

IRON RESILIENT WEDGE GATE VALVES

619-RW Series

APPLICATIONS

- NRS RW gate valve for use in irrigation, general utility services, HVAC and water systems
- Designed for bubble tight service
- 250 PSI CWP, 160°F maximum

MATERIALS & CONSTRUCTION

- DI body for Flg & MJ ends with bronze stem
- CI body for IPS PVC push-on ends with SS stem
- IPS PVC push-on valves utilize HARCO gaskets and are interchangeable with HARCO fittings
- Rubber encapsulated DI wedge
- Unique valve design with sealed countersunk bolts providing no exposure of bonnet bolts
- Low-torque operation
- Full diameter waterway

DESIGN CRITERIA

- Valves meet or exceed AWWA C 509
- Fusion-bonded epoxy inside and out meets or exceeds AWWA C 550
- IPS PVC push-on valves bell dimensions are designed to stringent standards set by HARCO



P-619-RW
2" - 12"



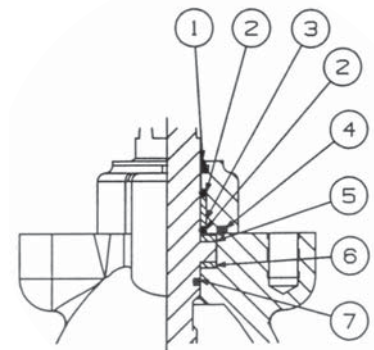
MJ-619-RW-SON
4" - 16"



F-619-RW
4" - 16"

CUTAWAY DETAILS

1. Wiper ring to prevent impurities from entering the stem sealing system
2. Two additional O-rings as secondary sealing
3. Bronze bushing for alignment
4. Rubber bonnet gasket for longevity and protection of bonnet bolts
5. Upper thrust washer to reduce friction
6. Lower thrust washer to reduce friction
7. One O-ring as primary stem seal



**Cut-a-way View of
Upper Body Internals**

250 PSI CWP Iron Body Gate Valves

Bolted Bonnet • Non-Rising Stem • Resilient Wedge • IPS PVC Push-on

250 PSI/17.2 Bar Non-Shock Cold Working Pressure

CONFORMS TO AWWA C509

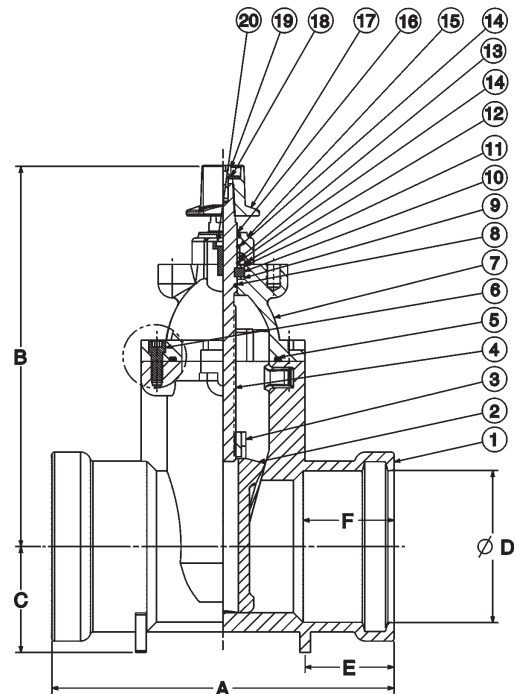
MATERIAL LIST

| PART | SPECIFICATION |
|--------------------------------|------------------------------------------|
| 1. Valve Body | Cast Iron ASTM A 126-B |
| 2. Resilient Wedge | Ductile Iron ASTM A 536/EPDM ASTM D 2000 |
| 3. Wedge Nut | Bronze ASTM B 584 UNS C83600 |
| 4. Stem | Stainless Steel ASTM A 276 UNS S41000 |
| 5. Bonnet Gasket | EPDM ASTM D 2000 |
| 6. Bonnet Screw | Alloy Steel ASTM A 574M Zinc Plated |
| 7. Bonnet | Cast Iron ASTM A 126-B |
| 8. Stem Primary O-Ring | EPDM ASTM D 2000 |
| 9. Stem Thrust Washer (lower) | Nylon 1010 |
| 10. Stem Collar | Brass ASTM B 16 UNS C36000 |
| 11. Stem Thrust Washer (upper) | Stainless Steel ASTM A 276 UNS S41000 |
| 12. Gland Seal O-Ring | EPDM ASTM D 2000 |
| 13. Stem Seal Bushing | Nylon 1010 |
| 14. Stem Secondary O-Ring (2) | EPDM ASTM D 2000 |
| 15. Gland Flange | Ductile Iron ASTM A 536 |
| 16. Stem Ring Wiper | EPDM ASTM D 2000 |
| 17. Square Operating Nut | Cast Iron ASTM A 126-B |
| 17A. Handwheel (Optional) | Ductile Iron ASTM A 536 |
| 18. Operating Nut Washer | Carbon Steel Zinc Plated |
| 19. Operating Nut Screw | Alloy Steel ASTM A 574M Zinc Plated |
| 20. Gland Flange Screw | Alloy Steel ASTM A 574M Zinc Plated |

