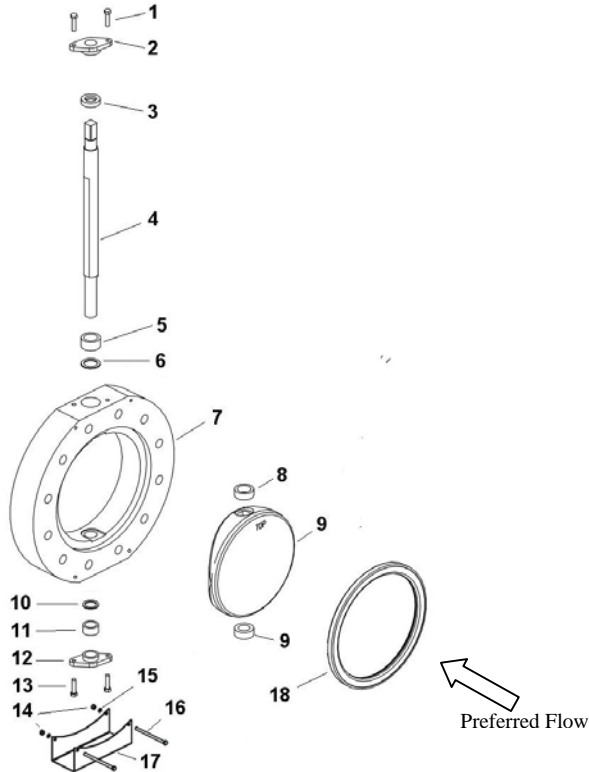


**TECHNICAL SPECIFICATIONS**  
**Wafer Butterfly Valves: 14"– 36"**  
**Series 310HD Fiberglass Reinforced Vinyl Ester**



**MATERIALS OF CONSTRUCTION**



Item	Description	Material
1	Top Gland Bolts	304 Stainless Steel
2	Top Gland	316 Stainless Steel
3	Shaft Retainer Ring	316 Stainless Steel
4	Shaft	17-4PH SS/Vinyl Ester
5	Top Packing	Virgin PTFE V-Rings
6	Support Ring, Top	316 Stainless Steel
7	Valve Body	Fiberglass reinforced Vinyl Ester
8	Disc Spacer	Glass-reinforced PTFE
9	Disc	Fiberglass reinforced Vinyl Ester
10	Support Ring, Bottom	316 Stainless Steel
11	Bottom Packing	Virgin PTFE V-Rings
12	Bottom Gland	316 Stainless Steel
13	Bottom Gland Bolts	304 Stainless Steel
14	Nuts, Bottom Shield	304 Stainless Steel
15	Lock Washers	304 Stainless Steel
16	Hex Head Cap Screws	304 Stainless Steel
17	Bottom Shield	Epoxy-coated Carbon Steel
18	Seat Ring	Viton/Aluminum back-up ring

**1. SCOPE**

High Performance Wafer Butterfly Valves with through-drilled or threaded flange bolt holes for corrosive chemical service used in construction of pressurized piping systems.

**2. SERVICE TEMPERATURE RATING**

Continuous temperature service from -50 to 250° F. Short-term exposures to 300° F are acceptable.

**3. DESIGN**

- Valve seat and disc geometry shall provide a 360° uninterrupted bi-directional bubble tight seal .
- Disc design shall be double-offset for reduced torque and seat wear.
- Face-to-face dimensions shall be as shown on Page 2.
- Stems shall be single-piece, pressure-balanced , blowout proof design.
- Packing shall be adjustable V-ring type.
- Valve disc in the open position shall not interfere with the I.D. of standard PTFE-lined steel pipe.
- Gear actuator shall be available on all sizes.
- Valves shall be capable of on-off actuation or modulating control

**4. QUALITY ASSURANCE**

- The Manufacturer’s facility shall be certified to ISO 9001 or equivalent. The Manufacturer shall be certified to the European Pressure Equipment Directive (PED) and the “CE” mark shall be affixed to each valve label.
- Each valve shall be hydrostatically tested with water at 225 psig with the disc open and both ends blanked for 3 minutes with no evidence of leakage.
- Each valve shall be subjected to a hydrostatic seat test at not less than 110% of the rated shutoff pressure and an air test at 20 psig with no evidence of leakage.

**5. PACKING AND SHIPPING**

Valves shall be shipped in the closed position. Each valve shall be marked with the manufacturer, size, series, construction materials, serial number, and valve component designation.

