

“Reliable Valves for the Mining Industry”



Copeland Industries, Inc. has set the standard for valves used in mining.

65 years of experience along with state-of-the-art [HVOF applied coatings](#) make Copeland valves the best choice for all applications, especially in extreme conditions.

This guide will help you find the best solution for your application:

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Copeland manufactures and repairs valves for mining companies including:

- [Barrick Gold Corporation](#)
- [Rio Tinto- Kennecott Copper Mine](#)
- [Newmont Mining](#)

Our Metal-Seated Ball Valves are made to perform in all mining applications including:

- Autoclave
- Slurry Transport
- Continuous Catalytic Reforming

[Complete List of Applications](#)

“When you work with us, you’ll gain not only a world-class team but also a wealth of industry experience.”
-John Simmons (President/CEO)

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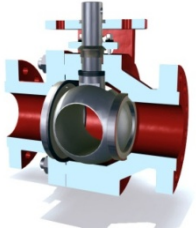
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Valve Selection

*All valves can be customized with materials and coatings to meet unique operating conditions

BV Series

- Custom made to wide range of applications
- Tested to API 598 Standards
- For Temperatures: 400°F +
- End Types: Socket Weld, NPT, Butt Weld, Flange
- Sizes: 1/2" - 20"
- ANSI Class: 150 - 4500
- Materials: 410ss, 17-4 ph, 316ss, Inconels, Ferralium 255 (autoclaves), Hastelloys, Monel, Alloy 20, Titanium, Zirconium



Carbide BV Series

- Wide range of applications
- Full Bore, High Cycle
- Tested to API 598 Standards
- End Types: Socket Weld, NPT, Butt- Weld , Flange
- Sizes: 1/2" - 8"
- ANSI Class: 150 - 4500
- Available in CF8M (316ss) and A216-WCB



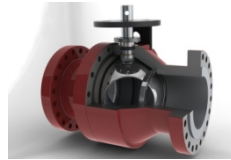
PV Series

- Power Plants, Steam Generation
- For Temperatures:
- End Types: Socket Weld, NPT, Butt- Weld , Flange
- Sizes: 1/2" - 4"
- ANSI Class: 900, 1500, 3200, 4500
- Materials: F22, A105, F91 (Other materials available)



Trunnion BV Series

- Wide range of high cycle applications
- Torque-Reducing Design
- End Types: Socket Weld, NPT, Butt Weld , Flange
- Sizes: 2" – 12"
- ANSI Class: 300, 600, 900
- Materials: (All BV Series materials)



PV2 Series (2-piece)

- Power Plants, Steam Generation
- Available in a wide variety of sizes and materials
- End Types: Socket Weld, NPT, Butt- Weld , Flange
- Sizes: 1/2" - 4"
- ANSI Class: Up to 4500#
- Standard Materials: F22, A105, F91 (Other materials available)



BV3 Series

- For temperatures exceeding 500° F
- Carbide sealing areas
- End Types: Socket Weld, NPT, Butt Weld, Flange
- Sizes: 1/2" - 4"
- Available in CF8M (316ss) and A216-WCB



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Valve Details

Series	Bore Size ¹	End Size	ASME Class	Body Type	Body Mat'l. ²	Trim Mat'l. ³
BV	.56" - 18.81"	1/2" - 20"	150#, 300#, 600#, 900#, 1500#, 2500#, 3200#, 4500#	2-PC Forged	A105, 316ss, Inconels, Ferralium 255, Hastelloys, Monel, Alloy 20, Titanium, Zirconium	17-4 ph, 316ss, Inconels, Ferralium 255, Hastelloys, Monel, Alloy 20, Titanium, Zirconium
Carbide BV	.56" - 8"	1/2" - 8"	150#, 300#, 600#	2-PC Casted	CF8M, WCB	17-4 ph, 316ss, Inconels, Ferralium 255, Hastelloys, Monel, Alloy 20, Titanium, Zirconium
BV3	.56" - 4"	1/2" - 4"	150#, 300#	3-PC Casted	CF8M, WCB	316ss
Trunnion BV	1.5" - 12"	2" - 12"	300#, 600#, 900#	2-PC Forged	A105, 316ss, Inconels, Ferralium 255, Hastelloys, Monel, Alloy 20, Titanium, Zirconium	17-4 ph, 316ss, Inconels, Ferralium 255, Hastelloys, Monel, Alloy 20, Titanium, Zirconium
PV	.56" - 4"	1/2" - 4"	900#, 1500#, 2500#, 3200#, 4500#	1-PC Forged	316ss, F22, A105, F91	17-4 ph, 316ss, Inconels, Ferralium 255, Hastelloys, Monel, Alloy 20, Titanium, Zirconium
PV2	.56" - 4"	1/2" - 4"	900#, 1500#, 2500#, 3200#, 4500#	2-PC Forged	316ss, F22, A105, F91	17-4 ph, 316ss, Inconels, Ferralium 255, Hastelloys, Monel, Alloy 20, Titanium, Zirconium

