

PRATT INDUSTRIAL®

a MUELLER brand

HP SERIES HIGH PERFORMANCE DOUBLE OFFSET BUTTERFLY VALVE

Engineering Creative Solutions for Fluid Systems Since 1901



MUELLER

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CONSTRUCTION SPECIFICATION

Pratt Industrial® HP Series Butterfly Valves

SIZES 2" THROUGH 72" (2" - 72": ANSI 150; 2" - 48" ANSI 300; 3" - 24" ANSI 600)



Wafer Type Butterfly Valve – Bare Stem



Lug Type Butterfly Valve with Gear Operator

Sizes: 2" through 72"

Body: WCB A-216 Carbon Steel, CF8M A351 Stainless Steel

Disc: CF8M A351 Stainless Steel

Stem: 17-4 PH Stainless Steel

Seat: PTFE, RTFE, 316 SS, Inconel, Fire Safe, MTFE

Bearing Material: Graphite Reinforced Teflon, 316 SS

Packing Material: PTFE Cup & Cone, Graphite

Actuation Options: Worm Gear, Lever, Pneumatic, Electric

Pressure Ratings: CL.150 - 2 - 72"; CL. 300 - 2" - 48"; CL.600 - 3" - 24"

Note: Many alloys & seat materials are available to accommodate virtually any service condition.

Features:

- Double offset disc & shaft
- Blowout proof shaft design
- Bi-Directional (soft seat only)
- Vacuum rated dead end & double dead end service (lug type only)
- Fire safe certified (metal seat and fire safe seat, API 607)
- Spherical sealing surface

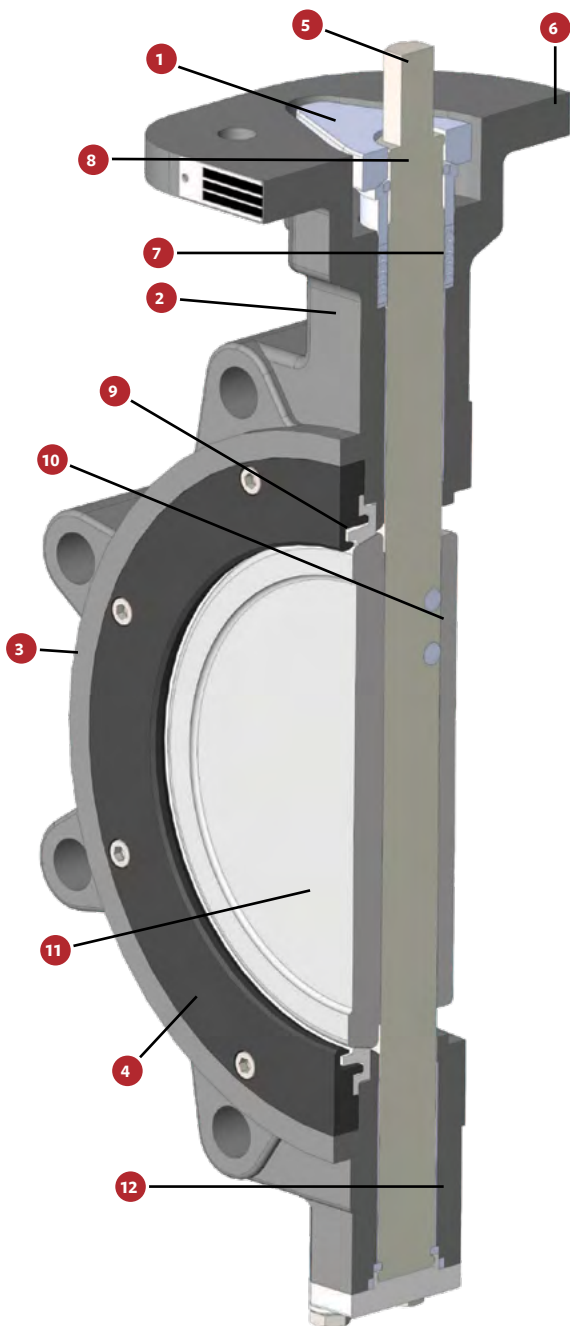
Optional Features:

- Live loaded packing
- O₂ cleaning
- Steam jacket
- Bonnet extension
- Oil free cleaning
- Anti static
- Customized option designs are available upon request

DESIGN DETAILS

Pratt Industrial® HP Series Butterfly Valves

SIZES 2" THROUGH 72" (2" - 72": ANSI 150; 2" - 48" ANSI 300; 3" - 24" ANSI 600)



1. Below Bonnet Gland Packing: Our recessed gland packing eliminates the requirement for mounting kit and reduces overall package height. Our cup and cone design gland flange and packing compression guide allows an even compression of packing even if field adjustments are made incorrectly.

2. Extended Neck: Bonnet to flange clearance is a minimum of 2" allowing for piping insulation on all sizes of valves.

3. Body: Precision cast bodies in virtually any alloy allows customers to utilize proper materials for virtually any application. Castings conform to all applicable ASME codes. Certified independent testing can be performed when requested or required such as RT and PT. Bodies are available in Wafer, Lug, Double Flanges and Butt-weld.

4. Seat Retention Ring: Our highly engineered retainer plate assures customer of proper seat stability and allows for full rated bi-directional, dead end service. The HP Series seat retention ring conforms to the latest revisions of API 609 accommodating spiral wound gasket sealing elements to fall outside the bolting area.

