

# *PCC Valtaco*

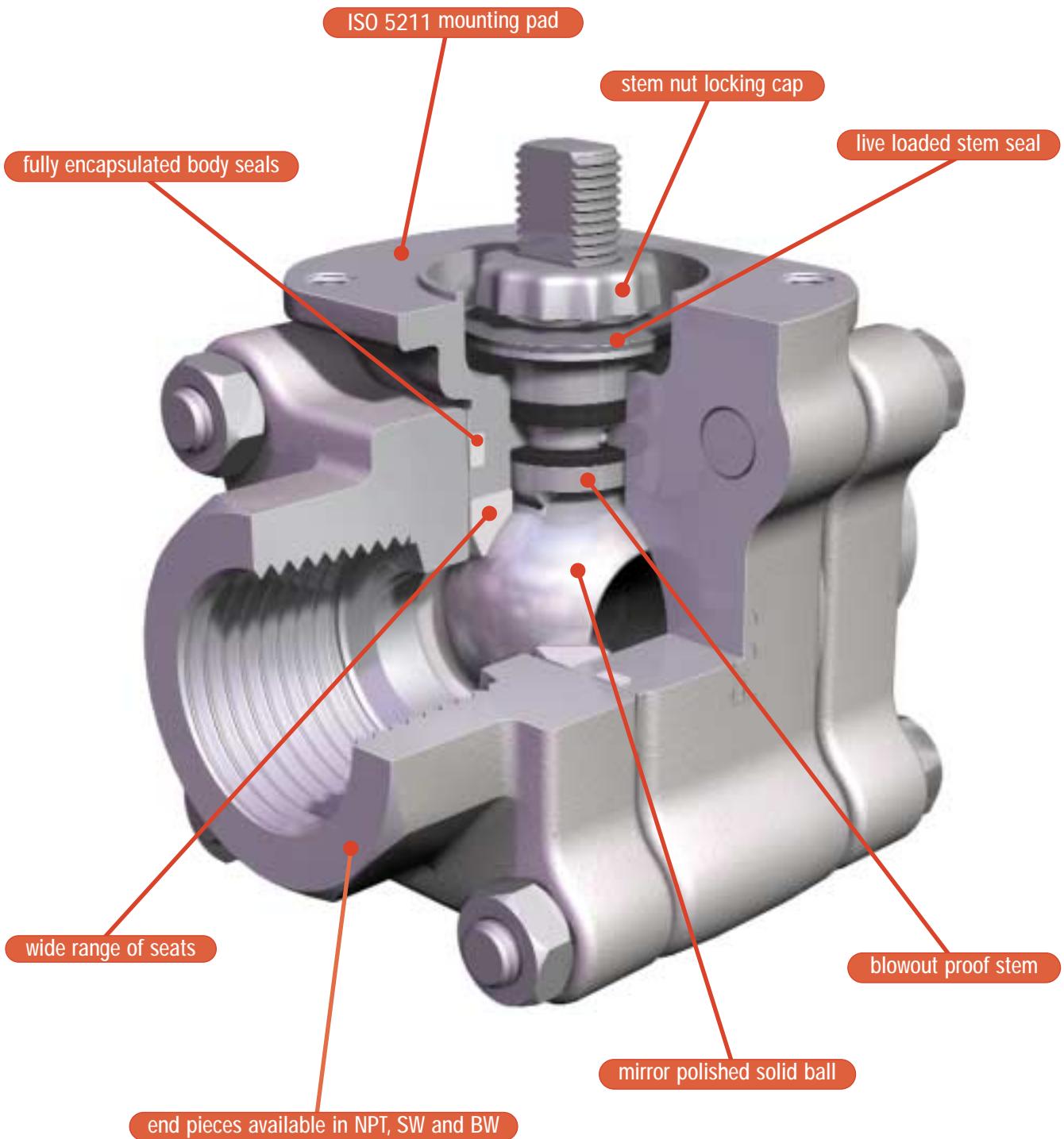
*A PCC Flow Technologies Company*

## *Three-piece Ball Valves*



*Carbon & Stainless Steel  
1/4" - 6"*

# FEATURES



## *PCC Valtaco Ball Valves*

PCC Valtaco offers a complete range of three-piece ball valves from ¼" to 6" diameters including firesafe, three-way and heat jacketed designs. The three-piece design features in-line maintenance as the center section can be easily accessed without disturbing the pipe connections. PCC Valtaco ball valves have end pieces available in NPT, socketweld, buttweld and custom configurations.

## seat materials

The wide range of materials allow selection of the proper seat and seals for the most demanding applications including pressures to 3400 psi, and temperatures in excess of 600°F. Determine the chemical resistance, pressure and temperature requirements of your application and select from virgin PTFE, glass or carbon reinforced PTFE, PEEK, Delrin®, and Vespel® for optimum valve performance.

