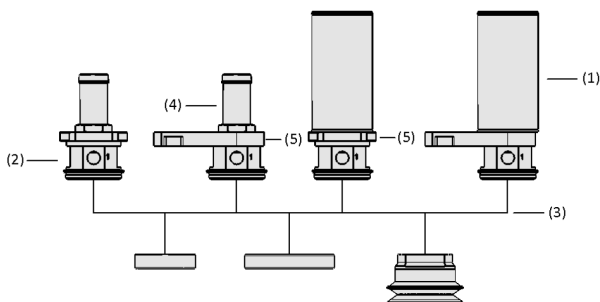


# Flow Grippers SCG

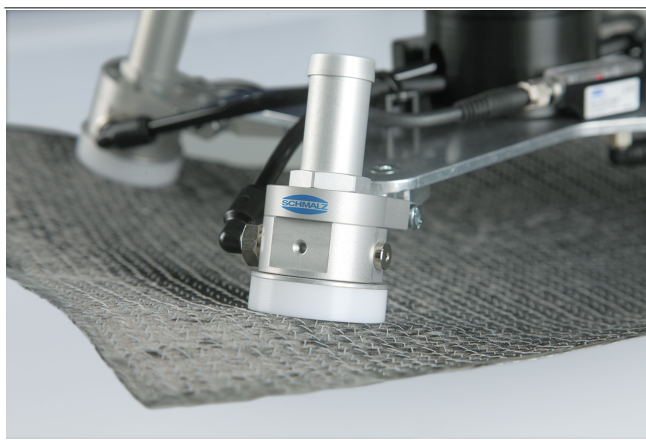
Suction rate from 270 l/min to 650 l/min



Flow Grippers SCG



System Design Flow Grippers SCG



Flow grippers SCG when handling composite textiles

## Suitability for Industry Specific Applications

### Applications

- Flow gripper for handling sensitive plastic parts, printed circuit boards, textiles and composite materials
- Handling circuit boards with openings or drillings; process-reliable handling even with low occupancy rate of the suction surface and with minimal surface pressure
- Contact element made of FDA compliant material allows direct, repeated contact with dry foods such as biscuits, cookies, cakes and waffles
- Handling of blank circuit boards

### Design

- Quick-change contact areas (3) with various diameters
- Anodized aluminum main body with integrated vacuum generation (2)
- Base model with capability for axial mounting (MA) or sideways mounting (MS) (5)
- Controlled exhaust air (4)
- Two compressed air connections for suction and blow off
- Silencer (1)

### Product Highlights

- High flexibility thanks to axial or lateral mounting of the gripper
- Ready-to-connect, compact gripping unit with integrated vacuum generation
- Very high volume flow enables safe gripping, even with porous materials
- Minimized air consumption reduces operating costs
- Controlled discharge of sucked air (optional) prevents contamination of the process area

# Flow Grippers SCG

Suction rate from 270 l/min to 650 l/min

## Designation Code Flow Grippers SCG



### 1 – Abbreviated designation

Code	Version
SCG	SCG

### 2 – Performance class of ejector

Code	Performance class of ejector
1xE100	1xE100

### 3 – Blow off function

Code	Blow off function
A	Blow off function

### 4 – Possibility for mounting

Code	Possibility for mounting
MA	Mounting axial
MS	Mounting sideways

### 5 – Product addition

Code	Type
AR	Exhaust duct axial
SDA	Silencer axial

### 3 – Suction cup connection

Code	Connection
M37x1-AG	M37x1-AG (AG = male (M))

Flow gripper SCG is supplied as an individual part (without suction area). In order to receive a complete gripper the following ordering steps are required:

- Flow gripper SCG – available for axial or sideways mounting
- Suction area of type SAUG-FL/SAUG-SCG – available in various dimensions

## Ordering Data Flow Grippers SCG

Type	Part no.
SCG 1xE100 A MA AR M37x1-AG	10.01.30.00092
SCG 1xE100 A MS AR M37x1-AG	10.01.30.00170
SCG 1xE100 A MA SDA M37x1-AG	10.01.30.00359
SCG 1xE100 A MS SDA M37x1-AG	10.01.30.00360

## Ordering Data Spare Parts Flow Grippers SCG

Type	Accessories	Part no.
SCG 1xE100 A MA SDA M37x1-AG	Silencer (round) SD G3/8-AG 40x80 SCG	10.01.30.00352
SCG 1xE100 A MS SDA M37x1-AG	Silencer (round) SD G3/8-AG 40x80 SCG	10.01.30.00352

