

CHEMPOSITE® CASE HISTORY – Custom Fabrication

CUSTOM FABRICATED CONVERTER TROUGHS

INDUSTRY: Chemical Processing

COMPANY: ADM Milling Co.

LOCATION: Dodge City, Kansas, U.S.A.



PROJECT SCOPE & CHALLENGE:

ADM Milling Co.® required replacement lower converter shells for two Mixing machines. The shells were originally designed as metal parts. Due to the high temperature and corrosive environment, Hastelloy was considered but was found to be too expensive. The decision was then made to use fiberglass. Chemposite was selected from several FRP Fabricators to provide the fiberglass replacements. Tight dimensional tolerances were required during mold making and fabrication to ensure the lower converter shell would mate perfectly with the existing upper converter shell and two end plates.



'CHEMPOSITE' SOLUTION:

Chemposite's Senior Fabricator crafted a high quality male mold and layed up the parts by hand using Derakane 510N Resin by **Ashland Chemical**®.

A silica carbide additive was incorporated for increased abrasion resistance of the finished laminate and FRP encapsulated thermal insulation foam was provided to increase worker safety and to enhance the converter machine performance.



MATERIALS:

Derakane 510N w/ 3% Antimony Trioxide.

OUTCOME:

The two lower converter shells were delivered and installed without incident. The fit-up and subsequent operational performance has been better than expected, with a significant cost savings over the metal alternative. The client was so impressed, that a second order was placed for FRP versions of both upper and lower shells, as well as the end plates.



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