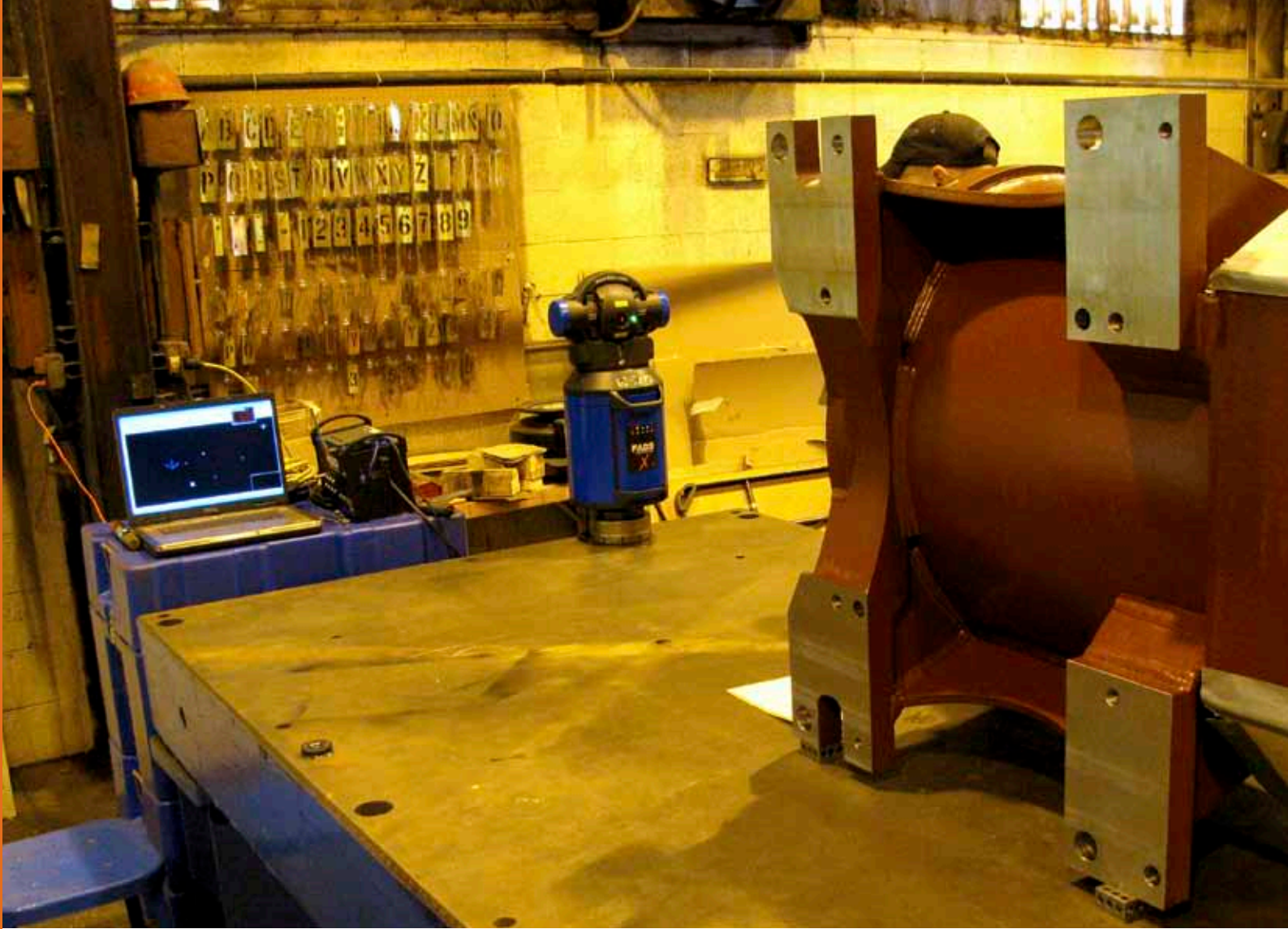


Custom Engineering Uses FARO Laser Tracker to Cut Fabrication Layout Time in Half



Custom Engineering needs to measure large baseplates, the largest of which is 39 feet long by 15 feet wide. Traditional measuring methods do not provide the accuracy or detailed inspection reports that their customers require. By implementing the FARO Laser Tracker, Custom Engineering has cut their fabrication layout time by half, saving them a considerable amount of time and money.



A quality-driven fabrication and machining company, Custom Engineering, located in Erie, Pennsylvania, has been in business since 1954 and specializes in medium to heavy fabrication and contract machining. Their skilled workforce of nearly 200 has a proven performance record in satisfying the diverse needs of customers around the globe, including world leaders in industries such as transportation, power generation, steel, air compression, plastics, and aerospace.

As their name implies, they enjoy the challenge of “custom” jobs, and they have always invested in the technology needed to complete these jobs on time and on budget.



Problem



Custom Engineering has a need to measure large baseplates fabricated from structural beams along with plate steel with machined flatness requirements and multiple hole locations. The largest of these baseplates is 39 feet long by 15 feet wide. Traditional measuring methods such as tape measures, transit lines, and string lines were used, however, customer tolerances were becoming increasingly tight and more precise measuring was required. Along with higher accuracy, customers were also expecting more accurate, detailed inspection reports, which are not available with traditional tools.

Solution

The tool that now provides Custom Engineering with a method of reporting large, difficult-to-measure distances and flatness to within thousandths of an inch is the FARO Laser Tracker. This portable coordinate measuring machine allows them to inspect hole layout, flatness and location, along with other difficult inspection routines, simply and precisely.

The accuracy and measurement capabilities of the Laser Tracker are the features Custom Engineering likes best. These features along with the portability of the unit have led them to receive requests to perform new jobs. “We have been receiving inquiries about doing onsite inspections with the Laser Tracker at customer locations,” stated Dave Guriel, Quality Manager at Custom Engineering.



By using the FARO Laser Tracker, Custom Engineering has also seen an improvement in their overall quality due to the removal of the “human” element out of the inspection process. The Laser Tracker provides consistent, accurate, and reliable results from operator to operator.

Return on Investment

“Fabrication layout time with the FARO Laser Tracker is taking roughly half the time it used to take with traditional methods,” commented Guriel. “The old method required roughly 6 hours, but with the Laser Tracker we can complete this same measurement in 2.5 to 3 hours.”

Custom Engineering has saved a considerable amount of time and money since implementing the FARO Laser Tracker into their processes. One of the greatest time-savers has been in writing, saving, and re-using measurement and inspection routines. Once they have programmed the Laser Tracker for a specific job, they can measure and inspect multiple parts with the existing program.