

Butterfly Valves

**1-1/2" to 12" • Bodies – PVC, Corzan[®] CPVC, PPL
Disks – PVC, Corzan[®] CPVC, PPL, PVDF**



A Better Butterfly Valve

Hayward 1-1/2" through 12" all-Plastic Butterfly Valves are rated at a full 150 psi. Unlike other plastic butterfly valves, Hayward valves are constructed from a one piece body that incorporates fully supported flanged bolt holes to prevent stressing of the mating pipe flanges. Their heavy duty construction stands up to the most demanding applications. The rock solid integral mounting pad insures that the valve operator will function reliably – whichever operator is used, lever handle, gear box or actuator.

Extra Features, No Extra Cost

Hayward Butterfly Valves feature a blowout-proof stainless steel stem and a unique, full body liner that has a V-notch retention design. This assures positive sealing of the liner to the valve body. An integrally molded face seal provides positive sealing against the mating flange without the need for additional gaskets. And the lever handle has a built in lockout feature.

Better Sealing

Other plastic butterfly valves have only a thin o-ring on the disk to seal the valve, but Hayward valves feature a full body liner seal. This means that the process media never contacts the valve body. And you can count on the full liner seal to perform reliably, year after year.

Easy Retrofit

Hayward Butterfly Valves can be easily fitted into a metal piping system. All valve sizes meet industry face-to-face standards – allowing simple retrofit.

No Metal, No Corrosion

These valves have no metal in contact with the process media. They cannot corrode or rust – nor will they contaminate sensitive fluids flowing through them.

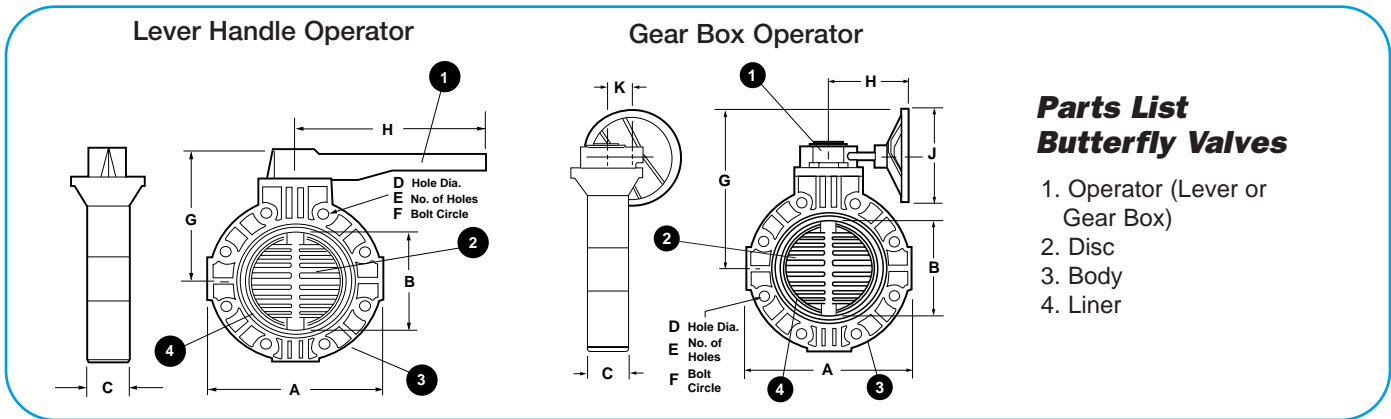
Features

- Rated at 150 PSI
- Stainless Steel Shaft
- Fully Supported Flange Bolt Holes
- Full Body, V-Notch Liner
- Blowout-Proof Shaft
- Viton, EPDM or Nitrile Liners

Options

- Stem Extensions
- Lug Body Design
- Gear Operators
- Electric Actuators
- Pneumatic Actuators
- Titanium Shaft
- 2" Square Operating Nut
- PVDF Discs

