Pile-driving analyzer

Sunday, July 18, 2004

MAKER:

Pile Dynamics Inc.

WHERE IT'S MADE:

Warrensville Heights

HOW IT'S MADE:

Using an aluminum enclosure (supplied by a Youngstown company and cut to specifications by another company in Bedford), Pile Dynamics in stalls components including a CD-ROM drive, hard drive and circuit boards (purchased from a Youngstown company, but stuffed with additional components by Pile Dynamics). Boards, resistors, capacitors and amplifiers are tested and calibrated, then installed along with a custom-made weatherproof keyboard panel. The unit is loaded with software, some of it proprietary, and tested. "We don't have a mechanized assembly line," said Gina Beim, senior consulting engineer for marketing. "It's done one by one." The company sells an average of one a week.

HOW IT'S USED:

During the installation of piles for buildings or bridges, the analyzer's sensors can test soil resistance to driving, pile integrity and other factors. They also measure the pile's bearing capacity, ensuring it's strong enough.

BACKGROUND:

The device was used locally during construction of Cleveland Browns Stadium and Valley View Bridge, among other projects. Customers include construction companies, state transportation departments, port authorities and engineering consultants. Purchasers get up to five days of training. Given the importance of the data, "it's a lot of responsibility," Beim said.

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