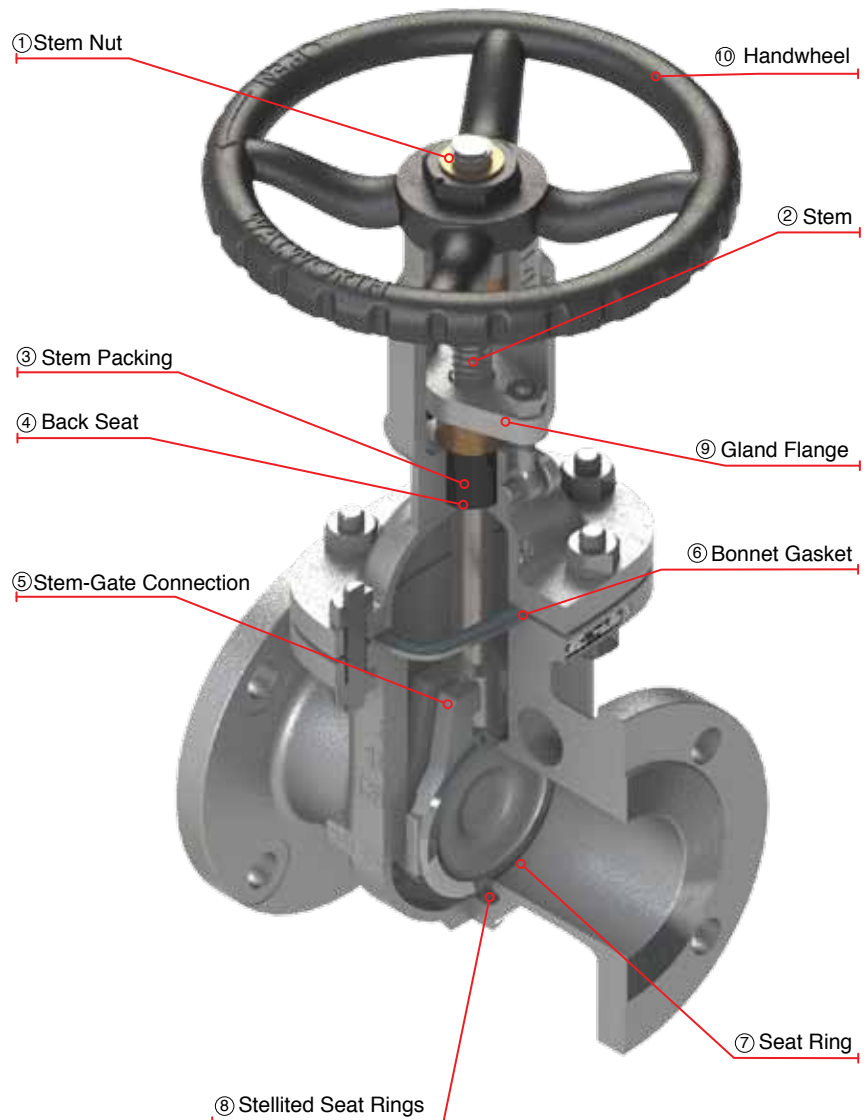


API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES, CLASS 150 CAST STEEL GATE VALVES, WITH RISING STEM AND OUTSIDE SCREW AND YOKE (OS&Y)

DESIGN FEATURES

- Gate valves design in accordance with API-603
- Standard manufacturing wedge flexible wedge
- Flange dimensions in accordance with ASME B16.5
- Gate and Globe Valves for cryogenic service with gas column in accordance with BS-6364 upon request
- Hand-wheel, impact hand-wheel, chain-wheel, electric, pneumatic or hydraulic actuation as per customer requirements
- By-Pass, lantern rings, grease injectors, special connections, etc.
- Low fugitive emissions control
- NACE service either MR-01-75 or MR-01-03
- Test in accordance with API-598

- ① Stem Nut, replaceable in line to avoid shut down of pipeline process.
- ② Rising stem with precision ACME single or double thread for quick operation. Surface finish suitable to seal properly to obtain low fugitive emissions.
- ③ Stem Packing is designed for optimum control of fugitive emissions leakage to the atmosphere. The ultra-low emission leakage rate is assured by the polished finish stem sealing area, the reduced diametrical clearances, and the stem straightness control special designed packing. Live load packing arrangement available upon request.
- ④ Integral backseat designed to relieve back pressure on the stem packing when fully seated. Replacing stem packing under pressure is not recommended. Hard faced backseat available for severe service as per customer requirements.
- ⑤ Stem-Gate connection designed so that under severe applied loads (stuck gate), the stem will fail outside of the stuffing box pressure boundary.
- ⑥ Body to Bonnet joint is designed to apply a uniform load to the gasket to assure a leak proof seal.
- ⑦ Integral seat rings designed to provide a bubble tight joint.
- ⑧ Stellite 6 overlay on wedge Seating Surfaces provide increased resistance to wear, abrasion and erosion.
- ⑨ Two-piece arrangement gland flange and stem packing bushing for self-alignment to avoid stem damage.
- ⑩ Gate valves supplied handwheel operated as standard.



API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES, CLASS 150 (INTEGRAL YOKE)

DESIGN FEATURES:

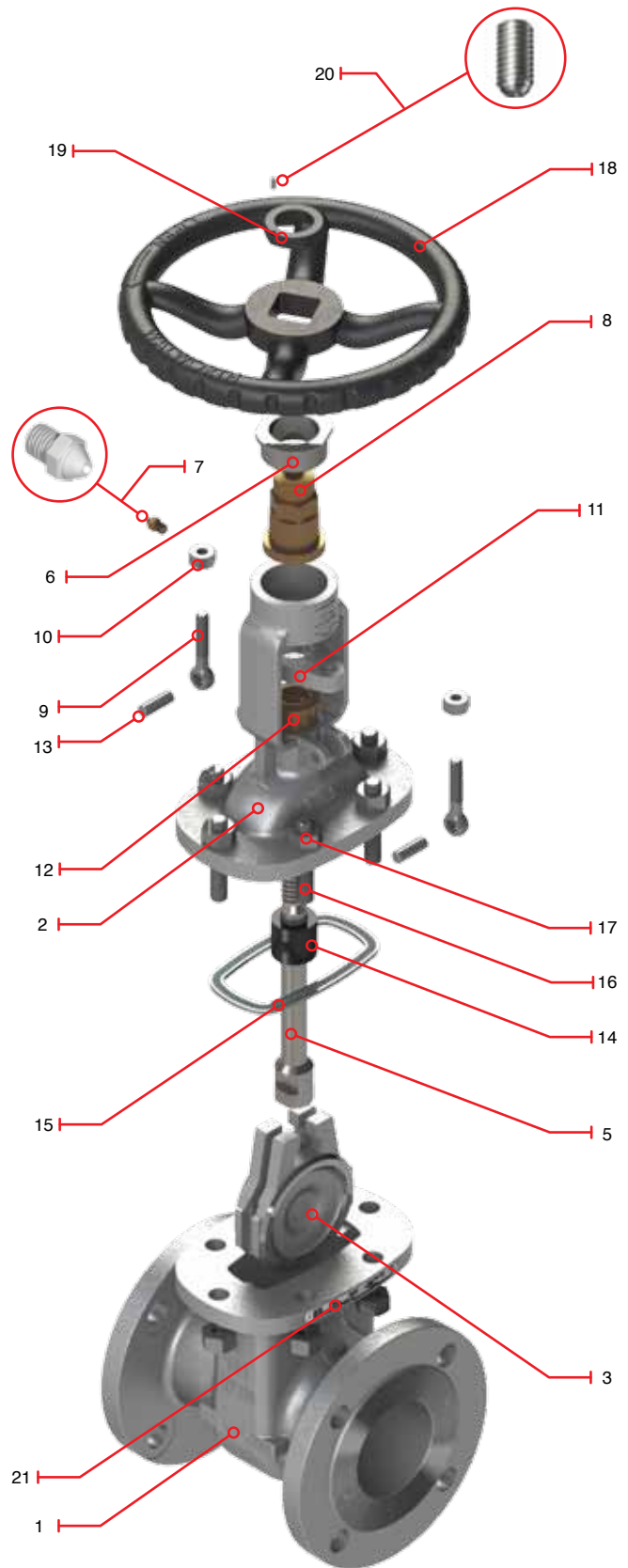
- Design in accordance with API - 603
- Outside Screw & Yoke (OS&Y)
- Flexible Wedge
- Handwheel operated as standard
- Integral Yoke
- Flange dimensions as per ASME B16.5
- End to end dimension as per ASME B16.10
- WE dimensions as per ASME B16.25

| Catalog Figure No. | ID Plant Figure No. | Type of Ends |
|--------------------|---------------------|---------------------|
| S5202RF | S5202F | Flanged Raised Face |
| S5202RTJ | S5202RJ | Ring Type Joint |
| S5202WE | S5202WE | Buttweld |

