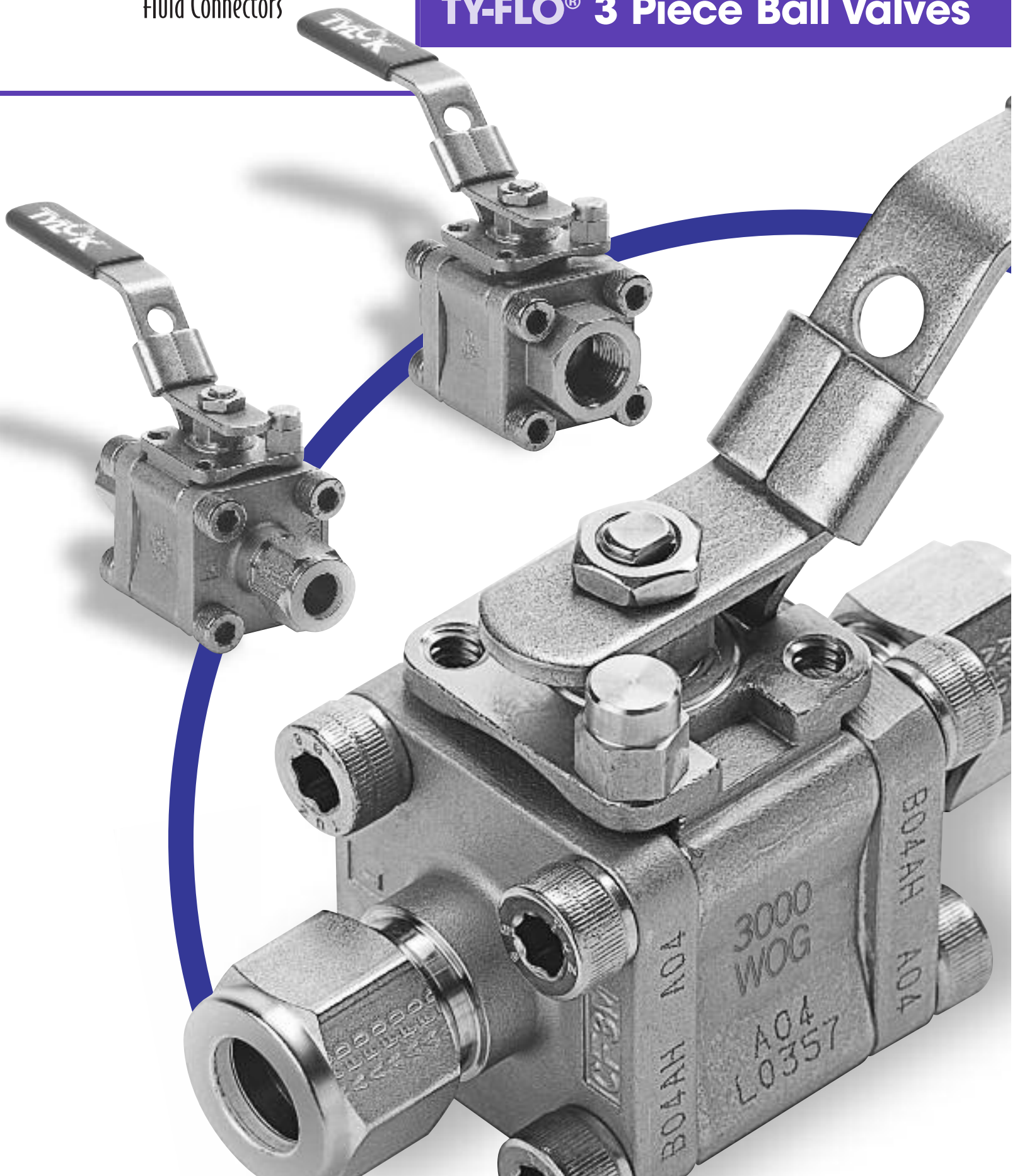
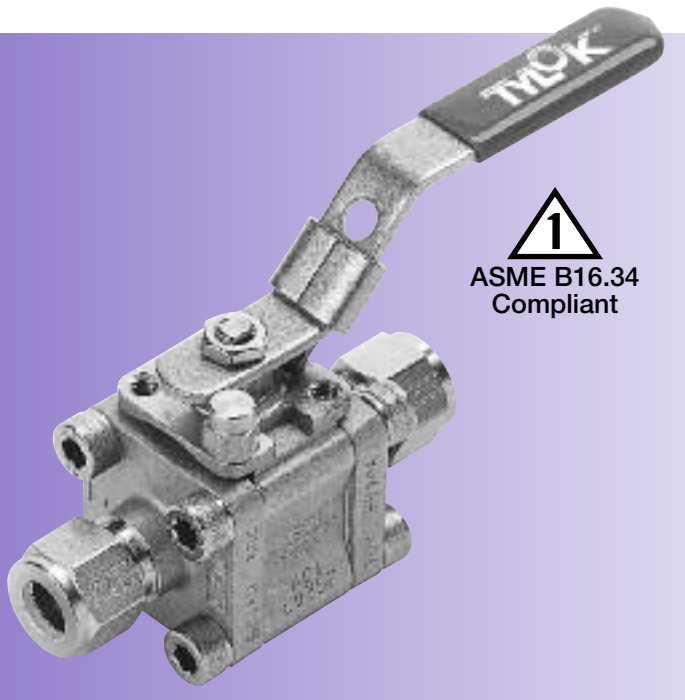


