



HX SERIES

Engineered for data center liquid-cooling systems and sanitary food & beverage processing.



HX SERIES High Performance Sanitary Butterfly Valves

Engineered Product Reference Guide.



A John M. Ellsworth Company

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MANUAL BUTTERFLY VALVES (HX SERIES)

FEATURES:

- 100% hydrostatic tested / 100% inspected
- Field serviceable (no special tools required)
- Vacuum rating: 0.2 inches Hg at 68°F
- Low resistance to flow
- Bi-directional flow
- All wetted surfaces are $\leq 25R_a$
- Lockout handle on stainless trigger handle
- Flush bolting to ensure positive seal without over-compression (1/2" – 4")
- Separate bolt holes for quick actuator mounting without disassembling valve or removing body bolts
- Opposing body bolt design prevents loosening from vibration or cycling, delivering long-term joint stability and positive sealing performance
- Stem design features a Double-D design on 1/2"–3" sizes for smooth operation and a square profile on 4"–6" for increased torque requirements
- Lightweight body design to reduce stress on line
- FDA approved seats designed with increased hardness for high-cycle automated applications
- Thicker disc and stem designed for max pressure applications

OPTIONS:

- **Material:** 304 or 316L forged stainless steel body and disc
- **Seat:**
 - » EPDM (standard)
 - » Silicone
 - » FKM
 - » All seats are FDA approved
- **Handle:**
 - » 12-position stainless steel trigger handle
 - » 12-position black plastic trigger handle
 - » 4-position pull handle
- **Connection:**
 - » Stocked in clamp and butt weld ends
 - » Other connections available upon request


HX SERIES BUTTERFLY VALVE SPECIFICATIONS

Information below based on water media at 68°F/20°C

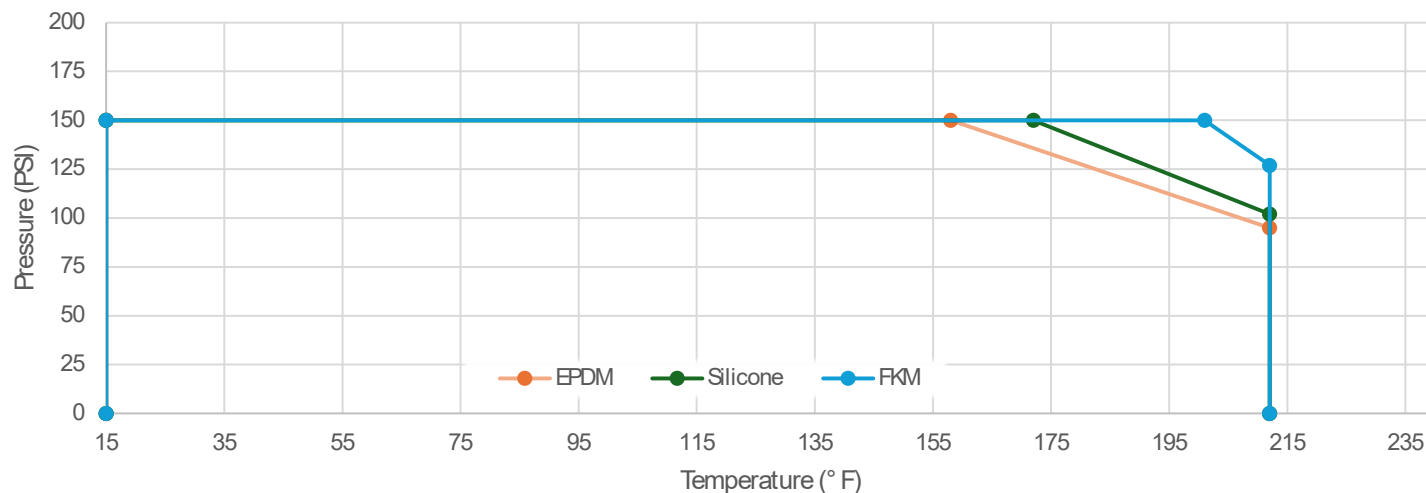
SIZE	TORQUE (in. lbs.) *	PRESSURE RATING (PSI)	FLOW COEFFICIENT (C _v)	WEIGHT (lbs.)			
				VALVE**	STEEL TRIGGER	PLASTIC TRIGGER	PULL HANDLE
1/2"	90	150	1.77	1.77			
3/4"	90	150	1.77	1.77			
1"	90	150	2.73	2.73			
1-1/2"	90	150	2.19	2.19	1.10	0.62	0.93
2"	120	150	3.73	3.73			
2-1/2"	140	150	4.28	4.28			
3"	180	150	5.39	5.39			
4"	270	150	7.58	7.58	1.32	0.62	1.12
6"	620	150	15.26	15.26	3.20	N/A	2.40

* Torque values listed are based on FKM material. EPDM and Silicone torque values are lower than FKM.

