

Flow-Tek®

A Subsidiary of Bray International, Inc.

3 & 4 WAY MULTI-PORT VALVES

Full Port/Standard Port 1/4" - 12" Ball Valves

ASME CL 150/300 (PN10 to PN 40)

800/1000 psi WOG (55 to 69 Bar)



MULTI-PORT BALL VALVES

MULTIPOINT BALL VALVES

BALL VALVES & ACCESSORIES

Flow-Tek's fully integrated line of multiport ball valves – the Multiport Series – offers 3-way and 4-way flow control. The Multiport Series valves are available in two different body styles, a compact standard port and a block style full port. Standard port valves are available with NPT Threaded and Quick Clamp end connections. Full port valves are available with NPT Threaded, Quick Clamp, Socket or Butt Weld, and Flanged end connections. End connections can be mixed on a single valve. Many parts are fully interchangeable between models. Cost effective Multiport Series ball valves feature multidirectional control combined with shutoff capacity in one valve. Valve duplication and the need for an extra shutoff valve are eliminated.

ALL MULTIPOINT SERIES VALVES:

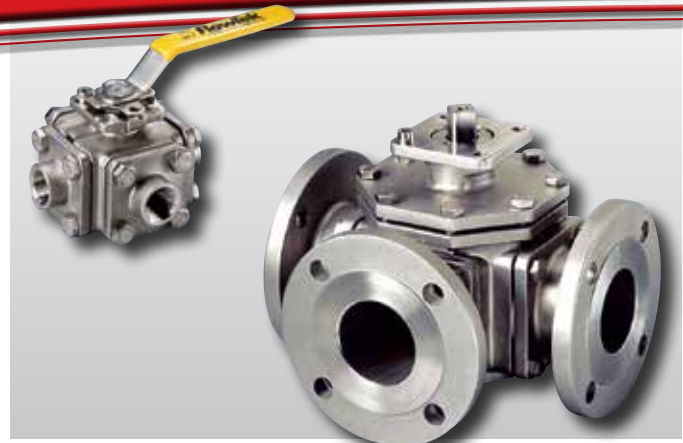
- Tested in accordance with ASME B16.34
- Vacuum Service to 29" Hg
- Valve stems are blow-out proof for maximum safety and meet ASME B16.34 specifications
- Valves conform to CE requirements

PRESSURE RATINGS

MPT130/MPC130	
1/4"-1 1/4":	1000 psi WOG
1 1/2"-2":	800 psi WOG
MPT230/MPC230/MPS230/MPB230 MPT240/MPC240/MPS240/MPB240	
1/4"-1":	1000 psi WOG
1 1/4"-4":	800 psi WOG
MPF150 1/2"-12": ASME Class 150	
MPF300 1/2"-6": ASME Class 300	

BODY MATERIALS:

Stainless Steel and Carbon Steel (Standard)
Alloy Materials Optional



FEATURES & BENEFITS

STEM SEALS

Multiport Series 1/4"–4" valves all feature a live-loaded stem packing assembly for positive stem sealing. Utilizing Belleville washers, the stem seal automatically adjusts to compensate for changes in temperature and normal wear. The 6"–12" valves utilize an independent packing gland which can be easily adjusted while the valve is still in service. The 1/4"–2" valves also offer primary and secondary stem sealing. The primary seal is a thrust washer and O-ring assembly. The adjustable stem packing creates a secondary seal between the stem and body in the upper stem journal area.

FOUR SEAT DESIGN

As standard, Multiport Series valves are supplied with an additional fourth seat. This seat acts as a self-contained seal to prevent leakage in the cavity area and maintains proper alignment of the ball. The added seat delivers bidirectional control and shutoff combined in one valve – with an OFF position in both T and L port balls. Flow-Tek's seat design ensures bi-directional, bubble-tight sealing with low operating torque.

SEAT SELECTION

A wide range of seat materials are available to meet most applications. The standard seat is TFM. Options include RPTFE, PTFE, UHMWPE and Tek-Fil® (carbon/graphite filled TFM). Tek-Fil® seats offer reduced torque in high temperature, high cycle, and steam service applications.

INTERCHANGEABILITY

Many parts including balls, stems, seats, and stem and body seals are interchangeable between different models of the same size valve.



CAVITY FILLERS

Optional cavity fillers are available for Multiport models 230/240 and 150/300 valves. Cavity fillers reduce the possibility of media contamination due to line media fluids becoming entrapped in the void between the ball and the valve body wall.

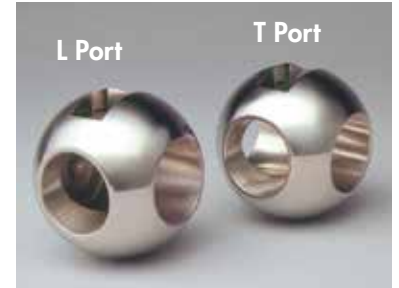
SECURE MOUNT

The integral cast top flange ensures positive actuator mounting. Actuation equipment can be easily and safely removed while the valve is under full line pressure. The mounting flange is designed to ISO 5211 standards with direct flush-mount capabilities. By repositioning the travel stop pin bolt on the mounting flange, all flow patterns are available from the standard valve.



BALL/STEM

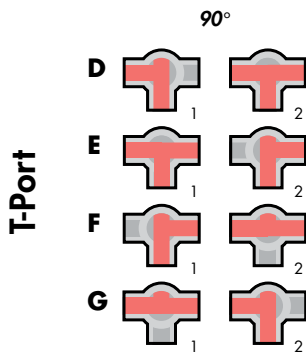
The ball and stem connection is designed to ensure a positive connection. 1/4"-2" valve stems are pinned, 2 1/2"-12" stems and balls are one-piece with trunnion mounting. All stems offer blow-out proof protection.



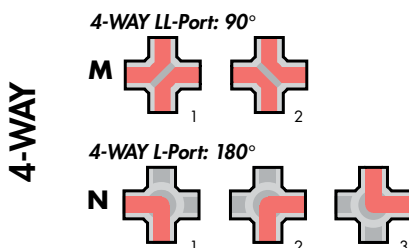
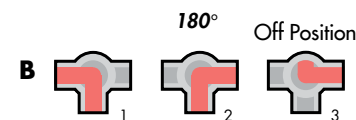
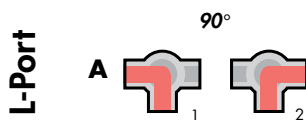
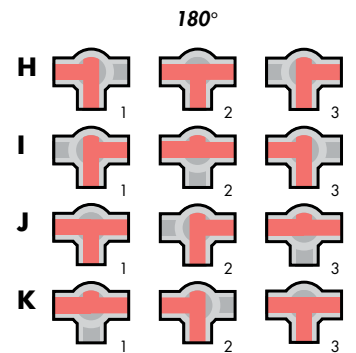
Balls are precision machined and mirror finished for bubble-tight shutoff with less operating torque. Flow-Tek balls have machined edges to reduce seat wear providing a high life cycle.

