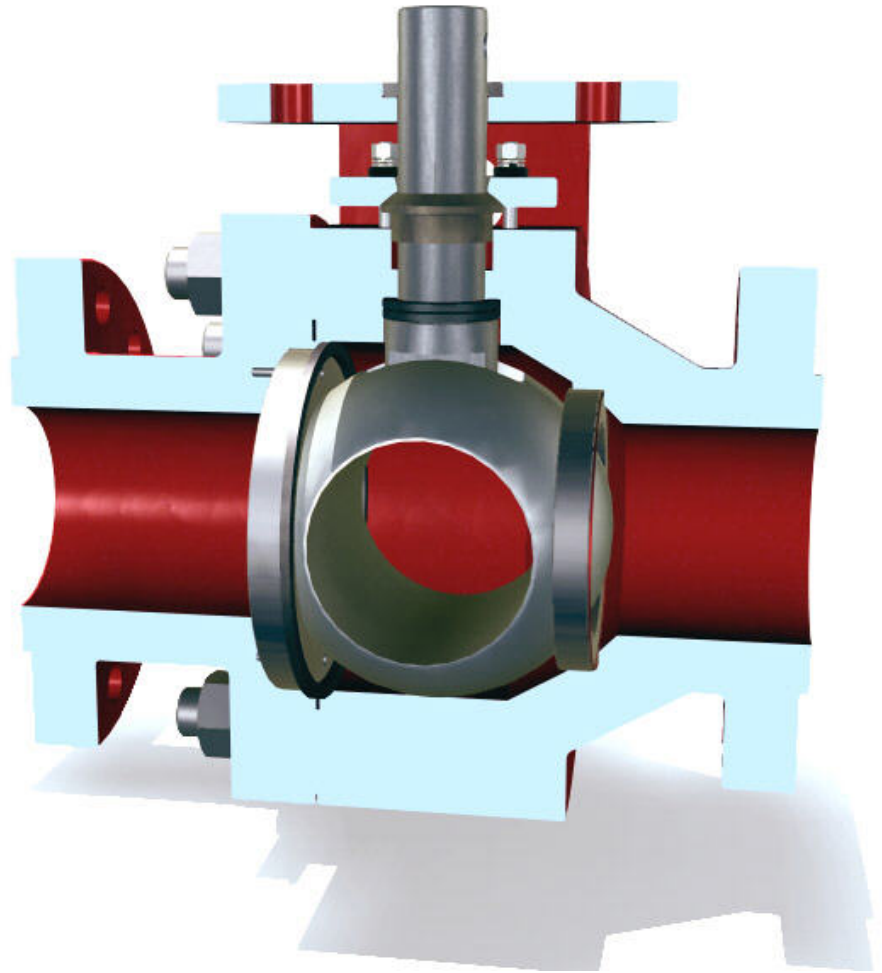
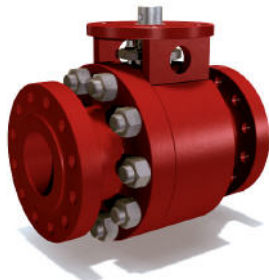
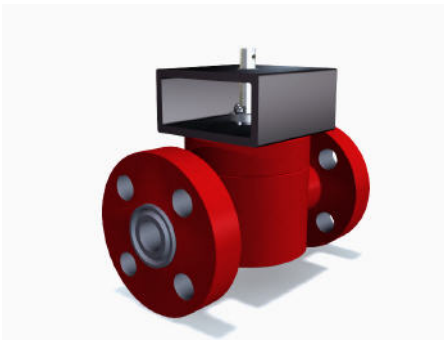
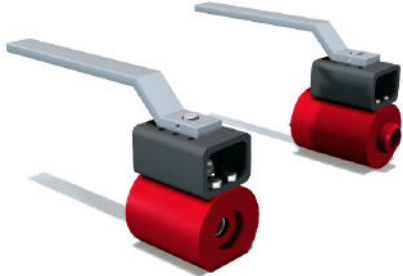


