



The Wenzel and the Sheffield RS150 helped Dimensional Measurement Inc. get started as a contract dimensional measurement service. Source: Xspect Solutions Inc.

looked for a CMM equipment supplier that could quickly deliver a complete solution and provide the service required to get his new company up and running. He chose Xspect Solutions Inc. (Wixom, MI) because of the access to a variety of rebuilt and remanufactured equipment, the high-quality and availability of new Wenzel measuring centers and direct access to the programming specialists who originally developed OpenDMIS software.

Keith Mills, president of Xspect Solutions says, "Dimensional Measurement Inc. presented a unique opportunity for us. Because Abdelhafiz is so experienced with metrology systems, CMMs and the nuances of the available software, it was very easy to sit down and evaluate the level of business that he was going to pursue with respect to his equipment and software needs. Ultimately we provided four different types of CMM equipment—some new and some remanufactured and retrofitted with new OpenDMIS software!"

The most significant capital expenditure was a new Wenzel LH8.10.7 (800 by 1,000 by 700 millimeters) with a Renishaw PH10M/TP200 probe and OpenDMIS software. This CMM is one of Wenzel's LH series that consists of six different machine sizes. The LH8.10.7 accommodates the accurate measurement of small- to medium-size manufactured parts, typical of the area-of-business that Dimensional Measurement has focused their business strategy.

These types of machines are equipped with an air-bearing guideway system in all axes to provide frictionless and wear-free operation. The X bridge and Z ram are manufactured of dark granite to achieve identical thermal behavior of all axes.

## Xspect Solutions Aids CMM Measuring

**W**hen Mohamed Abdelhafiz formed Dimensional Measurement Inc. (Wixom, MI), he knew the level of core measuring capability that was required to compete as a contract dimensional measurement service. Abdelhafiz has a master's degree in science, ASQ CQE and CQA certifications, and has spent more than 20 years in the metrology, quality and measurement areas managing some of North America's inspection shops.

"The key to success in contract measuring is to be able to program

fast and have equipment that can run parts with a high degree of accuracy and repeatability," says Abdelhafiz. "When you can provide high-quality dimensional service at a competitive value, understand the inherent degrees of accuracy of the different types of equipment, and supply the scheduling and timing required to meet the customer's requirements, you have mastered the fundamentals of CMM (coordinate measuring machine) measuring."

When he decided to start Dimensional Measurement, Abdelhafiz

### BENEFITS

~ OpenDMIS software integrates CAD data with the CMM programming and measurement process.

~ The software uses dynamic sensitive tool bars, action icons and context-sensitive work areas.

~ Xspect Solutions enabled Dimensional Measurement Inc. to get up and running quickly with the right CMM machines and software.

Xspect Solutions also provided two remanufactured machines and an Xspect Solutions X-Centric video CMM to provide noncontact and probe measuring capability for small parts. Part of Dimensional Measurement's customer base is in the medical industry, which made this level of capability necessary. The two other CMMs were a Sheffield RS150 and an IMS Impact machine.

Abdelhafiz adds, "It's really the CMM software that gives a measuring service like ours the ability to react quickly, and interestingly, we are using two different software versions right now. As you can imagine, after spending more than 20 years in the area of metrology, I have worked with just about every type of software, and they are always being enhanced and improved!"

He uses OpenDMIS software on all the machines except the IMS Impact CMM, and ultimately, all machines will run OpenDMIS. The software integrates CAD (computer-aided design) data with the CMM programming and measurement process—providing a high level of power at a click of the mouse. The product incorporates the use of dynamic sensitive tool bars, action icons and context-sensitive work areas. The view port remains visible at all times, maximizing operating efficiency.

Abdelhafiz concludes, "Xspect Solutions became a real partner in helping us establish our company. We were particularly impressed with their overall knowledge, attention to detail and understanding of our customer's needs and expectations. Today, our core services include broad measurement services for production and prototype parts for automotive OEMs and suppliers, medical manufacturers and some manufacturers of consumer plastic parts. We also perform certification services for gages and fixtures as well as provide CMM programming and training. Xspect Solutions enabled us to get Dimensional Measurement up and running quickly, with the right CMM machines and software, at a very reasonable start-up cost!"

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*Reply 11*



**Dimensional Measurement's owner Mohamed Abdelhafiz with his new Wenzel LH8.10.7 CMM. The Sheffield RS150 can be seen in the background. Source: Xspect Solutions Inc.**



**Additional fixtures are shown with parts mounted for checking. Source: Xspect Solutions Inc.**