5. Shaft: Our hardened 17-4 PH one piece design provides shaft strength and integrity under the most severe conditions. Other shaft materials are available depending upon application.

6. Bonnet: Allows for direct mounting of all types of actuation. Standard drilling conforms to Kv industrial standards. ISO drilling is also available upon request.

7. Packing: Multi-layered "Cup and Cone" PTFE packing allows for even compression against shaft and shaft journal area providing a positive seal even under high cycles. Multi layered graphite packing is available for metal seated and fire safe valves.

8. Blowout Proof Shaft Retention: Engineered to be one of the safest valves in the market our shaft retention system meets API requirements. Shaft retention system allows the gland flange and follower to slide up and down a machined recessed portion of the shaft. If a shaft were to shear our system prevents hydraulic force from projecting the shaft keeping it safely retained above the packing.

9. Seat: The HP Series seat is machined to lock between the body and retention ring but is allowed to move under pressure. This allows us to utilize solid seats giving maximum disc edge coverage, high cycle life and very low torque without the requirement for rubber O-ring energizers or metal back up support.

10. Disc to Shaft Pins: A tangential tapered hole is machined on the leading edge of the valve shaft and through the shaft journal of the disc placing the pins in a compression mode. Taper pins are spot welded in place after final assembly.

11. Disc: Disc is designed to have minimal deflection and movement under pressure which reduces torque and improves cycle life. The discs tapered edge and offset shaft journal generates a "camming" motion allowing for a release from the seat within the first few degrees of opening.

12. Bearings: Full length upper and lower bearing materials are constructed of 316 SS. impregnated with either PTFE or Graphite depending on Service conditions.

SUGGESTED SPECIFICATIONS

Pratt Industrial® HP Series Butterfly Valves

SIZES 2" THROUGH 72" (2" - 72": ANSI 150; 2" - 48" ANSI 300; 3" - 24" ANSI 600)

General

Valves shall be of Wafer, Lug or Double Flanged design for installation between ANSI 150, 300 or 600 flanges. Design Standards: API 609, ANSI/ASME B16.34, soft seated and metal seated, and API 607 (Fire Safe Test)

Pressure Rating

ANSI 150 – 285psi

ANSI 300 – 740psi

ANSI 600 – 1440psi

Body

Standard valve body shall be 1 piece Carbon Steel (ASTM 216) or CF8M (ASTM A351) construction conforming to the following. Many other materials available upon request including high alloys.

API 609 Category B

MSS-SP-68 Table 1

ANSI/ASME B 16.10 Table 8

ISO 5752 Table 1 & BS 5155

ANSI/ASME B 16.5 Class 150, 300, 600

ANSI/ASME B 16.47 Series A Class 150, 300

MSS-SP-44 Class 150, 300, 600

Disc

Standard valve disc shall be CF8M (ASTM 351) with other materials available upon request. The angled sealing surface allows for quick release from seat which reduces torque and seat wear.

Integrally Cast Travel Position Stop

Designed to prevent over travel of disc and provides a set point when calibrating automation.

Blow Out Proof Shaft

Standard valve shaft shall be constructed of 17-4 PH Stainless Steel to provide maximum strength and stability for high torque applications. Other materials available upon request.

Seat

Valve seat shall be PTFE, RTFE or MTFE as standard offering. Seat design is free floating and pressure assisted to provide an interference and pressure assisted seal to achieve a positive seal under both low and high pressures in both directions. Fire safe and Metal Seats are also available.

Seat Retainer Plate

Shall follow body material and shall conform to the latest revisions of API accommodating Spiral wound gaskets to seal with no special requirements. Bolting is located outside the sealing element.

Packing

Soft seated valve shall use Teflon "Cup and Cone" packing. Metal Seated and Fire Safe valves shall use Die-formed Graphite packing. Either arrangement shall be easily adjustable with no special tools required.

Gland Packing

Pratt Industrial's below bonnet gland packing allows for automation to direct mount with no brackets and couplers which can allow hysteresis on valve shaft. Pratt's overall package remains low profile reducing overall space requirements.

Bearings

Pratt Industrial utilizes a Stainless Steel/Teflon bearing material for soft seated valves and Stainless Steel/Graphite for Fire Safe and Metal Seated valves. Both materials are superior in reducing friction and side thrust and are suitable for corrosive applications.

Testing

All valves are 100% tested per API 598 and documented. Standard Testing reports and MTR's can be supplied at any time at no charge. Customized testing can also be performed based on customer's requirements.

Additional materials are available. Contact Pratt Industrial or your local Pratt distributor for more information.

CV FLOW DATA

Pratt Industrial® HP Series Butterfly Valves, ANSI 150

During its product development phase, the HP Series Wafer/Lug Butterfly Valve was tested to ensure that it met our own rigorous standards for flow capacity. Throughout testing, the HP Series valve has consistently produced high Cv values which translates to lower flow resistance, and low system operating cost to the user over the life of the valve. The following Cv chart represents the flow characteristics for all sizes available.