Technical Information



Dimensions - Inches / Millimeters

Size	A	B	C	D	E	F	G		H		J	K	Wt. Lb / Kg
							Gear Box	Lever	Gear Box	Lever			
1-1/2 / 50	6.00 / 152	1.75 / 44	1.50 / 38	.63 / 16	4	3.88 / 99	9.31 / 236	6.25 / 159	7.13 / 181	10.50 / 267	8.00 / 203	1.88 / 48	10.5 / 4.8
2 / 63	6.00 / 152	1.75 / 44	1.50 / 38	.75 / 19	4	4.75 / 121	9.31 / 236	6.25 / 159	7.13 / 181	10.50 / 267	8.00 / 203	1.88 / 48	10.5 / 4.8
3 / 90	7.75 / 197	3.13 / 80	2.00 / 51	.75 / 19	4	6.00 / 152	9.75 / 248	6.69 / 170	7.13 / 181	10.50 / 267	8.00 / 203	1.88 / 48	11.6 / 5.3
4 / 110	9.25 / 235	3.94 / 100	2.19 / 56	.75 / 19	8	7.50 / 191	10.19 / 259	7.94 / 202	7.13 / 181	12.00 / 305	8.00 / 203	1.88 / 48	14.3 / 6.5
6 / 160	11.25 / 286	5.81 / 148	2.31 / 59	.88 / 22	8	9.50 / 241	12.38 / 314	9.50 / 241	7.13 / 181	14.00 / 356	8.00 / 203	1.88 / 48	15.4 / 7.0
8 / 225	13.75 / 349	7.75 / 197	2.50 / 64	.88 / 22	8	11.75 / 298	13.50 / 343	10.63 / 270	7.13 / 181	16.00 / 406	8.00 / 203	1.88 / 48	23.5 / 10.7
10 / 280	16.00 / 406	9.76 / 248	3.00 / 76	1.00 / 25	12	14.25 / 362	16.00 / 406	N/A	8.09 / 205	N/A	8.00 / 203	2.36 / 59	39.0 / 17.7
12 / 315	19.00 / 483	11.50 / 292	3.18 / 81	1.00 / 25	12	17.00 / 432	17.50 / 445	N/A	8.09 / 205	N/A	8.00 / 203	2.36 / 59	51.0 / 23.1

DIN metric flanges available

Cv Factors

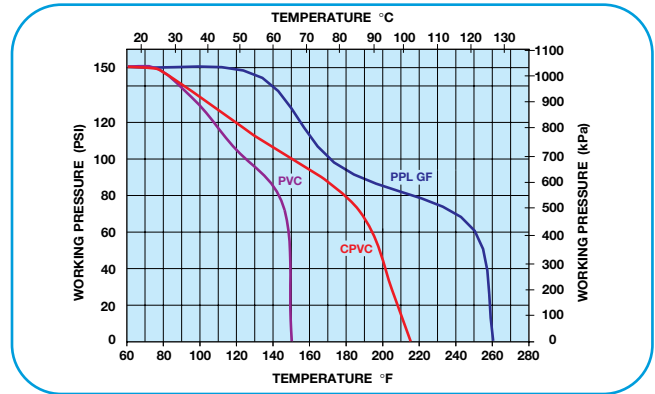
Size	Factor	Size	Factor
1-1/2"	90	6"	1100
2"	125	8"	2500
3"	280	10"	4700
4"	675	12"	7100

Pressure Loss Calculation Formula

$$\Delta P = \left[\frac{Q}{Cv} \right]^2$$

ΔP = Pressure Drop
 Q = Flow in GPM
 Cv = Flow Coefficient

Operating Temperature/Pressure



Selection Chart

Size	Body Material	Disc Material	Shaft Material	Liner	Operator	Pressure Rating
*1-1/2" to 8"	CPVC	CPVC	316 SSTL	Viton®, EPDM or Nitrile	Lever or Gear Box	150 PSI @70F Non-Shock
1-1/2" to 8"	PVC	PVC, PPL, or PVDF				
1-1/2" to 12"	PPL	PPL				

* CPVC/CPVC 8" gear operated only



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Butterfly Valves - 1 1/2" to 24" Sizes Special Features and Options

Hayward Butterfly Valves are used for throttling or quick quarter-turn on-off control. They are simple, lightweight and compact – and are ideal for use where either space is limited or service and maintenance must be performed quickly. Because they require only 90° to fully open or close, Hayward butterfly valves are easily automated and are widely used as efficient throttling or flow regulating valves. Additionally, they are excellent for handling abrasive or slurry-type fluids.

