

Reliability, Reinforced

When you add a revolutionary new offering to your business that's going to change the game for construction customers, the last thing you want is for its parts to crumble (and your repairs to soar).

Kodi Klip – invented to make the laborious process of connecting rebar safer, faster, and stronger – had two years of growing pains before Signicast helped its new majority owner, LoJac, make this reinforcing rock star become rock solid.



GAME-CHANGER

For Tennessee brick-and-block construction manufacturer LoJac, leading the regional building industry with a 75% market share comes with the expectation of reliability.

When the company discovered inventor Jon Kodi's "Kodi Klip," named *Most Innovative Product* at a World of Concrete expo in 2015, they were wowed.

Here was a hand-held, air-gun-like tool that, when triggered, automatically fastens a clip to intersecting rods of rebar, so workers could avoid the back-breaking, slow, and injury-prone labor of manual wire-tying.

"There's an immediate wow factor, and people totally get it. It's one of those innovations that can seriously change the construction world," says LoJac Chief Operating Officer Kellie Mires.

The company partnered with Kodi in March of 2016. But the tools that had been produced in its early generations faced a big problem of failure in the field. "As soon as it would hit the rebar the

nozzle just fell apart," says Aroll Jones, Customer Sales Director for Kodi Klip. "It would be sent back in crumbled pieces."

By the time LoJac began managing the Kodi Klip business, the product was in its second generation, and LoJac saw firsthand how urgent the reliability issue was.

IMPERATIVE QUALITY

Kevin Blair, LoJac's Equipment Director, says "The original nozzle was machined aluminum which was very brittle. We had to add a protector to it after assembly to keep it from being damaged on rebar."

That brought the part count higher. And the repairs kept coming.

"We were repairing as many 50 or 60 per month, and more than 80% were because of broken nozzles. You would do a repair, send it back out, and a month and a half later it would come back with another broken nozzle. You can't do that. It's bad for business, bad for the customer, and bad all the way around."

It became imperative for the company

“The Signicast piece is much stronger and exactly right for what customers are using it for in the field. Now the tool is all-around better quality than what we had before—like comparing a Model-T to a new Cadillac.”

KEVIN BLAIR, LOJAC

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to solve the quality issues before mass-producing a product that would have LoJac's brand attached to it.

CHALLENGE ACCEPTED

Signicast had learned about the nozzle failures from its inventor, so when LoJac took over management of the business, a solution had already been proposed.

“When we work with a job this early in the process, we can provide advice to help with design, process, and materials,” says Signicast's Lann Ellis.

To address the strength issue, Signicast designed a carbon steel solution, far stronger than aluminum. “But also, we made it one piece rather than two separate pieces,” Ellis says, which would give the nozzle more structural integrity in use. And finally, the new part would be investment cast, rather than machined, all making for a stronger, more reliable piece.

But the proof would be in the field—and in LoJac's equipment shop.

TEST OF STRENGTH

“In six months, we've put 300 or so into the field, and we have yet to have a nozzle failure,” says Blair. “And as more of them get out and replace the older generation, the repairs just keep going down.”

The other by-product of Signicast's solution? With tooling developed, future production runs can be executed in just-in-time quantities and schedules prescribed by LoJac.

“Going with Signicast has made such a big difference. We're finally able to tell the market, ‘Yes, you can get it today. Yes, we know it will last,’” says Jones. “When the tool is done, when it hits the field, it's exactly what it needs to be and it's working the way it was designed.”

ABOUT SIGNICAST

With world-leading experts, rapid prototyping and delivery, and the most advanced investment casting facilities in the world, Signicast is redefining how today's manufacturers create, refine, and deliver products. We've helped our customers overcome their most pressing commercial challenges for over 50 years, using state-of-the-art automation to deliver components in a fraction of the time of old-school alternatives. Our in-house experts know how to push the limits of precision metal casting in every possible way, enabling our customers to drive greater competitiveness, remove cost at every stage and unlock true just-in-time efficiencies.

