



Michigan Instruments' Life-Stat is a lifesaver

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CASCADE TOWNSHIP -- Changing standards for CPR have been a boon for a West Michigan firm that long has been a pioneer in automating the life-saving process.

Since [Michigan Instruments Inc.](#), 4717 Talon Court SE, got U.S. Food and Drug Administration approval this year for its latest automated cardiopulmonary resuscitation machine, dubbed Life-Stat, fire and rescue teams, hospitals and the military are upgrading to the device and adapting to the American Heart Association CPR standards.

Life-Stat is an updated version of Michigan Instruments' well-known Thumper machines, made in various forms since the company was started by former Lear Siegler engineers in 1963. The company is led by Bruce Barkalow, son of founder Clare Barkalow. "This has battery-operated controls to time compressions and coordinate them with the ventilation," said Bruce Barkalow. "It also attaches to a spine board so you can take someone down a stairwell, while the machine provides the CPR, and get them to the hospital quicker."



Life-Stat improves on Thumper models, weighing four pounds less and implementing electronics allowing it to conform to new standards for chest compression-to-breath ratios. For emergency personnel, four pounds can make a big difference when hauling equipment. "The more portable you can make the unit, the easier it is to get the equipment to the patient," said Joe Baldwin, general manager for Michigan Instruments and one of the designers of Life-Stat. Old models were built to provide five compressions between each breath at a slower rate, based on American Heart Association recommendations. New standards set by the American Heart Association in 2005 changed the recommended ratio to 30 compressions at a faster rate followed by two ventilations. Life-Stat also can provide continuous compressions and ventilation with the push of a button.

Press Photo/Emily Zoladz

Michigan Instrument Service Manager Dave Keister demonstrates the Life-Stat, an automated CPR machine.

Fire departments in Detroit and Baltimore, and hospitals, including Henry Ford in Detroit, already have Life-Stat machines. While annual sales at Michigan Instruments are typically about \$2 million, Baldwin said Life-Stat opens up a major avenue for orders from customers updating older equipment or switching from competitors' machines. "It's exciting, really exciting," said Dave Keister, service manager. "Our closest competition is about \$5,000 more and doesn't include ventilation." Hospitals and rescue teams use the machines, typically attached to a spine board to provide more consistent, hands-free chest compressions and ventilation than manual CPR.

Strong demand for the machine -- the company typically sold 200 to 400 Thumpers in a year -- has resulted in a handful of new machining and assembly jobs at the 14-employee, privately held firm. About 95 percent of each Life-Stat machine is made in house, Baldwin said. Baldwin hopes the company can play a role in the state's life sciences economy, with the company having been around longer than the idea. "We hope to become a bigger part of it," he said. "We're probably one of the few places in Michigan hiring people."

For more information, please visit our website www.life-stat.com or contact 616-554-9696 or 1-800-530-9939