

2006-02 Digimar® Height Gage From Mahr Federal Improves Efficiency And Throughput At NSK Steering Systems America Labs



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PROVIDENCE, RI -- Things are quite hectic these days for Tom Leab of NSK Steering Systems America, Inc. As Metrology and Inspection Group Leader, Tom oversees the operation of three NSK labs -- metrology, inspection and metallurgy -- at a time when business at the company's Bennington, VT, facility is booming. As the world's largest independent manufacturer of steering columns and associated components, NSK boasts names like Ford, Toyota, Honda, Mazda, and Mercedes among its customers.

So the labs are busy and when Tom saw an item in the quality trade press about a new Digimar motorized, automated height gage from Mahr Federal that is able to measure parts up to 40 inches long, he was immediately interested. 'It was the added height I was looking for,' said Tom. 'Because of the column length, a lot of things are measured in the vertical direction. It worked out well with that.'

But the Digimar(R) CX2 also gave him more than that. It provided a degree of speed and efficiency that not only facilitated the measurement process, but also helps keep up with demand in a rapidly growing production environment.

Q1, ISO 9000, and soon to be TS 16949 Certified, the NSK lab complex is fully equipped and climate controlled. The metrology lab handles 90% of the company's calibration needs and 65% of gage repair, and also serves as a gage crib, dispensing and tracking a host of micrometers, calipers, depth gages, dial indicators and more. A metallurgy lab verifies weld penetration on critical column components; a prototype lab handles developmental work; and the inspection lab handles incoming part and final part inspection.

It was primarily to facilitate final part inspection that Tom purchased the Digimar CX2 Height Gages. 'We have three CMMs for final inspection,' said Tom, 'and they were running 24 hours a day. So we had an issue with piece part inspections. We had to wait to get time to go on the CMMs, and since the largest was only a 24-inch, we ended up using precision V-blocks and things of that nature just to raise it up. We just didn't have the height.'

Tom bought two Digimar CX2s and mounted them on a 60' x 120' x 20' thick granite surface plate in the inspection room. 'Two people can use them simultaneously and it saves a lot of time.' Tom also bought one for the metrology lab, where it supplanted an older height gage, and it was here that the gage's facility and ease of use first became apparent.

The older gage, he said, was 'just difficult. It seemed to us that if you didn't use it four to five hours a day, continuously, you would forget how. It was just too difficult. It also had its good points,' he added, 'but it was lacking in the height. We didn't have the range.'

But when he saw a demonstration of the Digimar CX2, he just, 'fell in love with it. The computer touch pad just walks you through the measurements,' he said. 'Compared to the other gage, it's just so much easier.'

The Digimar CX2 is part of a family of motorized, programmable height measuring systems which offer a combination of features and performance previously available only in higher priced equipment. The line is well suited for both gage lab and production measurement use.

All Digimar Height Gages from Mahr Federal feature fully motorized measuring slides that minimize operator influence on part probing for greater measurement precision and repeatability. Key measuring functions can be executed with a single press of a button; and readily programmable measuring routines make it possible to sample batches of mass produced parts quickly and easily.

Numerous measuring and evaluation functions include the measurement of planes, grooves, bores and shafts, and the calculation of distances and symmetries. Max-Min measurements are also supported, as are perpendicularity measurements in conjunction with a digital dial indicator. Canned routines for basic features and simple Teach and Learn techniques make it easy to program the CX2 for a wide range of measurement tasks.

While metrology and inspection lab technicians are not exactly computer averse, it's a relief, 'not to have to go back to the manual all the time,' said Tom. With the older height gage, 'that became very cumbersome. The Digimar is just so much easier and more efficient.'

When asked if he would purchase more Digimar Height Gages, Tom would not predict future demand for metrology and inspection lab services at NSK. But he did say, 'As need arises, and we get more work and need help, if I were given a 'would we?' I'd say, 'yes.'

Mahr Federal, a member of the Mahr Group, is known worldwide for its expertise in providing dimensional measurement solutions. The ISO 9001:2000-certified company manufactures and markets a wide variety of dimensional metrology products, and is headquartered in Providence, RI.