

Mix, Transfer, Store

Capabilities Presentation

Terracon Corporation

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Terracon-solutions.com



Who Is Terracon

Experts in plastics for Mixing, Transferring and Storing fluids. From standard off the shelf industry leading products to custom configured solutions for the Life Science, Medical and Industrial markets.

Combining our engineering and technology expertise with our deep applications knowledge allows Terracon to deliver solutions quickly that address your application needs.



Transfer

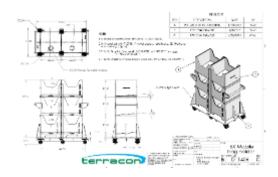
Store



Accessories



Customer Advisory Services





Storage

- Capacity, vessel options:
 - 10L to 60,000L
 - Round, rectangular
 - Cone or flat bottom, sanitary fittings
- Materials:
 - Polypropylene
 - Polyethylene
 - PVDF
- USP Class VI, cGMP & FDA compliant
- Applications:
 - Pure water storage
 - Concentrate storage & dispensing
 - Chemical storage
 - Single use





Mixers

- Capacity, vessel options:
 - 50L to 50,000L, cylindrical or rectangular
 - Total drain cone or dish bottom
 - Agitators & baffles optimize mixing
 - Sanitary fittings
 - CIP assemblies and coverage testing
- Materials:
 - Plastic eliminates pitting, rusting
 - Polypropylene & Polyethylene vessels
 - Stainless steel or powder coated stands
- USP Class VI, cGMP & FDA compliant
- Applications:
 - Slurries
 - Buffers
 - Chemical mixing





Transfer

- Materials:
 - Polyethylene, Polypropylene, PVDF
- · Available as:
 - Custom: configured for specific workflows
 - Standard: pre-engineered solutions
- Many formats
 - Totes, trays, tanks, tables, skids
 - Molded or fabricated
 - Round, rectangular, or other
- Applications
 - Single use 2D or 3D bags
 - Bulk liquids, slurries & powders















Accessories

- Custom & standard designs
 - Single use: impellers, baffles, dip tubes
 - Reusable: dip tubes, spargers, spray balls
 - Zero dead leg valves
 - Workstations, rinse stations
 - Tank filters, rupture disks, racks
- Material options:
 - Polypropylene, Polycarbonate, Polyethylene, PVC
- Rapid turnaround time
- Designed for USP Class VI, cGMP, & FDA applications













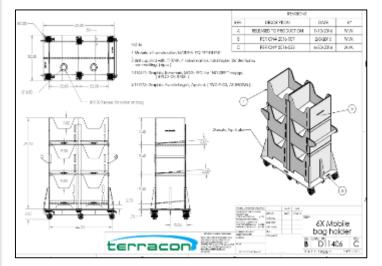




Customer Advisory Services

Early engagement optimizes your access to Terracon's expertise in:

- Applications knowledge:
 - A deep understanding of your application
- Workflow analysis:
 - To understand the use case
- Design expertise
 - To optimize technology to meet the use case and workflow needs
 - CAD drawings & 3D modeling





Customer need:

Pillow bag management in a CMO suite

Terracon solution:

A single tote for six 3D bags of different sizes



Product Bulletin

Terracon Expands Computer Aided Manufacturing Capabilities

The pace of product development demands that process changes be prototyped, tested, and implemented rapidly and cost effectively. This work must be conducted while meeting the stringent demands of cGMP, FDA and Ultra-Pure Water guidelines in the biopharma, medical and industrial markets.

To meet these demands, Terracon, a leader in plastic for mixing, transferring, and storing of fluids, has expanded its capabilities by implementing Computer Aided Manufacturing (CAM) with the addition of a high-speed precision Mill-Turn machining center. In conjunction with our Computer Aided Design (CAD) capabilities, the Mill-Turn center completes a suite that enables CAM, an advanced productivity tool to add precise details required for specific applications. This new machining center will add to Terracon's existing capabilities that range from multi-axis overhead routing to precision machining of flat stock.



High Speed Precision Mill-Turn Center

Customer Benefits:

Rapid turnaround:

- Reduce prototype lead times from weeks to days
- Reduce production run lead times

Sanitary:

- Machining reduces the numbers of parts and interfaces minimizing surface transitions
- Ideal for ASME-BPE, cGMP, FDA, and clean water applications

Precision:

 CAD drawings feed directly to the machine ensuring first part accuracy and production precision

Intricate:

 Machining allows for small features to be densely packed maximizing versatility to meet applications needs

Traceable

- Fully traceable certifications including USP Class IV compliance
- Documentation provided in a comprehensive turnover package



Multi-axis ()verhead Router

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Product Bulletin

Product Examples:

Fittings:

From single piece fittings to zero dead leg valve assemblies

Carboy Caps:

Dip tubes for filling, emptying, sampling, measuring

Dip Tubes / Spargers:

A wide variety of dip tubes and spargers from straight to multiangled with a variety of connectors from many plastic materials

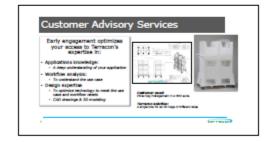
Spray Balls:

For tank cleaning (CIP) and loop return used in ultra-pure water

Other Accessories:

Including single-use impellers, shafts, funnels, fill-finish drip trays

In conjunction with Terracon's Customer Advisory Services the expanded capabilities allow for the rapid delivery of machined products critical to your specific application.



Terracon:

The expert in plastics for mixing, transferring and storing fluids. From standard, off-the-shelf industry-leading products to customconfigured solutions for the life science, medical, and industrial markets.

Combining our engineering and technology expertise with deep application knowledge allows Terracon to deliver solutions quickly that address your specific needs.







