

# Process Tanks

Polypropylene • PVC • CPVC • PE • HDPE • PVDF  
Stainless Steel • Mild Steel • Special Alloys



Tri-Mer Corporation leads the industry in the engineering, manufacture and installation of quality process tanks

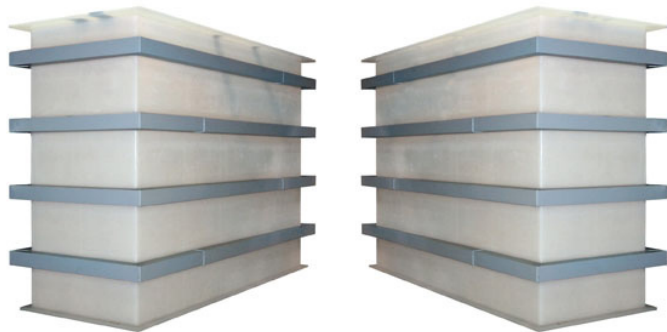


# Polypropylene Tanks Are Our Specialty

Tri-Mer specializes in tanks made from 100% co-polymer and homopolymer polypropylene – a rugged, long-life material that will not delaminate, or embrittle, even with exposure to aggressive chemicals, over long periods of time. It provides exceptional resistance to strong acids and alkalis even at higher temperatures.

Polypropylene materials have low moisture absorption, accommodates high and low temperature extremes, and has excellent thermal insulating properties. It is exceptionally stress and crack-resistant, with excellent dielectric properties as well.

Polypropylene is the lightest in weight of any thermoplastic. It can be welded and thermoformed, and has a high strength-to-weight ratio. Polypropylene is also mechanically resilient, and ideally suited to environments where accidental impact can occur from parts handling devices, fork trucks and hoists. If damage occurs, repair can be completed without interrupting service.



Tri-Mer has long been a leading supplier of polypropylene tanks manufactured with FDA resins.

## Other Important Material Options

- Tri-Mer fabricates process tanks from all major thermoplastics, including various grades of PE, PVC, CPVC and PVDF, in addition to co-polymer and homopolymer polypropylene.
- We also manufacture tanks in mild steel and several grades of stainless steel.
- Tri-Mer long been a preferred tank supplier to metal finishers, with process tanks ideally suited for hydrochloric, nitric, sulfuric acid pickling and other operations involving extreme pH materials, or extreme temperatures.



## Capabilities Overview

Tri-Mer has more than 4 decades experience in the design of custom tanks for every process requirement. From simple tanks to tank farms incorporating complex material handling, Tri-Mer has the resources and experience to meet your requirements.

Tanks are engineered to specific customer needs in rectangular, circular and custom shapes, with open tops, cone bottoms and other features. We specialize in tank projects with requirements for special access, constraints on equipment height or footprint, tanks with exceptional capacity (100' or more in length) and tanks that require robust structural support.



## Design and Manufacturing

Tri-Mer's Tank Fabrication Group uses advanced CAD/CAM techniques to compare design alternatives and achieve the most efficient and cost-effective tank design for your application. We understand the importance of quick, easy access, and the need for tanks to integrate with plant equipment and work flow, so we work with your production and maintenance staffs to design the tank or tank farm to your specific needs.

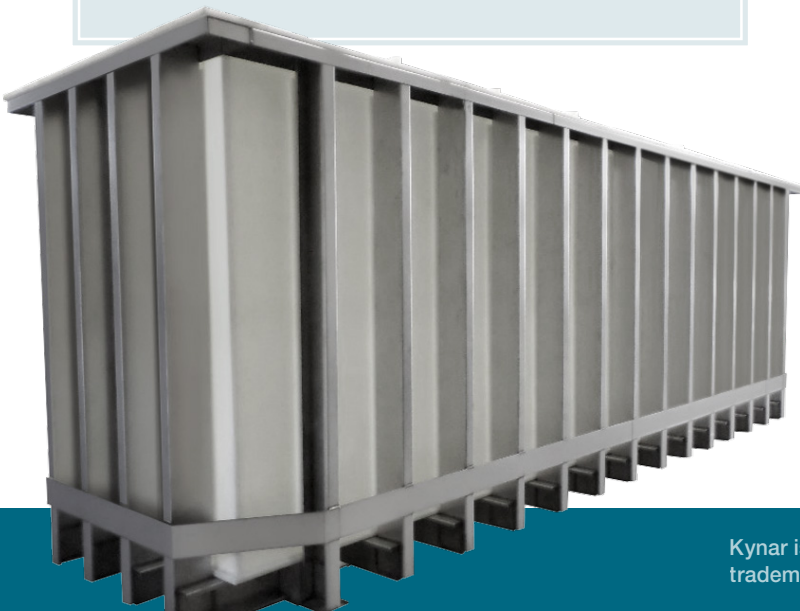
Our manufacturing resources include modern, up to date in-house tooling, forming, butt welders and advanced extrusion welding for precision joining and assembly. We also employ proprietary processes that maximize long-term structural integrity, and distribute stresses on larger tanks with exceptional uniformity.