## fully encapsulated body seals

PCC Valtaco utilizes a fully encapsulated body seal design creating a mechanical seal that operates effectively independent of line pressure and flow direction. By supporting the seal on all sides, this design results in a consistent contact sealing load throughout the life of the valve by preventing cold flow of material into the bore as experienced in non-encapsulated seal designs.

## mirror polished solid ball

The ball is polished to a mirror finish of Ra 0.20 or better to ensure smooth contact of the seating surfaces and prevents build up of contaminants in hygienic applications. The solid 316SS ball ensures the highest integrity of corrosion and pressure resistance for your critical applications.

## blowout proof stem

By inserting the stem from inside the body bore, PCC Valtaco valves are designed to be blowout proof and greatly improve the safety of your process.

## live loaded stem seal

Belleville springs provide a constant loading of the stem seal system to compensate for thermal expansion and contraction, and wear. The belleville springs are precision engineered and manufactured for PCC Valtaco to ensure long-term consistent performance. This system automatically adjusts itself to prevent leakage through the stem area of the valve.



## stem nut locking cap

PCC Valtaco employs a unique "locking cap" design that guarantees the stem nut will remain secure and maintain the proper load on the belleville springs. This is especially critical in high cycle applications where conventional designs allow the stem nut to loosen resulting in stem leakage. This unique locking cap allows for trouble free operation regardless of the number of cycles.

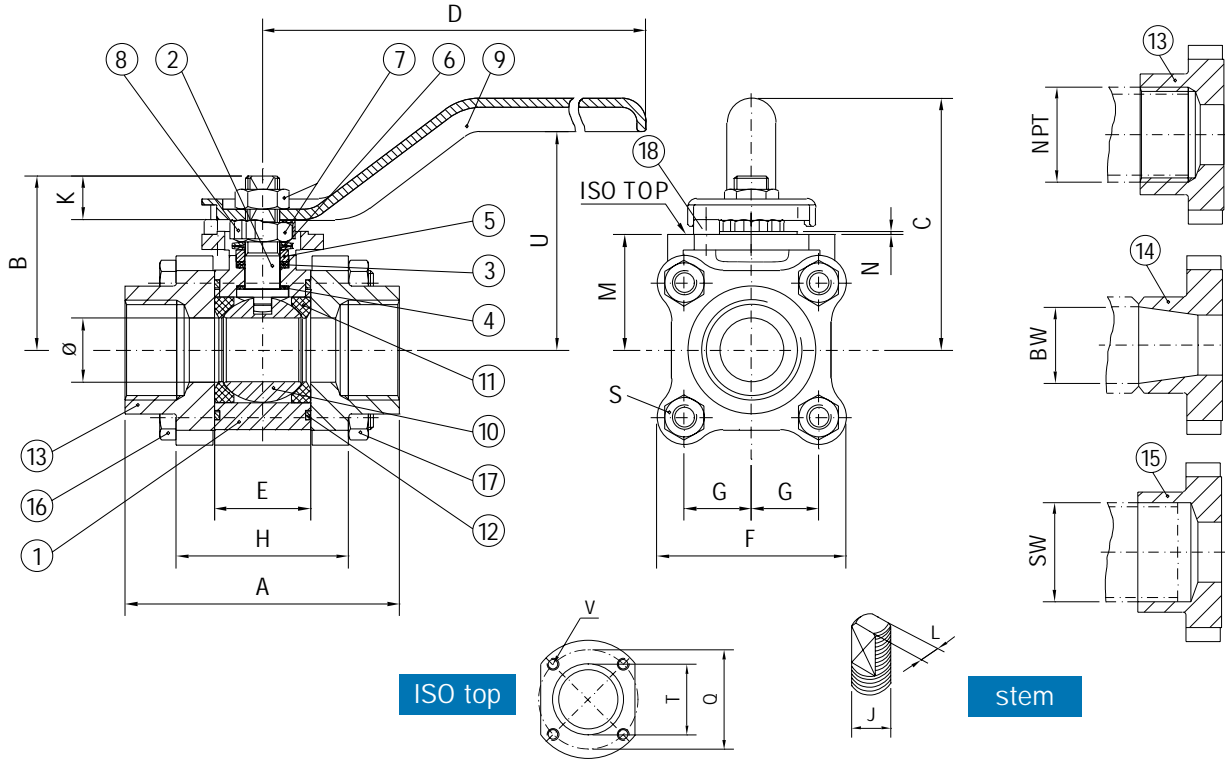
## ISO 5211 mounting pad

Allows for easy automation, especially the mounting of PCC actuators. The standard mounting kit is designed specifically for Valtaco valves and TechTorq actuators including an investment cast, 316 stainless steel bracket and stainless steel coupler as shown above.

