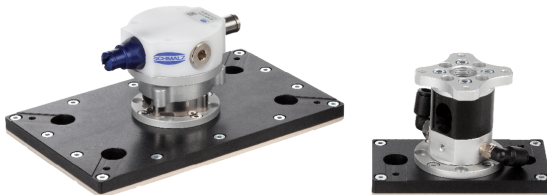
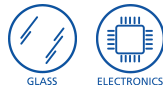
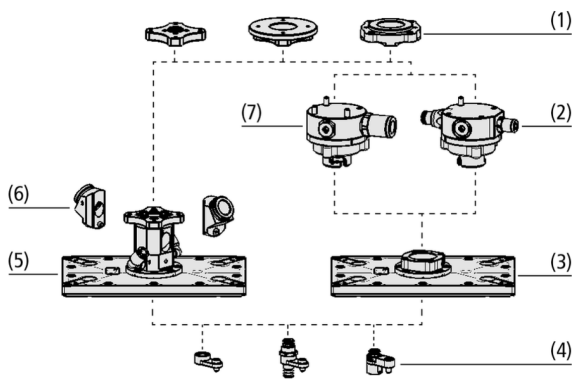


# Thin Glass Grippers STGG

Two suction areas 100 x 55 mm and 170 x 105 mm



Thin Glass Grippers STGG



System Design Thin Glass Grippers STGG



Thin glass gripper STGG when handling display glass

## Suitability for Industry Specific Applications

### Applications

- Special gripper for gentle handling of thinnest glass
- Use in the manufacturing of 0.1 mm thin display glass
- Extremely fast and gentle handling of sensitive workpieces in fully or semi-automated production of displays, e.g. TFT screens, smartphones or tablets
- Handling without contamination and thus no negative effect on subsequent processes such as coating

### Design

- Basic body (5) made of lightweight plastic and aluminum with integrated vacuum generation and blow off function
- Basic body (3) made of lightweight plastic and aluminum with integrated vacuum generator (2); alternatively for connection to an external vacuum generator (7)
- PEEK suction area in standard sizes 100 x 55 mm and 170 x 105 mm, custom made sizes available on request
- Modular design: optional mounting of sensors and modules for suction and damping (4); different robot flange modules (1) available
- Optional exhaust unit (6) for controlled discharge of exhaust air for clean room applications

### Product Highlights

- Suction area made of mark free PEEK material prevents contamination of the workpiece
- High suction capacity and large effective suction area for safe handling in dynamic processes
- Active blow off function enables fast and accurate placement
- Very gentle handling due to full-surface gripping with low vacuum level
- Efficient vacuum generation minimizes compressed air consumption and thus operating costs

# Thin Glass Grippers STGG

Two suction areas 100 x 55 mm and 170 x 105 mm

## Designation Code Thin Glass Grippers STGG

<b>STGG</b>	-	<b>S</b>	-	<b>100x55</b>	-	<b>1xE100</b>	-	<b>A</b>	-	<b>PEEK</b>
1		2		3		4		5		6

### 1 – Abbreviated designation

Code	Version
STGG	STGG

### 2 – Design

Code	Type
S	Lateral exhaust air

### 3 – Dimensions

Code	Dimensions in mm
100x55...170x105	100x55 and 170x105

### 4 – Vacuum generation

Code	Vacuum generation
1xE100	1xE100 integrated
QCMV HV 2 13	QCMV HV 2 13 integrated
QCM 51	QCM 51 external

### 5 – Blow off function

Code	Blow off function
A	Blow off function

### 6 – Material

Code	Material
PEEK	PEEK

Thin glass gripper STGG is delivered assembled.

Gripper available in various dimensions with integrated vacuum generation (1xE100 or QCMV) or with connection for external vacuum generation (QCM)

Available accessories: exhaust air set, holder system, suction / damping module, floating suction cup module, flange plate

## Ordering Data Thin Glass Grippers STGG

Type	Part no.
STGG S 100x55 1xE100 A PEEK	10.01.30.00469
STGG S 170x105 1xE100 A PEEK	10.01.30.00473
STGG 100x55 QCMV HV 2 13 PEEK	10.01.30.00517
STGG 170x105 QCMV HV 2 13 PEEK	10.01.30.00518
STGG 100x55 QCM 51 PEEK	10.01.30.00519
STGG 170x105 QCM PEEK	10.01.30.00520