STANDARD APPLICATIONS

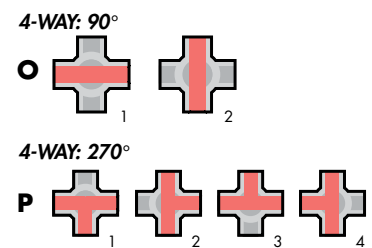
- Mixing or blending of line medias
- Diversion of flow to different locations
- Bypass of flow around strainers, meters, heat exchangers, etc.
- Direct flow out of or into storage tanks
- Shutoff flow from different directions



All T Port Flow Patterns are available from one standard ball and can be rearranged in the field. 180° will require new stop plate.



Optional patterns are available using T, L & standard ball. Please consult factory.



SPECIFICATIONS

Valve Models: MPT130/MPC130

Size Range: 1/4" – 2"

Body Material: Stainless Steel

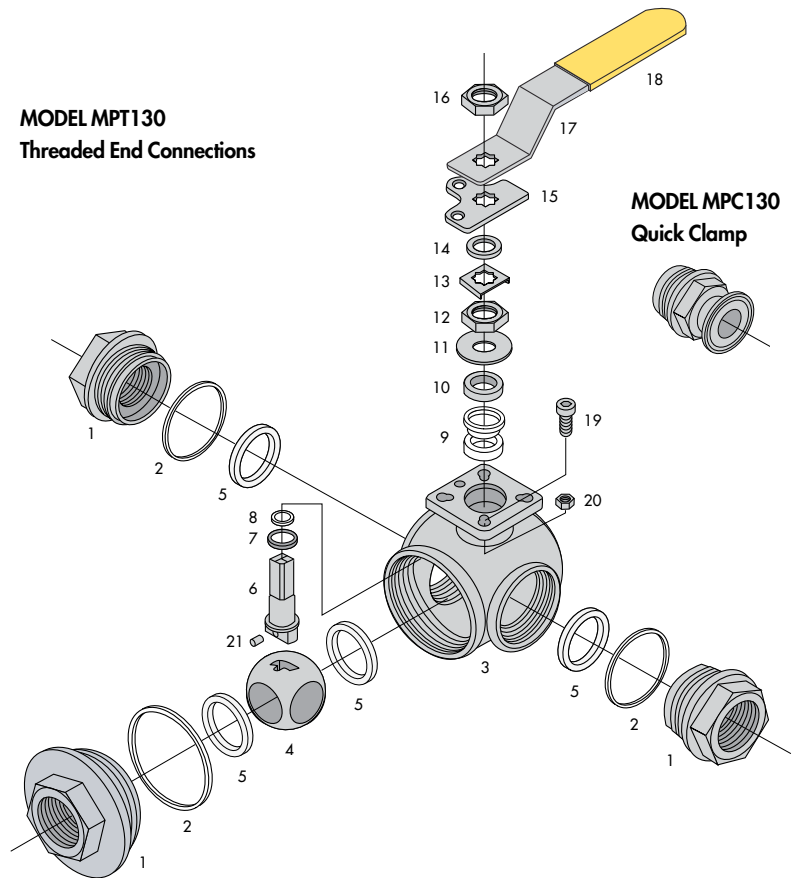
Pressure Ratings: 1/4" – 1-1/4": 1000 psi WOG
 1-1/2" – 2": 800 psi WOG
 1/4" – 2": 150 psi WSP

End Connections: MPT130: Threaded NPT Ends
 (meet ASME B1.20.1 NPT)
 MPC130: Quick Clamp Ends

Ports: Standard - 3 Way with L and T Ports

Testing: All valve stems and seats are tested to 100 psi gas closure test for bubble tight integrity before shipping.

