

Iowa Sewer Contractor Lights The Way With A New Manhole Lighting System

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The Light Ring comes in standard manhole sizes and has eight LED lights powered by a lithium-ion battery with a five-hour charge. It can also be plugged directly into a power source from a vehicle. It includes an adjustable safety ring to fit multiple sizes and a detachable downrigger to protect cable and jetter hoses.

It's a simple idea, one maybe you even thought of. But it took Shane Jacobson and a co-worker to pursue it: an aluminum ring that fits perfectly in a manhole opening with a set of LEDs to brightly light the work area. "Driving home from a job one night, Paul Lewis mentioned that it would be nice if someone made a light ring so we wouldn't have to stand there with a flashlight," says Jacobson.

A quick check revealed that nobody else made one, so they invented the Light Ring. With the help of Jacobson's cousin, Gavin Gross, they patented the invention and are now starting to market it. "We developed the idea a little more and turned it into a multiuse safety and efficiency device rather than just a ring with lights on the bottom."

Jacobson owns Central Iowa Televising in McCallsburg, Iowa, with his father, Kevin. He has also formed Light Ring Inc. "Nighttime emergency calls are going to be a lot easier," says Jacobson, adding that the better visibility will also help with safety and efficiency during daylight hours and will help prevent banging cameras, jetters and other equipment against the walls. "If somebody else had this on the market, I'd be hot on it."

Simple design

The ring comes in standard manhole sizes and has eight LED lights powered by a lithium-ion battery with a five-hour charge. It can also be plugged directly into a power source from a vehicle. There is an adjustable safety ring to fit multiple sizes and a detachable downrigger to protect cable and jetter hoses. Other attachments are being developed.

Setup takes just a few seconds. “You just pop the manhole cover, drop the Light Ring in the opening and place the safety ring on it – you’re ready to start working,” says Jacobson. “You’re not dropping spotlights in or using flashlights. We go through 10 or 15 spotlights a year. People drop them or break them, or they get wet and stop working. This eliminates that cost.”

One Light Ring set retails for about \$1,500 to \$2,000 depending on size and attachments. The Light Ring was prototyped and is manufactured by Tom Christian and Sawyer Hjortsvang, owners of Mid-Iowa Machine. Production may be outsourced to other U.S. companies as demand grows.

Easier than expected

It took less than a year to perfect the idea and file patent applications. Jacobson then set up field demonstrations with some local communities.

“Everyone thinks getting a patent is ridiculous amounts of money and lots of time and work. But if you have a basic concept, a drawing of the product you want to produce, and go to the right patent attorney that has actual experience with sewer patents – our process was pretty painless and there was minimal cost.”

There will probably be other patent applications down the line, as well. “We have two patents pending on this product so far,” he says. And there may be others. “A company that works on ethanol plants wants us to build a rectangular version they can bolt on to the side of a fan unit.”

Jacobson’s father will be around more to help in product development since he just retired after 23 years as the water and wastewater superintendent in nearby Story City. He couldn’t hire CIT for cleaning, jetting or sewer rehab work while he was in that position, says Jacobson. “But we’ve always had good feedback from him from the customers’ view.” He’s looking at tapping into that perspective as development of the Light Ring continues.

“The biggest breakthrough in manholes since the ingenious design of the manhole,” declares the company website (www.lightringinc.com). And it all started with an offhand remark in the cab of a truck.