

## 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 Overhead Router**

**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 multi-angled 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.



### 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

**Terracon:**

*The expert 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 deep application knowledge allows Terracon to deliver solutions quickly that address your specific needs.*