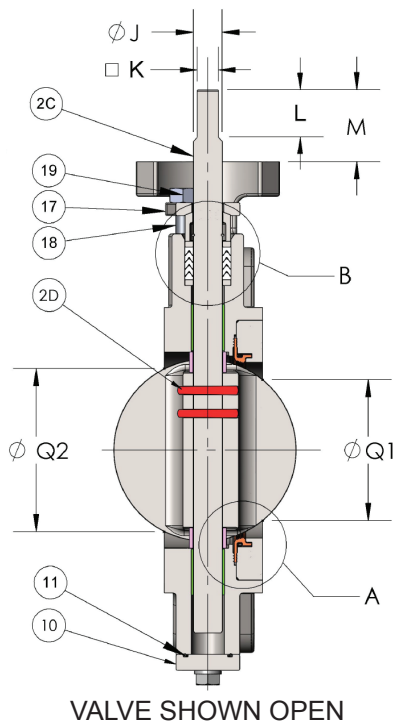
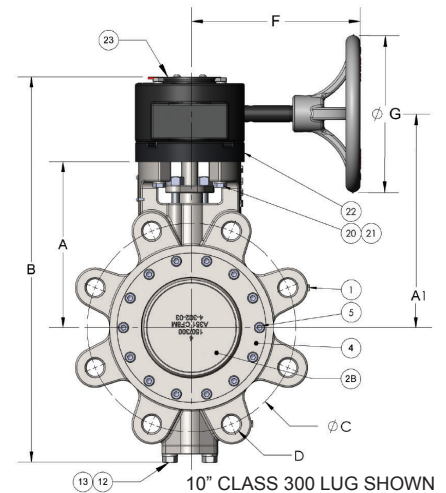
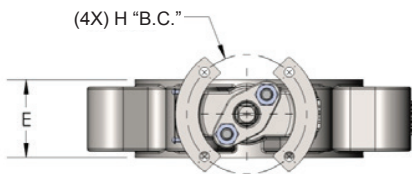
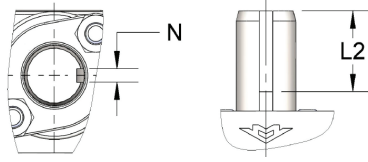
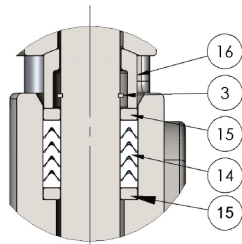
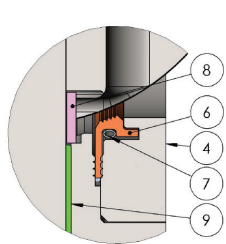


HP Series Lug 2 1/2" - 10" (Class 150) with Gear

HP Series Lug 2 1/2" - 8" (Class 300) with Gear



| 2 1/2" - 8" 150/300 LB & 10" 150 LB LUG WITH GEAR | | | |
|---|-----------------------|-------------------------------|--------------------|
| ITEM NO. | PARTS NAME | MATERIAL | SPECIFICATION |
| 1 | BODY | A. CARBON STEEL | ASTM A216 GR. WCB |
| | | B. STAINLESS STEEL | ASTM A351 GR. CF8M |
| 2 | STEM & DISC ASSEMBLY | | |
| | 2B. DISC | STAINLESS STEEL | ASTM A351 GR. CF8M |
| | 2C. STEM | STAINLESS STEEL | 17-4PH H1150 |
| | 2D. TAPER PIN | 18-8 STAINLESS STEEL | COMMERCIAL |
| 3 | STEM RETAINER | 304 STAINLESS STEEL | COMMERCIAL |
| 4 | SEAT RETAINER RING | A. CARBON STEEL | ASTM A515 GR. 70 |
| | | B. STAINLESS STEEL | ASTM A240 TY.316 |
| 5 | SOCKET HEAD CAP SCREW | STAINLESS STEEL | ASTM A193 GR. B8M |
| 6 | SEAT | A. PTFE COMMERCIAL | COMMERCIAL |
| | | B. 15% GLS. FLD. PTFE | COMMERCIAL |
| | | C. UHMWPE | COMMERCIAL |
| 7 | SEAT SPRING | STAINLESS STEEL | COMMERCIAL |
| 8 | DISC SPACER | 316 STAINLESS STEEL | COMMERCIAL |
| 9 | BEARING | STAINLESS STEEL - PTFE COATED | COMMERCIAL |
| 10 | BOTTOM CAP | STAINLESS STEEL | ASTM A351 GR. CF8M |
| 11 | BOTTOM SEAL | GRAPHITE | COMMERCIAL |
| 12 | HEX HEAD CAP SCREW | STAINLESS STEEL | ASTM A193 GR. B8M |
| 13 | SPLIT LOCKWASHER | STAINLESS STEEL | COMMERCIAL |
| 14 | PACKING V-RING SET | A. PTFE COMMERCIAL | COMMERCIAL |
| | | B. GRAPHITE | COMMERCIAL |
| 15 | PACKING WASHER | 304 STAINLESS STEEL | COMMERCIAL |
| 16 | GLAND FOLLOWER | STAINLESS STEEL | ASTM A351 GR. CF8M |
| 17 | GLAND RETAINER | STAINLESS STEEL | ASTM A351 GR. CF8M |
| 18 | STUD | STAINLESS STEEL | ASTM A193 GR. B8M |
| 19 | HEAVY HEX NUT | STAINLESS STEEL | ASTM 194 GR. 8M |
| 20 | SOCKET HEAD CAP SCREW | STAINLESS STEEL | ASTM A193 GR. B8M |
| 21 | SPLIT LOCKWASHER | STAINLESS STEEL | COMMERCIAL |
| 22 | MOUNTING PLATE | STAINLESS STEEL | COMMERCIAL |
| 23 | GEAR OPERATOR | | |