## Ordering Data Accessories Thin Glass Grippers STGG

Type	Part no.	
Floating suction cup module	SBSm 14 90-3 4/2 0	10.01.01.12912
Floating suction cup module	SBSm 14 90-3 4/2 90	10.01.01.13171
Flange plate (round)	FLAN-PL 55x7.5-AB1	10.01.30.00015
Flange plate (round)	FLAN-PL 63x10.5-AD1	10.01.30.00016
Flange plate (round)	FLAN-PL 63x11.5-UNI	10.01.30.00017
Flange plate (round)	FLAN-PL 80x12-ST1	10.01.30.00167
Flange plate (round)	FLAN-PL 55x9.5-JP1	10.01.30.00194
Flange plate (round)	FLAN-PL 55x7.5-EL1	10.01.30.00208
Holder system	HTR-UNI SWGm	10.01.30.00117
Holder system	HTR M8x1-IG SWGm	10.01.30.00118
Holder system	HTR M12x1-IG SWGm	10.01.30.00119
Suction-/ Absorption module	SD-MOD 4 32x15x35 FG 9 SWGm	10.01.30.00121
Exhaust air set	ABL-SET 14 SWG/SCG	10.01.30.00059

## Thin Glass Grippers STGG

Two suction areas 100 x 55 mm and 170 x 105 mm

### Technical Data Thin Glass Grippers STGG

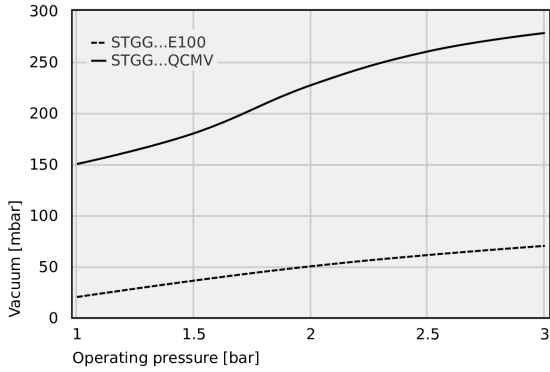
Type	Holding Force [N]	Suction rate [l/min]	Air consumption [l/min]	Pressure range (operating pressure) [bar]	Operating temperature [°C]	Weight [g]
STGG S 100x55 1xE100 A PEEK	4 ... 15 N	160 ... 235 l/min	60 ... 120 l/min	1.0 ... 3.0 bar	5 ... 60 °C	215
STGG S 170x105 1xE100 A PEEK	13 ... 45 N	160 ... 235 l/min	60 ... 120 l/min	1.0 ... 3.0 bar	5 ... 60 °C	360
STGG 100x55 QCMV HV 2 13 PEEK	30 ... 56 N	31 ... 38 l/min	18 ... 28 l/min	3.0 ... 5.0 bar	5 ... 60 °C	300
STGG 170x105 QCMV HV 2 13 PEEK	85 ... 160 N	31 ... 38 l/min	18 ... 28 l/min	3.0 ... 5.0 bar	5 ... 60 °C	450

Type	Flow rate max. [m³/h]	Operating temperature [°C]	Weight [g]
STGG 100x55 QCM 51 PEEK	20	5 ... 60 °C	325
STGG 170x105 QCM PEEK	20	5 ... 60 °C	475

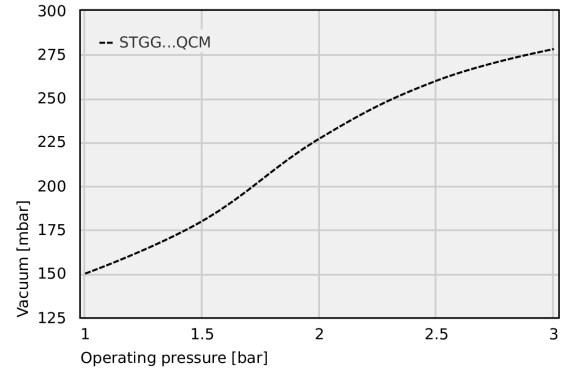
# Thin Glass Grippers STGG

Two suction areas 100 x 55 mm and 170 x 105 mm

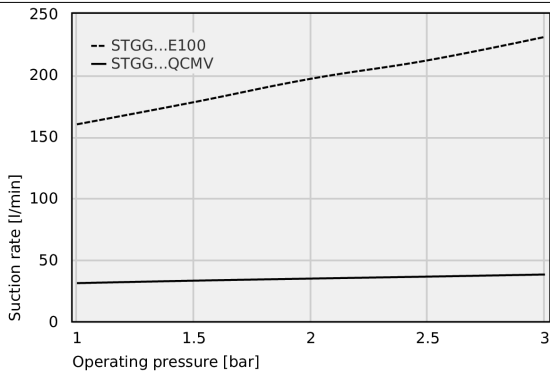
## Performance Data Thin Glass Grippers STGG