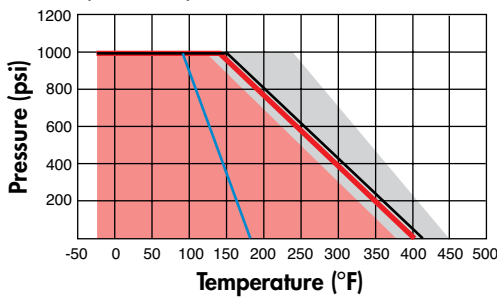
MODEL MPT130 Threaded End Connections



PRESSURE / TEMPERATURE

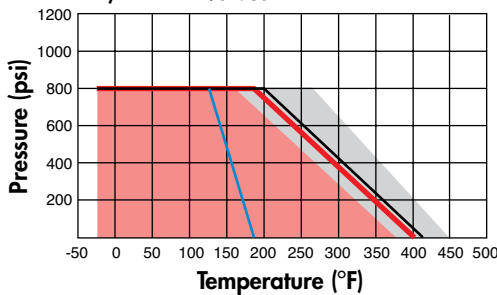
MPT130/MPC130 Series Valves

1/4" – 1 1/4" Valves



PTFE Tek-Fil® UHMWPE
 RPTFE TFM 1600

1 1/2" – 2" Valves



COMPONENTS & MATERIALS Models MPT130/MPC130

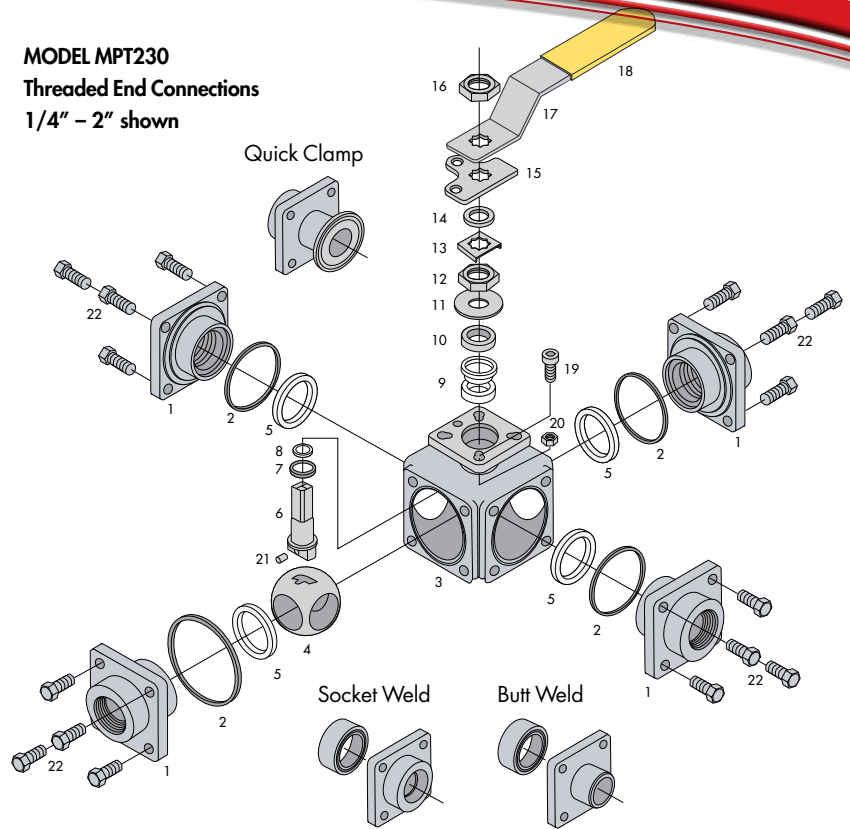
Item	Name	Stainless Steel	Qty.
1	End Cap	ASTM A351 Gr. CF8M	3
2	Gasket	TFM - 1600	3
3	Body	ASTM A351 Gr. CF8M	1
4	Ball*	ASTM A276 Type 316	1
5	Seat*	TFM - 1600	4
6	Stem*	316 SS	1
7	Thrust Washer*	RPTFE	1
8	O-ring*	Viton	1
9	Stem Packing*	PTFE	1
10	Gland	304 SS	1
11	Belleville Washer	301 SS	2
12	Stem Nut	304 SS	1
13	Lock Saddle	304 SS	1
14	Space Washer	304 SS	1
15	Stop Plate	304 SS	1
16	Handle Nut	304 SS	1
17	Handle	304 SS	1
18	Handle Sleeve	Vinyl	1
19	Stop Pin Bolt	304 SS	1
20	Stop Pin Nut	304 SS	1
21	Pin Insert	304 SS	1

* These parts are interchangeable with other Multiport models.

SPECIFICATIONS

Valve Models:	230 Models - 3 Way 240 Models - 4 Way
Size Range:	1/4" - 4"
Body Material:	Stainless Steel, Carbon Steel
Pressure Ratings:	1/4" - 1": 1000 psi WOG 1-1/4" - 4": 800 psi WOG 1/4" - 4": 150 psi WSP
End Connections:	MPT230/240: Threaded NPT Ends (meet ASME B1.20.1 NPT) MPC230/240: Quick Clamp Ends MPS230/240: Socket Weld Ends MPB230/240: Butt Weld Ends
Ports:	Full - 3-Way & 4-Way with L, T and LL Ports
Testing:	All valve stems and seats are tested to 100 psi gas closure test for bubble tight integrity before shipping.

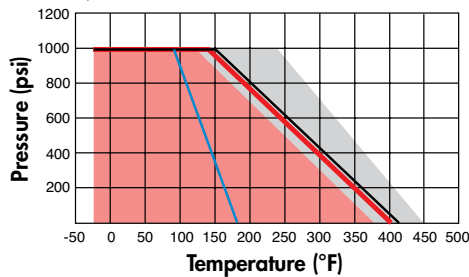
MODEL MPT230 Threaded End Connections 1/4" - 2" shown



PRESSURE / TEMPERATURE

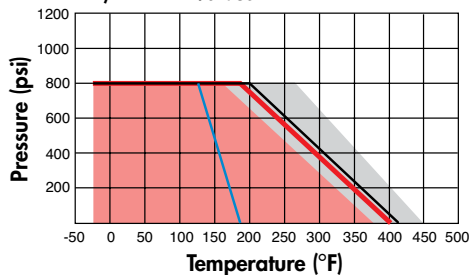
MPT230/MPC230/MPS230/MPB230
MPT240/MPC240/MPS240/MPB240

1/4" - 1" Valves



PTFE Tek-Fil® UHMWPE
RPTFE TFM 1600

1 1/4" - 2" Valves



COMPONENTS & MATERIALS

Item	Name	Stainless Steel	Carbon Steel	Qty.
1	End Cap	ASTM A351 Gr. CF8M	ASTM A216 Gr. WCB	4
2	Gasket**	TFM - 1600	TFM - 1600	4
3	Body	ASTM A351 Gr. CF8M	ASTM A216 Gr. WCB	1
4	Ball*	ASTM A351 Gr. CF8M	ASTM A351 Gr. CF8M	1
5	Seat*	TFM - 1600	TFM - 1600	4
6	Stem*	316 SS	316 SS	1
7	Thrust Washer*	RPTFE	RPTFE	1
8	O-ring*	Viton	Viton	1
9	Stem Packing*	PTFE	PTFE	1
10	Gland	304 SS	304 SS	1
11	Belleville Washer	301 SS	301 SS	2
12	Stem Nut	304 SS	304 SS	1
13	Lock Saddle	304 SS	304 SS	1
14	Space Washer	304 SS	304 SS	1
15	Stop Plate	304 SS	304 SS	1
16	Handle Nut	304 SS	304 SS	1
17	Handle	304 SS	304 SS	1
18	Handle Sleeve	Vinyl	Vinyl	1
19	Stop Pin Bolt	304 SS	304 SS	1
20	Stop Pin Nut	304 SS	304 SS	1
21	Pin Insert	304 SS	304 SS	1
22	Bolt (*1/4"-2")	ASTM A193 Gr. B8	ASTM A193 Gr. B8	16
	Threaded Stud +	ASTM A193 Gr. B8	ASTM A193 Gr. B7	16
23	Hex Nut +	ASTM A194 Gr. B8	ASTM A194 Gr. 2H	16

*These parts are interchangeable with other Multiport models.

