



Biopharmaceutical Portfolio

Custom Fabricated Sanitary Dip Tubes

About Us

Since 1985, High Purity Systems has provided precision welding, quality piping installation and fabrication solutions to the industrial sector. High Purity Systems delivers value and responsiveness to meet the ever-changing needs of our clients. Expertise includes Class 100 Clean Room orbital welding, onsite piping installations from stainless steel to carbon steel, piping fabrication shipped nationally and custom prototyping.

Contact Us

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The Challenge

Having heard of our reputation as a leading sanitary equipment and parts manufacturer, a global healthcare company approached High Purity Systems (HPS) to see if we could apply our custom metal fabrication expertise to their latest project. The company, which researches and develops medicines, vaccines, and consumer healthcare products, asked HPS for help building sanitary dip tubes for a small reaction vessel.

In chemistry, reaction vessels are the spaces used to contain reactants — the substances that change form in a chemical reaction. As a research-led healthcare company, the client uses these vessels regularly for biopharmaceutical testing and development. They turned to HPS to fabricate dip tubes in accordance with the strict American Society of Mechanical Engineers' Bio Processing Equipment (ASME-BPE) hygienic standards.

The Strategy

HPS performed the fabrication and installation in just three weeks by welding 0.75" sanitary Grade 316L stainless steel tubing with an orbital welding system and finishing it with 20Ra electro-polish surface finish. The finished dip tube underwent one final inspection for dimensional accuracy and was verified with a profilometer to ensure it met our customer's requirements.

The Result

The customer chose High Purity Systems based on previous work we had done together, noting they were impressed not only with the quality of our work, but also with our BPE documentation of the process. After we completed the dip tube project, the client again expressed satisfaction with our communication in determining requirements, as well as our ongoing exchanges throughout the fabrication.

Our industry knowledge and continued collaboration with the client led to a successful installation that met the strict AMSE-BPE requirements and elicited positive customer feedback. Through our proven expertise on custom projects, adherence to strict specifications, and cooperation with our customer, HPS once again exceeded client expectations.

