



**Keep cool  
...when touching hot stuff!  
High Tech Products for the Glass Industry**

# International Technology Company

## Schunk – industrial production to the highest standards

Schunk Materials is a division of the Schunk Group, a global technology company with an extensive range of services, both in materials technology and systems engineering.

In the area of high-temperature technology, we produce materials and components for use in the following areas:

- pressure sintering
- glass technology
- medical technology
- solar technology
- insulation technology
- crystal growing
- heat treatment

The Schunk Group is divided into several individual companies, which operate independently in different technology markets around the world. This structure ensures a high degree of flexibility and customer focus.

## Global Player – active in 5 continents in 27 countries

As a global player, the Schunk Group is active in North and South America, Europe, Asia and Oceania, in a total of 27 countries, with more than 60 companies, and has a network of strategic alliances and cooperations, as well as connections to leading research institutes around the world.

In recent years, the Schunk Group has expanded significantly due to continuous innovation, development and diversification in future-oriented areas of technology.

## We advise you – from the first idea to manufacturing

We accompany our clients during the entire planning and development process. In this way, many application and client-specific problems can be solved in early stages through the use of computer simulations. We support you both in the design and dimensioning of your component, and also in the choice of the most economic form of production.

# Trouble-free Production – High Reliability

## Critical parts well handled!

During the production process of glass, wherever hot glass is handled, it comes into contact with components made of other materials. The operational reliability and the properties of these materials are decisive for an efficient and trouble-free course of production as well as for an excellent finish on the glass products.

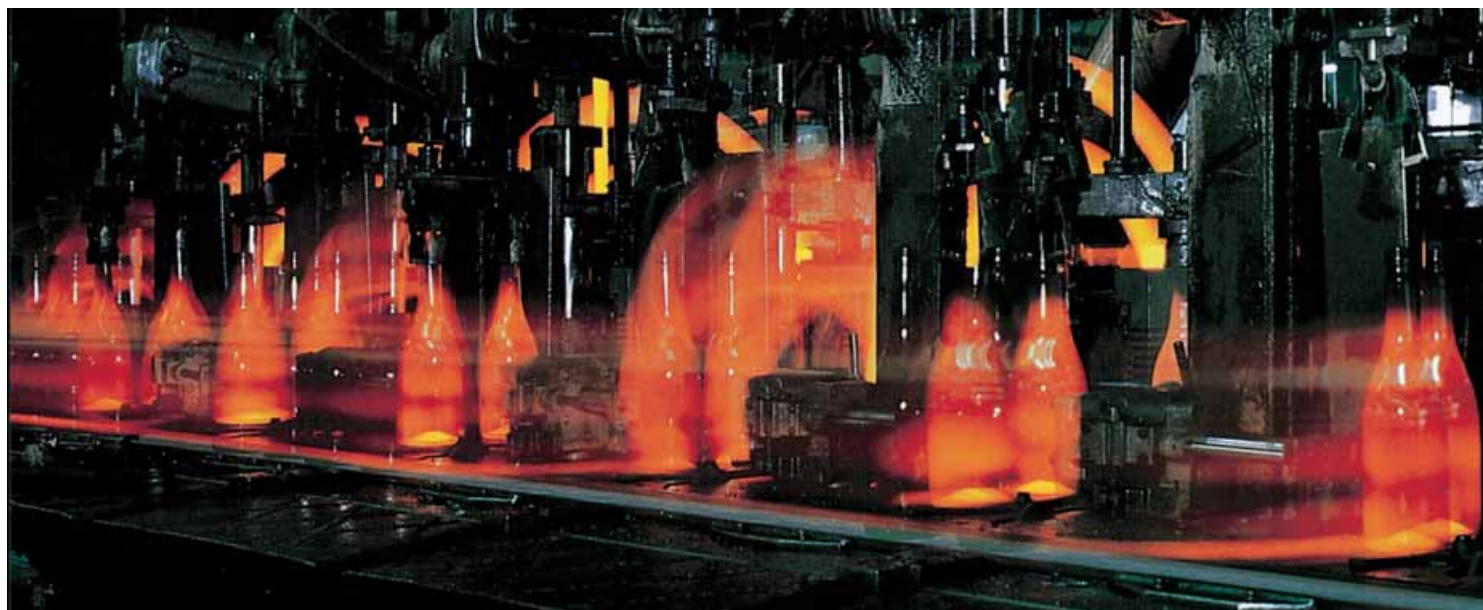
This is why we manufacture such components out of carbon. Like no other material, carbon is suited

for the applications in the glass industry, due to its unique properties.

- Carbon prevents surface checking in the glass because of its significantly lower thermal conductivity, compared to that of metals.
- Carbon does not leave any discoloration on the glass parts due to its excellent chemical resistance.

- Carbon allows long lifetimes of the handling components as a result of its outstanding resistance to high temperatures and oxidation.

For parts exposed to extremely high mechanical loads, Schunk additionally offers to you carbon fiber reinforced materials.