Cv VALUE OF HIGH PERFORMANCE BUTTERFLY VALVE CLASS 150

| SIZE | | DEGREE OF OPENING | | | | | | | | | |
|------|------|-------------------|------|-------|-------|-------|-------|-------|-------|--------|--|
| inch | mm | 10° | 20° | 30° | 40° | 50° | 60° | 70° | 80° | 90° | |
| 2 | 50 | 2 | 5 | 12 | 19 | 32 | 45 | 65 | 81 | 88 | |
| 2.5 | 65 | 3 | 9 | 21 | 33 | 54 | 77 | 111 | 138 | 150 | |
| 3 | 80 | 5 | 14 | 32 | 50 | 82 | 116 | 168 | 209 | 227 | |
| 4 | 100 | 9 | 25 | 57 | 90 | 148 | 209 | 303 | 377 | 410 | |
| 5 | 125 | 16 | 44 | 104 | 163 | 266 | 377 | 548 | 681 | 740 | |
| 6 | 150 | 25 | 65 | 150 | 235 | 380 | 540 | 785 | 975 | 1060 | |
| 8 | 200 | 55 | 130 | 305 | 480 | 785 | 1110 | 1615 | 2005 | 2200 | |
| 10 | 250 | 85 | 205 | 475 | 750 | 1225 | 1735 | 2520 | 3135 | 3400 | |
| 12 | 300 | 115 | 280 | 655 | 1025 | 1680 | 2380 | 3450 | 4290 | 4700 | |
| 14 | 350 | 150 | 355 | 830 | 1305 | 2140 | 3030 | 4395 | 5465 | 5900 | |
| 16 | 400 | 200 | 475 | 1115 | 1750 | 2860 | 4055 | 5880 | 7310 | 7900 | |
| 18 | 450 | 265 | 630 | 1475 | 2315 | 3790 | 5365 | 7790 | 9680 | 10500 | |
| 20 | 500 | 345 | 830 | 1935 | 3040 | 4975 | 7050 | 10230 | 12715 | 13800 | |
| 22 | 550 | 375 | 975 | 2275 | 3580 | 5855 | 8295 | 12035 | 14960 | 16300 | |
| 24 | 600 | 485 | 1265 | 2955 | 4640 | 7590 | 10755 | 15605 | 19405 | 21100 | |
| 26 | 650 | 550 | 1450 | 3350 | 5300 | 8650 | 12250 | 17800 | 22100 | 24000 | |
| 28 | 700 | 650 | 1750 | 4050 | 6350 | 10350 | 14650 | 21300 | 26450 | 28800 | |
| 30 | 750 | 750 | 2000 | 4600 | 7250 | 11900 | 16850 | 24400 | 30350 | 33000 | |
| 32 | 800 | 850 | 2350 | 5450 | 8600 | 14050 | 19900 | 28850 | 35850 | 39000 | |
| 34 | 850 | 1000 | 2750 | 6450 | 10150 | 16650 | 23550 | 34200 | 42500 | 46200 | |
| 36 | 900 | 1100 | 2950 | 6900 | 10900 | 17800 | 25200 | 36600 | 45500 | 49400 | |
| 40 | 1000 | 1550 | 4000 | 9300 | 14650 | 23950 | 33900 | 49200 | 60500 | 66500 | |
| 42 | 1050 | 1650 | 4350 | 10100 | 15900 | 26000 | 36850 | 53450 | 65000 | 72200 | |
| 48 | 1200 | 2350 | 6100 | 14200 | 22350 | 36550 | 51800 | 75150 | 91450 | 101600 | |

Cv VALUE OF HIGH PERFORMANCE BUTTERFLY VALVE CLASS 300

| SIZE | | DEGREE OF OPENING | | | | | | | | | |
|------|------|-------------------|------|-------|-------|-------|-------|-------|-------|-------|--|
| inch | mm | 10° | 20° | 30° | 40° | 50° | 60° | 70° | 80° | 90° | |
| 2 | 50 | 2 | 5 | 12 | 19 | 32 | 45 | 65 | 81 | 88 | |
| 2.5 | 65 | 3 | 9 | 21 | 33 | 54 | 77 | 111 | 138 | 150 | |
| 3 | 80 | 5 | 14 | 32 | 50 | 82 | 116 | 168 | 209 | 227 | |
| 4 | 100 | 9 | 25 | 57 | 90 | 148 | 209 | 303 | 377 | 410 | |
| 5 | 125 | 16 | 44 | 104 | 163 | 266 | 377 | 548 | 681 | 740 | |
| 6 | 150 | 24 | 60 | 139 | 218 | 357 | 506 | 735 | 914 | 995 | |
| 8 | 200 | 45 | 110 | 260 | 410 | 670 | 945 | 1375 | 1710 | 1900 | |
| 10 | 250 | 75 | 175 | 415 | 650 | 1065 | 1505 | 2185 | 2720 | 3000 | |
| 12 | 300 | 105 | 250 | 580 | 910 | 1495 | 2115 | 3070 | 3815 | 4100 | |
| 14 | 350 | 135 | 325 | 755 | 1185 | 1940 | 2750 | 3985 | 4955 | 5400 | |
| 16 | 400 | 175 | 415 | 970 | 1520 | 2490 | 3525 | 5120 | 6365 | 6900 | |
| 18 | 450 | 245 | 590 | 1375 | 2165 | 3540 | 5015 | 7275 | 9045 | 9800 | |
| 20 | 500 | 315 | 760 | 1770 | 2780 | 4555 | 6450 | 9360 | 11635 | 12600 | |
| 24 | 600 | 435 | 1135 | 2645 | 4155 | 6800 | 9635 | 13980 | 17380 | 18900 | |
| 30 | 750 | 650 | 1750 | 4050 | 6400 | 10450 | 14800 | 21500 | 26700 | 29000 | |
| 36 | 900 | 1000 | 2700 | 6300 | 9900 | 16200 | 22900 | 33250 | 41350 | 44900 | |
| 40 | 1000 | 1450 | 3800 | 8900 | 13950 | 22850 | 32400 | 47000 | 57800 | 63500 | |
| 42 | 1050 | 1500 | 3950 | 9250 | 14550 | 23850 | 33750 | 49000 | 59600 | 66200 | |
| 48 | 1200 | 2100 | 5450 | 12750 | 20050 | 32850 | 46550 | 67500 | 82100 | 91200 | |

