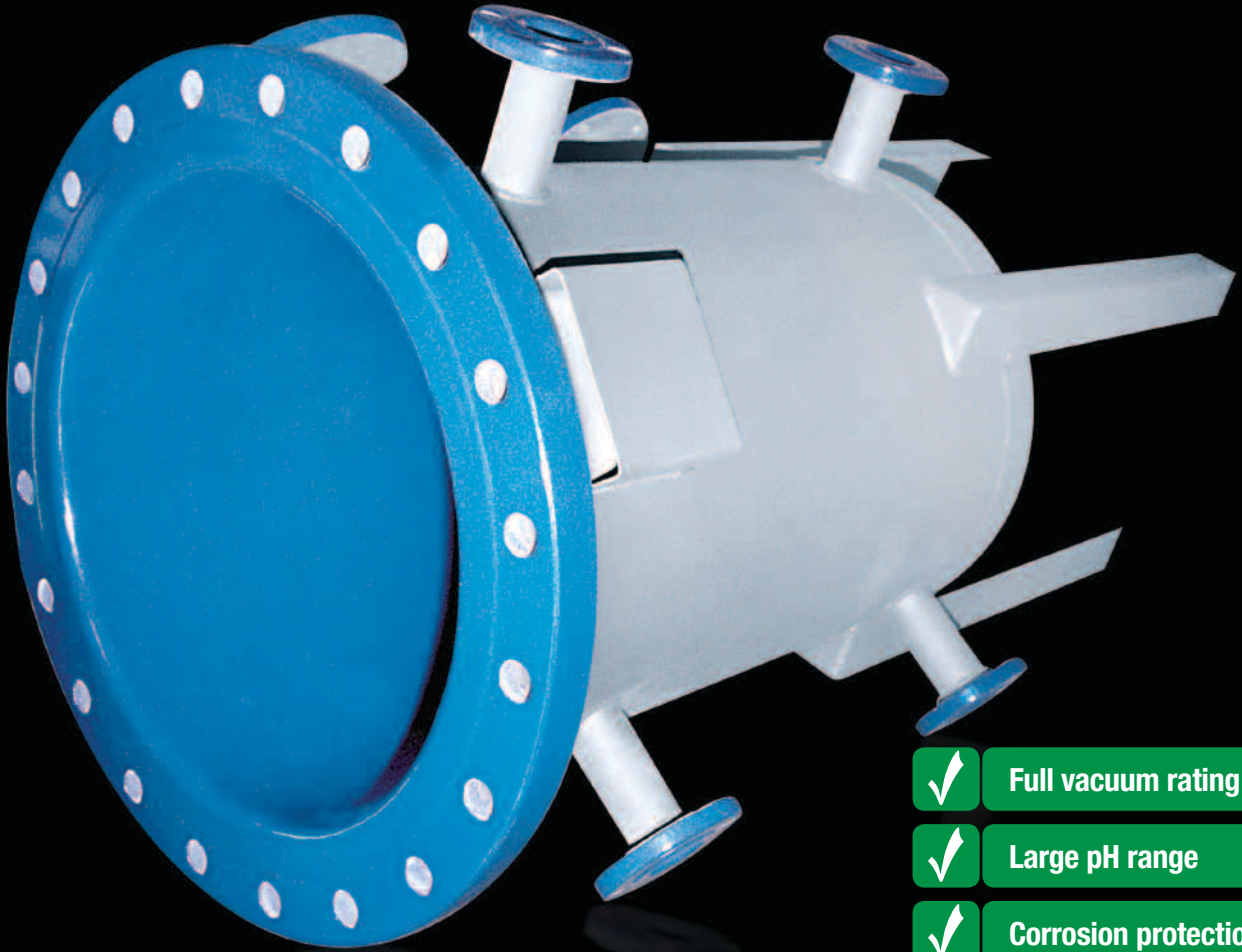




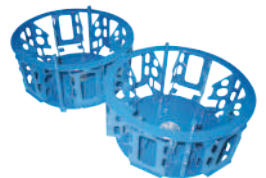
Chemical Processing



- ✓ Full vacuum rating
- ✓ Large pH range
- ✓ Corrosion protection

*Blue Armor<sup>®</sup> coatings deliver tough, flexible, affordable protection*

The proven alternative to exotic alloys and glass linings



# Choose *Blue Armor* coatings for time-

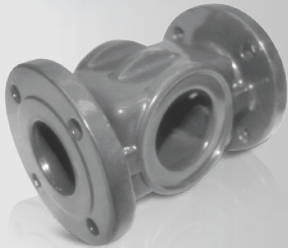
Blue Armor coatings are a proprietary, seamless fluoropolymer system based on ECTFE. Modified for improved processing and abrasion resistance, Blue Armor coatings are a reliable alternative to glass linings and exotic alloys. When you need proven protection that offers an affordable way to handle harsh chemicals and enhance the life of your processing equipment, look to Blue Armor coatings.

