Cast Steel Bolted Bonnet Gate Valves

Design
- MECCO cast steel gate valve are designed to conform to API 600, ISO 10434, BS 1414, and ASME B16.34.
- Wall Thickness: API 600, ASME B16.34
- Face to Face: ASME 16.10, BS 2080 and ISO 5752
- Flange End: ASME B16.5 for 2”-24” ASME B16.47 series A or B for 2” and larger
- SW End: ASME B16.25
- Inspection & Test: API 598, BS EN 12266, ISO 5208

Castings
- All castings for valve production are manufactured in our own foundry facility. Raw materials purchased are carefully inspected before proceeding to production to ensure conformity to the standard & required specifications that meet ASTM, JIS, BS, DIN etc.

Bodies
- Bodies are designed to provide a minimum pressure drop and have a sufficient wall thickness to withstand the torsion forces and stresses normally encountered in piping systems and to compensate for erosion and corrosion effects.

Bonnets
- Bonnets are designed in various types to meet the valve body & operational requirements and connections are either flat face, groove for gasket, ring joint faces. Pressure Seal Bonnet available for Class 900 /1500/2500.

Disc/Gate/Wedge
- All the gates have tapered H Cross-section and are fully guided to the seats. Solid Flexible gate is cast or machined with a circumferential groove to allow the seating surface to move independently and adjust movement of the body seats.

Seats
- Integral seat or Forged steel seat is machined and surface is overlaid with hard alloy specified by the customer. Seat is either threaded or welded onto valve body.

Back Seat
- All our gate valve have the back seating design and is renewable. For stainless steel gate valve, the back seat is integral.

Stems
- Stems are made in one piece forging with T-head and precision ACME Threads.

Stem Nuts
- The stem nut arrangement and design allows the removal of handwheel at the open position and will not drop into close position. Thrust Bearings are provided in the stem nut arrangement for large size valves.

Gaskets
- Class 150: Jacketed Graphite with Stainless Steel
- Class 300/600: Spiral Wound Graphite with Stainless Steel
- Class 900: Ring Joint Metal
- Other gasket materials are also available and are selected generally according to application pressure & temperature.

Gland Packings
- Die-formed graphite with braided graphite yarn with corrosion inhibitor is standard materials, other special materials are also available optionally.

Glands
- Gland has a two-piece construction for easy alignment

Operators
- Gate valves are generally supplied with Hand Wheel operator, having “Open” & “Close” identification.
- Gear Operator, Electric Motor Actuator or Cylinder Actuator for remote operation available on request.

Stuffing Box
- Minimum 1.25 RMS surface finish, cylindrically and vertically precision controlled according to MECCO design and manufacture Standards.