



WILLIAMS VALVE



STAINLESS STEEL VALVES

Introduction

Since 1918 William E. Williams Valve Corporation has been manufacturing high quality valves. Like all our valves, the Williams Stainless Steel Valve Line is a reflection of a commitment to a standard of excellence and product innovation.

All Williams valves are designed, engineered, manufactured and tested to meet or exceed all applicable industry standards including ASTM, ANSI and API. In addition to quality, Williams takes pride in its customer service and delivery.

As a flexible manufacturer Williams remains one of the few companies willing to help customers meet unique or special applications. So whether you need a standard product from our well stocked inventories throughout the U.S. or custom modifications, remember to specify *WILLIAMS*.

Table of Contents

| | Page |
|---|------|
| Stainless Steel | |
| Comparison Chart and How to Order | 3 |
| Gate Valves/150 Lb | 4 |
| Gate Valves/300 Lb-600 Lb | 5 |
| Globe Valves/150 Lb | 6 |
| Globe Valves/300 Lb-600 Lb | 7 |
| Swing Check Valves/150 Lb | 8 |
| Swing Check Valves/300 Lb-600 Lb | 9 |
| Gate Valves/200 Lb WOG, Threaded End | 10 |
| Globe Valves/200 Lb WOG, Threaded End | 11 |
| Swing Check Valves/200 Lb WOG, Threaded End | 12 |
| Ball Valves-Full Port/150 Lb/300 Lb | 13 |
| Ball Valves-Reduced Port/150 Lb/300 Lb | 14 |
| Casting & Forging Materials | 15 |
| Pressure-Temperature Ratings | 16 |
| Valve Wall Thickness | 17 |
| Stainless Steel Pipe Schedule | 18 |
| Special Features | 18 |
| Warranty | 18 |
| Corrosion Resistance Chart | 19 |

Stainless Steel Comparison Chart

FLANGED END GATE, GLOBE AND SWING CHECK VALVES

| Type | Class | WILLIAMS | ALOYCO | LADISH | NEWCO | OIC | PACIFIC | POWELL | VELAN |
|--------------|-------|-------------------|--------|--------|----------|------|----------|--------|------------|
| Gate Valves | 150 | S15F6-316 | 127 | 8275 | 11F-C8M4 | S151 | S500RFC | 2456 | F0064C13SX |
| OS&Y, B.B. | 300 | S30F6-316 | 2217 | 8375 | 13F-C8M4 | S301 | 355530 | 2467 | F1064C13SX |
| Flanged | 600 | S60F6-316 | 4227 | 8675 | 16F-C8M4 | S601 | — | 1973 | F2064C13SX |
| Globe Valves | 150 | S152F6-316 | 317 | 7272 | 21F-C8M4 | S152 | S700RF | 2629 | F0074C13SX |
| OS&Y, B.B. | 300 | S302F6-316 | 2317 | 7372 | 23F-C8M4 | S302 | 1130 | 2447 | F1074C13SX |
| Flanged | 600 | S602F6-316 | 4327 | 7662 | 26F-C8M4 | S602 | — | 1983 | F2074C13SX |
| Swing Check | 150 | S151F6-316 | 377 | 5272 | 31F-C8M4 | S153 | S1100RFC | 2633 | F0114C13SX |
| Valves | 300 | S301F6-316 | 2377 | 5372 | 33F-C8M4 | S303 | 1130 | 2346 | F1114C13SX |
| Flanged | 600 | S601F6-316 | 4377 | 5672 | 36F-C8M4 | S603 | — | 2350 | F2114C13SX |

THREADED END GATE, GLOBE AND SWING CHECK VALVES

| Type | Class | WILLIAMS | ALOYCO | LADISH | STOCKHAM | OIC | AVCO | POWELL |
|--------------|--------|-------------------|--------|--------|------------|-----|-------|--------|
| Gate Valves | 200Lb. | SN20T6-316 | 190 | — | — | 101 | 1226 | 2337 |
| NRS | WOG | | | | | | | |
| Threaded End | | | | | | | | |
| Globe Valves | 200Lb. | S202T6-316 | 40A | 7250 | 20GPNS-316 | 102 | 2226 | 1861 |
| ISRS | WOG | | | | | | | |
| Threaded End | | | | | | | | |
| Swing Check | 200Lb. | S201T6-316 | — | 5260* | 20SS-316 | 103 | 3226* | 1847 |
| 45° Angle | WOG | | | | | | | |
| Threaded End | | | | | | | | |

* Straight Pattern

FLANGED END BALL VALVES REDUCED & FULL PORT

| Type | Class | WILLIAMS | APOLLO | KITZ | JAMESBURY | NEWCO | WORCESTER | VELAN |
|--------------|-------|----------------|--------|----------|--------------|------------|-----------|--------------|
| Ball Valves | 150 | S16F6RT | 87-100 | 1500TRM | 5150-31-3600 | 51FCF8M4RP | AF5144 | F---00413SSG |
| Reduced Port | 300 | S36F6RT | 87-700 | 1500TBM | 5305-31-3600 | 53FCF8M4RP | — | F --10413SSG |
| Ball Valves | 150 | S17F6RT | 87-200 | 3000UTRA | 6150-31-3600 | 51FCF8M4FP | AF52 | F---01413SSG |
| Full Port | 300 | S37F6RT | — | 3000UTRA | 6305-31-3600 | 53FCF8M4RP | — | F --11413SSG |

THIS CHART IS PRESENTED TO INDICATE SIMILARITIES OF VALVES MADE BY SEVERAL MANUFACTURERS. FURTHER CATALOG STUDY IS RECOMMENDED TO RESOLVE DESIGN DIFFERENCES IN SELECTING TRUE EQUALS.

How to Order

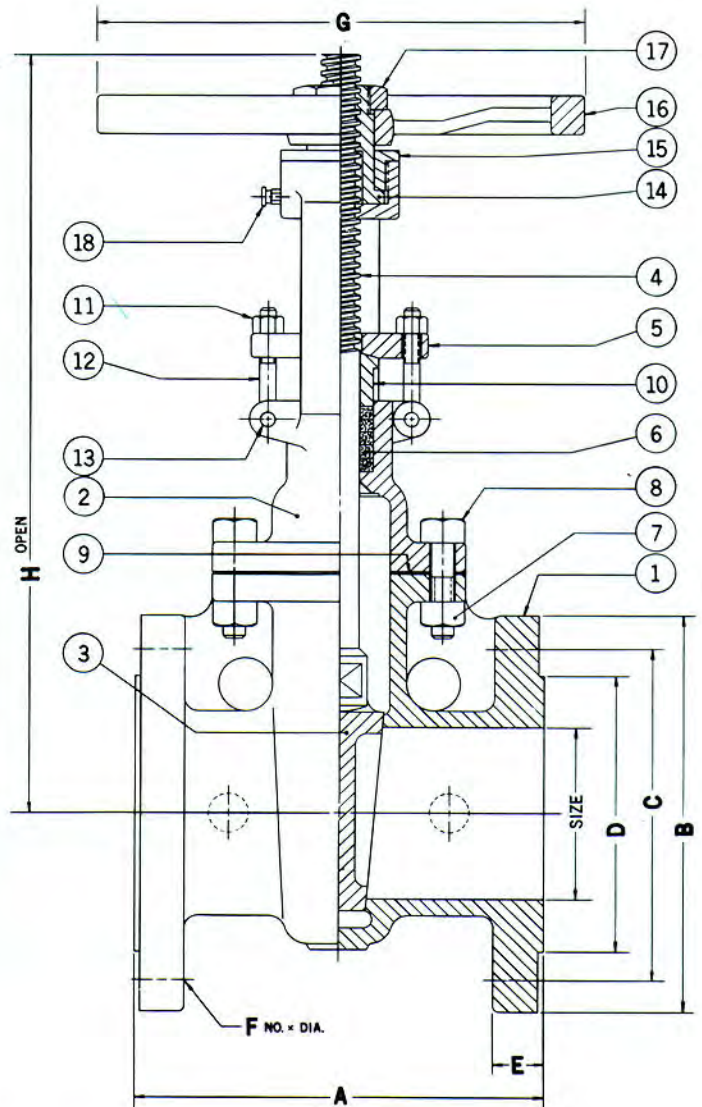
This Williams catalog has been published to give you an overview of our product. When transmitting orders or inquiries, it is important that complete specifications be given so the proper valve may be identified. Normally information would include quantity, size, type and figure number of the valve. Also, when other than standard conditions exist, it is desirable that working conditions be supplied: pressure and temperature ranges, nature of fluid to be handled, and any unusual conditions of corrosion, shock or abrasion that are likely to be present.

Stainless Steel Gate Valves

150 Lb

Dimensions/150 Lb/Figure No. S15F6-316

| Size | A | B | C | D | E | F | G | H | wt/lbs |
|--------|--------|--------|--------|---------|---------|------------|--------|----------|--------|
| 1/2" | 4 1/4 | 3 1/2 | 2 3/8 | 1 3/8 | 7/16 | 4 x 5/8 | 4 | 7 1/2 | 7 |
| 3/4" | 4 5/8 | 3 7/8 | 2 3/4 | 1 11/16 | 7/16 | 4 x 5/8 | 4 | 8 1/8 | 8 |
| 1" | 5 | 4 1/4 | 3 1/8 | 2 | 7/16 | 4 x 5/8 | 5 | 9 1/8 | 12 |
| 1 1/2" | 6 1/2 | 5 | 3 7/8 | 2 7/8 | 9/16 | 4 x 5/8 | 6 1/2 | 11 3/4 | 18 |
| 2" | 7 | 6 | 4 3/4 | 3 5/8 | 5/8 | 4 x 3/4 | 7 | 14 1/2 | 28 |
| 2 1/2" | 7 1/2 | 7 | 5 1/2 | 4 1/8 | 1 1/16 | 4 x 3/4 | 7 | 14 1/2 | 40 |
| 3" | 8 | 7 1/2 | 6 | 5 | 3/4 | 4 x 3/4 | 8 | 18 | 53 |
| 4" | 9 | 9 | 7 1/2 | 6 3/16 | 15/16 | 8 x 3/4 | 9 | 21 13/16 | 78 |
| 6" | 10 1/2 | 11 | 9 1/2 | 8 1/2 | 1 | 8 x 7/8 | 10 | 29 1/2 | 137 |
| 8" | 11 1/2 | 13 1/2 | 11 3/4 | 10 5/8 | 1 1/8 | 8 x 7/8 | 13 | 37 5/16 | 202 |
| 10" | 13 | 16 | 14 1/4 | 12 3/4 | 1 3/16 | 12 x 1 | 14 | 46 1/2 | 320 |
| 12" | 14 | 19 | 17 | 15 | 1 1/4 | 12 x 1 | 15 7/8 | 52 1/2 | 450 |
| 14" | 15 | 21 | 18 3/4 | 16 1/4 | 1 3/8 | 12 x 1 1/8 | 24 | 57 5/16 | 625 |
| 16" | 16 | 23 1/2 | 21 1/4 | 18 1/2 | 1 7/16 | 16 x 1 1/8 | 28 | 64 1/2 | 720 |
| 18" | 17 | 25 | 22 3/4 | 21 | 1 9/16 | 16 x 1 1/4 | 28 | 72 13/16 | 1300 |
| 20" | 18 | 27 1/2 | 25 | 23 | 1 11/16 | 20 x 1 1/4 | 32 | 80 1/2 | 1600 |
| 24" | 20 | 32 | 29 1/2 | 27 1/4 | 1 7/8 | 20 x 1 3/8 | 32 | 96 5/16 | 2350 |



Part Material

| | |
|-------------------|-------------------|
| 1 Body | ASTM A 351 CF8M |
| 2 Bonnet | ASTM A 351 CF8M |
| 3 Wedge | ASTM A 351 CF8M |
| 4 Stem | ASTM A 182 F316 |
| 5 Gland Flange | ASTM A 351 CF8M |
| 6 Packing | Teflon |
| 7 Bonnet Nut | ASTM A 276 GR 304 |
| 8 Bonnet Bolt | ASTM A 276 GR 304 |
| 9 Gasket | Teflon |
| 10 Gland | ASTM A 182 F316 |
| 11 Gland Nut | ASTM A 276 GR 304 |
| 12 Gland Bolt | ASTM A 276 GR 304 |
| 13 Gland Bolt Pin | ASTM A 276 GR 304 |
| 14 Yoke Sleeve | ASTM A 320 B8F |
| 15 Sleeve Gland | ASTM A 351 CF8M |
| 16 Handwheel | ASTM A 197 |
| 17 Handwheel Nut | ASTM A 276 GR 304 |
| 18 Grease Nipple | Stainless Steel |

Graphoil gaskets & packing are available for temperatures above 500°F.

Applicable Standards

Shell Wall Thickness: API 603; MSS-SP-42; ANSI B16.34

Face-to-Face or End-to-End: ANSI B16.10

Flange Dimensions: ANSI B16.5

Weld End Dimensions: ANSI B16.25

Note: API 600 Design (renewable seat rings & heavy wall) available upon request

Tests

Class 150

Shell: 425 psi Seat: 80 psi Air*

*Optional high pressure seat test per API 598 available upon request

WILLIAM E.