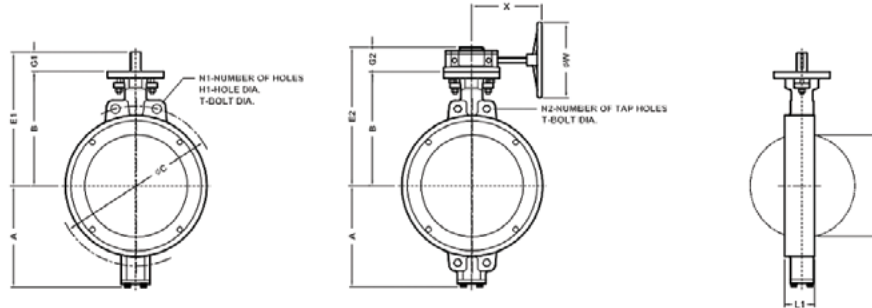
Cv VALUE OF HIGH PERFORMANCE BUTTERFLY VALVE CLASS 600

| SIZE | | DEGREE OF OPENING | | | | | | | | | |
|------|-----|-------------------|-----|------|------|------|------|------|-------|-------|--|
| inch | mm | 10° | 20° | 30° | 40° | 50° | 60° | 70° | 80° | 90° | |
| 3 | 80 | 3 | 9 | 21 | 33 | 54 | 77 | 112 | 139 | 151 | |
| 4 | 100 | 5 | 15 | 34 | 53 | 87 | 124 | 180 | 224 | 243 | |
| 6 | 150 | 15 | 38 | 88 | 139 | 228 | 322 | 468 | 581 | 630 | |
| 8 | 200 | 30 | 70 | 160 | 250 | 410 | 580 | 845 | 1050 | 1100 | |
| 10 | 250 | 50 | 120 | 285 | 450 | 735 | 1040 | 1510 | 1875 | 2000 | |
| 12 | 300 | 70 | 165 | 380 | 600 | 980 | 1390 | 2015 | 2505 | 2700 | |
| 14 | 350 | 90 | 220 | 515 | 810 | 1330 | 1880 | 2730 | 3395 | 3700 | |
| 16 | 400 | 125 | 305 | 705 | 1110 | 1820 | 2575 | 3735 | 4645 | 5100 | |
| 18 | 450 | 135 | 325 | 765 | 1200 | 1965 | 2780 | 4035 | 5015 | 5500 | |
| 20 | 500 | 195 | 470 | 1095 | 1715 | 2810 | 3980 | 5775 | 7180 | 7800 | |
| 24 | 600 | 300 | 750 | 1750 | 2750 | 4500 | 6400 | 9250 | 11500 | 12500 | |

