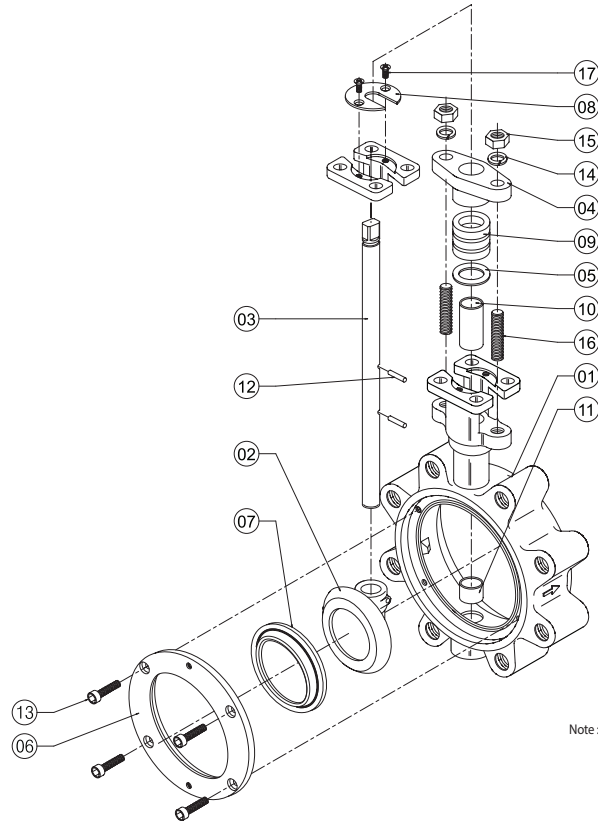


# High Performance Butterfly Valve

## Carbon Steel, Lug, 150 Class, ISO 5211 Mounting Pad



HPBFV-600-CS-150



Note : Dimension Class ANSI 150

### Features:

- Bubble-tight Shut-off Design
- Corrosion Resistant One-Piece Body
- Durable One-Piece Stem  
A564 Gr.630/17-4 PH® Materials
- 29 in-Hg vacuum rating
- ISO 5211 Mounting Pad
  - 2-12" – Square Design
  - 14-24" – Keyed Design
- Dual Offset Disc Design
- Internal Stop to Prevent Disc Over-travel
- High Performance Lug Body Provides Bi-Directional Dead-End Services

### Valve Rating:

- Basic Design: API 609, MSS-SP-68, BS 5155, ISO 5752
- Pressure / Temperature Rating: ANSI B16.34
- Shell/Seat Test: API 598, MSS-SP-61
- Working Pressure: Class 150 (285 psig)
- Metal to Metal Seat Leakage: Class IV per ASME/FCI 70-2

