

ANSI/ASME Class 300 Lbs FluoroSeal[®] HF Alkylation Plug Valve

HF ALKYLATION PLUG VALVES



FluoroSeal[®] HF Alkylation Valves are designed and manufactured in strict compliance with the requirements of the HF Alkylation's Process Licensor specifications. Due to the severity of the process, all testing procedures are strictly adhered to per Licensor's requirements.

FluoroSeal Inc.'s commitment to high quality requires each valve body to be subjected to a hydrostatic shell test at 1.5 times the ANSI rating at 100°F (38°C), as defined in ASME B16.34 (DIN EN 12266-1). In addition, every valve body casting is tested with helium gas at 450 psig for 100% assurance of no through-wall leakage.

We also conduct a full X-Ray test on the bodies to ensure that they meet FluoroSeal Inc.'s casting requirements per ASTM E446 (DIN EN 444 and DIN EN 462).

STANDARDS CONFORMITY

API 598
ASME B16.5
ASME B16.34
MSS SP-6

API 607
ASME B16.10
MSS SP-55
MSS SP-61

HF ALKYLATION PLUG VALVES



MATERIALS OF CONSTRUCTION

| | ANSI/ASME |
|-----------------|----------------------------|
| Body | ASTM A494 Gr. M35-1 |
| Plug | ASTM A494 Gr. M35-1 |
| Cover | ASTM A216 Gr. WCB |
| Cover Bolts | ASTM A193 Gr. B7M |
| Adjusting Bolts | ASTM A193 Gr. B7M |
| Thrust Washer | ASTM A494 Gr. M35-1 |
| Metal Diaphragm | MONEL® 400 |
| Delta Ring | Flexible Graphite |
| Cover Seal Ring | Flexible Graphite |
| Diaphragm | PTFE Fluorocarbon |
| Sleeve | PTFE Fluorocarbon |
| Paint | Special for Leak Detection |

2-WAY ANSI/ASME CLASS 300 LBS

Flanged Ends
Wrench Operated
Actuators Optional on All Sizes

Dimensions to ANSI B16.5 & B16.10

E = Clearance required for resleeving measured from center line

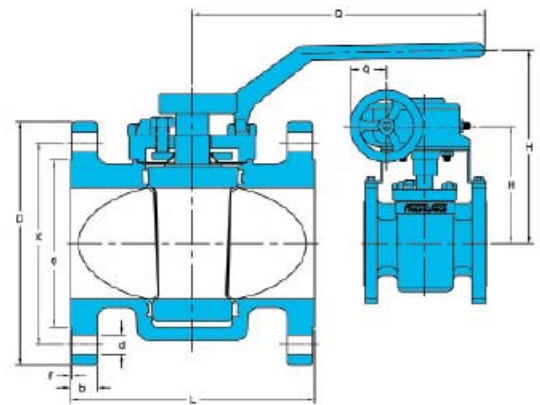
EG = Enclosed gear operated

N = Number of holes

¹Two (2) top holes in flanges are tapped with UNC threads. See Hole-UNC column

²Four (4) top holes in flanges are tapped with UNC threads. See Hole-UNC column

* 2 1/2" valves are made from 3" casting, but flanges are machined to 2 1/2" dimensions



