



**CogniTens**  
Beyond Any Measure

Case Study Oghara Howell  
Oghara Leads Supplier Industry  
Using Optigo by CogniTens



 **HEXAGON**  
METROLOGY



Ogihara America Corporation (O.A.C.) is a subsidiary of the Japanese Ogihara Corporation, one of the largest independent automotive die manufacturers in the world today. O.A.C. is a Tier 1 supplier known for its exceptional product quality of automotive class A parts, assemblies and related body panels. O.A.C. operates in the US from two major centers: in Howell Michigan and in Birmingham, Alabama. Ogihara's production facilities provide critical parts and assemblies to General Motors, Ford and DaimlerChrysler as well as to several Japanese "transplants" across North America.



As part of the Ogihara tradition both O.A.C. facilities along with more than a dozen other Ogihara facilities around the world share common processes for ensuring lean and streamlined operation. Common processes help Ogihara develop and manufacture more cost effectively while ensuring the best quality for the customer at all times.

#### From reactive to proactive

In 2001, as part of the ongoing effort to improve operational performance, Ogihara conducted a thorough evaluation of their quality processes and systems. Ogihara's objective was to raise their quality standards even higher by transforming reactive quality processes to proactive ones, thus considerably lowering customer reported quality issues and maintaining best quality ratings. As a result of this evaluation, Ogihara's engineers developed a unique process planned to be fully integrated into their product development and manufacturing program.

This new comprehensive quality process called for an advanced non-contact dimensional measurement system which could be easily operated in a shop floor environment

and help resolve quality concerns using root cause analysis methodology. However, it seemed that at that time, Ogihara had developed a process which was more advanced than the available technology and there was no product to be found which could fully meet the various Ogihara requirements.

#### Evaluations find a versatile solution

Following a long period of evaluations and benchmarking, Ogihara identified CogniTens' Optigo as the only non-contact measurement system capable of meeting the demanding Ogihara criteria. Throughout tests and trials Optigo's performance proved it was suited for versatile operation on the engineering and production floor and highly useful in supporting multiple measurement activities from die tryout to assembly tool adjustment and quick quality analysis of parts and sub-assemblies.

Initial implementation of the CogniTens products in the Howell facility took only a couple of months to complete. Then a joint team consisting of Ogihara, CogniTens and customer representatives worked together to

further integrate this new solution into dozens of business processes based on Ogihara quality process guidelines. As a result of this joint effort, within a year, the new Ogihara Quality process was further enhanced and fully implemented in daily plant operations using CogniTens products.

#### Rapid Implementation

Following the successful implementation in the Howell, Michigan facility, Ogihara expanded its use of CogniTens Optigo based solution to the Birmingham, Alabama plant producing stamping parts and sub-assemblies for a large OEM assembly plant. CogniTens' solution was rapidly implemented in the Birmingham facility based on the experience garnered during the first stage and maintained the Ogihara tradition for process commonality and standard methods between the two facilities.

#### Ogihara's vision realized

Combining Ogihara's unique processes and quality methodologies together with CogniTens dimensional measurement platform and software products resulted in the realization of the Ogihara vision for a fully proactive quality system.

Today Ogihara utilizes the Optigo based solution throughout the die build and tryout process, in supporting part approval for production (PPAP) activities and standard data submittals to the OEMs, for re-engineering an existing part or tool to support vehicle "Face Lifts" as well as in assembly processes.

#### Unique 'Functional Build' process

Using Optigo, a fully portable dimensional measurement platform and CogniTens software products Ogihara's Quality department has developed a unique Functional Build process to filter out possible assembly problems even before building the tools for the actual assembly operations.

Ogihara reports several benefits in using the CogniTens dimensional measurement solution. The times to measure a panel and compare results to design intent were reduced from a full day using a CMM to a couple of hours using Optigo. Cost savings in root cause assembly quality analysis were realized. Typically, customer quality concerns are resolved in less than half the time compared to CMMs by using Optigo's CoreView results for effective communication, analysis and resolution. In addition, tool maintenance operations were optimized using proactive quality evaluation of both tools and produced parts and assemblies.

#### Meaningful dimensional data

"Optigo's full surface measurement, virtual assembly analysis and highly accurate feature measurement opened countless applications which CMM just could not support", says Steve Peca, Quality Executive at Ogihara America. "With Optigo, we're able to get meaningful dimensional data on automotive panels and assemblies, which support our Total Program Management methodology. Using CogniTens full 3D measurement and meaningful CoreView format results we can also see where the forming and assembly tools are deteriorating and schedule maintenance checks and upgrades."

[www.ogihara.com](http://www.ogihara.com)



# CogniTens

CogniTens is the leading provider of 3D optical measurement solutions for industrial applications. CogniTens dimensional measurement systems help improve engineering and manufacturing processes in automotive and other manufacturing industries.

Based on innovations in 3D non-contact measurement technology, CogniTens solutions help increase efficiency during critical stages of preproduction, launch, ramp up and mass production.

CogniTens provides tools and processes for capturing, analyzing and distributing highly meaningful dimensional metrology information to support different industrial engineering activities such as tooling, part production, assembly, quality and process control.

CogniTens, founded in 1995 is today part of Hexagon Metrology group, the world's largest measurement technologies company. CogniTens customers include leading manufacturers such as: General Motors Corporation, Chrysler Group, Ford Motor Company, Toyota, Motor Company, Volvo, Honda Motor Company, Mazda Motors, Nissan, Daihatsu, Suzuki, Magna International, Atlas tools, Benteler, Kikuchi, BMW, Ogihara America Corporation, Hirotec Worldwide Group, PSA, InspectionAir Gauge, Fuji Technica, Tofas, United Space Alliance, Harley Davidson, Tower and others.

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