| 2 1/2" - 8" 150/300 LB & 10" 150 LB LUG WITH GEAR | | | | | | | | | | | | | | | | | | | |
|---|------------------|-------------|------------|----------|---------|------------|-----------|-----------|-----------------|------|---------|----------|-----------|------------|------------|------|--------|------------|------------|
| VALVE SIZE | VALVE DIMENSIONS | | | | | | HANDWHEEL | TOP WORKS | STEM CONNECTION | | | | | | CHORD DIMS | | BOLT Ø | | |
| | "A" HEIGHT | "A1" HEIGHT | "B" HEIGHT | "C" B.C. | "D" TAP | # OF HOLES | | | "E" FACE | "F" | "G" DIA | "H" B.C. | "J" ØSTEM | "K" SQUARE | "L" LENGTH | "L2" | | "M" LENGTH | "N" KEYWAY |
| 2.5" 150 LUG | 5.59 | 7.40 | 12.72 | 5.50 | 5/8-11 | 4 | 1.88 | 6.37 | 6 | 3.25 | 0.62 | 0.46 | 1.02 | N/A | 1.64 | N/A | 1.72 | 1.97 | 0.27 |
| 2.5" 300 LUG | 5.59 | 7.40 | 13.59 | 5.88 | 3/4-10 | 8 | 1.88 | 6.37 | 6 | 3.25 | 0.62 | 0.46 | 1.02 | N/A | 1.64 | N/A | 1.72 | 1.97 | 0.27 |
| 3" 150 LUG | 5.59 | 7.40 | 12.72 | 6.00 | 5/8-11 | 4 | 1.88 | 6.37 | 6 | 3.25 | 0.62 | 0.46 | 1.02 | N/A | 1.72 | N/A | 2.28 | 2.47 | 0.27 |
| 3" 300 LUG | 5.59 | 7.40 | 13.45 | 6.63 | 3/4-10 | 8 | 1.88 | 6.37 | 6 | 3.25 | 0.62 | 0.46 | 1.02 | N/A | 1.72 | N/A | 2.28 | 2.47 | 0.27 |
| 4" 150 LUG | 6.25 | 8.06 | 14.25 | 7.50 | 5/8-11 | 8 | 2.13 | 6.37 | 6 | 3.25 | 0.62 | 0.46 | 1.02 | N/A | 1.56 | N/A | 3.06 | 3.53 | 0.27 |
| 4" 300 LUG | 6.25 | 8.06 | 14.53 | 7.88 | 3/4-10 | 8 | 2.13 | 6.37 | 6 | 3.25 | 0.62 | 0.46 | 1.02 | N/A | 1.56 | N/A | 3.06 | 3.53 | 0.27 |
| 5" 150 LUG | 7.69 | 10.30 | 18.70 | 8.50 | 3/4-10 | 8 | 2.13 | 6.02 | 9 | 4.25 | 0.87 | 0.64 | 1.04 | N/A | 1.69 | N/A | 4.35 | 4.46 | 0.44 |
| 5" 300 LUG | 7.69 | 10.30 | 18.70 | 9.25 | 3/4-10 | 8 | 2.13 | 6.02 | 9 | 4.25 | 0.87 | 0.64 | 1.04 | N/A | 1.69 | N/A | 4.35 | 4.46 | 0.44 |
| 6" 150 LUG | 7.69 | 10.30 | 18.70 | 9.50 | 3/4-10 | 8 | 2.25 | 6.02 | 9 | 4.25 | 0.87 | 0.64 | 1.04 | N/A | 1.69 | N/A | 5.33 | 5.43 | 0.44 |
| 6" 300 LUG | 7.69 | 10.30 | 19.73 | 10.63 | 3/4-10 | 12 | 2.31 | 6.02 | 9 | 4.25 | 0.87 | 0.64 | 1.04 | N/A | 1.69 | N/A | 5.33 | 5.39 | 0.44 |
| 8" 150 LUG | 9.51 | 12.01 | 21.67 | 11.75 | 3/4-10 | 8 | 2.63 | 7.93 | 12 | 4.75 | 1.12 | N/A | N/A | 1.50 | 1.86 | 0.25 | 7.10 | 7.37 | 0.56 |
| 8" 300 LUG | 9.51 | 12.01 | 21.67 | 13.00 | 7/8-9 | 12 | 2.88 | 7.93 | 12 | 4.75 | 1.12 | N/A | N/A | 1.50 | 1.86 | 0.25 | 7.10 | 7.20 | 0.56 |
| 10" 150 LUG | 10.54 | 13.04 | 23.15 | 14.25 | 7/8-9 | 12 | 2.81 | 7.93 | 12 | 4.75 | 1.12 | N/A | N/A | 1.50 | 1.81 | 0.25 | 9.30 | 9.38 | 0.56 |

