

Advantages of Independent Blow Mold Makers Dipl.-Ing. Jürgen Röders

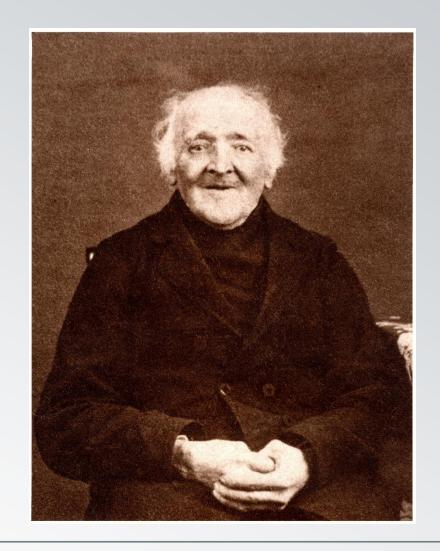


He started it!

Jasper Röders

(19.10.1783 - 9.8.1870)

Around 1814 Jasper Röders took over a small pewter foundry in Soltau





Over 200 Years History

- > 1814: Begin with a small pewter work shop in Soltau
- > 1850: Production of taps for kegs
- > 1871: Manufacturing of measuring cups for liquids
- > 1924: Pioneer in die casting business
- > 1975: Manufacturing of the first blow molds for Corpoplast in Hamburg (exclusively until 1992)
- > 1984: Introduction of 3D CAD/CAM in mold production
- > 1991: Development of first High Speed Cutting Machine
- > 1997:Partnership with Krones for developing blow mold technology until 2007
- > 2012: Opening of Roeders Vietnam
- > 2018: Development of low pressure technology
- > 2024: Customers in more than 80 countries, 120.000 molds produced















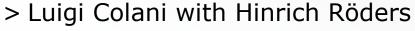




3 Business Areas: Pewter

- > Modern and classical design
- > Handcraft production
- > Sales through the internet at: www.amazon.de/roeders











3 Business Areas: Machines

- > Profound high-tec development with more than 40 developers
- > Assembly and initiation of machines in Soltau, Germany
- > Annual production of 150 200 high precision machine tools
- > Roeders machine tools with newest technology are installed in blow mold production







3 Business Areas: Blow Molds

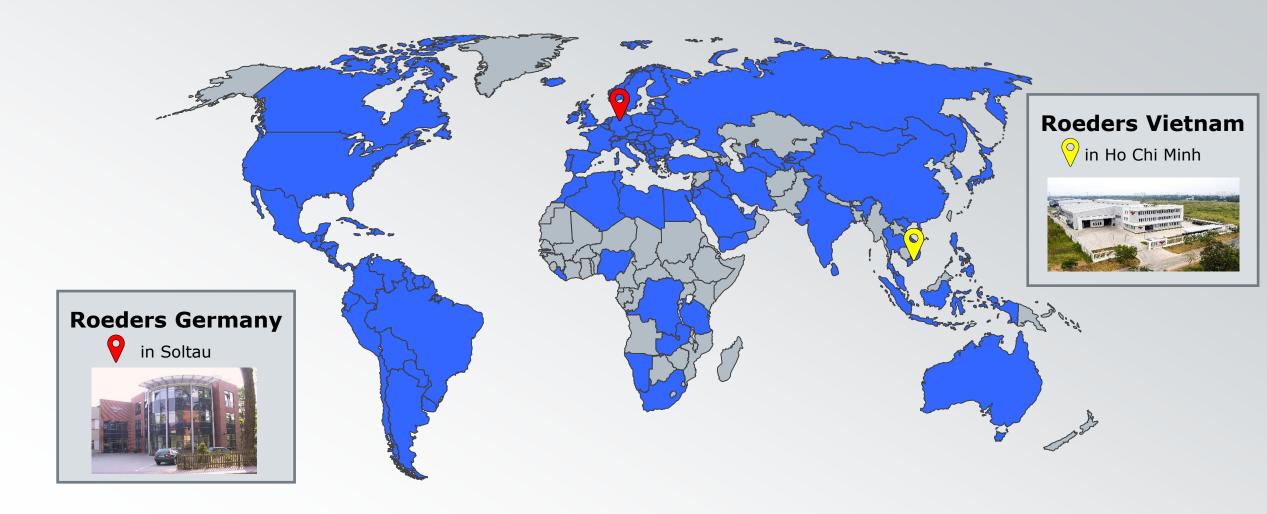
- > Over 6000 blow molds produced annually
- > 20 Roeders machine tools highly automated
- > 3 shift production, 7 days a week
- > Surfaces machined in polished quality (no handwork required, high reliability)
- > Extensive research in certified laboratory for many customers