**These parts are interchangeable with MPF150/300 models.

+ (2 1/2" and up)

SPECIFICATIONS

Valve Models: MPF150/MPF300

Size Range: MPF150: 1/2" – 12"
MPF300: 1/2" – 6"

Body Material: Stainless Steel, Carbon Steel

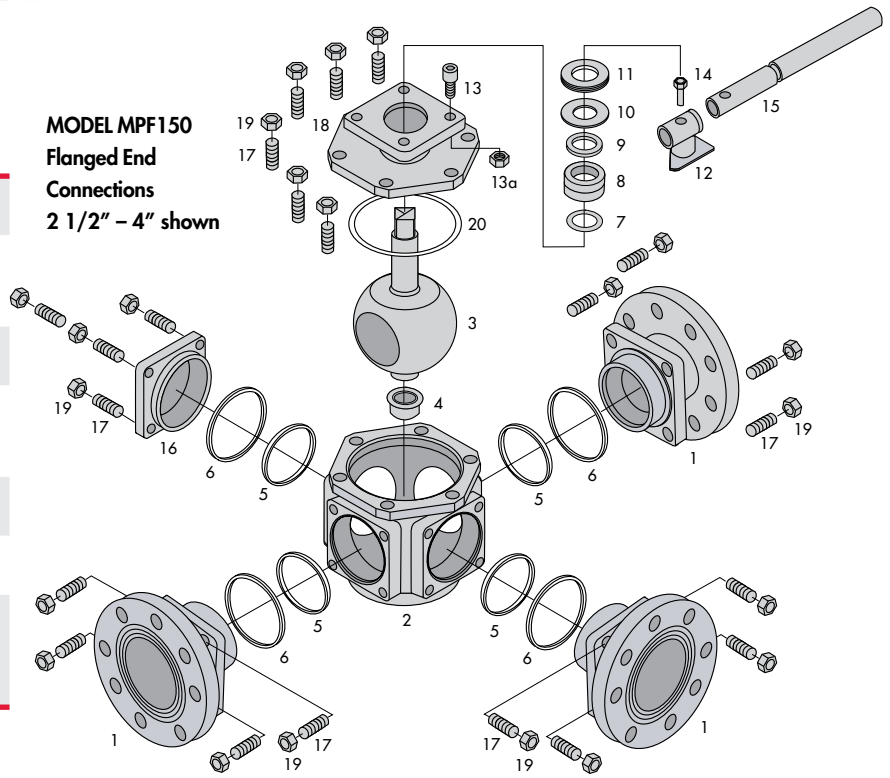
Pressure Ratings: ASME 150: SS 275 / WCB 285 psi
ASME 300: SS 720 / WCB 740 psi

End Connections: Flanged Ends per ASME B16.5

Ports Full – 3-Way & 4-Way with L, T & LL Ports

Testing: All valve stems and seats are tested to 100 psi gas closure test for bubble tight integrity before shipping.

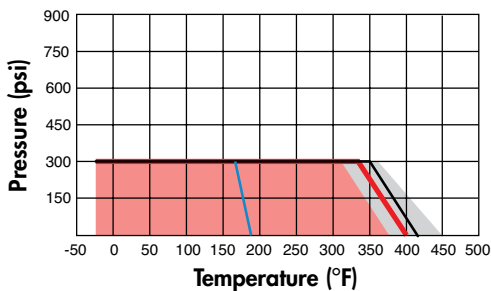
MODEL MPF150
Flanged End
Connections
2 1/2" – 4" shown



PRESSURE / TEMPERATURE

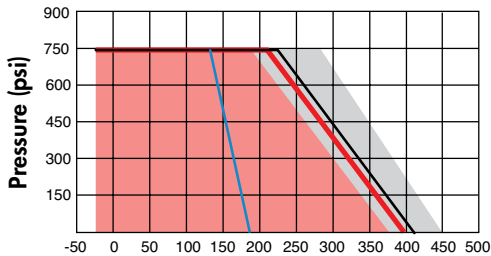
MPF150/MPF300 Series Valves

Class 150 Valves



PTFE Tek-Fil® UHMWPE
RPTFE TFM 1600

Class 300 Valves



COMPONENTS & MATERIALS

Item	Name	Stainless Steel	Carbon Steel	Qty.
1	End Cap	ASTM A351 Gr. CF8M	ASTM A216 Gr. WCB	3
2	Body	ASTM A351 Gr. CF8M	ASTM A216 Gr. WCB	1
3	Ball & Stem**	ASTM A351 Gr. CF8M	ASTM A351 Gr. CF8M	1
4	Stem Bushing**	50% PTFE/50% 316SS	50% PTFE/50% 316SS	1
5	Seat*	TFM - 1600	TFM - 1600	4
6	Gasket**	TFM - 1600	TFM - 1600	4
7	O-ring*	Viton	Viton	1
8	Stem Packing*	TFM - 1600	TFM - 1600	1
9	Gland	304 SS	304 SS	1
10	Belleville Washer	301 SS	301 SS	2
11	Packing Nut	304 SS	304 SS	1
12	Handle T-Bar	ASTM A351 Gr. CF8M	ASTM A351 Gr. CF8M	1
13	Stop Pin Bolt	304 SS	304 SS	1
13a	Stop Pin Nut	304 SS	304 SS	1
14	Handle Bolt	304 SS	304 SS	1
15	Handle	Carbon Steel	Carbon Steel	1
16	Blank Cover	ASTM A351 Gr. CF8M	ASTM A216 Gr. WCB	1
17	Bolt (1/2"-2")	ASTM A193 Gr. B8	ASTM A193 Gr. B8	22/24
	Threaded Stud +	ASTM A193 Gr. B8	ASTM A193 Gr. B7	22/24
18	Bonnet	ASTM A351 Gr. CF8M	ASTM A216 Gr. WCB	1
19	Hex Nut +	ASTM A194 Gr 8	ASTM A194 Gr. 2H	22/24
20	Bonnet Gasket	PTFE	PTFE	1

*These parts are interchangeable with other Multiport models.

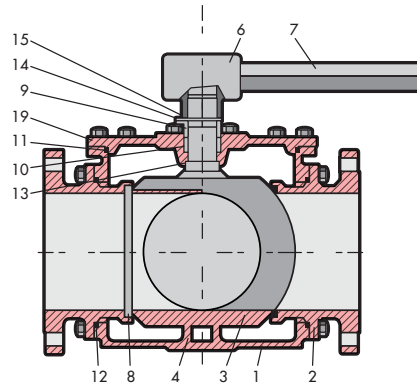
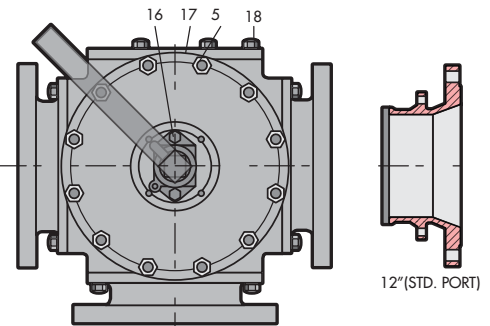
**These parts are interchangeable with 2 1/2"-4" MPT230/240 models.