## APPROVALS

- ISO 9001
- ABS (American Bureau of Shipping)
- US Coast Guard Positive Shut-Off
- NACE
- TUV
- API 607

# SERIES 15i



		<b>15i44</b>	<b>15i66</b>
1	Body	A105N	AISI316
2	Stem	AISI316L	
3	Stem Seal	PTFE-carbon	
4	Thrust Washer	PTFE-carbon	
5	Stem Seal Follower	AISI303	
6	Belleville Springs	AISI301	
7	Hex. Nut (Handle Nut)	AISI303	
8	Lock Cap	AISI304	
9	Handle	CF8M	

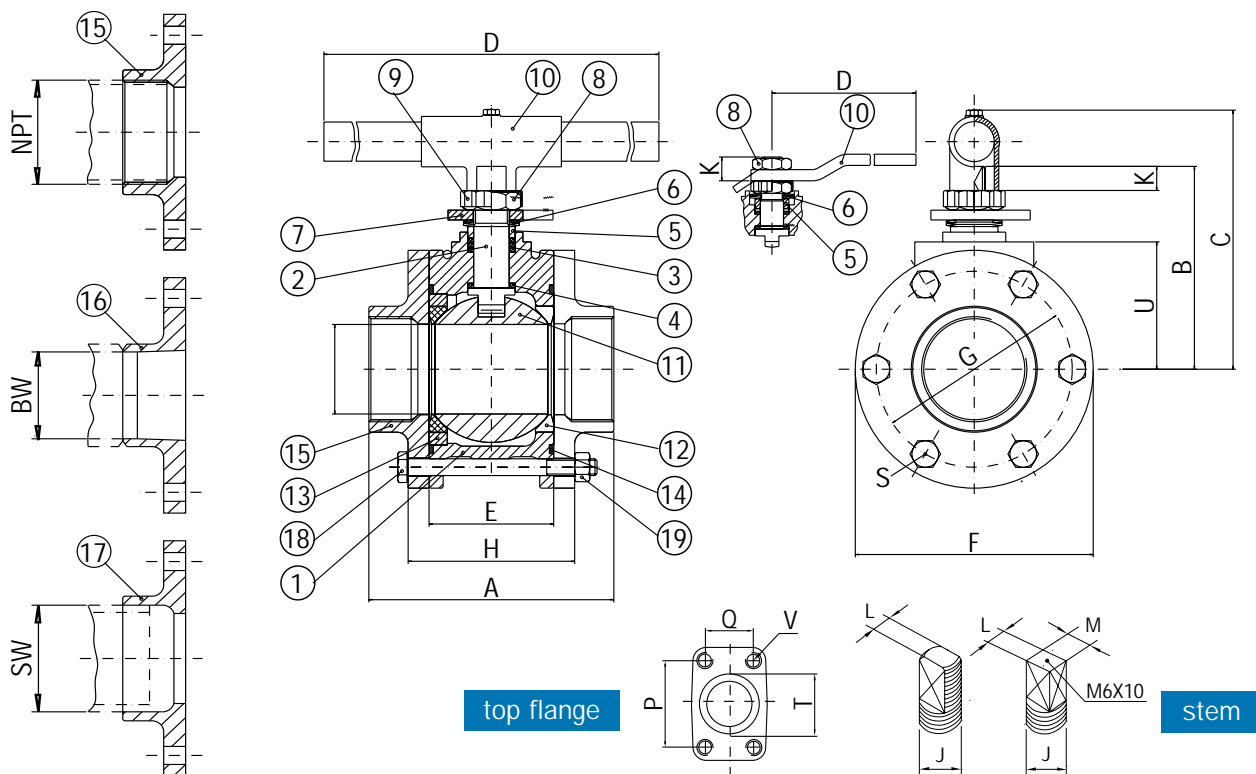
		<b>15i44</b>	<b>15i66</b>
10	Ball	AISI316	
11	Seat	PTFE-GLASS	
12	Body Seal	PTFE-GLASS	
13	Screwed End	A105N	AISI316L
14	Butt Weld End	A105N	AISI316L
15	Socket Weld End	A105N	AISI316L
16	Body Bolt	AISI1034	AISI304
17	Body Nut	AISI1034	AISI304
18	Bolt	AISI1034	AISI304