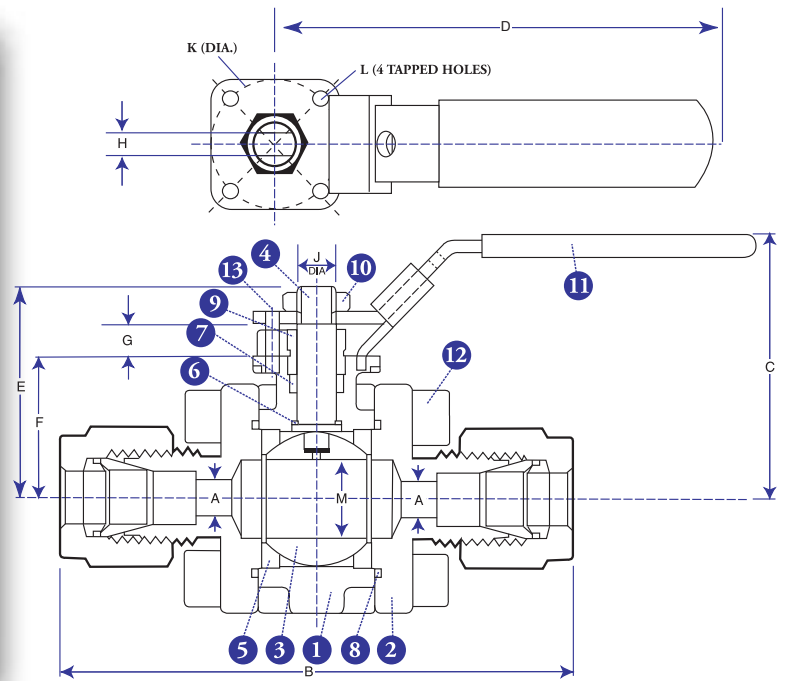
TY-FLO® 3 Piece Ball Valves



TY-FLO® 3 Piece Ball Valves



1
ASME B16.34
Compliant



FEATURES

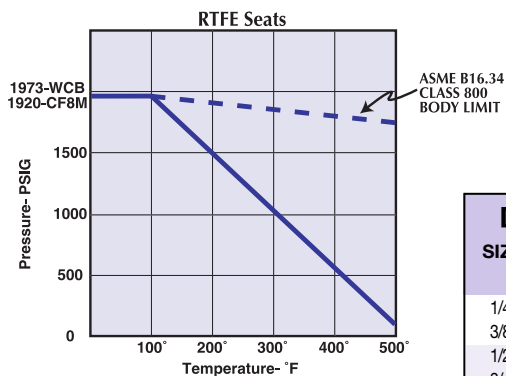
- 3-Piece, 8-Bolt construction provides superior high pressure performance and ASME B16.34 compliance
- Fire safe to API 607 4th Edition & ISO 10497
- ISO 5211 4-Bolt actuator mounting pad
- API 608 compliant
- NACE MR01-75 Rev 2000 compliant
- Standard 304SS latch lock handles
- Standard ASTM A193 grade B8 stainless bolts
- TFM seats provide superior high temperature performance and chemical resistance
- PEEK seats and seals available

