General Features

Features

- **DESIGNED IN ACCORDANCE WITH INDUSTRY STANDARDS**
  i.e. ASME B16.34, ASME B31.3, ASME B16.5, API 6D / ISO 14313

- **FULL BORE**
  Meets the minimum bore requirements according to API 6D / ISO 14313, Table 1.

- **REDUCED BORE**
  One size below nominal size of valve with bore according to API 6D / ISO 14313, Table 1.

- **STANDARD MATERIALS OF CONSTRUCTION**
  are forged Carbon Steel LF2, Stainless Steel 316 and Duplex.

- **PRESSURE CLASS 150 TO 2,500**

- **FIRE SAFE IN ACCORDANCE TO API 607 AND ISO 10497**

- **COMPLIANT TO NACE MR0175 AND ISO 15156**

- **FACTORY TESTED**
  in accordance with ASME B16.34, API 6D / ISO 14313, ISO 5208

- **MANUFACTURED IN ACCORDANCE WITH THE PRESSURE EQUIPMENT DIRECTIVE**

**Manufactured according to the following Codes and Specifications**

- **ASME B31.3** Process Piping
- **ASME B16.34** Valves – Flanged, Threaded and Welding End
- **ASME B16.5** Pipe Flanges and Flanged Fittings
- **ASME B16.10** Face-to-Face and End-to-End Dimensions of Valves
- **ASME B16.11** Forged Fittings, Socket Welding and Threaded
- **ASME B16.25** Buttwelding Ends
- **NACE MR0175/ISO 15156** Petroleum and Natural Gas Industries – Materials for use in H2S-containing Environments in Oil and Gas Production
- **API 6D/ISO 14313** Specification for Pipeline Valves
- **API 598** Valve Inspection and Testing
- **ISO 5208** Industrial Valves – Pressure Testing of Metallic Valves
- **API 607/ISO 10497** Fire Test for Soft-Seated Quarter Turn Valves Testing of Valves. Fire Type-testing Requirements
- **MSS SP-25** Standard Marking System for Valves, Fittings, Flanges and Unions

**YOUR BENEFITS:**

- Compact Assembly
- Reduced Weight
- Reduced Leak Paths
- Reduced Installation and Maintenance Costs
- Significant Space Savings

**BASICALLY WE OFFER 2 DIFFERENT DESIGNS:**

- 2 Piece Design
- 3 Piece Design
- Both Flanged Style and Side Entry
2 Piece Design, Flanged Style - Features

- Bore Size 1" through 2"
- Floating Ball Design (Bore Size 1" through 2")
- Trunnion Ball Design (Bore Size 2" only)
- Acc. to ASME B16.10 Standard Length
  - Floating Ball Design Class 600, 900 & 1,500
  - Trunnion Ball Design Class 900, 1,500
- Non Standard Length for Class 150 & 300 and also for Trunnion Ball Design Class 600
- Flanged Connections acc. to ASME B16.5
- Vent: Integral Needle Valve
- Lockable Handle/Lever - removable, Gear Box Operation available. Actuator mounting flanges, unless otherwise specified, are in full accordance with ISO 5211.
- Forged Body

Vent Connections:
- Integral Vent Valve – Needle Type, Screwed Bonnet or Flanged Bonnet (OS&Y)
- Screwed Vent Valve – Ball Valve
3 Piece Design, Flanged Style

- Bore Size 1” through 6”
- Floating Ball Design (Bore Size 1” through 2”)
- Trunnion Ball Design (Bore Size 2” through 6”)
- Non Standard Length face-to-face dimensions
- Flanged Connections acc. to ASME B16.5
- Handle lockable and removable, Gear Box Operation as Standard. Actuator mounting flanges, unless otherwise specified, are in full accordance with ISO 5211.
- Forged Body

Vent Connections:
- Integral Vent Valve – Needle Type, Screwed Bonnet or Flanged Bonnet (OS&Y)
- Screwed Vent Valve – Ball Valve

Further Vent Connections for Ball Valves with Bore Size from 3” up to 6”:
- Flanged Vent Valve – Ball Valve
- Flanged Double Block & Bleed Valve (VariAS-Block)
- Flanged Monoflange
Your Benefits At A Glance

• **MADE IN GERMANY**
  The Taurus Series is designed, developed, manufactured and tested in Germany and certified by TÜV Süd.

• **STATE-OF-THE-ART VALVES**
  Taurus are state-of-the-art valves and developed and reengineered using the latest design and simulating methods paired with decades of experience.

• **HIGH-QUALITY RAW MATERIALS**
  Valve Body raw materials are sourced basically from Europe or North America.

All Taurus Types Meet the Following Requirements by Default:
- Fire Safe tested and certified acc. to API 607 and ISO 10497
- Tested and certified for Fugitive Emissions acc. to ISO 15848-1
- NACE MR0175 and ISO 15156
- Pressure Equipment Directive (PED)
- API 6D / ISO 14313
- ASME B16.34

• **FULL BORE**
  We offer a 'real' Full Bore Valve according to API 6D / ISO 14313.
  Some manufacturers fall below these minimum dimensions and offer it anyway as "Full Bore", although the bore size diameter do not meet the minimum requirements.

• **SHORT FACE-TO-FACE LENGTH**
  These valves meet the face-to-face requirements of ASME B16.10 (where feasible) and can therefore replace an existing ball valve or double block & bleed valve. This short and compact design results in less space requirements and less weight.

