

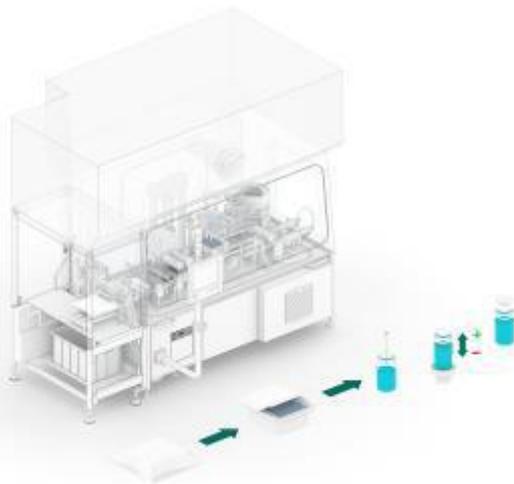
## groninger for enhanced safety and flexibility

Crailsheim based custom-built machine manufacturer groninger uses the Achema to showcase key product innovations and equips itself for the future. In a space of more than 550 square meters on Booth G72 in Hall 3.1 the family-run company displays its turnkey expertise in the pharmaceutical, cosmetic and, for the first time ever, consumer healthcare industry. The leading international process industry trade fair takes place from 15 to 19 June in Frankfurt.

### Enhanced Flexibility for Small Batch Processing in Isolators

*Aseptic pharmaceutical line for nested containers – FlexPro 50*

The pharmaceutical industry is displaying a sharply growing demand for flexible solutions to the aseptic filling of pre-sterilized containers for small batch processing in isolators. groninger has responded to the call with the FlexPro 50. The newly developed and highly flexible series for aseptic processing of nested syringes, cartridges and vials permits a host of configuration options in a modicum of space. Co-developed with isolator manufacturer Franz Ziel GmbH this modular machine concept was developed in various stages of automation. Based on the ready-engineered philosophy outputs of up to 5,000 containers per hour are achieved. The line exhibited at the fair consists of a semi-automatic bag opener and fully automatic units for opening tubs and filling and closing of the nested vials.



*Aseptic pharmaceutical line for nested containers – FlexPro 50*

### **100 Percent Control for Small Batches**

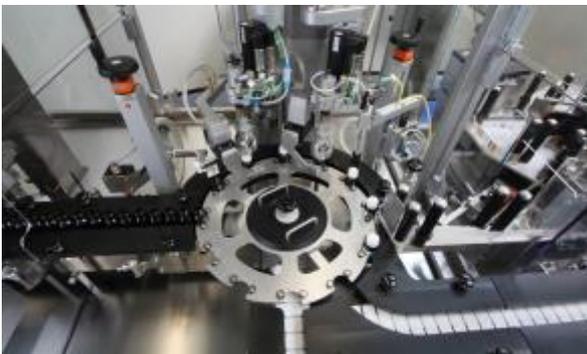
*Aseptic pharmaceutical line with in-process control – FSE*

This isolator system offers absolute safety of the filling and closing process, particularly as an aseptic production line for small batches that demand the highest standards of product safety or as a laboratory line for clinical tests. The in-process control permits 100 percent control of filling results, thus guaranteeing sterility at every process stage. Another line highlight is the decontamination unit for the syringe tubs. Reduction of potential contamination using plasma technology complies with the current GMP requirement.

### **Line Concept for Consumer Healthcare Products**

*Premiere of new business unit*

In addition to system concepts for the pharmaceutical and cosmetic industry, groninger is now also specifically addressing the needs of the consumer healthcare industry. Emphasizing the positioning of the new business unit, at the Achemagroninger is exhibiting a fully automatic filling and closing system for bottled consumer healthcare products. This highly flexible production line, which can process a wide variety of containers and sealing components compliant to cGMP covers a broad product volume spectrum with maximum outputs of up to 3,600 bottles per hour. Widely differing containers can be processed regardless of their design. Changeover is according to the SMED (Single-Minute Exchange of Die) principle.