Regular Bill of Materials

| No. | Description | Standard Material CF8M Trim 3HF |
|-----|----------------------|--|
| 1 | Body | ASTM A 351 GR CF8M |
| 2 | Bonnet | ASTM A 351 GR CF8M |
| 3 | Wedge | ASTM A 351 GR CF8M + ST 6 |
| *4 | Seat Ring | Integral Seat Ring |
| 5 | Stem | ASTM A 276 Type 316 |
| 6 | Stem Nut Retainer | ASTM A182 F304 |
| 7 | Grease Fitting | Commercial Steel |
| 8 | Stem Nut | ASTM B 148 UNS C95600 |
| 9 | Eyebolt | ASTM A193 B8 |
| 10 | Eyebolt Nut | ASTM A 194 Gr 8 |
| 11 | Gland Flange | ASTM A182 F304 |
| 12 | Packing Bushing | ASTM A182 F316 |
| 13 | Eyebolt Pin | Alloy Steel |
| 14 | Stem Packing | Flexible graphite intermediate rings / Anti-extrusion rings on the top and bottom sides of the packing chamber |
| 15 | Bonnet Gasket | Graphite/Stainless Steel 316 |
| 16 | Bonnet Stud | ASTM A 193 GR B8 |
| 17 | Bonnet Stud Nut | ASTM A 194 GR 8 |
| 18 | Handwheel | Commercial |
| 19 | Handwheel Nut | ASTM A 108 GR 1020 |
| 20 | Oppressor | Alloy Steel |
| 21 | Identification Plate | Stainless Steel |

*Not shown



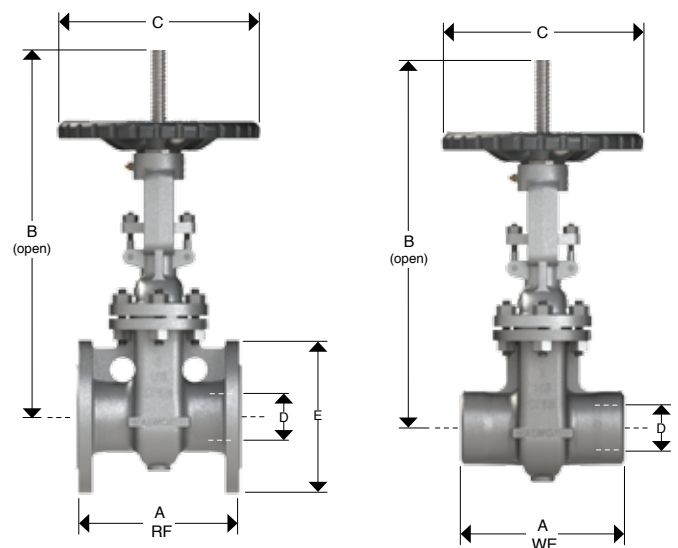
API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES, CLASS 150 (INTEGRAL YOKE)

DESIGN FEATURES:

- Design in accordance with API - 603
- Outside screw & yoke (OS&Y)
- Flexible wedge
- Handwheel operated as standard
- Integral yoke
- Flange dimensions as per ASME B16.5
- End to end dimension as per ASME B16.10
- WE dimensions as per ASME B16.25



| Catalog Figure No. | ID Plant Figure No. | Type of Ends |
|--------------------|---------------------|---------------------|
| S5202RF | S5202F | Flanged Raised Face |
| S5202RTJ | S5202RJ | Ring Type Joint |
| S5202WE | S5202WE | Buttweld |



Dimensions and Weights

| D Nominal Diameter | mm | 51 | 64 | 76 | 102 | 152 | 203 | 254 | 305 |
|--------------------------|----|------|------|-------|-------|-------|-------|-------|-------|
| | in | 2 | 2.5 | 3 | 4 | 6 | 8 | 10 | 12 |
| A (RF and RTJ) | mm | 178 | 191 | 203 | 229 | 267 | 292 | 330 | 356 |
| | in | 7 | 7.5 | 8 | 9 | 10.5 | 11.5 | 13 | 14 |
| A (WE) | mm | 216 | 241 | 283 | 305 | 403 | 419 | 457 | 502 |
| | in | 8.5 | 9.5 | 11.13 | 12 | 15.88 | 16.5 | 18 | 19.75 |
| B (Open) | mm | 350 | 355 | 373 | 571 | 740 | 946 | 1130 | 1332 |
| | in | 13.8 | 14 | 14.7 | 22.5 | 29.1 | 37.2 | 44.5 | 52.4 |
| C | mm | 200 | 200 | 250 | 250 | 300 | 350 | 400 | 450 |
| | in | 7.9 | 7.9 | 9.8 | 9.8 | 11.8 | 13.8 | 15.7 | 17.7 |
| E | mm | 152 | 178 | 191 | 229 | 279 | 343 | 406 | 483 |
| | in | 6 | 7 | 7.5 | 9 | 11 | 13.5 | 16 | 19 |
| Weight | Kg | 13 | 18 | 22 | 32 | 53 | 88 | 135 | 204 |
| S5202RF | lb | 28.7 | 39.7 | 48.5 | 70.56 | 116.9 | 194 | 297.7 | 449.8 |
| Weight | Kg | 9 | 15 | 18 | 28 | 45 | 72 | 108 | 180 |
| S5202WE | lb | 19.8 | 33.1 | 39.7 | 61.7 | 99.2 | 158.8 | 238.1 | 396.9 |

API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES, CLASS 150 (INDEPENDENT YOKE)

DESIGN FEATURES:

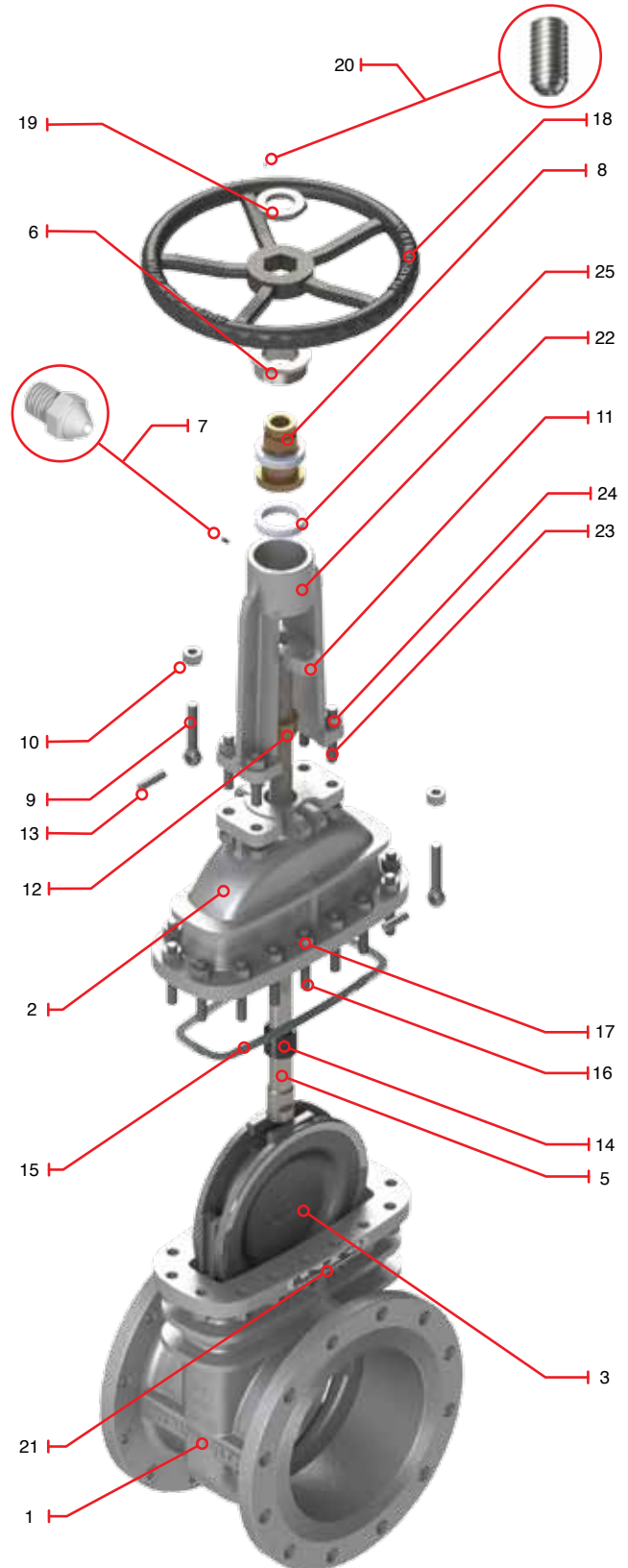
- Design in accordance with API - 603
- Outside screw & yoke (OS&Y)
- Flexible wedge
- Handwheel operated as standard
- Independent yoke
- Flange dimensions as per ASME B16.5
- End to end dimension as per ASME B16.10
- WE dimensions as per ASME B16.25

| Catalog Figure No. | ID Plant Figure No. | Type of Ends |
|--------------------|---------------------|---------------------|
| S5202RF | S5202F | Flanged Raised Face |
| S5202RTJ | S5202RJ | Ring Type Joint |
| S5202WE | S5202WE | Buttweld |