Corrosion Resistant, No Contamination

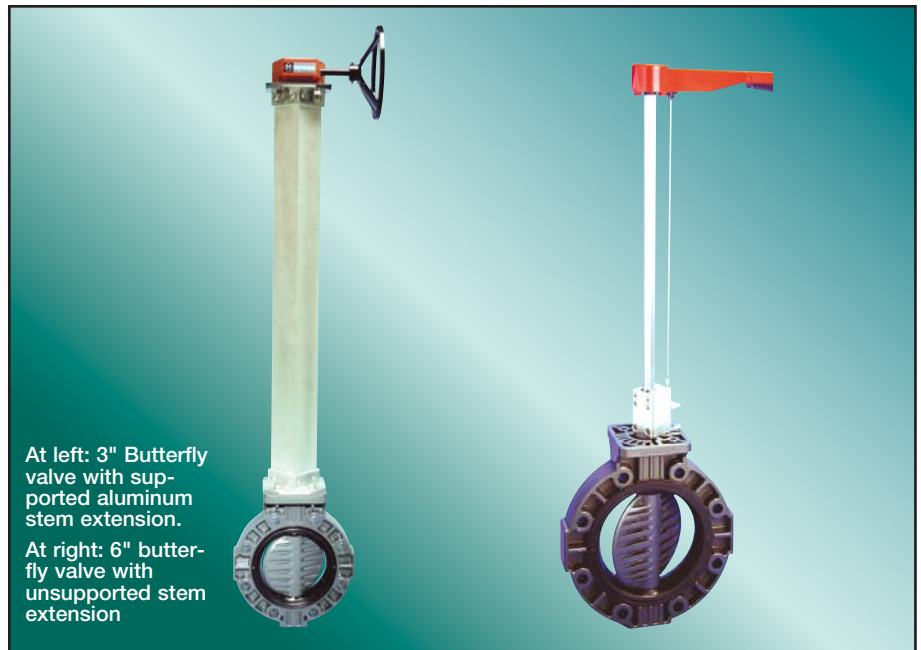
Hayward plastic butterfly valves are installed for many reasons, including: resistance to corrosion and/or freedom from contamination. Hayward plastic butterfly valves do not have any metal in contact with the process media.

There is none of the rusting or corrosion associated with metal valves, even those made from so-called “higher” alloys. PVC, CPVC and polypropylene are electrically non-conductive. Therefore, galvanic corrosion is completely unknown in Hayward plastic butterfly valves.

Equally important, there is nothing to leach out and contaminate the most sensitive liquids. Such difficult fluids as de-ionized water and delicate chemical solutions cannot pick up traces of metal or other foreign matter from a Hayward butterfly valve. The all-plastic construction makes them entirely inert. Hayward butterfly valves will outperform metal butterfly valves in many places. The applications are limited only by the imagination of the user.

Hayward Modular Design

Hayward Modular Series butterfly valves have been specifically designed as a rugged component-matched system. They offer a versatile range of operators, including hand levers, gear



At left: 3" Butterfly valve with supported aluminum stem extension.
At right: 6" butterfly valve with unsupported stem extension

operators, electric and pneumatic actuators.

The unique modular mounting design takes the difficulty and guesswork out of installation or service. The valves can be installed or removed in minutes – regardless of which valve trim or accessories are used.

The rugged one-piece body incorporates fully supported flange bolt holes. This prevents stressing of the mating pipe flanges, insuring long service life and enhanced system integrity. Additionally, all sizes meet industry face-to-face standards – allowing simple retrofit to replace most metal butterfly valves.

Unique Liner Assures Positive Seal

The tough, abrasion resistant, elastomeric liner incorporates a unique retention design which assures positive sealing of the liner to the valve body. Thus, liner replacements can be made simply and quickly. Further, each liner

has an integrally molded face seal which provides positive sealing against any mating flange without the use of additional gaskets.

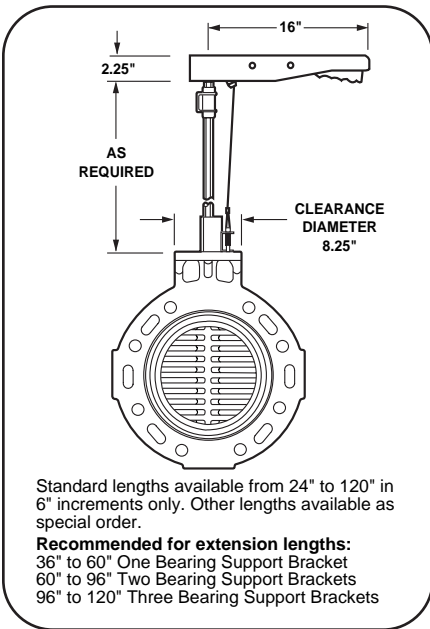
The primary seal between the disc and liner is factory tested to bubble-tight shut-off. This seal is self adjusting and will remain tight even beyond the design working pressure of the valve. The design provides for uniform wear on all contact surfaces for extended service life. The stainless steel shaft is completely sealed from the process media, is positively secured, and is blowout proof.

Trouble-Free Service

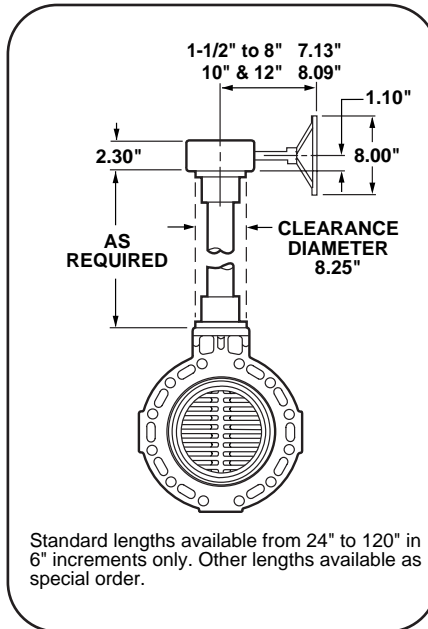
Designed for both the quality and cost conscious user, the Hayward Modular Series Plastic Butterfly Valves will provide trouble-free service for highly corrosive or high purity liquids at elevated temperatures. They will neither corrode nor contaminate the fluids passing through them.

