



Case study: VEF & ARMAGEL for water filters

Quadruple life expectancy for coarse water strainers.

Client

Oil & gas industry, UK.

Application date

2004.

Scope of work

Machine out the internals of the vessel and fit a top and bottom impact ring in stainless steel. Coat the remaining internals for abrasion and corrosion resistance. Paint externals to house colours.

Products

Polyglass VEF with top coat of Armagel.

Substrate

Carbon steel.

Coating system

- Grit blast internally to SA 2½.
- Apply VEF to minimum dft of 1mm.
- Apply Armagel to total dft of 1.5mm, into flange rebates and finish flat.
- Thickness check and spark test at 19kV.

Coating credentials

The initial problem with the coarse water strainers was identified over 20 years ago. During the "bloom" period

they clog up with the algae growth. So, several times a day, the basket is lifted in and out for cleaning. This regular movement within the strainer causes mechanical damage over a period of time at the location points at the bottom and top of the vessel.

Corrocoat offered a solution of inserting stainless steel impact rings at the top and bottom of the vessel to take the majority of the mechanical damage and coat the rest of the internals with a corrosion and abrasion-resistant lining. The initial life expectancy of the strainers was 2-3 years before they came out of service for maintenance. With the Corrocoat Corrosion Engineering Retrofit package, the strainers are lasting in excess of 12 years before any maintenance is required.

One O&G operator that is aware of this package has developed a maintenance plan to retrofit and maintain all their coarse water filters over the next few years. Some of the originally coated vessels that have been in service in excess of 16 years now require some minor maintenance, and the other uncoated vessels are receiving the whole treatment package.

Photographs

Left: [Filter vessel on arrival at the Leeds works.](#)

Middle: [Vessel end externals and bolt holes.](#)

Right: [Completed vessel internals.](#)