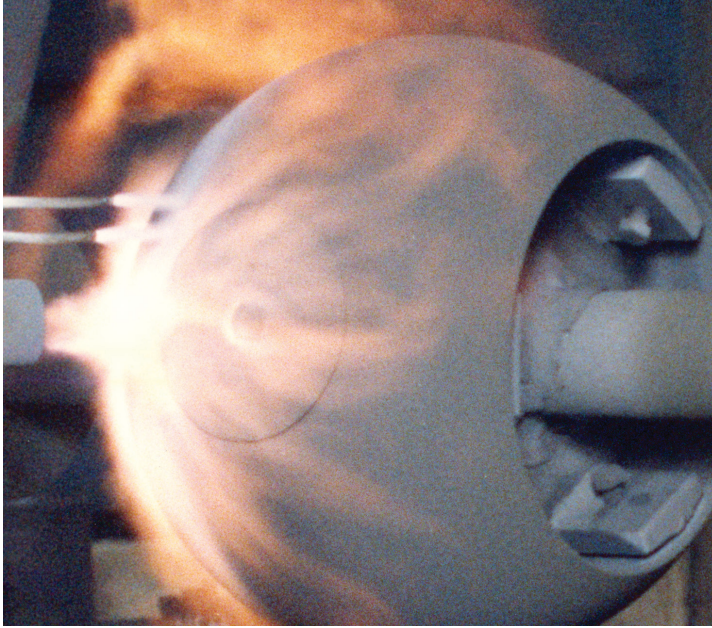


Ball Valve Coatings Solve Wear Problems



Use Praxair Coatings to Extend Service Life and Improve Performance

Drilling / Well Logging

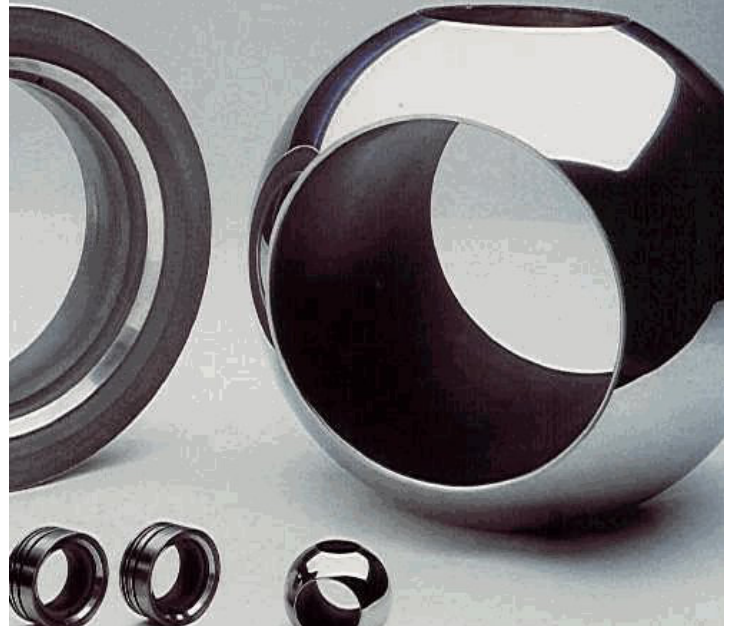
Metal seated ball valves are replacing globe, gate, angle, and plug valves as process streams continue to increase in both pressure and temperature. They have evolved into reliable positive shutoff isolation valves and have effectively handled hot, abrasive, and sometimes corrosive applications. The unique design of the metal seated ball valve has proven superior in performance, but the design can't do it alone.

Praxair Surface Technologies offers a variety of thermal spray coatings that increase the life and improve the performance of metal seated ball valves. These wear-resistant coatings, which are applied to the mating surfaces of balls and seats, provide a solution to the wear issues facing ball valve manufacturers and users.

Praxair's vast knowledge of coatings allows us to choose the correct chemistry for wear, corrosion, and temperature resistance while matching compatibility with the substrate material.

Extend Service Life

Praxair coatings are hard (70–72 Rc), wear-resistant overlays that impede erosive and abrasive wear as well as provide protection from corrosive attack. Significant life extension can be realized even when the valve is under high pressures and temperatures.



Improve Performance

Praxair can improve the performance of metal seated ball valves by providing a hard, resistant overlay that can help a customer achieve zero leakage with proper valve design. These dense coatings create a tight seal every time. In addition, some coatings can reduce the coefficient of friction, which further enhances the ease of valve operation.

Simplify Fabrication

Overlay processes can distort the workpiece as well as necessitate post-heat treatment to restore substrate hardness. With Praxair coatings, subsequent heat treatment is not needed because Praxair thermal spray processes do not raise the temperature of the ball or seat above 300° F (149° C), thereby eliminating concerns of distortion.

Moreover, when ball valve replacement becomes necessary, Praxair coatings can be stripped through nonmechanical means and reapplied for less than the cost of a new part. Also, since we mate-lap the seats to the entire sphere, sealing is universal with both seats to the complete ball. This makes assembly and initial testing trouble-free.

Praxair Coatings Deliver

The superior performance of metal seated ball valves coated with one of Praxair's wear resistant coatings will help to increase productivity, decrease downtime, and reduce maintenance costs.

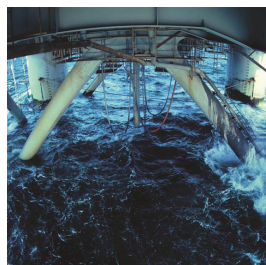
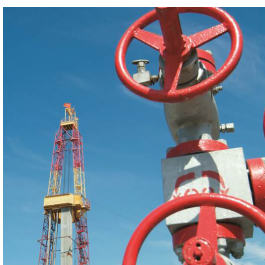
Praxair Ball Valve Coatings Are In Service In Many Industries

Praxair's ball valve coatings are widely used in the the following industries to extend service life and improve component performance:



Praxair can coat ball valves up to 56" in diameter

Industry	Typical Application
Mining Slurries	copper, gold, silver mining product handling
Oil and Gas	platform and subsea pipelines
Pulp and Paper	paper process isolation bypass valves, black liquor (sulfate) and green liquor slurry, solids handling around the digester, steam control isolation valves for paper processing machines
Refinery	steam pipeline isolation, oil handling around crude filters, pitch and coke handling, heavy residuals, hot asphalt service, throttling valves on regenerator to unload catalyst
Steam	high- and low-pressure steam in clean steam application such as turbine blowdown, turbine bypass, pump bypass, and turbine drains
Synfuels	coal/oil slurry valves, slag and ash process streams, coal/water slurry valves, coal liquefaction main slurry streams



A Linde company



Making our world more productive

Praxair Surface Technologies, a Linde company
 1500 Polco Street, Indianapolis, IN 46222
 Phone +1 317 240 2500, Fax +1 317 240 2255
www.praxairsurfacetechologies.com, psti-info@praxair.com
 © Copyright 2019 Praxair S. T. Technology, Inc., All rights reserved