# **NOZZLE REPAIR WITH BELZONA INSERTS**

## **CUSTOMER**

North Sea Platform

## APPLICATION DATE

September 2005

## APPLICATION SITUATION

Small bore nozzles in sea water Hyperfilter units.

## **PROBLEM**

Current repairs to corrosion damage in small bore pipe work not working. They were failing quickly due to the inability to prepare the nozzle internal correctly and apply the coating pinhole free.

#### **PRODUCTS**

Belzona® 1111 (Super Metal) Belzona® 1321 (Ceramic S-Metal)

## **SUBSTRATE**

Carbon steel

## **APPLICATION METHOD**

An insert made with Belzona® 1111 to match internal bore is bonded in using Belzona® 1321 in accordance with TCC-16b.

## **BELZONA FACTS**

Where the structural integrity of the nozzle is still intact, but corrosion is eating into the corrosion allowance of the nozzle, the use of a Belzona Nozzle Insert solution avoids the need for cropping the nozzle and welding a new nozzle in place. The Belzona system ensures that the coating is continuous along the nozzle length, and has been adopted in both repair and original equipment manufacture situations by many operators.

## **PICTURES**

- 1. Typical small bore nozzle damage (note this cannot be repaired with an insert!)
- 2. Typical Belzona® 1111 insert
- 3. Insert bonded into the nozzle from inside vessel and surrounding coating repaired
- 4. Insert bonded into position from the flange









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