+ (2 1/2" and up)

SPECIFICATIONS

Valve Models:	MPF150
Size Range:	10" - 12"
Body Material:	Stainless Steel, Carbon Steel
Pressure Ratings:	ASME 150: SS 275 / WCB 285 psi
End Connections:	Flanged Ends per ASME B16.5
Ports	Standard - 3 Way with L and T Ports
Testing:	All valve stems and seats are tested to 100 psi gas closure test for bubble tight integrity before shipping.

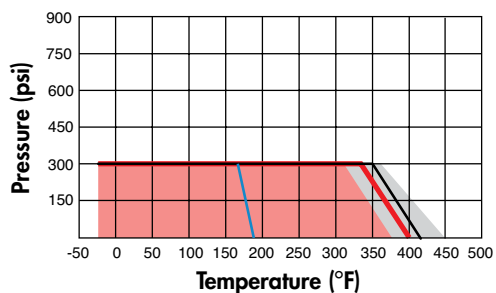
MPF150
Flanged End Connections
10" - 12" shown



PRESSURE / TEMPERATURE

MPF150

Class 150 Valves



■ PTFE ■ Tek-Fil® ■ UHMWPE
■ RPTFE ■ TFM 1600

COMPONENTS & MATERIALS

Item	Name	Stainless Steel	Carbon Steel	Qty.
1	Body	ASTM A351 Gr. CF8M	ASTM A216 Gr. WCB	1
2	End Cap	ASTM A351 Gr. CF8M	ASTM A216 Gr. WCB	3
3	Trunion Ball	316 SS	316 SS	1
4	Bushing	TFM 1600	TFM 1600	1
5	Top Cap Stud & Nut	A193 Gr. B8 A194 Gr. 8	A193 Gr. B7 A194 Gr. 2H	8* 12+ 16‡
6	Handle T-Bar	ASTM 65-45-12	ASTM 65-45-12	1
7	Lever	Carbon Steel	Carbon Steel	1
8	Seat	TFM 1600	TFM 1600	4
9	Gland	ASTM A351 Gr. CF8	ASTM A216 Gr. WCB	1
10	Stem Packing	TFM 1600	TFM 1600	1
11	Top Cap Gasket	TFM 1600	TFM 1600	1
12	Joint Gasket	TFM 1600	TFM 1600	4
13	O-Ring	Viton	Viton	1
14	Stopper	304 SS	304 SS	1
15	Lock Saddle	304 SS	304 SS	1
16	Gland Bolt	ASTM A193 Gr. B8	ASTM A193 Gr. B7	2
17	Blank End Cap	ASTM A351 Gr. CF8M	ASTM A216 Gr. WCB	1
18	End Cap Stud & Nut	A193 Gr. B8 A194 Gr. 8	A193 Gr. B7 A194 Gr. 2H	32+ 40‡
19	Top End Cap	ASTM A351 Gr. CF8M	ASTM A216 Gr. WCB	1

* Valve Sizes - 5"

+ Valve Sizes - 6"-8"

‡ Valve Sizes - 10"-12"

DIMENSIONS - MODELS MPT130/MPC130

SIZE ins (mm)	A 150	A1 300	øB	C	C1	D	E	F	G	H	H1	H2	H3	øI	øJ	K	L	M	Torque lbs-in Nm
1/4 8	2.83 72	—	0.43 11	1.42 36	—	5.12 130	2.44 62	1.48 37.5	0.43 11	—	—	—	—	1.42 36	1.65 42	0.35 9	0.24 6	0.24 6	127 14.3
3/8 10	2.83 72	—	0.43 11	1.42 36	—	5.12 130	2.44 62	1.48 37.5	0.43 11	—	—	—	—	1.42 36	1.65 42	0.35 9	0.24 6	0.24 6	127 14.3
1/2 15	2.83 72	5.24 133	0.47 12	1.42 36	2.62 66.5	5.12 130	2.44 62	1.48 37.5	0.43 11	0.47 12	0.38 9.6	0.85 21.7	0.98 25	1.42 36	1.65 42	0.35 9	0.24 6	0.24 6	127 14.3
3/4 20	3.27 83	5.59 142	0.59 15	1.63 41.5	2.80 71	5.12 130	2.52 64	1.65 42	0.43 11	0.47 12	0.62 15.8	0.85 21.7	0.98 25	1.42 36	1.65 42	0.35 9	0.24 6	0.24 6	170 19.2
1 25	3.90 99	6.30 160	0.79 20	1.95 49.5	3.15 80	6.50 165	3.23 82	1.93 49	0.55 14	0.79 20	0.87 22.1	1.71 43.5	1.98 50.4	1.65 42	1.97 50	0.43 11	0.24 6	0.28 7.1	212 24.0
1 1/4 32	4.41 112	—	0.98 25	2.20 56	—	6.50 165	3.50 89	2.17 55	0.55 14	—	—	—	—	1.65 42	1.97 50	0.43 11	0.24 6	0.28 7.1	383 43.3
1 1/2 40	4.92 125	7.17 182	1.26 32	2.46 62.5	3.58 91	8.07 205	3.86 98	2.48 63	0.71 18	1.26 32	1.37 34.8	1.71 43.5	1.98 50.4	1.97 50	2.76 70	0.55 14	0.28 7.1	0.36 9.2	563 63.6
2 50	5.87 149	8.50 216	1.50 38	2.93 74.5	4.25 108	8.07 205	4.25 108	2.91 74	0.71 18	1.50 38	1.87 47.5	2.22 56.5	2.52 63.9	1.97 50	2.76 70	0.55 14	0.28 7.1	0.36 9.2	690 78.0

Torque at maximum rated pressure, clean water, TFM seating material.

