



groninger uses intuitive operation and quick orientation

Consistently customer orientated with zenon

In addition to specialist know-how and many years of experience in the market, the use of innovative technologies is a decisive success factor in mechanical engineering and plant engineering. groninger is deploying the HMI/SCADA software zenon from COPA-DATA for its new generation of machines, in order to offer an optimum solution for its customers in the cosmetics industry for intuitive and simple operation of machines and fully-automated process lines.

The special mechanical engineering company groninger is now one of the leading providers of machines and equipment for the filling of pharmaceuticals and cosmetics, with three sites in Crailsheim, Schnelldorf (both in Germany) and Charlotte (NC, USA) as well as offices in over 35 countries. Around 900 employees work for groninger around the world. The company, founded in 1980, has long been considered a "hidden champion" with revenues of 100 million euros and an expert ratio of around 80 percent; it is one of the top 120 family-run companies in Germany.

MODERN MACHINES, INNOVATIVE HMI

groninger is confronted with the increasing requirements of application-orientated and user-orientated processing technology. This applies to both the construction of individually-deployable special machines as well as for the development of fully-automated process lines. As part of the development of a new machine generation, groninger has also developed a new human-machine interface. In a comprehensive evaluation process, the special machinery manufacturer assessed the market-leading HMI/SCADA solutions and decided on zenon



from COPA-DATA due to the range of powerful features and the attractive price-performance ratio. “As a manufacturer with a market-leading position, our customers expect innovative machines and equipment that make production, filling and packaging more efficient and enable optimum operating conditions. In doing so, it is particularly important that the machines and equipment can be operated easily and efficiently – with an intuitive, easy-to-understand user interface,” explains Werner Köhler, Electronic Engineering Team Manager at groninger GmbH & Co. The objective was also to achieve a high degree of standardization with the new HMI. Customers now have the choice of selecting the range of functions they have according to their requirements and, if they wish, adding further functions at a later point in time.

CLEAR MACHINE OPERATION AND CONTROL

With the introduction of the HMI/SCADA solution zenon, groninger has revised the complete operating structure and menu design. “With zenon, we have redesigned the user interface, because our machines offer an ever-increasing range of functions,” explains Werner Köhler from groninger, “In order to guarantee the required simplicity in operation, we have, for

example, reduced text descriptions to a minimum thanks to concise and simple symbols.” All machines and equipment that groninger supplies to the cosmetics industry now display processes in an HMI based on zenon – from filling through to the sealing of containers to labeling. This includes varied end products such as perfume, cosmetics, skincare and hair care. In the overview screen, the machine operators can see the individual stations in the process such as the fill station, the application station, the sealing station or the labeling station. In each process stage, groninger customers can check to see if the product corresponds to the defined quality requirements and values. If, for example, a previously-stipulated number does not correspond to the quality standard, the machine must be stopped. In the filling stage, the operator can, for example, call up the fill amount and change it, as well as view or adjust the movement processes (of the servo control). In the application station, the employees can, among other things, control the feed-in tracks, the cap routing (cap, spray pump, plug) and jams.

SAFETY AND EFFICIENCY IS ENSURED

The machines and equipment from groninger now make comprehensive alarm management available to users in the cosmetics industry. This makes users aware of critical process events

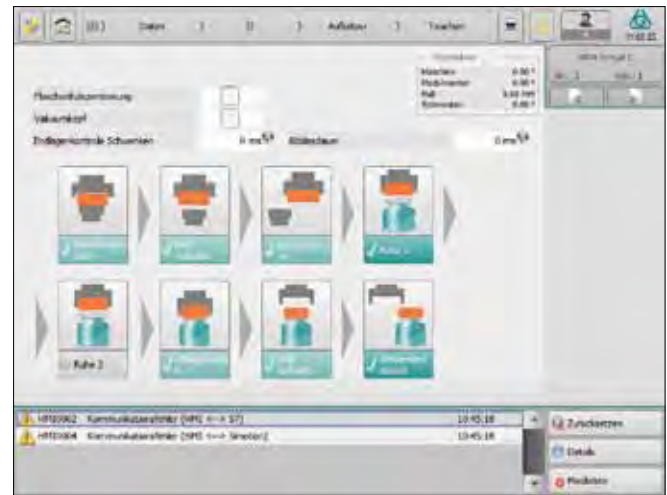


“zenon is a powerful tool and offers a comprehensive range of functions. The software is characterized most of all by the zenon programming interface, which allows us to incorporate VBA programs. In addition, we like the intelligent wizards in zenon very much; these complete project configuration tasks reliably and in an automated manner.”

WERNER KÖHLER, ELECTRONIC ENGINEERING TEAM MANAGER
AT GRONINGER GMBH & CO. KG



groninger has redesigned the user interface for its machines and equipment with zenon. The HMI distinguishes itself through simplicity, clarity and a well-thought-out operating structure.



groninger has now supplied around 60 machines and equipment with the new HMI on the basis of zenon. Customers include notable companies from the cosmetics industry.

and supports them in locating problems quickly and in a targeted manner – and in rectifying them. In the service menu of the zenon-based application, the employees receive detailed information on machine components, can get a quick overview of the functionality of the machine and can see when they need to intervene. In addition to the comprehensive logging of process events, users can also view current production figures, such as quantities, at any time. The machine output is displayed as a representative curve. The user administration integrated into zenon also ensures security: groninger's customers can issue access rights for their users here – depending on what tasks the respective employee has to carry out. For example, a service technician receives different rights to a machine operator. It is also possible for cosmetics companies to document the operation of the machines.

EFFICIENT ADMINISTRATION OF FILLING AND PACKAGING PARAMETERS

With the recipes in zenon, companies can combine set values and

commands into a list, which is executed in Runtime with a single function call. groninger also uses the Recipegroup Manager in zenon to flexibly collect, use and administer as many recipes with different manufacturing parameters as desired. The parameters that the special machine constructors have stored in the recipes for the different machines include, for example, the fill level of a product tank or the intermediate tank, the fill quantities of the products, the sizes and dimensions of the cosmetic containers, the fill speed, the torque for the sealing of a cosmetic product, and also blockage times and parameters for machine control such as the control of axles, the drive units or the fill nozzle movement. An average of between 25 to 100 recipes are stored on the groninger machines for the cosmetics industry. "The Recipegroup Manager is very important to us. There are customers who only produce one product for the life of a machine, but there are also customers, such as contract fillers, who change the product on an hourly basis and must retool efficiently and change the recipe accordingly," adds Werner Köhler, Electronic Engineering Team Manager at groninger GmbH & Co. KG.