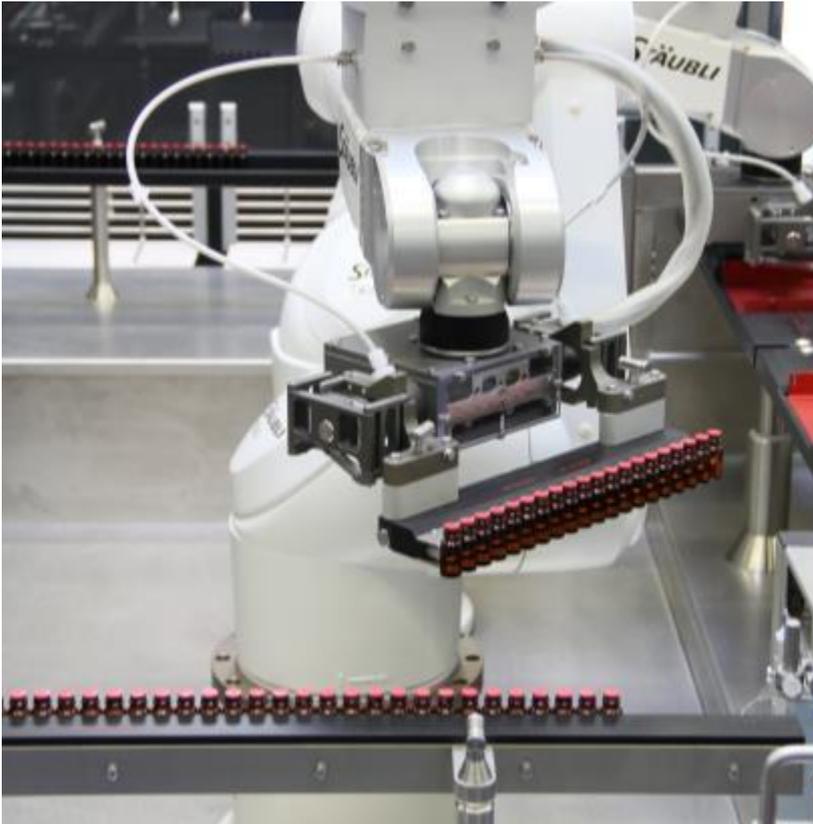


*Filling and closing machine for consumer healthcare products – MFCS-LR*

## **Implemented by Leading International Companies**

*Robot technology permits process optimization*

Another groninger highlight is robotic technology for the sterile sector. During magazing, it facilitates the safe and swift sorting of filled and closed vials in trays or magazines as well as further processing prior to freeze-drying. The smooth action of the robot arms enables exceptionally gentle insertion. This minimizes spillage especially in the case of liquid products and thus increases product safety considerably.



*Robotic technology for magazing – MAKR*

## **Innovation in Syringe Manufacture**

*X-ray inspection system in syringe production line*

Innovative solutions are demanded to identify the right position and form of the needle under the needle guard in highspeed glass syringe production lines. groninger is exhibiting an X-ray inspection system that can be easily integrated into all groninger machines, a world first in a syringe production line.

## **groninger is Equipped for the Future**

*Ready, Steady, Go.*

Sporting this motto the Crailsheim custom-built machine manufacturer has set itself ambitious goals for the upcoming years and is best equipped to achieve them. With around 780 employees in Crailsheim, 200 in Schnelldorf and a further 30 in Charlotte, North Carolina/USA, groninger continues to base its success on factors like wide-ranging know-how, bold investment, farsighted decisions and supporting services. This is reflected in excellent business growth and production again running at full capacity. The figures speak for themselves: the company reported revenues of 130 million euros for the last financial year, compared to 115 million euros in 2013. "2014 was a year of change. We examined and optimized many internal processes so that in the future customers can look forward to faster, more efficient production. Our lead times will be shorter", promises Jens Groninger, Managing Director of the company site at Crailsheim.

### **Further information: about groninger**

Products:	Custom-built machines for the pharmaceutical, cosmetic and consumer healthcare industry
Sites:	Crailsheim, Schnelldorf, Charlotte (USA)
Offices:	Around the globe in more than 35 countries
Established:	1980 by Eva and Horst Groninger
Management:	Jens Groninger in Crailsheim, Volker Groninger in Schnelldorf, Horst and Eva Groninger on the holding advisory board.
Employees:	1,000 worldwide
Revenue:	130 million euros