CV – Model MPT130

SIZE ins mm	1/4 8	3/8 10	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50
90°	0.64	1.4	3.8	7.4	14	22	28	60
180°	0.9	1.9	4.9	9.4	18	27	48	76

WEIGHT – Models MPF150 (4-Way, T Port)

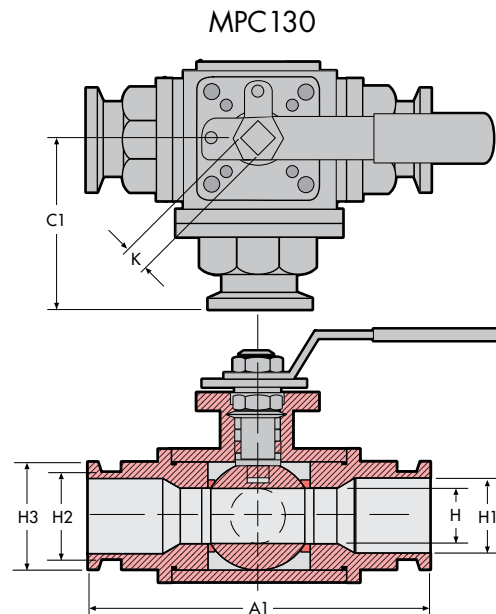
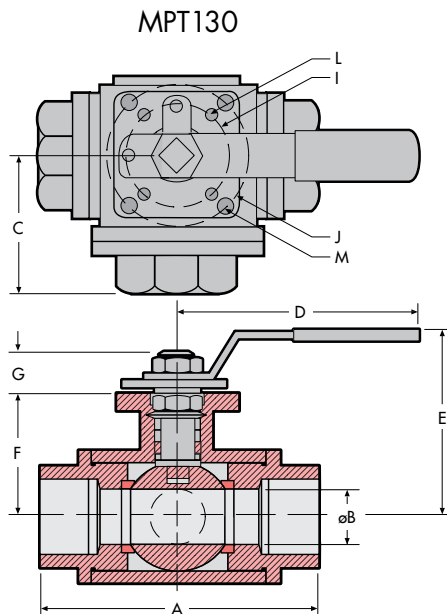
SIZE ins mm	1/4 8	3/8 10	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50
lbs	1.5	1.5	1.5	1.9	3.4	4.8	7.5	11.6
Kg	0.7	0.7	0.7	0.9	1.5	2.2	3.4	5.3

CV – Model MPC130

SIZE ins mm	1/4 8	3/8 10	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50
90°	—	—	1.8	4.6	15	—	40	53
180°	—	—	2.4	5.8	20	—	55	67

WEIGHT – Models MPF300 (4-Way, T Port)

SIZE ins mm	1/4 8	3/8 10	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50
lbs	—	—	2.0	2.3	4.3	—	8.4	14.1
Kg	—	—	0.9	1.0	1.9	—	3.8	6.4



DIMENSIONS - MODELS MPT/MPC/MPS/MPB - CLASSES 230/240

SIZE ins (mm)	A* 150	A1 300	øB	C*	C1	D	E	F	G	H	H1	H2	H3	øI	øJ	K	L	M	Torque lbs-in Nm
1/4 8	3.46 88	—	0.43 11	1.73 44	—	5.12 130	2.44 62	1.52 38.5	0.43 11	—	—	—	—	1.42 36	1.65 42	0.35 9	0.24 6	0.24 6	160 18.1
3/8T 1/2C	3.46 88	5.24 133	0.43 11	1.73 44	2.62 66.5	5.12 130	2.44 62	1.52 38.5	0.43 11	0.47 12	0.38 9.6	0.85 21.7	0.98 25	1.42 36	1.65 42	0.35 9	0.24 6	0.24 6	160 18.1
1/2T 3/4C	4.13 105	5.59 142	0.59 15	2.07 52.5	2.80 71	5.12 130	2.52 64	1.61 41	0.43 11	0.59 15	0.62 15.8	0.85 21.7	0.98 25	1.42 36	1.65 42	0.35 9	0.24 6	0.24 6	180 20.3
3/4T 20	4.41 112	—	0.79 20	2.19 55.5	—	6.50 165	3.23 82	1.93 49	0.55 14	—	—	—	—	1.65 42	1.97 50	0.43 11	0.24 6	0.28 7.1	234 26.4
1 25	5.04 128	6.30 160	0.98 25	2.52 64	3.15 80	6.50 165	3.50 89	2.17 55	0.55 14	0.98 25	0.87 22.1	1.71 43.5	1.98 50.4	1.65 42	1.97 50	0.43 11	0.24 6	0.28 7.1	425 48
1 1/4 32	5.51 140	—	1.25 31.8	2.76 70	—	8.07 205	3.86 98	2.48 63	0.71 18	—	—	—	—	1.97 50	2.76 70	0.55 14	0.28 7.1	0.36 9.2	637 72
1 1/2 40	6.30 160	7.17 182	1.50 38	3.15 80	3.58 91	8.07 205	4.25 108	2.91 74	0.71 18	1.5 38	1.37 34.8	1.71 43.5	1.98 50.4	1.97 50	2.76 70	0.55 14	0.28 7.1	0.32 9.2	722 82
2 50	7.56 192	8.50 216	1.97 50	3.78 96	4.25 108	12.80 325	5.51 140	3.66 93	0.91 23	1.97 50	1.87 47.5	2.22 56.5	2.52 63.9	2.76 70	4.02 102	0.67 17	0.36 9.2	0.45 11.4	855 100
2 1/2 65	11.57 294	9.50 241.3	2.44 62	5.79 147	4.75 120.7	15.75 400	7.87 200	4.69 119	0.98 25	2.44 62	2.37 60.2	2.78 70.6	3.05 77.4	4.02 102	—	0.87 22	0.43 11	—	1487 168
3 80	12.48 317	11.00 279.4	2.99 76	6.24 158.5	5.50 139.7	19.69 500	8.27 210	5.39 137	0.98 25	2.99 76	2.87 72.9	3.28 83.3	3.58 91	4.02 102	—	0.87 22	0.43 11	—	2656 300
4 100	14.53 369	13.00 330.2	3.78 96	7.26 184.5	6.50 165.1	25.59 650	9.06 230	6.18 157	0.98 25	3.78 96	3.83 97.4	4.34 110.3	4.69 119	4.02 102	—	0.87 22	0.43 11	—	3398 384

Torque at maximum rated pressure, clean water, TFM seating material.

