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Puebla ([PRWEB](#)) July 23, 2005 -- Volkswagen de Mexico and Nextec Technologies 2001 Ltd. are proud to announce the successful installation of Nextec's innovative WIZinspect solution on VWM production floor. WIZinspect is Nextec's new laser scanning solution for cylinder head inspection, and it positions Nextec as a leader in this field.

Using the new WIZinspect turnkey solution, Volkswagen quality control specialists are now able to measure and inspect cast cylinder-heads in-line in a fraction of the time of a conventional CMM based system.

"A complete quality control procedure takes about one minute per head" says Victor Hernandez, Volkswagen de Mexico New Projects Manager. "We are now able to measure more than 1200 cylinder heads per day, to overcome significant bottlenecks at the quality control stage and to ensure a faster delivery to our customers while testing 100% of the products".

"We were able to obtain top precision and top speed with this new system, passing all customers acceptance tests and quality control standards, with the shortest measurement cycle time and maximum system uptime", says Alfredo Banuelos, Volkswagen Planning Engineer and WIZinspect Project Manager.

"We are offering the most advanced solution in the market to all cylinder-heads manufacturers, and for all companies with in-line inspection needs for automotive and aerospace parts in the production floor", says Danny Shacham, Nextec's President. "Thanks to its technical expertise, edge technology and infrastructure, Nextec succeeded to develop a turnkey solution based on our WIZprobe laser probe, our premium motion controller and our user-friendly WIZinspect quality control software".

The turnkey solution includes two WIZinspect measurement systems, as well as a dedicated robot, adequate conveyors, an air-conditioned cell and full cell automation.

The inspection process for a cylinder head includes identification scribing of the specific head, robot lifting of the cylinder head from the conveyor into the measurement cell, automatic part alignment, measurement of the relevant 100 pre-defined dimensions and automatic sorting of the heads. Good parts that are found to fully meet the specified tolerances are stamped OK and put by the robot on the OK conveyor while defected parts that are out of the specified tolerances are automatically rejected, stamped NOK and put by the robot on the NOK conveyor.

Nextec implemented its first project at Rautenbach-Guss, a German engine head manufacturer for Volkswagen, Audi and Mitsubishi during 2003. This first installation was based on a single WIZprobe per line, mounted on the Renishaw PH-10.

At Volkswagen, a new version of WIZinspect solution was implemented, using a cluster of seven WIZprobes per line, mounted directly on the platform Z-axis. This cluster replaces the single WIZprobe and enables to



significantly reduce the WIZinspect cycle time and eliminate the PH-10 indexable head. The individual probes in the cluster are pre-set for the appropriate relative positions and angles using mechanical 2D swivel mechanisms.

This set up enables to reach and measure points not accessible otherwise with the PH-10 and is tailored to customer specifications, cycle time and QC reporting procedure and format .

The WIZinspect is offered to cylinder head manufacturers as a turnkey solution for in-line inspection or as a retrofit kit to be mounted onto existing CMM for off-line inspection.

Two kits for off-line inspection were also mounted and integrated at Volkswagen de Mexico.

About Volkswagen de Mexico

Volkswagen de Mexico (VWM) was founded in 1964, as a 100%-owned subsidiary of Volkswagen A.G. Its assembly plant, located in Puebla, Mexico, is the sole VW factory in North America, employing state-of-the-art production methods. Its vehicle activities include fully automated stamping, body shop, paint shop and final assembly. In addition, the complex houses a foundry and engine and axles parts production.

Production range includes the New Beetle in its sedan and convertible versions, as well as the 4th and 5th generation Jetta models. The vehicles produced in Puebla are exported to all world markets.

About NEXTEC

Nextec specializes in 3D, non-contact scanning, quality control and inspection technologies. Nextec has developed and patented a revolutionary 3D scanning technology that combines laser, innovative optics and image processing with real time adaptive control. These serve to overcome the fundamental problems of measuring different materials, shiny surfaces, different colors, surface finish and angles, without the need for recalibration.

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