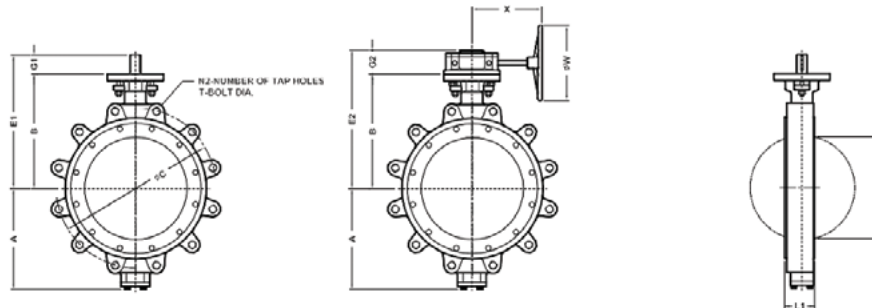
DIMENSIONAL DATA

Pratt Industrial® HP Series Butterfly Valves, ANSI 150

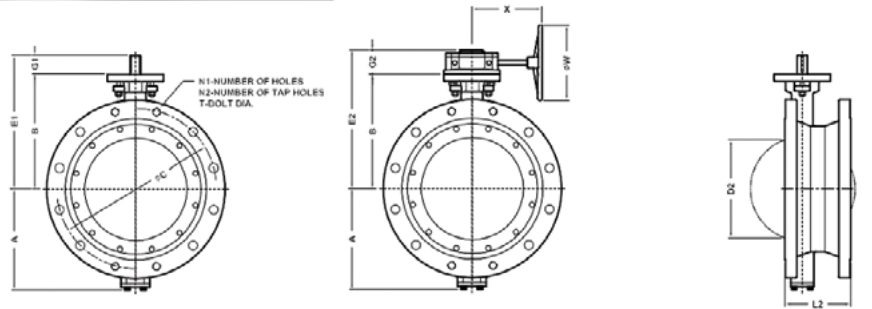
WAFER STYLE



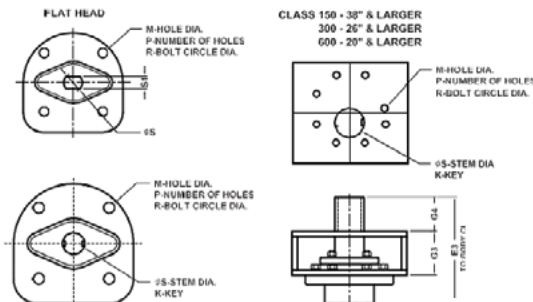
LUGGED STYLE



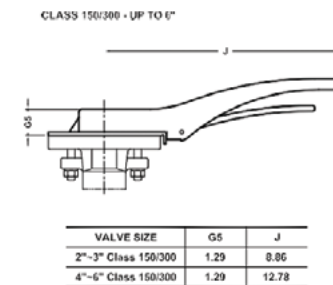
FLANGED STYLE



TOP WORKS



HAND LEVER



HP SERIES WEIGHTS

| SIZE | CLASS 150 | | CLASS 300 | | CLASS 600 | |
|------|-----------|-------|-----------|-------|-----------|-------|
| | WAFER | LUG | WAFER | LUG | WAFER | LUG |
| 2" | 9 | 10 | 9 | 10 | | |
| 2.5" | 12 | 14 | 12 | 15 | | |
| 3" | 13 | 15 | 18 | 22 | 40 | 53 |
| 4" | 18 | 24 | 20 | 24 | 51 | 68 |
| 5" | 24 | 30 | 26 | 40 | 73 | 114 |
| 6" | 29 | 37 | 33 | 48 | 134 | 163 |
| 8" | 51 | 63 | 57 | 81 | 220 | 260 |
| 10" | 72 | 99 | 132 | 178 | 293 | 438 |
| 12" | 103 | 140 | 150 | 196 | 561 | 667 |
| 14" | 130 | 175 | 215 | 328 | 719 | 920 |
| 16" | 190 | 265 | 345 | 464 | 829 | 1,122 |
| 18" | 270 | 325 | 464 | 605 | 944 | 1,415 |
| 20" | 350 | 450 | 579 | 662 | 1,144 | 1,617 |
| 24" | 557 | 763 | 904 | 1,005 | 1,437 | 2,110 |
| 26" | 651 | 840 | 1,078 | 1,322 | | |
| 28" | 689 | 895 | 1,212 | 1,516 | | |
| 30" | 862 | 1,014 | 1,368 | 1,712 | | |
| 32" | 909 | 1,129 | 1,503 | 1,881 | | |
| 36" | 1,384 | 1,560 | 1,808 | 2,262 | | |
| 40" | 1,674 | 2,125 | 2,200 | 2,750 | | |
| 42" | 2,009 | 2,363 | | | | |
| 48" | 2,268 | 2,537 | | | | |