# *Copeland BV Series Valves*

**Forged, Metal Seated Ball Valves for Refining  
1/2" to 24" ANSI 150-4500**



**Copeland Industries, Inc.**  
6841 Ave. U, Houston, TX 77011  
Phone: 713-926-7481 Fax: 713-926-9806  
E-mail: [copeland@copelandind.com](mailto:copeland@copelandind.com)  
Website: [copelandballvalves.com](http://copelandballvalves.com)

**Severe Service  
Ball Valves**

# Copeland Power Valves

Reliable, "Zero Leakage" Valves for High Pressure Steam

## Features

Copeland developed our Power Valve Series with Large Power Plants in mind. However, steam is used in a number of processes from refining and petrochemical to mining and paper mills.

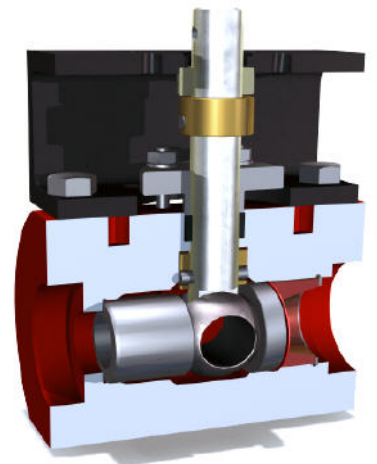
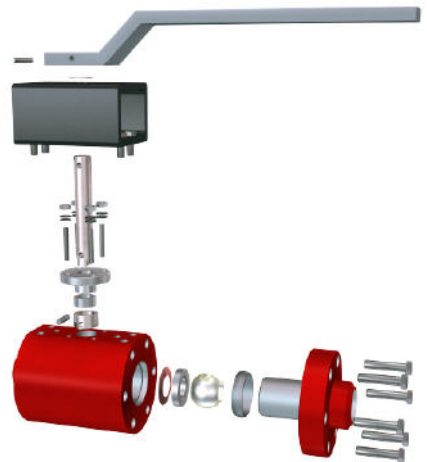
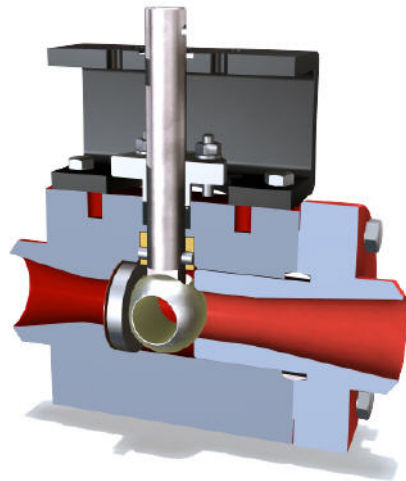
Copeland has a wide selection of economical answers to the wear and erosion due to high pressure steam. These small valves come in a variety of styles and the full spectrum of end connections. Many are offered with off-the-shelf delivery.

**Tested to Zero Leakage And MSS-SP61.** The harshest testing criteria available.

**Long Term Shutoff Integrity**  
The ball and both seats are coated in-house with chrome carbide and, then, mate-lapped to their respective sides of the ball as they have been since Copeland introduced this technology to the valve industry over 20 years ago.

**Forged Bodies.** The Body is Forged from ANSI B16.34 materials for greater strength, variety and versatility than cast bodied valves.

**Fisher / Emerson.** Copeland formally marketed these valves as a Fisher product. Now we sell them through a worldwide network of distributors. Call the factory to find one near you.



## Specification

Available Sizes: 1/2" through 4"

Ratings: ANSI Class 900, 1500, 3200 or 4500#

Shutoff: Exceeds MSS-SP61 and "Zero Leakage" Criteria

Standard Materials: Body: WC9 chrome moly (F22), carbon steel (A105) & (F91). Other materials available on request.

