

# Wafer-Gripper

## Wafer-Gripper SWG



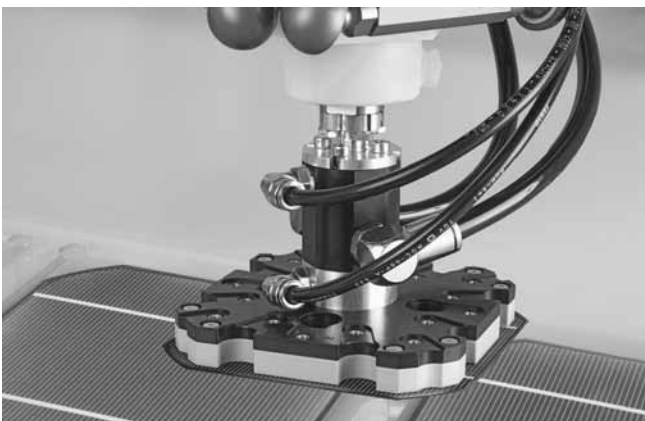
Wafer-Gripper SWG

### Our highlights...

- Large contact area between wafer and gripper with maximum holding force
- Moderate air consumption
- Low vacuum level
- High throughput vacuum generation
- Controlled air discharge
- Rapid venting of vacuum chamber
- Gripper surface optionally made of PEEK (Polyetheretherketone)
- Modular concept with various surface materials, sensors, and optional shock absorption elements

### Your advantages...

- > High speed, high accuracy handling for cycle times < 1 second
- > Less operating cost than Bernoulli grippers
- > Minimal torsional forces and minimal conchoidal fracture risk
- > Reliable gripping and handling even of deformed and broken wafers
- > No contamination of working range with silicon dust or fragments
- > Precise positioning and very short cycle times
- > Minimal surface contamination and reduction of blind spots
- > Optional breakage detection through backlit gripper surface



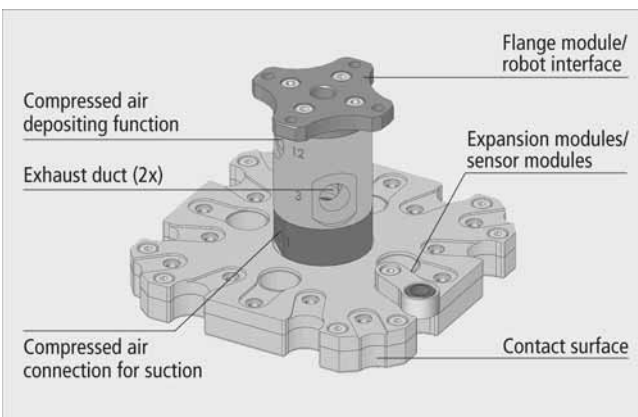
Wafer-Gripper for applications in the solar industry

### Applications

- Extremely fast, reliable, precise and gentle handling of silicon wafers and cells
- Loading and unloading of stacks and conveyor belts
- High accuracy positioning during and after the visual inspection process
- "In flight" check for broken wafers during handling
- Fully or partially automated production of silicon PV cells with maximum process stability, production line uptime, cell efficiency, and line output

### Construction

- Low weight plastic components
- Modular design of contact surface, vacuum generator, blowoff unit, robot interface, sensors and optional features
- Gripper sizes available for standard cell sizes 125 mm and 156 mm, semi square
- Various contact surfaces available
- Integrated pneumatic vacuum generation with high throughput and controlled air discharge



Modular design

# Wafer-Gripper

## Wafer-Gripper SWG



Suitability for branch-specific applications

### Order procedure Wafer-Gripper SWG

Short designation	Length x width [mm]	Performance class	Function	Gripper material
Example: SWG	115x115x78	E80	A	PEEK
SWG	115x115x78	E80	A = Blowoff unit	PEEK
	146x146x78			POM
				PMMA

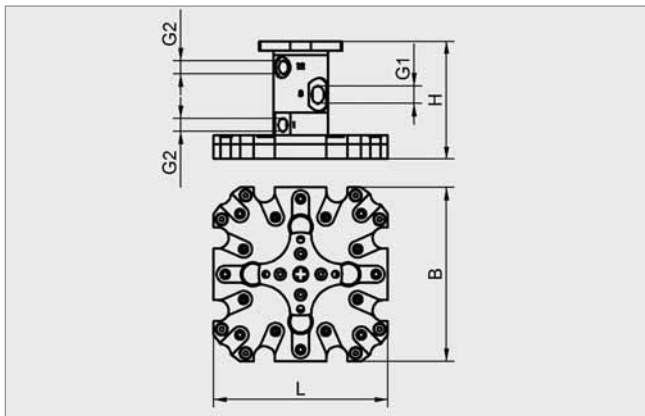
### Ordering data Wafer-Gripper SWG

Type	Article No.
SWG 115x115x78 E80 A PEEK	10.01.30.00001
SWG 115x115x78 E80 A POM	10.01.30.00002
SWG 115x115x78 E80 A PMMA	10.01.30.00003
SWG 146x146x78 E80 A PEEK	10.01.30.00007
SWG 146x146x78 E80 A POM	10.01.30.00008
SWG 146x146x78 E80 A PMMA	10.01.30.00009

### Ordering data accessories Wafer-Gripper SWG

Type	Article No.
FLAN-PL 55x9.5-AB1	10.01.30.00015
FLAN-PL 63x13.5-AD1	10.01.30.00016
FLAN-PL 63x10.5-UNI	10.01.30.00017
SAUG-MOD-SWG 30.85x14x51 FG12	10.01.30.00018
SAUG-MOD-SWG 30.85x14x44 FG7	10.01.30.00019
HTR-SWG-UNI M8x1	10.01.30.00020

### Design data Wafer-Gripper SWG



Wafer-Gripper SWG

Type	Dimensions [mm]		
	B	H	G1
SWG 115x115x78 E80 A PEEK	115	78	G1/4"-F
SWG 115x115x78 E80 A POM	115	78	G1/4"-F
SWG 115x115x78 E80 A PMMA	115	78	G1/4"-F
SWG 146x146x78 E80 A PEEK	146	78	G1/4"-F
SWG 146x146x78 E80 A POM	146	78	G1/4"-F
SWG 146x146x78 E80 A PMMA	146	78	G1/4"-F

Type	Dimensions [mm]		Weight [g]
	G2	L	
SWG 115x115x78 E80 A PEEK	G1/8"-F	115	320
SWG 115x115x78 E80 A POM	G1/8"-F	115	320
SWG 115x115x78 E80 A PMMA	G1/8"-F	115	320
SWG 146x146x78 E80 A PEEK	G1/8"-F	146	400
SWG 146x146x78 E80 A POM	G1/8"-F	146	400
SWG 146x146x78 E80 A PMMA	G1/8"-F	146	400