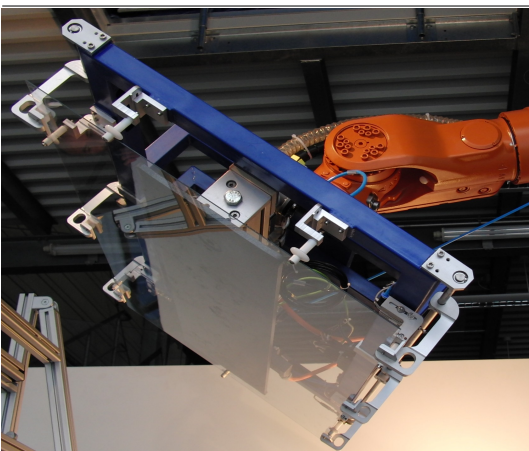


## Glass Handling

## Product Data

### Non-Contact Glass-Gripper



Glass-Gripper

Our handling systems using the ultrasound air bearing can be applied in any atmospheric process. The ultrasonic suspension generates a supporting gas-film (air or process-gas) between its surface and the substrate. Thus, any mechanical contact is avoided. The substrate is hovering on or below the supporting gas film at distances of 50 – 250  $\mu\text{m}$ .

#### Top-Side Handling

Many handling processes need the use of attracting and repelling forces at the same time, e.g. top-side handling. For top-side-handling the repelling ultrasound forces are used in combination with attracting low-pressure forces. This technique enables an easy-to-use non-contact handling of parts, very much like the familiar top-side-gripping of parts. Additionally flexible parts can be flattened, kept in position and geometry by this technique without any contact to the handling tool. The substrates are centered by adjustable and movable side-stops.

#### Applications

- Loading and unloading of boats (glass-substrates)
- Loading and unloading of cleaned substrates
- Handling and aligning without any surface damages

#### Highlights

- No mechanical contact between handling-device and substrate
- Handling at processed/coated surfaces

#### Your benefits

The ultrasonic suspension technology offers a series of benefits compared to state-of-the-art solutions e.g. Bernoulli-Grippers:

- No surface contact
- No Damages
- More degrees of freedom in process and machine design
- Modular Design
- No air-supply/conditioning
- Lower energy consumption (up to -85%)

#### Products which can be combined

- Glas Conveyors

Glass Handling

Product Data

## Non-Contact Glass-Gripper

### Technical Data

Length	100 – 1600 mm
Width	100 – 650 mm
Electrical Equipment	<300 W, 230 / 110 V (AC)
Distance (Tool - Substrate)	50 – 250 µm
Interfaces Available	PROFIBUS, PROFINET, EtherCAT, Digital I/O
Low Pressure	Generated by internal side-channel-blower

# Substrates G1-G8

### Your Experts in Ultrapure Handling

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