

Applications for Refineries

Our Capabilities

AmeriChem Systems, Inc. (ASI) manufactures corrosion resistant custom fabricated systems (CFS) that are engineered per customer requirements. ASI's Quality Management System is certified to ISO 9001:2015, demonstrating our high standard of quality and our commitment to our customers.

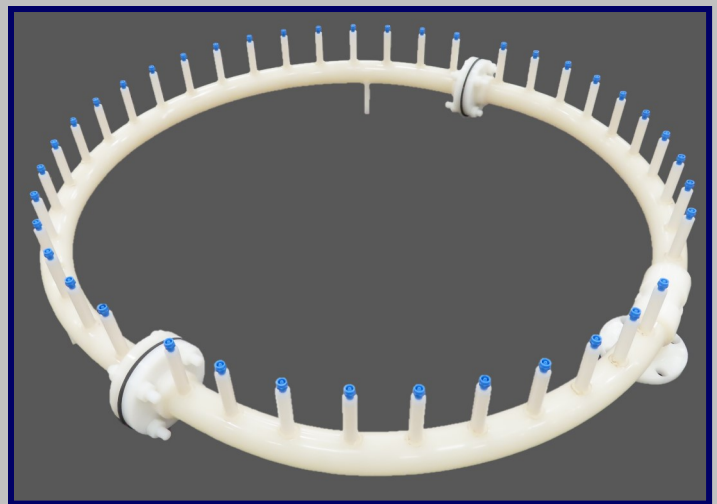
With decades of industrial equipment experience, we can offer cost-effective solutions in all manufacturing disciplines. We will work with your engineers to develop an equipment solution for a custom process or modify an existing one. Additionally, we can fabricate a self-contained module or completely integrate multiple modules in to a larger process system, providing documentation and support from the initial P&ID through to the final equipment functional testing.

Kynar® PVDF Alkalization Rings

Alkylation is the reaction of olefins (propylene and butylene) with isobutane to form an iso-paraffin called alkylate. Although this reaction could take place by simply subjecting the chemicals to high pressures, most alkylation processes use either sulfuric acid or hydrofluoric acid as the catalyst to facilitate the reaction at lower pressures.

These liquid catalysts are very aggressive and require process equipment that is either made from exotic materials or special liners. Traditionally, the HF alkylation units use nozzles made from exotic metal alloys to introduce the hydrocarbon streams to the catalyst inside the reactor. Although effective, these special metal assemblies corrode and eventually require replacement. Moreover, as the orifice within the metal nozzles corrode, the flow rate of the nozzle at a given pressure changes. These changes can potentially affect the production of alkylate from the unit.

AmeriChem Systems, Inc. manufactures Kynar® PVDF rings that all but eliminate this corrosion, thereby extending continuous production runs, reducing unit downtime, stabilizing process control and improving alkylate yields. Contact us for details on how we can help you improve your alkylation unit.



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