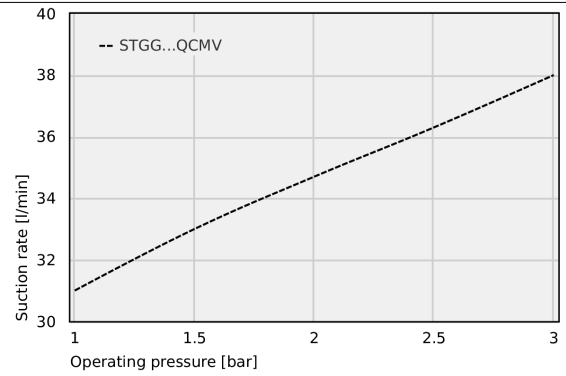
Achievable vacuum at various operating pressures



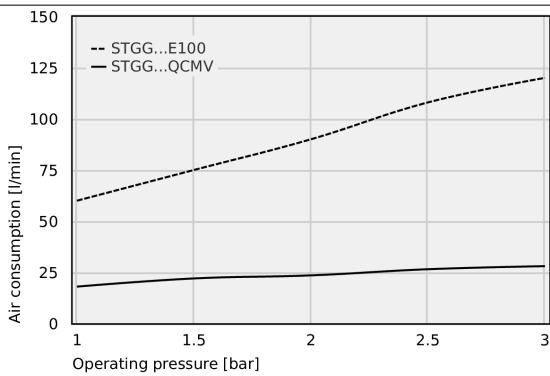
Achievable vacuum at various operating pressures



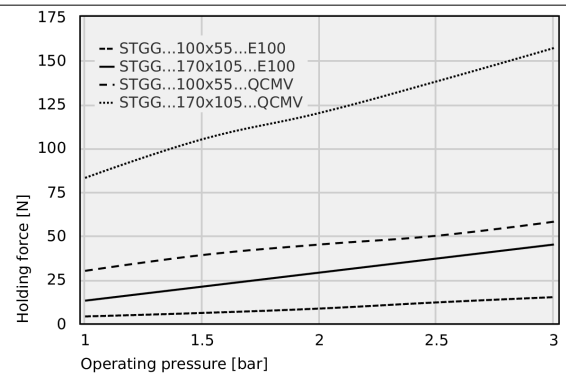
Suction capacity at various degrees of evacuation



