

AVCO

Alloy Valves and Control

BUTTERFLY VALVES BFV HP SERIES



Size

Class 150 - 2" thru 60"
Class 300 - 2" thru 36"

End Connections

Class 150 - Lug Type
Class 300 - Lug Type

Valve Materials

316 Stainless Steel
Carbon Steel

Disc and Stem Materials

304 Stainless Steel Disc
316 Stainless Steel Disc
17-4PH Stem

Seat Materials

Teflon (PTFE)
15% Glass Filled Teflon

Service Applications

HVAC
Chemicals
Gasoline
Hot Gases
Thermal Fluids
Wastewater
Water

Applicable Standards

API 609 type B
API 598
ASME B16.5
ASME B16.47

Alloy Valves and Control**About the BFV HP Butterfly Valve**

The AVCO BFV HP series butterfly valve is made for high performance and quality. The cast, precision machined, design with ANSI class 150 or 300 lug type connections gives trouble free long lasting usage in demanding applications. It is designed to meet or exceed API 609 type B and is fully tested to API 598. Materials of construction are stainless steel and carbon steel. The double offset disc design gives bi-directional bubble tight shut-off. Seats are available in TFE and RTFE to satisfy harsh environments and high temperature applications. The high strength single piece stem has blow out prevention and online adjustment capability. The mount pad and square stem design enables many actuator styles (electric, pneumatic, etc.) to be mounted with ease. Whether for use in the oil, gas, chemical or water industries, this valve will deliver performance, quality and ease of use.

Design

- The valve body is a single cast piece designed per API 609 type B
- The valve is bidirectional design and suitable for dead end service.
- Valves are available in class 150 and 300
- The face to face dimensions conform to API 609 type B
- Flange bolting conforms to ASME B16.5 & B16.47.
- The passageway is full port.
- The seats are encapsulated and flexible for greater durability.
- The disc design is engineered to give optimal sealing.
- The valve body is fitted with a mounting pad.
- The stem is a high strength single piece design.
- The stem has a square drive to mate with actuators.
- The stem has blow-out prevention and anti-static design.
- The stem is fully supported at the top and bottom with close tolerance PTFE lined bushings.
- The seat material is available in TFE & RTFE.
- The stem assembly enables online adjustment of the packing.
- The valves are tested to API 598.

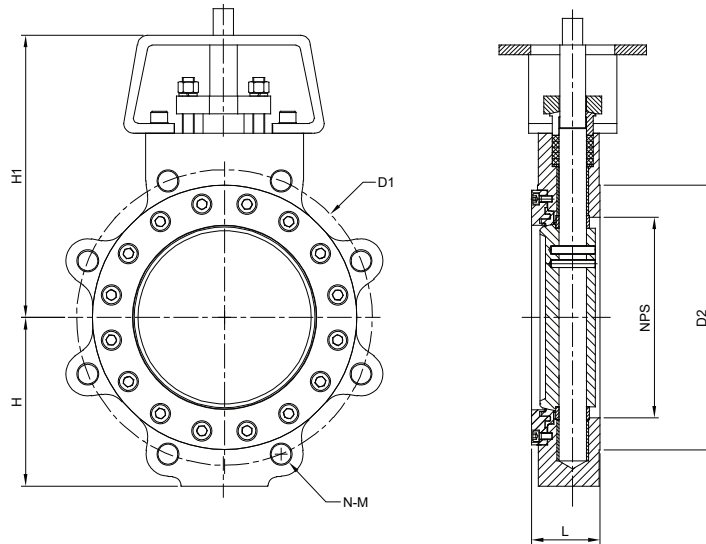
Operation

The following operators can be utilized on the valve:

- Manual Lever handle
- Chain wheel operator.
- Gear operator.
- Pneumatic actuator.
- Hydraulic actuator.
- Electric actuator.

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CLASS 150 - 2" THRU 60"

