



NEARLY 18 MILES OF AWWA C303 SUPPORTS INDUSTRIAL GROWTH



PROJECT OVERVIEW

In 2017 the demand for water in Corpus Christi, Texas, was more than 34 billion gallons of water. Industrial growth accounted for nearly 50 percent of water use, but in 2025 that number is expected to rise to 70 percent.

Thompson Pipe Group manufactured 93,950 linear feet of 48" bar-wrapped pipe (AWWA C303) for the San Patricio Pipeline managed by the San Patricio Water Department.

BENEFITS OF BAR-WRAPPED PIPE

The stiffest and strongest of the commonly specified semirigid water pipes, C303 bar-wrapped pipe is manufactured using a welded steel cylinder with sized, welded-steel joint rings attached. The steel cylinder is lined with centrifugally applied mortar. Mild steel reinforcing bar is helically wound around the outside of the cylinder under controlled spacing and tied off to the steel joint rings. Lastly, a coating of dense portland cement mortar is applied to the pipe exterior for both physical and corrosion protection.



INSTALLATION

No Special Bedding Or Backfill

C303 is highly customizable and generally does not require special bedding and backfill procedures. The pipe is easily modified in the field, cutting in a valve, adding an outlet and making a service tap are all common procedures. Custom, steel plate fittings are also available to complement the pipe lengths.

No Welding Required

Bar-wrapped pipe can be installed with Thompson Pipe Group's custom Snap Rings® or harness clamps. This project used both. No welding is required for either and both are protected from corrosion by zinc metalizing and portland cement rich grout.

SNAP RING®

Introduced by Price Brothers in 1973, the Snap Ring® joint system is assembled at the plant in a recessed groove in the bell ring of the pipe and held in position by a bolt and U-nut assembly. A steel sliding clip completes the ring circumference. Once installed the voids are filled with portland cement grout. The result is a superior restrained joint that saves time in the field.

HARNESSESS CLAMP

At large degree bends and areas with higher thrust loads, engineers specified harness clamps. The two-part system is positioned around the joint and secured simply by tightening drawbolts on each side. These harness clamps are testable, leak free and allow zero infiltration. No welding is required. Harness clamps are covered in thick cement-rich mortar coating. No cathodic protection is required.

WHAT CONTRACTORS SAY ABOUT BAR-WRAPPED PIPE

According to S.J. Louis Construction Project Manager Curtis Ostrander, bar-wrapped pipe allowed his team to lay with no leaks in the San Patricio Pipeline. "We laid five miles of pipe and were able to test it all at once," he says.

Luke Fontenot is a Project Manager with BRH Garver Construction. In six months his team laid 10 miles of bar-wrapped pipe through diverse South Texas terrain and ground conditions. The ease of installing the Snap Ring® joint system is preferred. "I like it a lot better than welding," he says. "Bar-wrapped pipe goes in quickly."



Photos Courtesy: BRH-Garver Construction