



# Diesel Engine Manufacturer Reduces First Article Inspection Time by 98 Percent

Global Diesel Engine Manufacturer



The new Gage FaroArm® is ideal for small and medium sized businesses for performing high accuracy tasks.

Before a diesel engine can work its heavy-lifting magic, its parts must complete a first article inspection. Completing that inspection as fast and as efficiently as possible is essential in meeting increasing customer demand.

Over a decade ago, a maker of large diesel engines, now a part of one of the world's largest diesel engine manufacturers, sought improvements in production velocity to keep pace with its growing business. To achieve this aim and to reduce first article inspection times, the diesel manufacturer purchased one of the original FARO® Gage portable measurement arms.

The project required a changeover from a 12-cylinder block to a 16-cylinder block. During that transition, it was necessary for the first blocks produced to have full-machined audits before the production of additional blocks was initiated. In the past, this process involved removing the

block from the machine and transporting it to an inspection facility. The process of first article inspection can take up to a shift to complete as the room must be cleared of previous blocks having undergone inspection, and recalibrated to accommodate the new block.

It was decided that to meet increasing customer demand, new inspection equipment was required to reduce the first-article inspection time for the final machining operation in the cylinder block section.

This is where the FARO Gage delivered unprecedented performance, speed and accuracy. Gage is an incredibly sophisticated Portable Coordinate Measuring Machine (PCMM), which was able to determine if the 16-cylinder block machine settings had been correctly adjusted from those required for the 12-cylinder block.



## Portable Inspection Power

The biggest advantage of this equipment is that the Gage is portable and can be used to measure the cylinder block in situ, thus eliminating the need to remove the block from the machine as previously required. In addition, the Gage is simple to use and training was rolled out to all inspectors and operators alike.

*We can now reduce first-off inspection time from up to 8 hours to less than 10 minutes, allowing machining time for an additional 26 cases per annum, per final operation machine.*

As the FARO Gage arm is simple to use and intuitive to program, the company elected to use it throughout their facility – anywhere accurate measurements are required. This can range from engine assembly to the validation of new prototype components.

Since its purchase, the Gage has been used in numerous critical situations and has proven a great investment.



The All-New FARO Gage.

## Back by Popular Demand: The All-New FARO Gage

The Gage has long been the perfect inspection tool for machine shops of all sizes. Its versatility, high accuracy, durability, and affordability made the original Gage the instrument of choice.

The new Gage builds upon the powerful legacy of its predecessor and offers the following enhancements:

- Even more accurate with ISO 10360-12 accuracy certification
- Smart Probes allow faster inspection work thanks to autorecognition without recalibration after probe changes
- 25% longer reach while being 10% lighter
- WiFi and Bluetooth options
- Works with all FaroArm-compatible software

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