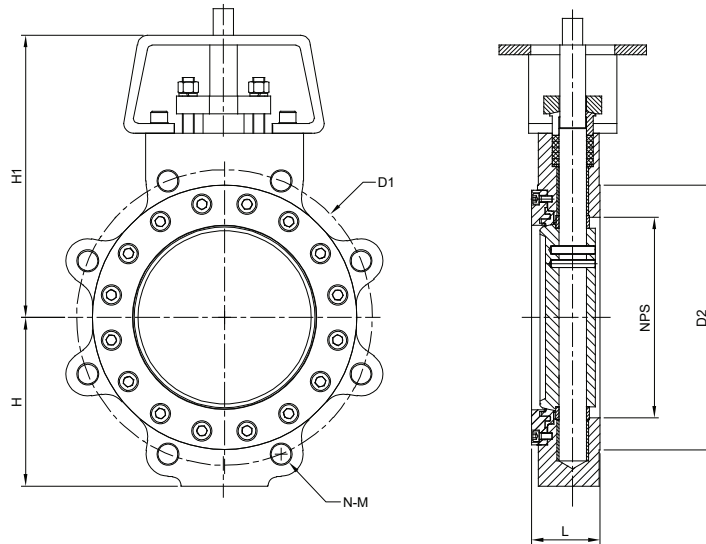


NPS	D1 (mm)	D2 (mm)	N-M	H (mm)	H1 (mm)	L* (mm)	Cv
2"	120.7	92.1	4 - 5/8"-11 UNC	65	185	43	53
3"	152.4	127	4 - 5/8"-11 UNC	94	205	48	162
4"	190.5	157.2	8 - 5/8"-11 UNC	107	220	54	390
5"	215.9	185.7	8 - 3/4"-10 UNC	127	245	57	660
6"	241.3	215.9	8 - 3/4"-10 UNC	130.5	260	57	1038
8"	298.5	269.9	8 - 3/4"-10 UNC	161	295	64	2200
10"	362	323.8	12 - 7/8"-9 UNC	196	333	71	3300
12"	431.8	381	12 - 7/8"-9 UNC	235	365	81	5100
14"	476.3	412.8	12 - 1"-8 UNC	290	440	92	5800
16"	539.8	469.9	16 - 1"-8 UNC	340	490	102	8000
18"	577.9	533.4	16 - 1 1/8"-8 UN	355	495	114	10500
20"	635	584.2	20 - 1 1/8"-8 UN	400	560	127	14000
24"	749.3	692.2	20 - 1 1/4"-8 UN	475	640	154	21600
30"	914.4	857	28 - 1 1/4"-8 UN	540	755	167	34000
36"	1085.8	1022	32 - 1 1/2"-8 UN	630	840	203	55500
40"	1200.2	1124	36 - 1 1/2"-8 UN	760	955	216	68500
48"	1422.4	1359	44 - 1 1/2"-8 UN	910	1090	254	108300
56"	1651	1575	48 - 1 3/4"-8 UN	960	1275	279	138900
60"	1759	1759	52 - 1 3/4"-8 UN	1020	1330	318	159000

* Face to face tolerance = -0/+3mm

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CLASS 300 - 2" THRU 30"

