

Aiming at excellence through total quality



Giorgio Mazzoni - Department's responsible

The department entrusted with the management, control and compliance with corporate procedures and standards is the Quality Assurance Service (QAS).

A team of twenty people, with different job titles, action scopes and responsibilities, work each day to check and guarantee process and product quality. The reference model for quality management at Metal Work is the Company Wide Quality Control (CWQC).

CWQC is a management system aiming at "total quality" through the continuous improvement of all business processes. According to this method, all quality control techniques and concepts are extended and applied to each company sector.

CWQC means exceeding the standards, aiming strong at quality in its widest meaning, which translates into "customer satisfaction", whether final customers or other internal departments: the principle is that, to guarantee a quality product or service, perfect technology is not enough, and you also have to involve all corporate staff into a continuous improvement process, whereby all functions shall contribute to the achievement of goals. "Total quality" is the real competitive edge for a company and involves the entire business culture: from management to staff, from partners to stockholders, from customers to suppliers, from facilities to raw materials... it is a philosophy that pervades

"CWQC is a set of systematic activities developed by the entire organization to achieve the corporate goals effectively and efficiently, and to provide products and services with quality standards that satisfy customers in terms of time and price."

Source: "Deming Award" 1996.

the whole company. Company Wide Quality Control (CWQC) could not be overlooked by Metal Work, which identified it as a strategic tool for total quality management, from product/process design to manufacturing, up to customer delivery.

CWQC is deployed at Metal Work as a department that promotes total quality, at all levels, but also as a "supervisor" of quality management systems, both in the production site and in the different group companies. Over the years, this function has expanded its scope of action by implementing and maintaining management systems in quality, as well as environment and safety.

The Quality Management structure

The team dealing with quality consists of a management division and an operational division. The latter, including highly trained staff, executes process control in production and assembly areas. It is a team of 18 people who, covering all working shifts as required



by production schedules, carry out tests both on in-house production and on materials coming from external suppliers. This guarantees that the assembly departments downstream are supplied with compliant materials ready for the subsequent assembly stages.

Every year, an average of 170,000 testing operations are carried out, and the corresponding records are used by the process engineering department for analysis and improvement. Test data are acquired through a SPC system supported by an IT network, which keeps production processes under statistical control.

Products coming from external suppliers are tested statistically according to IT-based control schedules, which provide operators with information about the number of samples to be taken according to the batch volume, the tools to use and the acceptable defect limits. From the registration of the results of these tests, in case of defects, reports are generated automatically to be forwarded to the supplier to inform about possible non-conformities detected on his parts.

The registration of test results in the IT system allows to monitor some parameters according to batch quality and timely delivery, which make up the evaluation of each supplier.

In the metrology room inside the production department, where all gages and measurement instruments are located, there is also a 3D measurement machine for specific shape

controls. In the assembly departments, the quality service personnel collect and highlight possible issues that may arise during the assembling and testing stages of components.

After preliminary verifications to test the compliance of pieces under scrutiny, the problem is submitted to process and/or product engineering departments for a final solution.

The next step by the quality service is



to check the execution of the identified corrective actions and their effectiveness. The same office is competent for supplementary controls and tests required for some assembled products, as well as those carried out by area staff on finished products using automatic equipment.

The periodical monitoring and calibration of gages, screwing devices, measurement devices and testing machines for finished products complete the operating control activity.

Quality, Environmental and Safety Management System

The QAS function has always dealt with the implementation of the Quality Management Systems (QMS) since the beginning, achieving its certification in 1992, improving it over the years and adapting it to the subsequent modifications of reference standards.

The department worked at its contin-