Regular Bill of Materials

| No. | Description | Standard Material CF8M Trim 3HF |
|-----|----------------------|--|
| 1 | Body | ASTM A 351 GR CF8M |
| 2 | Bonnet | ASTM A 351 GR CF8M |
| 3 | Wedge | ASTM A 351 GR CF8M + ST 6 |
| *4 | Seat Ring | Integral Seat Ring |
| 5 | Stem | ASTM A 276 Type 316 |
| 6 | Stem Nut Retainer | ASTM A182 F304 |
| 7 | Grease Fitting | Commercial Steel |
| 8 | Stem Nut | ASTM B 148 UNS C95600 |
| 9 | Eyebolt | ASTM A193 B8 |
| 10 | Eyebolt Nut | ASTM A 194 Gr 8 |
| 11 | Gland Flange | ASTM A182 F304 |
| 12 | Packing Bushing | ASTM A182 F316 |
| 13 | Eyebolt Pin | Alloy Steel |
| 14 | Stem Packing | Flexible graphite intermediate rings / Anti-extrusion rings on the top and bottom sides of the packing chamber |
| 15 | Bonnet Gasket | Graphite/Stainless 316 |
| 16 | Bonnet Stud | ASTM A 193 GR B8M |
| 17 | Bonnet Stud Nut | ASTM A 194 GR 8M |
| 18 | Handwheel | Commercial |
| 19 | Handwheel Nut | ASTM A 108 GR 1020 |
| 20 | Opressor | Alloy Steel |
| 21 | Identification Plate | Stainless Steel |
| 22 | Yoke | ASTM A 351 GR CF8M |
| 23 | Yoke Bolt | ASTM A 193 GR B8 |
| 24 | Yoke Bolt Nut | ASTM A 194 GR 8 |
| 25 | Bearings | Commercial |

*Not shown



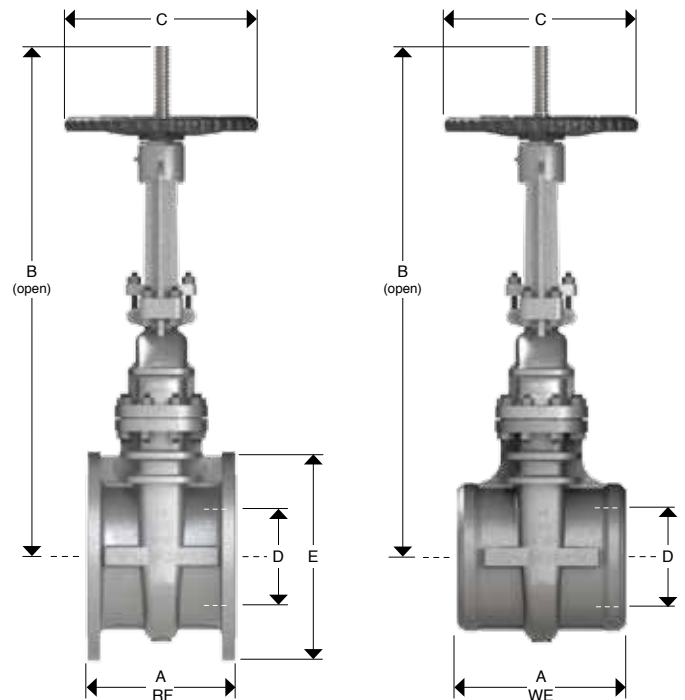
API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES, CLASS 150 (INDEPENDENT YOKE)



DESIGN FEATURES:

- Design in accordance with API - 603
- Outside screw & yoke (OS&Y)
- Flexible wedge
- Handwheel operated as standard
- Independent yoke
- Flange dimensions as per ASME B16.5
- End to end dimension as per ASME B16.10
- WE dimensions as per ASME B16.25

| Catalog Figure No. | ID Plant Figure No. | Type of Ends |
|--------------------|---------------------|---------------------|
| S5202RF | S5202F | Flanged Raised Face |
| S5202RTJ | S5202RJ | Ring Type Joint |
| S5202WE | S5202WE | Buttweld |



Dimensions and Weights

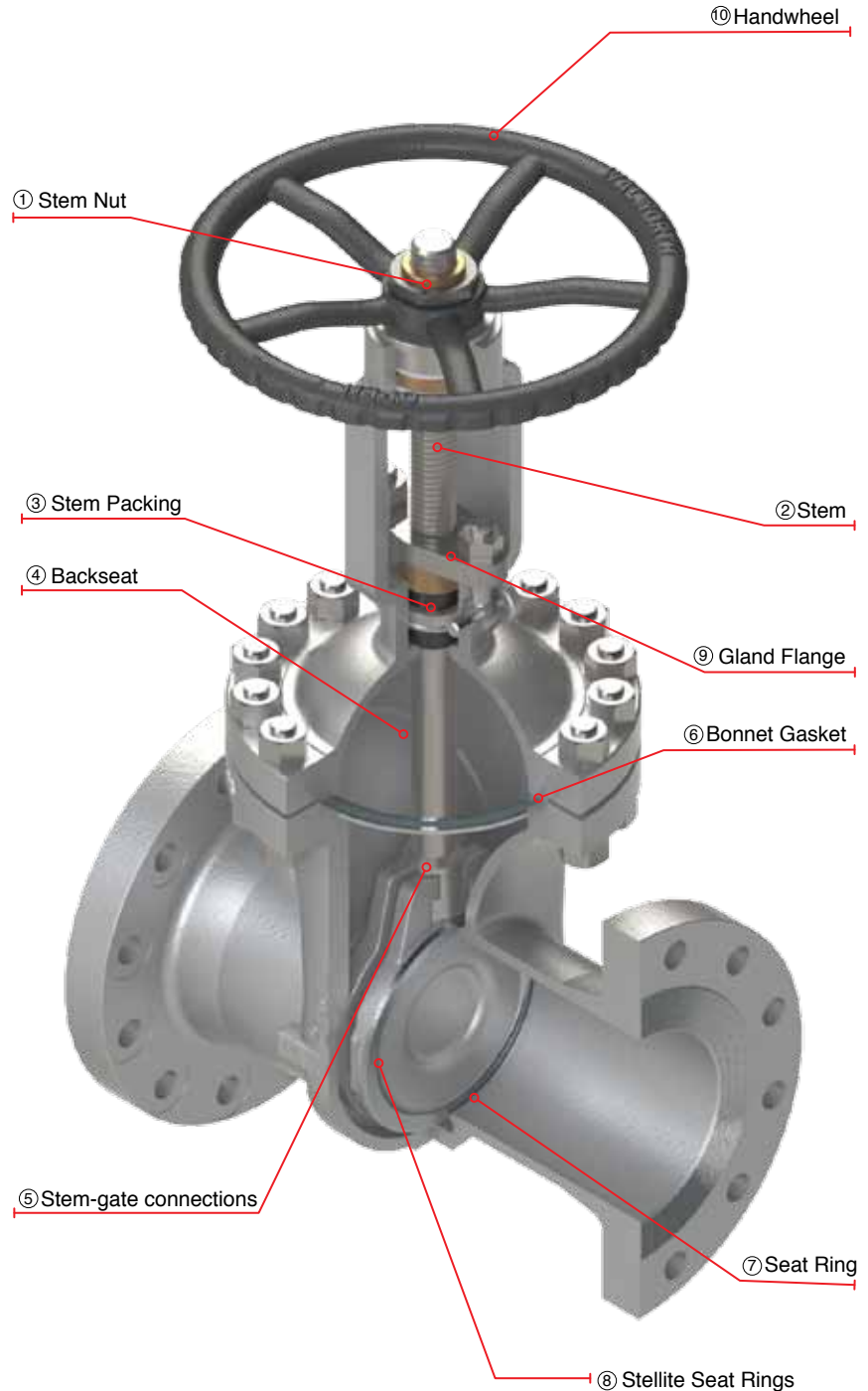
| D Nominal Diameter | mm | 356 | 406 | 457 | 508 | 610 |
|--------------------|------------|-------|--------|--------|--------|--------|
| | in | 14 | 16 | 18 | 20 | 24 |
| A | mm | 381 | 406 | 432 | 457 | 508 |
| | (RF) in | 15 | 16 | 17 | 18 | 20 |
| A | mm | 572 | 610 | 660 | 711 | 813 |
| | (WE) in | 22.5 | 24 | 26 | 28 | 32 |
| B | mm | 1448 | 1680 | 1872 | 2058 | 2497 |
| | in | 57.0 | 66.1 | 73.7 | 81 | 98.3 |
| C | mm | 500 | 500 | 600 | 650 | 720 |
| | in | 19.7 | 19.7 | 23.6 | 25.6 | 28.3 |
| E | mm | 533 | 597 | 635 | 699 | 813 |
| | in | 21 | 23.5 | 25 | 27.5 | 32 |
| Weight | Kg | 349.2 | 459 | 540 | 826.2 | 1044 |
| | S5202RF lb | 770 | 1012.1 | 1190.7 | 1822 | 2302 |
| Weight | Kg | 317.2 | 424 | 457 | 542.2 | 652 |
| | S5202WE lb | 699.5 | 935 | 1007.7 | 1195.6 | 1437.7 |

