

A PROVEN TECHNOLOGY WITH OVER 20 YEARS OF INTERNATIONAL Success now available in the US (over 25 US projects in 2021)

Foundation Technologies, Inc.

Innovative Materials for Rapid Construction

CSL tests determine the structural integrity and consistency of concrete within diaphragm walls, bored piles, drilled shafts, barrettes, concrete piles, and augercast piles. CSL uses sound waves to measure the propagation time and the balance of energy between parallel waterfilled tubes installed at specific spaces within the foundation element during construction. An ultrasonic transmitter and receiver are lowered and lifted in unison within the tubes to test the concrete between the tubes from top to bottom. This process shows the extent, depth, and approximate location of damage within the foundation element.

Crosshole sonic logging has been successfully used to evaluate the integrity of deep foundation systems since the early 1980s. In the United States, the traditional delivery system for the cross-hole sonic logging probes within the deep foundation have been Schedule 40 carbon steel pipe. An alternative to Schedule 40 pipe has been widely used internationally for over 20 years but is now just being made available to the US market in 2021.

SONITEC® Crosshole Logging tubes were designed and developed by the Dextra Group. Dextra is one of the largest manufacturers in the world of rebar mechanical splices along with other geotechnical and architectural solutions. Since the first introduction of their "Push-fit" CSL technology in 2000, they have provided over 50,000,000 linear feet on over 400+ foundation projects all over the world. The lightweight nature of SONITEC® (about 1/3 the weight of typical carbon steel) along with the elimination of threading and coupling has made this technology the CSL tube of choice for projects large and small.



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In late 2020 Dextra America established manufacturing of their SONITEC® CSL tubes here in the US for the first time, making this proven technology now easily available for all projects in the United States.

Dextra America, based out of Washington State, has entered into an exclusive distribution agreement with Foundation Technologies, Inc., based out of Lawrenceville, Georgia, to bring SONITEC® to the US market.

SONITEC's Push-Fit design offered a unique solution to Becho Inc's SWRLT, Metro Southwest Greenline Extension Project in Minneapolis, Minnesota. SONITEC® was installed in spliced cages allowing for the CSL tubes to be connected after the cages were already coupled together. This is something the contactor said would be very challenging using SCH40 pipe given the small area they had to work with inside the cage. Over 95,000 LF of SONITEC® has been used on this project.

In 2021, SONITEC® CSL tubes were successfully used or approved in 13 different states and on over 25 projects. Cage lengths ranged from 40' to well over 100'. SONITEC® has been used on projects in the US such as the NCDOT, Wilkes Co Bridge #663 Over East Prong Roaring River on Sr-1002 with Vannoy Construction and the USACE, East Baton Rouge, McHugh Bridge project with Baker Deep Foundations.

SONITEC® CSL Tubes have also used by ADSC contractor member Malcolm Drilling on the Oceanwide Project in San Francisco, California. The cages used on this project were some of the largest in US History at over 340 feet deep.

SONITEC® is proving that innovation can come from all parts of the worldwide foundation community. It's growth and use are being driven by three primary benefits: 1/3 the weight of typical schedule 40 pipe, no threading, and significant labor savings during installation (over 50%). If you'd like to learn more, please visit us at foundationtechnologies.com.