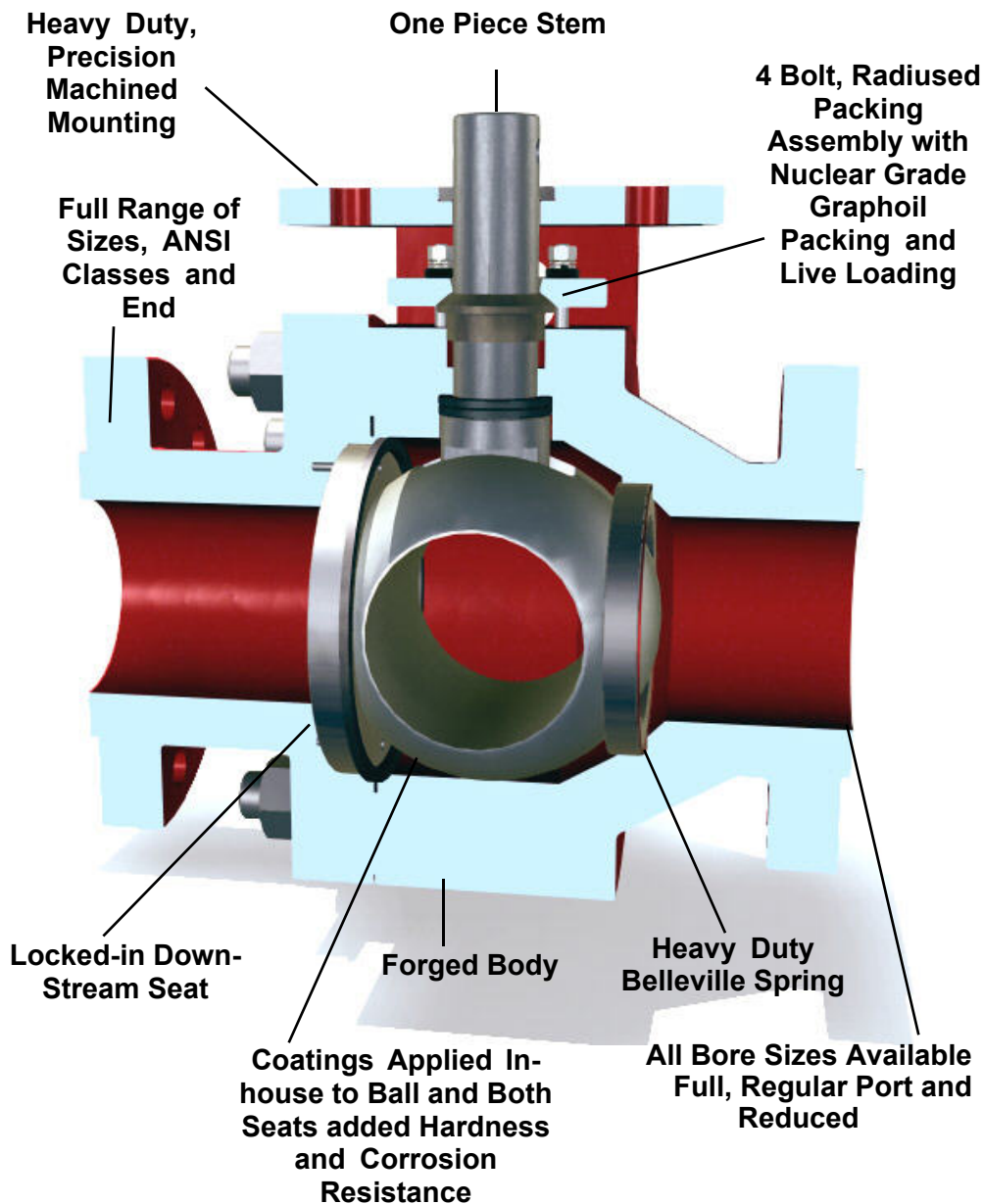
Packing: Graphite, live loaded, nuclear grade

Actuator: Manual or power actuated

End Connections: Socket weld, standard, NPT, butt weld or flanged

# *Copeland BV Series Valves*

## **Forged, Metal Seated Severe Service Valves**



## **The BV Series**

There are a wide range of materials and features available for this series, too much, in fact, in fact to cover in one brochure.