API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES, CLASS 300 CAST STEEL GATE VALVES, WITH RISING STEM AND OUTSIDE SCREW AND YOKE (OS&Y)

DESIGN FEATURES

- Gate valves design in accordance with API-603
- Standard manufacturing flexible wedge
- Flange dimensions in accordance with ASME B16.5
- Gate and Globe Valves for cryogenic service with gas column in accordance with BS-6364 upon request
- Hand-wheel, impact hand-wheel, chain-wheel, electric, pneumatic or hydraulic actuation as per customer requirements
- By-Pass, lantern rings, grease injectors, special connections, etc.
- Low fugitive emissions control
- NACE service either MR-01-75 or MR-01-03
- Test in accordance with API-598

- ① Stem Nut, replaceable in line to avoid shut down of pipe line process.
- ② Rising stem with precision ACME single or double thread for quick operation. Surface finish suitable to seal properly to obtain low fugitive emissions.
- ③ Stem Packing is designed for optimum control of fugitive emissions leakage to the atmosphere. The ultra-low emission leakage rate is assured by the polished finish stem sealing area, the reduced diametrical clearances, and the stem straightness control special designed packing. Live load packing arrangement available upon request.
- ④ Integral backseat designed to relieve back pressure on the stem packing when fully seated. Replacing stem packing under pressure is not recommended. Hard faced backseat available for severe service as per customer requirements.
- ⑤ Stem-Gate connection designed so that under severe applied loads (stuck gate), the stem will fail outside of the stuffing box pressure boundary.
- ⑥ Body to Bonnet joint is designed to apply a uniform load to the gasket to assure a leak proof seal.
- ⑦ Integral seat rings designed to provide a bubble tight joint.
- ⑧ Stellite 6 overlay on wedge Seating Surfaces provide increased resistance to wear, abrasion and erosion.
- ⑨ Two-piece arrangement gland flange and stem packing bushing for self-alignment to avoid stem damage.
- ⑩ Gate valves supplied handwheel operated as standard from 2" to 24".



API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES, CLASS 300 (INTEGRAL YOKE)

DESIGN FEATURES:

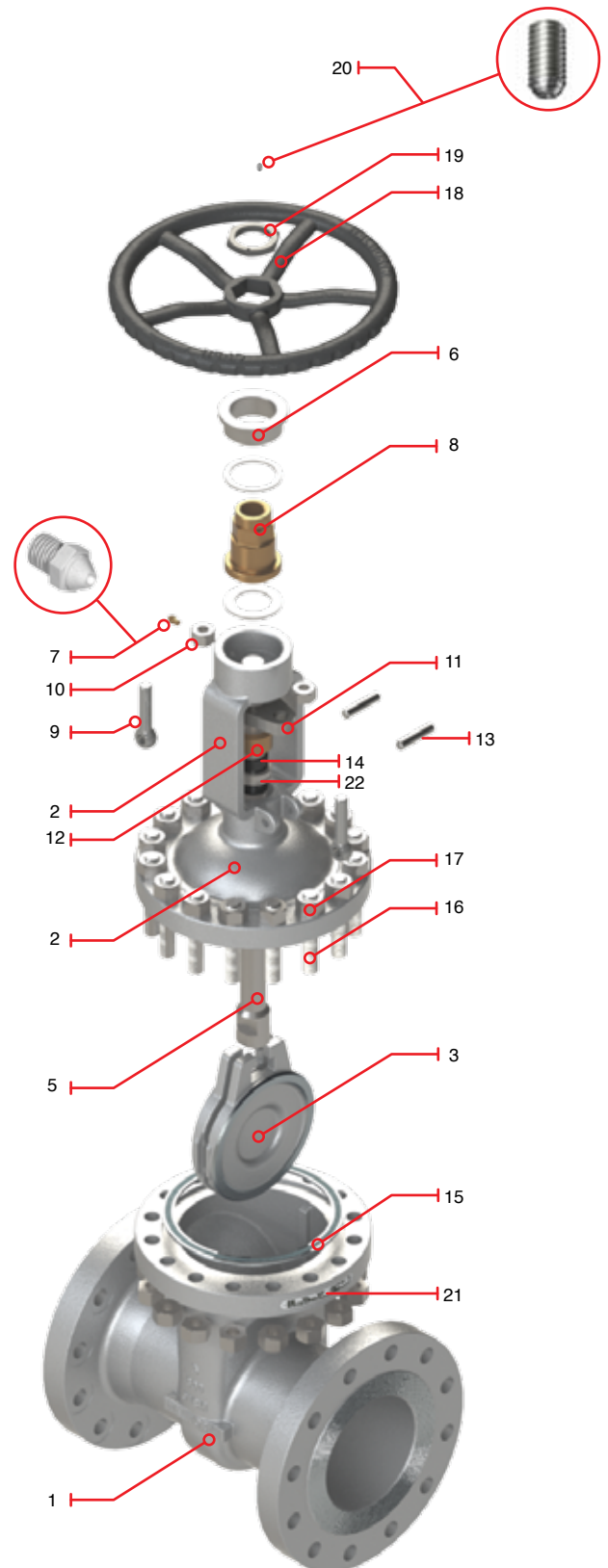
- Design in accordance with API-603
- Outside screw & yoke (OS&Y)
- Flexible wedge
- Handwheel operated as standard
- Integral yoke
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B16.25

| Catalog Figure No. | ID Plant Figure No. | Type of Ends |
|--------------------|---------------------|---------------------|
| S5206RF | S5206F | Flanged Raised Face |
| S5206RTJ | S5206RJ | Ring T ype Joint |
| S5206WE | S5206WE | Buttweld |

Regular Bill of Materials

| No. | Description | Standard material |
|-----|----------------------|--|
| 1 | Body | ASTM A 351 GR CF8M |
| 2 | Bonnet | ASTM A 351 GR CF8M |
| 3 | Disc | ASTM A 351 GR CF8M + ST6 |
| *4 | Seat Ring | Integral Seat Ring |
| 5 | Stem | ASTM A182 F316 |
| 6 | Stem Nut Retainer | ASTM A182 F304 |
| 7 | Grease Fitting | Commercial Steel |
| 8 | Stem Nut | ASTM B 148 UNS C95600 |
| 9 | Eyebolt | ASTM A193 B8 |
| 10 | Eyebolt Nut | ASTM A194 Gr 8 |
| 11 | Gland Flange | ASTM A182 F304 |
| 12 | Packing Bushing | ASTM A182 F316 |
| 13 | Eyebolt Pin | Alloy Steel |
| 14 | Stem Packing | Flexible graphite intermediate rings / Anti extrusion rings top and bottom side of packing chamber |
| 15 | Bonnet Gasket | Graphite / Stainless 316 |
| 16 | Bonnet Stud | ASTM A 193 GR B8 |
| 17 | Bonnet Stud Nut | ASTM A 194 GR 8 |
| 18 | Handwheel | Commercial |
| 19 | Handwheel Nut | ASTM A 108 GR 1020 |
| 20 | Opressor | Alloy Steel |
| 21 | Identification Plate | Stainless Steel |
| 22 | Lantern Ring | ASTM A182 F316 |