Note:

¹ Bore size range limited to corresponding end size

² Special body materials available

³ Special trim materials and HVOF applied coatings available

Available End Connections

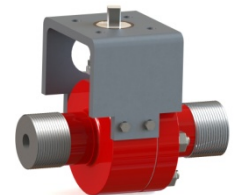
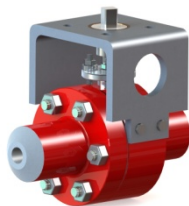
Socket Weld (SW)

Butt Weld (BW)

Raised-Face Flange (RFF)

Ring Type Joint (RTJ)

Threaded (NPT)

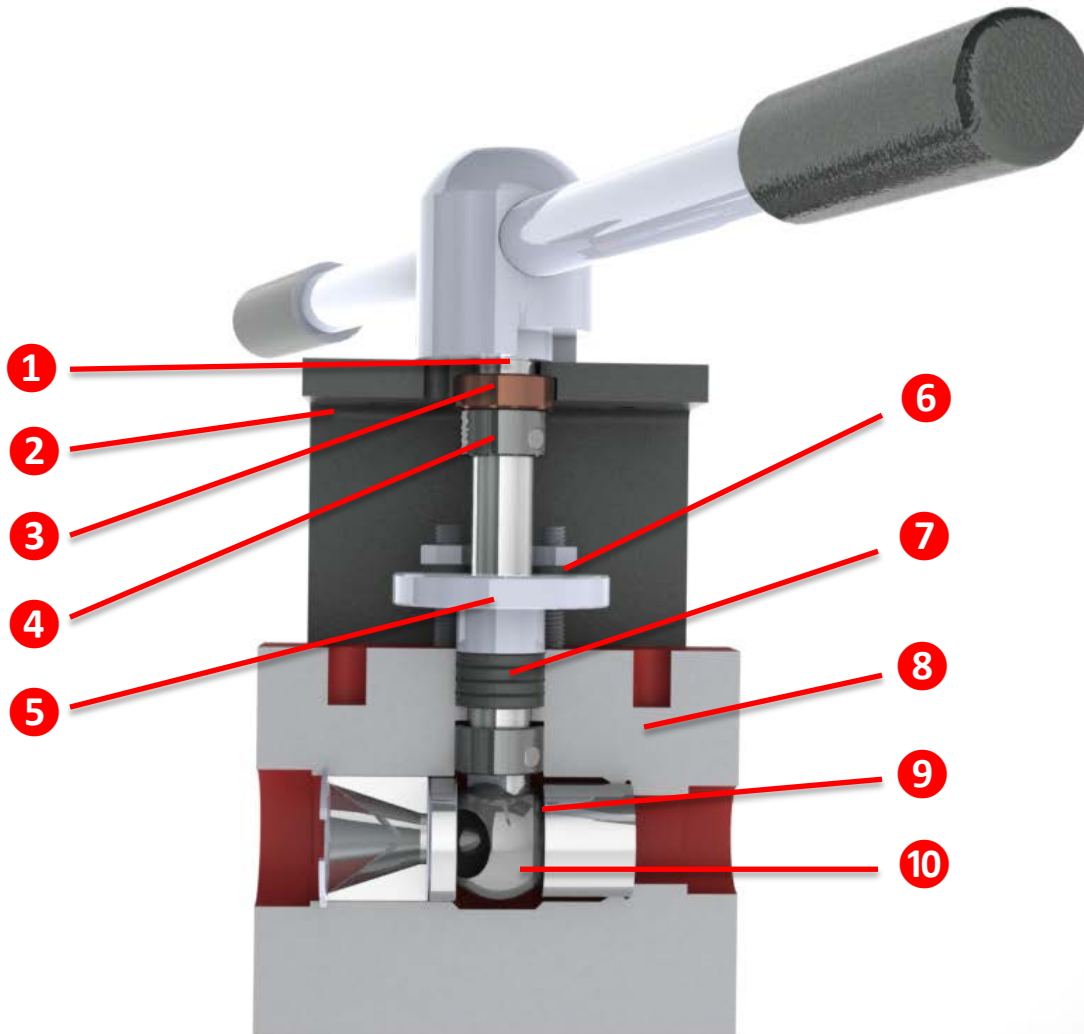