WILLIAMS

VALVE CORPORATION

38-52 Review Avenue

Long Island City, NY 11101

718-392-1660 1-800-221-1115 FAX: 718-729-5106

Stainless Steel Gate Valves

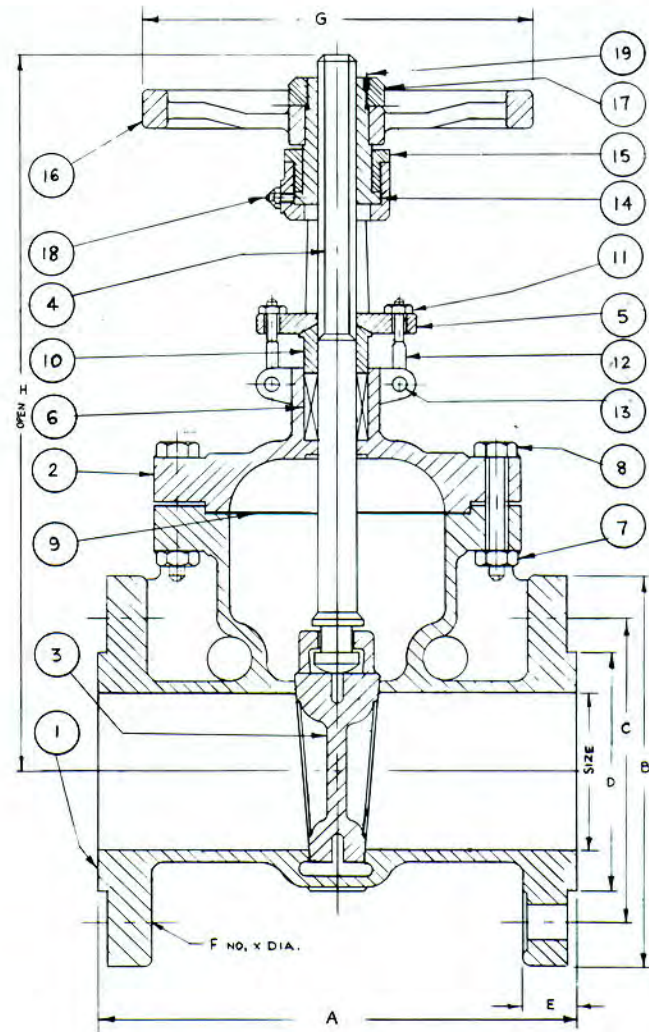
300 Lb/600 Lb

Dimensions/300 Lb/Figure No. S30F6-316

| Size | A | B | C | D | E | F | G | H | wt/lbs |
|------|-----|-----|-----|-----|----|---------|----|-----|--------|
| 1½" | 7½ | 6⅞ | 4½ | 2⅞ | 1⅜ | 4 × ⅞ | 8 | 12⅞ | 32 |
| 2" | 8½ | 6½ | 5 | 3⅞ | ⅞ | 8 × ¾ | 8 | 15 | 42 |
| 2½" | 9½ | 7½ | 5⅞ | 4⅞ | 1 | 8 × ⅞ | 8 | 15½ | 68 |
| 3" | 11⅞ | 8¼ | 6⅞ | 5 | 1⅞ | 8 × ⅞ | 10 | 18⅞ | 82 |
| 4" | 12 | 10 | 7⅞ | 6⅜ | 1¼ | 8 × ⅞ | 12 | 23 | 135 |
| 6" | 15⅞ | 12½ | 10⅞ | 8½ | 1⅞ | 12 × ⅞ | 14 | 31 | 235 |
| 8" | 16½ | 15 | 13 | 10⅞ | 1⅞ | 12 × 1 | 16 | 38⅞ | 345 |
| 10" | 18 | 17½ | 15¼ | 12¾ | 1⅞ | 16 × 1⅞ | 18 | 46⅞ | 630 |
| 12" | 19¾ | 20½ | 17¾ | 15 | 2 | 16 × 1¼ | 20 | 56 | 910 |
| 14" | 30 | 23 | 20¼ | 16¼ | 2⅞ | 20 × 1¼ | 28 | 64⅞ | 1350 |
| 16" | 33 | 25½ | 22½ | 18½ | 2¼ | 20 × 1⅜ | 28 | 73½ | 1700 |
| 18" | 36 | 28 | 24¾ | 21 | 2⅞ | 24 × 1⅜ | 32 | 85¼ | 2400 |
| 20" | 39 | 30½ | 27 | 23 | 2½ | 24 × 1⅜ | 32 | 94½ | 3120 |
| 24" | 45 | 36 | 32 | 27¼ | 2¾ | 24 × 1⅝ | 32 | 11⅞ | 4770 |

Dimensions/600 Lb/Figure No. S60F6-316

| Size | A | B | C | D | E | F | G | H | wt/lbs |
|------|-----|-----|-----|-----|----|---------|----|-----|--------|
| 2" | 11½ | 6½ | 5 | 3⅞ | 1 | 8 × ¾ | 8 | 19 | 93 |
| 2½" | 13 | 7½ | 5⅞ | 4⅞ | 1⅞ | 8 × ⅞ | 9 | 19⅞ | 141 |
| 3" | 14 | 8¼ | 6⅞ | 5 | 1¼ | 8 × ⅞ | 14 | 27½ | 170 |
| 4" | 17 | 10¾ | 8½ | 6⅞ | 1½ | 8 × 1 | 16 | 32½ | 256 |
| 6" | 22 | 14 | 11½ | 8½ | 1⅞ | 12 × 1⅞ | 18 | 41¼ | 571 |
| 8" | 26 | 16½ | 13¾ | 10⅞ | 2⅜ | 12 × 1¼ | 20 | 52¼ | 867 |
| 10" | 31 | 20 | 17 | 12¾ | 2½ | 16 × 1⅜ | 24 | 60¼ | 1427 |
| 12" | 33 | 22 | 19¼ | 15 | 2⅞ | 20 × 1⅜ | 28 | 73¼ | 2267 |



Part Material

| | |
|-------------------|-------------------|
| 1 Body | ASTM A 351 CF8M |
| 2 Bonnet | ASTM A 351 CF8M |
| 3 Wedge | ASTM A 351 CF8M |
| 4 Stem | ASTM A 182 F316 |
| 5 Gland Flange | ASTM A 351 CF8M |
| 6 Packing | Teflon |
| 7 Bonnet Nut | ASTM A 276 GR 304 |
| 8 Bonnet Bolt | ASTM A 276 GR 304 |
| 9 Gasket | Teflon* |
| 10 Gland | ASTM A 182 F316 |
| 11 Gland Nut | ASTM A 276 GR 304 |
| 12 Gland Bolt | ASTM A 276 GR 304 |
| 13 Gland Bolt Pin | ASTM A 276 GR 304 |
| 14 Yoke Sleeve | ASTM A 320 B8F** |
| 15 Sleeve Gland | ASTM A 351 CF8M |
| 16 Handwheel | ASTM A 197 |
| 17 Handwheel Nut | ASTM A 276 GR 304 |
| 18 Grease Nipple | Stainless Steel |
| 19 Set Screw | Stainless Steel |

Applicable Standards

Shell Wall Thickness: ANSI B16.34
 Face-to-Face or End-to-End: ANSI B16.10
 Flange Dimensions: ANSI B16.5
 Weld End Dimensions: ANSI B16.25
Note: API 600 Design (renewable seat rings & heavy wall) available upon request

Tests

Class 300
 Shell: 1100 psi Seat: 80 psi Air*

Class 600
 Shell: 2175 psi Seat: 80 psi Air*
 *Optional high pressure test per API 598 available upon request

WILLIAM E.



WILLIAMS

VALVE CORPORATION

*600 LB valves use stainless steel design ring joints

**On 600 LB valve yoke is equipped with thrust ball bearings

Graphoil gaskets & packing are available for temperatures above 500°F.

38-52 Review Avenue
 Long Island City, NY 11101
 718-392-1660 1-800-221-1115 FAX: 718-729-5106

Stainless Steel **Globe Valves**

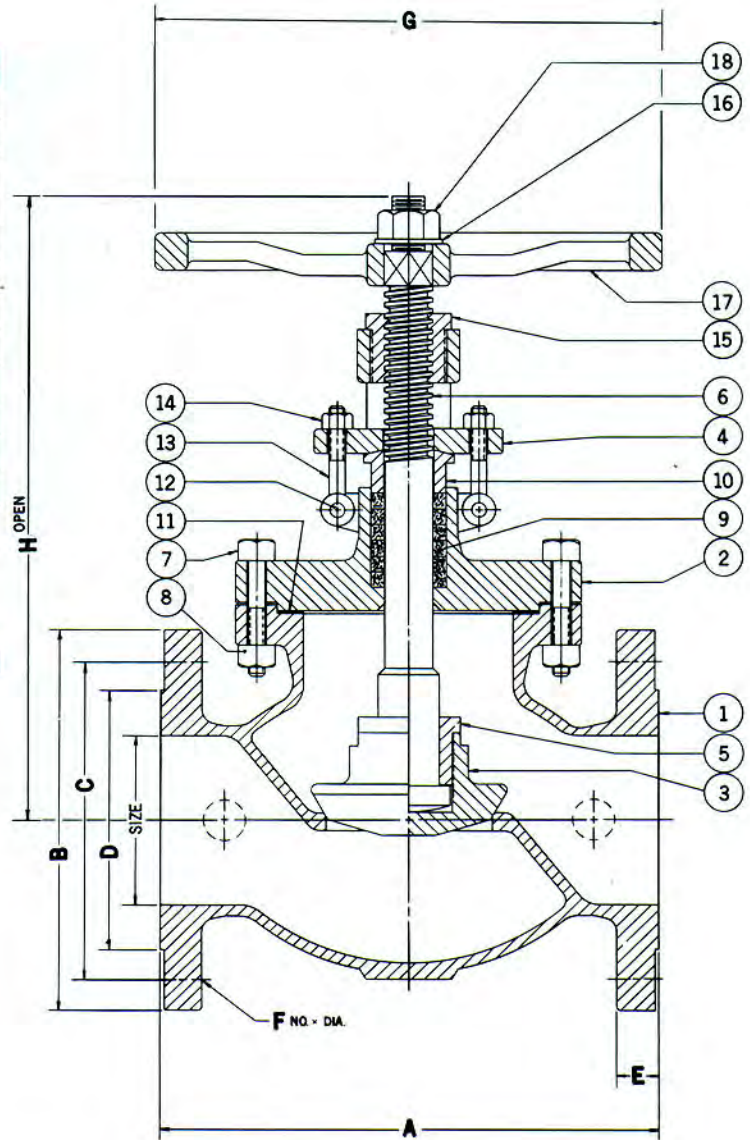
150 Lb

Dimensions/150 Lb/Figure No. S152F6-316

| Size | A | B | C | D | E | F | G | H | wt/lbs |
|--------|--------|--------|--------|---------|--------|---------|--------|--------|--------|
| 1/2" | 4 1/4 | 3 1/2 | 2 3/8 | 1 3/8 | 7/16 | 4 x 5/8 | 4 | 7 | 65 |
| 3/4" | 4 5/8 | 3 7/8 | 2 3/4 | 1 11/16 | 7/16 | 4 x 5/8 | 4 | 7 3/8 | 10 |
| 1" | 5 | 4 1/4 | 3 3/8 | 2 | 7/16 | 4 x 5/8 | 5 | 8 1/2 | 11 |
| 1 1/2" | 6 1/2 | 5 | 3 7/8 | 2 7/8 | 9/16 | 4 x 5/8 | 6 1/2 | 9 7/8 | 20 |
| 2" | 8 | 6 | 4 3/4 | 3 5/8 | 5/8 | 4 x 3/4 | 8 | 10 3/4 | 32 |
| 2 1/2" | 8 1/2 | 7 | 5 1/2 | 4 1/8 | 11/16 | 4 x 3/4 | 8 1/2 | 12 3/8 | 50 |
| 3" | 9 1/2 | 7 1/2 | 6 | 5 | 3/4 | 4 x 3/4 | 9 1/2 | 13 1/2 | 61 |
| 4" | 11 1/2 | 9 | 7 1/2 | 6 3/16 | 15/16 | 8 x 3/4 | 11 1/2 | 14 3/8 | 97 |
| 6" | 16 | 11 | 9 1/2 | 8 1/2 | 1 | 8 x 7/8 | 14 | 16 1/2 | 172 |
| 8" | 19 1/2 | 13 1/2 | 11 3/4 | 10 5/8 | 1 1/8 | 8 x 7/8 | 14 | 19 7/8 | 278 |
| 10" | 24 1/2 | 16 | 14 1/4 | 12 3/4 | 1 3/16 | 12 x 1 | 16 | 22 3/8 | 485 |
| 12" | 27 1/2 | 19 | 17 | 15 | 1 1/4 | 12 x 1 | 18 | 26 7/8 | 862 |

| Part | Material |
|-------------------|-------------------|
| 1 Body | ASTM A 351 CF8M |
| 2 Bonnet | ASTM A 351 CF8M |
| 3 Disc | ASTM A 351 CF8M |
| 4 Gland Flange | ASTM A 351 CF8M |
| 5 Disc Nut | ASTM A 182 F316 |
| 6 Stem | ASTM A 182 F316 |
| 7 Bonnet Bolt | ASTM A 276 GR 304 |
| 8 Bonnet Nut | ASTM A 276 GR 304 |
| 9 Packing | Teflon |
| 10 Packing Gland | ASTM A 182 F316 |
| 11 Gasket | Teflon |
| 12 Gland Bolt Pin | ASTM A 276 GR 304 |
| 13 Gland Bolt | ASTM A 276 GR 304 |
| 14 Gland Nut | ASTM A 276 GR 304 |
| 15 Yoke Sleeve | ASTM A 320 B8F |
| 16 Washer | Steel |
| 17 Handwheel | ASTM A 197 |
| 18 Handwheel Nut | ASTM A 276 GR 304 |

Graphoil gaskets & packing are available for temperatures above 500°F.



Applicable Standards

Shell Wall Thickness: MSS-SP-42; ANSI B16.34

Face-to-Face or End-to-End: ANSI B16.10

Flange Dimensions: ANSI B16.5

Weld End Dimensions: ANSI B16.25

Note: API 600 Design (renewable seat rings & heavy wall) available upon request

Tests

Class 150

Shell: 425 psi Seat: 80 psi Air*

*Optional high pressure seat test per API 598

available upon request

WILLIAM E.