• **HIGH-QUALITY MATERIALS**
  Use of high-quality materials for maximum performance:
  - Where necessary, PEEK as seat material and Duplex as ball material are provided.
  - Stems are generally made in XM-19, an austenitic stainless steel grade, which has a greater corrosion resistance and higher yield strength than 316 stainless steel.
  - All other trim materials and all non-wetted parts are provided in 316 stainless steel (or superior). Therefore the use in corrosive or salty environment is feasible.
  - Materials of actuators and gearboxes acc. to manufacturer’s standard.
  - For valves in special alloys all wetted parts are made in the special alloy material.
### Product Specification At A Glance

<table>
<thead>
<tr>
<th>Bore Size</th>
<th>Flange Class</th>
<th>Bore Size Diameter</th>
<th>2 Piece Design</th>
<th>3 Piece Design</th>
<th>Standard</th>
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<td>Face-to-Face Operation</td>
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<td>Seat Material</td>
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<td>2&quot; 50 mm</td>
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<td>ASME B16.10</td>
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</tbody>
</table>

1) Class 900 Valves are equal to Class 1,500.
2) ASME B16.10 does not indicate ball valve face-to-face dimension for Class 1,500 / 2,500 and sizes up to 1 1/2".
   Therefore these types correspond to the overall dimensions of gate valves – Those have typically the same face-to-face dimensions in ASME B16.10 as ball valves.
3) MS = Manufacturer's Standard
4) PEEK = Modified PEEK
   PTFE = Reinforced PTFE
### Ordering Information

#### Taurus

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<thead>
<tr>
<th>T</th>
<th>D</th>
<th>3</th>
<th>D</th>
<th>L</th>
<th>–</th>
<th>2</th>
<th>F</th>
<th>C</th>
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<th>C</th>
<th>–</th>
<th>Y</th>
<th>0</th>
<th>0</th>
<th>1</th>
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</thead>
</table>

#### Bore Size

- **Trunnion Ball Design**
  - **D**
    - 2”
    - 4”
    - 6”
- **Floating Ball Design**
  - **F**
    - 3”
    - 5”

#### Design

- **Double Block & Bleed / 2 Ball Isolates, Needle Vent (Integral Valve or Flanged Monoflange)**
- **Double Block & Bleed / 2 Ball Isolates, Ball Vent (Ball Valve or Double Block & Bleed Valve)**
- **Block & Bleed / Ball, Needle Vent (Integral Valve or Flanged Monoflange)**
- **Block & Bleed / Ball, Ball Vent (Ball Valve or Double Block & Bleed Valve)**

#### Type / Configuration

<table>
<thead>
<tr>
<th>D</th>
<th>E</th>
<th>B</th>
<th>C</th>
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</thead>
<tbody>
<tr>
<td>Double Block &amp; Bleed / 2 Ball Isolates, Needle Vent</td>
<td>Double Block &amp; Bleed / 2 Ball Isolates, Ball Vent</td>
<td>Block &amp; Bleed / Ball, Needle Vent</td>
<td>Block &amp; Bleed / Ball, Ball Vent</td>
</tr>
</tbody>
</table>

#### Body Material

- **C**
  - A 105
  - Super Duplex UNS S32750
- **L**
  - Carbon Steel LF2
  - Alloy 625 UNS N06625
- **S**
  - 1.4404 / 1.4401 / 316 / 316L
  - 1.4404 / 1.4401 / 316 / 316L
- **F**
  - Duplex UNS S31803
  - Duplex UNS S31803

#### Inlet Connection

<table>
<thead>
<tr>
<th>Flange Size</th>
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<tbody>
<tr>
<td>1”</td>
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<tr>
<td>3”</td>
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<tr>
<td>4”</td>
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</table>

#### Flange Type

- **F** RF
- **T** RTJ

#### Flange Class

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<thead>
<tr>
<th>Flange Class</th>
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<tbody>
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<td>A</td>
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</table>

#### Outlet Connection

<table>
<thead>
<tr>
<th>Flange Size</th>
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<tbody>
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<td>1”</td>
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<tr>
<td>3”</td>
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<td>4”</td>
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#### Flange Type

- **F** RF
- **T** RTJ

#### Flange Class

<table>
<thead>
<tr>
<th>Flange Class</th>
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<tbody>
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<td>A</td>
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#### Vent Connection

- **N** Integral Vent Valve – Needle Type, Screwed Bonnet
- **T** Integral Vent Valve – Needle Type, Flanged Bonnet (OS&Y)
- **K** Screwed Vent Valve – Ball Valve
- **B** Flanged Vent Valve – Ball Valve
- **V** Flanged Double Block & Bleed Valve (VariAS-Block)
- **M** Flanged Monoflange

#### Following by a Sequential Number

- **Features and Options to be specified respectively are available**
  - **Trim Material**
    - Stainless Steel Trim
    - Duplex Trim
  - **Stem Seal**
    - FKM O-Ring
    - HNBR O-Ring
  - **Weld Inlay**
    - 316 Weld Inlay
    - 625 Weld Inlay
  - **Operation**
    - Actuated
    - Gear Operated
    - Lever Operated
    - Lockable Handle/Lever
    - Anti-Tamper Vent Valve
  - **Ball Seat Material**
    - Carbon Filled PTFE
    - Devon
    - PEEK
    - Metal Seated
  - **General Options**
    - NACE Specification
    - Fire Safe
    - Blind Flange on Vent
YOUR GLOBAL PARTNER

for Instrumentation and
Double Block & Bleed Valves

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