The information presented on this sheet is correct at time of publication. Milwaukee Valve reserves the right to change design and/or materials without notice. For our Installation, Operation and Maintenance Manual and the most current product information go to www.milwaukeevalve.com.

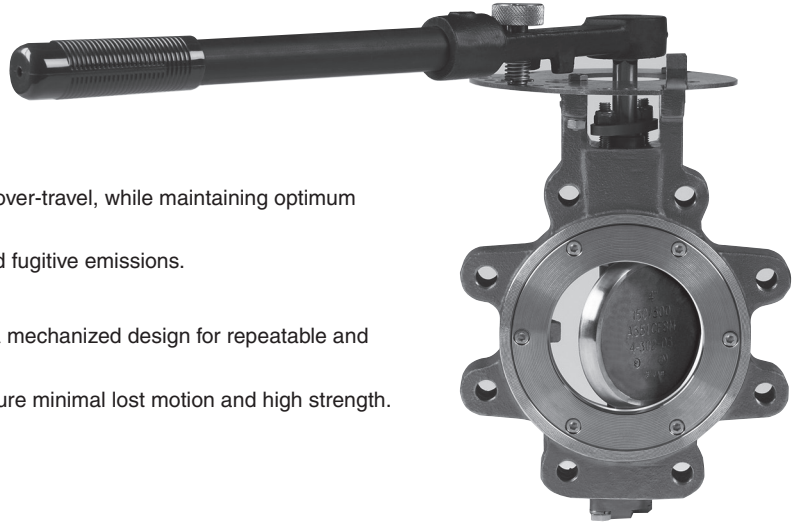
⚠ State of California Prop 65 **WARNING:** Cancer and Reproductive Harm. For more information visit www.p65warnings.ca.gov.



HP Series: Milwaukee Valve Company High Performance Butterfly Valves

Features and Benefits

- All valves offer bi-directional bubble-tight sealing at full rated pressure, with lug-bodied valves providing bi-directional dead-end service at full rated pressure.
- The double-offset design provides superior sealing with minimal seat contact and wear.
- The shaft and disc are manufactured as a single piece for maximum strength and Cv.
- The position stop on the disc is internally cast to prevent over-travel, while maintaining optimum disc/seat contact.
- The adjustable stem packing eliminates stem leakage and fugitive emissions.
- The blow-out-proof stem prevents injury and product loss.
- The seat is energized by a combination of pressure and a mechanized design for repeatable and reliable sealing and extended cycle life.
- The stem/disc connection uses a welded taper pin to ensure minimal lost motion and high strength.