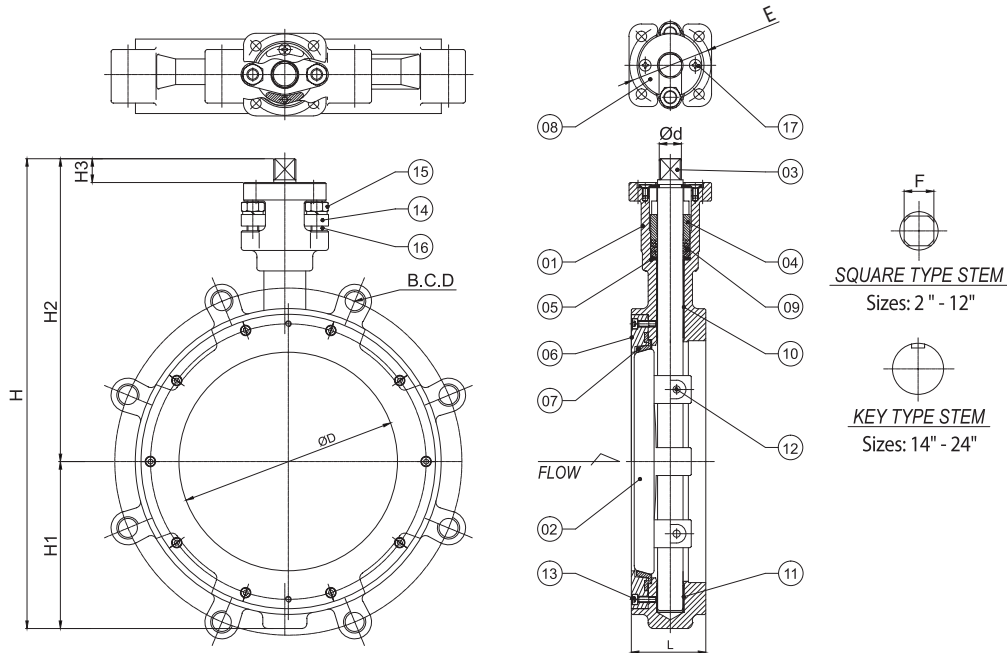
### Material Specifications

No.	Part	RPTFE Seat	Fire-Safe Seat	Metal Seat	Quantity
1	Body		A216 WCB		1
2	Disc		A351 CF8M		1
3	Stem		A564 Gr. 630		1
4	Gland Flange		A216 WCB		1
5	Packing Retainer		A276 TP 316		1
6	Retainer Ring		A351 CF8M		1
7	Seat	RPTFE	RTFE/316SS	316SS	1
8	Top Retainer		A283D-A36		1
9	Grand Packing		Graphite		3
10	Upper Bearing		RPTFE+316SS		1
11	Lower Bearing		RPTFE+316SS		1
12	Disc Pin		A276 TP 316		2
13	Hex Socket Bolt		A283D-A36		4 ~ 14
14	Spring Washer		A283D-A36		2
15	Hex Nut		A283D-A36		2
16	Stud Bolt		A283D-A36		2
17	Flat Head Screw		A283D-A36		2



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

# Dimensions



Size (in)	H	H1	H2	H3	Ød	F	ØD	E	L	B.C.D	n*	h*	Bolt Size
2"	8.63	2.36	6.27	0.60	0.51	0.43	1.65	F07	1.73	4.75	4	0.75	5/8" x 1-1/4"
2-1/2"	9.54	2.76	6.78	0.60	0.63	0.55	2.40	F07	1.81	5.50	4	0.75	5/8" x 1-1/2"
3"	9.85	3.01	6.84	0.60	0.63	0.55	2.91	F07	1.89	6.00	4	0.75	5/8" x 1-3/4"
4"	11.07	3.54	7.53	0.70	0.63	0.55	3.70	F07	2.13	7.50	8	0.75	5/8" x 1-7/8"
5"	12.55	4.09	8.45	0.70	0.71	0.55	4.65	F07	2.24	8.50	8	0.87	3/4" x 1-7/8"
6"	13.62	4.53	9.09	0.75	0.87	0.67	5.51	F07	2.28	9.50	8	0.87	3/4" x 2"
8"	15.91	5.65	10.26	0.81	0.87	0.67	7.40	F07	2.52	11.75	8	0.87	3/4" x 2-1/4"
10"	18.44	6.69	11.75	0.81	1.10	0.87	9.39	F10	2.81	14.25	12	1.00	7/8" x 2-1/4"
12"	20.63	7.76	12.88	0.95	1.10	0.87	11.02	F10	2.81	17.00	12	1.00	7/8" x 2-1/2"
14"	26.87	11.00	15.87	2.76	1.50	-	-	F14	3.62	18.75	12	1.13	1" x 2-1/2"
16"	31.66	12.54	19.12	3.48	1.77	-	-	F16	4.02	21.75	16	1.13	1" x 3"
18"	33.73	13.31	20.41	3.48	2.17	-	-	F16	4.49	22.75	16	1.25	1-1/8" x 3"
20"	34.59	14.17	20.41	3.48	2.17	-	-	F16	5.00	25.00	20	1.25	1-1/8" x 3-1/4"
24"	39.76	16.70	23.05	3.68	2.56	-	-	F16	6.06	29.50	20	1.37	1-1/4" x 3-1/2"

\*Note: n = number of bolt holes  
h = bolt hole diameter

## Torque Data

ACTUAL TORQUE: lbf.inch

SIZE	RPTFE SEAT		METAL SEAT	
	150 PSIG	285 PSIG	150 PSIG	285 PSIG
2"	200	270	564	677
2-1/2"	200	270	564	677
3"	200	270	564	677
4"	225	470	903	1128
5"	540	680	1467	2144
6"	540	680	1467	2144
8"	910	1620	2031	2595
10"	1620	2530	3385	4288
12"	2530	3600	4513	5190
14"	3720	5970		
16"	5530	9180		
18"	6840	11900		
20"	10020	16970		
24"	18330	32290		

There are multiple factors that affect the torque required to operate butterfly valves. Please consult Jomar Valve for additional assistance.