CV – Models MPT/MPS/MPB – 230 & 240

SIZE ins mm	1/4 8	3/8 10	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50	2 1/2 65	3 80	4 100
90°	0.64	1.4	8.1	15	24	40	65	106	171	255	409
180°	0.9	1.9	11	21	33	54	92	147	240	356	561

CV – Models MPC – 230 & 240

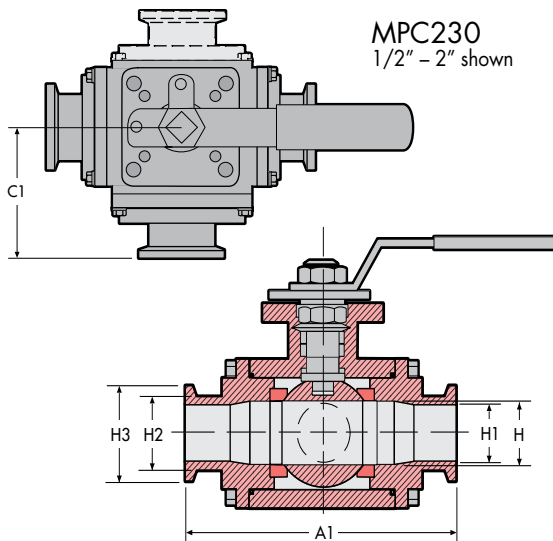
SIZE ins mm	1/4 8	3/8 10	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50	2 1/2 65	3 80	4 100
90°	—	—	1.8	8.2	14	—	40	85	147	214	458
180°	—	—	2.4	11	19	—	54	117	205	296	652

WEIGHT – Models MPT/MPS/MPB – 230 (L Port)

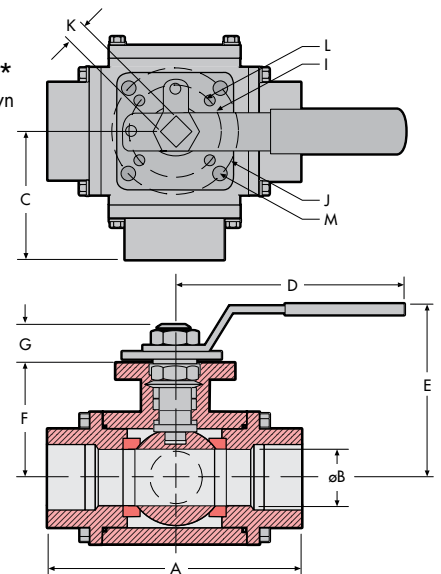
SIZE ins mm	1/4 8	3/8 10	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50	2 1/2 65	3 80	4 100
lbs	2.9	2.9	4.5	5.8	8.2	12.1	18.6	33.9	45.6	60.3	109.7
Kg	1.3	1.3	2.0	2.6	3.7	5.5	8.4	15.4	20.7	27.3	49.7

WEIGHT – Model MPC230 (L Port)

SIZE ins mm	1/4 8	3/8 10	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50	2 1/2 65	3 80	4 100
lbs	—	—	3.0	5.9	9.6	—	18.9	33.8	44.6	58.1	105
Kg	—	—	1.4	2.7	4.4	—	8.6	15.3	20.3	26.4	47.6



MPT/MPS/MPB – 230*
1/4" – 2" shown



For detailed drawing information on other valve sizes not shown, consult the factory for Multiport IOM manual.

DIMENSIONS - MODEL MPF - CLASSES 150/300

SIZE ins (mm)	A 150	A1 300	øB	D	E	F	G	øH	øI*	J	K	L*	MPF150 Flange Dimensions				MPF300 Flange Dimensions			
													M	N	S	T	M1	N1	S1	T1
1/2 15	5.98 152	6.30 160	0.59 15	5.12 130	2.44 62	1.61 41	0.43 11	1.42 36	1.65 42	0.35 9	0.24 6	0.24 6	3.50 89	4	2.38 60.5	0.63 16	3.75 95	4	2.62 66.5	0.63 16
3/4 20	6.57 167	6.97 177	0.79 20	6.50 165	3.23 82	1.93 49	0.55 14	1.65 42	1.97 50	0.43 11	0.24 6	0.28 7.1	3.88 98.5	4	2.75 69.8	0.63 16	4.62 117	4	3.25 82.5	0.75 19
1 25	7.48 190	7.87 200	0.98 25	6.50 165	3.50 89	2.17 55	0.55 14	1.65 42	1.97 50	0.43 11	0.24 6	0.28 7.1	4.25 108	4	3.12 79.2	0.63 16	4.88 124	4	3.50 89	0.75 19
1 1/4 32	8.19 208	8.19 208	1.26 32	8.07 205	3.86 98	2.48 63	0.71 18	1.97 50	2.76 70	0.55 14	0.28 7.1	0.36 9.2	4.62 117	4	3.50 89	0.63 16	5.25 133	4	3.88 98.5	0.75 19
1 1/2 40	8.66 220	9.21 234	1.50 38	8.07 205	4.25 108	2.91 74	0.71 18	1.97 50	2.76 70	0.55 14	0.28 7.1	0.36 9.2	5.00 127	4	3.88 98.5	0.63 16	6.12 155	4	4.50 114	0.87 22
2 50	9.96 253	10.75 273	1.97 50	12.80 325	5.51 140	3.66 93	0.91 23	2.76 70	4.02 102	0.67 17	0.36 9.2	0.45 11.4	6.00 152	4	4.75 120.6	0.75 19	6.50 165	8	5.00 127	0.75 19
2 1/2 65	11.81 300	11.81 300	2.44 62	15.75 400	7.87 200	4.69 119	0.98 25	4.02 102	—	0.87 22	0.43 11	—	7.00 177.8	4	5.50 139.7	0.75 19	7.50 190.5	8	5.88 149.4	0.88 22.4
3 80	12.01 305	13.01 330.4	2.99 76	19.69 500	8.27 210	5.39 137	0.98 25	4.02 102	—	0.87 22	0.43 11	—	7.50 190.5	4	6.00 152.4	0.75 19	8.25 209.6	8	6.62 168.2	0.88 22.4
4 100	14.51 368.5	15.49 393.5	3.78 96	25.59 650	9.06 230	6.18 157	0.98 25	4.02 102	—	0.87 22	0.43 11	—	9.00 228.6	8	7.50 190.5	0.75 19	10.00 254	8	7.88 200.2	0.88 22.4
6 150	16.81 427	18.43 468.1	5.91 150	47.24 1200	8.66 220	6.28 159.5	2.40 61	4.92 125	—	1.42 36	M12	—	11.00 279.4	8	9.50 241.3	0.88 22.4	12.50 317.5	12	10.62 269.8	0.88 22.4
8 200	20.94 532	—	7.87 200	59.06 1500	10.31 262	7.91 201	2.40 61	4.92 125	—	1.42 36	M12	—	13.50 342.9	8	11.75 298.5	0.88 22.4	15.00 381	12	13.00 330.2	1.00 25.4

*Outer mounting bolt circle (I) and hole diameter (L) for 1/2"–2" valves not shown in drawing.