** Valve weight without handles

MANUAL BUTTERFLY VALVES (HX SERIES)

Operating Pressure - Temperature Rating



Temperature Rating

SEAT MATERIAL	OPERATING TEMPERATURE	MAX- SHORT DURATION STERILIZATION TEMPERATURE
EPDM	15° F ~ 212° F (-10°C ~ 100° C)	266° F (130° C)
FKM		266° F (130° C)
SILICONE		284° F (140° C)

HOW TO ORDER

W + Alloy	+	Product Code	+	Ends	-	Seat	-	Size (in.)	-	Handle
4 = 304 6 = 316L		BFVHX=HX Series Butterfly Valve		TC = Tri-Clamp BW = Butt weld		E=EPDM S=Silicone V=FKM		.50 .75 1 1.5 2 3 4 6		TS=Stainless Steel Trigger TP=Plastic Trigger PH=Pull Handle SRO= Spring Return Open SRC= Spring Return Closed DA = Double Acting

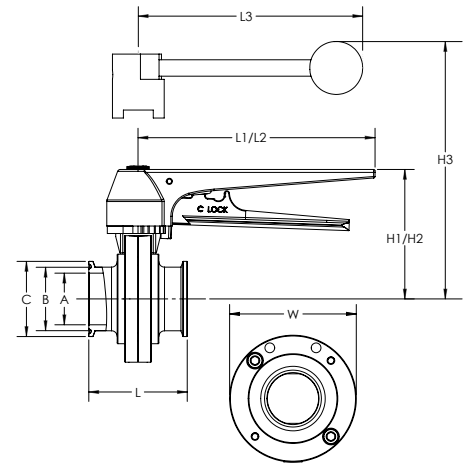
Example: **W** + **6** + **BFVHX** + **TC** - **E** - **3** - **TS**

(W6BFVHXTC-E-3-TS)

DIMENSIONS (inches)

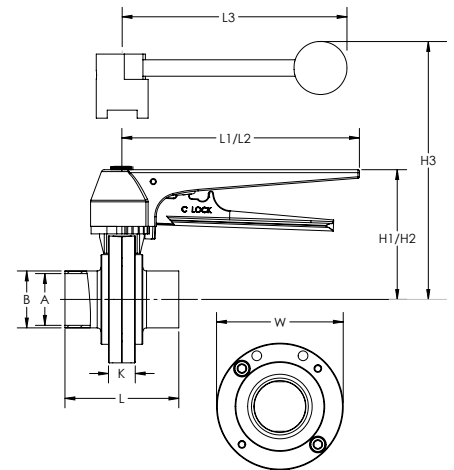
HX BUTTERFLY VALVE CLAMP ENDS

SIZE	A	B	C	L	L1	L2	L3	H1	H2	H3	W
1/2"	0.37	0.80	0.99	2.68	6.26	6.26	5.71	4.61	4.61	4.75	3.11
3/4"	0.62	0.80	0.99	2.68	6.26	6.26	5.71	4.61	4.61	4.75	3.11
1"	0.87	1.72	1.99	2.60	6.26	6.26	5.71	4.61	4.61	4.75	3.11
1-1/2"	1.37	1.72	1.99	2.60	6.26	6.26	5.71	4.84	4.84	4.99	3.35
2"	1.87	2.22	2.52	2.76	6.26	6.26	5.71	5.63	5.63	5.78	4.13
2-1/2"	2.37	2.78	3.05	2.76	6.26	6.26	5.71	5.91	5.91	6.05	4.41
3"	2.87	3.28	3.58	1.50	6.26	6.26	5.71	6.42	6.42	6.56	4.92
4"	3.83	4.34	4.69	1.50	6.26	6.26	6.89	7.68	7.68	7.82	6.18
6"	5.78	6.18	6.57	5.52	6.26	6.26	8.37	10.02	10.02	10.59	8.52