*Not Shown



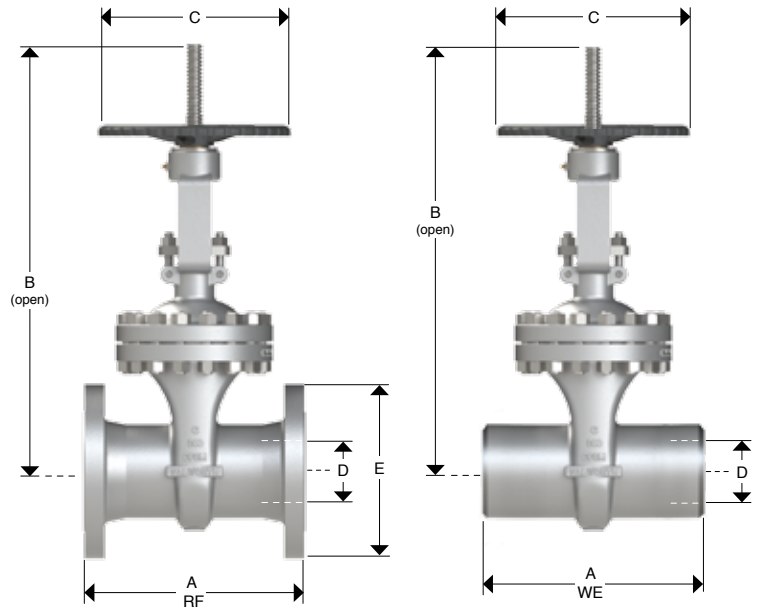
API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES, CLASS 300 (INTEGRAL YOKE)



DESIGN FEATURES:

- Design in accordance with API-603
- Flexible wedge
- Outside screw & yoke (OS&Y)
- Handwheel operated as standard
- Independent yoke
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B16.25

| Catalog Figure No. | ID Plant Figure No. | Type of Ends |
|--------------------|---------------------|---------------------|
| S5206RF | S5206F | Flanged Raised Face |
| S5206RTJ | S5206RJ | Ring Type Joint |
| S5206WE | S5206WE | Buttweld |



Dimensions and Weights

| D Nominal Diameter | mm | 51 | 64 | 76 | 102 | 152 | 203 | 254 | 305 |
|--------------------|----|------|------|-------|-------|-------|-------|-------|-------|
| | in | 2 | 2.5 | 3 | 4 | 6 | 8 | 10 | 12 |
| A (RF and WE) | mm | 216 | 241 | 283 | 305 | 403 | 419 | 457 | 502 |
| | in | 8.5 | 9.5 | 11.13 | 12 | 15.88 | 16.5 | 18 | 19.75 |
| B (Open) | mm | 376 | 420 | 479 | 577 | 815 | 986 | 1123 | 1285 |
| | in | 14.8 | 16.5 | 18.9 | 22.7 | 32.1 | 38.8 | 44.2 | 50.6 |
| C | mm | 250 | 250 | 250 | 300 | 350 | 400 | 450 | 500 |
| | in | 9.8 | 9.8 | 9.8 | 11.8 | 13.8 | 15.7 | 17.7 | 19.7 |
| E | mm | 165 | 191 | 210 | 254 | 318 | 381 | 445 | 521 |
| | in | 6.5 | 7.5 | 8 ¼ | 10 | 12.5 | 15 | 17.5 | 20.5 |
| Weight | Kg | 19 | 27 | 36 | 55 | 102 | 169 | 268 | 377 |
| S5206RF | lb | 41.9 | 59.5 | 79.4 | 121.3 | 224.9 | 372.6 | 590.9 | 831.3 |
| Weight | Kg | 14 | 19 | 26 | 36 | 82 | 141.6 | 245.9 | 314.3 |
| S5206WE | lb | 30.9 | 41.9 | 57.3 | 79.4 | 180.8 | 312.2 | 542.2 | 693.0 |

API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES, CLASS 300 (INDEPENDENT YOKE)

DESIGN FEATURES:

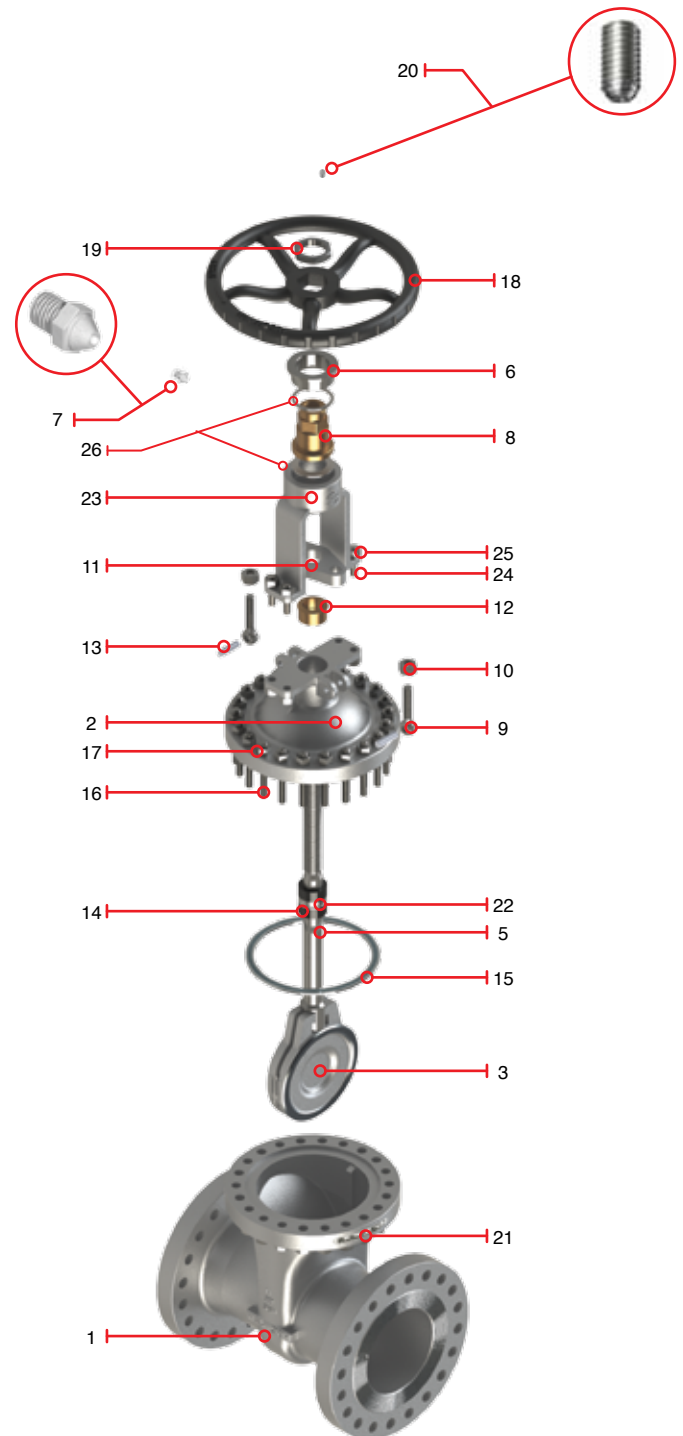
- Design in accordance with API-603
- Outside screw & yoke (OS&Y)
- Flexible wedge
- Handwheel operated as standard
- Independent yoke
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B16.25

| Catalog Figure No. | ID Plant Figure No. | Type of Ends |
|--------------------|---------------------|---------------------|
| S5206RF | S5206F | Flanged Raised Face |
| S5206RTJ | S5206RJ | Ring Type Joint |
| S5206WE | S5206WE | Buttweld |

Regular Bill of Materials

| No. | Description | Standard Material CF8M Trim 3HF |
|-----|----------------------|--|
| 1 | Body | ASTM A 351 GR CF8M |
| 2 | Bonnet | ASTM A 351 GR CF8M |
| 3 | Disc | ASTM A 351 GR CF8M + ST6 |
| *4 | Seat Ring | Integral Seat Ring |
| 5 | Stem | ASTM A182 F316 |
| 6 | Stem Nut Retainer | ASTM A182 F304 |
| 7 | Grease Fitting | Commercial Steel |
| 8 | Stem Nut | ASTM B 148 UNS C95600 |
| 9 | Eyebolt | ASTM A193 B8M |
| 10 | Eyebolt Nut | ASTM A194 Gr 8 |
| 11 | Gland Flange | ASTM A182 F304 |
| 12 | Packing Bushing | ASTM A182 F316 |
| 13 | Eyebolt Pin | Alloy Steel |
| 14 | Stem Packing | Flexible graphite intermediate rings / Anti extrusion rings top and bottom side of packing chamber |
| 15 | Bonnet Gasket | Graphite / Stainless 316 |
| 16 | Bonnet Stud | ASTM A 193 GR B8 |
| 17 | Bonnet Stud Nut | ASTM A 194 GR 8 |
| 18 | Handwheel | Commercial |
| 19 | Handwheel Nut | ASTM A 108 GR 1020 |
| 20 | Opressor | Alloy Steel |
| 21 | Identification Plate | Stainless Steel |
| 22 | Lantern Ring | ASTM A182 F316 |
| 23 | Yoke | ASTM A 351 GR CF8M |
| 24 | Yoke Bolt | ASTM A 193 GR B8 |
| 25 | Yoke Bolt Nut | ASTM A 194 GR 8 |
| 26 | Stem Nut Washer | Commercial |