WILLIAMS

VALVE CORPORATION

38-52 Review Avenue

Long Island City, NY 11101

718-392-1660 1-800-221-1115 FAX: 718-729-5106

Stainless Steel **Globe Valves**

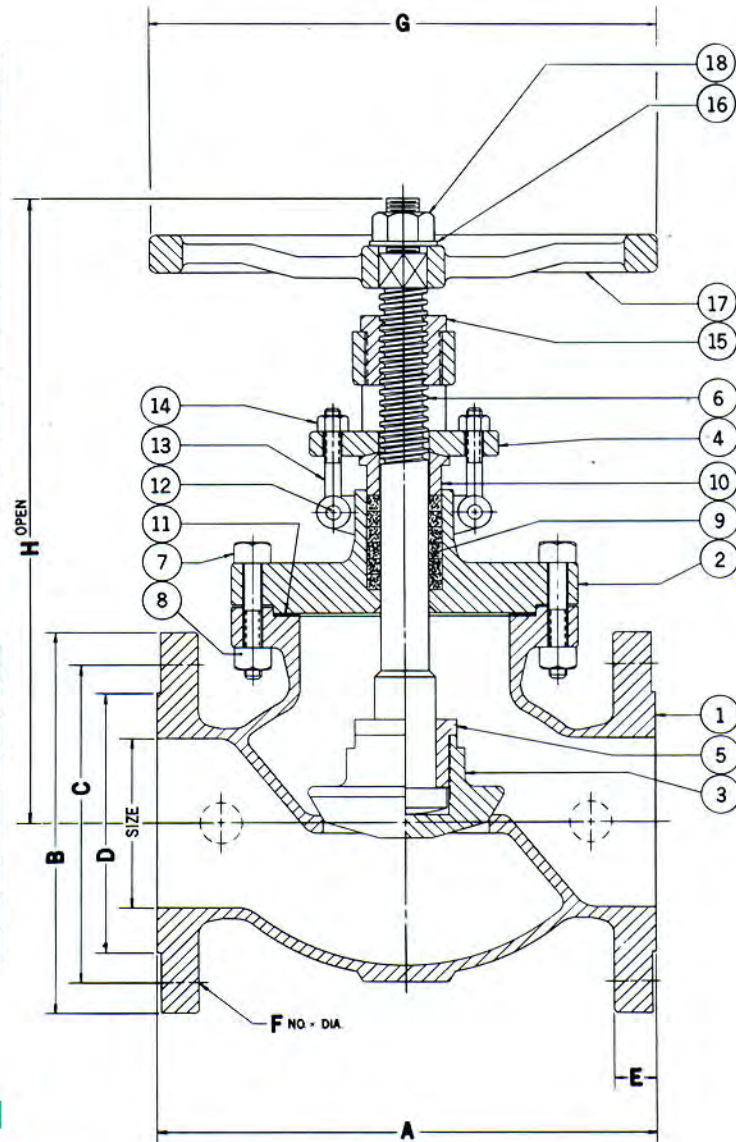
300 Lb/600 Lb

Dimensions/300 Lb/Figure No. S302F6-316

| Size | A | B | C | D | E | F | G | H | wt/lbs |
|--------|--------|--------|--------|---------|--------|------------|-------|--------|--------|
| 1/2" | 6 | 3 3/4 | 2 5/8 | 1 3/8 | 9/16 | 4 x 5/8 | 4 | 7 1/2 | 11 |
| 3/4" | 7 | 4 5/8 | 3 1/4 | 1 11/16 | 5/8 | 4 x 3/4 | 5 | 8 3/8 | 16 1/2 |
| 1" | 8 | 4 7/8 | 3 1/2 | 2 | 1 1/16 | 4 x 3/4 | 6 1/2 | 9 3/8 | 22 |
| 1 1/2" | 9 | 6 1/8 | 4 1/2 | 2 7/8 | 1 3/16 | 4 x 7/8 | 8 | 10 1/2 | 40 |
| 2" | 10 1/2 | 6 1/2 | 5 | 3 5/8 | 7/8 | 8 x 3/4 | 8 | 11 7/8 | 51 |
| 2 1/2" | 11 1/2 | 7 1/2 | 5 7/8 | 4 1/8 | 1 | 8 x 7/8 | 9 1/2 | 14 7/8 | 77 |
| 3" | 12 1/2 | 8 1/4 | 6 5/8 | 5 | 1 1/8 | 8 x 7/8 | 10 | 13 | 97 |
| 4" | 14 | 10 | 7 7/8 | 6 3/16 | 1 1/4 | 8 x 7/8 | 12 | 15 1/2 | 146 |
| 6" | 17 1/2 | 12 1/2 | 10 5/8 | 8 1/2 | 1 7/16 | 12 x 7/8 | 14 | 18 7/8 | 298 |
| 8" | 22 | 15 | 13 | 10 5/8 | 1 5/8 | 12 x 1 | 16 | 21 1/2 | 510 |
| 10" | 24 1/2 | 17 1/2 | 15 1/4 | 12 3/4 | 1 7/8 | 16 x 1 1/8 | 18 | 26 3/8 | 860 |
| 12" | 28 | 20 1/2 | 17 3/4 | 15 | 2 | 16 x 1 1/4 | 20 | 31 | 1220 |

Dimensions/600 Lb/Figure No. S602F6-316

| Size | A | B | C | D | E | F | G | H | wt/lbs |
|--------|--------|--------|--------|--------|--------|------------|--------|--------|--------|
| 2" | 11 1/2 | 6 1/2 | 5 | 3 5/8 | 1 | 8 x 3/4 | 10 | 17 7/8 | 90 |
| 2 1/2" | 13 | 7 1/2 | 5 7/8 | 4 1/8 | 1 1/8 | 8 x 7/8 | 11 1/2 | 20 3/4 | 125 |
| 3" | 14 | 8 1/4 | 6 5/8 | 5 | 1 1/4 | 8 x 7/8 | 14 | 21 1/2 | 155 |
| 4" | 17 | 10 3/4 | 8 1/2 | 6 1/8 | 1 1/2 | 8 x 1 | 16 | 24 7/8 | 260 |
| 6" | 22 | 14 | 11 1/2 | 8 1/2 | 1 7/8 | 12 x 1 1/8 | 18 | 30 3/8 | 710 |
| 8" | 26 | 16 1/2 | 13 3/4 | 10 5/8 | 2 3/16 | 12 x 1 1/4 | 20 | 35 7/8 | 1300 |
| 10" | 31 | 20 | 17 | 12 3/4 | 2 1/2 | 16 x 1 3/8 | 24 | 42 1/2 | |
| 12" | 33 | 22 | 19 1/4 | 15 | 2 5/8 | 20 x 1 3/8 | 26 | 47 3/4 | |



| Part | Material |
|------|----------|
|------|----------|

| | |
|-------------------|-------------------|
| 1 Body | ASTM A 351 CF8M |
| 2 Bonnet | ASTM A 351 CF8M |
| 3 Disc | ASTM A 351 CF8M |
| 4 Gland Flange | ASTM A 351 CF8M |
| 5 Disc Nut | ASTM A 182 F316 |
| 6 Stem | ASTM A 182 F316 |
| 7 Bonnet Bolt | ASTM A 276 GR 304 |
| 8 Bonnet Nut | ASTM A 276 GR 304 |
| 9 Packing | Teflon |
| 10 Packing Gland | ASTM A 182 F316 |
| 11 Gasket | Teflon* |
| 12 Gland Bolt Pin | ASTM A 276 GR 304 |
| 13 Gland Bolt | ASTM A 276 GR 304 |
| 14 Gland Nut | ASTM A 276 GR 304 |
| 15 Yoke Sleeve | ASTM A 320 B8F |
| 16 Washer | Steel |
| 17 Handwheel | ASTM A 197 |
| 18 Handwheel Nut | ASTM A 276 GR 304 |

*600 LB valves use stainless steel design ring joints

Graphoil gaskets & packing are available for temperatures above 500°F.

Applicable Standards

Shell Wall Thickness: ANSI B16.34
 Face-to-Face or End-to-End: ANSI B16.10
 Flange Dimensions: ANSI B16.5
 Weld End Dimensions: ANSI B16.25

Note: API 600 Design (renewable seat rings & heavy wall) available upon request

Tests

Class 300

Shell: 1100 psi Seat: 80 psi Air*

Class 600

Shell: 2175 psi Seat: 80 psi Air*

*Optional high pressure seat test per API 598 available upon request

WILLIAM E.



WILLIAMS

VALVE CORPORATION

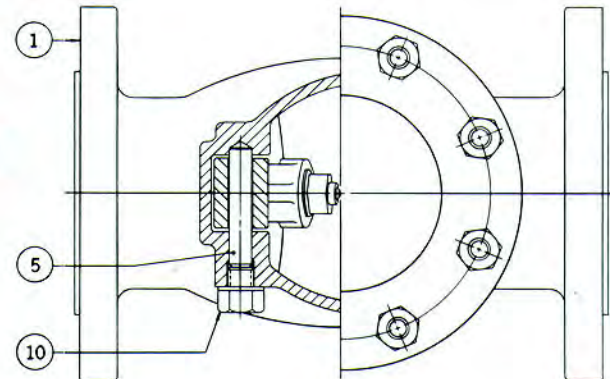
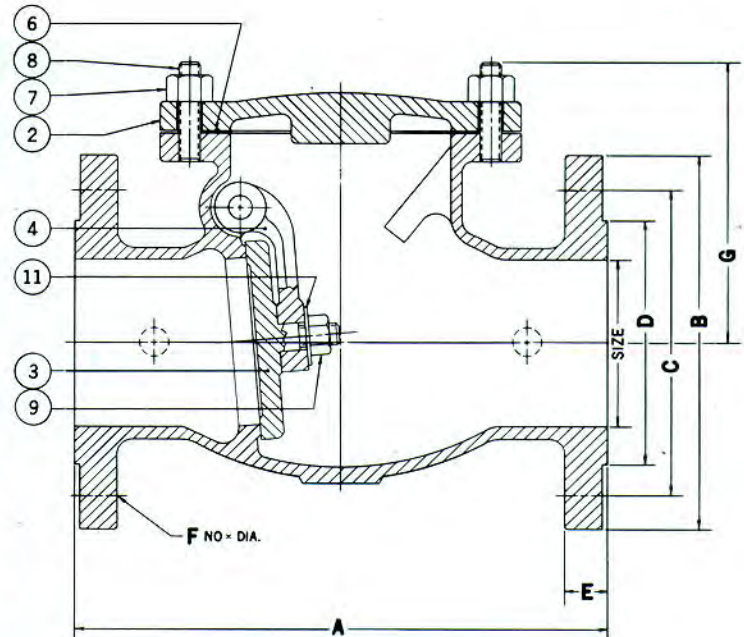
38-52 Review Avenue
 Long Island City, NY 11101
 718-392-1660 1-800-221-1115 FAX: 718-729-5106

Stainless Steel **Swing Check Valves**

150 Lb

Dimensions/150 Lb/Figure No. S151F6-316

| Size | A | B | C | D | E | F | G | wt/lbs |
|--------|--------|--------|--------|---------|---------|------------|--------|--------|
| 1/2" | 4 1/4 | 3 1/2 | 2 3/8 | 1 3/8 | 7/16 | 4 x 5/8 | 2 3/4 | 8 |
| 3/4" | 4 5/8 | 3 7/8 | 2 3/4 | 1 11/16 | 7/16 | 4 x 5/8 | 3 1/4 | 9 1/2 |
| 1" | 5 | 4 1/4 | 3 1/8 | 2 | 7/16 | 4 x 5/8 | 3 1/2 | 10 1/2 |
| 1 1/2" | 6 1/2 | 5 | 3 7/8 | 2 7/8 | 9/16 | 4 x 5/8 | 3 3/4 | 16 1/2 |
| 2" | 8 | 6 | 4 3/4 | 3 5/8 | 5/8 | 4 x 3/4 | 5 | 22 |
| 2 1/2" | 8 1/2 | 7 | 5 1/2 | 4 1/8 | 1 1/16 | 4 x 3/4 | 5 | 33 |
| 3" | 9 1/2 | 7 1/2 | 6 | 5 | 3/4 | 4 x 3/4 | 6 1/4 | 45 |
| 4" | 11 1/4 | 9 | 7 1/2 | 6 3/16 | 15/16 | 8 x 3/4 | 6 1/2 | 71 |
| 6" | 14 | 11 | 9 1/2 | 8 1/2 | 1 | 8 x 7/8 | 8 | 123 |
| 8" | 19 1/2 | 13 1/2 | 11 3/4 | 10 5/8 | 1 1/8 | 8 x 7/8 | 10 | 220 |
| 10" | 24 1/2 | 16 | 14 1/4 | 12 3/4 | 1 3/16 | 12 x 1 | 12 7/8 | 330 |
| 12" | 27 1/2 | 19 | 17 | 15 | 1 1/4 | 12 x 1 | 14 | 500 |
| 14" | 31 | 21 | 18 3/4 | 16 1/4 | 1 3/8 | 12 x 1 1/8 | 16 1/8 | 685 |
| 16" | 34 | 23 1/2 | 21 1/4 | 18 1/2 | 1 7/16 | 16 x 1 1/8 | 18 3/8 | 1050 |
| 18" | 38 1/2 | 25 | 22 3/4 | 21 | 1 9/16 | 16 x 1 1/4 | 20 3/8 | 1510 |
| 20" | 38 1/2 | 27 1/2 | 25 | 23 | 1 11/16 | 20 x 1 1/4 | 22 1/2 | 2020 |
| 24" | 51 | 32 | 29 1/2 | 27 1/4 | 1 7/8 | 20 x 1 3/8 | 24 3/8 | 2900 |



| Part | Material |
|--------------|-------------------|
| 1 Body | ASTM A 351 CF8M |
| 2 Cover | ASTM A 351 CF8M |
| 3 Disc | ASTM A 351 CF8M |
| 4 Hanger | ASTM A 351 CF8M |
| 5 Hinge Pin | ASTM A 182 F316 |
| 6 Gasket | Teflon |
| 7 Cover Nut | ASTM A 276 GR 304 |
| 8 Cover Bolt | ASTM A 276 GR 304 |
| 9 Disc Nut | ASTM A 276 GR 316 |
| 10 Side Plug | ASTM A 276 GR 316 |
| 11 Washer | ASTM A 276 GR 316 |

Graphoil gaskets are available for temperatures above 500°F.

Applicable Standards

Shell Wall Thickness: MSS-SP-42; ANSI B16.34

Face-to-Face or End-to-End: ANSI B16.10

Flange Dimensions: ANSI B16.5

Weld End Dimensions: ANSI B16.25

Note: API 600 Design (renewable seat rings & heavy wall) available upon request

Tests

Class 150

Shell: 425 psi Seat: 80 psi Air*

*Optional high pressure seat test per API 598

available upon request

WILLIAM E.