Available Actuation

All Copeland valves can easily be equipped with actuators to meet user specifications. [Contact us](#) for information regarding different actuator options. Common actuation types include: Lever, Hand-wheel, Bevel Gear, Pneumatic, Hydraulic, and Electric.

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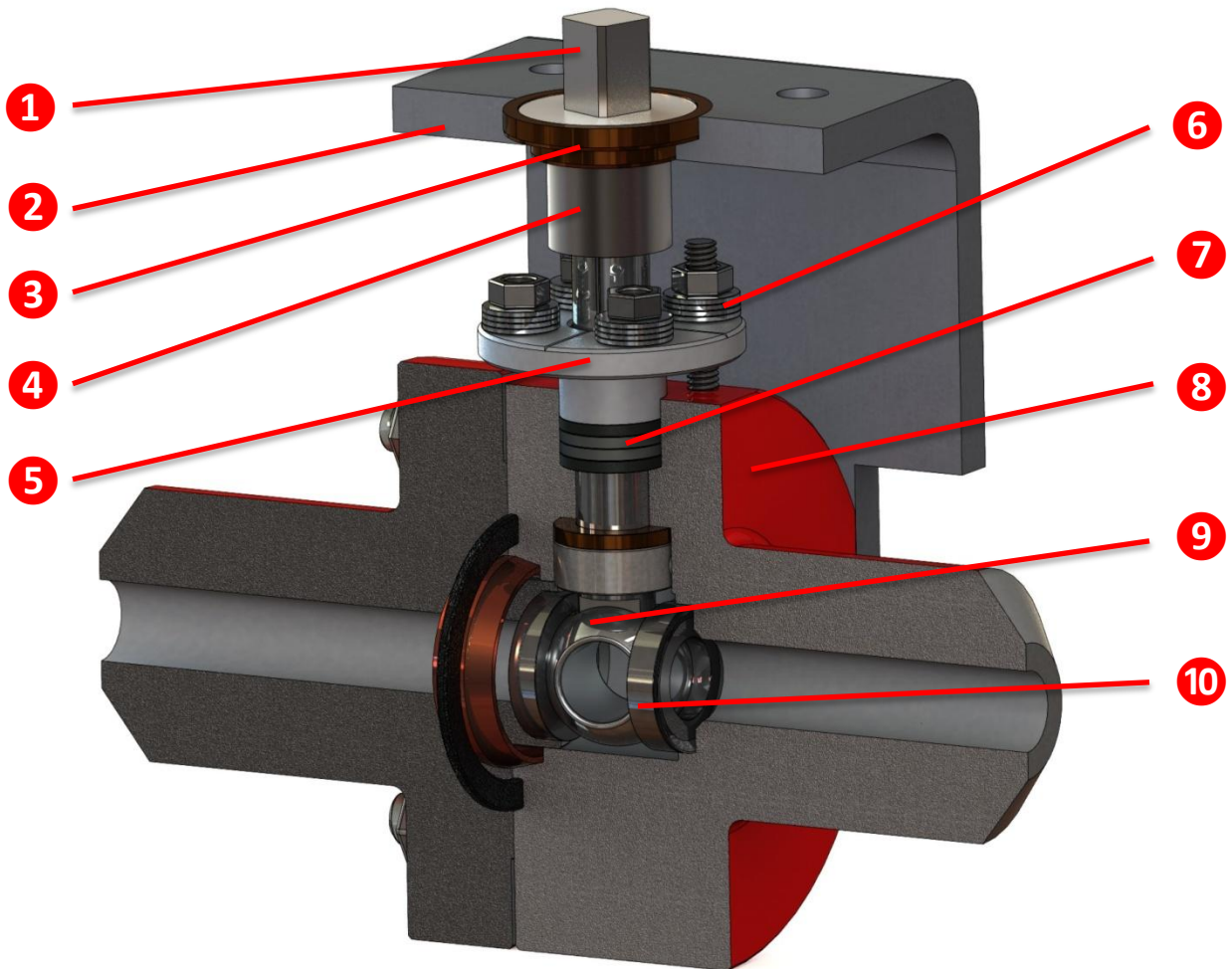
PV Series Design Features