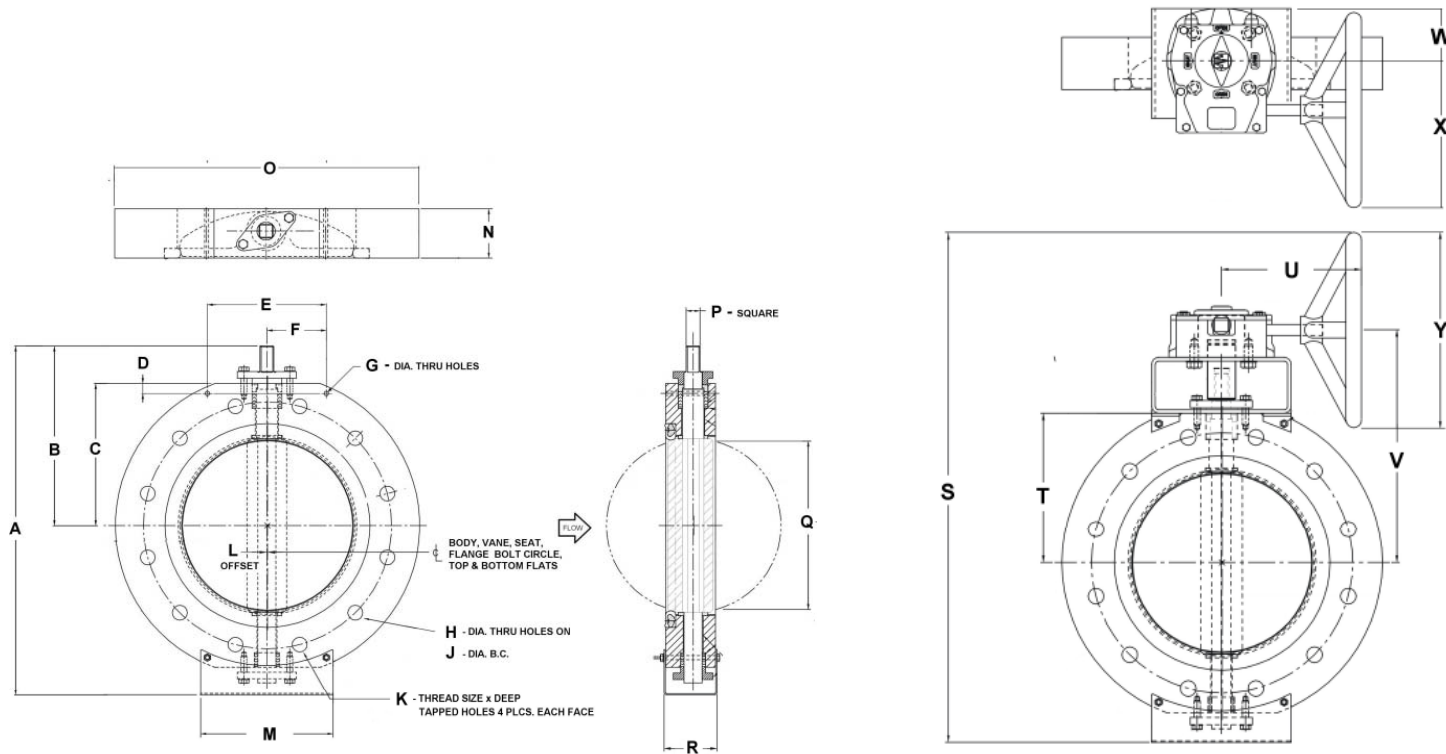
**6. AVAILABILITY**

Valves meeting this specification are available from:

Nil-Cor®, LLC  
 4855 Broadmoor Ave.  
 Kentwood, MI 49512  
 P: 616-554-3100  
 F: 616-554-5623  
[www.nilcor.com](http://www.nilcor.com)

# Nil-Cor 310HD BUTTERFLY VALVE DIMENSIONS

All dimensions are in  
unless otherwise



SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	WT. BARE STEM	WT. WITH GEAR	TORQUE (IN-LB)	TORQUE (N-M)	Cv
14	26.56	13.65	10.79	0.75	9.00	4.50	0.34	1.13	18.75	NA	.05	10.00	3.75	23.00	1.063	12.78	4.08	36.66	10.79	10.06	16.75	3.75	10.52	14.00	90	120	7,850	887	5,984
16	30.34	15.72	12.25	0.88	9.00	4.50	0.34	1.13	21.25	NA	.05	10.00	4.12	25.50	1.063	14.97	4.46	39.84	12.25	10.06	18.22	3.75	10.52	14.00	155	185	10,675	1,206	7,744
18	32.27	16.87	13.40	0.81	8.50	4.25	0.41	1.25	22.75	1-1/8 x 1.0	.05	10.00	4.63	28.00	1.417	17.00	4.96	41.77	13.40	10.06	19.37	3.75	10.52	14.00	170	200	13,850	1,565	10,120
20	34.69	17.89	14.39	1.06	11.50	5.75	0.41	1.25	25.00	1-1/8 x 1.0	.075	13.00	5.12	30.50	1.811	18.86	5.45	48.37	14.39	12.84	22.36	5.13	13.84	18.00	220	280	19,970	2,256	12,320
24	40.80	20.78	17.28	1.25	11.00	5.50	0.53	1.38	29.50	1-1/4 x 1.25	.075	12.50	6.19	36.00	1.811	22.71	6.61	54.27	17.28	12.84	25.25	5.13	13.84	18.00	330	390	23,875	2,697	18,040
26	43.14	21.95	18.45	1.25	11.38	5.69	0.53	1.38	31.75	1-1/4 x 1.25	.075	13.00	6.38	38.25	1.811	24.73	6.80	56.61	18.45	13.83	26.41	5.75	15.06	18.00	450	510	29,850	3,373	19,500
30*	49.00	24.64	20.64	1.38	12.50	6.25	0.66	1.38	36.00	1-1/4 x 1.25	.075	14.00	6.50	43.00	2.165	28.00	7.13	67.00	20.64	16.50	31.00	5.75	18.50	24.00	700	800	39,100	4,417	27,280
36*	58.00	29.52	24.49	1.50	14.00	7.00	0.66	1.62	42.75	1-1/2 x 1.5	.100	15.00	7.88	52.00	2.165	34.00	8.63	74.97	24.49	16.50	34.00	5.75	18.50	24.00	1050	1250	62,375	7,047	39,280

1. 30" and 36": Preliminary Design Estimates. Consult Factory for current information.