Suction capacity at various degrees of evacuation



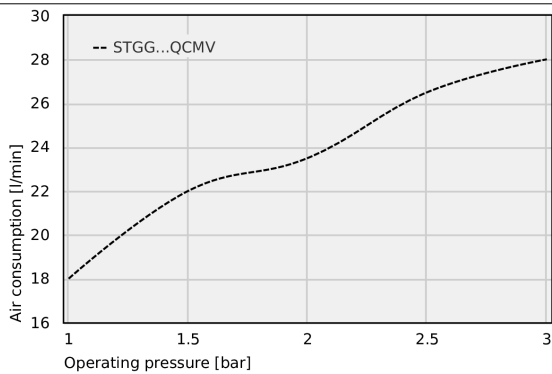
Air consumption



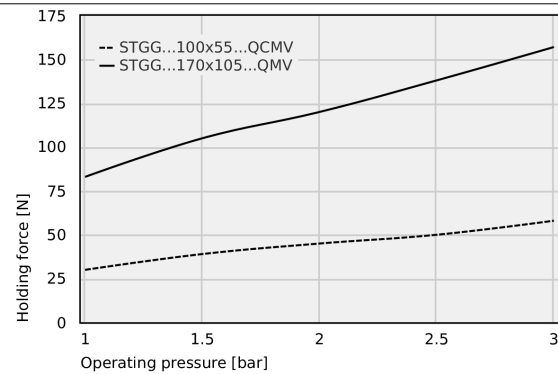
Holding force

# Thin Glass Grippers STGG

Two suction areas 100 x 55 mm and 170 x 105 mm



Air consumption



Holding force

## Achievable vacuum at various operating pressures

Typ	1	1.5	2	2.5	3
STGG...E100	20.00	36.00	50.00	61.00	70.00
STGG...QCMV	150.00	180	227	260	278

## Thin Glass Grippers STGG

Two suction areas 100 x 55 mm and 170 x 105 mm

Typ	1	1.5	2	2.5	3
STGG...QCM	150	180	227	260	278

### Suction capacity at various degrees of evacuation

Typ	1	1.5	2	2.5	3
STGG...E100	160.00	178.00	197.00	212.00	231.00
STGG...QCMV	31	33	34.7	36.3	38

Typ	1	1.5	2	2.5	3
STGG...QCMV	31	33	34.7	36.3	38

### Air consumption

Typ	1	1.5	2	2.5	3
STGG...E100	60.00	75.00	90.00	108.00	120.00
STGG...QCMV	18	22	23.5	26.5	28

Typ	1	1.5	2	2.5	3
STGG...QCMV	18	22	23.5	26.5	28

### Holding force

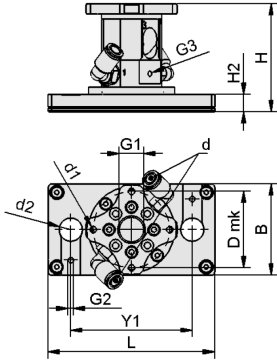
Typ	1	1.5	2	2.5	3
STGG...100x55...E100	4.00	6.00	8.50	12.00	15.00
STGG...170x105...E100	13.00	21.00	29.00	37.00	45.00
STGG...100x55...QCMV	30	39	45	50	58
STGG...170x105...QCMV	83	105	120	138	157

Typ	1	1.5	2	2.5	3
STGG...100x55...QCMV	30	39	45	50	58
STGG...170x105...QMV	83	105	120	138	157

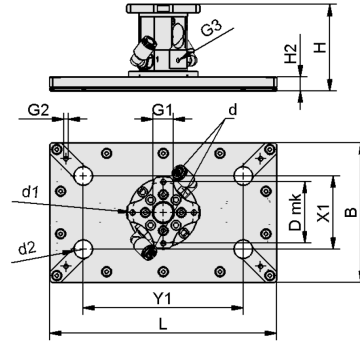
# Thin Glass Grippers STGG

Two suction areas 100 x 55 mm and 170 x 105 mm

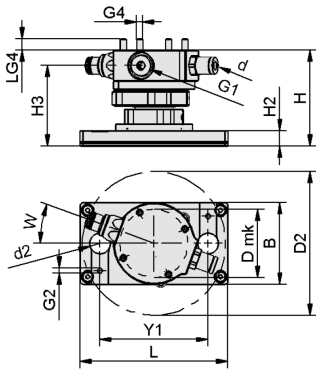
## Design Data Thin Glass Grippers STGG



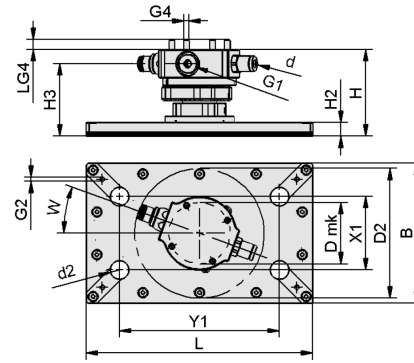
STGG S 100x55 1xE100 A



STGG S 170x105 1xE100 A



STGG 100x55 QCM / QCMV



STGG 170x105 QCM / QCMV

## Thin Glass Grippers STGG

Two suction areas 100 x 55 mm and 170 x 105 mm

### Design Data Thin Glass Grippers STGG

Type	B [mm]	d [mm]	d1 [mm]	d2 [mm]	D2 [mm]	Dmk [mm]	G1	G2	G3	G4	H [mm]	H2 [mm]	H3 [mm]	L [mm]	LG4 [mm]	W [mm]	X1 [mm]	Y1 [mm]
STGG S 100x55 1xE100 A PEEK	55	6	4	14	-	46	G3/8"-F	M4-F	M4-F	-	65	11	-	100	-	-	-	73
STGG S 170x105 1xE100 A PEEK	105	6	4	14	-	46	G3/8"-F	M4-F	M4-F	-	65	11	-	170	-	-	55	120
STGG 100x55 QCMV HV 2 13 PEEK	55	6	-	14	97	46	G1/8"-F	M4-F	-	M4-M	68	11	57	100	8	20	-	73
STGG 170x105 QCMV HV 2 13 PEEK	105	6	-	14	97	46	G1/8"-F	M4-F	-	M4-M	68	11	57	170	8	20	55	120
STGG 100x55 QCM 51 PEEK	55	12	-	14	112	46	G1/8"-F	M4-F	-	M4-M	68	11	57	100	8	20	-	73
STGG 170x105 QCM PEEK	105	12	-	14	112	46	G1/8"-F	M4-F	-	M4-M	68	11	57	170	8	20	55	120