## regular bore 1/2" - 2"

SIZE	BW	SW	Ø	A	B	C	D	E	F	G	H	JUNF	K	L	M	N	Q	S	T	U	V	ISO TOP
1/2"	0.62	0.86	0.43	2.60	1.42	2.44	5.90	0.81	1.77	0.63	1.57	3/8"	0.35	0.27	1.06	0.04	1.65	M6X45	1.18	2.00	M5	F04
3/4"	0.82	1.07	0.55	3.00	1.65	2.60	5.90	0.97	2.00	0.75	1.81	3/4"	0.47	0.27	1.26	0.04	1.65	M6X55	1.18	2.12	M5	F04
1"	1.05	1.35	0.83	3.54	2.20	3.23	6.89	1.25	2.44	0.87	2.24	7/16"	0.55	0.29	1.50	0.04	1.65	M8X65	1.18	2.79	M5	F04
1 1/4"	1.40	1.70	0.98	4.13	2.36	3.19	6.89	1.62	2.68	0.98	2.64	7/16"	0.55	0.29	1.38	0.08	1.65	M8X75	1.18	2.75	M5	F04
1 1/2"	1.60	1.92	1.26	4.53	2.80	3.98	7.87	1.90	3.03	1.14	3.00	9/16"	0.63	0.35	1.61	0.08	1.97	M10X90	1.38	3.38	M6	F05
2"	2.09	2.42	1.50	5.12	3.00	4.17	7.87	2.22	3.42	1.30	3.38	9/16"	0.63	0.35	1.81	0.08	1.97	M10X100	1.38	3.58	M6	F05

## full bore 1/4" - 1 1/2"

SIZE	BW	SW	Ø	A	B	C	D	E	F	G	H	JUNF	K	L	M	N	Q	S	T	U	V	ISO TOP
1/4"	0.36	0.55	0.43	2.60	1.42	2.44	5.90	0.81	1.77	0.63	1.57	3/8"	0.35	0.27	1.06	0.04	1.65	M6X45	1.81	2.00	M5	F04
3/8"	0.49	0.71	0.43	2.60	1.42	2.44	5.90	0.81	1.77	0.63	1.57	3/8"	0.35	0.27	1.06	0.04	1.65	M6X45	1.81	2.00	M5	F04
1/2"	0.62	0.87	0.55	3.00	1.65	2.60	5.90	0.97	2.00	0.75	1.81	3/8"	0.47	0.27	1.26	0.04	1.65	M6X55	1.81	2.12	M5	F04
3/4"	0.83	1.08	0.83	3.54	2.20	3.23	6.89	1.25	2.44	0.87	2.24	7/16"	0.55	0.29	1.49	0.04	1.65	M8X65	1.81	2.79	M5	F04
1"	1.05	1.36	0.98	4.13	2.36	3.19	6.89	1.62	2.68	0.98	2.64	7/16"	0.55	0.29	1.38	0.08	1.65	M8X75	1.81	2.75	M5	F04
1 1/4"	1.38	1.70	1.26	4.53	2.80	3.98	7.87	1.90	3.03	1.14	3.00	9/16"	0.63	0.35	1.61	0.08	1.97	M10X90	1.38	3.38	M6	F05
1 1/2"	1.61	1.70	1.50	5.12	3.00	4.17	7.87	2.22	3.42	1.30	3.38	9/16"	0.63	0.35	1.81	0.08	1.97	M10X100	1.38	3.58	M6	F05



		<b>2644</b>	<b>2666</b>
1	Body	WCB	CF8M
2	Stem	AISI316L	
3	Stem Seal	PTFE-carbon	
4	Thrust Washer	PTFE-carbon	
5	Stem Seal Follower	AISI303	
6	Belleville Springs	AISI301	
7	Stop Plate	AISI 316L/CF8M	
8	Hex. Nut	AISI303	
9	Lock Cap	AISI304	
10	Handle	CF8M	

		<b>2644</b>	<b>2666</b>
11	Ball	CF8M	
12	Seat	PTFE-GLASS	
13	Centre Ring	CF8M	
14	Body Seal	PTFE - GLASS	
15	Screwed End	A105N	AISI316L
16	Butt Weld End	A105N	AISI316L
17	Socket Weld End	A105N	AISI316L
18	Body Bolt	AISI1034	AISI304
19	Body Nut	AISI1034	AISI304