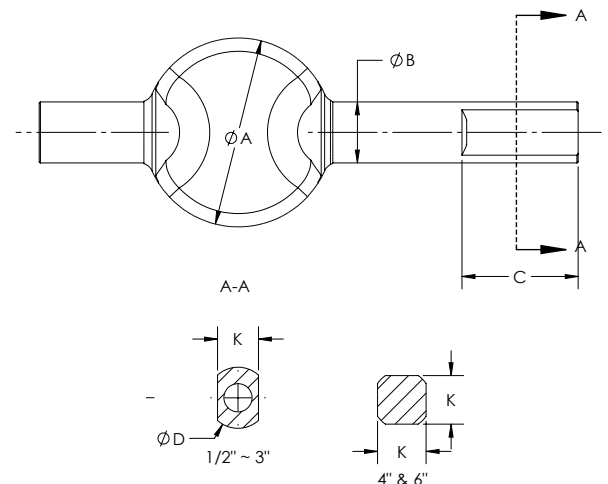
HX BUTTERFLY VALVE BUTTWELD ENDS

SIZE	A	B	C	L	L1	L2	L3	H1	H2	H3	W
1/2"	0.37	0.50	0.71	2.68	6.26	6.26	5.71	4.61	4.61	4.75	3.11
3/4"	0.62	0.75	0.71	2.68	6.26	6.26	5.71	4.61	4.61	4.75	3.11
1"	0.87	1.00	0.71	2.68	6.26	6.26	5.71	4.61	4.61	4.75	3.11
1-1/2"	1.37	1.50	0.71	3.00	6.26	6.26	5.71	4.84	4.84	4.99	3.35
2"	1.87	2.00	0.71	3.14	6.26	6.26	5.71	5.63	5.63	5.78	4.13
2-1/2"	2.37	2.50	0.71	3.14	6.26	6.26	5.71	5.91	5.91	6.05	4.41
3"	2.87	3.00	0.71	3.22	6.26	6.26	5.71	6.42	6.42	6.56	4.92
4"	3.83	4.00	0.83	3.46	6.26	6.26	6.89	7.68	7.68	7.82	6.18
6"	5.78	6.00	1.18	3.14	6.26	6.26	8.37	10.02	10.02	10.59	8.52



HX BUTTERFLY VALVE DISC & STEM DIMENSIONS

SIZE	K	ØA	ØB	C	ØD
1/2"	0.31	0.89	0.46	0.85	0.46
3/4"	0.31	0.89	0.46	0.85	0.46
1"	0.31	0.89	0.46	0.85	0.46
1-1/2"	0.31	1.42	0.46	0.85	0.46
2"	0.31	1.97	0.46	0.85	0.46
2-1/2"	0.31	2.36	0.46	0.85	0.46
3"	0.31	2.78	0.46	0.85	0.46
4"	0.47	3.92	0.63	0.83	0.63
6"	0.63	5.74	0.76	0.85	0.76





ITEM	DESCRIPTION	MATERIAL
01	Valve Body	304/316L
02	Seat	Silicone / EPDM / FKM
03	Disc	304 / 316L
04	Bushing*	Plastic
05	Nut**	304
06	Bolt	304
07	Handle Plate	304
08	Handle	Plastic / 304
09	Plastic Plug	Plastic
10	Bolt	304
11	Body Cap	Buna

* 4" Valve Only

** 6" Valve Only

BUTTERFLY VALVE REPLACEMENT SEATS

SIZE	EPDM (BLACK)	SILICONE (RED)	FKM (BROWN)
1/2"	WBFVHX-ST-E-.50	WBFVHX-ST-S-.50	WBFVHX-ST-V-.50
3/4"	WBFVHX-ST-E-.75	WBFVHX-ST-S-.75	WBFVHX-ST-V-.75
1"	WBFVHX-ST-E-1	WBFVHX-ST-S-1	WBFVHX-ST-V-1
1-1/2"	WBFVHX-ST-E-15	WBFVHX-ST-S-15	WBFVHX-ST-V-15
2"	WBFVHX-ST-E-2	WBFVHX-ST-S-2	WBFVHX-ST-V-2
2-1/2"	WBFVHX-ST-E-25	WBFVHX-ST-S-25	WBFVHX-ST-V-25
3"	WBFVHX-ST-E-3	WBFVHX-ST-S-3	WBFVHX-ST-V-3
4"	WBFVHX-ST-E-4	WBFVHX-ST-S-4	WBFVHX-ST-V-4
8"	WBFVHX-ST-E-6	WBFVHX-ST-S-6	WBFVHX-ST-V-6