Ratings

CF8M with 316SS Trim: 1920PSIG @ 100F
250PSIG Saturated Steam Rating

Materials of Construction (STD)

PART	QUANTITY	DESCRIPTION	STANDARD MATERIAL
1	1	BODY	ASTM A351 GR CF8M
2	2	TAILPIECE	ASTM A351 GR CF3M
3	1	BALL	ASTM A276 GR 316 OR CF8M
4	1	STEM	ASTM A276 GR 316 OR CF8M
5	2	SEAT	TFM (RTFE)
6	1	THRUST WASHER	TFM (RTFE)
7	1	PACKING SET	GRAPHITE
8	2	BODY SEAL	GRAPHITE
9	1	PACKING NUT	ASTM A276 GR 316 SS
10	1	HANDLE NUT	304SS
11	1	HANDLE ASSY	304SS
12	8	BODY BOLT	A193 B8(M2-SS)
13	1	HANDLE STOP	304SS

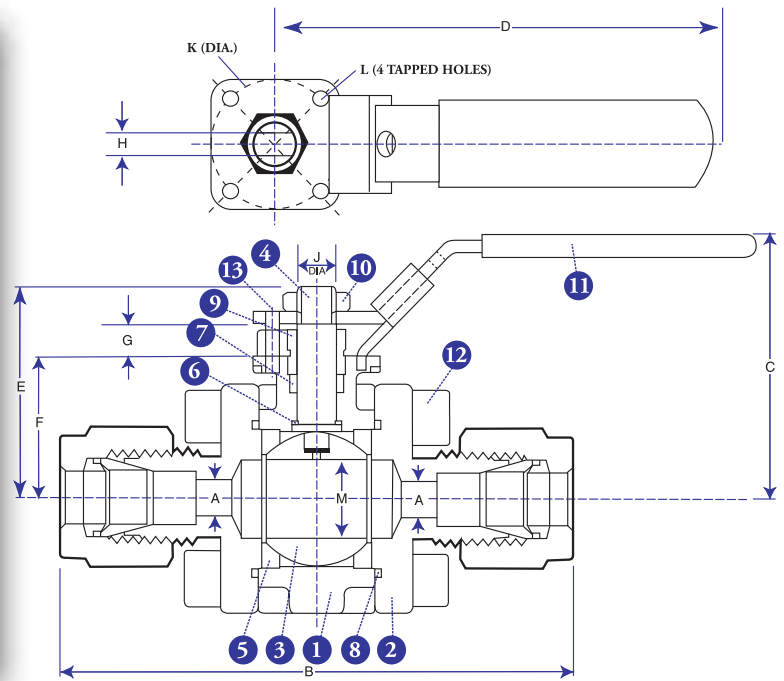
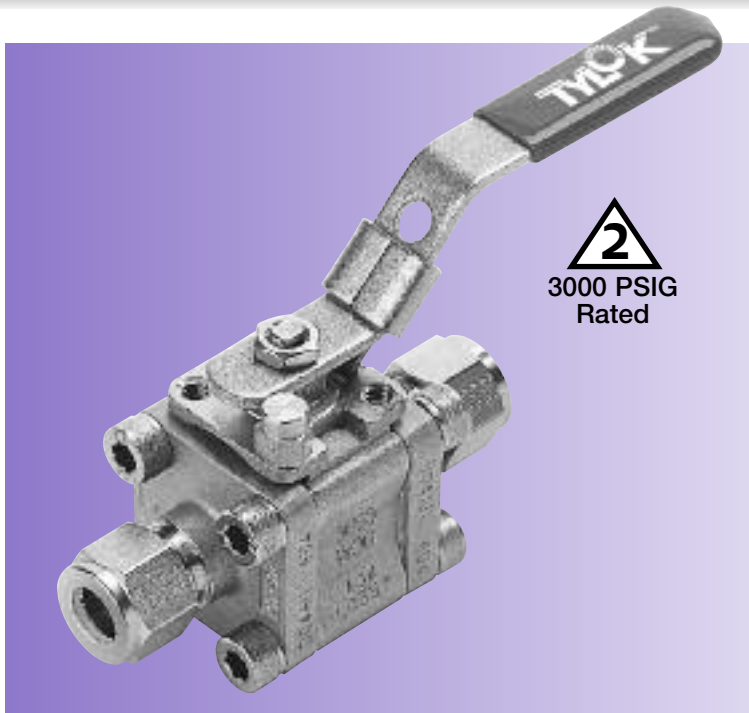


