Oceanic 5000 is a vessel designed with a sophisticated system for laying pipe on the sea bed up to depths of 300 metres. The vessel, measuring 198 m long and 48 m wide, supports heavy cranes and has a large storage area for pipe that allows it to stay on the job for extended periods of time. With a crew of 300, Oceanic 5000 places heavy demands on its potable water system.

Originally, the ship’s pipes were made of steel. Steel meets the marine requirements according to the IMO regulations, but it is also very susceptible to corrosion. After several years, there were countless issues with poor flow in the onboard, hot-and cold-water systems and poor potable water quality. The badly rusted steel pipes needed to be replaced. IPEX Corzan® CPVC pipe and fittings were chosen to replace the old steel pipe.

IPEX CPVC pipe, valves and fittings meet IMO specifications, making it ideal for the corrosive marine environment.
Diego Luzza, General Sales Manager Export Operations with IPEX, explains: “The marine industry is very demanding and all the piping systems need to be marine-certified by a third party to IMO specifications. Our CPVC pipe, valves and fittings meet those standards, making it ideal for the corrosive marine environment.”

In all, 150 km of corroded old pipes were removed and replaced with CPVC pipe. With over 400 wall penetrations, CPVC’s ease of handling was key to meeting the owners’ deadline. The material is lightweight, and when joints are solvent welded, they are ready for pressure testing in a matter of hours. As part of its extensive range of marine-certified products, IPEX carries a complete line of marine-certified CPVC pipes and fittings in diameters ranging from 1/2” to 16”.

The longer a ship is not at sea, the more money it loses. Meeting the time frame required by the ship’s owners was crucial. Downtime was limited. “IPEX manages inventories well,” said Luzza. “We had the product in stock, so there were no delays in having the material ready for the contractors.” Four containers made the trip from the United States to Dubai, with excellent coordination through the export department, the on-site distributor and the contractor, GFP.

Luzza adds: “We provided solvent welding training specific to hot weather climates. We also reviewed design parameters, such as operating temperatures, and provided information on such issues as fire-stopping through wall penetrations, hanger support calculation, and expansion and contraction calculations. With a crew of 17 mechanical engineers and pipe fitters, the project was completed in 70 days — and ahead of schedule.”

At IPEX, every plastic pipe, valve and fitting (PVF) you need for any industrial project is available from a single, reliable, accountable source, where you will also find a full range of specialty systems, including ventilation duct.

Only IPEX offers complete PVF systems — in industrial PVC, CPVC, ABS and natural and pigmented PP — for process piping, double containment, acid waste, high-purity, and compressed air applications.

At IPEX, we build tough products for tough environments®.