Coating – Electrostatically applied fusion-bonded epoxy 10-14 mil. inside and outside. Meets or exceeds AWWA C550.
Maximum operating temperature 160° F/71° C.



P-619-RW
IPS Push-On



P-619-RW
IPS Push-On

DIMENSIONS—WEIGHTS—QUANTITIES

| Size | Dimensions | | | | | | | | | | | | | | Handwheel (Opt.) Turns to Open | Weight | | |
|------|------------|------|-----|------|-----|-----|-----|-------|-------|-----|------|-----|-----|------|--------------------------------|--------|-----|-----|
| | A | B | C | D | E | F | In. | mm. | In. | mm. | Lbs. | Kg. | | | | | | |
| 2 | 50 | 11.4 | 289 | 10.2 | 259 | 2.4 | 60 | 2.48 | 63 | 2.3 | 58 | 2.7 | 69 | 7.9 | 200 | 6.5 | 24 | 11 |
| 2½ | 65 | 11.4 | 289 | 11.3 | 288 | 2.6 | 67 | 2.99 | 76 | 2.3 | 58 | 2.7 | 69 | 7.9 | 200 | 8.8 | 32 | 15 |
| 3 | 80 | 11.3 | 287 | 12.7 | 322 | 3.1 | 80 | 3.62 | 92 | 2.2 | 56 | 3.0 | 75 | 10.2 | 250 | 10.6 | 40 | 18 |
| 4 | 100 | 11.7 | 298 | 13.4 | 341 | 3.5 | 90 | 4.65 | 118 | 2.5 | 63 | 3.5 | 89 | 10.2 | 260 | 12.8 | 56 | 25 |
| 6 | 150 | 15.3 | 388 | 17.0 | 431 | 4.7 | 120 | 6.77 | 172 | 4.0 | 101 | 4.1 | 103 | 14.8 | 375 | 15.6 | 106 | 48 |
| 8 | 200 | 16.5 | 418 | 20.4 | 518 | 5.9 | 150 | 8.74 | 222 | 3.0 | 77 | 4.5 | 115 | 14.8 | 375 | 17.3 | 172 | 78 |
| 10 | 250 | 21.2 | 539 | 23.8 | 604 | 7.1 | 180 | 10.94 | 278 | 3.7 | 93 | 5.2 | 132 | 15.7 | 400 | 21.3 | 307 | 140 |
| 12 | 300 | 26.5 | 672 | 27.0 | 685 | 8.1 | 206 | 12.89 | 327.5 | 4.1 | 103 | 5.5 | 139 | 19.7 | 500 | 25.3 | 447 | 203 |

FREEZING WEATHER PRECAUTION: Subsequent to testing a piping system, valves should be left in an open position to allow complete drainage.