| SIZE | L | | H | | D | | K | | g | | b | | f | | d | | Q | | Weight | | E | | N | Hole-UNC |
|---------------------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|------|-------|------|------|------|-------|-------|--------|--------|-------|-------|---------|----|-----------------------|
| | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | kg | lbs | in | mm | # | | | |
| 1/2" | 5.50 | 139.70 | 3.38 | 86.00 | 3.75 | 95.30 | 2.63 | 66.80 | 1.38 | 35.0 | 0.56 | 14.20 | 0.06 | 1.52 | 0.63 | 16.0 | 8.00 | 203.00 | 3.2 | 7.0 | 6.38 | 162.10 | 4 | - |
| 3/4" | 6.00 | 152.40 | 3.38 | 86.00 | 4.63 | 117.60 | 3.25 | 82.60 | 1.69 | 42.7 | 0.63 | 16.00 | 0.06 | 1.52 | 0.75 | 19.00 | 8.00 | 203.00 | 4.1 | 9.0 | 6.38 | 162.10 | 4 | - |
| 1" | 6.50 | 165.10 | 4.50 | 114.00 | 4.88 | 124.00 | 3.50 | 88.90 | 2.00 | 50.8 | 0.69 | 17.50 | 0.06 | 1.52 | 0.75 | 19.00 | 9.00 | 229.00 | 5.5 | 12.0 | 8.50 | 215.90 | 4 | - |
| 1 1/2" | 7.50 | 190.50 | 5.31 | 135.00 | 6.13 | 155.70 | 4.50 | 114.30 | 2.88 | 73.2 | 0.81 | 20.60 | 0.06 | 1.52 | 0.88 | 22.40 | 14.25 | 362.00 | 9.5 | 21.0 | 10.38 | 263.70 | 4 | - |
| 2" | 8.50 | 215.90 | 6.25 | 159.00 | 6.50 | 165.10 | 5.00 | 127.00 | 3.63 | 92.0 | 0.88 | 22.40 | 0.06 | 1.52 | 0.75 | 19.00 | 16.50 | 419.00 | 13.2 | 29.0 | 12.25 | 311.20 | 8 | - |
| *2 1/2" | 11.13 | 282.70 | 6.56 | 167.00 | 8.25 | 209.6 | 5.88 | 149.40 | 4.13 | 104.6 | 1.13 | 28.70 | 0.06 | 1.52 | 0.88 | 22.40 | 16.50 | 419.00 | 21.8 | 48.0 | 12.63 | 320.80 | 8 | - |
| 3" | 11.13 | 282.70 | 6.56 | 167.00 | 8.25 | 209.6 | 6.63 | 168.40 | 5.00 | 127.0 | 1.13 | 28.70 | 0.06 | 1.52 | 0.88 | 22.40 | 16.50 | 419.00 | 21.8 | 48.0 | 13.63 | 346.20 | 8 | - |
| 4" | 12.00 | 304.80 | 7.63 | 194.00 | 10.00 | 254.00 | 7.88 | 200.20 | 6.19 | 157.2 | 1.25 | 31.80 | 0.06 | 1.52 | 0.88 | 22.40 | 23.63 | 600.00 | 42.0 | 92.0 | 16.25 | 412.80 | 8 | - |
| 4" EG | 12.00 | 304.80 | 9.10 | 231.00 | 10.00 | 254.00 | 7.88 | 200.20 | 6.19 | 157.2 | 1.25 | 31.80 | 0.06 | 1.52 | 0.88 | 22.40 | 7.25 | 184.00 | 54.0 | 119.0 | 17.63 | 447.80 | 8 | - |
| 6" EG | 15.88 | 403.40 | 10.80 | 274.00 | 12.50 | 317.50 | 10.63 | 270.00 | 8.50 | 215.9 | 1.44 | 36.6 | 0.06 | 1.52 | 0.88 | 22.40 | 7.25 | 184.00 | 91.4 | 201.0 | 21.75 | 552.50 | 12 | - |
| 8" EG ¹ | 16.50 | 419.10 | 12.75 | 324.00 | 15.00 | 381.00 | 13.00 | 330.20 | 10.63 | 269.8 | 1.63 | 41.40 | 0.06 | 1.52 | 1.00 | 25.40 | 9.75 | 248.00 | 141.4 | 311.0 | 26.63 | 676.40 | 12 | 7/8"-7 |
| 10" EG ¹ | 18.00 | 457.20 | 14.68 | 373.00 | 17.50 | 444.50 | 15.25 | 387.40 | 12.75 | 323.9 | 1.88 | 47.80 | 0.06 | 1.52 | 1.13 | 28.70 | 9.75 | 248.00 | 210.9 | 464.0 | 31.25 | 793.80 | 16 | 1"-8 |
| 12" EG ¹ | 19.75 | 501.70 | 16.40 | 417.00 | 20.50 | 520.70 | 17.75 | 450.90 | 15.00 | 381.0 | 2.00 | 50.80 | 0.06 | 1.52 | 1.25 | 31.80 | 13.75 | 349.25 | 279.0 | 614.0 | 33.75 | 857.30 | 16 | 1 1/8"-8 |
| 14" EG | 30.00 | 762.00 | 17.40 | 442.00 | 23.00 | 584.20 | 20.25 | 514.40 | 16.25 | 412.8 | 2.12 | 53.80 | 0.06 | 1.52 | 1.25 | 31.80 | 13.75 | 349.25 | 363.0 | 800.0 | 34.75 | 882.70 | 20 | - |
| 16" EG ¹ | 33.00 | 838.20 | 21.29 | 540.72 | 25.50 | 647.70 | 22.50 | 571.50 | 18.50 | 469.90 | 2.19 | 55.63 | 0.06 | 1.52 | 1.38 | 34.93 | 9.85 | 698.50 | - | - | 46.00 | 1168.40 | 20 | 1 1/4"-8 |
| 18" EG | 36.00 | 914.40 | 21.29 | 540.84 | 28.00 | 711.20 | 24.75 | 628.65 | 21.00 | 533.40 | 2.31 | 58.67 | 0.06 | 1.52 | 1.38 | 34.93 | 9.85 | 698.50 | - | - | 46.00 | 1168.40 | 24 | - |
| 20" EG ² | 39.00 | 990.60 | 27.43 | 696.70 | 30.50 | 774.70 | 27.00 | 685.80 | 23.00 | 584.20 | 2.44 | 61.98 | 0.06 | 1.52 | 1.38 | 34.93 | 9.85 | 698.50 | - | - | 57.63 | 1463.80 | 24 | 1 1/4"-8 ¹ |
| 24" EG ¹ | 45.00 | 1143.0 | 27.43 | 696.70 | 36.00 | 914.40 | 32.00 | 812.80 | 27.25 | 692.15 | 2.69 | 68.33 | 0.06 | 1.52 | 1.63 | 41.28 | 9.85 | 698.50 | - | - | 57.63 | 1463.80 | 24 | 1 1/2"-8 |

HF-R003-5