



Alloy Mechanical Switches Bidding/Estimating Tool to Supercharge Their Business and Gain a Competitive Advantage

Alloy Mechanical, a mechanical contractor based in Lansing, Illinois, prides themselves on being a single-source industrial contractor for all their client's design-build and mechanical needs. Following the core beliefs of safety, problem-solving, leadership, teamwork, performance, quality, and integrity, the Alloy team strives to be proactive and productive in both the internal work environment and client service.

With a reputation for delivering complex projects on time and budget, Alloy's design-build solutions offer clients diverse expertise and the simplicity of dealing with a single point of contact. When Brian Kidder, business development manager with Alloy Mechanical, began vocalizing his frustration with various aspects of their current laser scanner, operations manager Scott Twiddy knew it was time for a change.

"Our goal has always been to grow our capabilities in such a way that we can be of increasing help to both our existing clients and new clients," said Twiddy. "The 3D laser scanner we were using brought frustration, required targets for registration and was slow to capture data and photos, impeding our ability to complete the job properly; if we are to continue to be more efficient both internally and for our clients, we needed scanning technology that can get the job done."

The Bidding/Estimating Scan Challenge

To gain more presence in assisting clients with their scanning and modeling needs, the technology tool's weak spot had to be eradicated and fixed permanently. In addition to general scanning needs, the issue

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of stainless steel moved to the forefront: buried within petrochemical terminals frequently scanned by Alloy are stainless steel panel boxes that must be accounted for, measured, and noted. In more than one instance, their previous scanners did not accurately pick up the geometry of those stainless boxes, resulting in a negatively affected install and outcome. Overall, about 90% of the structures scanned by Alloy contain stainless steel cabinets and complex pipelines, so this became a focus of the challenge and a requirement in finding new technology.

U.S. CAD Steps In

After seeing a video on LinkedIn posted by U.S. CAD's reality capture expert, Ted Moberg, Twiddy's interest was piqued, and he reached out. U.S. CAD is a leader in AEC technology solutions providing consulting, training and education, and BIM production services, helping guide clients through technology decisions and adoption. "U.S. CAD has been phenomenal in understanding what Alloy needs," commented Twiddy. "They worked with us to establish a complete solution to meet our goals; I like to say they didn't come in to change our workflow; they came in to enhance it."

After gaining a thorough understanding of Alloy Mechanical's current and future needs, U.S. CAD recommended the Leica RTC360 as it provides the most bang for the buck in the exact way that Alloy needed it to perform.



The Leica Geosystem RTC360

The Leica RTC360 3D reality capture solution empowers users to document and capture their environments in 3D, improving efficiency and productivity in the field and the office through fast, simple-to-use, accurate, and portable hardware, and software.

Making the Switch to Success

Alloy Mechanical switched from their former brand to Leica in the spring of 2021 and immediately improved results. "The resolution and accuracy, especially with density, is far better," reported Kidder. "We don't need targets to get registration anymore, which is a huge factor in our success. The reduced scan time is significant, allowing us to be instantly more efficient internally and for our clients."



What was once an entire day of scanning for a particular client was accomplished in 2.5 hours with the RTC360. As a result of the time saved, the Alloy client asked, on the spot, for additional areas to be scanned. When that was accomplished in record time, the client returned to Alloy again with more jobs.

Two recent bid walks with clients to create estimates resulted in the same increased level of success: Kidder asked if he could scan the project simultaneously with their walk; the client agreed. Because the RTC360 was so fast and effective, Kidder shared the entire point cloud of the site, allowing their estimate to be even more accurate and complete.

The Alloy team is now planning to integrate scanning into their bid walks for future clients (where allowed) for an instant boost in productivity and results. “This will position us way ahead of the competition in what we can offer and accomplish,” said Kidder.

Ease of Use

“Using the RTC360 is incredibly easy,” says Kidder. “I was playing with it when we first got it and was able to have it up and running pre-training.”



Kidder admits to purposefully trying to make the unit not work to help him understand how to fix it if needed, but he was unsuccessful: “I couldn’t make it not work! The simplicity was really neat to see. Even when you think you made a mistake, you didn’t!”

Kidder also appreciates the ease of the backpack format: with everything in one place, he’s out the door in record time. Since he works all over the country, the efficient transportation of the RTC360 translates to not having to check it into the baggage compartment on planes (and worry about it being damaged), and he can now

accomplish day trips with increasing ease.

Of special note: The Leica RTC360 hasn’t missed scanning one stainless steel unit to date.

The Bid/Estimate Future is Bright for Alloy Mechanical

Twiddy recognizes the deeper benefits of making the switch to Leica: “When modeling facilities and creating red lines, with the time it takes to scan, we can create a model that’s accurate to within 1/16 of an inch. This allows us to better service our clients; the combination of scanning during bid walks is game-changing. This tool is going to make us a better company.”



“We’ve just had another client ask us to take on additional work due to the speed with which we completed their bid walk. Getting this Leica RTC360 technology in front of the client so they can see what we can do for them serves the dual purpose of working for us internally, but also showing clients the magnitude of what’s possible. Switching to the Leica RTC360 improved our business.”

SCOTT TWIDDY
Operations Manager



About Alloy Mechanical

Alloy Mechanical Inc. was founded on the belief that devotion and pride in job performance results in successful projects and client satisfaction. Alloy is a privately owned mechanical contracting company. Our skilled craftsmen come to you with over 35 years of leadership experience. You can expect personalized service and a proactive approach to problem solving. Visit www.alloymechanicalinc.com.



About U.S. CAD

U.S. CAD is a leading provider of architecture, engineering, and construction (AEC) technology and consulting services. Founded in 1999, U.S. CAD is an Autodesk® and Bluebeam® Platinum Partner delivering BIM and AEC software, training, support, production and scanning services, and virtual and augmented reality solutions designed for organizations of all sizes for better project outcomes from conception through construction. Our mission is to help clients win more, produce more, and achieve more. Visit www.uscad.com.