**Tri-Mer tanks have the significant advantage of double weld-strength, inside and out.**

- To assure greatest strength at corners and seams, Tri-Mer technicians use programmable extrusion welders that operate under high temperature and pressure, grinding and melting virgin polypropylene and extruding it through a die. The molten material is mated to virgin sheet stock to form a molecular bond equal in strength to solid sheet.
- To insure full strength at all bend sites, Tri-Mer uses advanced welding systems. The butt welder has 90° fusion welding capabilities. This, along with extrusion welds, creates a superior corner design.
- To distribute sidewall stresses evenly, Tri-Mer uses a routed bottom plate of up to 1-1/2" polypropylene; a machined channel is created in the plate, to which sidewalls are fitted, and extrusion-welded on both sides. This assures maximum strength without distortion and eliminates the shear point.

With this Tri-Mer feature, the inset position of the vertical wall –rather than the weld itself – holds the sidewall in place. The weld thus provides only the leak-proof seal.

- To ensure proper support, Tri-Mer uses a computerized system to determine the optimum type of support for each tank: vertical polypropylene ribs, encapsulated tube steel or a cradle support structure. The program also helps calculate the tank's expansion characteristics at operating temperature.



## Instrumentation

Tri-Mer's Instrumentation Group provides custom controls (such as a system to open lidded tanks at precise intervals) and expert PC/PLC programming. Systems can be set up for automated chemical feed.



## Auxiliary Equipment

Tanks can be supplied alone, or as a package, with complete material handling, ducting, piping, pumps and agitation, heating elements, and controls.

Tri-Mer supplies tank covers, fume hoods, scrubber exhaust systems and blowers, and high-efficiency scrubbers for complete, one-source responsibility and maximum cost-efficiency.



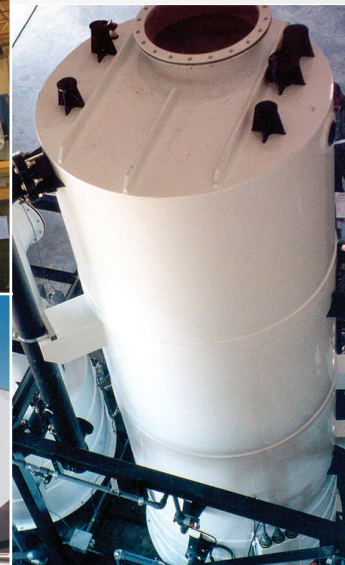
## Quality

Tri-Mer's comprehensive quality protocols for tank manufacturing are the best in the industry. Technicians perform detailed inspection at five stages during tank manufacture: cutout, forming, welding, subassembly and final assembly. In addition, Tri-Mer water tests each tank for up to 72 hours.

# Tri-Mer Manufactures Air Pollution Control Systems for Companies Worldwide

Established in 1960, Tri-Mer is a leader in emissions control technologies for particulate, gases and fumes, as well as process tanks and auxiliary systems.

- UltraCat catalytic filters remove PM, SO<sub>2</sub>, HCl, NO<sub>x</sub>, dioxins, Organic HAPs, and CO, with NO<sub>x</sub> control as low as 350°F.
- Tri-NO<sub>x</sub>® Multi-Chem NO<sub>x</sub> wet scrubber system handles any NO/NO<sub>2</sub> ratio with the guarantee of a clear stack, free of NO<sub>2</sub> plume.
- Cloud Chamber scrubs PM<sub>2.5</sub>, fine, submicron, ultrafine, and condensable particulate as well as PM<sub>10</sub> and coarser particles; also soluble acid and caustic gases.
- Vertical and Horizontal Packed Bed wet scrubbers are engineered for corrosive acid gases, odors and other chemical applications.
- Whirl Wet systems provide high-efficiency wet dust collection for soluble and insoluble dusts 2 microns and above.
- Tri-Flow Compact Filter System delivers HEPA level performance, with a MERV 16 rating.
- Tri-Mer Crossflow Scrubber guarantees your operating permit level out the stack for HCl, HNO<sub>3</sub>, HF, H<sub>2</sub>SO<sub>4</sub>, Cl<sub>2</sub>, H<sub>2</sub>S, and NH<sub>3</sub>.



## Start-Up Support Worldwide

Tri-Mer combines the strength and resources of a large supplier with the service and flexibility found primarily with smaller entrepreneurial firms. We offer expert design assistance and consulting, and respond quickly to inquiries.



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