

Gate, Globe & Check Valves

Corrosion-resistant



ASME Class 150 to 600 | 2" - 24" (50 mm - 600 mm)
API 603, ASME B16.34

L&T Valves

Trusted by the industry for over five decades, L&T Valves offers innovative products and solutions that enhance safety, reliability and performance in flow-control systems across the globe. The company is a wholly-owned subsidiary of Larsen & Toubro, a leading engineering, construction, manufacturing and services conglomerate.

The Quality Management System of L&T Valves is certified to comply with ISO 9001 and API Spec Q1. The company is licensed to offer products monogrammed API 600, API 6D and API 609 as well as valves with CE Marking and ATEX certification. Ball, Butterfly Gate and Globe Valves with SIL3 certification are also offered.

At L&T Valves facilities, cutting-edge technology and unmatched skill come together to create state-of-the-art flow-control solutions. International safety, health and environment standards govern every phase of the manufacturing process.





Gate, Globe and Check Valves

L&T Valves is a global leader in Gate, Globe & Check Valves. The range comprises large-size valves in sizes up to 72", high pressure valves in ASME classes up to 4500, high integrity low emission valves (API 624/ ISO 15848), cryogenic valves (-196°C) and valves in exotic metallurgies.

Corrosion-resistant Range

Leveraging expertise in design and manufacture of Gate, Globe and Check Valves, L&T Valves offers a range of Corrosion-resistant Valves in sizes up to 24" (600 mm) and in ASME classes from 150 to 600.

The valves are offered in various grades of Austenitic stainless steels to meet customer requirements in chemical, petrochemical and fertilizer industries.

Gate Valves

| ASME Class | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|------------|---|---|---|---|---|----|----|----|----|----|----|----|----|
| 50 | | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | |
| 150 | • | • | • | • | • | • | • | • | • | • | • | • | • |
| 300 | • | • | • | • | • | • | • | • | • | • | • | • | • |
| 600 | • | • | • | • | • | • | • | | | | | | |

Globe Valves

| ASME Class | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|------------|---|---|---|---|---|----|----|----|----|----|----|----|----|
| 50 | | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | |
| 150 | • | • | • | • | • | • | • | | | | | | |
| 300 | • | • | • | • | • | • | • | | | | | | |
| 600 | • | • | • | • | • | • | • | | | | | | |

Check Valves

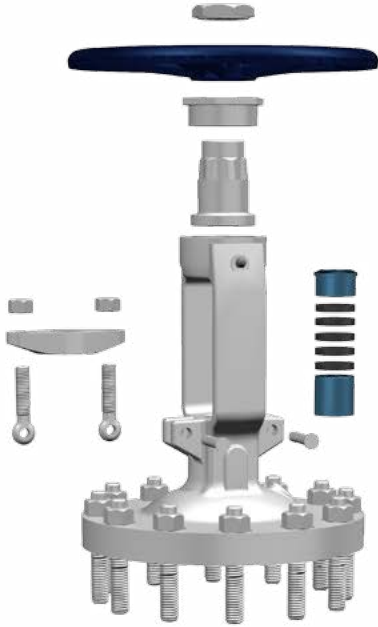
| ASME Class | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|------------|---|---|---|---|---|----|----|----|----|----|----|----|----|
| 50 | | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | |
| 150 | • | • | • | • | • | • | • | | | | | | |
| 300 | • | • | • | • | • | • | • | | | | | | |
| 600 | • | • | • | • | • | • | • | | | | | | |

Valves in other sizes and ASME classes available on demand

Compliance Standards

L&T Gate, Globe & Check Valves are designed to meet major international standards and customer specifications.

| Parameter | | Standard |
|-------------------|--|----------------------|
| Design | Gate Valves | API 603, ASME B16.34 |
| | Globe Valves | ASME B16.34 |
| | Check Valves | ASME B16.34 |
| Ends | Face-to-face/ End-to-end Dimensions | ASME B16.10 |
| | End Flange Dimensions | ASME B16.5 |
| | Butt-weld End Dimensions | ASME B16.25 |
| | Forged Fittings, Socket welding & Threading Dimensions | ASME B16.11 |
| Testing | | API 598 |
| Fugitive Emission | | API 624, ISO 15848 |