For refining, we use nuclear grade Graphoil packing with metal braided anti-extrusion rings top and bottom. Our packing follower is rounded at the top so that there is even, concentric loading on the packing.

Our tolerances might just be the tightest in the business. This is important in high cycle applications or with sticky petrochemical products and catalyst that work to restrict moving parts. We use a one piece stem to provide precision actuation.

### **Features Common to All Copeland Valves**

Tested to MSS-SP61

Four Year Warrantee

One Piece Stem, Coatings Applied In-house and 100% American Made

Both Seats are Coated and Mate Lapped to the Coated Ball

Live Loaded, Graphoil Packing

ASME B16.34 Compliant

Time tested Reliability

Available in flanged, welded, screwed or clamped end connections

Copeland takes complete responsibility for the valve and actuator package when Copeland does the mounting.

**Copeland Industries, Inc.**

6841 Ave. U, Houston, TX 77011

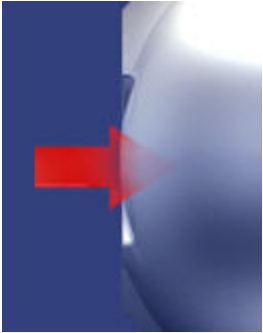
Ph 713-926-7481 Fax 713-926-9806

E-mail: [copeland@copelandind.com](mailto:copeland@copelandind.com)