## regular bore 2 1/2" - 6"

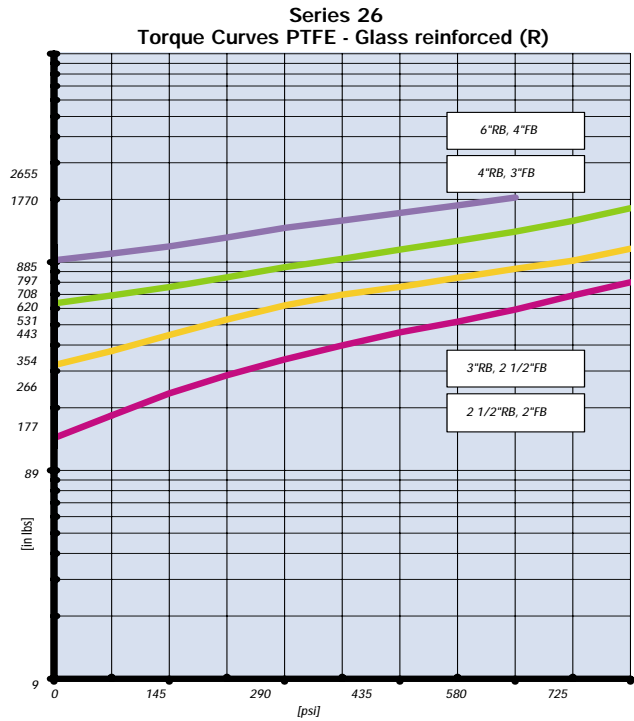
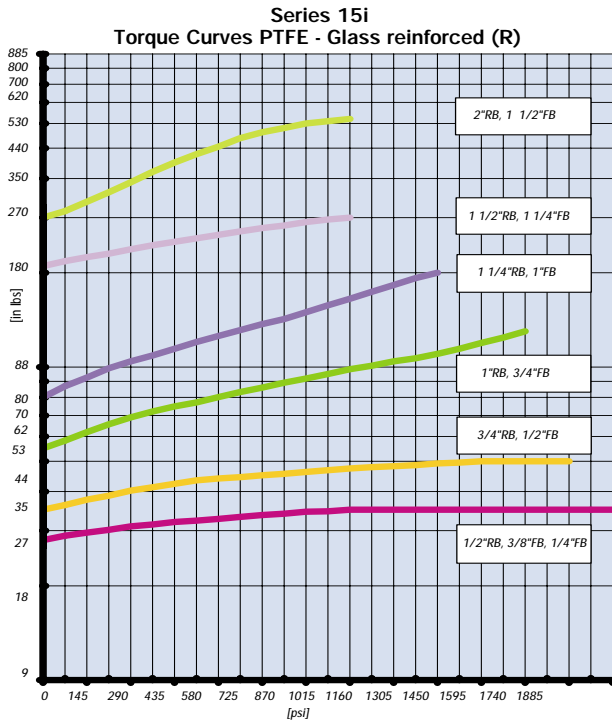
SIZE	BW	SW	∅	A	B	C	D	E	F	G	H	J	K	L	M	P	Q	S	T	U	V
2 1/2"	2.47	3.03	1.97	5.79	3.90	4.01	6.89	2.81	5.51	4.49	3.94	M16x15	0.63	0.43	-	2.12	0.98	M12X115	1.50	2.95	M6
3"	3.07	3.54	2.52	6.89	5.71	6.97	19.68	3.50	6.70	5.50	4.68	UNF 1"	0.90	0.75	0.83	2.56	1.42	M12X135	1.77	3.58	M8
4"	4.03	4.58	3.25	8.46	6.34	7.60	19.68	4.27	8.11	6.89	5.55	UNF 1"	0.90	0.75	0.83	2.56	1.77	M14X115	1.77	4.21	M10
6"	6.07	-	3.98	11.8	6.93	8.19	19.68	5.31	9.84	8.46	6.65	UNF 1"	0.90	0.75	0.83	2.56	1.77	M14X185	1.77	4.96	M10

## full bore 2" - 4"

SIZE	BW	SW	∅	A	B	C	D	E	F	G	H	J	K	L	M	P	Q	S	T	U	V
2"	2.57	3.00	1.97	5.79	3.90	4.01	6.89	2.81	5.51	4.49	3.94	M16x15	0.63	0.43	-	2.12	0.98	M12 x 115	1.50	2.95	M6
2 1/2"	3.07	3.77	2.52	6.89	5.71	6.97	19.68	3.50	6.70	5.50	4.68	UNF 1"	0.90	0.75	0.83	2.56	1.42	M12 x 135	1.77	3.58	M8
3"	3.82	4.40	3.25	8.46	6.34	7.60	19.68	4.27	8.11	6.89	5.55	UNF 1"	0.90	0.75	0.83	2.56	1.77	M14 x 115	1.77	4.21	M10
4"	5.00	5.65	3.98	11.88	6.93	8.19	19.68	5.31	9.84	8.46	6.65	UNF 1"	0.90	0.75	0.83	2.56	1.77	M14 x 185	1.77	4.96	M10



# TECHNICAL DATA



\* Consult factory on torque values for other seat materials.

# PRODUCT OPTIONS

## heat jacketed valves

Heat jacketed valves are available from PCC Valtaco Series 15iHM and 26HM in sizes from 1/4" to 6".

The integral thermal jacket keeps heat loss to an absolute minimum because the heat source is kept in close proximity to the critical areas of the valve.

The PCC design is ideal for use with virtually all heat transfer fluids.



## valtaco series 17i

The PCC Valtaco Series 17i is a three-piece diverter valve effective in a wide range of applications, pressures and temperatures.

With the ISO 5211 mounting pad, the Series 17i is easily adapted for automation by PCC TechTorq actuators.

Sizes range from 1/4" to 2" and available in both carbon and stainless steel body material.