WILLIAMS

VALVE CORPORATION

38-52 Review Avenue

Long Island City, NY 11101

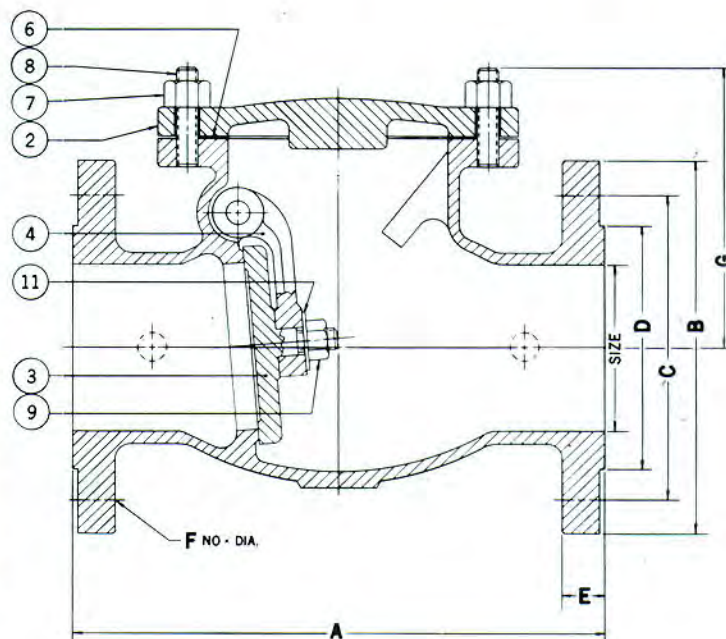
718-392-1660 1-800-221-1115 FAX: 718-729-5106

Stainless Steel **Swing Check Valves**

300 Lb/600 Lb

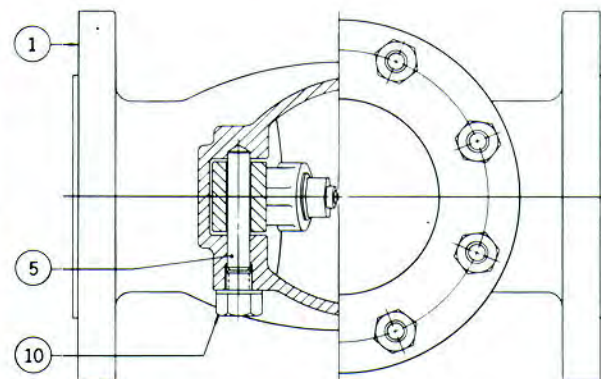
Dimensions/300 Lb/Figure No. S301F6-316

| Size | A | B | C | D | E | F | G | wt/lbs |
|------|-----|-----|-----|-----|-----|---------|-----|--------|
| 1½" | 9½ | 6½ | 4½ | 2⅞ | 1¾ | 4 × ⅞ | 5⅝ | 28 |
| 2" | 10½ | 6½ | 5 | 3⅝ | 7⁄8 | 8 × ¾ | 6⅜ | 35 |
| 2½" | 11½ | 7½ | 5⅞ | 4⅞ | 1 | 8 × ⅞ | 6¾ | 56 |
| 3" | 12½ | 8¼ | 6⅝ | 5 | 1⅞ | 8 × ⅞ | 7⅞ | 78 |
| 4" | 14 | 10 | 7⅞ | 6⅜ | 1¼ | 8 × ⅞ | 9 | 112 |
| 6" | 17½ | 12½ | 10⅝ | 8½ | 1⅞ | 12 × ⅞ | 11½ | 210 |
| 8" | 21 | 15 | 13 | 10⅝ | 1⅝ | 12 × 1 | 13⅜ | 340 |
| 10" | 24½ | 17½ | 15¼ | 12¾ | 1⅞ | 16 × 1⅞ | 15⅜ | 515 |
| 12" | 28 | 20½ | 17¾ | 15 | 2 | 16 × 1¼ | 17⅜ | 760 |
| 14" | 33 | 23 | 20¼ | 16¼ | 2⅞ | 20 × 1¼ | 19½ | 1050 |
| 16" | 34 | 25½ | 22½ | 18½ | 2¼ | 20 × 1⅝ | 21½ | 1355 |
| 18" | 38½ | 28 | 24¾ | 21 | 2⅝ | 24 × 1⅝ | 24 | 1720 |
| 20" | 40 | 30½ | 27 | 23 | 2½ | 24 × 1⅝ | 26½ | 2220 |
| 24" | 53 | 36 | 32 | 27¼ | 2¾ | 24 × 1⅝ | 28⅜ | 3460 |



Dimensions/600 Lb/Figure No. S601F6-316

| Size | A | B | C | D | E | F | G | wt/lbs |
|------|-----|-----|-----|-----|----|---------|-----|--------|
| 2" | 11½ | 6½ | 5 | 3⅝ | 1 | 8 × ¾ | 8½ | 70 |
| 2½" | 13 | 7½ | 5⅞ | 4⅞ | 1⅞ | 8 × ⅞ | 8½ | 100 |
| 3" | 14 | 8¼ | 6⅝ | 5 | 1¼ | 8 × ⅞ | 10⅝ | 180 |
| 4" | 17 | 10¾ | 8½ | 6⅞ | 1½ | 8 × 1 | 11½ | 220 |
| 6" | 22 | 14 | 11½ | 8½ | 1⅞ | 12 × 1⅞ | 13 | 440 |
| 8" | 26 | 16½ | 13¾ | 10⅝ | 2⅞ | 12 × 1¼ | 14⅞ | 705 |
| 10" | 31 | 20 | 17 | 12¾ | 2½ | 16 × 1⅝ | 16⅝ | 1110 |
| 12" | 33 | 22 | 19¼ | 15 | 2⅝ | 20 × 1⅝ | 18⅞ | 1600 |



Part Material

| | |
|--------------|-------------------|
| 1 Body | ASTM A 351 CF8M |
| 2 Cover | ASTM A 351 CF8M |
| 3 Disc | ASTM A 351 CF8M |
| 4 Hanger | ASTM A 351 CF8M |
| 5 Hinge Pin | ASTM A 182 F316 |
| 6 Gasket | Teflon* |
| 7 Cover Nut | ASTM A 276 GR 304 |
| 8 Cover Bolt | ASTM A 276 GR 304 |
| 9 Disc Nut | ASTM A 276 GR 316 |
| 10 Side Plug | ASTM A 276 GR 316 |
| 11 Washer | ASTM A 276 GR 316 |

*600 LB valves use stainless steel design ring joints

Graphoil gaskets are available for temperatures above 500°F.

Applicable Standards

Shell Wall Thickness: ANSI B16.34
 Face-to-Face or End-to-End: ANSI B16.10
 Flange Dimensions: ANSI B16.5
 Weld End Dimensions: ANSI B16.25
Note: API 600 Design (renewable seat rings & heavy wall) available upon request

Tests

Class 300
 Shell: 1100 psi Seat: 80 psi Air*

Class 600
 Shell: 2175 psi Seat: 80 psi Air*

*Optional high pressure seat test per API 598 available upon request

WILLIAM E.



WILLIAMS

VALVE CORPORATION

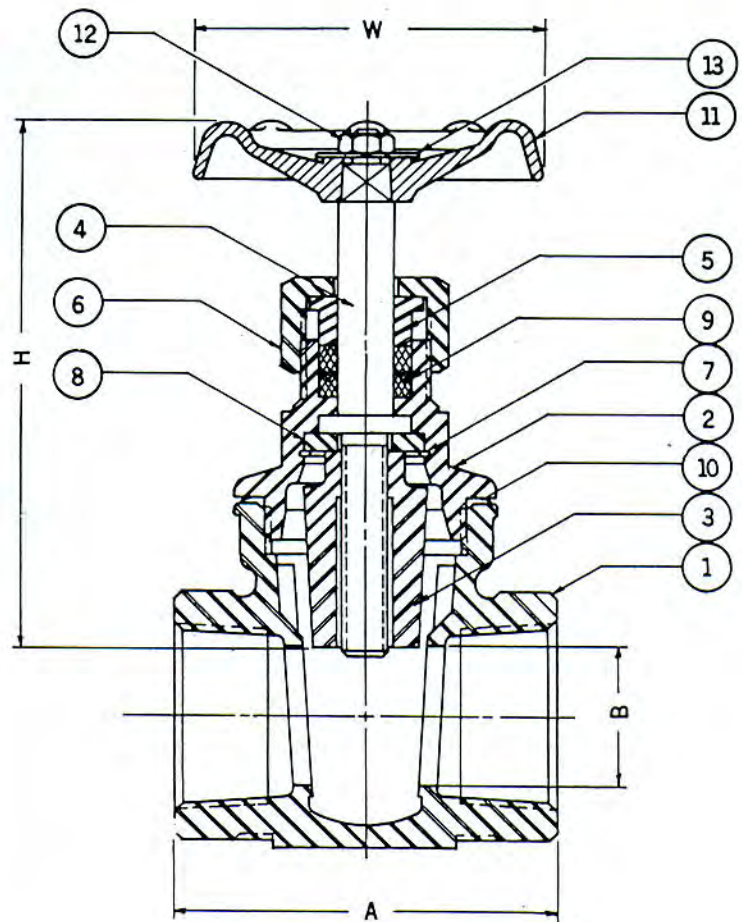
38-52 Review Avenue
 Long Island City, NY 11101
 718-392-1660 1-800-221-1115 FAX: 718-729-5106

Stainless Steel Gate Valves

200 Lb W.O.G.

Dimensions 200Lb/Figure No. SN20T6316

| Size | A | B | H | W | wt/lbs |
|--------|------|------|------|------|--------|
| 1/2" | 2.01 | .59 | 3.07 | 2.64 | .86 |
| 3/4" | 2.21 | .79 | 3.27 | 2.64 | 1.06 |
| 1" | 2.50 | .98 | 3.54 | 2.95 | 1.45 |
| 1 1/4" | 2.80 | 1.26 | 3.82 | 2.95 | 2.20 |
| 1 1/2" | 3.02 | 1.57 | 4.06 | 3.39 | 3.12 |
| 2" | 3.41 | 1.97 | 4.65 | 3.98 | 4.64 |



Part Material

| Part | Material |
|----------------------|--------------------|
| 1 Body | ASTM A 351 CF8M |
| 2 Bonnet | ASTM A 351 CF8M |
| 3 Disc | ASTM A 182 F316 |
| 4 Stem | ASTM A 182 F316 |
| 5 Gland | ASTM A 182 F316 |
| 6 Gland Nut | ASTM A 351 CF8M |
| 7 Retaining Ring | ASTM A 182 F316 |
| 8 Washer | ASTM A 182 F316 |
| 9 Packing | Teflon |
| 10 Gasket | Teflon |
| 11 Handwheel | ASTM A 126 |
| 12 Handwheel Hex Nut | ASTM A 276 GR. 304 |
| 13 I.D. Label | Aluminum |

Features

- Non Rising Stem
- OS&Y Available
- Threaded Bonnet
- Integral Seats

Applicable Standards

Threaded end is in accordance with NPT spec ANSI B2.1
 150 PSI Steam
 200 WOG, Temp 350° F

Tests

Test Pressure Shell: 300 psi
 Seat: 220 psi

WILLIAM E.



WILLIAMS

VALVE CORPORATION

38-52 Review Avenue
 Long Island City, NY 11101
 718-392-1660 1-800-221-1115 FAX: 718-729-5106

Stainless Steel **Globe Valves**

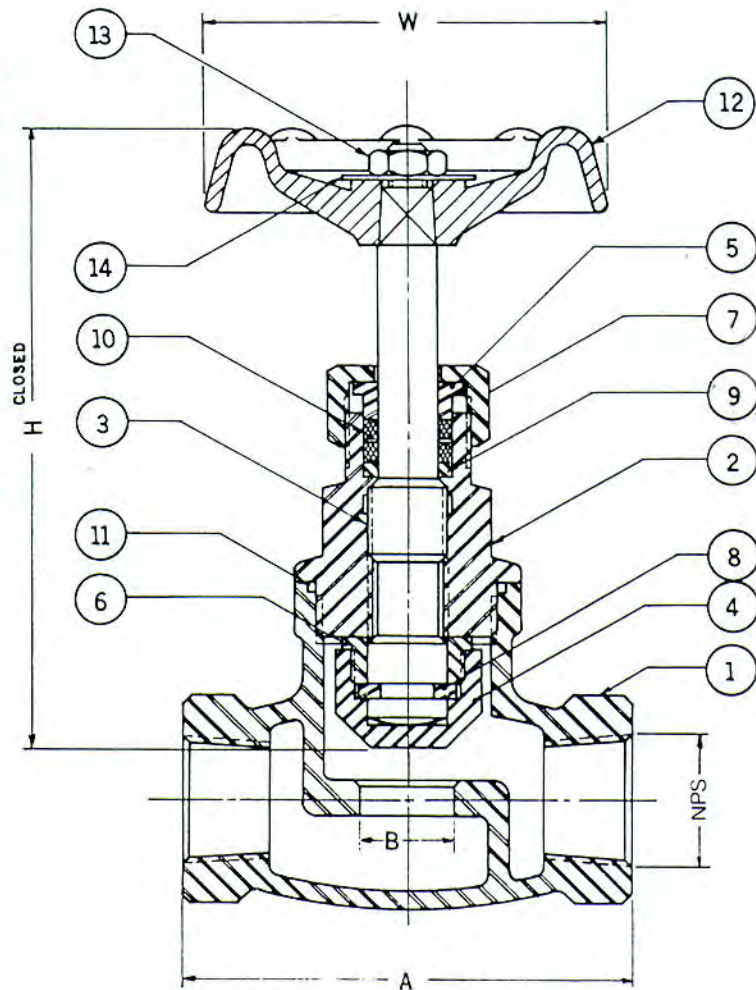
200 Lb W.O.G.

