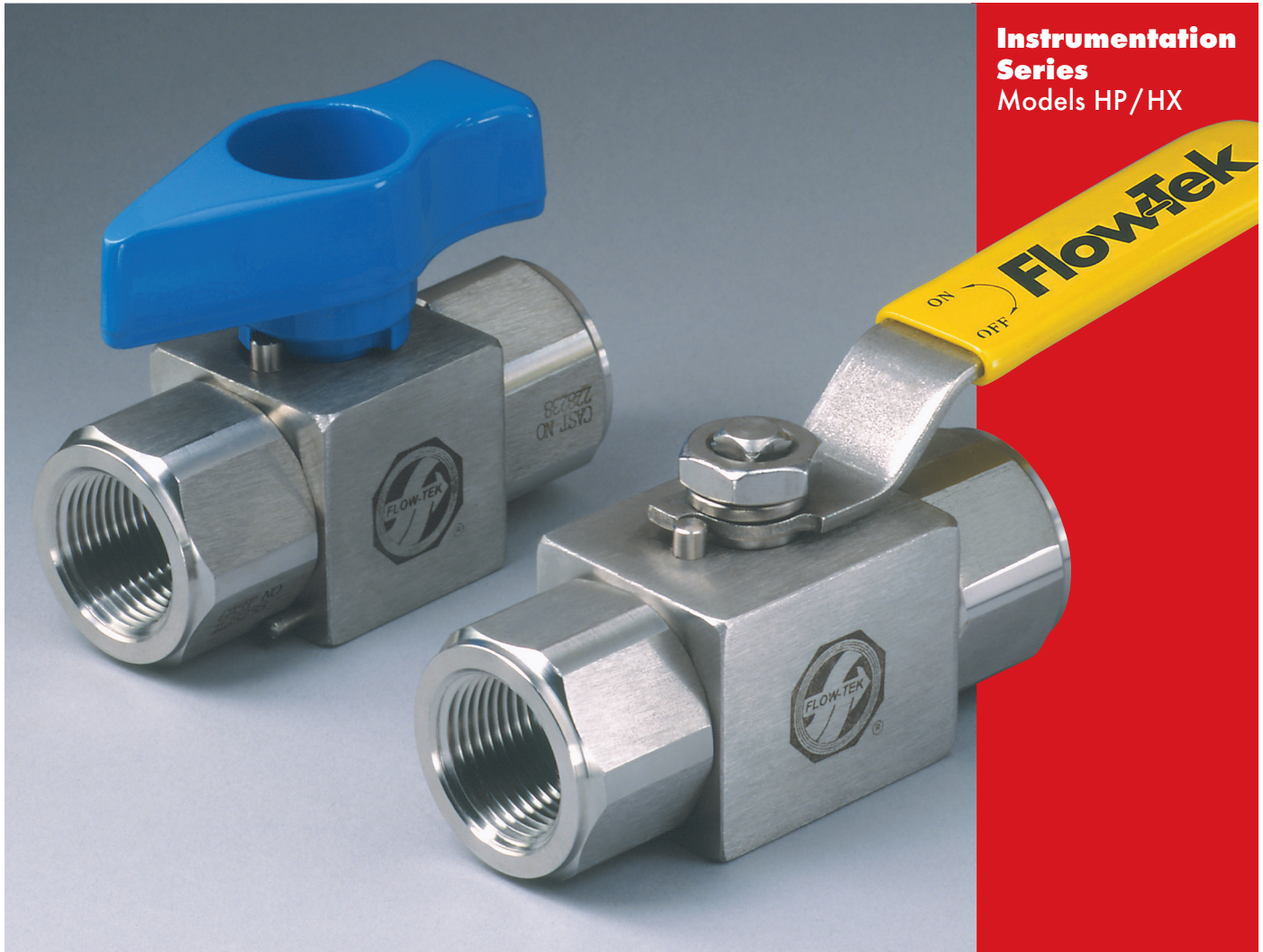


Flow-Tek®

A Subsidiary of BRAY INTERNATIONAL, Inc.

Threaded Standard Port Ball Valves, 1/4" - 1"

For High Pressure Applications



**Instrumentation
Series**
Models HP/HX

Flow-Tek's Instrumentation Series ball valves offer rugged reliability for high pressure and instrumentation applications. The valves feature three piece bodies designed for flexibility of installation and ease of maintenance. Both models HP and HX are constructed as standard with 316 stainless steel bodies manufactured to NACE specifications. Other body materials are available such as Duplex SS, Hastelloy®, Monel and Titanium. All bodies are marked with a heat code for full material traceability.

A floating ball design provides a positive, bubble tight shut off with smooth quarter turn operation at low operating torque. Additional Instrumentation Series advantages include a choice of lever or pointer handles, travel limit stop pins and replaceable seats and seals. Locking kits which secure the valve in a desired position are also available.

Safety features include an internally loaded blow-out proof stem and end connections that are pinned to prevent inadvertent loosening or disassembly.

Pressure Ratings

Model HP: 6,000 psi

Model HX: 10,000 psi

End Connections

Standard: NPT

Optional: Compression
Fittings

Actuator Mounting

Model HP and HX valves are available with actuator mounting drilling as an option.

