



Fabricated Steel Triple-offset Butterfly Valve for Water (PN6 to PN25)

Technical Datasheet & Specifications

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1. Product Overview

Parameter	Specification
Product Name	Triple Offset Butterfly Valve – Metal Seated (TOBV)
Description	Butterfly Valve for Oil & Gas, Petrochemical, Water Treatment. KSA/UAE export. A

2. Salient Features



✓ IBR Certified Valves

✓ NiAlBr NAB Valves

4. Technical Specifications

Parameter	Specification
Design Standard	AWWA C504, AWWA C516, EN 593, ISO 5752
Pressure Rating	PN6, PN10, PN16, PN25, AWWA Class 150B
Size Range	24" to 100" (600 mm to 2500 mm)
Body Styles	Double Flanged (AWWA C504 Short & Long), Custom face-to-face
Body Construction	Heavy Fabricated Carbon Steel Plate (A516 Gr. 70)
End Connections	AWWA C207, ASME B16.47 Series A, EN 1092-1
Testing Standard	AWWA C504, API 598, ISO 5208
Seat Sealing	Stainless Steel 316 / Duplex + Graphite laminate, Stellite seat
Leakage Class	Zero seat leakage, bubble-tight shutoff (both directions)
Corrosion Protection	Internal & External Fusion Bonded Epoxy (FBE) coating, min 300 microns

5. Materials of Construction

Part	Standard Material
Body	Heavy Fabricated Carbon Steel Plate ASTM A516 Gr. 70 / A36 / A283 Gr. C
Disc	ASTM A216 WCB / ASTM A516 Gr. 70 overlaid with Stainless Steel
Body Seat	Hard-faced with Stellite 21 / Solid Stainless Steel 316 overlay
Laminar Seal Ring	Duplex SS32205 + Flexible Graphite laminate
Shaft / Stem	Stainless Steel SS431 / SS316 / SS17-4PH
Bearings	Self-lubricated Stainless Steel backed PTFE sleeve bearings

6. Dimensions



Conforms to API 609 or ISO 5752 Series 20. Bore sizes are full-bore from DN80 to DN1200. Standard Wafer, Lug, and Flanged face-to-face dimensions. General arrangement drawings (GAD) featuring electric actuator, pneumatic scotch-yoke actuator, or manual gear box dimensions are supplied per Purchase Order.

7. Testing & Inspection

Test	Standard Reference	Acceptance Criteria
Body Hydrostatic Shell	API 598 / ISO 5208	1.5 x Class Rated Pressure (e.g. 30 bar for 150#)
High Pressure Seat	API 598 / ISO 5208	1.1 x Class Rated Pressure (e.g. 22 bar for 150#)
Low Pressure Seat Air	API 598 / EN 12266-1	6 bar air pressure, 60s hold, zero bubbles/leak
Fire Safe Test	API 607 / ISO 10497	Intrinsically fire-safe design verified by fire test
PMI & Casting NDT	ASTM E1476 / ASME V	PMI check on SS316/Duplex disc and laminate

8. Design Standards & Codes

Code/Standard	Description
API 609	Butterfly Valves: Double Flanged, Lugged, and Wafer Type (standard)
ASME B16.34	Valves -- Flanged, Threaded, and Welding End (master pressure-temp)
ASME B16.5 / B16.47	Pipe Flanges and Flanged Fittings (dimensional standards)
API 607 / ISO 10497	Fire Test for Soft-Seated Quarter-Turn Valves
NACE MR0175 / ISO 15156	Materials for use in H2S-containing environments in oil and gas produ

9. Documentation & Certification

Deliverable	Details / Status
Material Test Certificates	EN 10204 3.1 Mill Certificates with full chemical & mechanical heat tra
Pressure Test Reports	Hydrostatic and pneumatic test certificates signed by QA/QC inspect
Fire Safe Certificate	API 607 / ISO 10497 fire-safe certificates signed by Lloyd's



10. General Notes

Custom fabricated body matching any legacy face-to-face dimension

High-toughness carbon steel plate prevents water-hammer fractures

Epoxy coating prevents seawater and aggressive fluid corrosion

Metal-seated triple-offset structure ensures zero wear from sand/grit

Highly suited for: Large-scale Municipal Water Transmission Networks

Highly suited for: Desalination Intake & Brine Piping Systems

Highly suited for: Industrial Cooling Water & Power Plant Condensate

Highly suited for: Hydroelectric Power Projects & Water Filtration Plants

11. Contact & Enquiry

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Product Range

Gate Valves

Gate Valves Overview

Knife Edge Gate Valve

Sluice Valve

Pressure Seal Gate



API 600 Gate Valves

● **Globe Valves**

Globe Valves Overview

Piston Valve

Needle Valve

Pressure Reducing Valve

● **Ball Valves**

Ball Valves Overview

1-Piece Ball Valve

2-Piece Ball Valve

3-Piece Ball Valve

3-Way Ball Valve

Trunnion Ball Valve

Cryogenic Ball Valve

Fire Safe Ball Valve

✦ **Butterfly Valves**

Butterfly Valves Overview

Wafer Type

Lug Type

Flanged Type

NAB Seawater Valves

PTFE Lined

Triple Offset

✓ **Check Valves**

Check Valves Overview

Swing Check Valve

Dual Plate Check

Wafer Check Valve

Lift Check Valve

Non-Slam Check Valve

Silent Check Valve

Alloy 20 Valves



▼ Strainers & Filters

Y-Strainer

Basket Strainer

T-Strainer

🤖 Automated & Control

Actuated Ball Valves

Control Valve Pneumatic

Control Valve Electric

Automated Butterfly

★ Specialty & Other

Sight Glass

Flush Bottom Valve

Steam Trap

Safety Relief Valve

Blow Down Valve

Plug Valve

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