250 PSI CWP Iron Body Gate Valves

Bolted Bonnet • Non-Rising Stem • Resilient Wedge • Flanged Ends

250 PSI/17.2 Bar Non-Shock Cold Working Pressure

CONFORMS TO AWWA C509 & C515

MATERIAL LIST

| PART | SPECIFICATION |
|--------------------------------|------------------------------------------|
| 1. Valve Body | Ductile Iron ASTM A 536 |
| 2. Resilient Wedge | Ductile Iron ASTM A 536/EPDM ASTM D 2000 |
| 3. Wedge Nut | Bronze ASTM B 584 UNS C83600 |
| 4. Stem | Bronze ASTM B 150 UNS C61400 |
| 5. Bonnet Gasket | EPDM ASTM D 2000 |
| 6. Bonnet Screw | Alloy Steel ASTM A 574M Zinc Plated |
| 7. Bonnet | Ductile Iron ASTM A 536 |
| 8. Stem Primary O-Ring | EPDM ASTM D 2000 |
| 9. Stem Thrust Washer (lower) | Bronze ASTM B 584 UNS C83600 |
| 10. Stem Thrust Washer (upper) | Stainless Steel ASTM A 276 UNS S41000 |
| 11. Gland Seal O-Ring | EPDM ASTM D 2000 |
| 12. Stem Seal Bushing | Bronze ASTM B 584 UNS C83600 |
| 13. Stem Secondary O-Ring (2) | EPDM ASTM D 2000 |
| 14. Gland Flange | Ductile Iron ASTM A 536 |
| 15. Gland Flange Screw | Alloy Steel ASTM A 574M Zinc Plated |
| 16. Stem Ring Wiper | EPDM ASTM D 2000 |
| 17. Square Operating Nut | Cast Iron ASTM A 126-B |
| 17A. Handwheel (Optional) | Ductile Iron ASTM A 536 |
| 18. Flat Washer | Carbon Steel Zinc Plated |
| 19. Screw | Alloy Steel ASTM A 574M Zinc Plated |

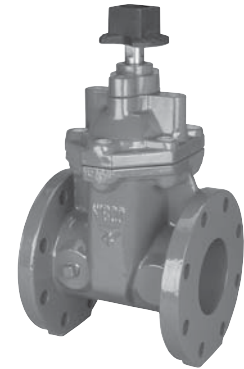
Coating – Electrostatically applied fusion-bonded epoxy 10-14 mil. inside and outside. Meets or exceeds AWWA C550. Coating is NSF and FDA certified.

Maximum operating temperature 160° F/71° C.