DIMENSIONS: CLASS 150

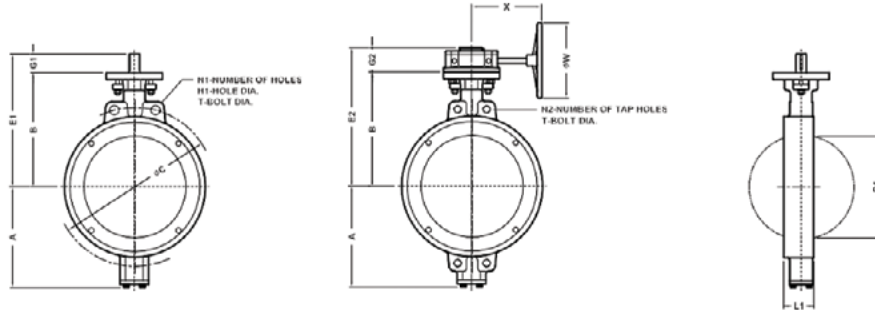
| SIZE (inch) | A | B | G1 | G2 | G3 | G4 | E1 | E2 | E3 | X | W | D1 | D2 | L1 | L2 | C | T |
|-------------|-------|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|
| 2 | 4.18 | 4.92 | 1.26 | 2.36 | - | - | 6.18 | 7.28 | - | 7.00 | 6.00 | 1.52 | 0.98 | 1.73 | - | 4.75 | 5/8"x11UNC |
| 2.5 | 4.26 | 5.87 | 1.26 | 2.36 | - | - | 7.13 | 8.23 | - | 7.00 | 6.00 | 2.18 | 1.63 | 1.89 | - | 5.50 | 5/8"x11UNC |
| 3 | 4.65 | 6.30 | 1.26 | 2.36 | - | - | 7.56 | 8.66 | - | 7.00 | 6.00 | 2.71 | 2.14 | 1.93 | - | 6.00 | 5/8"x11UNC |
| 4 | 5.12 | 7.01 | 1.26 | 2.36 | - | - | 8.27 | 9.37 | - | 7.00 | 6.00 | 3.54 | 3.03 | 2.13 | 5.00 | 7.50 | 5/8"x11UNC |
| 5 | 5.79 | 7.60 | 1.26 | 2.36 | - | - | 8.86 | 9.96 | - | 7.00 | 6.00 | 4.50 | 4.05 | 2.24 | 5.51 | 8.50 | 3/4"x10UNC |
| 6 | 6.81 | 8.39 | 1.26 | 2.36 | - | - | 9.65 | 10.75 | - | 7.00 | 6.00 | 5.39 | 4.98 | 2.24 | 5.51 | 9.50 | 3/4"x10UNC |
| 8 | 7.99 | 9.45 | 1.26 | 2.73 | - | - | 10.71 | 12.18 | - | 10.07 | 12.00 | 7.24 | 6.93 | 2.56 | 5.98 | 11.75 | 3/4"x10UNC |
| 10 | 8.97 | 11.02 | 2.05 | 2.73 | - | - | 13.07 | 13.75 | - | 10.07 | 12.00 | 9.13 | 8.81 | 2.83 | 6.50 | 14.25 | 7/8"x9UNC |
| 12 | 10.74 | 12.20 | 2.01 | 2.73 | - | - | 14.21 | 14.93 | - | 10.07 | 12.00 | 10.90 | 10.50 | 3.19 | 7.01 | 17.00 | 7/8"x9UNC |
| 14 | 12.12 | 13.19 | 2.24 | 3.44 | - | - | 15.43 | 16.63 | - | 12.00 | 12.00 | 12.31 | 11.95 | 3.62 | 7.48 | 18.75 | 1"x8UNC |
| 16 | 13.70 | 15.47 | 2.99 | 3.44 | - | - | 18.46 | 18.91 | - | 12.00 | 12.00 | 14.08 | 13.78 | 4.02 | 8.50 | 21.25 | 1"x8UNC |
| 18 | 15.07 | 16.54 | 2.99 | 4.03 | - | - | 19.53 | 20.57 | - | 12.09 | 16.00 | 16.22 | 15.86 | 4.49 | 8.74 | 22.75 | 1 1/8"x8UNC |
| 20 | 16.26 | 17.72 | 2.99 | 4.03 | - | - | 20.71 | 21.75 | - | 12.09 | 16.00 | 17.84 | 17.51 | 5.00 | 9.02 | 25.00 | 1 1/8"x8UNC |
| 22 | 17.71 | 19.29 | 4.02 | 5.12 | - | - | 23.31 | 24.41 | - | 16.93 | 23.62 | 19.53 | 19.28 | 6.06 | 10.51 | 27.25 | 1 1/4"x8UNC |
| 24 | 19.09 | 20.87 | 4.02 | 5.12 | - | - | 24.89 | 25.99 | - | 16.93 | 23.62 | 21.24 | 21.02 | 6.06 | 10.51 | 29.50 | 1 1/4"x8UNC |
| 26 | 20.27 | 22.24 | 4.02 | 5.12 | - | - | 26.26 | 27.36 | - | 16.93 | 23.62 | 22.71 | 22.36 | 6.50 | 11.50 | 31.75 | 1 1/4"x8UNC |
| 28 | 21.65 | 23.62 | 4.02 | 5.12 | - | - | 27.64 | 28.74 | - | 16.93 | 23.62 | 24.76 | 24.49 | 6.50 | 11.50 | 34.00 | 1 1/4"x8UNC |
| 30 | 23.42 | 25.39 | 4.45 | 6.81 | - | - | 29.84 | 32.20 | - | 18.82 | 27.56 | 26.45 | 26.18 | 7.48 | 12.52 | 36.00 | 1 1/2"x8UNC |
| 32 | 24.60 | 26.38 | 4.45 | 6.81 | - | - | 30.83 | 33.19 | - | 18.82 | 27.56 | 28.42 | 28.19 | 7.48 | 12.52 | 38.50 | 1 1/2"x8UNC |
| 34 | 26.57 | 27.56 | 4.45 | 6.81 | - | - | 32.01 | 34.37 | - | 18.82 | 27.56 | 30.16 | 29.96 | 7.99 | 12.99 | 40.50 | 1 1/2"x8UNC |
| 36 | 26.77 | 28.74 | 4.45 | 6.81 | - | - | 33.19 | 35.55 | - | 18.82 | 27.56 | 32.16 | 31.93 | 7.99 | 12.99 | 42.75 | 1 1/2"x8UNC |
| 38 | 27.56 | 27.56 | - | 6.69 | 5.91 | 4.72 | - | 40.16 | 38.19 | 22.83 | 27.56 | 33.93 | 33.66 | 8.50 | 16.14 | 45.25 | 1 1/2"x8UNC |
| 40 | 29.84 | 30.12 | - | 6.69 | 5.91 | 4.72 | - | 42.72 | 40.75 | 22.83 | 27.56 | 36.33 | 35.98 | 8.50 | 16.14 | 47.25 | 1 1/2"x8UNC |
| 42 | 31.10 | 30.71 | - | 6.69 | 6.30 | 4.72 | - | 43.70 | 41.73 | 22.83 | 27.56 | 37.91 | 37.76 | 9.49 | 16.93 | 49.50 | 1 1/2"x8UNC |
| 48 | 35.43 | 34.65 | - | 6.69 | 6.30 | 5.31 | - | 47.64 | 46.26 | 22.83 | 27.56 | 43.93 | 43.46 | 10.00 | 18.50 | 56.00 | 1 1/2"x8UNC |