Dimensions 200Lb/Figure No. S202T6316

| Size | A | B | H | W | wt/lbs |
|--------|------|------|------|------|--------|
| 1/2" | 2.56 | .59 | 3.74 | 2.76 | .99 |
| 3/4" | 3.15 | .71 | 3.74 | 2.76 | 1.38 |
| 1" | 3.54 | .94 | 3.74 | 3.15 | 1.83 |
| 1 1/4" | 4.13 | 1.18 | 4.33 | 3.54 | 2.90 |
| 1 1/2" | 4.72 | 1.45 | 4.53 | 3.54 | 3.74 |
| 2" | 5.51 | 1.81 | 5.19 | 3.94 | 5.39 |

Part Material

| Part | Material |
|----------------------|--------------------|
| 1 Body | ASTM A 351 CF8M |
| 2 Bonnet | ASTM A 351 CF8M |
| 3 Disc | ASTM A 182 F316 |
| 4 Stem | ASTM A 182 F316 |
| 5 Gland | ASTM A 182 F316 |
| 6 Stem Nut | ASTM A 182 F316 |
| 7 Gland Nut | ASTM A 351 CF8M |
| 8 Stem Washer | ASTM A 182 F316 |
| 9 Packing Collar | ASTM A 182 F316 |
| 10 Packing | Reinforced Teflon |
| 11 Gasket | Reinforced Teflon |
| 12 Handwheel | ASTM A 126 |
| 13 Handwheel Hex Nut | ASTM A 276 GR. 304 |
| 14 I.D. Label | Aluminum |



Features

- Rising Stem
- Threaded Bonnet
- Integral Seats

Applicable Standards

Threaded end is in accordance with NPT spec ANSI B 2.1
 150 PSI Steam
 200 WOG, Temp 350° F

Tests

Test Pressure Shell: 300 psi
 Seat: 220 psi

WILLIAM E.



WILLIAMS

VALVE CORPORATION

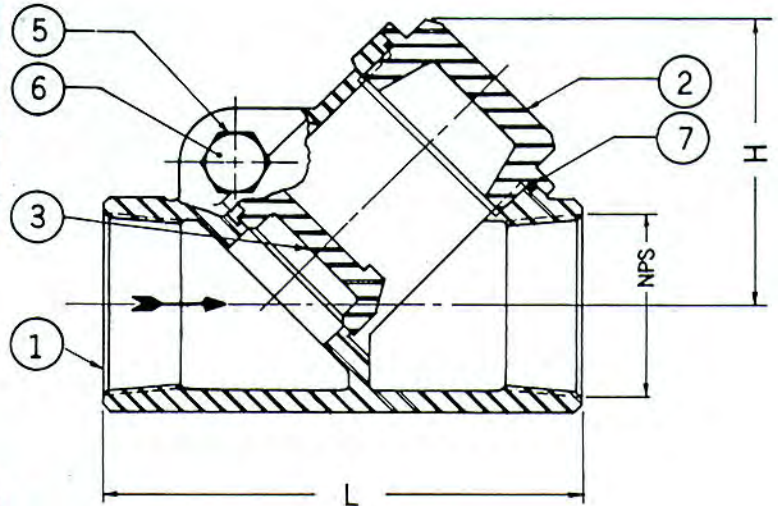
38-52 Review Avenue
 Long Island City, NY 11101
 718-392-1660 1-800-221-1115 FAX: 718-729-5106

Stainless Steel **Swing Check Valves**

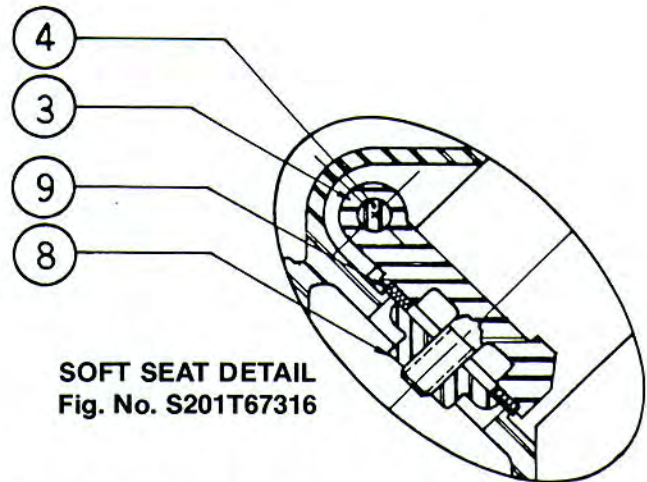
200 Lb W.O.G.

Dimensions 200Lb/Figure No. S201T6316

| Size | L | H | wt/lbs |
|--------|------|------|--------|
| 1/2" | 2.56 | 1.81 | .70 |
| 3/4" | 3.17 | 2.05 | 1.12 |
| 1" | 3.54 | 2.36 | 1.50 |
| 1 1/4" | 4.13 | 2.83 | 2.35 |
| 1 1/2" | 4.72 | 3.15 | 3.08 |
| 2" | 5.51 | 3.74 | 4.62 |



| Part | Material |
|----------------|-----------------|
| 1 Body | ASTM A 351 CF8M |
| 2 Cover | ASTM A 351 CF8M |
| 3 Disc | ASTM A 351 CF8M |
| 4 Hinge Pin | ASTM A 182 F316 |
| 5 Washer | Teflon |
| 6 Plug | ASTM A 182 F316 |
| 7 Gasket | Teflon |
| 8 Screw Washer | ASTM A 182 F316 |
| 9 Seat | Teflon |



Features

- Threaded Cover
- 45° Y Pattern Design
- Integral Seat
- Soft Seat Optional: (See Detail)

Applicable Standards

Threaded end is in accordance with NPT spec ANSI B.21
 150 PSI Steam
 200 WOG Temp 350° F

Tests

Test Pressure Shell: 300 psi
 Seat: 220 psi

WILLIAM E.



WILLIAMS
 VALVE CORPORATION

38-52 Review Avenue
 Long Island City, NY 11101
 718-392-1660 1-800-221-1115 FAX: 718-729-5106

Stainless Steel **Ball Valves**

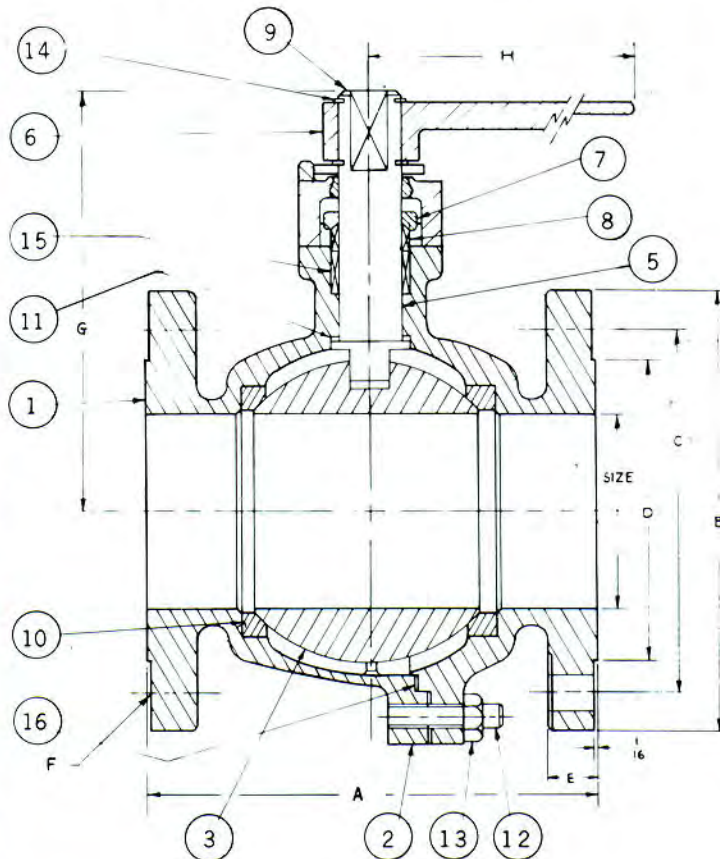
150/300 Lb/Full Port

Dimensions/150 Lb/Figure No. S17F6RT

| Size | A | B | C | D | E | F | G | H | wt/lbs |
|--------|--------|--------|--------|---------|--------|---------|--------|-------|--------|
| 1/2" | 4 1/4 | 3 1/2 | 2 3/8 | 1 3/8 | 7/16 | 4 x 5/8 | 3 | 5 | 4.5 |
| 3/4" | 4 5/8 | 3 7/8 | 2 3/4 | 1 11/16 | 7/16 | 4 x 5/8 | 3 1/8 | 5 | 5.5 |
| 1" | 5 | 4 1/4 | 3 1/8 | 2 | 7/16 | 4 x 5/8 | 3 3/8 | 6 3/8 | 6.5 |
| 1 1/2" | 6 1/2 | 5 | 3 7/8 | 2 7/8 | 9/16 | 4 x 5/8 | 4 1/8 | 9 | 12.5 |
| 2" | 7 | 6 | 4 3/4 | 3 5/8 | 5/8 | 4 x 3/4 | 4 5/8 | 11 | 20 |
| 2 1/2" | 7 1/2 | 7 | 5 1/2 | 4 1/8 | 11/16 | 4 x 3/4 | 5 1/4 | 14 | 28 |
| 3" | 8 | 7 1/2 | 6 | 5 | 3/4 | 4 x 3/4 | 7 3/8 | 16 | 43 |
| 4" | 9 | 9 | 7 1/2 | 6 3/16 | 15/16 | 8 x 3/4 | 8 1/2 | 18 | 71 |
| 6" | 15 1/2 | 11 | 9 1/2 | 8 1/2 | 1 | 8 x 7/8 | 12 7/8 | 24 | 151 |
| 8" | 18 | 13 1/2 | 11 3/4 | 10 5/8 | 1 1/8 | 8 x 7/8 | 15 3/8 | 30 | 240 |
| 10" | 21 | 16 | 14 1/4 | 12 3/4 | 1 3/16 | 12 x 1 | 17 1/8 | 40 | 465 |
| 12" | 24 | 19 | 17 | 16 1/4 | 1 1/4 | 12 x 1 | 18 3/4 | 48 | 665 |

Dimensions/300 Lb/Figure No. S37F6RT

| Size | A | B | C | D | E | F | G | H | wt/lbs |
|--------|--------|--------|--------|---------|--------|------------|--------|-------|--------|
| 1/2" | 5 1/2 | 3 3/4 | 2 5/8 | 1 3/8 | 9/16 | 4 x 5/8 | 3 | 5 | 8 |
| 3/4" | 6 | 4 5/8 | 3 1/4 | 1 11/16 | 5/8 | 4 x 3/4 | 3 1/8 | 5 | 10 |
| 1" | 6 1/2 | 4 7/8 | 3 1/2 | 2 | 11/16 | 4 x 3/4 | 3 3/8 | 6 3/8 | 13 |
| 1 1/2" | 7 1/2 | 6 1/8 | 4 1/2 | 2 7/8 | 13/16 | 4 x 7/8 | 4 | 9 | 26 |
| 2" | 8 1/2 | 6 1/2 | 5 | 3 5/8 | 7/8 | 8 x 3/4 | 5 | 11 | 33 |
| 2 1/2" | 9 1/2 | 7 1/2 | 5 7/8 | 4 1/8 | 1 | 8 x 7/8 | 5 1/4 | 14 | 53 |
| 3" | 11 1/8 | 8 1/4 | 6 5/8 | 5 | 1 1/8 | 8 x 7/8 | 6 5/8 | 16 | 75 |
| 4" | 12 | 10 | 7 7/8 | 6 3/16 | 1 1/4 | 8 x 7/8 | 7 7/8 | 18 | 120 |
| 6" | 15 7/8 | 12 1/2 | 10 5/8 | 8 1/2 | 1 7/16 | 12 x 7/8 | 13 5/8 | 24 | 260 |
| 8" | 19 3/4 | 15 | 13 | 10 5/8 | 1 5/8 | 12 x 1 | 15 5/8 | 30 | 470 |
| 10" | 22 3/8 | 17 1/2 | 15 1/4 | 12 3/4 | 1 7/8 | 16 x 1 1/8 | 20 | 40 | 690 |
| 12" | 25 1/2 | 20 1/2 | 17 3/4 | 15 | 2 | 16 x 1 1/4 | 21 5/8 | 48 | 970 |



Applicable Standards

Shell Wall Thickness: ANSI B16.34
 Face-to-Face: ANSI B16.10
 Flange Dimensions: ANSI B16.5

Tests

Class 150 Shell: 425 psi Seat: 80 psi Air* **Class 300** Shell: 1125 psi Seat: 80 psi Air*

*Optional high pressure test per API 598 available upon request

Features

- Blow-out Proof Stem
- Anti-static Grounding
- Adjustable Stem Packing Gland

Note: Fire Safe Design Available upon request.

Note: Gear operators are recommended for 8" and larger valves

WILLIAM E.