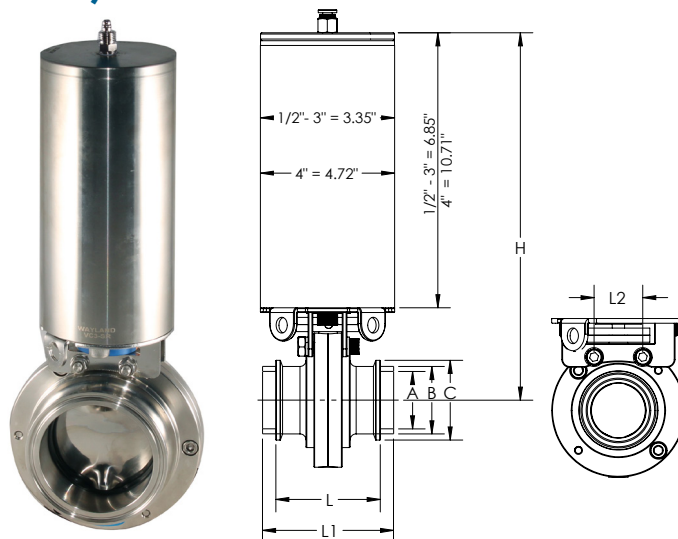
BUTTERFLY VALVE HANDLE REPLACEMENTS

SIZE	304 STAINLESS 12-POSITION TRIGGER HANDLE	BLACK PLASTIC 12-POSITION TRIGGER HANDLE	4 POSITION PULL HANDLE
1/2"	WBFVHX-TS-.50-3	WBFVHX-TP-.50-3	WBFVHX-PH-.50-3
3/4"			
1"			
1-1/2"			
2"			
2-1/2"	WBFVHX-TS-4	WBFVHX-TP-4	WBFVHX-PH-4
3"			
4"			
6"	WBFVHX-TS-6	WBFVHX-TP-6	WBFVHX-PH-6

ACTUATED BUTTERFLY VALVES (HX SERIES)

FEATURES:

- | | Actuator | Valve Body |
|--|---|---------------|
| • Material: | T304 Stainless Steel | T304 or T316L |
| • Field Serviceable | | |
| • All wetted surfaces are $\leq 25R_a$ | | |
| • Air Supply Pressure: | 72 – 102 PSI | |
| • Weight (actuator only): | 1/2" - 3" = 7.72 lbs.
4" = 15.43 lbs. | |
| • Air Fitting Ports: | 1/8" FNPT tap | |
| • Air Hose Size: | 1/4" | |
| • Can be mounted on | 1/2" through 4" butterfly valves | |
| • Available in | "Normally Open", "Normally Closed"
& "Double Acting" actuation | |



ACTUATED BUTTERFLY VALVES

SIZE	DIMENSIONS							PART NUMBERS*		
	A	B	C	L	L1	L2	H	SPRING RETURN OPEN	SPRING RETURN CLOSED	DUAL ACTING
1/2"	0.37	0.50	0.99	2.68	2.68	1.22	9.00	W6BFVHXC-E-.50-SRO	W6BFVHXC-E-.50-SRC	W6BFVHXC-E-.50-DA
3/4"	0.62	0.75	0.99	2.68	2.68	1.22	9.00	W6BFVHXC-E-.75-SRO	W6BFVHXC-E-.75-SRC	W6BFVHXC-E-.75-DA
1"	0.87	1.00	1.99	2.60	2.68	1.22	9.00	W6BFVHXC-E-1-SRO	W6BFVHXC-E-1-SRC	W6BFVHXC-E-1-DA
1-1/2"	1.37	1.50	1.99	2.60	3.00	1.22	9.12	W6BFVHXC-E-1.5-SRO	W6BFVHXC-E-1.5-SRC	W6BFVHXC-E-1.5-DA
2"	1.87	2.00	2.52	2.76	3.14	1.22	9.51	W6BFVHXC-E-2-SRO	W6BFVHXC-E-2-SRC	W6BFVHXC-E-2-DA
2-1/2"	2.37	2.50	3.05	2.76	3.14	1.22	9.65	W6BFVHXC-E-2.5-SRO	W6BFVHXC-E-2.5-SRC	W6BFVHXC-E-2.5-DA
3"	2.87	3.00	3.58	1.50	3.22	1.22	9.91	W6BFVHXC-E-3-SRO	W6BFVHXC-E-3-SRC	W6BFVHXC-E-3-DA
4"	3.83	4.00	4.69	1.50	3.46	1.22	15.49	W6BFVHXC-E-4-SRO	W6BFVHXC-E-4-SRC	W6BFVHXC-E-4-DA

* REPLACE E (EPDM) WITH S (SILICONE) OR V (FKM) FOR SEAT PREFERENCE

* REPLACE W6 (316L) WITH W4 (304) FOR ALLOY PREFERENCE

* REPLACE TC (TRI CLAMP) WITH BW (BUTT WELD) FOR END PREFERENCE

INDIVIDUAL VERTICAL CANISTER ACTUATOR PART NUMBERS

Size	SPRING RETURN	DUAL ACTING
1/2" - 3"	VC3-SR	VC3-DA
4"	VC101-SR	VC101-DA

PROXIMITY SENSOR KIT

PART NUMBER
PROXVC3 (1/2"-3")
PROXV101 (4")
Kit contains: Proximity Sensor (1) Indicator (1) Serrated Washers (2) Mounting nuts (2)
Operating Voltage: 12 to 30 VDC

