

Design and Manufacture: Cast steel gate valve to API 600 (ISO 10434) or API 601, Cast stainless steel gate valve to API 603 or API 605, Forged steel gate valve to API 602, Inspection and Test: API 598, API 602 or API 601, End Flange dimension: ASME B16.5 (NPS 24); ASME B16.47 series B, API 605 or ASME B16.47 series A, MSS SP-44 (Class 150)

Body end dimension: ASME B16.25
Face to face and end to end: ASME B16.10.

DESIGN OF DISC
Gate valves with NPS > 2 are of wedge flexible gate. Gate valves with NPS < 2 are of wedge gate valve.

BODY AND BONNET CONNECTION
The body and bonnet of Class 150 - Class 900 gate valves are usually connected by flange and end. And body/bonnet of Class 1500 - Class 2500 gate valves are usually connected by flange and end.

GASKET OF COVER FLANGE
Carbon steel or stainless steel: Flexible graphite combined gasket is used for Class 150 gate valve, Stainless steel: Flexible or graphite combined gasket is used for Class 150 gate valve, Stainless steel: Flexible graphite combined gasket is used for Class 150 gate valve, and integral gasket is used for Class 900 gate valve. Premanufactured gasket is used for Class 1500 - Class 2500 gate valve.

ACTUATION
Handwheel or gearbox is usually used for gate valve actuation. Chain wheel and electric actuator can be also used for gate valve actuation if being requested by the customer.

Belleville Spring Loaded Packing Impacting System
Being requested by the customer, the Belleville spring loaded packing impacting system can be adopted for enhancing the reliability and sealability of the packing seal.

PACKING SEAL
Molded flexible graphite is used for packing material. PTFE or combined packing material can be also used if being requested by the customer. The internal surface of the stuffing box, of which area is contacted with the packing, is of sealcoat finish (Ra1.25). The stem surface, contacting with the packing, should be polished and ground. And being pre-machined, and then to reach the high finish and smooth surface (Ra0.1) in order to reduce the relative roughness of the stem area.

DBV VALVE GROUP CO.LTD.

Gate Valve Series
Cast Steel Gate Valve (API 600)

DESIGN DESCRIPTION
Full port design
DB & Y, Outside screw and yoke
BB, Ball-bonnet
DB & Y, Outside screw and yoke
Choice of solid or split wedge
Choice of solid or split wedge
Forged head stem
Rising stem and non-rising handwheel
Flanged or butt welding ends
Available with top operator

APPLICABLE STANDARDS
Design standard: API 600 & ASME B16.34
Face to face: ASME B16.10
End flange: ASME B16.5
Butt welding ends: ASME B16.25
Inspection and test: API 598

MATERIALS OF PARTS

NO.	Part name	ASTM Material
1	Bonnet	A191-CF8M
2	Bonnet	A191-CF8M
3	Stem	A191-CF8M
4	Stem	A191-CF8M
5	Stem	A191-CF8M
6	Bonnet gasket	Graphite+PTE
7	Bonnet stud	A191-CF8M
8	Bonnet stud nut	A191-CF8M
9	Packing	Graphite
10	Gland flange	A191-CF8M
11	Gland flange	A191-CF8M
12	Eyebolt pin	A191-CF8M
13	Eyebolt	A191-CF8M
14	Eyebolt nut	A191-CF8M
15	Yoke lifting	Carbon steel+API 603
16	Yoke lifting pin	A191-CF8M
17	Yoke lifting pin nut	A191-CF8M
18	Handwheel nut	Carbon steel

Note: 1) Seal wound condition.
2) Yoke lifting optional.
3) Double flange optional.
4) Wedge and handwheel with body/cover either be solid forged material or a base metal equal or better than the body/bonnet material with facing as shown.

DBV VALVE GROUP CO.LTD.

Gate Valve Series
Cast Stainless Steel Gate Valve (API 603)

DESIGN DESCRIPTION
Full port design
DB & Y, Outside screw and yoke
BB, Ball-bonnet
DB & Y, Outside screw and yoke
Choice of solid or split wedge
Choice of solid or split wedge
Forged head stem
Rising stem and non-rising handwheel
Flanged or butt welding ends
Available with top operator

APPLICABLE STANDARDS
Design standard: API 603 & ASME B16.34
Face to face: ASME B16.10
End flange: ASME B16.5
Butt welding ends: ASME B16.25
Inspection and test: API 598

MATERIALS OF PARTS

NO.	Part name	ASTM Material
1	Bonnet	A191-CF8M
2	Bonnet	A191-CF8M
3	Stem	A191-CF8M
4	Stem	A191-CF8M
5	Stem	A191-CF8M
6	Bonnet gasket	Graphite+PTE
7	Bonnet stud	A191-CF8M
8	Bonnet stud nut	A191-CF8M
9	Packing	Graphite
10	Gland flange	A191-CF8M
11	Gland flange	A191-CF8M
12	Eyebolt pin	A191-CF8M
13	Eyebolt	A191-CF8M
14	Eyebolt nut	A191-CF8M
15	Yoke lifting	Carbon steel+API 603
16	Yoke lifting pin	A191-CF8M
17	Yoke lifting pin nut	A191-CF8M
18	Handwheel nut	Carbon steel

Note: 1) Seal wound condition.
2) Yoke lifting optional.
3) Double flange optional.
4) Wedge and handwheel with body/cover either be solid forged material or a base metal equal or better than the body/bonnet material with facing as shown.

DBV VALVE GROUP CO.LTD.

Gate Valve Series
Cryogenic Gate Valve

DESIGN DESCRIPTION
Design and Manufacture: API 600, B5414, API 605, B5532
Face to face: ASME B16.10
End flange: ASME B16.5
Seal: Wedge End Dimension: ASME B16.11
Thread End Dimension: ASME B16.11
Pressure Temperature Rating: ASME B16.34
Type of Operation: Manual, Seal, Electric, Pneumatic
Inspection and test: API 598

APPLICABLE STANDARDS
Design standard: API 600, B5414, API 605, B5532
Face to face: ASME B16.10
End flange: ASME B16.5
Seal: Wedge End Dimension: ASME B16.11
Thread End Dimension: ASME B16.11
Pressure Temperature Rating: ASME B16.34
Type of Operation: Manual, Seal, Electric, Pneumatic
Inspection and test: API 598

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3	Stem	A191-CF8M
4	Stem	A191-CF8M
5	Stem	A191-CF8M
6	Bonnet gasket	Graphite+PTE
7	Bonnet stud	A191-CF8M
8	Bonnet stud nut	A191-CF8M
9	Packing	Graphite
10	Gland flange	A191-CF8M
11	Gland flange	A191-CF8M
12	Eyebolt pin	A191-CF8M
13	Eyebolt	A191-CF8M
14	Eyebolt nut	A191-CF8M
15	Yoke lifting	Carbon steel+API 603
16	Yoke lifting pin	A191-CF8M
17	Yoke lifting pin nut	A191-CF8M
18	Handwheel nut	Carbon steel

Note: 1) Seal wound condition.
2) Yoke lifting optional.
3) Double flange optional.
4) Wedge and handwheel with body/cover either be solid forged material or a base metal equal or better than the body/bonnet material with facing as shown.

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Gate Valve Series
Cast Steel Gate Valve (Pressure Seal)

DESIGN DESCRIPTION
Design standard: API 600 & ASME B16.34
Face to face: ASME B16.10
End flange: ASME B16.5
Butt welding ends: ASME B16.25
Inspection and test: API 598

APPLICABLE STANDARDS
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18	Handwheel nut	Carbon steel

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