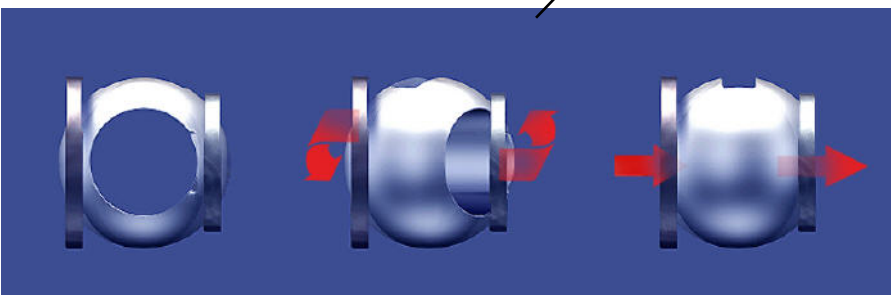
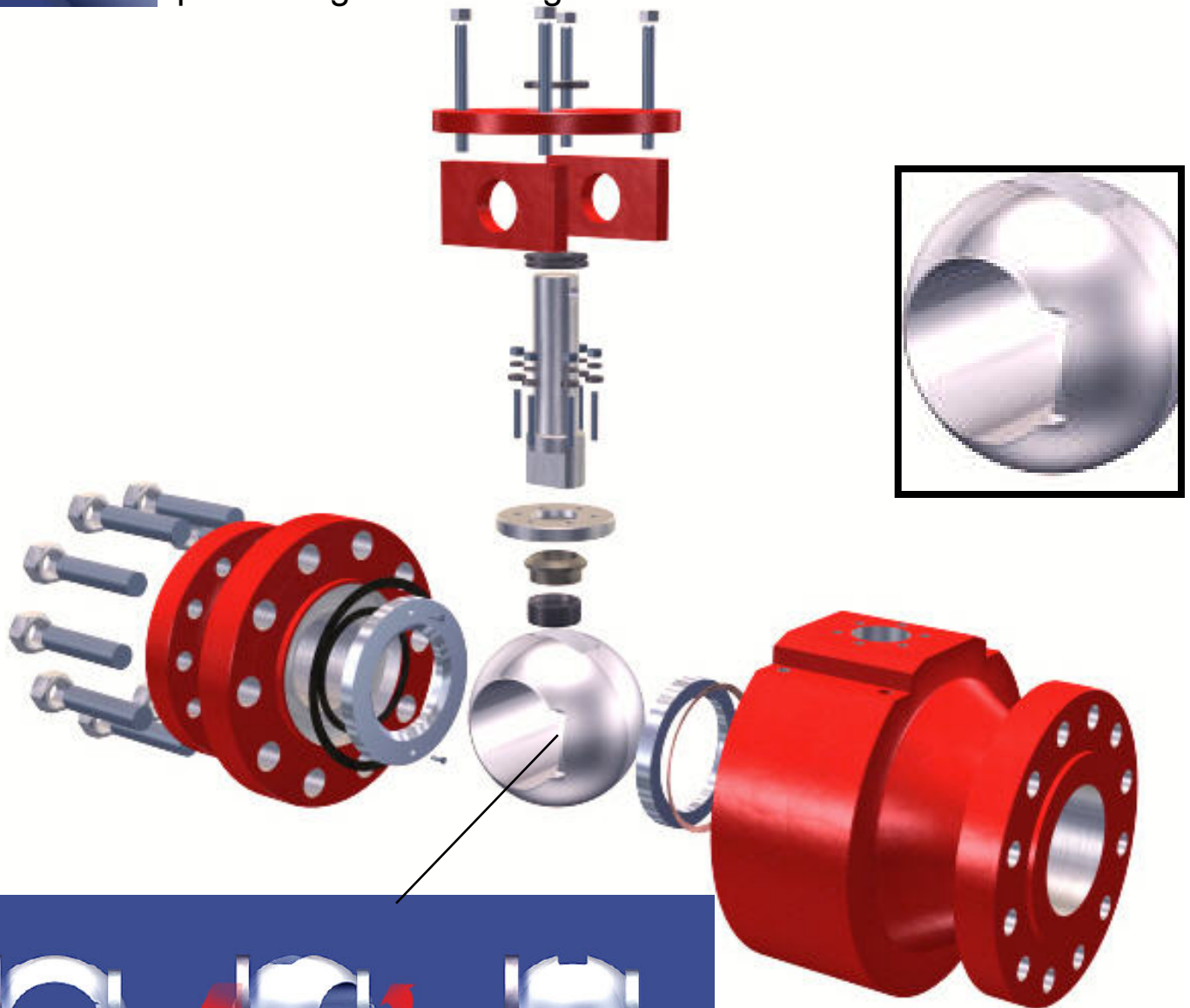
Website: [copelandballvalves.com](http://copelandballvalves.com)