Materials of Construction

| Material Group | Material Grades |
|----------------|----------------------|
| Group 2 | A351 Grade CF3/ CF3M |
| | A351 Grade CF8/ CF8M |
| | A351 Grade CF8C |
| | A351 Grade CK3MCuN |
| | A995 Grade CD3MN |
| Group 3 | A351 Grade CN7M |
| | A494 Grade CW12MW |
| | A351 Grade CN3MN |

Other material grades specified in ASME B16.34 can be provided based on customer demand

Trim Materials

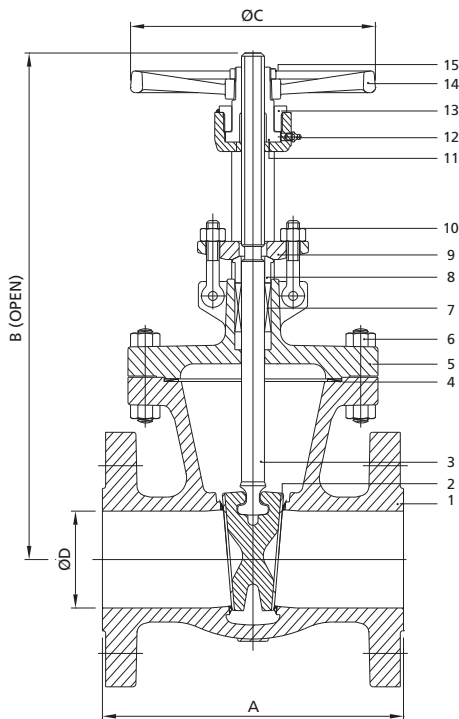
| API 600 Trim | Materials | | | |
|--------------|-----------|--------------|--------------|-----------|
| | Stem | Seat Surface | Disc Surface | Back Seat |
| 10 | SS 316 | SS 316 | SS 316 | SS 316 |
| 12 | SS 316 | HF | SS 316 | SS 316 |
| 16 | SS 316 | HF | HF | SS 316 |

Gate Valves - ASME Class 150 to 600 (API 603, ASME B16.34)

Gate Valves are of outside screw-and-yoke design. The valves are available with flanged and butt-weld ends.

Features:

- Integral body seat. In-situ hardfacing provided for Trim 12 and 16 valves
- Flex Wedge - Compensates for seat distortion and eliminates disc-jamming
- Single-piece forged stem with T-head for superior strength
- Body-bonnet Joint - Class 150 Globe Valves offered with square-shaped body-bonnet joints in size 2" and with oval-shaped joints in 3" size. Valves in all other sizes and pressure classes offered with circular body-bonnet joints.
- Complies to API 624 and ISO 15848 fugitive emission requirements



| No. | Components | Materials |
|-----|-------------------------|--|
| 1 | Body | A351 Gr CF8M |
| 2 | Wedge/ Gate/ Disc | A351 Gr CF8M/ A182 Gr F316 |
| 3 | Stem | A182 Gr F316 |
| 4 | Bonnet Gasket | Graphite/ PTFE |
| 5 | Bonnet | A351 Gr CF8M |
| 6 | Bolting: Body to Bonnet | Stud: A193 Gr B8M Cl 1/ A193 Gr B8M Cl 2 Nut: A194 Gr 8M |
| 7 | Packing | Graphite/ PTFE |
| 8 | Gland | A276 Type 316 |
| 9 | Gland Flange | A182 Gr F316/ A351 Gr CF8M |
| 10 | Gland Stud & Nut | Stud: A193 Gr B8M Cl 1/ A193 Gr B8M Cl 2 Nut: A194 Gr 8M |
| 11 | Stem Nut | A439 Type D2/ B148 UNS C95400 |
| 12 | Grease Fitting | A276 TP 316/ A276 TP 304 |
| 13 | Retainer Nut | A276 TP 316 |
| 14 | Handwheel | A536 Gr 60-40-18/ IS: 1865 Gr SG 400-15 |
| 15 | Handwheel Nut | A276 TP 316 |
| 16 | Identification Plate | A240 TP 304 |

