

# API600 cast steel flanged gate valve (600lb)

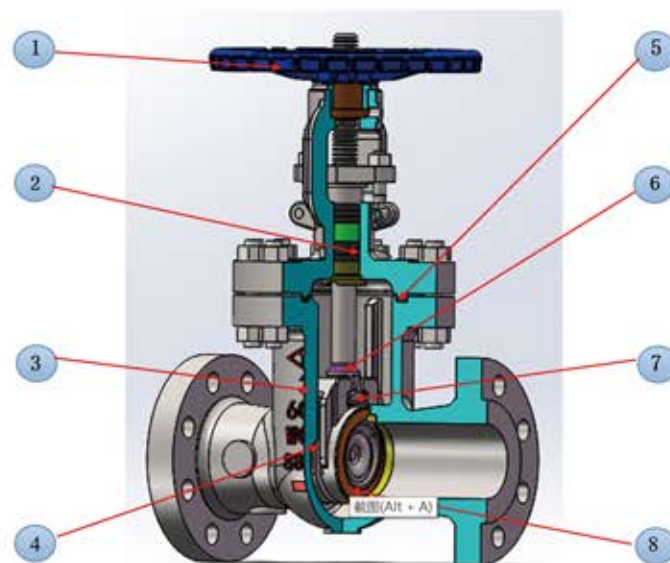


## PRODUCT OVERVIEW

|                        |   |
|------------------------|---|
| Body material:         | ASTM A216 WCB   |
| Size range:            | 2" ~ 24"  |
| Pressure rating:       | Class 600lb   |
| Operating temperature: | -29 ~ 425°C   |
| End connection:        | Flanged   |
| Applicable medium:     | Water, Steam, Oil   |
| Mode of operation:     | Manual  |
| Applicable industry:   | Chemical & Petrochemical, Oil & Gas, Mining & Minerals, Power generation, Water & Water Treatment, Pulp & Paper, Municipal, Heating & Ventilation |
| Design & Manufacture:  | API, ASME, ASTM, ANSI, BS, DIN, JIS, ISO, GB  |

## DESIGN FEATURES

- 1.The valve allows to remove the handwheel in the fully open position;
- 2.The packing can be replaced with different materials and structures according to the requirements of customer;
- 3.The integral guide rail inside the valve body can ensure that the gate plate is aligned at any position during the process of opening and closing;
- 4.The elastic wedge gate plate can compensate the distortion of the seat ring surface and the deformation of the valve body caused by the pipeline stress;
- 5.The medium-caliber gasket utilizes metal spiral wound gasket, which has good sealing performance, a longer service life, and can be used repeatedly;
- 6.The anti-blow-out valve stem is designed with a tapered upper sealing surface. When the valve is fully opened, it is in close contact with the valve bonnet;
- 7.The joint strength between the valve stem and the gate plate is higher than that of the thread of the valve stem;
- 8.The valve seat ring is installed by sealing welding, and customers can choose different surfacing materials for the sealing surface according to their own demands.



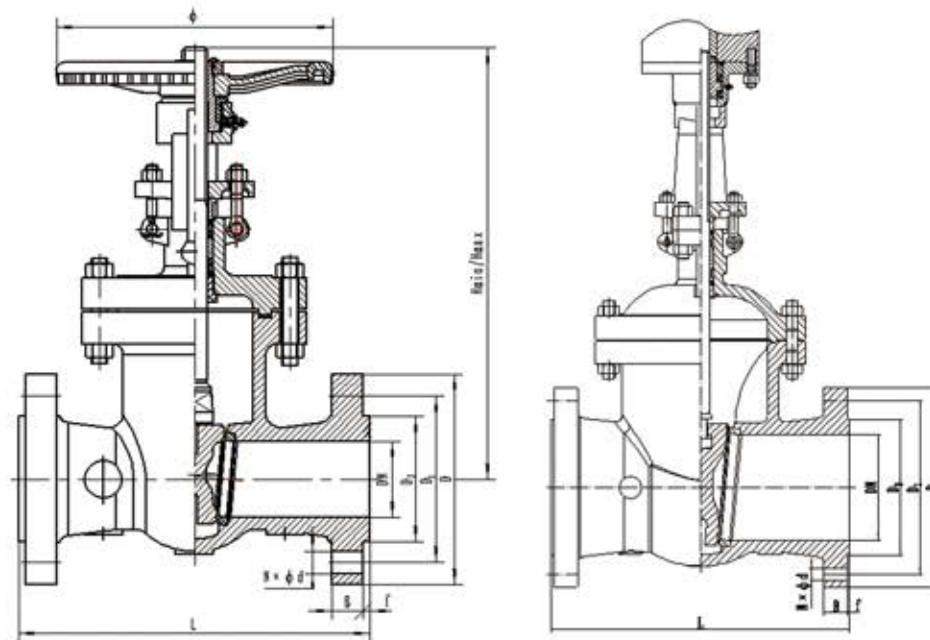
( Structure )