## locking device

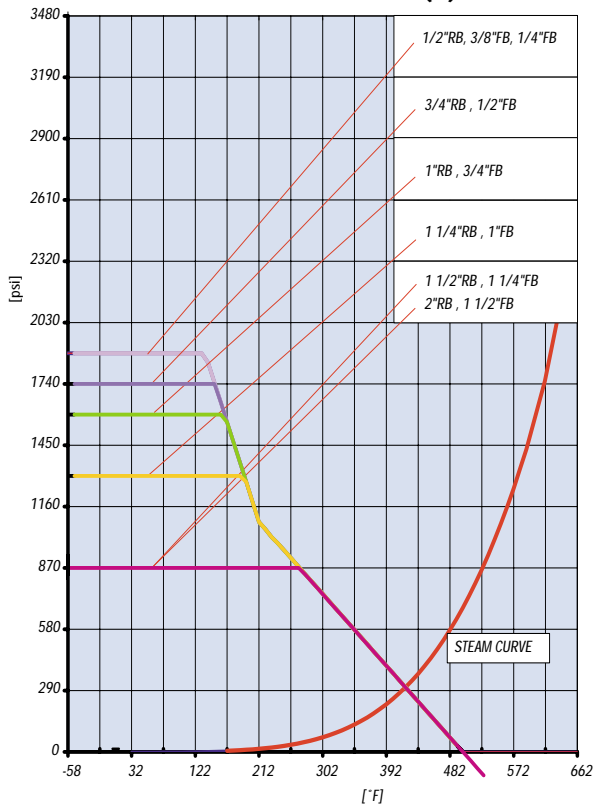
PCC Valtaco's patented locking device provides the ultimate in process security.

Designed to secure the valve in either the open or closed position, the PCC locking device cannot be breached by removing the handle as found in conventional designs.

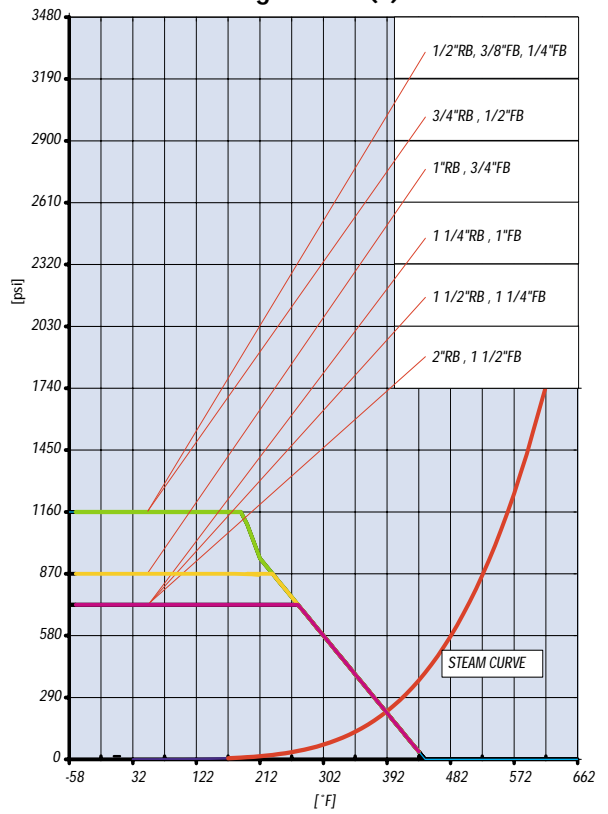
This device can be used with both standard and oval handles.