## Blue Armor coatings are a proven alternative:



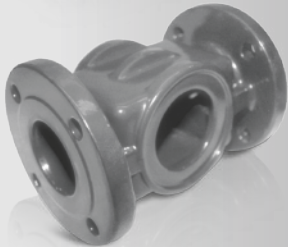
### ▶ Blue Armor

- Spray-applied as a dry powder for improved flexibility; easily coats complex geometries
- Full vacuum rating over the entire pH range
- Repairable on-site
- Pinhole-free



### ▶ Exotic alloys

- Metal-based, delivering structure and corrosion protection
- High cost/long fabrication time
- Limited weld quality
- Sensitive to some chemical environments



### ▶ Glass linings

- High thermal conductivity; nearly impermeable
- Prone to fine cracking
- Sensitive to thermal and mechanical shock
- Limited in shape and design

## FAQs:

**Q:** What application environments are ideal for Blue Armor coatings?

**A:** Blue Armor coatings' chemical resistance and ease of application make them suitable for most complex geometries, including a wide range of applications such as agitators, centrifuges, reactors, tanks and more.

**Q:** Why choose Blue Armor coatings instead of glass linings?

**A:** Sensitivity becomes an issue with glass linings. There are also limitations to the shape and design of the coating. Blue Armor coatings—because they are spray applied as a dry powder—can be used to coat more complicated parts.

# tested protection against harsh chemicals



**BLUE ARMOR**

**Operating temperature range:**  
-110°F (-79°C) to 300°F (149°C)

**pH range:**  
1-14

**Available thickness:**  
40-100 mils

**Final continuity test:**  
10 KV-DC

**Alternative formulations**

Blue Armor is available in three additional formulations:

**Hard coat:** For conditions using abrasive slurries or with wear at high shear.

**Non-stick:** PTFE added to the coating when a non-stick solution is needed.

**Static-dissipating:** For processing non-polar solvents.

## Ideally suited for a variety of applications, including:

- Agitators
- Baffles
- Bellows
- Centrifuges
- Columns
- Dip tubes
- Ducts
- Filter housings
- Fume hoods
- Gas cylinders
- Heat exchangers
- IBCs
- Piping systems
- Plating equipment
- Probes
- Pumps and housings
- Reactors
- Spargers
- Storage vessels
- Tanks
- Thermowells
- Vacuum dryers
- Valves

Maximum nozzle projection/section length	
Nozzle/column diameter	Blue Armor, Halar®, ETFE
½" – 1"	Pad flange
1" – 2"	Pad flange
2" – 2 ½"	12"
3" – 3 ¼"	12"
4"	18"
5"	36"
6"	96"
8"	96"
10"	120"
12"	120"
14"	120"
16"	144"
18"	144"
20"	168"
24"	Check with facility for maximum lengths

**Q:** Why choose Blue Armor coatings instead of exotic alloys?

**A:** Exotic alloys are expensive and take a long time to fabricate. Blue Armor coatings deliver protection against the same harsh chemicals without pushing projects over budget.

**Q:** Have Blue Armor coatings been proven?

**A:** Yes. We've applied over 1 million sq. ft. of Blue Armor coatings since their introduction. A time-tested solution, Blue Armor coatings have been proven in countless environments, protecting even the most complex parts.

# Praxair Surface Technologies

Industry-leading services for chemical processing

## ➤ *Signature solutions*

Praxair Surface Technologies can create custom answers to your unique coating problems, adapting our application techniques to match your operating environment—so you can be assured you've got protection that fits.

## ➤ *Experience and expertise*

For more than half a century, we've been innovating and growing the way we coat high-performance parts. Our innovative research teams developed many of the materials and processes in use today throughout the industry.

## ➤ *Repairable on-site*

Blue Armor coatings have the distinct advantage of being repairable on-site in case of mechanical damage during use. Because of their ability to "melt-flow" at elevated temperatures, Blue Armor coatings can be repaired quickly and reliably. That means your parts are back up and working sooner, reducing costly downtime.

## ➤ *Praxair's exclusive Coat2Go™ turnkey services*

When you're ready to add additional processing equipment to your operation, let us do the work for you. Our exclusive Coat2Go turnkey services will:

- Purchase all parts and accessories
- Coat each part for maximum protection in your operating environment
- Inspect, test, deliver and assemble the new parts

**To learn more about Blue Armor coatings or our Coat2Go turnkey services, contact one of our custom coating engineers:**

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