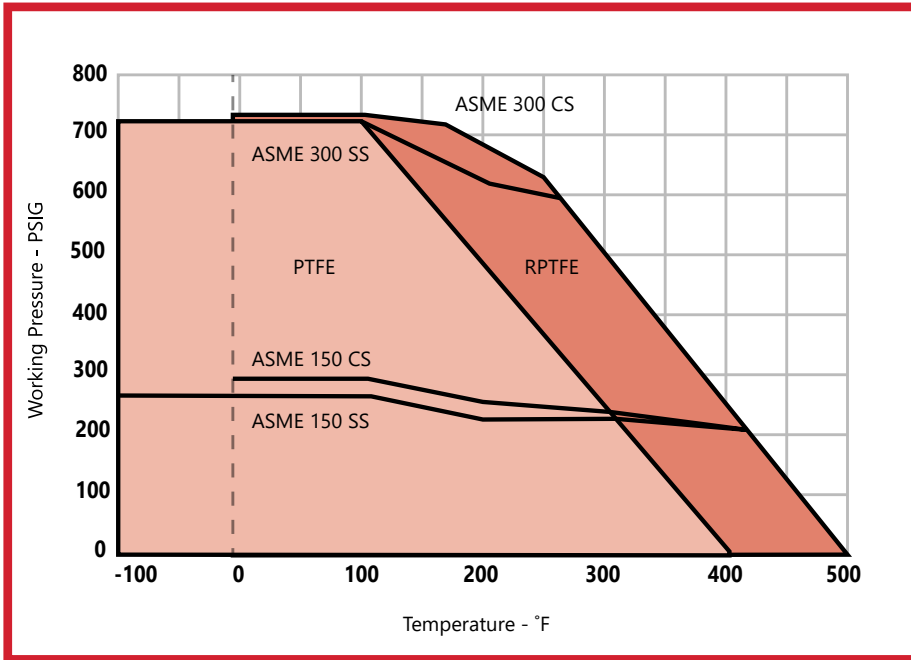
## Flow Coefficient Charts

Inches	DISC OPENING							
	20°	30°	40°	50°	60°	70°	80°	90°
	Cv							
2"	6	14	25	39	56	76	99	102
2-1/2"	9	21	37	56	80	110	142	146
3"	14	32	57	87	125	171	221	228
4"	27	63	114	171	248	338	437	451
5"	43	100	180	271	392	535	692	714
6"	66	154	278	419	607	827	1070	1103
8"	124	289	520	784	1135	1584	2002	2064
10"	211	492	886	1336	1934	2638	3411	3517
12"	290	677	1219	1838	2660	3628	4690	4837
14"	392	914	1646	2481	3592	4898	6530	6857
16"	531	1230	2229	3361	4865	6634	8845	9287
18"	684	1596	3873	4332	6270	8850	11270	11400
20"	828	1932	3478	5244	7590	10350	13800	14420
24"	1260	2940	5292	7890	11550	15750	21000	22050

