

Industrial Case Study

Orange Coast College installs Enpure™ and Enfield™ piping systems for new state-of-the-art chemistry laboratory

Cutting-edge IPEX products were selected for landmark 43,000-square-foot development



PROJECT:

Orange Coast College, Southern California

CONTRACTOR:

Pro-Craft

PRODUCTS:

- Enpure™ High-Purity Polypropylene Pipe and Fittings
- Enfield™ Electrofusion Polypropylene Acid Waste Piping
- Neutrastack® HDPE & Polypropylene Neutralization Tanks
- Neutrastack 2™ PH Monitoring System

PROJECT COMPLETION:

By the end of 2024



THE CHALLENGE

Orange Coast College (OCC) is located in the heart of Costa Mesa, just minutes from Southern California's stunning beaches. The 164-acre campus features several top-tier facilities and offers more than 135 academic and career programs.

In 2020, the college invested in a revitalization project to modernize the campus, which included building a new 43,800-square-foot chemistry building.

The new development includes nine laboratories allowing for larger class sizes and increase lab capacity with individual workstations. The building will also house lecture halls, faculty offices, and additional meeting spaces.

When complete, the new space will increase the laboratory capacity by more than 60% compared to the previous building. It will also help support OCC students bound for the college's popular nursing program, as well as those transferring to local and out-of-state four-year colleges and universities.

The special plumbing component was an integral part of the construction of this new chemistry facility. Due to the various corrosive materials being used, it was essential the piping systems could adequately handle and safely dispose of the waste.

Designing a piping system for this chemistry building that could manage such complex requirements called for expert support and the highest-quality piping solutions.



IPEX
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See Next Page



Embedded Coil

The embedded coil allows for easy installation. The coil doesn't go missing or get damaged during shipping.

Pro-Craft Superintendent

THE SOLUTION

OCC enlisted Pro-Craft, an award-winning AQC-certified plumbing and underground utility company, as the plumbing contractor for the project. The Pro-Craft team also worked with piping distributors, Harrington and plumbing manufacturers' representative Signature Sales to support throughout the build.

The corrosive waste plumbing element of this project had very specific and complex requirements, including installing multiple lines to dispose of different corrosive chemicals and laboratory waste.

The engineer on the project was able to utilize IPEX's Enpure™ High-Purity Polypropylene Pipe and Fittings for deionized water and Enfield™ Electrofusion Polypropylene Acid Waste Piping for corrosive waste drainage.

Over three-months, IPEX worked with Pro-Craft and their partners to answer all their questions and ensure each stakeholder had complete clarity about the piping system solutions.

The IPEX sales team outlined the performance potential of thermoplastic piping and the various potential applications within the new chemistry building. The IPEX engineering team provided education about the industrial product lines available for their needs.

The Pro-Craft contractor also needed a neutralization tank that could be installed

below grade. IPEX suggested its Neutratanke® HDPE & Polypropylene Neutralization Tank, which could be custom-designed and installed underground.

This recommendation led to a further discussion about a monitoring system, and IPEX suggested the Neutrasystem 2™ PH Monitoring System and Sampling Tank to ensure that discharges into the sewer were within an acceptable pH range.

The Pro-Craft design team wanted to conduct an even more thorough review of each product. A list of technical questions covering a broad range of topics was created, including the differences in polypropylene/polyethylene tanks, inlet flow distribution, connections options for floor drains with trap primers, support hangers and the installation differences using electrofusion and socket fusion for assembly.

The IPEX team provided detailed responses to ensure every question was answered and all follow-up questions were properly addressed.

The IPEX engineering team also provided specifications and CAD drawings for the neutralization tank and manufacture inspection. This included the tank's design, covering options for the bolted lid, sampling tank support, elevation differences, locations, and sizing for the inlet, outlet, vent and access port for their cylindrical tank order.

One-Stop Source for Corrosive & Laboratory Waste



Deionized Water

Enpure™ High-Purity Polypropylene Pipe & Fittings



Corrosive Waste Drainage

Enfield™ Electrofusion Polypropylene Acid Waste Piping



Acid Waste Neutralization

Neutratanke® HDPE & Polypropylene Neutralization Tank



Discharge within Acceptable pH Range

Neutrasystem 2™ PH Monitoring System and Sampling Tank



“The easy-to-use guided Enfield machine allows for ease of installation; the fittings have an outside marker for the metal clamps and a stopper embedded inside the fittings, so we don't need to measure how far the pipe needs to go in.”

Pro-Craft Superintendent



THE RESULTS

Combined with a willingness to answer any questions and flexibility around design considerations, this next-level customer service is what gave Pro-Craft the confidence to partner with IPEX on the OCC project.



Onsite Trainings

Jobsite training was provided for Enpure™ and Enfield™ products to ensure the installation went smoothly and to help prevent any potential roadblocks.



Single Source of Pipes, Valves & Fittings

What set IPEX apart on this project is that the team demonstrated the company was a one-stop source for a variety of piping solutions as well as customer support from various departments within the business.



Technical Support

Beyond offering a selection of high-performance thermoplastic piping products and additional plumbing solutions, IPEX delivered unwavering support during a long and often complicated deliberation process.

Construction is expected to be completed by the end of 2024.

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