H.P. Lug Pattern

Product Range

Sizes: 2-1/2" - 48" Class 150
 Sizes: 2-1/2" - 24" Class 300
 Body Configuration: Lug or Wafer

Operators Available

10 Position Lever Handle, Gear Operators, Pneumatic and Electric Actuators

Material of Standard Construction

Body Carbon Steel or CF8M 316 Stainless Steel
 Disc CF8M 316 Stainless Steel
 Stem 17-4 PH Stainless Steel
 Bearing Stainless backed RTFE
 Seat RTFE/Stainless Garter Spring

Specifications

Valve Sizes 2-1/2" through 24"
 Flanged Ends Connections per ASME/ANSI B16.5 or B16.47 Series A (sizes 30" - 48").

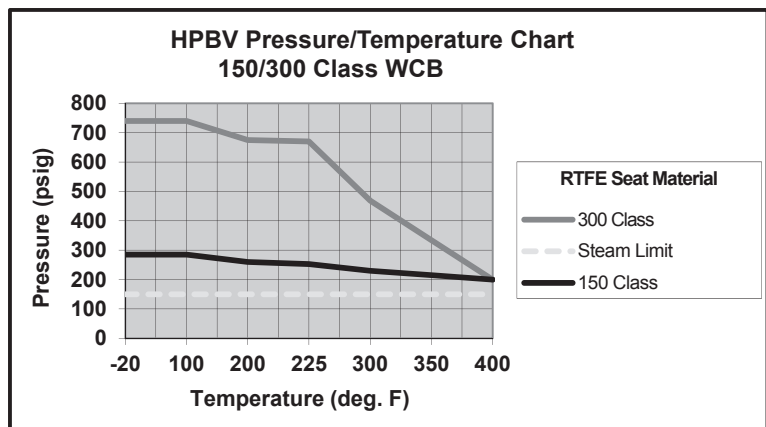
Valve face to face dimension per MSS-SP-68.

Valve bodies are cast high quality steel, with standard availability in ASTM-A216 WCB CS and ASTM A-351 CF8M SS. Body wall thickness meets ASME/ANSI B16.34 and complies with quality standard for steel castings MSS-SP-55.

High performance valve meets the requirements of MSS-SP-68 for double offset design.

Valve pressure tests meet MSS-SP-61.
 Valve testing and inspection meet API 598.

Tagging meets the requirements of MSS-SP-25 and API 609B.



Pressure Ratings*

(Cold Working Pressure)

| | 2-1/2" through 48" Class 150 | 2-1/2" through 24" Class 300 |
|-----------------|---------------------------------|---------------------------------|
| Carbon Steel | 285 psi | 740 psi |
| Stainless Steel | 275 psi | 720 psi |

*Valve is rated @ 150 PSI steam for on & off application and 50 PSI modulating service. (Limit Range 30°-70° - No Dwell In Near Closed Position.)

HOW TO ORDER MILWAUKEE VALVES HP SERIES HIGH PERFORMANCE BUTTERFLY VALVE

| SERIES | ANSI CLASS | BODY STYLE | BODY MATERIAL | DISC MATERIAL | STEM MATERIAL | SEAT MATERIAL | STEM PACKING | OPERATOR | EXT. OPTIONS | SIZE |
|--------|----------------|------------------|-----------------|---------------|-----------------------|-------------------------------|----------------------|--|---|---------|
| XX | X | X | X | X | X | X | X | X | XX | XXX |
| HP | 1-150 3-300 | L-LUG W-WAFER | C-WCB S-CF8M | S-CF8M | 4-17-4 SS 5-316 SS | 1-PTFE 2-RPTFE 4-UHMWPE | 1-PTFE G-GRAPHITE | 1-BARE STEM 2-LEVER-LOCK 3-GEAR OP | S-Stainless Steel Seat Retainer U-Assembled in USA | 025-240 |

PART NUMBER EXAMPLE

HP1LCS4111 040 = 4 INCH, HIGH PERFORMANCE, CLASS 150, LUG PATTERN, CARBON STEEL BODY, 17-4 STEM, PTFE SEAT, PTFE PACKING, BARE STEM WITH NO EXT OPTIONS

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