# *Copeland BV Series Valves*

## **Features: The Relief Cut**



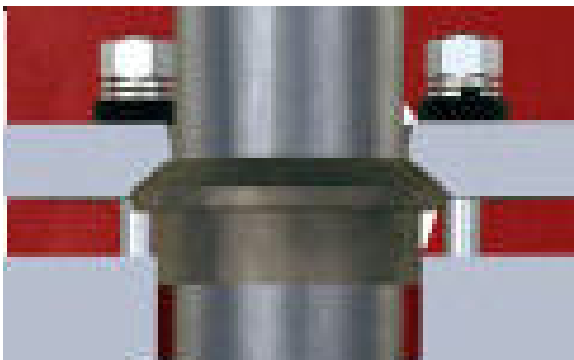
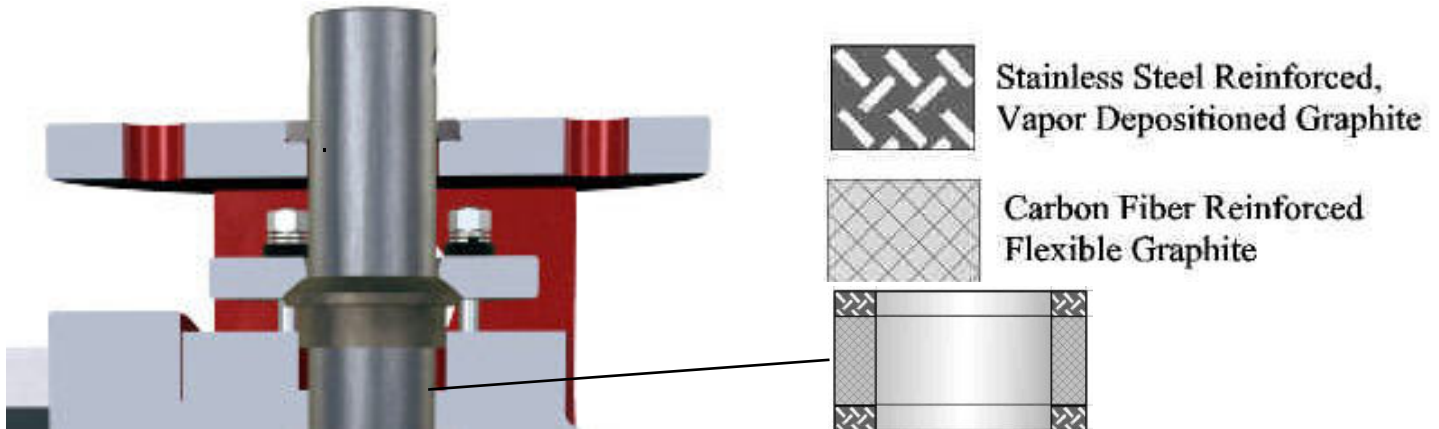
**Double Relief Cut Option:** Ball can be ordered with this option to almost triple the size of the initial flow area when a valve is first opened. This option lessens the possibility of wire draw and erosion to the leading edge of the ball under extreme conditions of erosion and high pressure drops and provides a wider leading edge to protect against damage when the ball closes.