Butterfly Valve Options

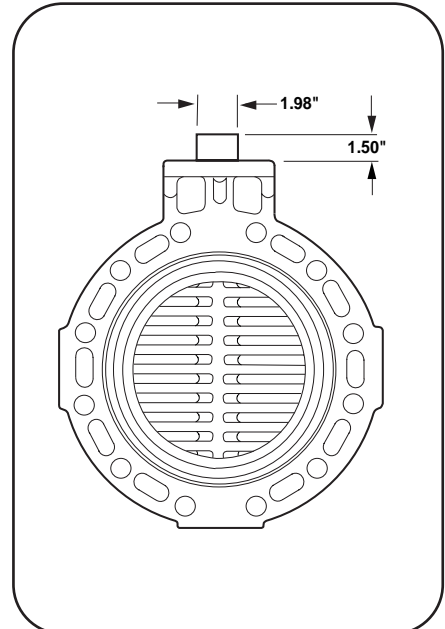
1-1/2" to 8" Lever Operated Butterfly Valve Stem Extension



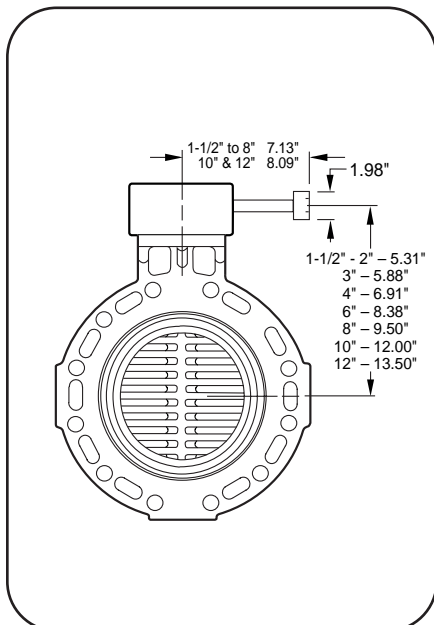
1-1/2" to 12"* Gear Operated Butterfly Valve Stem Extension with PVC Housing



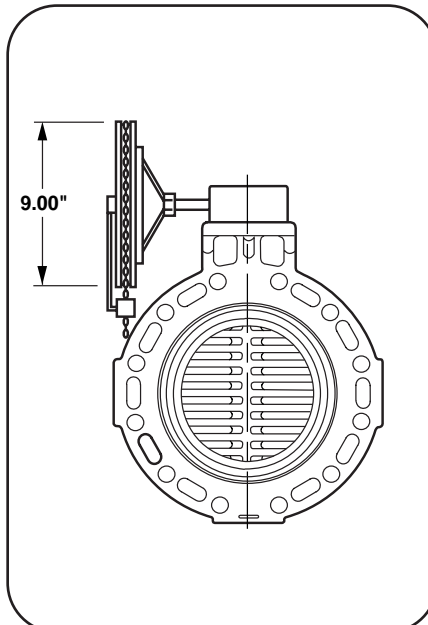
1-1/2" to 8" Butterfly Valve with Non-Locking 2"-Square Operating Nut



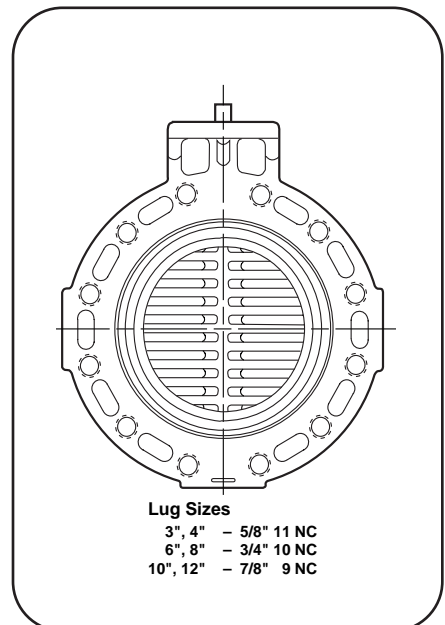
1-1/2" to 12"* Gear Operated Butterfly Valve with 2"-Square Operating Nut



1-1/2" to 12"* Chain Operated Butterfly Valve



1-1/2" to 12"* Butterfly Valve with Lug Mounts



*Consult factory for option drawings for 14" to 24" size butterfly valves.



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