Internal lining of vacuum deaerator

ID: 9354

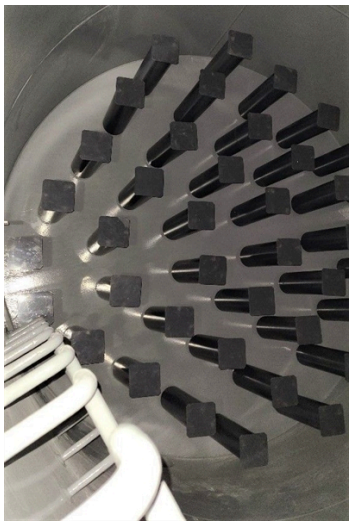
Industry:	*Chemical & Petrochemical*	Customer Location:	*Ontario*
Application:	*TCC-Tanks and Chemical Containment Areas*	Application Date:	*December 2020*
Substrate:	*Carbon steel*		
Products:	*Belzona 5811 (Immersion Grade)*		

Problem

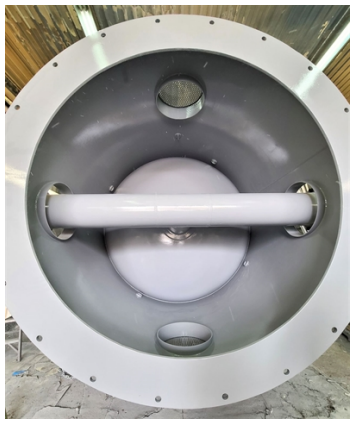
The customer was looking to internally line a newly fabricated 54,000 lbs Brine Vacuum Deaerator tank. They wanted to protect their investment by applying a barrier coating that would mitigate corrosion and other related problems.

Outside look at the vacuum deaerator.

Internals before application.



Internals after coating application.



End cap coated.

Application Situation

Most deaerator vessels are made of carbon steel and over 30% of deaerators contain cracks which have been assessed as corrosion fatigue and or stress corrosion. The asset owner wanted to mitigate these problems, so they specified for a coating to be applied before the equipment was put into service.

Application Method

The vacuum deaerator was grit blasted and prepared to SSPC SP10 standard with a surface profile of 3 mils (75 microns). The prepared substrate was then cleaned and degreased with a solvent solution which did not leave any residue. Then 3 coats of Belzona 5811 (Immersion Grade) were brush applied following the product instructions for use (IFU).

Belzona Facts

The product was applied via brush because of the complex internal geometry but the long overcoating time, allowed the applicator to complete the application successfully without the need for additional surface preparation between coats.