

enduro CASE STUDY

APPLICATION:

Chlor-Alkali Piping

ENDURO PRODUCTS:

Dual Laminate piping using a CPVC liner and Derakane 470 resin



PROBLEM

CPVC is inherently challenging to hand weld so in order to improve the service life of the system the need to reduce welds was critical and to use CNC Butt Fusion Technology to perform as many welds as possible.

SOLUTION

Enduro Vesca Plastics was able to eliminate 60% of the typical welds that would have typically been required to fabricate the system by utilizing one-piece sweep elbows and flaring the flanges directly on to the end of the pipe and fittings, therefore eliminating the welds required to fabricate mitered elbows and to install flanges directly to the ends of the pipe and fittings without a weld in the flange face or neck. All remaining welds that could be welded by a butt fusion machine were welded with a Widos CNC Butt Fusion machine specifically designed to weld CPVC. With the Widos machine we were able to achieve 95% of the parent material strength where typical hand welds achieve 60–70%.

FINAL RESULTS

The project was completed on time. The typical fabricator would have had up to 1500 welds either by hand or machine. Due to proprietary technology employed by Enduro we were able to reduce the number of total welds to just below 600. Also, 70% of the welds performed were butt fused, thereby improving the reliability of the system and increasing the service life.

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