Dimensions Model HP

Size ins mm	A	∅B	C	D	□E	F	□G	H
1/4 6	2.8 71	0.39 10	1.8 45	4.5 115	1.3 32	0.6 16	0.3 8.5	1.9 49
3/8 10	3.0 77	0.39 10	1.8 45	4.5 115	1.3 32	0.6 16	0.3 8.5	1.9 49
1/2 15	3.3 85	0.39 10	1.8 45	4.5 115	1.3 32	0.6 16	0.3 8.5	1.9 49
3/4 20	3.5 90	0.50 12.7	2.0 50	4.5 115	1.5 38	0.59 15	0.3 8.5	2.1 52
1 25	4.4 111	0.79 20	2.4 60	6.5 165	2.0 50	1.1 27	0.5 12.5	—

Dimensions Model HX

Size ins mm	A	∅B	C	D	□E	F	□G	H
1/4 6	3.2 81	0.39 10	1.8 45	4.5 115	1.3 32	0.6 16	0.3 8.5	1.9 49
3/8 10	3.4 87	0.39 10	1.8 45	4.5 115	1.3 32	0.59 15	0.3 8.5	1.9 49
1/2 15	3.7 95	0.39 10	1.8 45	4.5 115	1.3 32	0.6 16	0.3 8.5	1.9 49
3/4 20	3.9 100	0.50 12.7	2.0 50	4.5 115	1.5 38	0.59 15	0.3 8.5	2.1 52
1 25	4.8 122	0.79 20	2.4 60	6.5 165	2.0 50	1.1 27	0.5 12.5	—

∅ Indicates round dimensions. □ Indicates square dimensions. **Note:** Optional Actuator Mounting drilling must be specified when ordering.

Actuator Mounting

S	∅T	V
1.0 26	1.2 30	M4x0.2 M4x6
1.0 26	1.2 30	M4x0.2 M4x6
1.0 26	1.2 30	M4x0.2 M4x6
1.0 26	1.2 30	M4x0.2 M4x6
1.6 40	1.6 40	M5x0.3 M5x8

Cv Torque Weight

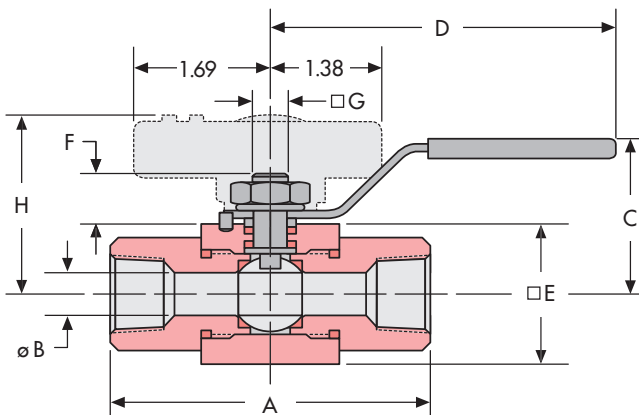
US GPM	lbs-ins Nm	lbs kg
7.5	45 5.1	1.2 0.5
7.5	45 5.1	1.2 0.5
7.5	45 5.1	1.2 0.5
12	75 8.5	1.7 0.7
32	180 20.3	4.0 1.5

Actuator Mounting

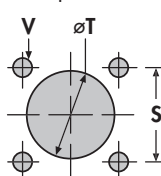
S	∅T	V
1.0 26	1.2 30	M4x0.2 M4x6
1.0 26	1.2 30	M4x0.2 M4x6
1.0 26	1.2 30	M4x0.2 M4x6
1.0 26	1.2 30	M4x0.2 M4x6
1.6 40	1.6 40	M5x0.3 M5x8

Cv Torque Weight

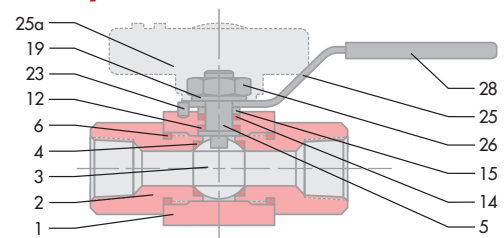
US GPM	lbs-ins Nm	lbs kg
7.5	50 5.6	1.2 0.5
7.5	50 5.6	1.2 0.5
7.5	50 5.6	1.3 0.6
12	95 10.7	1.9 0.8
32	240 27.1	4.2 1.7



Actuator Mounting (Optional)



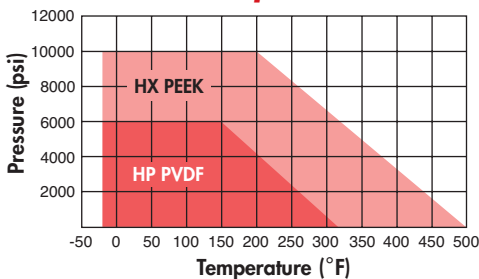
Components & Materials



Item	Name	Material	Qty.
1	Body	Stainless Steel 316	1
2	End Connector	Stainless Steel 316	2
3	Ball	Stainless Steel 316	1
4	Seat*	PVDF / PEEK*	2
5	Stem	Stainless Steel 316	1
6	Body Seal*	PTFE	2
12	Thrust Washer*	RPTFE / PVDF*	1
14	Stem Packing*	RPTFE	1
15	Packing Gland	Stainless Steel	1
19	Lock Washer	Stainless Steel	2
23	Stop Pin	Stainless Steel	1
25	Lever Handle	Stainless Steel	1
25a	Pointer Handle	Mazak 3	1
26	Lock Nut	Stainless Steel	1
28	Handle Sleeve	Vinyl	1

* Model HP Seat: PVDF, Thrust Washer: RPTFE
 Model HX Seat: PEEK, Thrust Washer: PVDF
 *Parts included in the repair kits.

Pressure / Temperature



A 3-Way version of the Model HP valve is also available. Please see Flow-Tek brochure #3HP.

Testing

All valves are factory tested in the Open and Closed position for bubble tight integrity before shipping to the following test pressures:

Shell: HP 9,000 psig
 HX 15,000 psig
 Seat: 1.1 x Rated Pressure
 Final Seat Test: 100 psig Air



Flow-Tek

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