



Leica
Geosystems

Case Study Silbitz Guss
Foundry finds competitive edge with
Laser Tracker system from Leica Geosystems



 **HEXAGON**
METROLOGY



The portable measuring system in use at Silbitz Guss is an all-round performer: it can scan, take tactile measurements, mark the parts and automatically connect the Laser Tracker to handheld devices. To the benefit of the foundry's customers.

Silbitz Guss manufactures one-off components as well as small and medium-scale series-produced parts for various industries. Many of the foundry's customers come from the energy and railway industries – two fields where the generous dimensions of products frequently impress. Components up to 6 m diameter and weighing 30 t are quite usual for Silbitz Guss and its sister company Zeitzer Guss. Ease of movement and visual inspection are not typical features of these objects and therefore they present a real challenge to quality assurance technicians.

Marking with the measuring machine

"When you wish to measure large parts, you come up against a whole series of questions," says Knut Fitzner, responsible for quality at Silbitz Guss. "You have to determine whether you can move the part quickly – for example on a measuring machine. Then you need to know whether a stationary measuring system can reach everywhere on the part or are there any dead zones," continues Mr. Fitzner. However, another requirement was crucial to the decision to procure a new measuring system: Silbitz Guss wanted to mark its parts with the measuring machine. Knut Fitzner: "Our customers increasingly wished to be supplied with marked unfinished parts – and to do this marking during measurement saves considerable time and provides us with a clear advantage over our competitors."

Prepared for all measuring tasks

During their search for a suitable means of measurement, Knut Fitzner and his colleagues tested various alternatives. His colleague Uwe Leibner recalls: "The portability of a laser tracker system captured our interest from the beginning. But we were only totally satisfied with the solution that Hexagon Metrology offered us." With the Leica Absolute Tracker AT901, the wireless Leica T-Probe tip and the Leica T-Scan hand scanner, Silbitz Guss finally ordered a measuring system that can handle all the required applications. Even marking will not be a problem in the future - thanks to a centre punch on the Leica T-Probe measuring probe, which is automatically triggered by pressure. This simple and accurate marking tool was the crucial factor in the decision to purchase the system.

Never again without PowerLock

Probes up to 600 mm long are available for the Leica T-Probe. This allows difficult internal geometries of parts to be measured without the need to change the position of the part or move the laser tracker. Uwe Leibner: "We can even capture undercuts and hidden points quickly and easily."

The Laser Tracker System is in use everyday at Silbitz Guss. "In the beginning we used the laser scanner mainly as an accessory, but now we scan almost everything," says Knut Fitzner. "It has grown on us. We and our customers greatly



Scanning, probing, marking - with an extraordinary measuring system. Leica Absolute Tracker, Leica T-Scan and Leica T-Probe make it possible



appreciate the conciseness of the scan data too," adds Uwe Leibner. He continues: "And PowerLock is such a great feature. If the beam is broken, the laser tracker automatically works out where to direct the laser beam again to resume measuring. Without this ability, we would take up to four times longer to measure a component, especially when undertaking a series of measurements. Now I cannot imagine how I ever worked without PowerLock."

Portable measuring system: the right decision

The Leica Absolute Tracker is also used for parts measurement in the production environment at the Zeitz factory. This saves the user the cost of transporting cast components to an inspection centre and the portable measuring system can be used where the parts are stored.

Leica Geosystems and Hexagon Metrology have put together a package in the form of the Laser Tracker System that has fundamentally simplified the task of measuring large parts for Silbitz Guss and provided the company with a clear competitive advantage with the marking function. Knut Fitzner sums up: "We made the right decision. Our expectations have been completely fulfilled. The high accuracy of the Leica Geosystems tracker and the excellent quality of the whole system make our jobs noticeably easier."

Andreas Petrosino



Whether building the fastest car, the biggest plane, or the most precise tooling, you need exact measurements to improve quality and productivity. So when it has to be right, professionals trust Leica Geosystems Metrology to help collect, analyze, and present 3-dimensional (3D) data for industrial measurement.

Leica Geosystems Metrology is best known for its broad array of control and industrial measurement products including laser trackers, Local Positioning Technology (LPT) based systems, hand-held scanners, 3D software and high-precision total stations. Those who use Leica Metrology products every day trust them for their dependability, the value they deliver, and the world-class service & support that's second to none.

Precision, reliability and service from Leica Geosystems Metrology.

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