DIMENSIONS, WEIGHTS, CV FACTORS & MAXIMUM OPERATING TORQUE

SIZE	A (PORT)	B NO NUTS	B WITH NUTS	C	D	E	F	G	H	J	K DIA	L	M BALL PORT	ISO PATTERN	WT. LBS.	CV	Torque RTFE IN-LBS	Torque PEEK IN-LBS
1/4"	0.15	2.60	3.19	2.5	4.0	1.71	1.08	.30	0.197	0.31	1.42	1/4"-20UNC	.43	F03	1.7	1.0	100	130
3/8"	0.24	2.60	3.19	2.5	4.0	1.71	1.08	.30	0.197	0.31	1.42	1/4"-20UNC	.43	F03	1.7	2.5	100	130
1/2"	0.41	3.26	4.04	2.5	4.0	1.71	1.08	.30	0.197	0.31	1.42	1/4"-20UNC	.43	F03	1.8	7.5	100	130
3/4"	0.57	3.26	4.04	2.6	4.0	1.83	1.24	.30	0.197	0.31	1.42	1/4"-20UNC	.57	F03	2.2	18.0	200	250
1"	0.81	4.39	5.36	3.0	4.8	2.34	1.50	.37	0.276	0.40	1.65	1/4"-20UNC	.81	F04	3.8	40.0	230	300



TY-FLO® 3 Piece Ball Valves



FEATURES

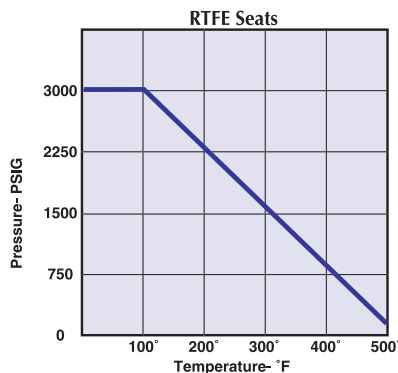
- 3-Piece, 8-Bolt construction provides superior high pressure performance
- Fire safe to API 607 4th Edition & ISO 10497
- ISO 5211 4-Bolt actuator mounting pad
- NACE MR01-75 Rev 2000 compliant
- Standard 304SS latch lock handles
- Standard ASTM A193 grade B8 stainless bolts
- TFM seats provide superior high temperature performance and chemical resistance
- PEEK seats and seals available
- Highest working pressure ratings - 3000WOG
- Minimum 3.2 to 1 hydrostatic safety factors

Ratings

CF8M with 316SS Trim: 3000PSIG @ 100F
250PSIG Saturated Steam Rating

Materials of Construction (STD)