## VALVE MATERIAL LIST

| Part name   | Material               |
|---|------------------------|
| Valve body, Bonnet                                | ASTM A216 WCB          |
| Gate plate(600LB 2" ~ 4")                         | ASTM A217 CA15         |
| Gate plate (600LB 5" ~ 24")                       | ASTM A216 WCB          |
| Stem  | ASTM A182/A182M F6a    |
| Stem nut  | ASTM A439 D-2          |
| Packing   | ASTM A276 304+Graphite |
| Medium-caliber gasket (metal spiral wound gasket) | ASTM A276 304+Graphite |
| Valve seat  | ASTM A105              |
| Upper seal seat                                   | ASTM A276 410          |
| Packing plate                                     | ASTM A216 WCB          |
| Packing sleeve                                    | ASTM A276 410          |
| Spacer ring                                       | ASTM A276 410          |
| Bolt  | ASTM A193 B7           |
| Swing bolt  | ASTM A193 B7           |
| Nut   | ASTM A194 2H           |

## TECHNICAL SPECIFICATIONS



| Model      | NPS    | DN (mm) | Size(mm) |       |                |                |          |          |       |       |                |
|------------|--------|---------|----------|-------|----------------|----------------|----------|----------|-------|-------|----------------|
|            |        |         | L        | D     | D <sub>1</sub> | D <sub>2</sub> | b-f      | z-φd     | Hmax  | Hmin  | D <sub>0</sub> |
| Z41-600LB  | 2"     | 51      | 292      | 165   | 127            | 92.1           | 25.4-7   | 8-φ19    | 418.5 | 354.5 | 240            |
|            | 2 1/2" | 64      | 330      | 190   | 149.2          | 104.8          | 28.6-7   | 8-φ22.5  | 476   | 385   | 240            |
|            | 3"     | 77      | 356      | 213   | 168.3          | 127            | 31.8-7   | 8-φ22.5  | 526   | 437   | 280            |
|            | 4"     | 102     | 432      | 275   | 215.9          | 157.2          | 38.1-2   | 8-φ25.5  | 667   | 551   | 320            |
|            | 5"     | 127     | 508      | 330   | 266.7          | 185.7          | 44.5-7   | 8-φ28.5  | 765   | 618   | 400            |
|            | 6"     | 153     | 559      | 355   | 292.1          | 215.9          | 47.7-7   | 12-φ28.5 | 893   | 718   | 450            |
|            | 8"     | 200     | 660      | 420   | 349.2          | 269.9          | 55.6-7   | 12-φ32   | 1105  | 875   | 560            |
| Z541-600LB | 6"     | 153     | 559      | 510   | 292.1          | 215.9          | 47.7-7   | 12-φ28.5 |       |       |                |
|            | 10"    | 248     | 787      | 355   | 431.8          | 323.8          | 55.6-7   | 12-φ32   |       |       |                |
|            | 12"    | 299     | 838      | 560   | 349.2          | 269.9          | 63.5-7   | 16-φ35   |       |       |                |
|            | 8"     | 200     | 660      | 420   | 489            | 381            | 66.7-7   | 20-φ35   |       |       |                |
|            | 14"    | 327     | 889      | 605   | 527            | 412.8          | 69.9-7   | 20-φ38.1 |       |       |                |
|            | 16"    | 375     | 991      | 685   | 603.2          | 469.9          | 76.2-7   | 20-φ41.3 |       |       |                |
|            | 18"    | 419.1   | 1092     | 745   | 654            | 533.4          | 82.6-7   | 20-φ44.5 |       |       |                |
|            | 20"    | 464     | 1194     | 815   | 723.9          | 584.2          | 88.9-7   | 24-φ44.5 |       |       |                |
| 24"        | 885    | 1397    | 940      | 838.2 | 692.2          | 101.6-7        | 24-φ50.8 |          |       |       |                |