2 Factories for Blow Molds, Worldwide Service





Roeders in Numbers

> Employees:

> About 600 employees, thereof around 400 in Soltau, Germany and over 200 in foreign countries (USA, Canada, Mexico, France, Czech Republic, China, Hong Kong, Taiwan, Vietnam)

> Apprentices:

> About 40 (technical and commercial)

> Students:

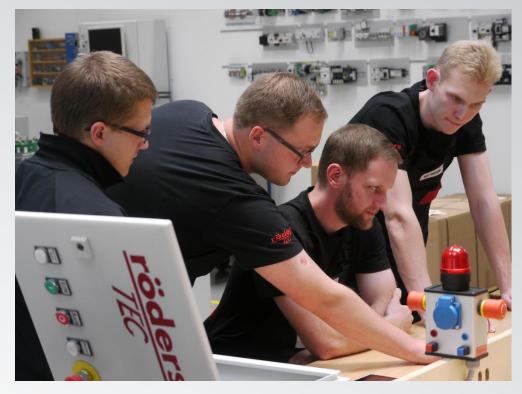
> About 10 (technical and commercial)

> Export:

> 60% - 70%

> Turnover:

> More than 80 million Euros





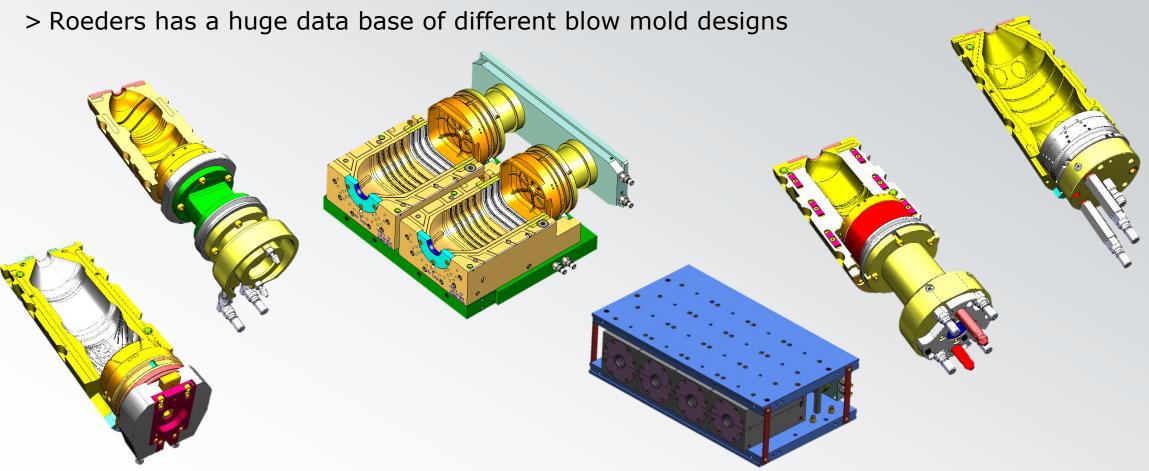
> Knowledge and experience:

- > Roeders is not bound to a specific blow molding machine
- > With almost 50 years experience Roeders has profound knowledge of all blow molding machines and generations of machines





> Knowledge and experience:





> Trustworthiness:

- > Roeders has no pressure and competition for developing and improving blow molding machines
 - → Any specific customer development will reliably be kept highly confidential
- > Roeders has had very long-lasting partnerships with blow molding companies for decades





> Reliability (delivery times):

- > Roeders has the specific characteristic of using its in-house developed machine technology for producing blow molds:
- > → No waiting times for service
- > → Always newest production technology available
- > → No handwork on the molds polished surfaces are produced in the machines (no damage to any edges)
- >

 Engravings and even fine structures are machined
- > > Very high machining competence