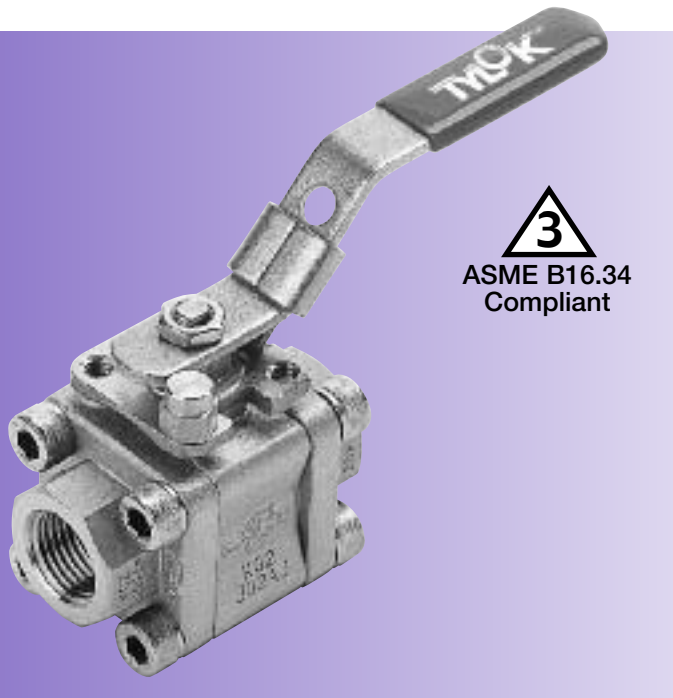
PART	QUANTITY	DESCRIPTION	STANDARD MATERIAL
1	1	BODY	ASTM A351 GR CF8M
2	2	TAILPIECE	ASTM A351 GR CF3M
3	1	BALL	ASTM A276 GR 316 OR CF8M
4	1	STEM	ASTM A276 GR 316 OR CF8M
5	2	SEAT	TFM (RTFE)
6	1	THRUST WASHER	TFM (RTFE)
7	1	PACKING SET	GRAPHITE
8	2	BODY SEAL	GRAPHITE
9	1	PACKING NUT	ASTM A276 GR 316 SS
10	1	HANDLE NUT	304SS
11	1	HANDLE ASSY	304SS
12	8	BODY BOLT	A193 B8
13	1	HANDLE STOP	304SS



DIMENSIONS, WEIGHTS, CV FACTORS & MAXIMUM OPERATING TORQUE

SIZE	A	B	B	C	D	E	F	G	H	J	K	L	M	ISO	WT.	CV	Torque	Torque
	(PORT)	NO	WITH								DIA		BALL		LBS.		RTFE	PEEK
		NUTS	NUTS										PORT	PATTERN			IN-LBS	IN-LBS
1/4"	0.19	2.60	3.19	2.5	4.0	1.71	1.08	.30	0.197	0.31	1.42	1/4"-20UNC	.43	F03	1.7	1.2	100	130
3/8"	0.28	2.60	3.19	2.5	4.0	1.71	1.08	.30	0.197	0.31	1.42	1/4"-20UNC	.43	F03	1.7	3.8	100	130
1/2"	0.41	3.26	4.04	2.5	4.0	1.71	1.08	.30	0.197	0.31	1.42	1/4"-20UNC	.43	F03	1.8	7.5	100	130
3/4"	0.57	3.26	4.04	2.6	4.0	1.83	1.24	.30	0.197	0.31	1.42	1/4"-20UNC	.57	F03	2.2	18.0	200	250
1"	0.81	4.39	5.36	3.0	4.8	2.34	1.50	.37	0.276	0.40	1.65	1/4"-20UNC	.81	F04	3.8	40.0	230	300