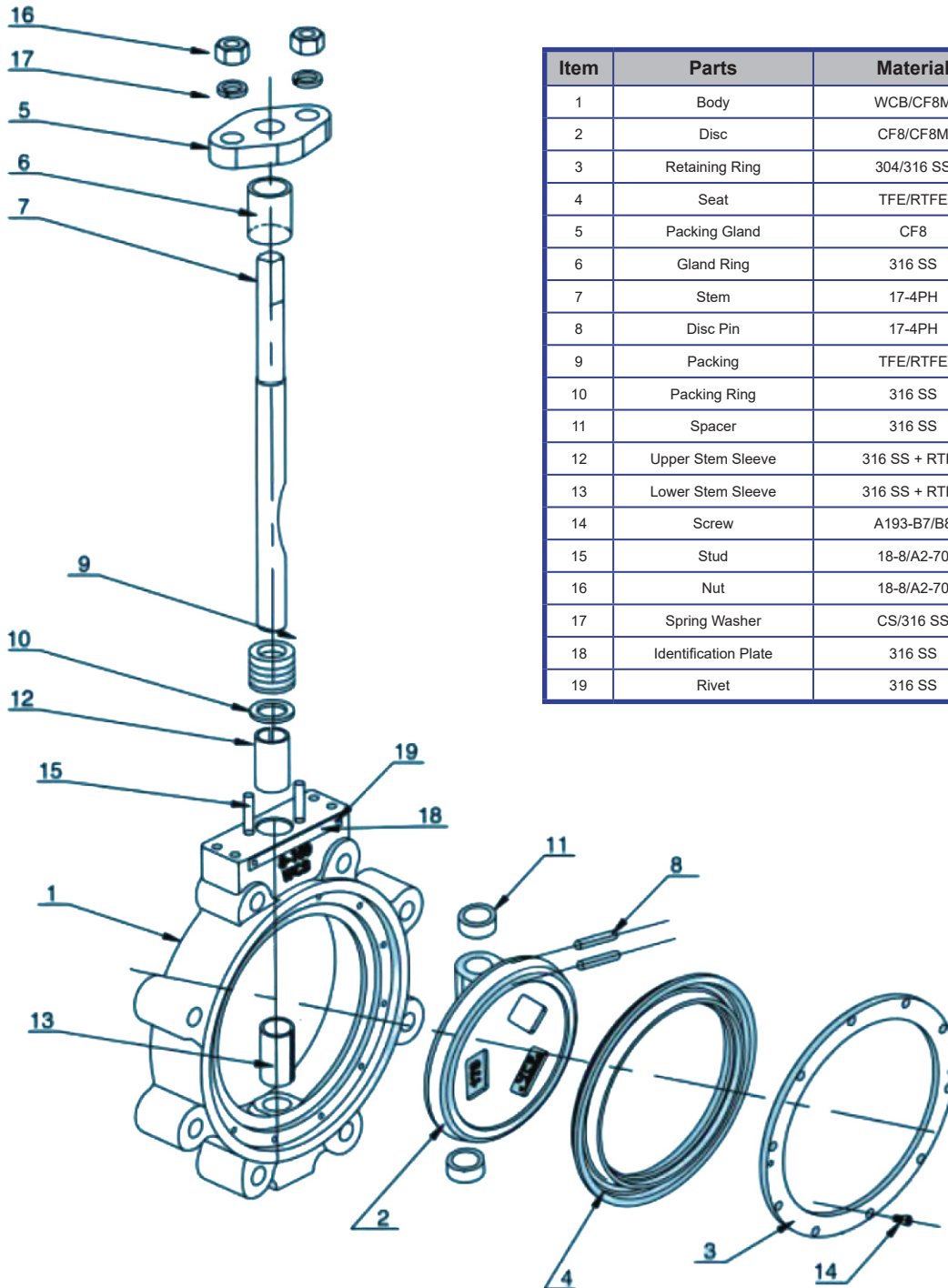


NPS	D1 (mm)	D2 (mm)	N-M	H (mm)	H1 (mm)	L* (mm)	Cv
2"	120.7	92.1	8 - 5/8"-11 UNC	65	165	43	53
3"	152.4	127	4 - 5/8"-11 UNC	94	185	48	162
4"	190.5	157.2	8 - 3/4"-10 UNC	110	200	54	390
5"	215.9	185.7	8 - 3/4"-10 UNC	127	225	57	660
6"	269.9	215.9	12 - 3/4"-10 UNC	145	260	61	1038
8"	330.2	269.9	12 - 7/8"-9 UNC	185	315	73	1800
10"	387.4	323.8	16 - 1"-8 UNC	218	354	83	3150
12"	450.8	381	16 - 1 1/8"-8 UN	285	425	92	4750
14"	514.4	412.8	20 - 1 1/8"-8 UN	317	465	117	5200
16"	571.5	469.9	20 - 1 1/4"-8 UN	360	510	133	6900
18"	628.6	533.4	24 - 1 1/4"-8 UN	380	600	149	9300
20"	685.8	584.2	24 - 1 1/4"-8 UN	430	650	159	11300
24"	812.8	692.2	24 - 1 1/2"-8 UN	490	700	181	18500
30"	997	857	28 - 1 3/4"-8 UN	595	835	254	29100
36"	1168.4	1022	32 - 2"-8 UN	685	955	254	47500

* Face to face tolerance = -0/+3mm

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TYPICAL EXPLODED VIEW



Item	Parts	Material
1	Body	WCB/CF8M
2	Disc	CF8/CF8M
3	Retaining Ring	304/316 SS
4	Seat	TFE/RTFE
5	Packing Gland	CF8
6	Gland Ring	316 SS
7	Stem	17-4PH
8	Disc Pin	17-4PH
9	Packing	TFE/RTFE
10	Packing Ring	316 SS
11	Spacer	316 SS
12	Upper Stem Sleeve	316 SS + RTFE
13	Lower Stem Sleeve	316 SS + RTFE
14	Screw	A193-B7/B8
15	Stud	18-8/A2-70
16	Nut	18-8/A2-70
17	Spring Washer	CS/316 SS
18	Identification Plate	316 SS
19	Rivet	316 SS

HOW TO ORDER

BFV HP	3	3	R	150	300	LH
Series	Body Material	Disc Material	Seat & Seal Material	End Style	Size	Options
High Performance Butterfly Valve	1 - Carbon Steel 3 - 316 Stainless Steel	J - 304 SS 3 - 316 SS	T - Teflon (PTFE) R - 15% Glass PTFE	150 - 150# Lug 300 - 300# Lug	200 - 2" 300 - 3" 400 - 4" 500 - 5" 600 - 6" 800 - 8" 1000 - 10" 1200 - 12" 1400 - 14" 1600 - 16" 1800 - 18" 2000 - 20" 2400 - 24" 3000 - 30" 3600 - 36" 4000 - 40" 4800 - 48" 5600 - 56" 6000 - 60"	None - Bare Stem LH - Lever Handle GO - Gear Operator MP - Mount Pad

Example ordering codes:

BFV HP33R-150-300-LH = 3" high performance 150# lug type butterfly valve with 316 stainless steel body & disc, reinforced teflon seats/seals & lever handle