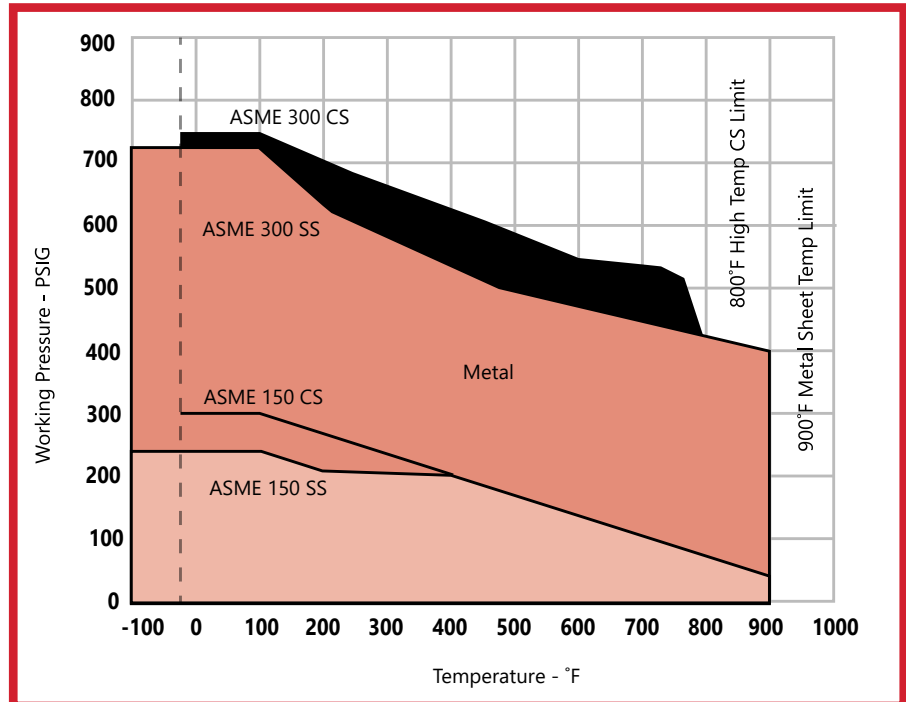
# Technical Data

## Pressure vs. Temperature

### PTFE & RPTFE Seat

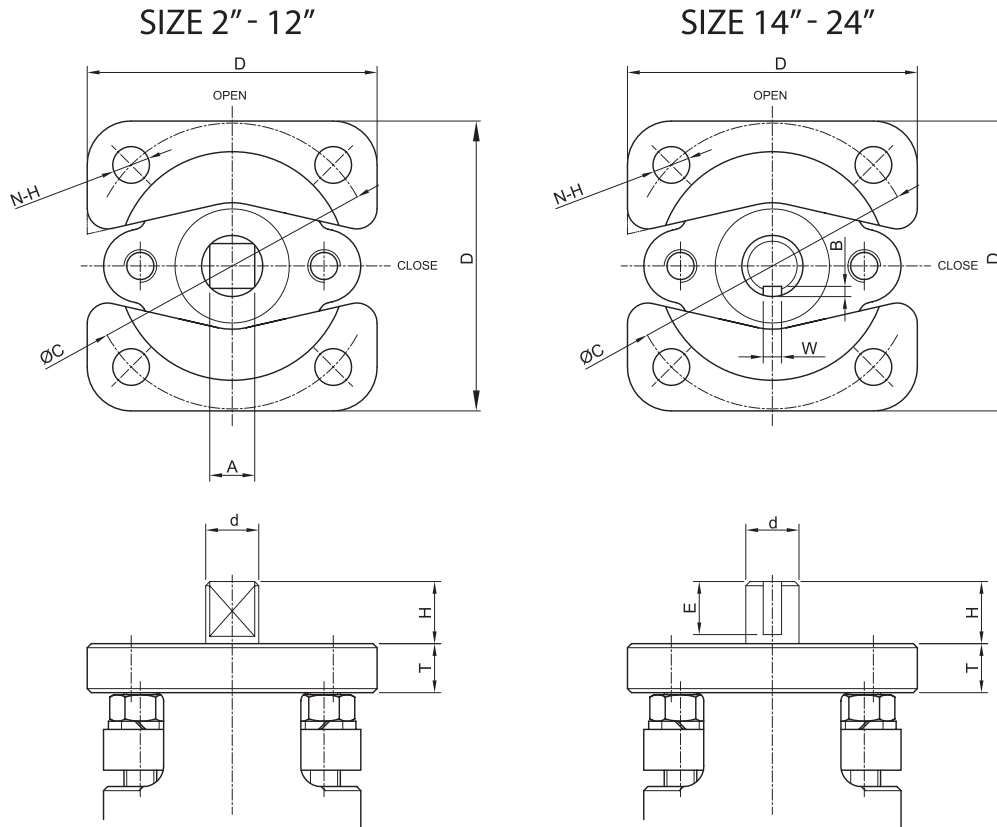


### Metal Seat



# Butterfly Valve Top Flange Dimensions

## High Performance Class 150



SIZE	d	T	ØC	N-H	A	D	B	W	H	E
2"	0.51	0.47	F07	0.35	0.43	2.80	-	-	0.60	-
2-1/2"	0.63	0.47	F07	0.35	0.55	2.80	-	-	0.60	-
3"	0.63	0.47	F07	0.35	0.55	2.80	-	-	0.60	-
4"	0.63	0.47	F07	0.35	0.55	2.80	-	-	0.70	-
5"	0.71	0.55	F07	0.35	0.55	2.80	-	-	0.70	-
6"	0.87	0.55	F07	0.35	0.67	2.80	-	-	0.75	-
8"	0.87	0.63	F07	0.35	0.67	2.80	-	-	0.81	-
10"	1.00	0.71	F10	0.43	0.87	3.74	-	-	0.81	-
12"	1.10	0.71	F10	0.43	0.87	3.74	-	-	0.95	-
14"	1.50	0.71	F14	0.71	-	5.51	0.20	0.47	2.76	2.36
16"	1.77	0.79	F16	0.87	-	6.30	0.20	0.47	3.48	2.76
18"	2.17	0.79	F16	0.87	-	6.30	0.20	0.47	3.48	2.76
20"	2.17	0.79	F16	0.87	-	6.30	0.20	0.47	3.48	2.76
24"	2.17	0.79	F16	0.87	-	6.30	0.20	0.47	3.68	2.76

# Material Selection / How to Order