TY-FLO® 3 Piece Ball Valves

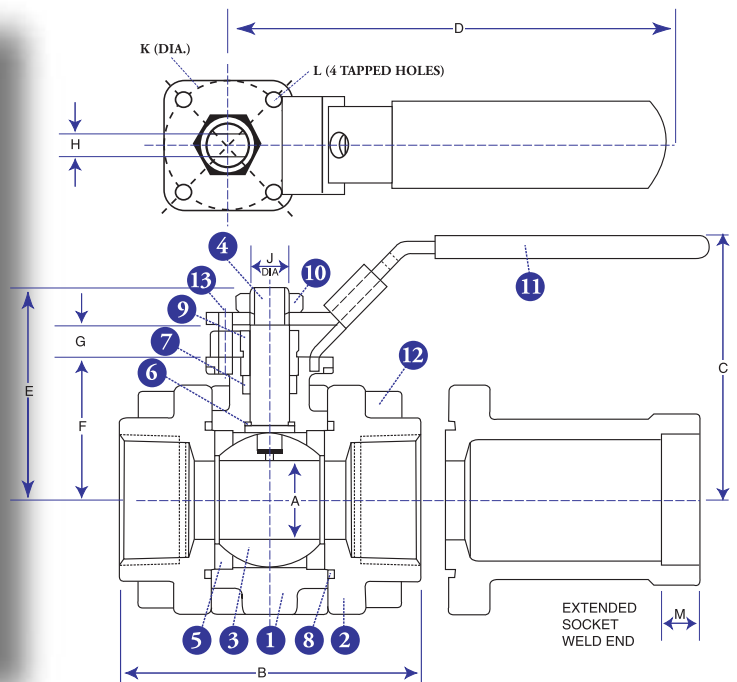
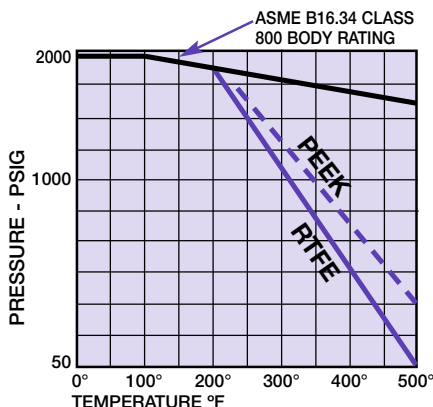


FEATURES

- 3-Piece, 8 Bolt Construction
- ASME B16.34, Class 800 Compliant
- API 608 Compliant
- Fire Safe to API 607 4th Edition & ISO 10497
- NACE MR01-75 Compliant
- ISO 5211 4 Bolt Mounting
- Standard 316SS Ball & Stem
- Standard 304SS Latch Lock Handles
- 1/4"-2" Full Port, 1/2"-2-1/2" Reduced Port
- Extended Socket Weld Ends Available
- Extended Socket Weld Ends and Extended Butt Weld Ends Available

Ratings

WCB/T316: 1973 PSIG @ 100°F
 CF8M/T316: 1920 PSIG @ 100°F
 All Sizes: 250 PSIG WSP



Materials of Construction (STD)

PART	QUANTITY	DESCRIPTION	STANDARD MATERIAL
1	1	BODY	ASTM A351 GR CF8M OR A216 WCB
2	2	TAILPIECE	ASTM A351 GR CF3M OR A216 WCB
3	1	BALL	ASTM A276 GR 316 OR CF8M
4	1	STEM	ASTM A276 GR 316 OR CF8M
5	2	SEAT	TFM (RTFE)
6	1	THRUST WASHER	TFM (RTFE)
7	1	PACKING SET	GRAPHITE
8	2	BODY SEAL	GRAPHITE
9	1	PACKING NUT	ASTM A276 GR 316 SS
10	1	HANDLE NUT	304SS
11	1	HANDLE ASSY	304SS
12	8	BODY BOLT	A193 B8(M2-SS) OR A193 B7(M2-CS)
13	1	HANDLE STOP	304SS