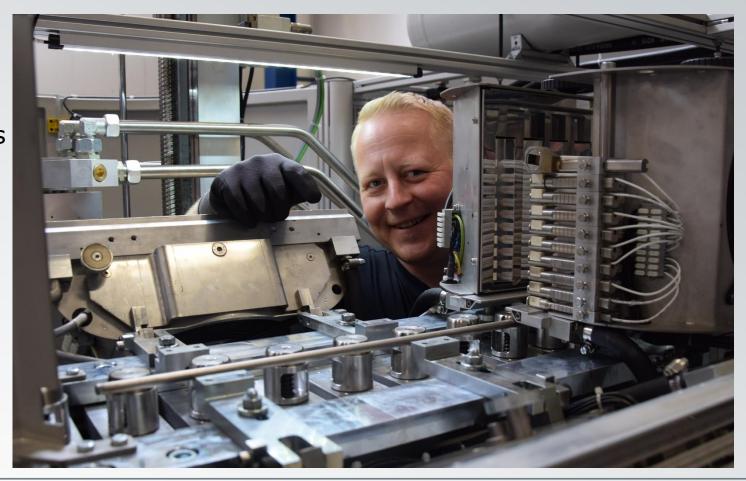
- > Developments are independent from any specific blowing machine:
- > Example Roeders Low Pressure Base:
 - > Optimization of geometry: design for best possible material flow
 - > Optimized venting (with no effect on bottle stability)
 - > Can be used on all blowing machines
 - > Reduction of blowing pressure by more than 30%
- > > High energy savings on any type of blowing machine!





> Start-up support and optimization of blowing process for any machine

- > Roeders blow molding specialists visit any customers worldwide and help with the installation of blow molds and the finding of suitable parameters for the blowing process
- > Roeders blow molding specialists support all types of blow molding machines
- → Big advantage if several sets of new blow molds are to be installed on machines from different suppliers

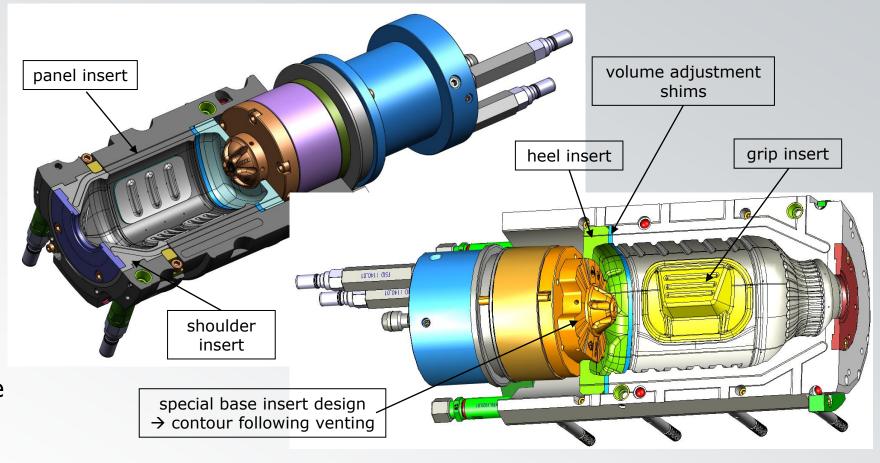




> Independent advice for suitable solutions for different blowing machine

models

- > Example inserts:
 - > Space availability is different in different blowing machines due to different mold design
 - > Roeders may give advice about possible solutions for different blow molding machines
 - > No pressure to promote any blowing machine

