

METRICS AUTOMOTIVE



TOGETHER



LARRY STEPHENS
DIRECTOR
OPERATIONAL
SUPPORT SERVICES

YOUR PARTNER THROUGH THICK AND THIN



IN FEBRUARY 2003, TRESICAL DTI BEGAN A LONG PARTNERSHIP WITH GENERAL MOTORS (GM) ENGINEERING WITHIN THE CONTEXT OF A THREE-YEAR CONTRACT

The services provided include calibration, repair, management and supply of equipment used for on-site vehicles and the supply of test components used to validate products, and safety and durability testing. Around 45 people were brought on board for this contract at three main sites in Michigan and Arizona. Strain gauge measurements were added to the contract in April 2004, meaning a further 7 people were needed.

In May 2007, DTI renewed the contract for another three years: "During this period, we continued to perform exceptionally at GM. We also obtained ISO/IEC 17025 accreditation in April 2008 in our three GM laboratories", says Larry Stephens, Director of Operational Support Services. At the same time, Hewlett Packard, GM Engineering's IT provider, informed them that it would no longer be handling maintenance of the query system mainly used for strain gauge measurement work and based on Lotus Notes.

DTI then produced and deployed an on-line system called Instrument Services Request (ISR) at no additional cost for GM. "This system is still used by GM and has been extended to other functionalities", adds Larry Stephens.

But in May 2008, GM informed DTI of its plans to reduce the contract by 75% by the end of 2008 as a result of the financial pressure placed on the Group and its potential bankruptcy. The main consequence for DTI's organisation was a reduction in its workforce from 54 to 16 people. "Despite this decision, the management of GM made it very clear that it still wanted to work with us. They weren't looking to bring our collaboration completely to an end", explains Larry Stephens. And so, Trescal DTI and GM Engineering were able to withstand the bankruptcy crisis that threatened the Group between June 2008 and September 2009. "In 2009, the management of GM asked us to resume our activities to the level they were before May 2008", adds Larry Stephens. At

the same time, a new GM department, the Research and Development group, contacted Trescal DTI with a request, this time more focused on testing. These two requests represented significant challenges as Trescal DTI had to reassemble its teams for GM Engineering in just two weeks, while additional staff were also needed for the new R&D project. Since the end of 2010, Trescal DTI has seen its scope continue to evolve towards different types of test. "We are now meeting all of the requirements of the initial contract and are expecting the contract to be extended for at least another 3 years before May 2013", concludes Larry Stephens.



CHALLENGE



TRESCAL, A SUPPLIER OF COMPETITIVENESS



GIOVANNI MUSATTI,
TECHNICAL DIRECTOR
OF TRESCAL, ITALY

Two years ago, TRESCAL Italy was chosen to accompany the Fiat's Crash Test Centre and help define the standards and calibration uncertainties that are now used by the Fiat Group.

Through its world-renowned manufacturers, Italy is a major automotive nation. From a metrology point of view, one of the specific things about this market is that these large groups traditionally calibrate their equipment in house. This is why TRESCAL Italy's automotive clients are mainly equipment manufacturers, apart from Ducati, with whom TRESCAL has a sizeable annual contract. On the peninsula, as in many countries, the automotive sector is currently going through a difficult period as a result of the economic climate. "Today, more than ever before,

companies are seeking to optimise their processes in order to improve their performance. We position ourselves as a partner who works with its clients on competitiveness," says Giovanni Musatti, Industrial Director of TRESCAL Italy. Indeed, TRESCAL calibrates equipment with a high service quality combined with attractive pricing, which contributes to the competitiveness of its clients in their market. But TRESCAL also implements tailored solutions in order to minimise downtime and avoid redundant purchases.

The TRESCAL team in Brescia has provided its services to Eldor, a supplier of electromechanical parts for car engines and a producer of hybrid motorcycle engines. Due to the highly technological nature of its products and as automotive manufacturers are increasingly demanding, Eldor is very active in the R&D of electromechanical components. "During the last four years, we have introduced an active partnership with R&D and Quality managers in order to define procedures for calibration test benches, for example acceptance limits or the definition of appropriate evaluation criteria," explains Giovanni Musatti. By creating these tailored procedures, TRESCAL ensures optimised test bench calibration for its clients.

EXPERTISE



CALIBRATION IN THE AUTOMOTIVE INDUSTRY



PETER PAULMANN, TRESCAL GERMANY SOUTH AND WEST REGIONAL DIRECTOR, EXPLAINS SPECIAL SKILLS AND KNOW-HOW

Germany is renowned for the strong position of its automotive industry and the wide range of vehicle manufacturers. Which is why TRESCAL Deutschland's business concentrates on this industry and the different laboratories are often established on the vehicle manufacturers' (Audi, BMW, Daimler, GM Opel, VW, etc.) and suppliers' sites (Bosch, TRW, ZF, etc.). To meet the specific needs of this sector, TRESCAL's personnel in Germany have special training and with it unparalleled know-how in the field of metrology in the automotive industry. TRESCAL's customers must meet the requirements of standard ISO/TS 16949 relating to quality management systems in the automotive industry. TRESCAL's numerous accreditations attest to its considerable expertise. The laboratory in Esslingen is peerless in this respect. It is the only lab to be accredited by the

DakS (German Accreditation Body) for the specific measurements of angular speed and angular acceleration. The history of this laboratory, taken over from Mercedes-Benz as an outsourcing project in 1996, is exemplary.

In Esslingen, as in Wolfsburg, TRESCAL is working with strain gauges which are attached to automotive components, enabling mechanical tension and pressure to be measured. Thanks to TRESCAL's know-how, it is also proficient in calibrating fuel flowmeters (Wolfsburg laboratory) and measurement amplifiers using the CAN-BUS system, and complete vehicle measurements on chassis dynamometers directly on experimental vehicles. With regard to test benches, TRESCAL conducts a range of on-site calibrations. This includes engine test benches, endurance test benches,

wind tunnel tests and test benches used in crash tests. These test benches comprise numerous measurements, such as pressure, torque, output, power, capacity and temperature and TRESCAL is accomplished in all of these. TRESCAL conducts measurements on a flat track chassis dynamometer for Daimler's NVH (Noise Vibration Harshness) department. The results in the report compiled by TRESCAL are integrated into the further development of the vehicle up to start of production.

The fact that the German automotive industry is well-placed in spite of the crisis offers considerable business potential. To exploit this, TRESCAL can call on its special knowledge of sector-specific issues and its recognised competence to develop and offer tailor-made solutions.

DEVELOPED BY THE INTERNATIONAL AUTOMOTIVE TASK FORCE (IATF), STANDARD ISO 16949 DESCRIBES, IN THE FORM OF A TECHNICAL SPECIFICATION, THE QUALITY PROCESSES RELATING TO THE DEVELOPMENT AND MASS PRODUCTION OF SPARE PARTS FOR THE AUTOMOTIVE INDUSTRY.

This technical specification is the result of the homogenisation of American, German, Italian and French national standards, which it replaced in 1999. With several requirements, generic and inspired by standard ISO 9001:2008, as well as specific to the sector, it guarantees a process of irrefragable quality in the automotive industry's production and supply chain.



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