DIMENSIONS, WEIGHTS, CV FACTORS & MAXIMUM OPERATING TORQUE

SIZE	A (PORT)	B NPTF & EXTEND STD. SW	B SW/BW	C	D	E	F	G	H	J	K DIA	L	M	ISO PATTERN	WT. LBS.	CV	Torque RTFE IN-LBS	Torque PEEK IN-LBS
1/2" RP	0.43	2.7	6.0	2.5	4.0	1.71	1.08	0.31	0.197	0.31	1.42	1/4"-20UNC	0.38	F03	1.7	10	100	
3/4" RP	0.57	3.0	7.0	2.6	4.0	1.83	1.24	0.31	0.197	0.31	1.42	1/4"-20UNC	0.50	F03	2.2	25	200	
1" RP	0.81	3.5	7.5	3.0	4.8	2.34	1.50	0.37	0.276	0.44	1.65	1/4"-20UNC	0.50	F04	3.8	42	230	
1-1/4" RP	0.98	3.9	8.0	3.4	5.8	2.69	1.81	0.40	0.315	0.50	1.65	1/4"-20UNC	0.50	F04	5.1	55	250	
1-1/2" RP	1.25	4.5	8.0	3.7	7.5	2.91	1.95	0.43	0.394	0.62	1.97	1/4"-20UNC	0.50	F05	7.1	85	380	
2" RP	1.50	5.0	9.0	3.9	7.5	3.15	2.26	0.35	0.394	0.62	1.97	1/4"-20UNC	0.62	F05	9.8	120	520	
2-1/2" RP	2.00	6.9	N/A	5.3	11.7	4.37	3.11	0.49	0.472	0.75	2.76	5/16"-18UNC	N/A	F07	20.8	300	660	950
1/4"-3/8" FP	0.43	2.7	N/A	2.5	4.0	1.71	1.08	0.31	0.197	0.31	1.42	1/4"-20UNC	N/A	F03	1.7	10	100	
1/2" FP	0.57	2.8	7.0	2.6	4.0	1.83	1.24	0.31	0.197	0.31	1.42	1/4"-20UNC	0.38	F03	2.2	16	200	
3/4" FP	0.81	3.2	7.5	3.0	4.8	2.34	1.50	0.37	0.276	0.44	1.65	1/4"-20UNC	0.50	F04	3.8	40	230	
1" FP	1.00	3.8	8.0	3.4	5.8	2.69	1.81	0.40	0.315	0.50	1.65	1/4"-20UNC	0.50	F04	5.1	62	250	
1-1/4" FP	1.25	4.3	8.0	3.7	7.5	2.91	1.95	0.43	0.394	0.62	1.97	1/4"-20UNC	0.50	F05	7.1	115	380	
1-1/2" FP	1.50	4.8	9.0	3.9	7.5	3.15	2.26	0.35	0.394	0.62	1.97	1/4"-20UNC	0.50	F05	9.8	140	520	
2" FP	2.00	5.7	10.0	5.3	11.7	4.37	3.11	0.49	0.472	0.75	2.76	5/16"-18UNC	0.62	F07	20.8	360	660	950

Other Products

PRODUCTS

TYLOK International carries a comprehensive range of high-quality fluid components to compliment the TY-FLO® 3 Piece Ball Valve product line. Featured below are several popular TYLOK product lines to meet your fluid control needs.

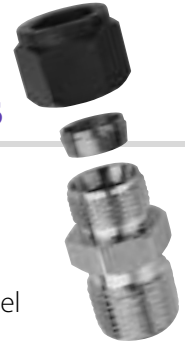
CBC-Lok® Tube Fittings

- CBC-Lok Tube Fittings are fully interchangeable with Swagelok and Parker A-Lok
- Sizes: Fractional: 1/16" - 1"
- Materials: Stainless Steel, Brass, Steel



CS-Lok® Tube Fittings

- CS-Lok Tube Fittings are fully interchangeable with Parker CPI
- Sizes: Fractional: 1/16" - 1"
- Materials: Stainless Steel, Brass, Steel