| FLANGED DRILLING | | | | | | TOP WORKS | | | | | | | |
|------------------|----|-------|-----|----|----|-----------|-------|---|------|-------|-------|-----------|-----|
| WAFER | | | LUG | | | FLANGE | | R | P | M | S1 | S | KEY |
| N1 | N2 | H1 | N2 | N2 | N1 | N2 | | | | | | | |
| 2 | - | 3/4 | 4 | 4 | - | - | 3.25 | 4 | 0.43 | 0.374 | 0.551 | - | |
| 2 | - | 3/4 | 4 | 4 | - | - | 3.25 | 4 | 0.43 | 0.437 | 0.624 | - | |
| 2 | - | 3/4 | 4 | 4 | - | - | 3.25 | 4 | 0.43 | 0.437 | 0.624 | - | |
| 2 | - | 3/4 | 8 | 4 | 4 | 4 | 3.25 | 4 | 0.43 | 0.500 | 0.748 | - | |
| 2 | - | 7/8 | 8 | 4 | 4 | 4 | 3.25 | 4 | 0.43 | 0.500 | 0.748 | - | |
| 2 | - | 7/8 | 8 | 4 | 4 | 4 | 3.25 | 4 | 0.43 | 0.500 | 0.748 | - | |
| 2 | - | 7/8 | 8 | 4 | 4 | 4 | 5.00 | 4 | 0.55 | 0.626 | 0.874 | - | |
| 2 | - | 1 | 12 | 8 | 4 | 4 | 5.00 | 4 | 0.55 | - | 1.124 | 0.25x0.25 | |
| 2 | - | 1 | 12 | 8 | 4 | 4 | 5.00 | 4 | 0.55 | - | 1.124 | 0.25x0.25 | |
| 2 | - | 1-1/8 | 12 | 8 | 4 | 4 | 5.00 | 4 | 0.55 | - | 1.374 | 0.31x0.31 | |
| 2 | - | 1-1/8 | 16 | 12 | 4 | 4 | 6.50 | 4 | 0.83 | - | 1.874 | 0.50x0.50 | |
| - | 4 | - | 16 | 12 | 4 | 4 | 6.50 | 4 | 0.83 | - | 1.874 | 0.50x0.50 | |
| - | 4 | - | 20 | 16 | 4 | 4 | 6.50 | 4 | 0.83 | - | 2.124 | 0.50x0.50 | |
| - | 4 | - | 20 | 16 | 4 | 4 | 10.00 | 8 | 0.75 | - | 2.555 | 0.75x0.50 | |
| - | 4 | - | 20 | 16 | 4 | 4 | 10.00 | 8 | 0.75 | - | 2.555 | 0.75x0.50 | |
| - | 4 | - | 24 | 20 | 4 | 4 | 10.00 | 8 | 0.75 | - | 2.555 | 0.75x0.50 | |
| - | 4 | - | 28 | 24 | 4 | 4 | 10.00 | 8 | 0.75 | - | 2.555 | 0.75x0.50 | |
| - | 4 | - | 28 | 24 | 4 | 4 | 10.00 | 8 | 0.75 | - | 3.146 | 0.87x0.55 | |
| - | 4 | - | 28 | 24 | 4 | 4 | 10.00 | 8 | 0.75 | - | 3.146 | 0.87x0.55 | |
| - | 4 | - | 28 | 24 | 4 | 4 | 10.00 | 8 | 0.75 | - | 3.146 | 0.87x0.55 | |
| - | 4 | - | 32 | 28 | 4 | 4 | 10.00 | 8 | 0.75 | - | 3.146 | 0.87x0.55 | |
| - | 4 | - | 32 | 28 | 4 | 4 | 10.00 | 8 | 0.75 | - | 3.146 | 0.87x0.55 | |
| - | 4 | - | 32 | 28 | 4 | 4 | 11.73 | 8 | 0.91 | - | 3.933 | 1.10x0.63 | |
| - | 4 | - | 36 | 32 | 4 | 4 | 11.73 | 8 | 0.91 | - | 3.933 | 1.10x0.63 | |
| - | 4 | - | 36 | 28 | 8 | 8 | 11.73 | 8 | 0.91 | - | 3.933 | 1.10x0.63 | |
| - | 8 | - | 44 | 36 | 8 | 8 | 11.73 | 8 | 0.91 | - | 4.720 | 1.26x0.71 | |