## Our Service

- Modifications of our standard components with respect to dimensions (e. g. different thickness, different radius, etc.). Individually developed and specially designed according to our customers' requirements, e. g. adapted to new finish or pickup specifications.
- Inserts and holders as a system.
- Benefit from our expertise! We will tell you which components are best made of which materials, to make your production processes safer, faster and more economical.
- Stand-by Delivery of series products within 48 hours.
- Fast Order Delivery of Schunk take-out tongs out of standard materials in your special dimensions within eight days.

# For safe contact...



*Steelholder quickchange system*



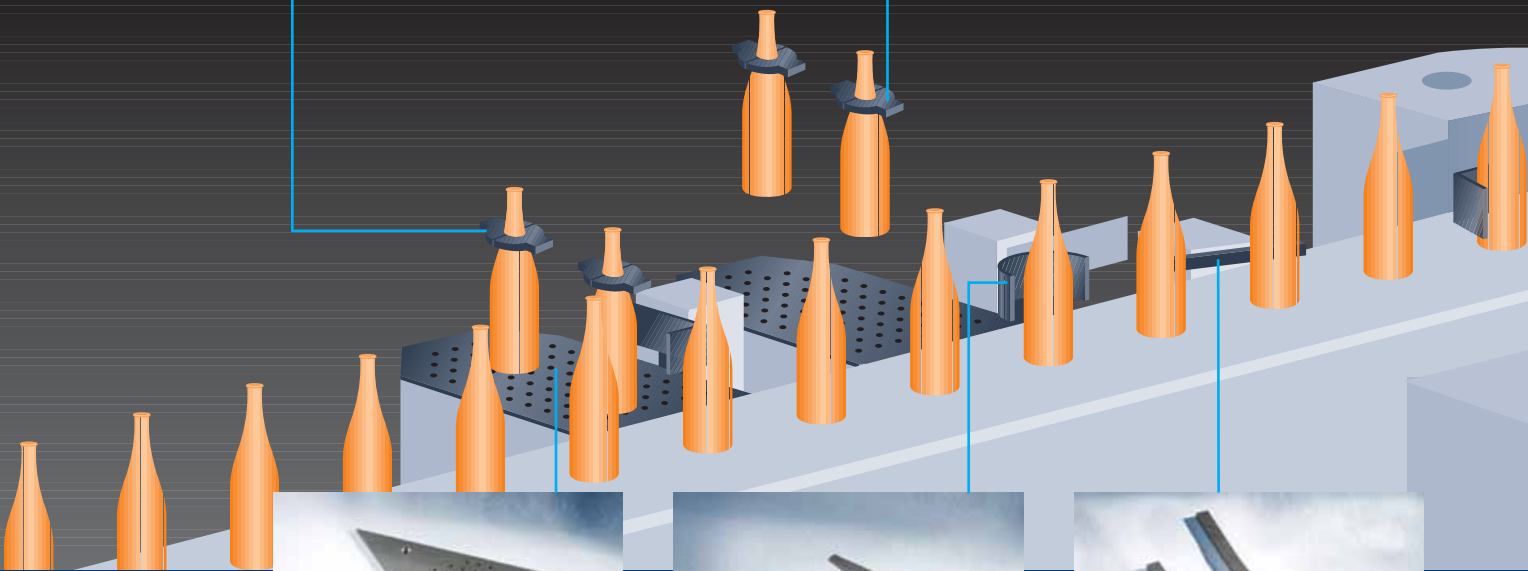
*Steelholder floating system*



*Take-out tongs quickchange system*  
