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World Leader in Resin Technology

CaseHistory

Power Plant Water Pipes

Resin:	Vipel® F737 Resilient Isophthalic Polyester Resin
Composite	Filament Wound Pipe
Diameter:	4.9 meters 914 meter long
Operating Temperature:	40° C
Chemical:	Salt Water from a Plant
Year Installed:	1978

In 1978, the Jacksonville Electric Authority in Florida, USA, required a pipe to distribute water from their power plant into the Atlantic Ocean. The function of this pipe was to discharge large amounts of warm water out to the ocean, with minimal effect on sea life. The pipe was 914 meters long by 4.9 meters in diameter. This is a 15-meter section of the pipe. One end has been ground in preparation for a butt and strap joint, which was required at a few strategic locations on this project. The pipe connections were normally double O-ring, bell and spigot joints.

A ZCL Composites Inc. fiberglass reinforced pipe using AOC's Vipel® F737, a resilient isophthalic acid resin, was chosen in this case because of its corrosion resistance to seawater and its impact resistance. The entire installation was sub-aqueous with each length of pipe installed and then backfilled by cranes

and divers operating from barges. To disperse the warm water over a larger area, the 4.9-meter pipe was connected to two, 3-meter diameter legs, each 46 meters long, by means of a large reducing "Y" joint which is shown here.

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