# *Copeland BV Series Valves*

## **Features: The Packing Box**

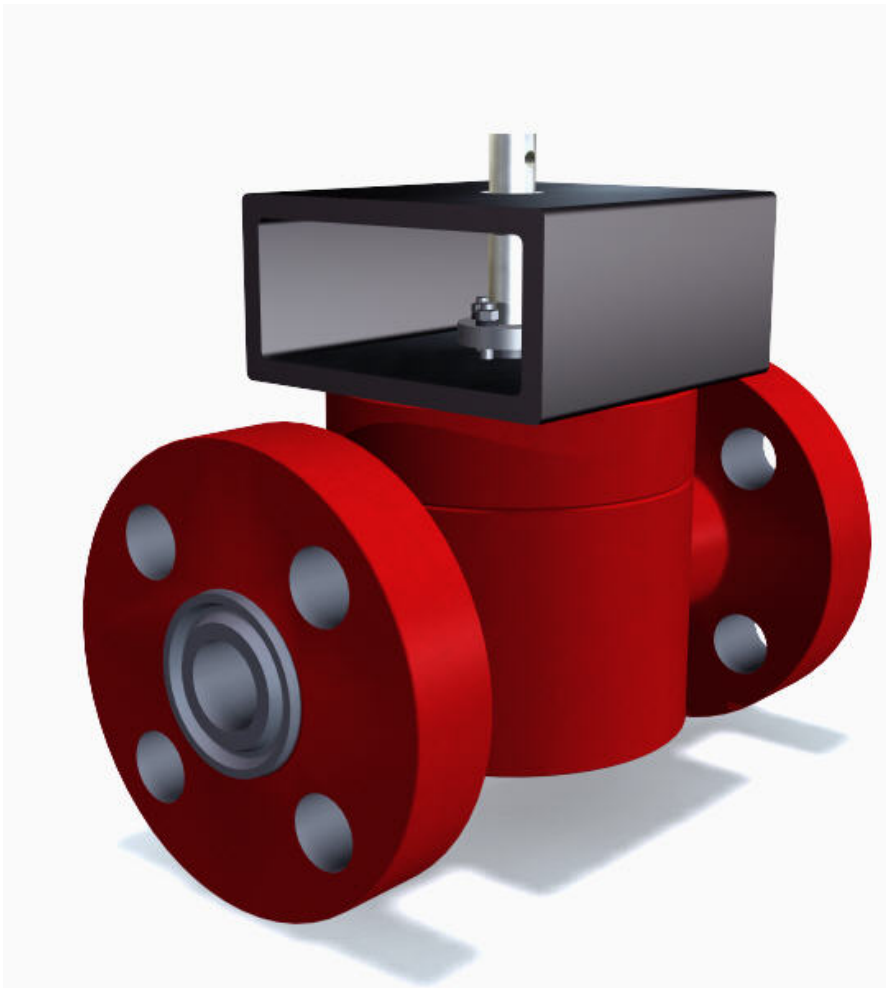


**Radiused, Live Loaded 4-Bolt Packing Assembly for Even Packing Load:** Nuclear Grade Graphoil is used with specially designed anti-extrusion rings for added security and longer-lasting stuffing boxes. Valve stems are held to close tolerances and finished to 16 rms.

**Mate Lapped Ball and Seats:** All sealing areas are precision lapped over the entire sealing surface. The ball and each seat are stenciled in assembly to identify which side of the ball each seat is to be lapped.

**Self Wiping Seats:** The leading edge of each seat wipes the ball clean of any particulates each time the ball is actuated. The seat surface is wide to lessen the effects of a possible nick or scratch. The spring is sized to exert significant force on the ball even in low pressure applications. The downstream seat is replaceable but locked into the end connection with a Graphoil ring to prevent behind-the-seat leakage.

***Copeland's***  
***Top Entry Trunnion Valve***  
***The Future in Metal Seated Valve***  
***Technology: Patent Pending***



**Features:**

**Top Entry Design**

**Field Repairable**

**Trunnion Design** for Lower operating torques and smaller, less costly actuation packages.

**Traditional Copeland ball and seat configuration** for time tested reliability

**Protected seat springs** to prevent the traditional problem of particulate build-up behind the seats.

**Cost Effective Pricing**

**Lower Stocking Costs For The End User.**

# ***Copeland BV Series Valves***

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## ***Refining Applications: Full or Reduced Port***

### **Coking**

**Cutting Water Isolation Valves  
Overhead Vapor Line Valves  
Isolation Valves for lines with coke fines  
Switching Valves**



### **FCCU (Fluidized Catalytic Cracking Unit)**

**Catalyst Handling  
Slurries and High Cycle Valves  
Steam Valves  
Lined Valves for dry abrasives  
Retrofits of all major competitors**



### **CCR Reformers**

**UOP approved valves and custom designs available**



### **H-Oil and LC Fining**

**Catalyst addition and withdrawal (single ball, double block and bleed valves available)**

**Vapor Lines and Isolation Valves**

### **Others Services**

**Polyethylene Metering, PTO, Vent and Reactor Block Valves**

**Ethylene decoke, steam vent and furnace isolation**

**Specialty valves for dry, hot, abrasive service conditions**



## **Petrochemical Plant Customers**

**Exxon**  
**Mobil**  
**Shell Deer Park Refining Co.**  
**Diamond Shamrock**  
**Chevron**  
**British Petroleum**  
**Ashland Inc.**  
**Unocal**  
**Chevron Phillips**  
**Star Enterprise**  
**Phillips Petroleum Company**  
**Conoco**  
**Marathon Oil**  
**Phibro, Tosco and others**



### **Industries Copeland Serves With Specialized Products Include:**

Power  
Refining  
Mining  
Pulp and Paper

#### **Copeland Industries**

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All Copeland Ball Valves and their components are manufactured in the United States. Copeland maintains one of the only in-house coating facilities for the application of wear resistant coatings. The material contained herein is the property of Copeland Industries.