FE 479  
FE 879



*Take-out tongs floating system*  
FE 479  
FE 879



*Dead plates*  
FE 519  
FH 429



*Sweep-out pads*  
CF 260  
CF 260 Q



*Guides*  
CF 260  
CF 260 Q

...at hot positions

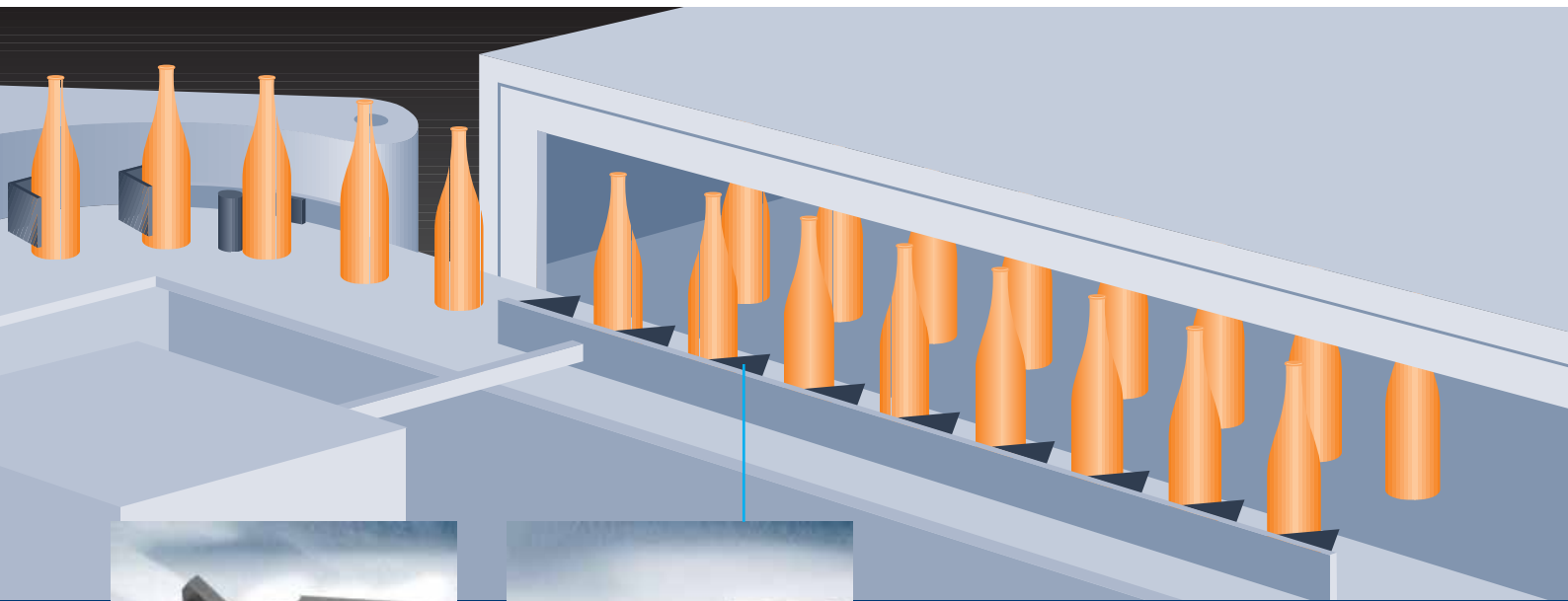
# High-Tech Materials out of Carbon



*Blowhead inserts*  
FE 779



*Backplates*  
CF 260  
CF 260 Q



*Graphite stacker bar pads*  
FE 679 Q



*C/C stacker bar pads*  
CF 260 Q  
CF 264 Q

# Specials for Glass Manufacturing



*Glass tubing: Guide blocks*  
FH 42  
FE 519

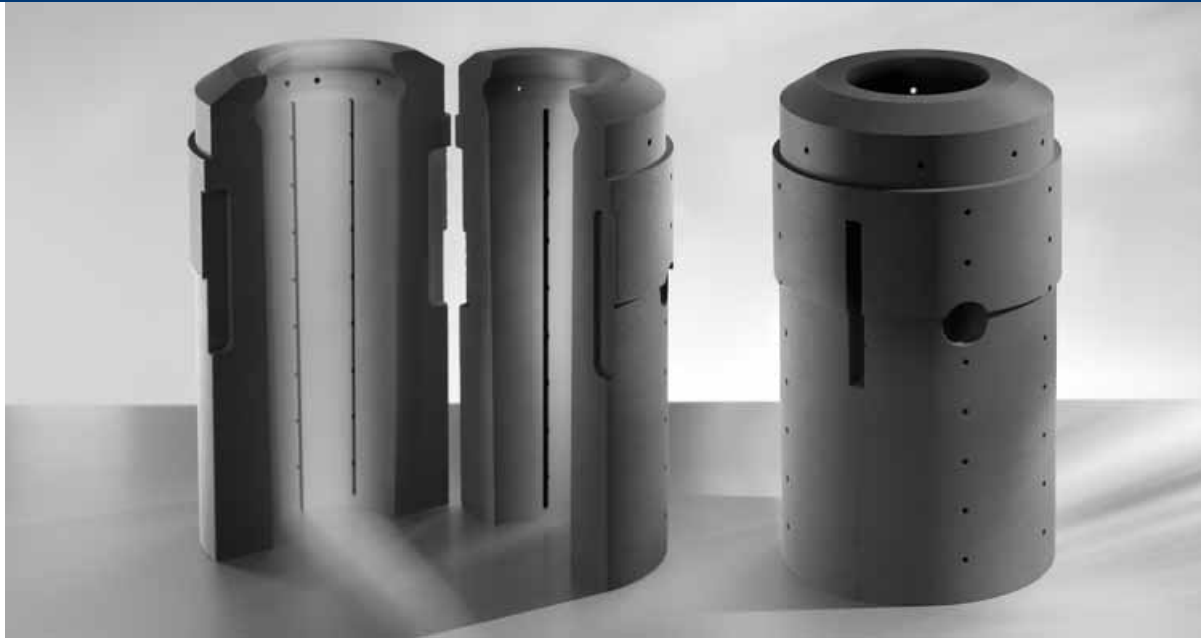


*Glass tubing: Pins*  
FH 421



*Glass tubing: Pull rolls*  
FH 42  
FE 779





*Household glass: Moulds  
FU 4960*

# High-Tech Materials out of Carbon



*Pharmaceutical glass:  
Forming mandrels  
FE 779*

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