Dimensions & Weights

| Size | | Class 150 | | | | | Class 300 | | | | | Class 600 | | | | |
|------|-----|-----------|------|-----|-------|------|-----------|------|-----|-------|------|-----------|------|-----|-------|-----|
| NPS | DN | A | B | C | D | Wt. | A | B | C | D | Wt. | A | B | C | D | Wt. |
| 2 | 50 | 178 | 360 | 203 | 50.8 | 14 | 216 | 370 | 203 | 50.8 | 21 | 292 | 395 | 203 | 50.8 | 33 |
| 3 | 80 | 203 | 480 | 203 | 76.2 | 26 | 283 | 505 | 229 | 76.2 | 42 | 356 | 540 | 254 | 76.2 | 54 |
| 4 | 100 | 229 | 580 | 229 | 101.6 | 40 | 305 | 600 | 254 | 101.6 | 62 | 432 | 635 | 305 | 101.6 | 95 |
| 6 | 150 | 267 | 790 | 254 | 152.4 | 65 | 403 | 850 | 356 | 152.4 | 125 | 559 | 870 | 457 | 152.4 | 200 |
| 8 | 200 | 292 | 990 | 356 | 203.2 | 104 | 419 | 1035 | 406 | 203.2 | 185 | 660 | 1040 | 457 | 199.9 | 340 |
| 10 | 250 | 330 | 1200 | 406 | 254.0 | 150 | 457 | 1265 | 457 | 254.0 | 285 | 787 | 1465 | 630 | 247.7 | 560 |
| 12 | 300 | 356 | 1400 | 457 | 304.8 | 225 | 502 | 1460 | 508 | 304.8 | 400 | 838 | 1695 | 630 | 298.5 | 780 |
| 14 | 350 | 381 | 1530 | 508 | 336.6 | 350 | 762 | 1770 | 500 | 336.6 | 620 | | | | | |
| 16 | 400 | 406 | 1900 | 500 | 387.4 | 450 | 838 | 1995 | 630 | 387.4 | 800 | | | | | |
| 18 | 450 | 432 | 2150 | 500 | 438.2 | 565 | 914 | 2320 | 710 | 431.8 | 1100 | | | | | |
| 20 | 500 | 457 | 2370 | 630 | 489.0 | 720 | 991 | 2500 | 710 | 482.6 | 1375 | | | | | |
| 24 | 600 | 508 | 2650 | 630 | 590.6 | 1160 | 1143 | 2900 | 800 | 584.2 | 2100 | | | | | |

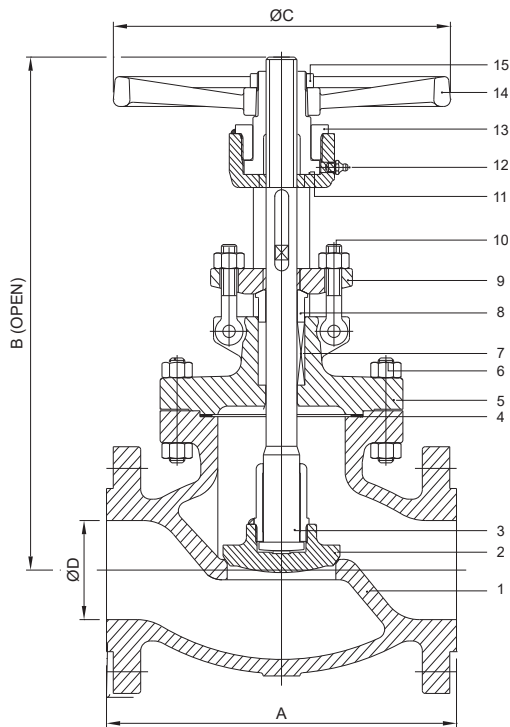
All dimensions in mm and approx. weights in kg

Globe Valves - ASME Class 150 to 600 (ASME B16.34)

Globe Valves are of outside screw-and-yoke design. The valves are available with flanged and butt-weld ends.

