

# BELZONA SOLUTION FOR REBUILDING AND COATING OF GLOBE VALVE

ID: 9760

**Industry:** Oil & Gas  
**Application:** VPF-Valves, Pipes and Fittings  
**Substrate:** Bronze  
**Products:** Belzona 1111 (Super Metal), Belzona 1321 (Ceramic S-Metal)

**Customer Location:** ABU DHABI, UNITED ARAB EMIRATES  
**Application Date:** February 2024

## Problem

An offshore customer faced an issue with a globe valve that had developed a hole, leading to operational disruptions. To minimize downtime, they required an immediate solution to restore normal operations.



Globe valve that had developed a hole, leading to operational disruptions.



After thorough cleaning, the surface was grit blasted to achieve the required profile. Belzona 1111 was first applied for rebuilding.



Belzona 9341 was applied to reinforce the material, followed by an additional layer of Belzona 1111 (Super Metal) to further rebuild the surface.



Finally, two coats of Belzona 1321 (Ceramic S-Metal) were applied, following the Belzona Instruction for Use to provide superior protection and long-term performance.

## Application Situation

To resolve the issue of the globe valve developing a hole and causing operational disruptions, a high-performance repair solution is required—one that can withstand internal pressure over an extended period. The chosen product must deliver a durable and reliable seal, ensuring long-term integrity and preventing recurrence. By implementing a robust, pressure-resistant repair, normal operations can be efficiently restored while enhancing the valve's longevity and performance.

## Application Method

The application was performed in full compliance with Belzona Know-How System Leaflets VPF-1, VPF-2, and VPF-11a, ensuring adherence to established procedures and best practices.

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

ISO 9001:2015  
FS 695214  
ISO 14001:2015  
EMS 695213

Belzona products are  
manufactured under an ISO  
9000 Registered Quality  
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1. After thorough cleaning, the surface was grit blasted to achieve the required profile.
2. Belzona 1111 (Super Metal) was first applied for rebuilding, followed by Belzona 9341 Reinforcement Tape to reinforce the material.
3. Another layer of Belzona 1111 (Super Metal) was then applied to further rebuild the surface.
4. Finally, two coats of Belzona 1321 (Ceramic S-Metal) were applied in accordance with the Belzona Instruction for Use to provide superior protection and long-term performance.

## Belzona Facts

Belzona 1111 (Super Metal) is a durable epoxy repair composite designed for metal bonding, rebuilding, and protection. It adheres to metals, wood, and certain plastics, and can be machined, drilled, or tapped. Ideal for sealing leaks and restoring worn components, it is easy to apply without requiring heat.

Belzona 1321 (Ceramic S-Metal) is a high-performance, two-part epoxy formulated for metal repair. It offers excellent resistance to wear, abrasion, and corrosion, making it ideal for resurfacing and restoring damaged metal components. Suitable for both ferrous and non-ferrous metals, it can be machined after curing and provides reliable protection for pump casings and other equipment.

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