WILLIAMS
 VALVE CORPORATION

38-52 Review Avenue
 Long Island City, NY 11101
 718-392-1660 1-800-221-1115 FAX: 718-729-5106

Part Material

| | |
|------------------|-----------------------------|
| 1 Body | A351 GR.CF8 CF8M |
| 2 Bonnet | A351 GR.CF8 CF8M |
| 3 Ball | A351 GR.CF8 CF8M |
| 4 Yoke | A351 GR.CF8, CF8M |
| 5 Stem | A182 GR.F304, F316 |
| 6 Lever | A216 GR. WCB |
| 7 Gland Flange | A351 GR.CF8, CF8M |
| 8 Gland Ring | A182 GR.F304, F316 |
| 9 Stopper | A167 GR.304 |
| 10 Ball Seat | Reinforced Teflon |
| 11 Thrust Washer | Virgin Teflon |
| 12 Bonnet Bolt | A276 GR.304 |
| 13 Bonnet Nut | A276 GR.304 |
| 14 Snap Ring | SK5 CR. Plating |
| 15 Packing | Virgin Teflon |
| 16 Gasket | Virgin Teflon or Equivalent |

Stainless Steel **Ball Valves**

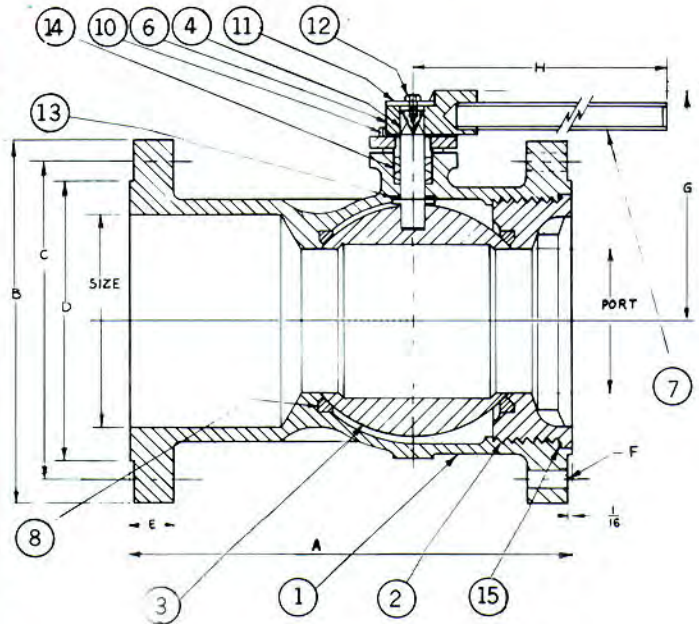
150/300 Lb/Reduced Port

Dimensions/150 Lb/Figure No. S16F6RT

| Size | A | B | C | D | E | F | G | H | PORT | wt/lbs |
|---------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|--------------------------------|----|-------------------------------|--------|
| 2" | 7 | 6 | 4 ³ / ₄ | 3 ⁵ / ₈ | 5 ⁵ / ₈ | 4 ³ / ₄ | 4 ¹ / ₈ | 9 | 1 ¹ / ₂ | 21 |
| 2 ¹ / ₂ " | 7 ¹ / ₂ | 7 | 5 ¹ / ₂ | 4 ¹ / ₈ | 1 ¹ / ₁₆ | 4 ³ / ₄ | 4 ³ / ₄ | 11 | 2 | 29 |
| 3" | 8 | 7 ¹ / ₂ | 6 | 5 | 3 ³ / ₄ | 4 ³ / ₄ | 5 ¹ / ₄ | 14 | 2 ³ / ₈ | 35 |
| 4" | 9 | 9 | 7 ¹ / ₂ | 6 ³ / ₁₆ | 1 ⁵ / ₁₆ | 8 ³ / ₄ | 6 ¹ / ₄ | 16 | 3 | 57 |
| 6" | 10 ¹ / ₂ | 11 | 9 ¹ / ₂ | 8 ¹ / ₂ | 1 | 8 ⁷ / ₈ | 7 ⁵ / ₈ | 20 | 4 ³ / ₈ | 97 |
| 8" | 11 ¹ / ₂ | 13 ¹ / ₂ | 11 ³ / ₄ | 10 ⁵ / ₈ | 1 ¹ / ₈ | 8 ⁷ / ₈ | 11 | 24 | 6 | 192 |
| 10" | 13 | 16 | 14 ¹ / ₄ | 12 ³ / ₄ | 1 ³ / ₁₆ | 12-1 | 12 ³ / ₈ | 30 | 7 ³ / ₈ | 315 |
| 12" | 14 | 19 | 17 | 15 | 1 ¹ / ₄ | 12-1 | 15 ¹ / ₂ | 36 | 10 | 550 |

Dimensions/300 Lb/Figure No. S36F6RT

| Size | A | B | C | D | E | F | G | H | PORT | wt/lbs |
|---------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|--------------------------------|--------------------------------|-------------------------------|--------|
| 2" | 8 ¹ / ₂ | 6 ¹ / ₂ | 5 | 3 ⁵ / ₈ | 7 ⁷ / ₈ | 8x ³ / ₄ | 4 | 9 | 1 ¹ / ₂ | 30 |
| 2 ¹ / ₂ " | 9 ¹ / ₂ | 7 ¹ / ₂ | 5 ⁷ / ₈ | 4 ¹ / ₈ | 1 | 8x ⁷ / ₈ | 4 ³ / ₄ | 11 ⁷ / ₈ | 2 | 48 |
| 3" | 11 ¹ / ₈ | 8 ¹ / ₄ | 6 ⁵ / ₈ | 5 | 1 ¹ / ₈ | 8x ⁷ / ₈ | 4 ⁷ / ₈ | 14 | 2 ³ / ₈ | 60 |
| 4" | 12 | 10 | 7 ⁷ / ₈ | 6 ³ / ₁₆ | 1 ¹ / ₄ | 8x ⁷ / ₈ | 5 ⁷ / ₈ | 16 | 3 | 95 |
| 6" | 15 ⁷ / ₈ | 12 ¹ / ₂ | 10 ⁵ / ₈ | 8 ¹ / ₂ | 1 ⁷ / ₁₆ | 12x ⁷ / ₈ | 7 ¹ / ₄ | 21 | 4 ³ / ₈ | 172 |
| 8" | 16 ¹ / ₂ | 15 | 13 | 10 ⁵ / ₈ | 1 ⁵ / ₈ | 12x1 | 12 ¹ / ₂ | 24 | 6 | 324 |
| 10" | 18 | 17 ¹ / ₂ | 15 ¹ / ₄ | 12 ³ / ₄ | 1 ⁷ / ₈ | 16x ¹ / ₈ | 13 ⁷ / ₈ | 24 | 7 ³ / ₈ | 465 |
| 12" | 19 ³ / ₄ | 20 ¹ / ₂ | 17 ³ / ₄ | 15 | 2 | 16x ¹ / ₄ | 15 ¹ / ₂ | 30 | 10 | 800 |



Applicable Standards

Shell Wall Thickness: ANSI B16.34
 Face-to-Face: ANSI B16.10
 Flange Dimensions: ANSI B16.5

Tests

Class 150 Shell: 425 psi Seat: 80 psi Air* **Class 300** Shell: 1125 psi Seat: 80 psi Air*

*Optional high pressure test per API 598 available upon request

Features

- Blow-out Proof Stem
- Anti-static Grounding
- Adjustable Stem Packing Gland

Note: Fire Safe Design Available upon request.

Note: Gear operators are recommended for 8" and larger valves

WILLIAM E.



WILLIAMS

VALVE CORPORATION

38-52 Review Avenue
 Long Island City, NY 11101
 718-392-1660 1-800-221-1115 FAX: 718-729-5106

Part Material

| | |
|---------------|---------------------|
| 1 Body | ASTM A351 CF8 CF8M |
| 2 Retainer | ASTM A351 CF8 CF8M |
| 3 Ball | ASTM A351 CF8 CF8M |
| 4 Stem | ASTM A182 F304 F316 |
| 5 Cover | ASTM A351 CF8 CF8M |
| 6 Lever Boss | ASTM A351 CF8 |
| 7 Lever | ASTM A120 F(PIPE) |
| 8 Seat | Reinforced Teflon |
| 9 Gland Ring | ASTM A182 F304 F316 |
| 10 Gland Bolt | ASTM A276 304 |
| 11 Joint Bolt | ASTM A276 304 |
| 12 Washer | ASTM A276 304 |
| 13 Washer | Teflon |
| 14 Packing | Teflon |
| 15 Gasket | Teflon |

Chemical Properties

| | 316-S.S. | 304-S.S. | 316L-S.S. | 304L-S.S. | ALLOY-20 | 347-S.S. | HASTELOY-B | HASTELOY-C |
|------------------|-----------------|-----------------|------------------|------------------|-----------------|-----------------|-------------------|-------------------|
| ASTM STD | A-351 | A-351 | A-351 | A-351 | A-351 | A-351 | A-494 | A-494 |
| GRADE | CF8M | CF8 | CF3M | CF3 | CN7M | CF8C | N-12Mn | CW-12M |
| C% MAX. | 0.08 | 0.08 | 0.03 | 0.03 | 0.07 | 0.08 | 0.12 | .12 |
| MN % | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.00 | 1.0 |
| P% MAX. | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.040 | — |
| S% MAX. | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.030 | — |
| NI % | 9.00-12.0 | 8.00-11.0 | 9.00-13.0 | 8.00-12.0 | 27.5-30.5 | 9.0-12.0 | BAL | BAL |
| CR % | 18.0-21.0 | 18.0-21.0 | 17.0-21.0 | 17.0-21.0 | 19.0-22.0 | 18.0-21.0 | 1.00 | 15.5-17.5 |
| MO % | 2.00-3.00 | — | 2.00-3.00 | — | 2.0-3.0 | 0.50 | 26.0-30.0 | 16.0-18.0 |
| CU | — | — | — | — | 3.0-4.0 | — | — | — |
| SI | 1.50 | 2.00 | 1.50 | 2.00 | 1.50 | 2.00 | 1.00 | 1.00 |
| FE | — | — | — | — | — | — | 4.0-6.0 | 4.5-7.0 |
| V | — | — | — | — | — | — | 0.20-0.60 | .20-.40 |
| CB % MAX. | — | — | — | — | — | 1.00 | — | — |
| TR % MAX. | — | — | — | — | — | — | — | 3.75-5.0 |

Physical Properties

| TENSILE STRENGTH | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|
| MIN. KIS | 70 | 70 | 70 | 70 | 62 | 70 | 76 | 76 |
| MPA | 485 | 485 | 485 | 485 | 425 | 485 | 525 | 525 |
| YIELD POINT | | | | | | | | |
| MIN. KIS | 30 | 28 | 30 | 30 | 30 | 30 | 40 | 40 |
| MPA | 205 | 195 | 205 | 205 | 205 | 205 | 275 | 275 |
| ELONGATION IN 2 INCH (50MM) % MIN. | | | | | | | | |
| | 30 | 35 | 30 | 35 | 35 | 30 | 6.0 | 4.0 |

Forging Materials

Chemical Properties

| | 11-13% CR | 304-S.S. | 316-S.S. | 304L-S.S. | 316L-S.S. | 321-S.S. |
|------------------|------------------|-----------------|-----------------|------------------|------------------|-----------------|
| ASTM STD | A-182 | A-182 | A-182 | A-182 | A-182 | A-182 |
| GRADE | F6A | F-304 | F-316 | F-304L | F-316L | F-321 |
| C% MAX. | 0.15 | 0.08 | 0.08 | 0.035 | 0.035 | 0.08 |
| SI% MAX. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MN % MAX. | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| P% MAX. | 0.04 | 0.04 | 0.04 | 0.040 | 0.040 | 0.030 |
| S% MAX. | 0.03 | 0.03 | 0.03 | 0.030 | 0.030 | 0.030 |
| NI % | 0.50 | 8.0-11.0 | 10.0-14.0 | 8.00-13.00 | 10.00-15.00 | 9.00-12.00 |
| CR % | 11.5-14.5 | 18.0-20.0 | 16.0-18.0 | 18.00-20.00 | 16.00-20.00 | 17.00 MIN. |
| MO % | — | — | 2.00-3.00 | — | 2.00-3.00 | — |
| TI% | — | — | — | — | — | C%X5-0.60 |
| FE% | BAL. | — | — | — | — | — |
| W% | — | — | — | — | — | — |
| CO% | — | — | — | — | — | — |

Physical Properties

| TENSILE STRENGTH | | | | | | |
|--|-----|-----|-----|-----|-----|-----|
| MIN. KIS | 85 | 75 | 75 | 70 | 70 | 75 |
| MPA | 586 | 517 | 517 | 483 | 483 | 517 |
| YIELD POINT | | | | | | |
| MIN. KIS | 55 | 30 | 30 | 25 | 25 | 30 |
| MPA | 379 | 207 | 207 | 172 | 172 | 207 |
| ELONGATION IN 2 INCH (50 MM) % MIN. | | | | | | |
| | 18 | 30 | 30 | 30 | 30 | 45 |
| REDUCTION OF AREA | | | | | | |
| | 35 | 50 | 50 | 50 | 50 | 50 |

Pressure-Temperature Ratings ANSI B16.34-1981

Materials: A351-CF8, A351-CF3, A182-F304

| VALVE CLASS | 150 | 300 | 400 | 600 | 900 | 1500 | 2500 |
|-------------------|--------------------------|-----|-----|------|------|------|------|
| Temperature in °F | WORKING PRESSURES IN PSI | | | | | | |
| - 20 to 100 | 275 | 720 | 960 | 1440 | 2160 | 3600 | 6000 |
| 200 | 235 | 600 | 800 | 1200 | 1800 | 3000 | 5000 |
| 300 | 205 | 530 | 705 | 1055 | 1585 | 2640 | 4400 |
| 400 | 180 | 470 | 630 | 940 | 1410 | 2350 | 3920 |
| 500 | 170 | 435 | 585 | 875 | 1310 | 2185 | 3640 |
| 600 | 140 | 415 | 555 | 830 | 1245 | 2075 | 3460 |
| 650 | 125 | 410 | 545 | 815 | 1225 | 2040 | 3400 |
| 700 | 110 | 405 | 540 | 805 | 1210 | 2015 | 3360 |
| 750 | 95 | 400 | 530 | 795 | 1195 | 1990 | 3320 |
| 800 | 80 | 395 | 525 | 790 | 1180 | 1970 | 3280 |
| 850 | 65 | 390 | 520 | 780 | 1165 | 1945 | 3240 |
| 900 | 50 | 385 | 510 | 770 | 1150 | 1920 | 3200 |
| 950 | 35 | 375 | 500 | 750 | 1125 | 1870 | 3120 |
| 1000 | 20 | 325 | 430 | 645 | 965 | 1610 | 2685 |
| 1050 | 20 | 310 | 410 | 620 | 925 | 1545 | 2570 |
| 1100 | 20 | 260 | 345 | 515 | 770 | 1285 | 2145 |
| 1150 | 20 | 195 | 260 | 390 | 585 | 980 | 1630 |
| 1200 | 20 | 155 | 205 | 310 | 465 | 770 | 1285 |
| 1250 | 20 | 110 | 145 | 220 | 330 | 550 | 915 |
| 1300 | 20 | 85 | 110 | 165 | 245 | 410 | 685 |
| 1350 | 20 | 60 | 85 | 125 | 185 | 310 | 515 |
| 1400 | 20 | 50 | 65 | 95 | 145 | 240 | 400 |
| 1450 | 15 | 35 | 45 | 70 | 105 | 170 | 285 |
| 1500 | 10 | 25 | 30 | 50 | 70 | 120 | 200 |

