

CAQ-Software at Eagle Simrax - Perfection in Motion.

Eagle Simrax B.V. is part of the EKK Eagle Industry-Group (Automotive) and produces approximately 30 million seals a year for water pumps and air-conditioning compressors that are used by a variety of OEM and Tier 1 automotive manufacturers. The success of the company is, amongst other factors, sustained by a company-wide awareness regarding the benefits of sophisticated quality management and a comprehensively lived CAQ-software system.

Quality in Mind

The high significance of quality at EKK is a common theme throughout the entire company. From the worker at shop floor level and the research and development team to production management and the president of Eagle Simrax Mr. Dennis van Well: all employees are greatly aware of the close interrelationship between the quality of the manufactured products and the overall success of the company. The financial relevance of quality management becomes evident in the increase of revenue generated and the subsequent consistent growth of the company.

The man in charge of quality at EKK is Senior Quality Engineer Armand Schutgens. He has been at EKK for over twenty years and has forged a comprehensive CAQ-system there that monitors all quality-related aspects. The CAQ-project at EKK began in 1994 with the implementation of the Compact.Net module and the CAQ-system has since grown to an omnipresent and fully integrated instrument.

A Quality Story

The CAQ-system at EKK has over the years consistently received positive feedback from customers, suppliers, and certification agencies. At the Quality Excellence OnSite event in September 2016, fellow CAQ.Net® users from other companies were invited to the production facility in Kerkrade to see the CAQ-system in action first hand. Module by module Armand Schutgens presented his system to a variety of users from throughout Germany and the Benelux region. The tour through the impressive shop floor of the production facility allowed the participants to witness “live” how CAQ.Net® is used at all workstations.

Comprehensive Data Transparency

During the tour of the production facility, Mr. Schutgens first showed how the day-to-day quality assurance jobs regarding incoming/outgoing goods inspections, SPC, and inspection planning are performed with the CAQ.Net® module Compact.Net. Within this module all characteristics, drawings, control-plans, lot sizes, frequencies, and required measuring devices are defined. During the SPC-production monitoring, all inspection data is gathered by the operator directly at the production line and he is informed instantly via a signal lamp if the data lies outside of the predefined control limits. The connection to the ERP-system was also shown during the tour. All incoming goods that are registered in the ERP-system are automatically also listed in the CAQ-system along with the applicable documents (e.g. inspection certificates). The data measured during the incoming goods inspections is stored on a SQL-server. All quality engineers, process engineers, and other employees can access said data there. Initial sample inspection reports regarding customers and suppliers are also managed via CAQ.Net® and predefined PPAP-templates are available for generating standard-compliant initial sample inspection reports in the system.

Gauges and Maintenance

Mr. Schutgens explained how the inspection and internal calibration of gauges is planned in the PMM.Net gauge management module and showed how the data resulting from said inspections is stored. All due gauges are displayed in PMM.Net and in all other applicable modules, such as Compact.Net. The necessary measurement system analyses at EKK are performed in accordance with

VDA-guidelines and MSA 4th edition. Maintenance management at EKK is also performed with CAQ.Net®. The PMS.Net module contains the predictive/preventive maintenance plans for all machines at EKK. These plans are used to automatically generate the daily maintenance tasks for the mechanics. Information relating to repairs, changes, and faults is also available in the system. The entire maintenance history of all machines is available in the system and can be accessed at the touch of a button.

Risks and Complaints

At EKK all construction and process FMEAs are created and managed with the FMEA.Net module. The module provides a FMEA failure structure and knowledge database which assists during the creation of the FMEAs. The risk analyses are displayed as graphics and one can therefore immediately identify what the individual emphases in the FMEA are. All risk-management related actions are planned and monitored via the CAQ-system.

Mr. Schutgens showed how all internal, supplier, or customer complaints and warranty issues at EKK are processed in the REM.Net complaint-management module. Amongst other methods, the integrated 8D-method is used throughout the processing of said complaints. Corrective and preventive actions are defined in the module and resulting due dates are monitored by the system automatically. All information including e-mails, complaints, reports etc. are saved under the individual complaint number and can be accessed by all employees that are participating in the processing of the complaint.

Advanced Product Quality Planning

Research and development projects and the APQP-workflow and planning processes (in accordance with the APQP handbook 2nd edition) are facilitated via the APQP.Net module. Documentation such as drawings, offers, feasibility analyses, risk analyses, prototype factsheets etc. are electronically stored in the module. Mr. Schutgens then showed how the process landscape and the process flowcharts of production processes and auxiliary process were created and managed in the system. He emphasized that the direct link between the applicable standard operating procedures and the relevant process steps in the system significantly simplifies process-related matters.

All management-system documents, drawings, standards, customer documents and legally relevant document are managed via the document management module QBD.Net. Apart from automating the workflow for the inspection and distribution of the documents, the module also ensures that the most recent version of a document is always available.

Audits and Trainings

Customer, supplier, process, product, requalification, system, and environmental audits are all planned, performed, and evaluated with the audit-management module QAM.Net. EKK uses the ISO 9001, ISO 14001 and ISO/TS 16949 audit questionnaires that are integrated in the module as well as fully self-designed audit questionnaires. Any subsequent audit-actions are also defined and monitored in the system. During the tour of the production facility, Mr. Schutgens next showed how the companywide training requirements are established and the necessary trainings are planned and documented via the training-management module Qualify.Net. The automatic monitoring of training-validity and the simple overview of all employee qualifications greatly assists EKK in all training-related matters.

Everything under Control

Mr. Schutgens then showed how the company KPIs are monitored via dashboards in the Success.Net module and how the cross-modular data can be displayed in a transparent manner. This data-management assists EKK during the management and tracking of all actions that were previously defined in the individual CAQ-modules. The JobControl.Net module for task management is used throughout the planning, execution, and monitoring of actions and all relevant MS Word/Excel or

PDF documents, E-mails, pictures, diagrams etc. that are required are directly attached to the individual actions. Mr. Schutgens stated that this meant no more paper was required.

Central Quality Control

The entire quality management system at EKK is monitored via the QDrive.Net module. It allows the user to select individual persons, customers, suppliers, articles, machines, or processes and receive precise, real-time feedback regarding the data of the selected entity from throughout the entire system.

During the tour of the production facility it became evident, that every single computer system at EKK was equipped with QDrive.Net as central quality control system. This means that every employee can directly access the CAQ-application that he needs to access and edit, track, or evaluate necessary contents. In the years 2014/2015 the most recent modules SRM.Net for supplier management and Change.Net for change management were introduced at EKK. As with all other previous modules, these too merged seamlessly with the existing system.

Distinguished Quality

Following the extensive factory tour, Mr. Schutgens was awarded the Quality Excellence Award. This award acknowledges a company's dedication to excellence in quality management and customer satisfaction. It is awarded to a select group of companies that have, amongst other things, consistently provided invaluable feedback and support regarding the purposeful application of computer aided quality assurance solutions in their individual field of business, command an exemplary CAQ-system and have integrated the relevance of CAQ and QM within their companywide communications. After everything that Mr. Schutgens had shown that day it became evident to all participants, that only few companies deserve the award as much as EKK, where all employees are aware of the close interrelationship between the quality of the manufactured product and the overall success of the company.

Thanking CAQ AG for this extensive article on Eagle simrax. More information on the CAQ software can be found here : http://www.caq.de/en/News/Eagle_Simrax.