

CYON

DIGITAL PROCESS AND QUALITY CONTROL FOR GRAVURE CYLINDER PRODUCTION



Digital transformation in printing form production

Businesses that want to stay successful in current and future markets face huge technological and organizational challenges. The printing industry, including cylinder production at the prepress stage, is no exception. Digital transformation is what everyone is talking about – a crucial challenge that can be broken down into the following key requirements:

- **Implementing consistent digitalization** for all processes, and doing so on the basis of digital machine control systems and digitally mapped processes
- **Networking complete production sequences** using standardized interfaces and solutions that can be perfectly coordinated
- **Ensuring seamless data capture and analysis** so the highest possible standards can be defined and the best possible decisions made
- **Using intelligent algorithms** that suggest specific solutions and prevent process deviations

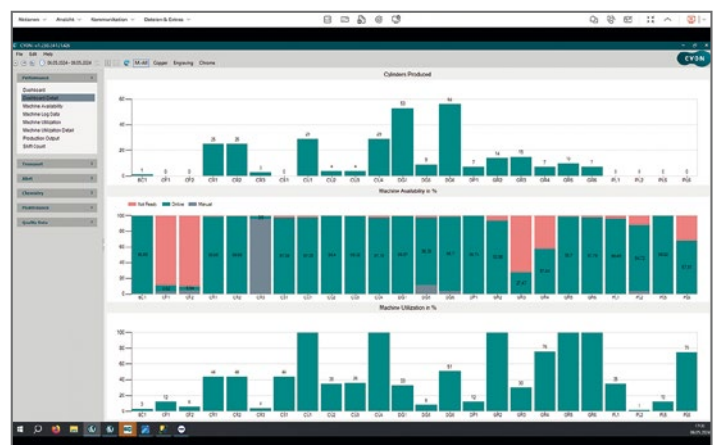
Added to these are other, diverse challenges that also need to be met:

- **The skills shortage**, which is affecting a whole variety of areas
- **Rising cost and deadline pressures**, for instance due to global energy prices, but also due to the digital transformation and its impact in terms of dynamic timelines across the board
- **First Time Right** – the fundamental quality principle that requires all processes be completed without any faults, so that costly rework and repetition can be prevented

The solution is CYON

CYON, our new, highly integrated digital solution for the data-supported optimization of every aspect of cylinder production helps to overcome these challenges today. This data-based expert system links together the entire Heliograph machine platform and offers users complete data and information transparency across the whole production chain.

CYON tracks and saves all production data – from providing a real-time overview to delivering problem analyses and investigating process deviations. This supplies the background data needed to optimize production in terms of productivity and quality.



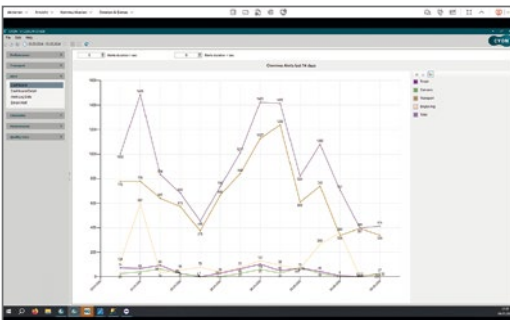
The various CYON modules

CYON consists of several modules that users can combine individually to their specific needs. The individual **CYON** modules focus on productivity management, process control, quality management and cylinder documentation.



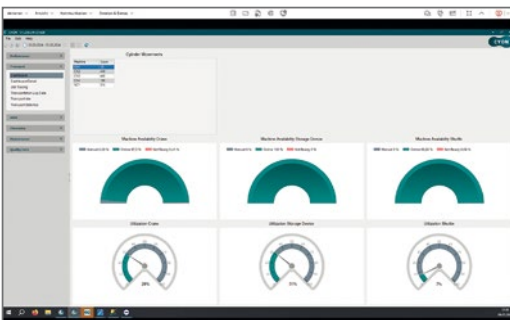
P Performance

The Performance module utilizes various detailed evaluations to help provide a meaningful overview of the key performance indicators associated with machines and production areas. It is essential for dependable productivity management.