- ① **Stem** for convenient adaptation of manual, geared, pneumatic, hydraulic, and other motor actuators.
- ② **Mounting Bracket** customized to various actuator specifications for easy installation.
- ③ **Guide Bearing** for smooth, quarter-turn opening and closing.
- ④ **Thrust Collars** for blowout-proof operation.
- ⑤ **Adjustable Packing Follower** to ensure continued seal throughout valve life.
- ⑥ **Live-loaded Springs** apply continuous pressure on Packing Follower.
- ⑦ **Durable Packing** for leak-proof performance. (Available in Graphoil and Inconel)
- ⑧ **One-Piece Forged Body** (PV Series only) most readily available and cost effective forged valve on the market.
- ⑨ **Mate-Lapped Ball & Seats** for precise sealing during isolation.
- ⑩ **HVOF Applied Coatings** for wear resistance in extreme corrosive and abrasive conditions.

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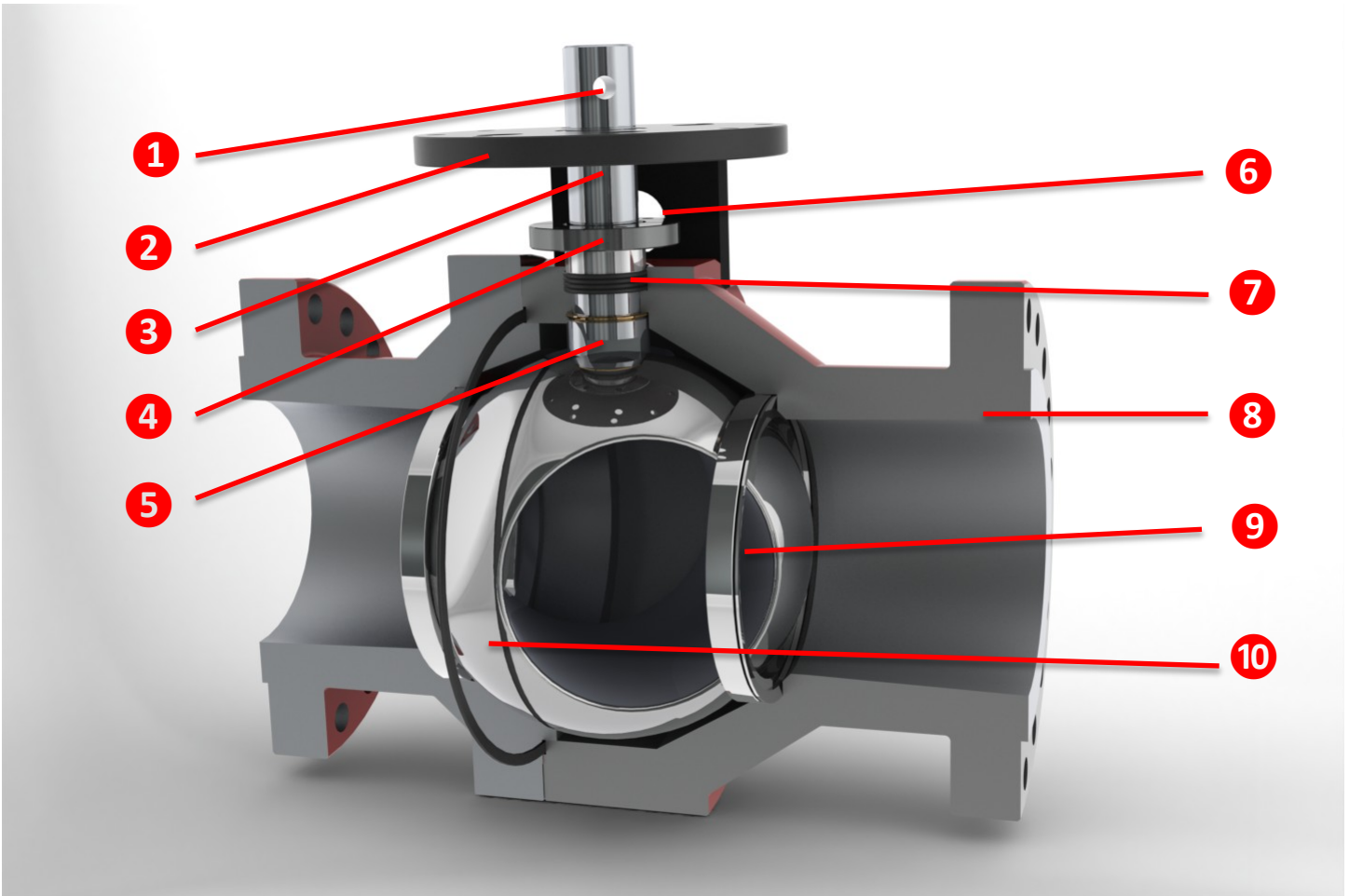
PV2 Series Design Features



