

taurus



# Double Block & Bleed Piping Ball Valves

Taurus Series – Twin Ball Design



# 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**
- **BALL SEAT MATERIAL**  
PTFE, Devlon, PEEK or Metal Seated
- **STEM SEAL MATERIAL**  
FKM, HNBR - RGD resistant (RGD = Rapid Gas Decompression) or Graphite
- **ANTI-BLOWOUT STEM DESIGN AND ANTI-STATIC DESIGN**
- **WELD INLAY**  
Seat pocket and seal area overlay on request.
- **BI-DIRECTIONAL**  
The Taurus Series floating and trunnion ball valves are bi-directional as standard.
- **PAINTING**  
The valves can be supplied with any kind of adequate coatings for environmental protection, according to customers specifications.
- **CERTIFICATION AND TRACEABILITY**  
Material test certificates 3.1 according to EN 10204. A unique code is stamped on all relevant components linking them with their material and chemical analysis certificates.

## Manufactured according to the following Codes and Specifications

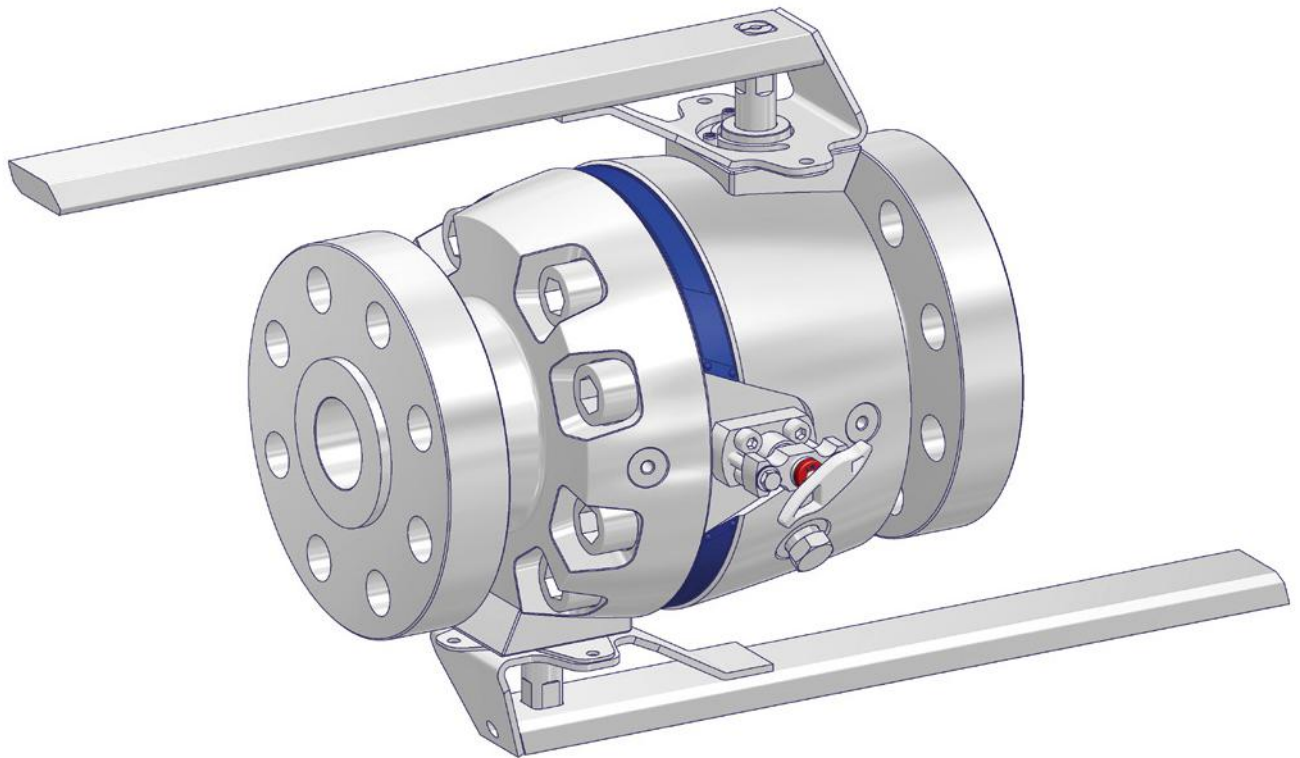
- ASME B31.3      Process Piping
- ASME B16.34    Valves – Flanged, Threaded and Welding End
- ASME B16.5     Pipe Flanges and Flanged Fittings
- ASME B16.10    Face-to-Face and End-to-End Dimensions of Valves
- ASME B16.11    Forged Fittings, Socket Welding and Threaded
- ASME B16.25    Buttwelding Ends
- NACE MR0175/ ISO 15156    Petroleum and Natural Gas Industries – Materials for use in H<sub>2</sub>S-containing Environments in Oil and Gas Production
- API 6D/ ISO 14313    Specification for Pipeline Valves  
Petroleum and Natural Gas Industries – Pipeline Transportation Systems – 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