*Not Shown



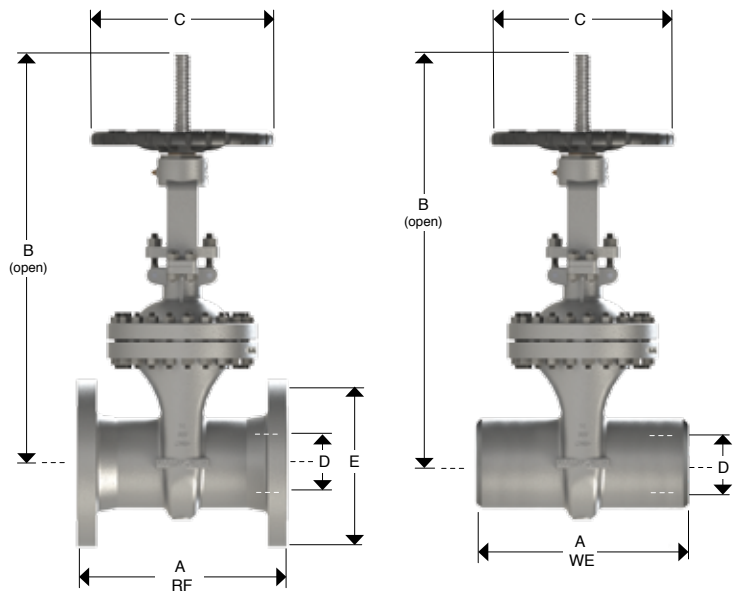
API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES, CLASS 300 (INDEPENDENT YOKE)

DESIGN FEATURES

- Design in accordance with API-603
- Flexible wedge
- Outside screw & yoke (OS&Y)
- Handwheel operated as standard
- Independent yoke
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B16.25



| Catalog Figure No. | ID Plant Figure No. | Type of Ends |
|--------------------|---------------------|---------------------|
| S5206RF | S5206F | Flanged Raised Face |
| S5206RTJ | S5206RJ | Ring Type Joint |
| S5206WE | S5206WE | Buttweld |



Dimensions and Weights

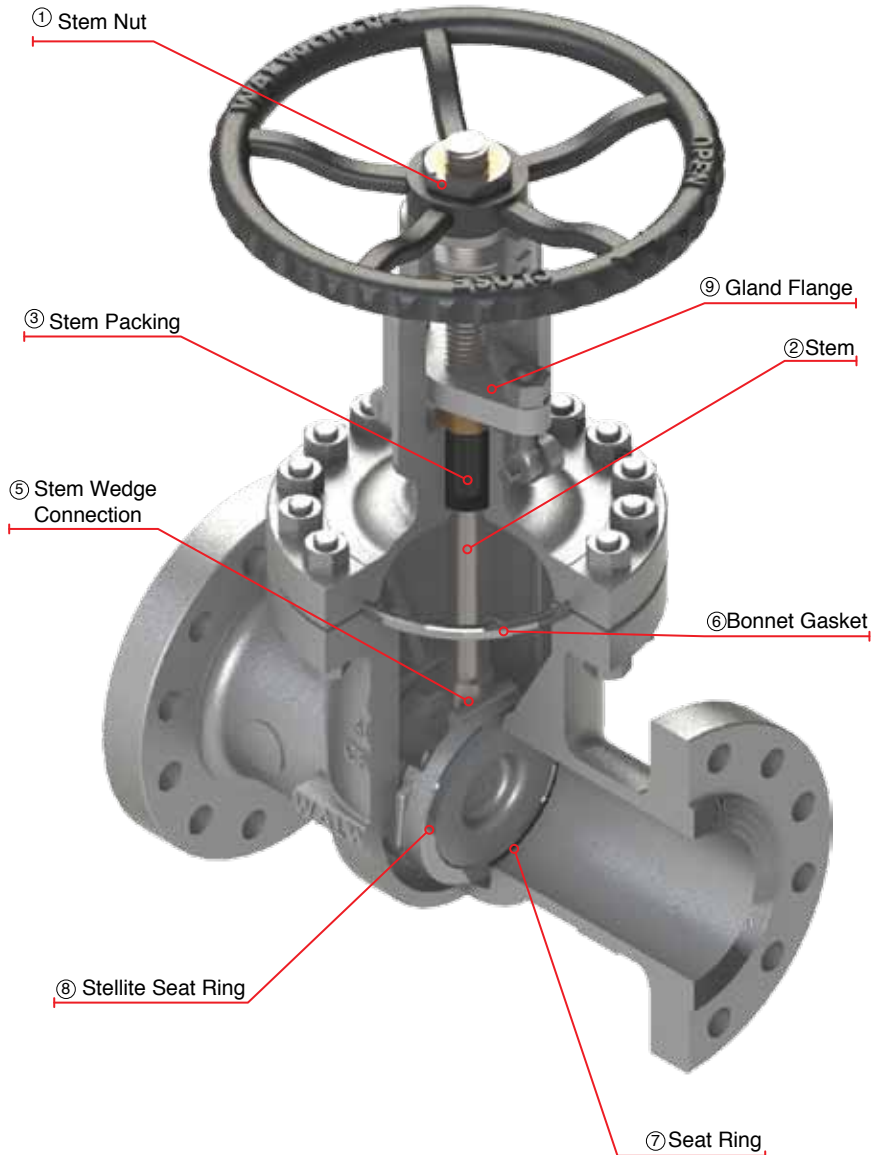
| D Nominal Diameter | mm | 356 | 406 | 457 | 508 | 610 |
|--------------------------|----|--------|--------|--------|--------|--------|
| | in | 14 | 16 | 18 | 20 | 24 |
| A (RF and WE) | mm | 762 | 838 | 914 | 991 | 1143 |
| | in | 30 | 33 | 36 | 39 | 45 |
| B (Open) | mm | 1594 | 1730 | 1924 | 2105 | 2335 |
| | in | 62.75 | 68.13 | 75.75 | 82.88 | 91.88 |
| C | mm | 500 | 550 | 600 | 650 | 720 |
| | in | 19.7 | 21.7 | 23.6 | 25.6 | 28.3 |
| E | mm | 584 | 648 | 711 | 775 | 914 |
| | in | 23 | 25.5 | 28 | 30.5 | 36 |
| Weight | Kg | 816 | 1082 | 1469 | 1867 | 2200 |
| S5206RF | lb | 1799.3 | 2385.8 | 3239.1 | 4116.7 | 4851.0 |
| Weight | Kg | 725 | 923 | 1219 | 1582 | 1882 |
| S5206WE | lb | 1598.6 | 2035.2 | 2687.9 | 3488.3 | 4149.8 |

API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES CLASS 600 CAST STEEL GATE VALVES, WITH RISING STEM AND OUTSIDE SCREW AND YOKE (OS&Y)

DESIGN FEATURES:

- Gate valves design in accordance with API-603
- Standard manufacturing flexible wedge
- Flange dimensions in accordance with ASME B16.5
- Gate and Globe Valves for cryogenic service with gas column in accordance with BS-6364 upon request
- Hand-wheel, impact hand-wheel, chain-wheel, electric, pneumatic or hydraulic actuation as per customer requirements
- By-Pass, lantern rings, grease injectors, special connections, etc.
- Low fugitive emissions control
- NACE service either MR-01-75 or MR-01-03
- Test in accordance with API-598

- ① Stem Nut, replaceable in line to avoid shut down of pipe line process.
- ② Rising stem with precision ACME single or double thread for quick operation. Surface finish suitable to seal properly to obtain low fugitive emissions.
- ③ Stem Packing is designed for optimum control of fugitive emissions leakage to the atmosphere. The ultra-low emission leakage rate is assured by the polished finish stem sealing area, the reduced diametrical clearances, and the stem straightness control special designed packing. Live load packing arrangement available upon request.
- ④ Integral Backseat designed to relieve back pressure on the stem packing when fully seated. Replacing stem packing under pressure is not recommended. Hard faced backseat available for severe service as per customer requirements.
- ⑤ Stem-Gate connection designed so that under severe applied loads (stuck gate), the stem will fail outside of the stuffing box pressure boundary.
- ⑥ Body to Bonnet ring type joint is designed to apply a uniform load to the gasket to assure a leak proof seal.
- ⑦ Integral seat rings to provide a bubble tight joint.
- ⑧ Stellite 6 overlay on wedge Seating Surfaces provide increased resistance to wear, abrasion and erosion.
- ⑨ Two-piece arrangement gland flange and stem packing bushing for self-alignment to avoid stem damage.
- ⑩ Gate and Globe valves supplied handwheel operated as standard.