- 1 Stem Adapter** for convenient installation of manual, geared, pneumatic, hydraulic, and other motor actuators.
- 2 Mounting Bracket** customized to unique actuator sizes for easy mounting.
- 3 Guide Bearing** for smooth, quarter-turn opening and closing.
- 4 Thrust Collars** for blowout-proof operation.
- 5 Adjustable Packing Follower** to ensure stem alignment and continued seal throughout valve life.
- 6 Live-loaded Springs** apply continuous pressure on Packing Follower so packing remains tight after thousands of cycles.
- 7 Durable Packing** for leak-proof performance. (Available in Graphoil and Inconel Material)
- 8 2-Piece Forged Body** For custom end connections and easy maintenance.
- 9 Mate-Lapped Ball & Seats** for perfect seal.
- 10 HVOF Applied Coatings** for wear resistance in extreme corrosive and abrasive conditions.

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BV Series Design Features



- ① **Stem** for convenient installation of manual, geared, pneumatic, hydraulic, and other motor actuators.
- ② **Mounting Bracket** customized to unique actuator sizes for easy mounting.
- ③ **Guide Bearing** for smooth, quarter-turn opening and closing.
- ④ **Adjustable Packing Follower** to ensure stem alignment and continued seal throughout valve life.
- ⑤ **Thrust Collar** for Blowout-proof operation.
- ⑥ **Live-loaded Springs** apply continuous pressure on Packing Follower so packing remains tight after thousands of cycles.
- ⑦ **Durable Packing** for leak-proof performance. (Available in Graphoil and Inconel Material)
- ⑧ **2-Piece Forged Body** For custom end connections and easy maintenance.
- ⑨ **Mate-Lapped Ball & Seats** for perfect seal.
- ⑩ **HVOF Applied Coatings** for wear resistance in extreme corrosive and abrasive conditions.

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Applications

Copeland Industries specializes in solutions for the following mining applications:

-Autoclave-

Oxygen Injection
Autoclave Vent
Autoclave Vent Isolation
Autoclave Discharge
Autoclave Feed
Sparge Valves
Pump Isolation

High Pressure Heater Drain Valve
High Pressure Heater Isolation Valve
Slurry Feed Pump Isolation Valve
Acid Valves
Acid Drain Valves
Steam Supply Control Valve
Steam Valves
Vent Valves
Rapid Decompression Valve
Discharge Valves

Slurry Feed Pump Isolation Valve
Steam Supply Control Valve
Steam / Quench Valves
Oxygen Valves
Vent Valves
Rapid Decompression Valve
Discharge Valves
Quench Valves
Steam Valves

[More Applications](#)



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-Slurry Transport-

Pump Station:

Charge Valve
Pump Isolation Valve
Drain Valve
Charge Pump Isolation

Pressure Letdown Choke Station:

Choke Station Emergency Shutdown Valve
Instrument Isolation
Instrument Bleed Valve
Drain Valve
Emergency Dump Valve
Choke Loop Cut Valve
Choke Loop Seal Valve
Choke Loop Isolation Valve
By-pass Isolation
Main Slurry Line Isolation

Pressure Letdown Choke Station:

Choke Station Emergency Shutdown Valve
Instrument Isolation
Instrument Bleed Valve
Pigging Isolation
Drain Valve
Emergency Dump Valve
Discharge Valves
Pig Launch Charge Valve
Vent Valves

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