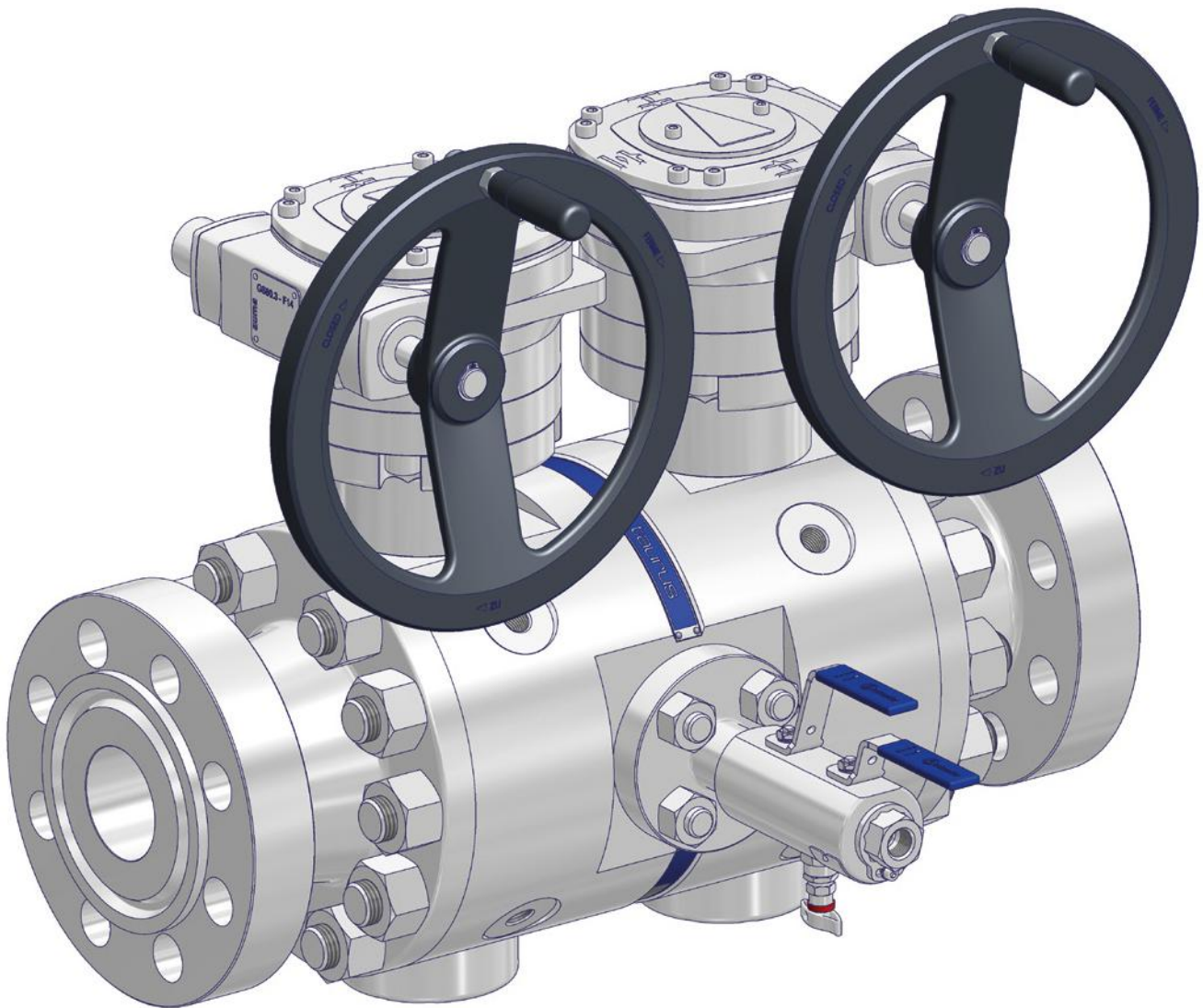
### 2 Piece Design, Flanged Style - Features