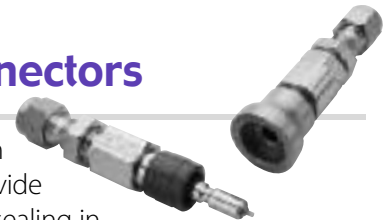
TY-FLO HP Series Ball Valves

- Pressure Ratings: 1,500 PSI and 5,000 PSI
- End Connections: Tube, Male NPT, Female NPT
- Sizes: 1/4" - 3/4"
- Materials: Stainless Steel and Brass



Quick Connectors

- Redundant Viton O-ring Seals provide quick leak tight sealing in vacuum or pressure systems
- Dependable poppet valves with integral Viton O-ring seals are standard in all quick connect bodies and valved plugs
- All quick connect valves springs are made of 316 stainless steel



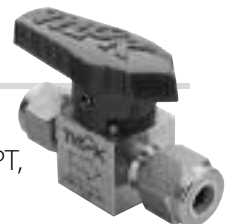
TY-FLO Needle Valves

- Pressure Ratings: 6,000 PSI, 10,000 PSI
- End Connections: Tube, Male NPT, Female NPT
- Sizes: 1/8" - 1"
- Materials: Stainless Steel, Brass, Steel



TY-FLO Plug Valves

- Pressure Ratings: 3,000 PSIG
- End Connections: Tube, Male NPT, Female NPT
- Sizes: 1/8" - 3/8"
- Materials: Stainless Steel



How to Order

Ty-Flo® 3 Piece Ball Valves are ordered as listed in this catalog by inserting the material code before the part number. Ty-Flo® 3 Piece Ball Valves can be identified through the part number as to material, end sizes, end configuration, seat and seal type, and special options. The standard Ball & Stem are in stainless steel unless otherwise requested.

Example: A Stainless Steel, 1/2" inlet to 1/2" outlet, 3 piece ball valve, with CBC-Lok Instrumentation Tube Ends, Reinforced Teflon Seats and Seals, with the following option: ASME B16.34 compliant is designated as follows...

SS - 8 - 5 TT - 8 - R R - K
 Material Inlet Size Style Description Outlet Size Seats Seals Options
Chart 1 Chart 2 Chart 3 Chart 4 Chart 2 Chart 5 Chart 6 Chart 7

Chart 1 - MATERIAL	
Body & Ends	Material
SS	Stainless Steel

Chart 2 - VALVE SIZE	
Designator	Valve Size
4	1/4"
6	3/8"
8	1/2"
12	3/4"
16	1"
<i>Other sizes upon request.</i>	

Chart 3 - STYLE	
5	3 Piece Ball Valve, 2 way, bi-directional flow

Teflon® and Viton® are registered trademarks of E.I. DuPont.

Tri-Clamp® is a registered trademark of Tri Clover.

Due to continuous development of our product range we reserve the right to change the dimensions and information contained in the leaflet as required.

Chart 4 - DESCRIPTION		
Code	End Description	Size Range
EE	Extended Butt Weld (Schedule 80)	1/4" - 1"
FF	Female NPT	1/4" - 4"
II	Pipe Socket Weld	1/4" - 1"
TT	Instrumentation Tube End (CBC-Lok)	1/4" - 1"
XX	Extended Socket Weld	1/4" - 4"
ZZ	Instrumentation Tube End (CS-Lok)	1/4" - 1"

Chart 5 - SEATS	
R	Reinforced PTFE
P	PEEK

Chart 6 - SEALS	
G	Graphoil
R	Reinforced PTFE

Chart 7 - OPTIONS	
I	Oval Handle
K	ASME B16.34 Compliant
L	Full Port

*Electro Polish not including Instrumentation Tube Ends.

****Oxygen Cleaning & Packaging:** Special cleaning and packaging is available to meet product cleanliness requirements of ASTM G93 Level C. Contact authorized Tylok representative for more information.

Lubrication free of silicone for all valves.



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