Materials: A351-CF8M, A351-CF3M, A182-F316

| VALVE CLASS | 150 | 300 | 400 | 600 | 900 | 1500 | 2500 |
|-------------------|--------------------------|-----|-----|------|------|------|------|
| Temperature in °F | WORKING PRESSURES IN PSI | | | | | | |
| - 20 to 100 | 275 | 720 | 960 | 1440 | 2160 | 3600 | 6000 |
| 200 | 240 | 620 | 825 | 1240 | 1860 | 3095 | 5160 |
| 300 | 215 | 560 | 745 | 1120 | 1680 | 2795 | 4660 |
| 400 | 195 | 515 | 685 | 1030 | 1540 | 2570 | 4280 |
| 500 | 170 | 480 | 635 | 955 | 1435 | 2390 | 3980 |
| 600 | 140 | 450 | 600 | 905 | 1355 | 2255 | 3760 |
| 650 | 125 | 445 | 590 | 890 | 1330 | 2220 | 3700 |
| 700 | 110 | 430 | 575 | 865 | 1295 | 2160 | 3600 |
| 750 | 95 | 425 | 565 | 845 | 1270 | 2110 | 3520 |
| 800 | 80 | 415 | 555 | 830 | 1245 | 2075 | 3460 |
| 850 | 65 | 405 | 540 | 810 | 1215 | 2030 | 3320 |
| 900 | 50 | 395 | 525 | 790 | 1180 | 1970 | 3280 |
| 950 | 30 | 385 | 515 | 775 | 1160 | 1930 | 3220 |
| 1000 | 20 | 365 | 485 | 725 | 1090 | 1820 | 3030 |
| 1050 | 20 | 360 | 480 | 720 | 1080 | 1800 | 3000 |
| 1100 | 20 | 325 | 430 | 645 | 965 | 1610 | 2685 |
| 1150 | 20 | 275 | 365 | 550 | 825 | 1370 | 2285 |
| 1200 | 20 | 205 | 275 | 410 | 620 | 1030 | 1715 |
| 1250 | 20 | 180 | 245 | 365 | 545 | 910 | 1515 |
| 1300 | 20 | 140 | 185 | 275 | 410 | 685 | 1145 |
| 1350 | 20 | 105 | 140 | 205 | 310 | 515 | 860 |
| 1400 | 20 | 75 | 100 | 150 | 225 | 380 | 630 |
| 1450 | 20 | 60 | 80 | 115 | 175 | 290 | 485 |
| 1500 | 10 | 40 | 55 | 85 | 125 | 205 | 345 |

Notes:

1. Pressure-Temperature rating may be affected by the type of packing and/or gasket material utilized.
2. A351-CF3 not to be used over 800°F.
3. A351-CF3M not to be used over 850°F.

LIGHT WALL (Standard API 603; ANSI B16.34)

| NOMINAL SIZE | RATINGS | | | | | | | | | | | |
|-----------------|---------|------|------|------|------|------|------|------|-------|------|-------|-------|
| | 150# | | 300# | | 600# | | 900# | | 1500# | | 2500# | |
| | INCH | MM | INCH | MM | INCH | MM | INCH | MM | INCH | MM | INCH | MM |
| 1/2 | 0.11 | 3.0 | 0.12 | 3.1 | 0.13 | 3.4 | 0.16 | 4.1 | 0.19 | 4.8 | 0.25 | 6.3 |
| 3/4 | 0.12 | 3.1 | 0.15 | 3.8 | 0.16 | 4.1 | 0.18 | 4.6 | 0.23 | 5.8 | 0.29 | 7.4 |
| 1 | 0.16 | 4.1 | 0.19 | 4.8 | 0.19 | 4.8 | 0.22 | 5.6 | 0.26 | 6.6 | 0.35 | 8.9 |
| 1 1/4 | 0.19 | 4.8 | 0.19 | 4.8 | 0.19 | 4.8 | 0.25 | 6.4 | 0.31 | 7.8 | 0.44 | 11.2 |
| 1 1/2 | 0.19 | 4.8 | 0.19 | 4.8 | 0.22 | 5.6 | 0.28 | 7.1 | 0.38 | 9.6 | 0.50 | 12.7 |
| 2 | 0.22 | 5.6 | 0.25 | 6.4 | 0.25 | 6.4 | 0.31 | 7.9 | 0.44 | 11.2 | 0.62 | 15.8 |
| 2 1/2 | 0.22 | 5.6 | 0.25 | 6.4 | 0.28 | 7.1 | 0.34 | 8.6 | 0.50 | 12.7 | 0.75 | 19.0 |
| 3 | 0.22 | 5.6 | 0.28 | 7.1 | 0.31 | 7.9 | 0.41 | 10.4 | 0.62 | 15.7 | 0.88 | 22.4 |
| 4 | 0.25 | 6.4 | 0.31 | 7.8 | 0.38 | 9.6 | 0.50 | 12.7 | 0.75 | 19.0 | 1.09 | 27.7 |
| 5 | 0.28 | 7.1 | 0.38 | 9.6 | 0.44 | 11.2 | 0.59 | 15.0 | 0.91 | 23.1 | 1.34 | 34.0 |
| 6 | 0.28 | 7.1 | 0.38 | 9.6 | 0.50 | 12.7 | 0.72 | 18.3 | 1.09 | 27.7 | 1.59 | 40.4 |
| 8 | 0.31 | 8.1 | 0.44 | 11.2 | 0.62 | 15.8 | 0.88 | 22.4 | 1.41 | 35.8 | 2.06 | 52.3 |
| 10 | 0.34 | 8.6 | 0.50 | 12.7 | 0.75 | 19.0 | 1.06 | 26.9 | 1.72 | 43.7 | 2.59 | 65.8 |
| 12 | 0.38 | 9.6 | 0.56 | 14.2 | 0.91 | 23.1 | 1.25 | 31.8 | 2.00 | 50.8 | 3.03 | 77.0 |
| 14 | 0.41 | 10.4 | 0.62 | 15.8 | 0.97 | 24.6 | 1.38 | 35.0 | 2.19 | 55.6 | 3.34 | 84.8 |
| 16 | 0.44 | 11.2 | 0.69 | 17.5 | 1.09 | 27.7 | 1.56 | 39.6 | 2.50 | 63.5 | 3.81 | 96.8 |
| 18 | 0.47 | 11.9 | 0.75 | 19.0 | 1.22 | 31.0 | 1.75 | 44.4 | 2.81 | 71.4 | 4.27 | 108.5 |
| 20 | 0.50 | 12.7 | 0.81 | 20.6 | 1.34 | 34.0 | 1.91 | 48.5 | 3.12 | 79.2 | 4.69 | 119.1 |
| 24 | 0.57 | 14.5 | 0.94 | 23.9 | 1.59 | 40.4 | 2.28 | 57.9 | 3.72 | 94.5 | 5.72 | 145.3 |

HEAVY WALL (Standard API 600)

| NOMINAL SIZE | RATINGS | | | | | | | | | | | |
|-----------------|---------|------|------|------|------|------|------|------|-------|-------|-------|------|
| | 150# | | 300# | | 600# | | 900# | | 1500# | | 2500# | |
| | INCH | MM | INCH | MM | INCH | MM | INCH | MM | INCH | MM | INCH | MM |
| 1/2 | — | — | — | — | — | — | — | — | — | — | — | — |
| 3/4 | — | — | — | — | — | — | — | — | — | — | — | — |
| 1 | 0.25 | 6.4 | 0.25 | 6.4 | 0.31 | 7.9 | 0.50 | 12.7 | 0.50 | 12.7 | 0.59 | 15.0 |
| 1 1/4 | 0.25 | 6.4 | 0.25 | 6.4 | 0.34 | 8.6 | 0.56 | 14.2 | 0.56 | 14.2 | 0.69 | 17.5 |
| 1 1/2 | 0.25 | 6.4 | 0.31 | 7.9 | 0.37 | 9.4 | 0.59 | 15.0 | 0.59 | 15.0 | 0.75 | 19.1 |
| 2 | 0.34 | 8.6 | 0.38 | 9.7 | 0.44 | 11.2 | 0.75 | 19.1 | 0.75 | 19.1 | 0.88 | 22.4 |
| 2 1/2 | 0.38 | 9.7 | 0.44 | 11.2 | 0.47 | 11.9 | 0.88 | 22.4 | 0.88 | 22.4 | 1.00 | 25.4 |
| 3 | 0.41 | 10.4 | 0.47 | 11.9 | 0.50 | 12.7 | 0.75 | 19.1 | 0.94 | 23.9 | 1.19 | 30.2 |
| 4 | 0.44 | 11.2 | 0.50 | 12.7 | 0.63 | 16.0 | 0.84 | 21.3 | 1.13 | 28.7 | 1.41 | 35.8 |
| 5 | — | — | — | — | — | — | — | — | — | — | — | — |
| 6 | 0.47 | 11.9 | 0.63 | 16.0 | 0.75 | 19.1 | 1.03 | 26.2 | 1.50 | 38.1 | 1.91 | 48.5 |
| 8 | 0.50 | 12.7 | 0.69 | 17.5 | 1.00 | 25.4 | 1.25 | 31.8 | 1.88 | 47.8 | 2.44 | 62.0 |
| 10 | 0.56 | 14.2 | 0.75 | 19.1 | 1.13 | 28.7 | 1.44 | 36.6 | 2.25 | 57.2 | 2.66 | 67.6 |
| 12 | 0.63 | 16.0 | 0.81 | 20.6 | 1.25 | 31.8 | 1.66 | 42.2 | 2.63 | 66.8 | 3.41 | 86.6 |
| 14 | 0.66 | 16.8 | 0.88 | 22.4 | 1.38 | 35.1 | 1.81 | 46.0 | 2.75 | 69.9 | — | — |
| 16 | 0.69 | 17.5 | 0.94 | 23.9 | 1.50 | 38.1 | 2.06 | 52.3 | 3.13 | 79.5 | — | — |
| 18 | 0.72 | 18.3 | 1.00 | 25.4 | 1.63 | 41.4 | 2.25 | 57.2 | 3.50 | 88.9 | — | — |
| 20 | 0.75 | 19.1 | 1.06 | 26.9 | 1.75 | 44.5 | 2.50 | 63.5 | 3.88 | 98.6 | — | — |
| 24 | 0.81 | 20.6 | 1.19 | 30.2 | 2.00 | 50.8 | 2.88 | 73.2 | 4.50 | 114.3 | — | — |

Stainless Steel Pipe Schedule ANSI B36.10

| NOMINAL SIZE | NOMINAL O.D. | SCH 5 | | SCH 10 | | SCH 40 | | SCH 80 | |
|-----------------|-----------------|-------|-------|--------|-------|--------|-------|--------|-------|
| | | MM | INCH | MM | INCH | MM | INCH | MM | INCH |
| 1/8 | 0.405 | — | — | 1.24 | 0.049 | 1.73 | 0.068 | 2.41 | 0.095 |
| 1/4 | 0.540 | — | — | 1.65 | 0.065 | 2.24 | 0.088 | 3.02 | 0.119 |
| 3/8 | 0.675 | — | — | 1.65 | 0.065 | 2.31 | 0.091 | 3.20 | 0.126 |
| 1/2 | 0.840 | 1.65 | 0.065 | 2.11 | 0.083 | 2.77 | 0.109 | 3.73 | 0.147 |
| 3/4 | 1.050 | 1.65 | 0.065 | 2.11 | 0.083 | 2.87 | 0.113 | 3.91 | 0.154 |
| 1 | 1.315 | 1.65 | 0.065 | 2.77 | 0.109 | 3.38 | 0.133 | 4.55 | 0.179 |
| 1 1/4 | 1.660 | 1.65 | 0.065 | 2.77 | 0.109 | 3.56 | 0.140 | 4.85 | 0.191 |
| 1 1/2 | 1.900 | 1.65 | 0.065 | 2.77 | 0.109 | 3.68 | 0.145 | 5.08 | 0.200 |
| 2 | 2.375 | 1.65 | 0.065 | 2.77 | 0.109 | 3.91 | 0.154 | 5.54 | 0.218 |
| 2 1/2 | 2.875 | 2.11 | 0.083 | 3.05 | 0.120 | 5.16 | 0.203 | 7.01 | 0.276 |
| 3 | 3.500 | 2.11 | 0.083 | 3.05 | 0.120 | 5.49 | 0.216 | 7.62 | 0.300 |
| 3 1/2 | 4.000 | 2.11 | 0.083 | 3.05 | 0.120 | 5.74 | 0.226 | 8.08 | 0.318 |
| 4 | 4.500 | 2.11 | 0.083 | 3.05 | 0.120 | 6.02 | 0.237 | 8.56 | 0.337 |
| 5 | 5.563 | 2.77 | 0.109 | 3.40 | 0.134 | 6.55 | 0.258 | 9.53 | 0.375 |
| 6 | 6.625 | 2.77 | 0.109 | 3.40 | 0.134 | 7.11 | 0.280 | 10.97 | 0.432 |
| 8 | 8.625 | 2.77 | 0.109 | 3.76 | 0.148 | 8.18 | 0.322 | 12.70 | 0.500 |
| 10 | 10.750 | 3.40 | 0.134 | 4.19 | 0.165 | 9.27 | 0.365 | 12.70 | 0.500 |
| 12 | 12.750 | 3.96 | 0.156 | 4.57 | 0.180 | 9.53 | 0.375 | 12.70 | 0.500 |
| 14 | 14.000 | 3.96 | 0.156 | 4.78 | 0.188 | — | — | — | — |
| 16 | 16.000 | 4.19 | 0.165 | 4.78 | 0.188 | — | — | — | — |
| 18 | 18.000 | 4.19 | 0.165 | 4.78 | 0.188 | — | — | — | — |
| 20 | 20.000 | 4.78 | 0.188 | 5.54 | 0.218 | — | — | — | — |
| 22 | 22.000 | 4.78 | 0.188 | 5.54 | 0.218 | — | — | — | — |
| 24 | 24.000 | 5.54 | 0.218 | 6.35 | 0.250 | — | — | — | — |
| 30 | 30.000 | 6.35 | 0.250 | 7.92 | 0.312 | — | — | — | — |

Special Features

Williams offers the following valve modifications and engineering services.

Engineering Services

- Diagrams and Drawings
- Certifications
- Mill Test Reports
- Mil. Spec.