- 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



### 3 Piece Design, Flanged Style - Features

- 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

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	Bore Size	Flange Class	Bore Size Diameter	2 Piece Design		3 Piece Design		Standard	
				Operation	Face-to-Face Length <sup>(3)</sup>	Operation	Face-to-Face Length <sup>(3)</sup>	Seat Material <sup>(4)</sup>	Ball Material
Floating Ball	1"	150	1" 25 mm	Lever	MS	Lever	MS	PTFE	Duplex
		300			ASME B16.10 <sup>(2)</sup>				
		600							
		900 / 1,500 <sup>(1)</sup>							
		2,500							
	1 1/2"	150	1 1/2" 38 mm	Lever	MS	Lever	MS	PTFE	Duplex
		300			ASME B16.10 <sup>(2)</sup>				
		600							
		900 / 1,500 <sup>(1)</sup>							
		2,500							
	2"	150	2" 50 mm	Lever	MS	Lever	MS	PTFE	Duplex
		300			ASME B16.10				
600									
900 / 1,500 <sup>(1)</sup>		Gearbox							
2,500									
Trunnion Ball	2"	150	2" 50 mm	Lever	MS	Lever	MS	PTFE	Duplex
		300			ASME B16.10				
		600		Gearbox					
		900 / 1,500 <sup>(1)</sup>							
	2,500	42 mm							
	3"	150	3" 74 mm	Gearbox	Gearbox	MS	PEEK	Duplex	
		300							
		600							
		900							
		1,500							
		2,500							62 mm
	4"	150	4" 100 mm	Gearbox	Gearbox	MS	PEEK	Duplex	
		300							
		600							
		900							
		1,500							
	2,500	87 mm							
	6"	150	6" 150 mm	Gearbox	Gearbox	MS	PEEK	Duplex	
		300							
		600							
900									
1,500		144 mm							
2,500	131 mm								

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

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
		T	D	3	D	L	-	2	F	C	2	F	C	-	Y	0	0	1	
T	<b>Taurus</b>																		
<b>Bore Size</b>																			
		<b>Trunnion Ball Design</b>				<b>Floating Ball Design</b>													
D	2" H 4" K 6"	1	1"	2	2"														
F	3" J 5"	6	1 1/2"																
<b>Design</b>																			
2	2 Piece Design																		
3	3 Piece Design																		
<b>Type / Configuration</b>																			
D	Double Block & Bleed / 2 Ball Isolates, Needle Vent (Integral Valve alt. Flanged Monoflange)																		
E	Double Block & Bleed / 2 Ball Isolates, Ball Vent (Ball Valve or Double Block & Bleed Valve)																		
B	Block & Bleed / Ball, Needle Vent (Integral Valve alt. Flanged Monoflange)																		
C	Block & Bleed / Ball, Ball Vent (Ball Valve or Double Block & Bleed Valve)																		
<b>Body Material</b>																			
C	A 105	D	Super Duplex UNS S32750																
L	Carbon Steel LF2	V	Alloy 625 UNS N06625																
S	1.4404 / 1.4401 / 316 / 316L	1	Alloy 825 UNS N08825																
F	Duplex UNS S31803																		
<b>Inlet Connection</b>																			
<b>Flange Size</b>																			
1	1" 3 3"																		
C	1 1/2" 4 4"																		
2	2" 6 6"																		
<b>Flange Type</b>																			
F	RF																		
T	RTJ																		
<b>Flange Class</b>																			
A	150 D 900																		
B	300 E 1,500																		
C	600 F 2,500																		
<b>Outlet Connection</b>																			
<b>Flange Size</b>																			
1	1" 3 3"																		
C	1 1/2" 4 4"																		
2	2" 6 6"																		
<b>Flange Type</b>																			
F	RF																		
T	RTJ																		
<b>Flange Class</b>																			
A	150 D 900																		
B	300 E 1,500																		
C	600 F 2,500																		
<b>Vent Connection</b>																			
N	Integral Vent Valve – Needle Type, Screwed Bonnet	B	Flanged Vent Valve – Ball Valve																
Y	Integral Vent Valve – Needle Type, Flanged Bonnet (OS&Y)	V	Flanged Double Block & Bleed Valve (VariAS-Block)																
K	Screwed Vent Valve – Ball Valve	M	Flanged Monoflange																
<b>Followed by a Sequential Number</b>																			
<b>Features and Options to be specified respectively are available</b>																			
<b>Trim Material</b>	Stainless Steel Trim Duplex Trim	<b>Stem Seal</b>	FKM O-Ring HNBR O-Ring	<b>Weld Inlay</b>	316 Weld Inlay 625 Weld Inlay	<b>Operation</b>	Actuated Gear Operated Lever Operated Lockable Handle/Lever Anti-Tamper Vent Valve	<b>Ball Seat Material</b>	Carbon Filled PTFE Devlon PEEK Metal Seated	<b>General Options</b>	NACE Specification Fire Safe Blind Flange on Vent								

# YOUR GLOBAL PARTNER

for Instrumentation and  
Double Block & Bleed Valves



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