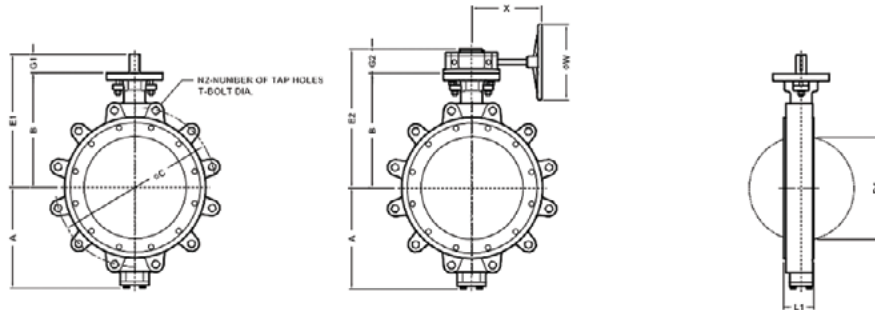
DIMENSIONAL DATA

Pratt Industrial® HP Series Butterfly Valves, ANSI 300 and 600

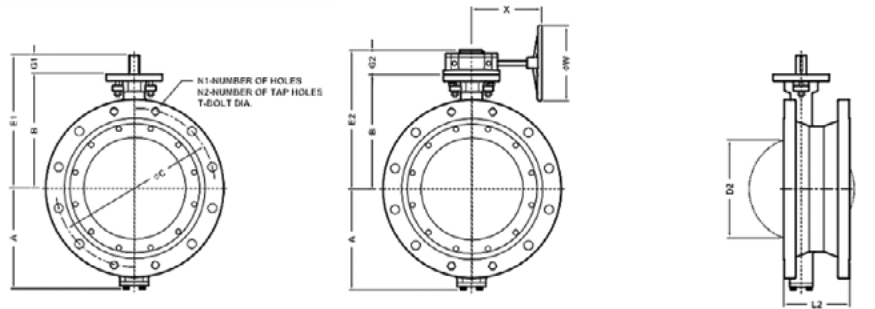
WAFFER STYLE



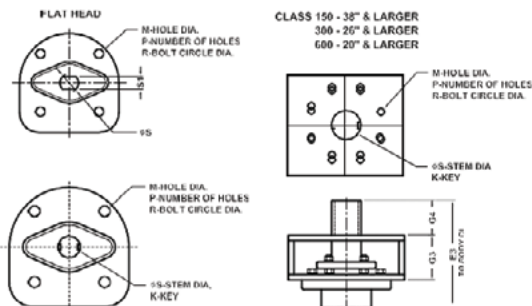
LUGGED STYLE



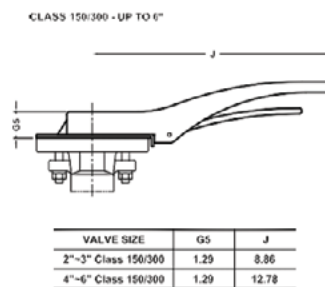
FLANGED STYLE



TOP WORKS



HAND LEVER



PART NUMBER ORDERING INFORMATION

Pratt Industrial® HP Series Butterfly Valves

| Valve Model | | ANSI Class | | Size | | Body | | Disc | | Stem | | Seat | | OPTIONS | |
|-------------|---------------|------------|-----------|------|--------|------|----------------------|------|--------------|------|-------------|------|---------------|---------|------------------------|
| XXX | | XXX | | XXX | | X | | X | | X | | X | | XX | |
| HP1 | WAFER | 150 | CLASS 150 | 020 | 2" | 7 | 316 SS / CF8M (NACE) | 6 | CF8M | 7 | DUPLEX | 0 | PTFE | 02 | SILICONE FREE |
| HP2 | LUG | 300 | CLASS 300 | 025 | 2 1/2" | 6 | WCB | 4 | MONEL | 6 | 316 | A | RTFE | 03 | O ₂ CLEANED |
| HP3 | SHORT FLANGED | 600 | CLASS 600 | 030 | 3" | 5 | INCOLLOY | 3 | HAST C 276 | 5 | MONEL | B | MTFE | 04 | SPECIAL PAINTING |
| HP4 | LONG FLANGED | | | 040 | 4" | 4 | MONEL | 2 | 17-4 PH | 4 | HAST C 276 | C | RMTFE | 05 | SPECIAL BOLTING |
| HP5 | BUTTWELD | | | 050 | 5" | 3 | HASTELLOY C | 1 | ALLOY 20 | 3 | 17-4 | D | UHMWPE | 06 | ANTISTATIC |
| | | | | 060 | 6" | 2 | SMO254 | 0 | DUPLEX 2205 | 2 | ALLOY 20 | E | 316 SS. | 07 | SPECIAL PACKING |
| | | | | 080 | 8" | 1 | A20 | B | SUPER DUPLEX | 1 | NITRONIC 50 | F | INCONEL | 08 | CRYOGENIC |
| | | | | 100 | 10" | 0 | DUPLEX 2205 | H | SMO255 | | | G | RTFE/316SS | 12 | NACE |
| | | | | 120 | 12" | A | SUPER DUPLEX 2507 | | | | | H | MRTFE/316 | | |
| | | | | 140 | 14" | F | SMO255 | | | | | I | MRTFE/INCONEL | | |
| | | | | 160 | 16" | G | WC6 | | | | | K | DUPLEX + RTFE | | |
| | | | | 180 | 18" | H | WC9 | | | | | L | DUPLEX | | |
| | | | | 200 | 20" | I | C5 | | | | | M | SUPER DUPLEX | | |
| | | | | 240 | 24" | J | C12 | | | | | N | ALLOY 20 | | |
| | | | | 260 | 26" | K | C12A | | | | | O | MONEL | | |
| | | | | 280 | 28" | L | INCONEL | | | | | | | | |
| | | | | 300 | 30" | | | | | | | | | | |
| | | | | 320 | 32" | | | | | | | | | | |
| | | | | 340 | 34" | | | | | | | | | | |
| | | | | 360 | 36" | | | | | | | | | | |
| | | | | 400 | 40" | | | | | | | | | | |
| | | | | 420 | 42" | | | | | | | | | | |
| | | | | 480 | 48" | | | | | | | | | | |
| | | | | 540 | 54" | | | | | | | | | | |
| | | | | 600 | 60" | | | | | | | | | | |
| | | | | 720 | 72" | | | | | | | | | | |

Example Part #: HP1-150-020-663A-00



Standard Product



Special Order Product

About Pratt Industrial®

Pratt Industrial specializes in the design, engineering, and worldwide distribution of technologically advanced, industrial-use valves and actuators. Pratt Industrial offers solutions that optimize manufacturing processes by creating truly high-performance valves for all industrial applications.

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Pratt Industrial serves the following markets:

- Chemical / Pharmaceutical
- Desalination
- Food and Beverage
- HVAC
- Irrigation
- Mining
- Marine
- OEMs
- Petroleum / Oilfield
- Power
- Transportation
- Ultra Pure Water

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