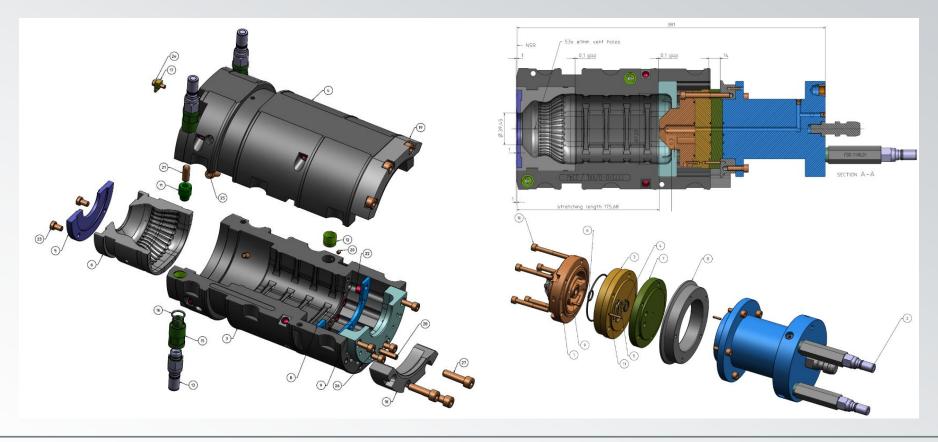




> Transparency and availability of spare parts

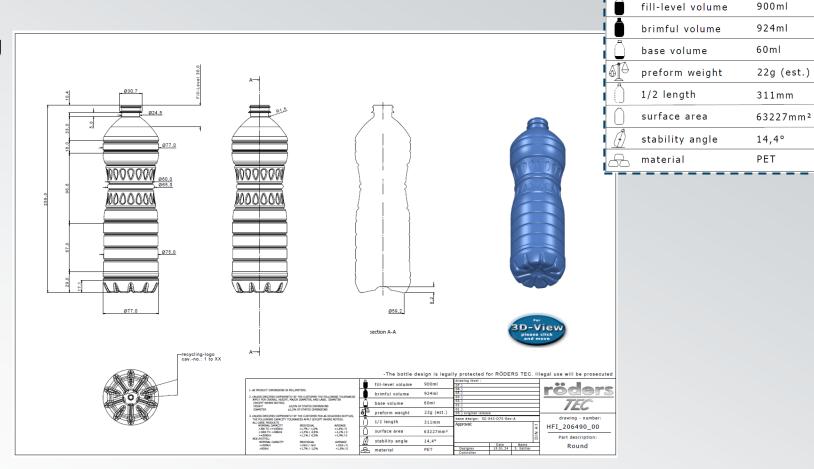
> Creation of mould assembly drawings and exploded views for easy handling by

the operators





- > Transparency
- > Technical bottle drawing





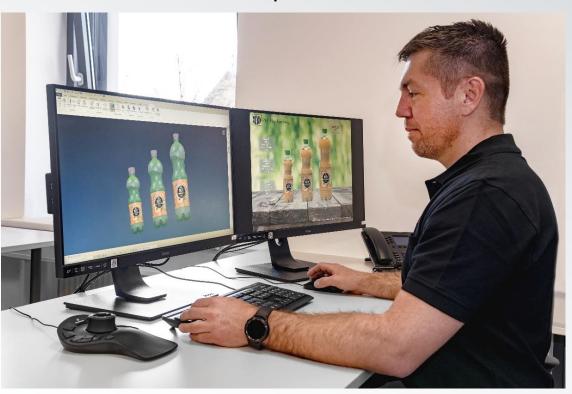
> Different approaches to support development of new bottle design

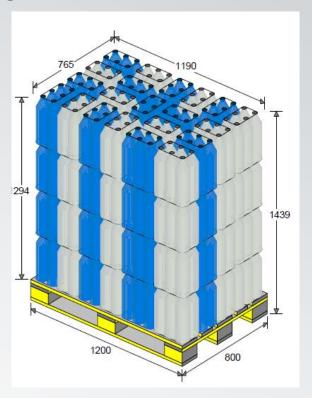




> Rendering and layer patterns

> Before the first chip is cut an extensive design review is available







> Different mock-ups available



Bottle 3D prints in different colors



Plexiglass mock-ups



> Test with sample mold and sample bottles

> Up to 12 litre bottle volume, up to 1.600 bph



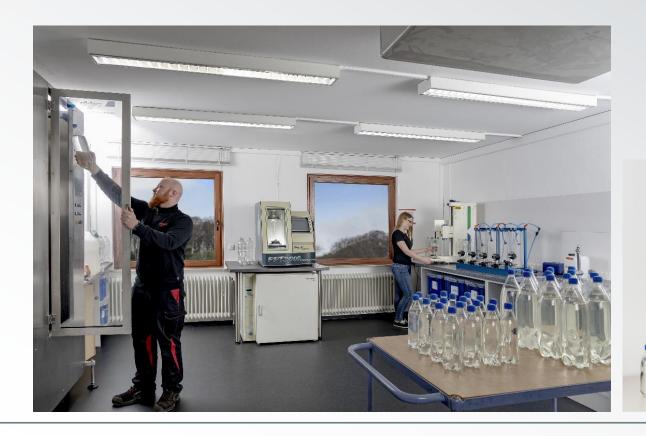


Krones Sidel KHS SIPA SMI 1BLOW

PCO1810 PCO1881 PCO38 2-Start PCO38 3-Start 29/25 30/25 26/22 28/410



- > Well equipped laboratory for bottle testing
- > Certified for CSD and NCB projects







- > Reengineering of any old or damaged blow mold
- > With Roeders no problem due to newest laser scanning technology
- > Any molds, mold parts or bottles may be scanned