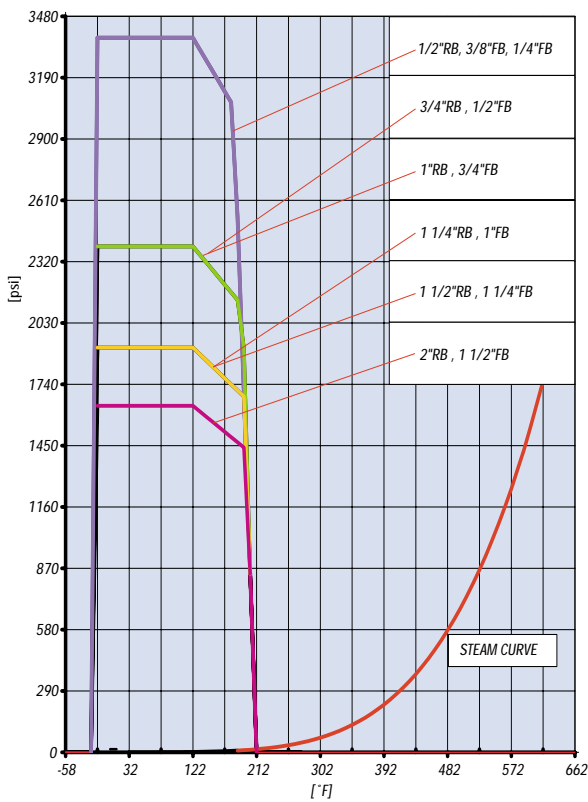
**Series 15i - Glass reinforced (R)**



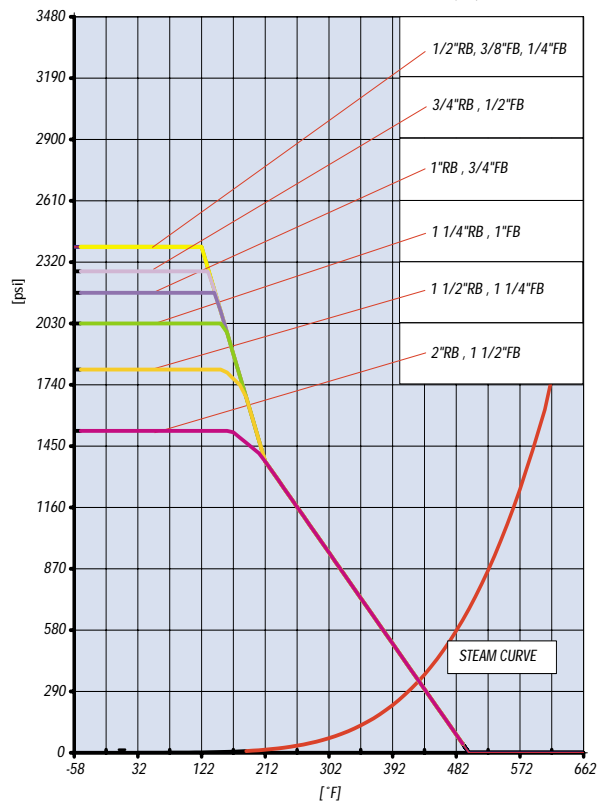
**Series 15i - Virgin PTFE (T)**



**Series 15i - DELRIN (D)**

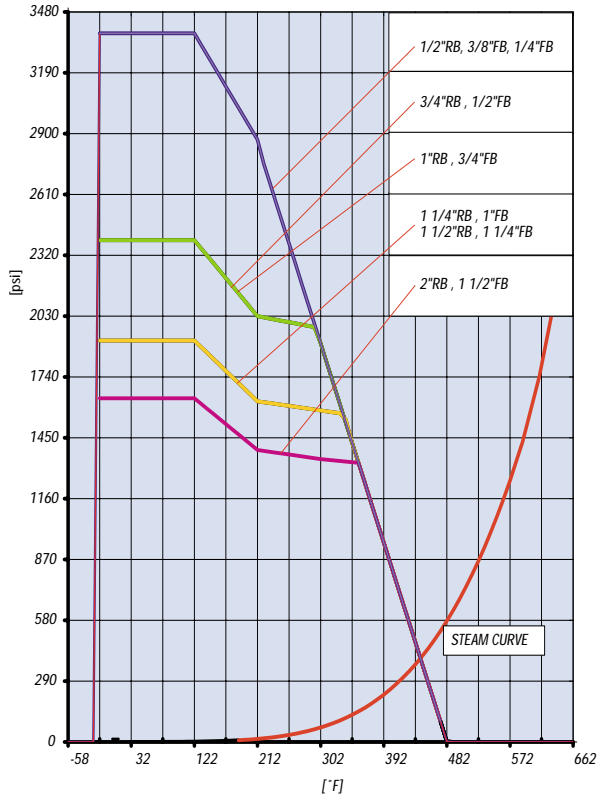


**Series 15i - Carbon reinforced (C)**

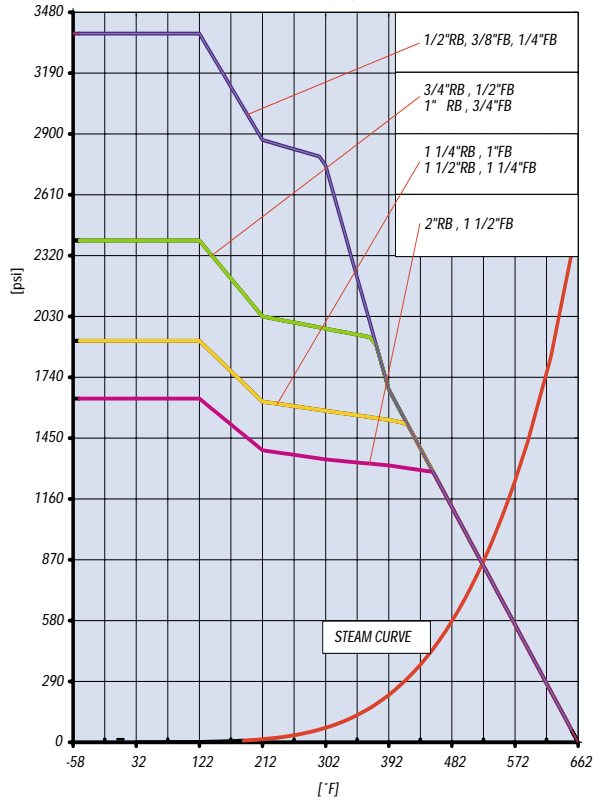


# PRESSURE - TEMPERATURE RATINGS

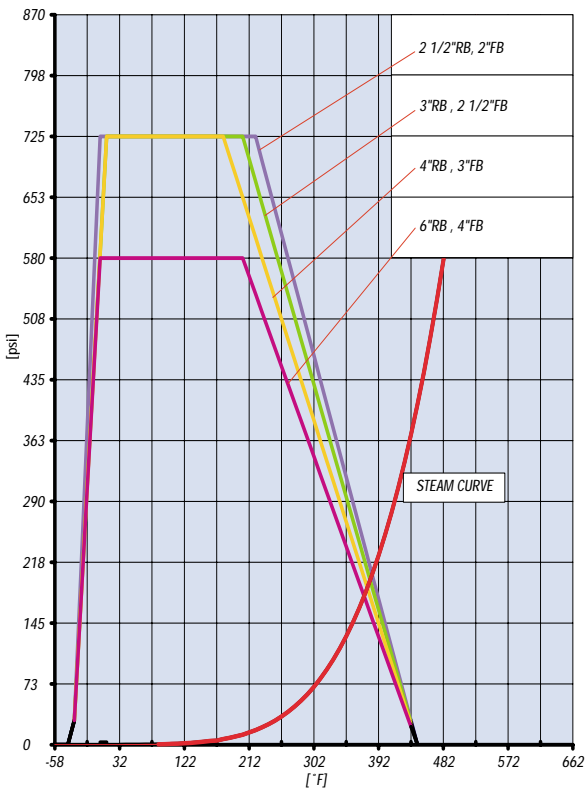
## Series 15i - PEEK (P)



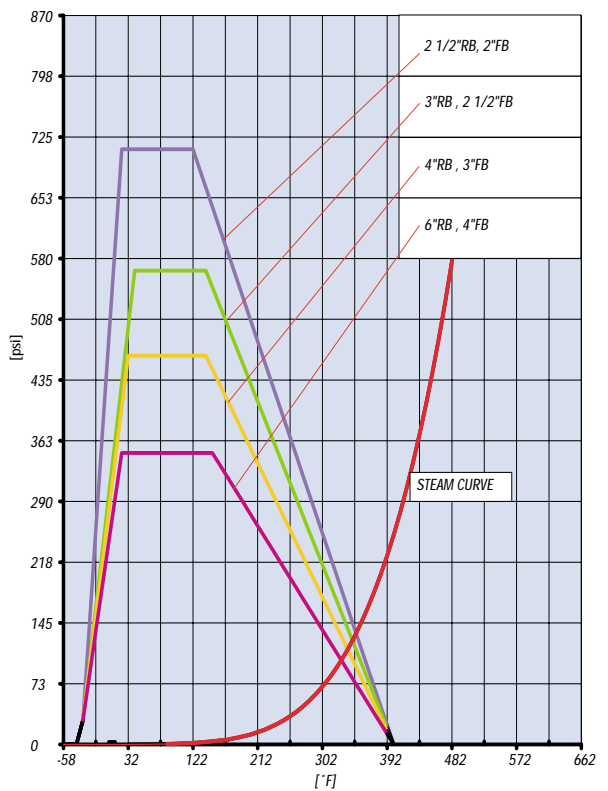
## Series 15i - VESPEL (V)



## Series 26 - Glass reinforced (R)



## Series 26 - Virgin PTFE (T)





## WEIGHTS

SIZE	Regular Bore	Full Bore
1/4"	*	1.3
3/8"	*	1.3
1/2"	1.3	1.7
3/4"	1.7	3.3
1"	3.3	4.8
1 1/4"	4.8	6.6
1 1/2"	6.6	8.8
2"	8.8	18.5
2 1/2"	18.5	35
3"	35	55
4"	55	106
6"	106	*

## SEAL CODE

Code	Abbreviation	Seat Material
01	TRCC	PTFE
02	RRCC	PTFE - Glass
03	CCCC	PTFE - Carbon (15i)
04	CRCC	PTFE - Carbon (26)
05	TGGG	Fire Safe
06	DRCC	DELRIN®
07	PCCC	PEEK
08	VCCC	VESPEL®
09	*	Other

® DELRIN and VESPEL are registered trademarks of E.I. DuPont.

## FLOW COEFFICIENT (Cv)

SIZE	Regular Bore	Full Bore
1/4"	*	8
3/8"	*	8
1/2"	8	13
3/4"	13	32
1"	32	58
1 1/4"	58	82
1 1/2"	82	111
2"	111	241
2 1/2"	241	319
3"	319	580
4"	580	812
6"	812	*

# VALTACO MODEL NUMBERING SYSTEM