Features:

- Integral body seat. In-situ hardfacing provided for Trim 12 and 16 valves
- Non-Rotating Rising-Stem for lower operating torque
- Globe Valve stem-disc connection, allows disc to swivel and align for better seal
- Guided disc to avoid vibration during throttling
- Body-bonnet Joint - Class 150 Globe Valves offered with square-shaped body-bonnet joints in size 2" and with oval-shaped joints in 3" size. Valves in all other sizes and pressure classes offered with circular body-bonnet joints.
- Complies to API 624 and ISO 15848 fugitive emission requirements



| No. | Components | Materials |
|-----|-------------------------|--|
| 1 | Body | A351 Gr CF8M |
| 2 | Disc | A351 Gr CF8M/ A182 Gr F316 |
| 3 | Stem | A182 Gr F316 |
| 4 | Bonnet Gasket | Graphite/ PTFE |
| 5 | Bonnet | A351 Gr CF8M |
| 6 | Bolting: Body to Bonnet | Stud: A193 Gr B8M Cl 1/ A193 Gr B8M Cl 2 Nut: A194 Gr 8M |
| 7 | Packing | Graphite/ PTFE |
| 8 | Gland | A276 Type 316 |
| 9 | Gland Flange | A182 Gr F316/ A351 Gr CF8M |
| 10 | Gland Stud & Nut | Stud: A193 Gr B8M Cl 1/ A193 Gr B8M Cl 2 Nut: A194 Gr 8M |
| 11 | Stem Nut | A439 Type D2/ B148 UNS C95400 |
| 12 | Grease Fitting | A276 TP 316/ A276 TP 304 |
| 13 | Retainer Nut | A276 TP 316 |
| 14 | Handwheel | A536 Gr 60-40-18/ IS:1865 Gr SG 400-15 |
| 15 | Handwheel Nut | A276 TP 316 |
| 16 | Identification Plate | A240 TP 304 |

Dimensions & Weights

| Size | | Class 150 | | | | | Class 300 | | | | | Class 600 | | | | |
|------|-----|-----------|------|-----|-------|-----|-----------|------|-----|-------|-----|-----------|------|-----|-------|------|
| NPS | DN | A | B | C | D | Wt. | A | B | C | D | Wt. | A | B | C | D | Wt. |
| 2 | 50 | 203 | 380 | 203 | 50.8 | 18 | 267 | 415 | 203 | 50.8 | 25 | 292 | 475 | 254 | 50.8 | 35 |
| 3 | 80 | 241 | 460 | 254 | 76.2 | 32 | 318 | 515 | 254 | 76.2 | 45 | 356 | 585 | 356 | 76.2 | 60 |
| 4 | 100 | 292 | 535 | 305 | 101.6 | 50 | 356 | 605 | 356 | 101.6 | 75 | 432 | 665 | 406 | 101.6 | 105 |
| 6 | 150 | 406 | 610 | 356 | 152.4 | 90 | 444 | 715 | 457 | 152.4 | 150 | 559 | 1085 | 710 | 152.4 | 205 |
| 8 | 200 | 495 | 775 | 457 | 203.2 | 180 | 559 | 1185 | 710 | 203.2 | 325 | 660 | 1400 | 800 | 199.9 | 570 |
| 10 | 250 | 622 | 970 | 500 | 254.0 | 300 | 622 | 1290 | 800 | 254.0 | 550 | 787 | 1570 | 800 | 247.7 | 805 |
| 12 | 300 | 698 | 1195 | 710 | 304.8 | 390 | 711 | 1480 | 800 | 304.8 | 675 | 838 | 1810 | 800 | 298.5 | 1040 |

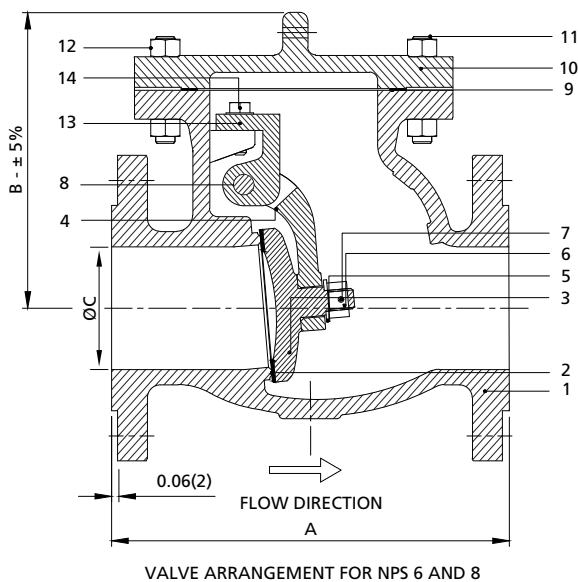
All dimensions in mm and approx. weights in kg

Check Valves - ASME Class 150 to 600 (ASME B16.34)

Check Valves are of swing-check design. The valves are available with flanged and butt-weld ends.