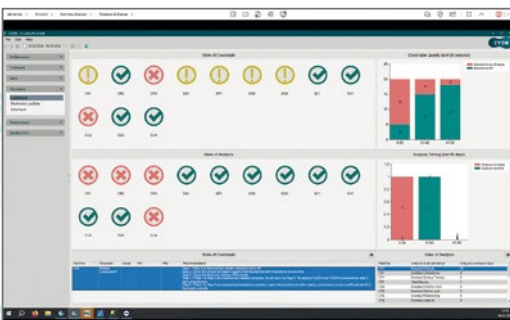
A Alert

The Alert module keeps a keen eye on all processes and tracks alarms and error messages, which is the key to remedying faults for the long term.



T Transport

The Transport module shows users the location and process status of all cylinder sets and the key performance indicators of transport units.

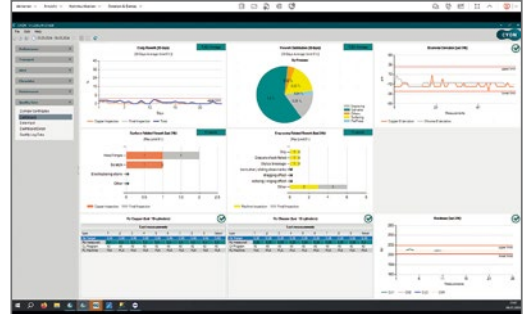


C Chemistry

The Chemistry module helps determine electrolyte parameters, evaluates analysis results and provides precise step by step guidance for necessary corrections. It offers a direct link to K.Walter laboratory for direct transfer of analysis datas.

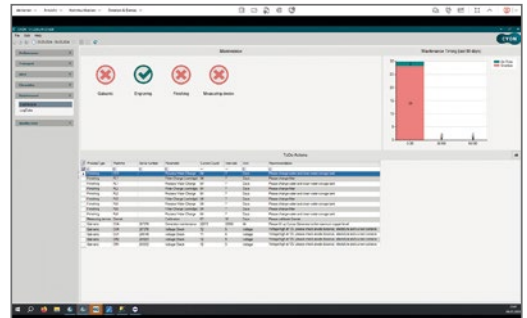
Q Quality

The Quality module monitors and controls process quality in real time, providing clear recommendations based on its integrated expertise. It is also the central module for combining and documenting all process parameters from the entire production chain all the way to final inspection, even outputting them in certificates.



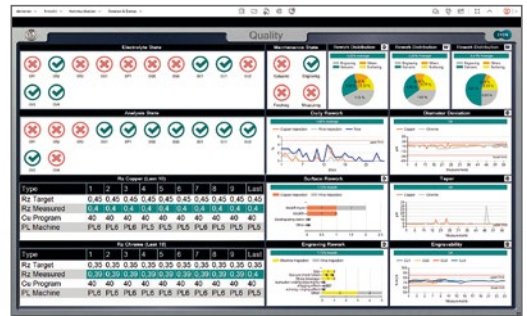
M Maintenance

The Maintenance module monitors and documents the proper performance of process maintenance and the calibration of the measuring instruments used.



D Dashboard

The Dashboard is the cockpit of the CYON solution. It can display summaries of key performance and quality overviews from the individual CYON modules in real time.



Digitize. Standardize. Optimize.

These three terms sum up the concept at the heart of **CYON** and its core advantages. **CYON** provides fully integrated, digital process and quality control for every aspect of gravure cylinder production, taking it to a whole new level.

CYON has been designed for the various information needs in a company – from the plant manager to the shift foreman, and from the quality control officer to the supply chain manager. **CYON** gives everyone involved access to real time and archived data that can be analyzed to suit the specific tasks and duties of each decision-maker.

At the same time, **CYON** gives all operators access to data, overviews, specifications, and guides to assist them with their day-to-day work and help implement sustainable standardization and quality enhancements. To do this, **CYON** combines the connected data with the extensive process know-how of Heliograph.