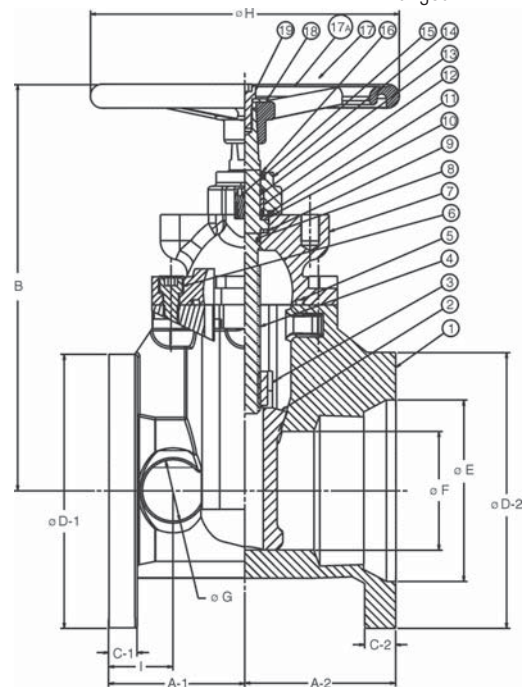
F-619-RW

Flanged



F-619-RW-SON

Flanged



FM-619-RW
FLG x MJ

F-619-RW

Flg x Flg

Shown with optional handwheel

DIMENSIONS—WEIGHTS—QUANTITIES

| Size | Dimensions | | | | | | | | | | | | | | | | Bolt Circle | Flange Holes | Turns to Open | Weight | |
|---------|------------|------|-----|------|-----|------|------|------|-----|------|-----|-----|-----|------|-----|-------|-------------|--------------|---------------|--------|-----|
| | A | | B | | C | | D | | F | | G | | H | In. | mm. | Lbs. | | | | Kg. | |
| In. mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. | | | | | |
| 2 | 50 | 7.0 | 178 | 10.0 | 255 | 0.63 | 16.0 | 6.0 | 152 | 1.42 | 36 | 1.6 | 40 | 7.9 | 200 | 4.75 | 121 | 4 | 6.5 | 30 | 14 |
| 2½ | 65 | 7.5 | 190 | 11.3 | 287 | 0.69 | 17.5 | 7.0 | 178 | 1.50 | 38 | 1.6 | 40 | 7.9 | 200 | 5.50 | 140 | 4 | 8.8 | 35 | 16 |
| 3 | 80 | 8.0 | 203 | 12.6 | 321 | 0.75 | 19.0 | 7.5 | 191 | 1.73 | 44 | 2.1 | 54 | 10.2 | 260 | 6.00 | 152 | 4 | 10.6 | 45 | 20 |
| 4 | 100 | 9.0 | 229 | 13.5 | 344 | 0.94 | 24.0 | 9.0 | 229 | 2.13 | 54 | 2.1 | 54 | 10.2 | 260 | 7.50 | 191 | 8 | 13.0 | 71 | 32 |
| 6 | 150 | 10.5 | 267 | 17.4 | 441 | 1.00 | 25.4 | 11.0 | 279 | 2.24 | 57 | 2.5 | 64 | 14.8 | 375 | 9.50 | 241 | 8 | 15.6 | 122 | 55 |
| 8 | 200 | 11.5 | 292 | 20.8 | 529 | 1.13 | 28.6 | 13.5 | 343 | 2.48 | 63 | 2.8 | 70 | 14.8 | 375 | 11.75 | 298 | 8 | 17.3 | 196 | 89 |
| 10 | 250 | 13.0 | 330 | 24.2 | 614 | 1.19 | 30.2 | 16.0 | 406 | 2.56 | 65 | 2.8 | 70 | 15.7 | 400 | 14.25 | 362 | 12 | 21.4 | 294 | 134 |
| 12 | 300 | 14.0 | 356 | 27.6 | 700 | 1.25 | 31.8 | 19.0 | 483 | 2.91 | 74 | 3.4 | 86 | 19.7 | 500 | 17.00 | 432 | 12 | 25.3 | 426 | 194 |
| 14 | 350 | 15.0 | 381 | 31.8 | 807 | 1.38 | 35.0 | 21.0 | 533 | 2.95 | 75 | 3.1 | 80 | 19.7 | 500 | 18.75 | 476 | 12 | 44 | 600 | 273 |
| 16 | 400 | 16.0 | 406 | 34.1 | 869 | 1.46 | 37.0 | 23.5 | 597 | 3.00 | 77 | 3.1 | 80 | 19.7 | 500 | 21.25 | 540 | 16 | 50 | 810 | 369 |

FREEZING WEATHER PRECAUTION: Subsequent to testing a piping system, valves should be left in an open position to allow complete drainage.

250 PSI CWP Iron Body Gate Valves

Bolted Bonnet • Non-rising Stem • Resilient Wedge • MJ Ends

250 PSI/17.2 Bar Non-Shock Cold Working Pressure

CONFORMS TO AWWA C509 AND C515

MATERIAL LIST

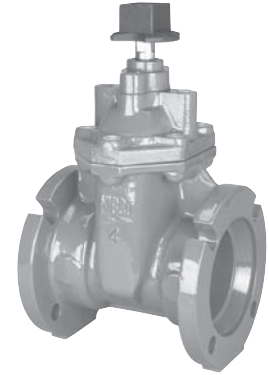
| PART | SPECIFICATION |
|--------------------------------|------------------------------------------|
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| 2. Resilient Wedge | Ductile Iron ASTM A 536/EPDM ASTM D 2000 |
| 3. Wedge Nut | Bronze ASTM B 584 UNS C83600 |
| 4. Stem | Bronze ASTM B 150 UNS C61400 |
| 5. Bonnet Gasket | EPDM ASTM D 2000 |
| 6. Bonnet Screw | 18-8 Stainless Steel ASTM 193 |
| 7. Bonnet | Ductile Iron ASTM A 536 |
| 8. Stem Primary O-Ring | EPDM ASTM D 2000 |
| 9. Stem Thrust Washer (lower) | Bronze ASTM B 584 UNS C83600 |
| 10. Stem Thrust Washer (upper) | Stainless Steel ASTM A 276 UNS S41000 |
| 11. Gland Seal O-Ring | EPDM ASTM D 2000 |
| 12. Stem Seal Bushing | Bronze ASTM B 584 UNS C83600 |
| 13. Stem Secondary O-Ring (2) | EPDM ASTM D 2000 |
| 14. Gland Flange | Ductile Iron ASTM A 536 |
| 15. Gland Flange Screw | Alloy Steel ASTM A 574M Zinc Plated |
| 16. Stem Ring Wiper | EPDM ASTM D 2000 |
| 17. Square Operating Nut | Cast Iron ASTM A 126-B |
| 17A. Handwheel (Optional) | Ductile Iron ASTM A 536 |
| 18. Flat Washer | Carbon Steel Zinc Plated |
| 19. Screw | Alloy Steel ASTM A 574M Zinc Plated |

Coating – Electrostatically applied fusion-bonded epoxy 10-14 mil. inside and outside. Meets or exceeds AWWA C550. Coating is NSF and FDA certified. Maximum operating temperature 160 ° F/71° C.



