Cross Company

The Importance of Portable CMM Arm Precision and ISO 10360-12

Higher Accuracy for Portable CMM Arms and Scanners

Cross Company is now accredited for the ISO 10360-12 standard, a cutting-edge benchmark for the verification of portable Coordinate Measuring Machine (CMM) arms and scanners. This allows us to offer unparalleled service, providing a level of certification that goes beyond conventional standards. ISO 10360-12 is a standard to verify the accuracy of articulated arm CMMs. Unlike previous standards, this standard doesn't just verify up to the joint. It ensures a thorough verification across the full range of the arm when it is extended. This sets ISO 10360-12 apart from other standards such as B89.4.22, providing greater accuracy, reliability, and precision.

Why ISO 10360-12?

According to the International Organization for Standardization (ISO) itself, the standard specifies acceptance tests to verify the performance of articulated arm CMMs by measuring verifiable test lengths, as stated by the manufacturer. It additionally outlines reverification tests allowing the CMM's performance to be reverified periodically. This standard is applicable to tactile probes and optional optical distance sensors, commonly known as laser line scanners or laser line probes.

Typically, getting the highest level of verification for your portable CMM arm or scanner involves sending the device itself back to the manufacturer. While this process is guaranteed to provide results, it also has many drawbacks. These can come in the form of lengthy downtime while the CMM is in transit, the shipping expenses of getting the device there and back again, as well as the operational costs associated with the downtime. Our accreditation to ISO 10360-12 addresses this challenge, providing our customers with peace of mind that their equipment is fully verified without the need for extended shipping and downtime

A primary arena that this standard benefits is automotive and aerospace manufacturers. In these industries in particular, extreme precision is paramount. Aside from strict regulations and penalties for not adhering to accepted precision standards, in many cases, lives are also at stake. The ISO 10360-12 certification positions Cross as a preferred partner for industries like these where accuracy, reliability, and adherence to the highest standards are non-negotiable.

Verifications You Can Trust

Our journey to ISO 10360-12 accreditation has not been an easy one. Being accredited for portable CMM verification to this degree of accuracy has involved a meticulous audit process, ensuring that we were not only performing the verification process correctly, but also that we were thoroughly checking for uncertainties and ensuring verifiable accuracy. The successful completion of this audit signifies our commitment to always delivering accurate and reliable measurement

solutions to all of our customers and partners.

It's also worth highlighting that many manufacturers may not be aware that their portable CMMs and scanners are not being verified to the fullest possible extent. In industries like aerospace and automotive, this can potentially compromise accuracy, consistency, and safety. What many manufacturers have thought of as a comprehensive verification for CMMs may in fact only be half of the picture.