Modifications

- Cryogenic (Extended Bonnet)
- Stop Check
- By-Passes and Drains
- Lever & Weight
- Quick Opening
- Nace-MR-01-75
- Special Packing and Gaskets
- Teflon Insert in Disc
- Teflon Insert in Rings
- Special Ends & Bores
- Limit Switches
- Electric Motor Operators
- Pneumatic Actuators
- Manual Gears
- Renewable Seat Rings

Special Trims

- 304 SS
- 410 SS
- Stellite
- Monel
- A-20
- Hastelloy

Warranty

Seller warrants the material to be free of defects in material and workmanship, under normal use and proper operation, for a period of one year from date of delivery to a common carrier for shipment to buyer. Seller's obligation is limited to: (1) Repair of the material, or (2) replacement of any part or parts proven defective in material or workmanship, or (3) refund of the purchase price. The choice of said remedies shall be determined by seller in its sole discretion.

All implied warranties, including the implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed and excluded. The within limited warranty is exclusive and in lieu of all other warranties, guarantees, agreements and similar obligations of seller. In no event shall seller be liable for consequential or incidental damages.

Corrosion Resistance Chart

Information provided is offered as guidelines for the selection of valve materials and various flow medias not specific recommendations for individual applications. In addition to utilizing the corrosion data chart; temperatures, pressures, surges (or upset conditions) concentration aeration, velocities, viscosities, contamination influences, chemical reactions and external conditions (re: atmosphere) must be considered. The data provided will be helpful in evaluation of valve materials, but, final selection should be evaluated based on all specific requirements and criteria of the application.

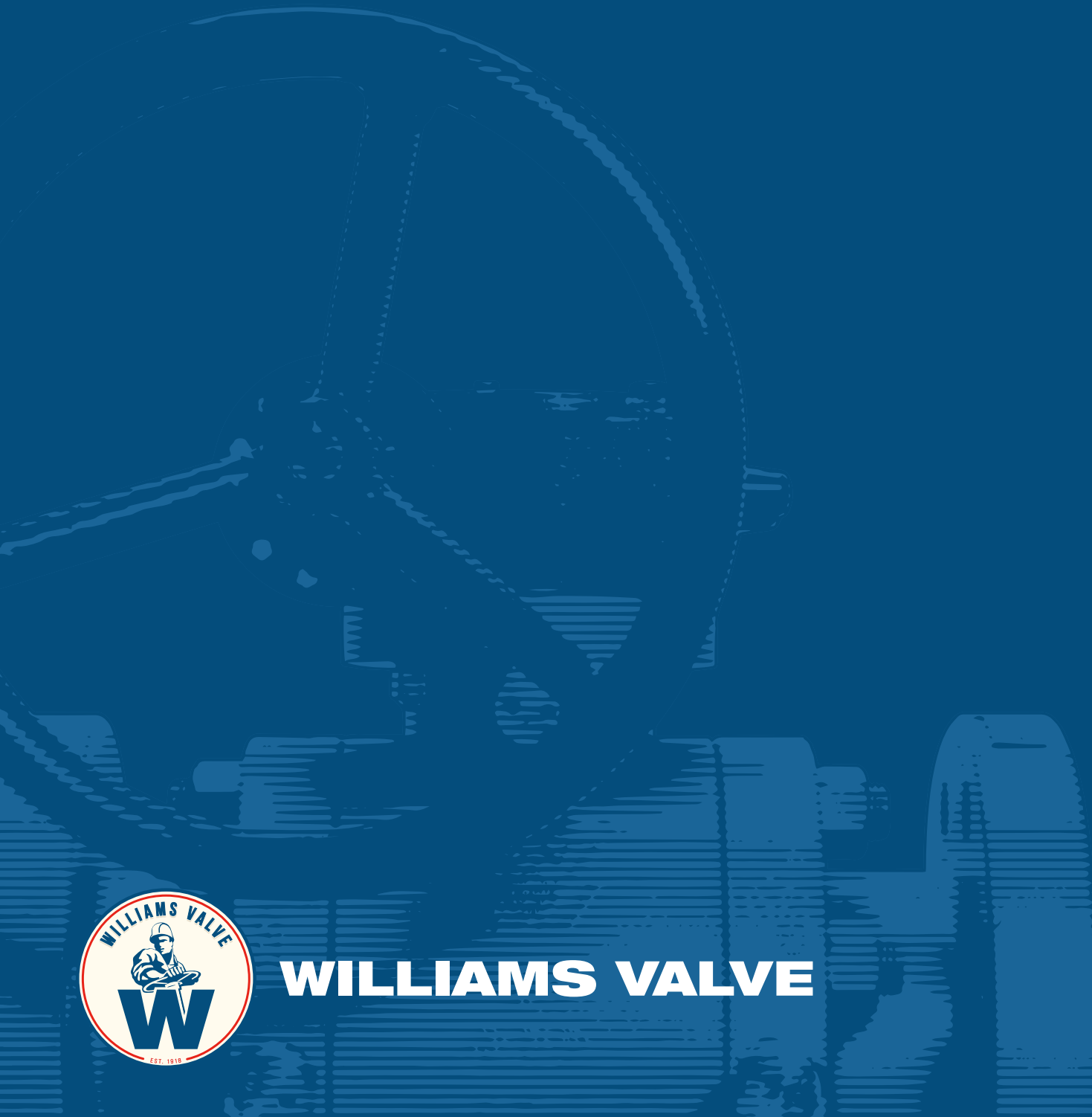
| MEDIA | 316SS RATING | MEDIA | 316SS RATING | MEDIA | 316SS RATING | MEDIA | 316SS RATING |
|----------------------------|--------------|----------------------------|--------------|----------------------------|--------------|---------------------------------------|--------------|
| Acetaldehyde | A | Carbon Dioxide (Dry) | A | Hydrogen Peroxide | A | Sodium Bromide (10%) | B |
| Acetic Acid 10% | A | Carbon Dioxide (Wet) | A | Hydrogen Sulfide (Dry) | A | Sodium Carbonate | A |
| Acetic Acid > 10% | A | Carbon Monoxide | A | Hydrogen Sulfide (Wet) | A | Sodium Chlorate | A |
| Acetic Acid < 50% Boiling | A | Carbon Tetrachloride (Dry) | A | Hypo (Sodium Thiosulfate) | A | Sodium Chloride | B |
| Acetic Acid > 50% Boiling | B | Carbon Tetrachloride (Wet) | B | Kerosene | A | Sodium Dichromate | A |
| Acetic Acid Vapors (Hot) | B | Carbolic Acid | A | Lactic Acid (Concentrated) | A | Sodium Fluoride | B |
| Acetic Anhydride | A | Caustic Potash | A | Lactic Acid (Dilute) | A | Sodium Hydroxide < 50% | A |
| Acetone | A | Caustic Soda | A | Linoleic Acid | A | Sodium Hydroxide (50 to 70%) | B |
| Acetylene (Dry) | A | Chlorine (Dry) | B | Linseed Oil | * | Sodium Hypochloride | C |
| Air | A | Chlorine (Wet) | C | Lubricating Oil | A | Sodium Nitrate | A |
| Alcohol, Amyl | A | Chromic Acid < 50% | B | Magnesium Chloride | B | Sodium Nitrate | A |
| Alcohol, Butyl | A | Citric Acid | A | Magnesium Hydroxide | A | Sodium Peroxide Solution | A |
| Alcohol, Ethyl | A | Citric Acid Solutions | B | Magnesium Nitrate | A | Sodium Phosphate (DI Basic) | A |
| Alcohol, Methyl | A | Copper Chloride (Dry) | — | Magnesium Sulfate | A | Sodium Phosphate (Mono Basic) | A |
| Aluminum Chloride Solution | C | Copper Nitrate | A | Maleic Acid | A | Sodium Phosphate (Tri Basic) | A |
| Aluminum Hydroxide | A | Copper Plating Solution | A | Mercury | A | Sodium Silicate | A |
| Aluminum (Sulfate Alum.) | A | Copper Sulfate | A | Methyl Alcohol | A | Sodium Sulfate (Salt Cake) | A |
| Ammonia (Anhydrous) | A | Corn Oil | * | Methyl Chloride (Dry) | A | Sodium Sulfide | A |
| Ammonium Bicarbonate | A | Cotton Seed Oil | * | Methyl Ethyl Ketone | A | Sodium Sulfide | A |
| Ammonium Bisulfite | A | Cresote (Crude) | A | Monochloroacetic Acid | C | Sodium Thiosulfate (Hypo) | A |
| Ammonium Carbonate | A | Cyanide Plating Solution | A | Monochlorobenzene (Dry) | A | Stannic Chloride | C |
| Ammonium Chloride | B | Dichloroethane (Dry) | A | Muriatic Acid | C | Stannous Chloride | A |
| Ammonium Hydroxide | A | Disodium Phosphate | A | Naphtha | A | Starch | A |
| Ammonium Nitrate | A | Dowtherm "A" | A | Natural Gas | A | Steam | A |
| Ammon. Phos. (DI-Basic) | A | Ether | A | Nickel Chloride | B | Stearic Acid | A |
| Ammon. Phos. (Mono Basic) | A | Ethyl Acetate | A | Nickel Nitrate | A | Steep Water (Corn Products) | A |
| Ammon. Phos. (Tri-Basic) | A | Ethyl Alcohol | A | Nickel Sulfate | A | Sulfur | A |
| Ammonium Sulfate (Neutral) | A | Ethyl Chloride (Dry) | A | Nitric Acid (Concentrate) | A | Sulfur Dioxide (Dry) | A |
| Ammonium Sulfite | A | Ethylene Dichloride (Dry) | A | Nitric Acid (Dilute) | A | Sulfur Dioxide (Wet) | A |
| Aniline | A | Ethylene Glycol | A | Nitrobenzene | A | Sulfuric Acid < 10% (70°F) | B |
| Aromatic Hydrocarbons | A | Ethylene Oxide | A | Oleic Acid | A | Sulfuric Acid 10% to 80% | C |
| Arsenic Acid | A | Fatty Acids | A | Oxalic Acid | B | Sulfuric Acid 80% to 95% | B |
| Barium Carbonate | A | Ferric Chloride | C | Oxygen | A | Sulfuric Acid 95% to 100% | A |
| Barium Chloride | A | Ferric Nitrate | B | Palmitic Acid | A | Sulfuric Acid 100% | A |
| Barium Hydroxide | A | Ferric Sulphate | A | Pentane | A | Sulfuric Acid 101% & over | A |
| Barium Sulfate | A | Ferrous Chloride | C | Perchlorethylene | A | Sulfurous Acid | A |
| Barium Sulfide | A | Ferrous Sulfate | A | Phenol | A | Tannic Acid (Tannin) | A |
| Beer | A | Flourine Gas (Dry) | A | Phosphoric Acid < 25% | A | Tartaric Acid | A |
| Beet Sugar Liquor | A | Formaldehyde | A | Phosphoric Acid 25-50% | A | Toluol or Toluene | A |
| Benzene (Benzol) | A | Formic Acid | A | Phosphoric Acid > 50% | A | Trichloroethylene | B |
| Black (Liquor) | A | Freon Gas (Dry) F12 | A | Pictric Acid (Aqueous) | A | Triethanol Amine | A |
| Borax (Sodium Borate) | A | Freon Gas (Wet) F12 | A | Potassium Bicarbonate | A | Turpentine | A |
| Boric Acid (Boracic Acid) | A | Fruit Juices | A | Potassium Bisulfite | A | Urea | A |
| Brine | A | Furfural | A | Potassium Carbonate | A | Urea Ammonia Liquor | A |
| Bromine (Dry) | C | Gallic Acid | A | Potassium Chlorate | A | Varnish | A |
| Bromine Solution | C | Gas, Natural | A | Potassium Chloride | B | Vegetable Oils (w/Acid) | A |
| Butadiene | A | Gasoline (Refined) | A | Potassium Chromate | A | Vegetable Oils (Acid Free) | A |
| Butane | A | Gasoline (Sour) | A | Potassium Dichromate | A | Vinegar | A |
| Butanol | A | Glue | A | Potassium Hydroxide < 50% | A | Vinyl Chloride | A |
| Butyl Acetate | A | Glycerine or Glycerol | A | Potassium Phosphate | A | Water, Acid Mine (w/Oxidizing Salts) | A |
| Butyl Alcohol | A | Glycols | A | Potassium Sulfate | A | Water, Acid Mine (No Oxidizing Salts) | C |
| Butyric Acid | A | Glycols | A | Potassium Triphosphate | A | Water, Brackish | A |
| Calcium Bisulfite | A | Green Liquors | A | Propane Gas | A | Water, Fresh Boiler Feed | A |
| Calcium Carbonate | A | Heptane | A | Pyrogallic Acid | A | Water, Distilled (Lab. Grade) | A |
| Calcium Chloride | B | Hexane | A | Sea Water | A | Water, Distilled (Return Cond.) | A |
| Calcium Hydroxide | A | Hydrobromic Acid | C | Silver Nitrate | B | Water, Salt Sea Water | A |
| Calcium Hypochlorite | C | Hydrocarbonis (Aromatic) | A | Soda, Ash | A | Whiskey & Wines | A |
| Calcium Sulfate | A | Hydrochloric Acid | C | Sodium Acetate | A | White Liquor | A |
| Cane Sugar Liquor | A | Hydrocyanic Acid (Dry) | A | Sodium Aluminate | A | Xylene | A |
| Carbolic Acid—Phenol | A | Hydrofluoric Acid < 80% | C | Sodium Bicarbonate | A | Zinc Chloride | B |
| Carbonated Water | A | Hydrofluoric Acid > 80% | C | Sodium Bisulfite | A | Zinc Sulfate | A |
| Carbon Bisulfide | A | Hydrogen Gas | A | Sodium Borate | A | See Vegetable Oils * | |

SYMBOLS: A Recommended for service

B Satisfactory

C Not recommended without additional information

Because of a policy of continuous product improvement, William E. Williams Valve Corporation reserves the right to change designs, materials or specifications without notice.



WILLIAMS VALVE

WILLIAMS VALVE

38-52 Review Ave | Long Island City, NY 11101

Phone: 1.800.221.1115 | Fax: 718.729.5106 | Email: Wew@williamsvalve.com

WILLIAMSVALVE.COM