The advantages of **CYON**:

- **Higher efficiency / higher cylinder output** – improves utilization of the installed equipment
- **Better quality** – standardized process, fewer deviations, built-in expertise
- **Lower costs** – fewer remakes, less manning, faster reaction times



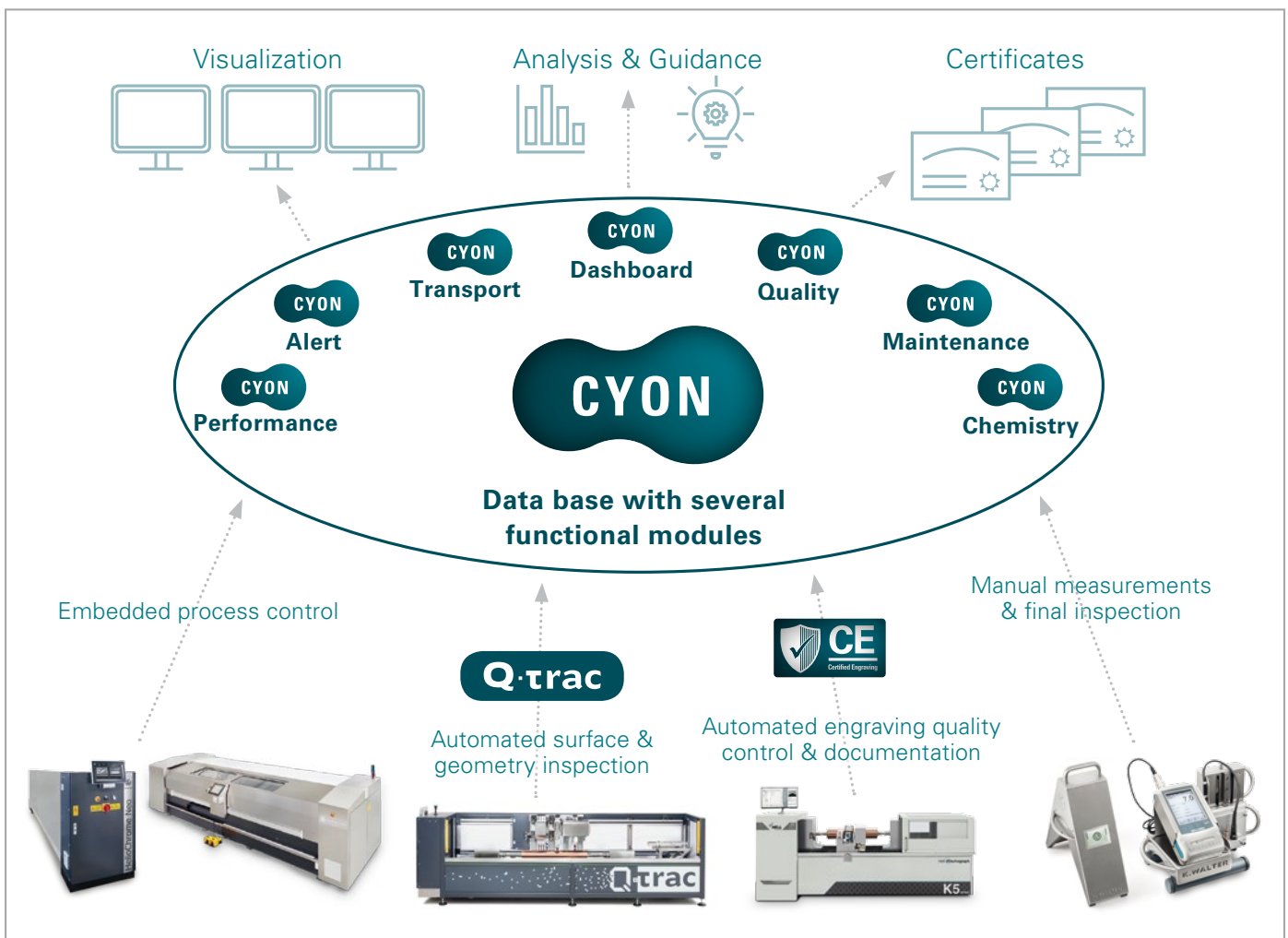
Example of a state-of-the-art cockpit with various CYON modules, Q-trac map and AutoCON-Master.



CYON – digitally networked production environment

CYON combines and integrates machinery and solutions from the Heliograph machine platform. Together, they form a high-performance, unique solution that covers every aspect of cylinder production.

When used in connection with **Q-trac** and **Certified Engraving**, **CYON** offers the ideal combination for the automatic recording and documentation of cylinder production. **Q-trac** is an intelligent, self-calibrating and highly automated quality inspection system for copper-plated gravure cylinders prior to engraving. **Certified Engraving** checks and documents engraving quality.



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