TORQUE – Models MPF 150/MPF300

SIZE ins mm	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50	2 1/2 65	3 80	4 100	6 150	8 200
lbs-in	124	159	301	381	513	885	1239	2213	2830	6000	8000
Nm	14	18	34	43	58	100	140	250	320	678	904

Torque at maximum rated pressure, clean water, TFM seating material.

CV – Models MPF 150/MPF300

SIZE ins mm	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50	2 1/2 65	3 80	4 100	6 150	8 200
90°	8.1	15	24	40	65	106	171	255	409	1083	2007
180°	11	21	33	54	92	147	240	356	561	1509	2817

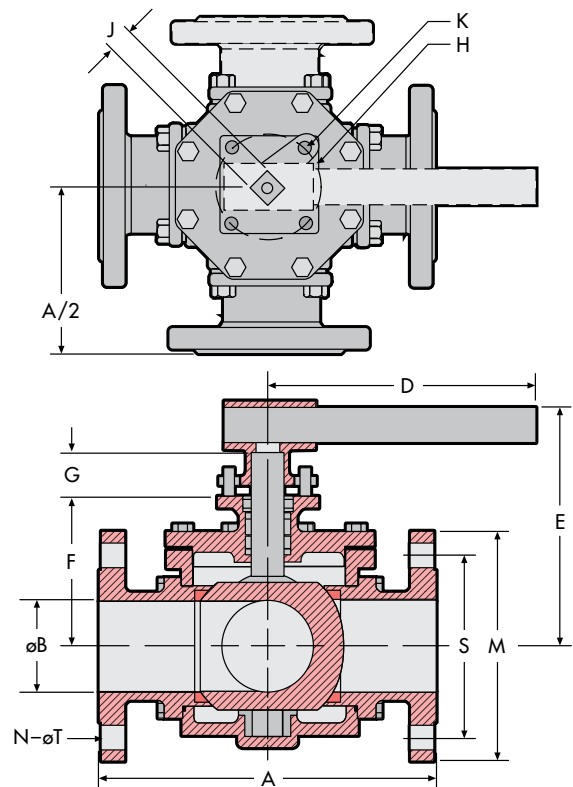
WEIGHT – Models MPF 150 (4-Way, T Port)

SIZE ins mm	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50	2 1/2 65	3 80	4 100	6 150	8 200
lbs	8.7	10.3	14.9	20.8	30.3	51.3	70.1	88.4	160.5	290.4	543
Kg	3.9	4.7	6.7	9.4	13.7	23.3	31.8	40.1	72.8	131.7	246.3

WEIGHT – Models MPF300 (4-Way, T Port)

SIZE ins mm	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50	2 1/2 65	3 80	4 100	6 150
lbs	11.2	16	21.8	29.1	42.9	61	86.4	108.3	184.2	456.2
Kg	5.1	7.3	9.9	13.2	19.5	27.7	39.2	49.1	83.6	206.9

MPF150/MPF300 2-1/2" – 8" shown



DIMENSIONS - MODEL MPF - CLASS 150

SIZE ins (mm)	øD	øD1	øD2	øD3	øC	øF	A	B	B1	E	H	øS	M	N	S	T
10	9.8	12.8	14.3	16	M16	5.5	13.6	3.7	2.3	78.7	16	1.4	26	1.2	1	0.5
250	248	324	362	406.4		140	345	93	59	2000	408	36	660	30.2	25.4	12
12	11.8	15	17	19	M16	5.5	13.6	3.7	2.3	78.7	16	1.4	26	1.3	1	0.5
300	300	381	432	483		140	345	93	59	2000	408	36	660	32.5	26	12

TORQUE - MODEL MPF - CLASS 150

SIZE ins mm	10 250	12 300
lbs-in	9346	9346
Nm	1056	1056

Torque at maximum rated pressure, clean water,
TFM seating material.

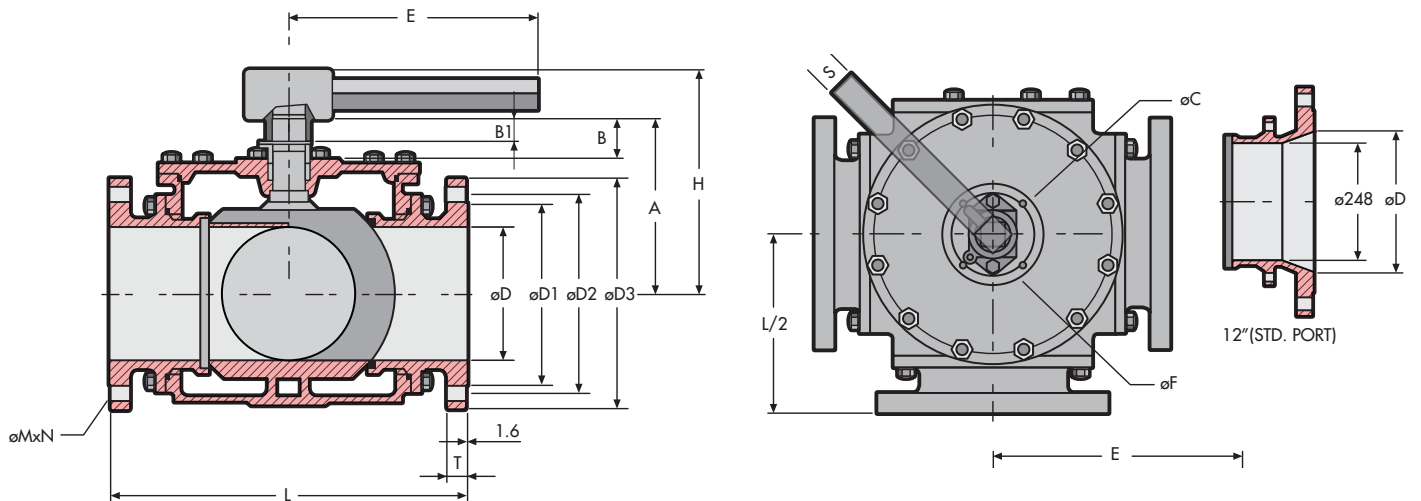
WEIGHT - MODEL MPF - CLASS 150

SIZE ins mm	10 250	12 300
lbs	765	806.9
Kg	347	366

CV - MODEL MPF - CLASS 150

SIZE ins mm	10 250	12 300
90°	2700	2700
180°	3780	3780

MPF150
10" - 12" shown



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