

manufacturer focus

Plastic Parts

By WQP Editorial Staff

How custom-designed plastic parts for water-treatment applications can help your business

Do you ever find yourself challenged to source a custom-manufactured plastic component for a unique water treatment application? Do you struggle with flow rate variables and size constraints? Do you wonder how to turn the design you're working on into something that actually works? When "one-size-fits-all" doesn't fit your needs, consider custom plastics components to do the job.

Mattson/Witt Precision Products, a manufacturing company located in Illinois, operates the latest in high-tech plastics CNC machining equipment to economically produce high-quality custom runs in quantities of 10 to 1,000 pieces. Whether producing a custom-designed tank head, a lateral with custom slotting or a one-of-a-kind widget, this company has the engineering resources and understanding of the water treatment industry to design parts for custom applications and the operating efficiency to bring them economically into production.

Mattson/Witt has been providing various solutions to water dealers for quite some time via collaborative problem solving and the technical expertise of its team.

Applications

A customer recently had distribution systems for use in 30-in. and 36-in. tanks made from CPVC, but wanted to increase flow rates and reduce cost. The temperature and pressure requirements were reviewed and Mattson/Witt designed a new strainer to increase the flow characteristics and changed the system to polypropylene to reduce cost.

This was so successful that the customer returned with a request for help designing a system for 24-in. tanks that would increase efficiency and bed use. Mattson/Witt designed a system that allowed for a smaller radius on the dome of the tank with a shortened and angled hub with added flats for easier threading of laterals into the system. The results were completely redesigned systems for 24-, 30- and 36-in. tanks that perform better at a lower cost.

Another customer needed a system for a 63-in. tank that would allow them to drain the resin out the bottom of the tank after regenerating. Mattson/Witt worked with them to design a hub and lateral system with cut-out arches that allowed for resin drainage while still keeping the laterals near the bottom of the tank and not compromising strength requirements.

Another customer wanted a way to use quick-connect fittings directly on their tank head. Mattson/Witt developed the geometry and then machined a tank head that works universally with major quick-connect systems available in the market.

A water processing industry original equipment manufacturer (OEM) had an idea (sketched on a cocktail napkin) for a new product that would make water cleaner and reduce water spotting after use. Through discussion and idea exchange over several months, Mattson/Witt designed a system that met constraints for size, weight, durability, portability and cost all while meeting their flow, pressure and temperature requirements. This OEM uses breakthrough water processing eco-technology and its products "make water more clean and the planet more green."

Plastics Expertise

"What really makes us unique in the water treatment industry," said Jeff Witt, president

of Mattson/Witt, "is the combination of our capabilities and expertise in plastics machining as well as in water treatment system operation and design. By being able to pull both of these things together, we are uniquely able to work with OEMs to design customized solutions that meet their special application requirements."

"Quite often," said Witt, "what begins as a custom 'one-off' part that we develop with one of our customers ends up becoming part of their standard product line and we end up making that part for them for years."

The company also has a full line of standard machined plastic hubs, laterals, tank heads, brine valves, flow controllers, closures and other parts in stock to meet the needs of those who want the strength, durability and overall sturdiness of a solid machined part as opposed to the molded parts often found in the market with all of the variables that come with injection molded components.

"It's on the custom applications where we really shine," said Witt. "There is a great feeling of satisfaction in knowing that we were able to work with our customers to develop and then produce a quality part or system that solves their problem." *wqp*

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