



# Thin Glass Technology



# Expert Technology for a Material of the Future



Through technical expertise and long experience, Grenzebach has achieved a leading position as an acknowledged specialist in the construction of equipment for material flow and process engineering.

We design, manufacture and deliver fabrication lines and components for the flat glass, gypsum and building panel industries as well as special equipment for cutting and drying of veneers. Further spheres of competence are automation technology and baggage handling equipment for airports.

A staff of approximately 1300 serve customers worldwide. With production facilities in Germany, the USA and China, we are always close to their vicinity and local support can also be obtained from our many representations throughout the world, e.g for the Asian markets in Taiwan, Japan, China and South Korea – just to mention a few.



The versatility of glass makes it an indispensable product for many applications reaching from architecture, the vehicle industry, furniture and appliances, solar panels to electro and electronic industries, optics and many more. And its importance will further increase in the future.

Grenzebach has supplied flat glass production equipment for more than 40 years. From initial planning, design, production, intelligent control solutions, commissioning and after-sales service, we offer our customers a comprehensive range of services.

The connection between our float, solar and coater business to the TFT/LCD industry is very obvious.

In close relationship with Fraunhofer Institute, Stuttgart Germany, Grenzebach has developed and now offers their glass handling technology for clean room applications. We connect key processes inside the display FABs such as PVD, CVD, etching, measuring, etc. including all software related projects.

# Efficient Processing Solutions

Strict requirements to the quality of thin glass products require highest process accuracy and stability.

Grenzebach's very precise cutting technology reaches its highest level of functionality in combination with the Grenzebach supervision and optimisation systems. Our conveying and stacking technology ensures smooth and exact handling while robot take-off and feeding creates a useful and versatile alternative. Continuous production flow is reached by integrating our accumulators, buffers and cassette stations into the processing system.

Control of the production process at all times, quick reaction and full use of the line capacity – Grenzebach control systems meet these requirements at its best. We offer a complete range of machine controls, designed to the specific application and customer needs.

The exact functioning – also under cleanroom conditions – greatly influences quality and usability of the end product – and finally also cost efficiency. Our specialists will assist customers in selecting their most functional and economical system.



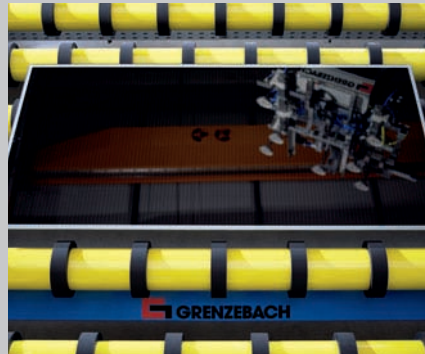
## Our scope of supply for the Thin Glass Industry:

- Loading/unloading
- Glass transport conveyors
  - Loading/unloading
- Glass transport conveyors
  - Transfer tables
  - Tilting units
  - Rotating tables
  - Lifting tables
- Alignment conveyors
- Robot handling
- Accumulators
- Buffers
- Cassette stations
- Control and automation systems
- Machine and line control (Siemens, Rockwell, Bosch, Schneider, Mitsubishi)
- Host computers
- Optimisation
- Hotline support

## Other Grenzebach Technologies



**Float Glass**



**Thin Film Solar Technology**



**Gypsum**



**Veneers**



**Process Engineering**



**Baggage loading**



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