API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES, CLASS 600 (INTEGRAL YOKE)

DESIGN FEATURES:

- Design in accordance with API-603
- Outside screw & yoke (OS&Y)
- Flexible wedge
- Handwheel operated as standard
- Integral yoke
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B16.25

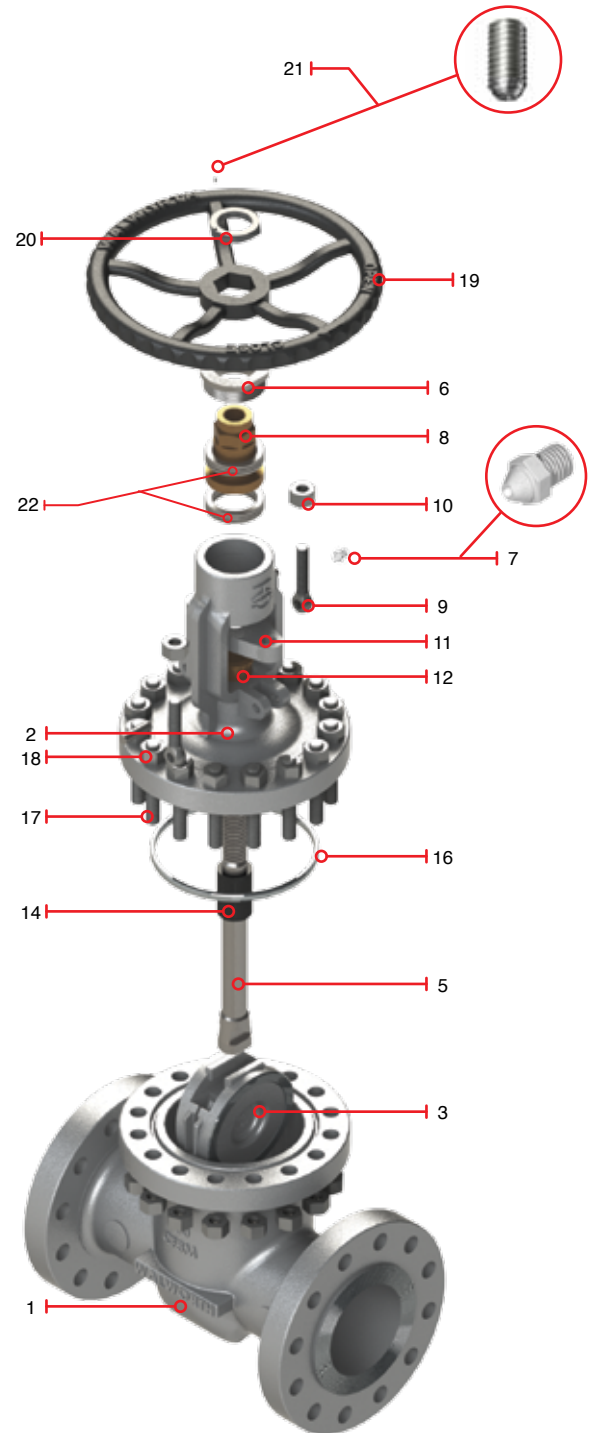
| Catalog Figure No. | ID Plant Figure No. | Type of Ends |
|--------------------|---------------------|---------------------|
| S5232RF | S5232F | Flanged Raised Face |
| S5232RTJ | S5232RJ | Ring Type Joint |
| S5232WE | S5232WE | Buttweld |

Regular Bill of Materials

| No. | Description | Standard Material CF8M Trim 3HF |
|------|------------------------------|--|
| 1 | Body | ASTM A 351 GR CF8M |
| 2 | Bonnet | ASTM A 351 GR CF8M |
| 3 | Disc | ASTM A 351 GR CF8M + ST 6 |
| *4 | Seat Ring | Integral Seat Ring |
| 5 | Stem | ASTM A 276 Type 316 |
| 6 | Stem Nut Retainer | ASTM A182 F304 |
| 7 | Grease Fitting | Commercial Steel |
| 8 | Stem Nut | ASTM B 148 UNS C95600 |
| 9 | Eyebolt / Gland Flange Studs | A193 B8 |
| 10 | Eyebolt Nut | ASTM A 194 Gr 8 |
| 11 | Gland Flange | ASTM A182 F304 |
| 12 | Packing Bushing | ASTM A182 F316 |
| *13 | Eyebolt Pin | Alloy Steel |
| 14 | Stem Packing | Flexible graphite intermediate rings / Anti-extrusion rings on the top and bottom sides of the packing chamber |
| **15 | Bonnet Gasket | Graphite / Stainless 316 |
| 16 | Ring Type Joint Gasket | ASTM A 182 F316 |
| 17 | Bonnet Stud | ASTM A 193 GR B8 |
| 18 | Bonnet Stud Nut | ASTM A 194 GR 8 |
| 19 | Handwheel | Commercial |
| 20 | Handwheel Nut | ASTM A 108 GR 1020 |
| 21 | Opressor | Alloy Steel |
| 22 | Stem Nut Bearing | Commercial Steel |
| *23 | Identification Plate | Stainless Steel |

*Not Shown

**Gasket used for smaller size valves



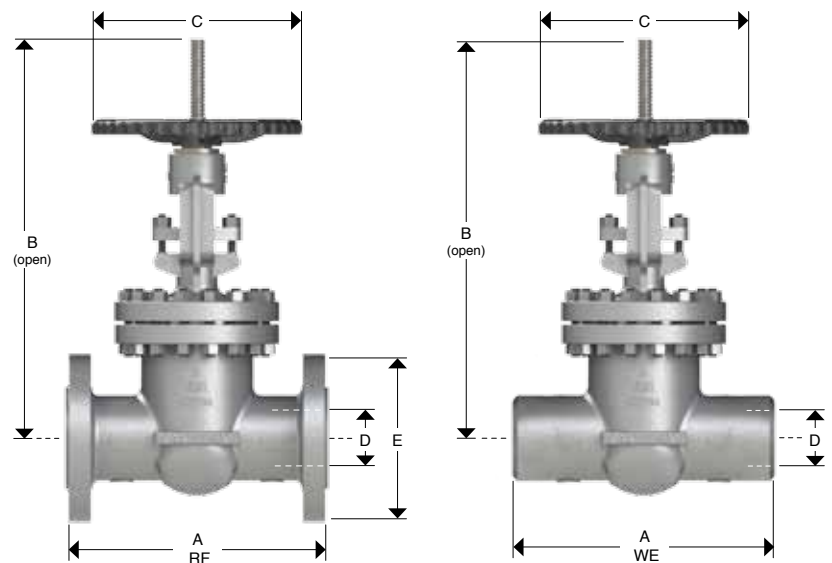
API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES, CLASS 600 (INTEGRAL YOKE)

DESIGN FEATURES:

- Design in accordance with API-603
- Outside screw & yoke (OS&Y)
- Flexible wedge
- Handwheel operated as standard
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B16.25



| Catalog Figure No. | ID Plant Figure No. | Type of Ends |
|--------------------|---------------------|---------------------|
| S5232RF | S5232F | Flanged Raised Face |
| S5232RTJ | S5232RJ | Ring Type Joint |
| 5232WE | 5232WE | Buttweld |



Dimensions and Weights

| D Nominal Diameter | mm | 50 | 65 | 80 | 100 | 150 | 200 |
|--------------------|----|-------|-------|-------|-------|-------|-------|
| | in | 2 | 2 1/2 | 3 | 4 | 6 | 8 |
| A (RF and WE) | mm | 292 | 330 | 356 | 432 | 559 | 660 |
| | in | 11.5 | 13 | 14 | 17 | 22 | 26 |
| B | mm | 447.5 | 495 | 543 | 681 | 854 | 893 |
| | in | 17.6 | 19.5 | 21.4 | 26.8 | 33.6 | 35.2 |
| C | mm | 200 | 250 | 300 | 300 | 450 | 600 |
| | in | 7.9 | 9.8 | 11.8 | 11.8 | 17.7 | 23.6 |
| E | mm | 165 | 191 | 210 | 273 | 356 | 419 |
| | in | 6.5 | 7.5 | 8 ¼ | 10.75 | 14 | 16.5 |
| Weight | Kg | 24 | 36 | 53 | 93 | 190 | 338 |
| 5232RF/RTJ | lb | 52.9 | 79.4 | 116.9 | 205.1 | 419.0 | 745.3 |
| Weight 5232WE | Kg | 22 | 24 | 39.5 | 78 | 161 | 293 |
| | lb | 48.5 | 52.9 | 87.1 | 172.0 | 355.0 | 646.1 |