Features:

- Integral body seat. In-situ hardfacing provided for Trim 12 and 16 valves
- Internal hinge design eliminates additional leakage path
- Body-bonnet Joint - Class 150 Check Valves offered with square-shaped body-bonnet joints in size 2" and with oval-shaped joints in 3" size. Valves in all other sizes and pressure classes offered with circular body-bonnet joints.



| No. | Components | Materials |
|-----|------------------------|--|
| 1 | Body | A351 Gr CF8M |
| 2 | Disc | A351 Gr CF8M |
| 3 | Hinge | A276 Type 316 |
| 4 | Disc Washer | A276 Type 316 |
| 5 | Disc Nut | A276 Type 316 |
| 6 | Disc Nut Pin | A276 Type 316 |
| 7 | Hinge Pin | A276 Type 316 |
| 8 | Cover Gasket | Graphite/ PTFE |
| 9 | Cover | A351 Gr CF8M |
| 10 | Bolting: Body to Cover | Stud: A193 Gr B8M Cl 1/ A193 Gr B8M Cl 2 Nut: A194 Gr 8M |
| 11 | Bracket | A351 Gr CF8M |
| 12 | Hex Head Screw | A276 Type 316 |
| 13 | Identification Plate | A240 TP 304 |

Other stainless steel grades offered on customer demand.

Dimensions & Weights

| Size | | Class 150 | | | | Class 300 | | | | Class 600 | | | |
|------|-----|-----------|-----|-------|-----|-----------|-----|-------|-----|-----------|-----|-------|-----|
| NPS | DN | A | B | C | Wt. | A | B | C | Wt. | A | B | C | Wt. |
| 2 | 50 | 203 | 150 | 50.8 | 11 | 267 | 160 | 50.8 | 19 | 292 | 175 | 50.8 | 26 |
| 3 | 80 | 241 | 180 | 76.2 | 25 | 318 | 190 | 76.2 | 35 | 356 | 200 | 76.2 | 40 |
| 4 | 100 | 292 | 210 | 101.6 | 35 | 356 | 225 | 101.6 | 53 | 432 | 245 | 101.6 | 70 |
| 6 | 150 | 356 | 265 | 152.4 | 65 | 444 | 315 | 152.4 | 110 | 559 | 330 | 152.4 | 150 |
| 8 | 200 | 495 | 325 | 203.2 | 120 | 533 | 365 | 203.2 | 175 | 660 | 410 | 199.9 | 240 |
| 10 | 250 | 622 | 405 | 254.0 | 235 | 622 | 410 | 254.0 | 245 | 787 | 495 | 247.7 | 410 |
| 12 | 300 | 698 | 455 | 304.8 | 275 | 711 | 485 | 304.8 | 360 | 838 | 570 | 298.5 | 630 |

All dimensions in mm and approx. weights in kg

Ordering Information

| Size | Valve Type | Class | End Connection | Trim Number |
|-----------|---------------|---------|-----------------|-------------|
| 50 (2") | 3G Gate (603) | 1 - 150 | 3 - Flanged RF | 10 |
| 65 (2 ½") | 3L Globe | 3 - 300 | 5 - Flanged RTJ | 12 |
| 80 (3") | 3C Check | 6 - 600 | 6 - Butt-weld | 16 |
| 100 (4") | | | | |
| 150 (6") | | | | |
| 200 (8") | | | | |
| 250 (10") | | | | |
| 300 (12") | | | | |
| 350 (14") | | | | |
| 400 (16") | | | | |
| 450 (18") | | | | |
| 500 (20") | | | | |
| 600 (24") | | | | |



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