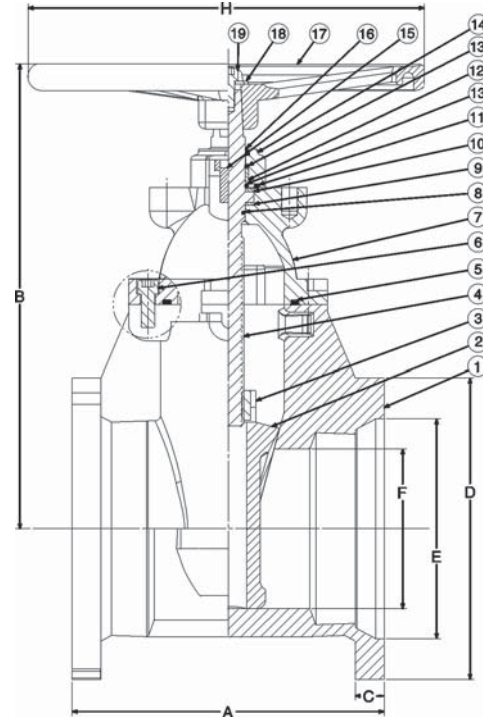
MJ-619-RW

Mechanical Joint



MJ-619-RW-SON

Mechanical Joint



MJ-619-RW
MJ x MJ

DIMENSIONS—WEIGHTS—QUANTITIES

| Size | Dimensions | | | | | | | | | | | | | | Bolt Circle | Flange Holes | Turns to Open | Weight | | | |
|------|------------|------|-----|------|-----|------|----|------|-----|------|-----|------|-----|------|-------------|--------------|---------------|--------|------|-----|-----|
| | A | B | C | D | E | F | H | In. | mm. | In. | mm. | In. | mm. | Lbs. | | | | Kg. | | | |
| 3 | 80 | 8.0 | 203 | 12.7 | 322 | 0.94 | 24 | 7.7 | 196 | 4.9 | 126 | 3.1 | 80 | 10.2 | 260 | 6.19 | 157 | 4 | 10.8 | 43 | 20 |
| 4 | 100 | 10.0 | 254 | 13.5 | 344 | 1.00 | 26 | 9.1 | 232 | 6.0 | 153 | 3.9 | 100 | 10.2 | 260 | 7.50 | 191 | 4 | 13.0 | 70 | 36 |
| 6 | 150 | 11.5 | 292 | 17.4 | 441 | 1.06 | 27 | 11.1 | 283 | 8.1 | 206 | 5.9 | 150 | 14.8 | 375 | 9.50 | 241 | 6 | 15.7 | 112 | 51 |
| 8 | 200 | 11.5 | 292 | 20.8 | 529 | 1.12 | 28 | 13.4 | 340 | 10.3 | 261 | 7.9 | 200 | 14.8 | 375 | 11.75 | 298 | 6 | 17.3 | 170 | 77 |
| 10 | 250 | 13.0 | 330 | 24.2 | 614 | 1.18 | 30 | 15.7 | 400 | 12.3 | 313 | 9.8 | 250 | 15.7 | 400 | 14.00 | 356 | 8 | 21.4 | 267 | 121 |
| 12 | 300 | 14.0 | 356 | 27.6 | 700 | 1.25 | 32 | 18.0 | 456 | 14.4 | 367 | 11.8 | 300 | 19.7 | 500 | 16.25 | 413 | 8 | 25.3 | 388 | 176 |
| 14 | 350 | 15.0 | 381 | 31.8 | 807 | 1.34 | 34 | 20.5 | 516 | 16.5 | 420 | 13.8 | 350 | 19.7 | 500 | 18.75 | 476 | 10 | 44.0 | 570 | 259 |
| 16 | 400 | 16.0 | 406 | 34.2 | 869 | 1.38 | 35 | 22.5 | 573 | 18.6 | 474 | 15.7 | 400 | 19.7 | 500 | 21.00 | 533 | 12 | 50.0 | 765 | 348 |

FREEZING WEATHER PRECAUTION: Subsequent to testing a piping system, valves should be left in an open position to allow complete drainage.