API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES, CLASS 600 (INDEPENDENT YOKE)

DESIGN FEATURES:

- Design in accordance with API-603
- Outside screw & yoke (OS&Y)
- Flexible wedge
- Handwheel operated as standard
- Independent yoke
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B16.25

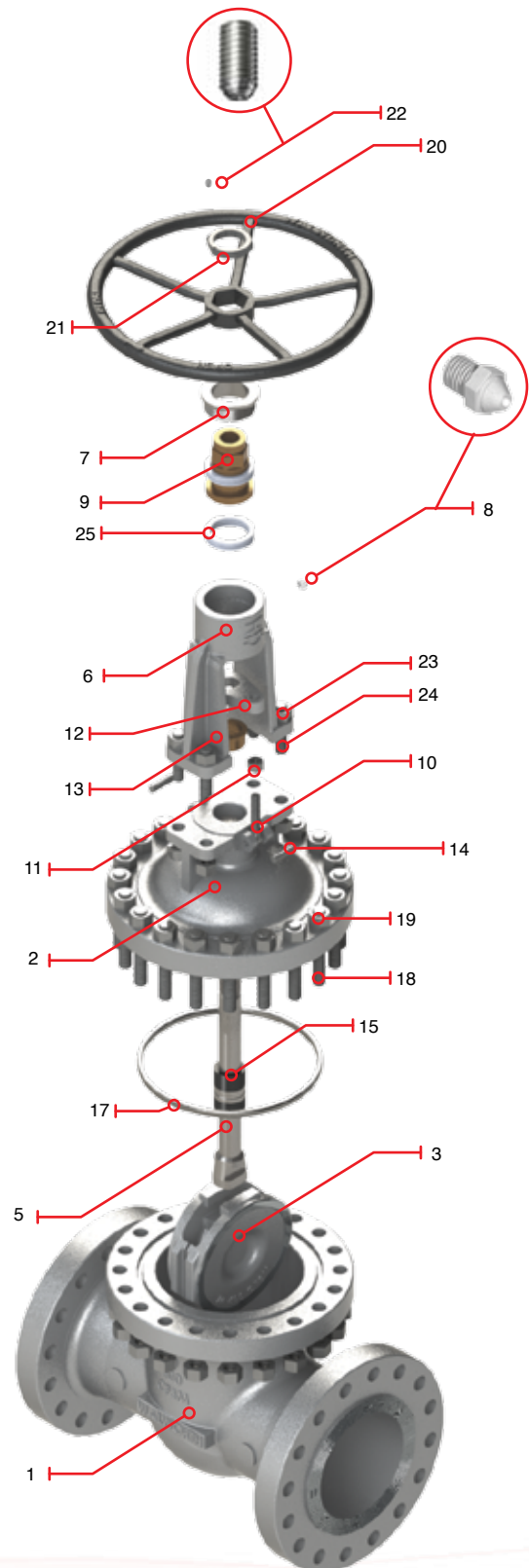
| Catalog Figure No. | ID Plant Figure No. | Type of Ends |
|--------------------|---------------------|---------------------|
| S5232RF | S5232F | Flanged Raised Face |
| S5232RTJ | S5232RJ | Ring Type Joint |
| S5232WE | S5232WE | Buttweld |

Regular Bill of Materials

| No. | Description | Standard Material CF8M Trim 3HF |
|------|------------------------------|--|
| 1 | Body | ASTM A 351 GR CF8M |
| 2 | Bonnet | ASTM A 351 GR CF8M |
| 3 | Disc | ASTM A 351 GR CF8M + ST 6 |
| *4 | Seat Ring | Integral Seat Ring |
| 5 | Stem | ASTM A 276 Type 316 |
| 6 | Yoke | ASTM A 351 GR CF8M |
| 7 | Stem Nut Retainer | ASTM A182 F304 |
| 8 | Grease Fitting | Commercial Steel |
| 9 | Stem Nut | ASTM B 148 UNS C95600 |
| 10 | Eyebolt / Gland Flange Studs | A193 B8M |
| 11 | Eyebolt Nut | ASTM A 194 Gr 8 |
| 12 | Gland Flange | ASTM A182 F304 |
| 13 | Packing Bushing | ASTM A182 F316 |
| 14 | Eyebolt Pin | Alloy Steel |
| 15 | Stem Packing | Flexible graphite intermediate rings / Anti-extrusion rings on the top and bottom sides of the packing chamber |
| **16 | Bonnet Gasket | Graphite / Stainless 316 |
| 17 | Ring Type Joint Gasket | ASTM A 182 F316 |
| 18 | Bonnet Stud | ASTM A 193 GR B8M |
| 19 | Bonnet Stud Nut | ASTM A 194 GR 8M |
| 20 | Handwheel | Commercial |
| 21 | Handwheel Nut | ASTM A 108 GR 1020 |
| 22 | Opressor | Alloy Steel |
| 23 | Yoke Bolt | ASTM A 193 GR B8M |
| 24 | Yoke Bolt Nut | ASTM A 194 GR 8M |
| 25 | Stem Nut Bearing | Commercial Steel |
| *26 | Identification Plate | Stainless Steel |

*Not Shown

**Gasket used for smaller size valves



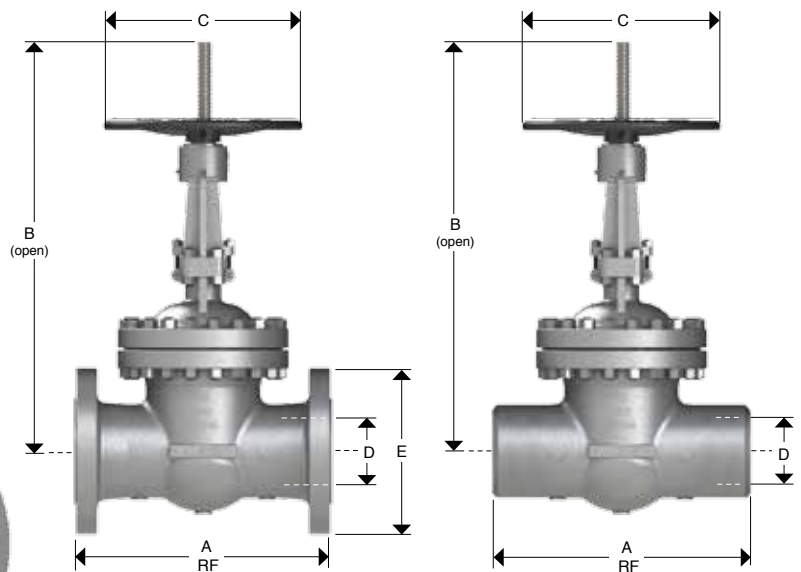
API-603 CAST STAINLESS STEEL & SPECIAL ALLOY GATE VALVES, CLASS 600 (INDEPENDENT YOKE)

DESIGN FEATURES:

- Design in accordance with API-603
- Outside screw & yoke (OS&Y)
- Flexible wedge
- Handwheel operated as standard
- Independent yoke
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B16.25



| Catalog Figure No. | ID Plant Figure No. | Type of Ends |
|--------------------|---------------------|---------------------|
| 5232RF | 5232F | Flanged Raised Face |
| S5232RTJ | S5232RJ | Ring Type Joint |
| 5232WE | 5232WE | Buttweld |



Dimensions and Weights

| D Nominal Diameter | mm | 254 | 305 |
|--------------------|----|--------|--------|
| | in | 10 | 12 |
| A (RF and WE) | mm | 787 | 838 |
| | in | 31 | 33 |
| B | mm | 1295 | 1497 |
| | in | 51.0 | 58.9 |
| C | mm | 600 | 680 |
| | in | 23.6 | 26.8 |
| E | mm | 508 | 559 |
| | in | 20 | 22 |
| Weight | Kg | 556 | 750 |
| 5232RF | lb | 1226.0 | 1653.8 |
| Weight | Kg | 480 | 638 |
| 5232WE | lb | 1058.4 | 1406.8 |