

CASE STUDY

THE NEW CERTA-LOK® CLIC™ IN-PLACE SPLINE SYSTEM ENABLES UP TO 40% FASTER ASSEMBLY OF WATER WELL CASING

Westlake Pipe & Fittings' ongoing commitment to innovation led to a design solution that moves past mere product improvement. Using years of application insights, Westlake Pipe & Fittings engineers took a broader look at the well-received spline lock approach invented decades before.

CHALLENGE

Traditional Certa-Lok uses a spline to connect pipes during the installation of water well casing. The splines are a separate component of the locking system requiring manual insertion. The drilling operator holds a quantity of splines on the back of the drilling rig where time is invested handling and managing the splines to insure proximity with installation as the pipe is assembled. It can be a challenge to keep track of splines on a job site and at times splines can be misplaced or lost down the drilling hole. On large pipe sizes, the spline insertion can be time consuming requiring use of a hammer.

APPLICATION

The Bandera, Texas project identified the specialized joint design of Certa-Lok CLIC Well Casing, with the pre-assembled spline ring, as the best product for the job of drilling fresh water access for wild game on the property. The product selection was attributed to the increased speed of installation, increased tensile strength and the ease of disassembling and reassembling the casing sections. The well was air drilled to a total depth of 760', mostly through shale rock formation. No mud was encountered or used in the drilling process. Sixty feet of slotted 5" DR17 casing was installed using traditional Certa-Lok IB joint casing with the remaining 700' consisting of solid wall Certa-Lok CLIC joint casing. The static water level upon completion of the well was determined to be 347.7'.

On the Stephenville, Texas project, the Certa-Lok CLIC Well Casing, with the pre-assembled spline ring, was chosen to support residential water for a new home on the property. The well was drilled to a total depth of 520', where 60' of slotted 4.5" casing was installed via traditional Certa-Lok IB joint style pipe with the remaining 460' consisting of Certa-Lok CLIC joint casing.

SOLUTION

Contractor Waterboyz of Bandera, Texas and contractor Associated Well Services of Stephenville, Texas were engaged to complete their respective projects using the Certa-Lok CLIC PVC pipe. The groundbreaking, patent-pending joining system of Certa-Lok CLIC was developed by Westlake Pipe & Fittings' engineering team allowing the spline to be pre-assembled in the pipe during the manufacturing process. The pipe arrives on the jobsite with spline rings installed and ready to click



Project Type:
Water Well

Application:
Domestic Well

Products Used:

- 5" Certa-Lok CLIC Well Casing – Bandera, TX
- 4.5" Certa-Lok CLIC Well Casing – Stephenville, TX

Contractors:

- Reed Scubby – Waterboyz Well Drilling & Service, Bandera, TX
- Colton Ardal – Association Well Services, Stephenville, TX

Driller:

- Reed Scubby – Waterboyz Well Drilling & Service, Bandera, TX
- Justin Moore – Associated Well Services, Stephenville, TX

together eliminating the need to inventory and handle splines in staging and during installation while also providing the easy, disassembly feature sometimes needed.

"Today we tried some of the new Certa-Lok CLIC (well) casing, it went really, really well. Very quick, no need to drive a straw (spline) into it. Just slap it together and go."

– Reed Scubby, Waterboyz Water Well Drilling, Bandera, TX

"We are here on a glorious day in Stephenville. Just drilled a 520' well, used the new Certa-Lok CLIC, ran it in, put it together, took it apart. It went real smooth. I would use it again. It worked great!"

– Justin Moore, Associated Well Services, Stephenville, TX

In Well applications, the pipe is lifted into place vertically by the rig and dropped into the assembly. The Certa-Lok CLIC spline ring helps this assembly because the operator no longer has to ensure the spline grooves are aligned 'just right' between pipe lengths and the spigot isn't at risk to be over inserted. The new, next generation Certa-Lok CLIC offers improved tensile strength for use at greater well depths and significantly streamlines the contractor's pipe joint assembly time cutting it virtually in half.