# Flow Grippers SCG

Suction rate from 270 l/min to 650 l/min

## Ordering Data Accessories Flow Grippers SCG

Accessories		Part no.
Suction cup (round)	SAUG-SCG 20 SI-MD-55 602 B	10.01.30.01079
Suction cup (round)	SAUG-SCG 30 SI-MD-55 602 B	10.01.30.01080
Suction cup (round)	SAUG-SCG 40 SI-MD-55 602 B	10.01.30.01081
Suction cup (round)	SAUG-SCG 50 SI-MD-55 602 B	10.01.30.01082
Suction cup (round)	SAUG-SCG 20 NBR-ESD-55 602 B	10.01.30.01083
Suction cup (round)	SAUG-SCG 30 NBR-ESD-55 602 B	10.01.30.01084
Suction cup (round)	SAUG-SCG 40 NBR-ESD-55 602 B	10.01.30.01085
Suction cup (round)	SAUG-SCG 50 NBR-ESD-55 602 B	10.01.30.01086
Suction cup (round)	SAUG-SCG 20 SI-HD-65 602 B	10.01.30.01099
Suction cup (round)	SAUG-SCG 30 SI-HD-65 602 B	10.01.30.01100
Suction cup (round)	SAUG-SCG 40 SI-HD-65 602 B	10.01.30.01101
Suction cup (round)	SAUG-SCG 50 SI-HD-65 602 B	10.01.30.01102
Suction area	SAUG-FL SCG 40 POM	10.01.30.00030
Suction area	SAUG-FL SCG 60 POM	10.01.30.00031

Type	Accessories	Part no.
SCG 1xE100 A MA AR M37x1-AG	Silencer (round) SD G3/8-AG 40x80 SCG	10.01.30.00352
SCG 1xE100 A MS AR M37x1-AG	Silencer (round) SD G3/8-AG 40x80 SCG	10.01.30.00352

Accessories	Part no.
Plug union, elbow STV-W M5-AG 6	10.08.02.00296
Plug union, elbow STV-W G1/8-AG 6	10.08.02.00288
Vacuum hose (meter) VSL 26-19 PVC-DS KL-TR	10.07.09.00007

## Technical Data Flow Grippers SCG

Type*	Suction rate [l/min]	Air consumption [l/min]	Pressure range (operating pressure) [bar]**	Operating temperature [°C]	Hose diameter (recommended) [mm]	Recomm. internal hose diameter vacuum [mm]	Weight [g]
SCG 1xE100 A MA AR M37x1-AG	270 ... 650 l/min	60 ... 200 l/min	1.0 ... 5.0 bar	5 ... 75 °C	4	4	85
SCG 1xE100 A MS AR M37x1-AG	270 ... 650 l/min	60 ... 200 l/min	1.0 ... 5.0 bar	5 ... 75 °C	4	4	109
SCG 1xE100 A MA SDA M37x1-AG	270 ... 590 l/min	60 ... 200 l/min	1.0 ... 5.0 bar	5 ... 75 °C	4	4	164
SCG 1xE100 A MS SDA M37x1-AG	270 ... 590 l/min	60 ... 200 l/min	1.0 ... 5.0 bar	5 ... 75 °C	4	4	188

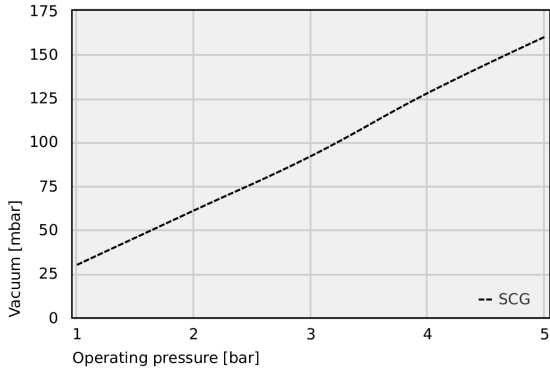
\*Using the silencer reduces the suction flow specified above by approx. 9 % and noise emissions by up to 12 dB(A).

\*\*The specified value can be equal for suction and blow off. Operating pressures below 1 bar are possible but have to be tested individually.

# Flow Grippers SCG

Suction rate from 270 l/min to 650 l/min

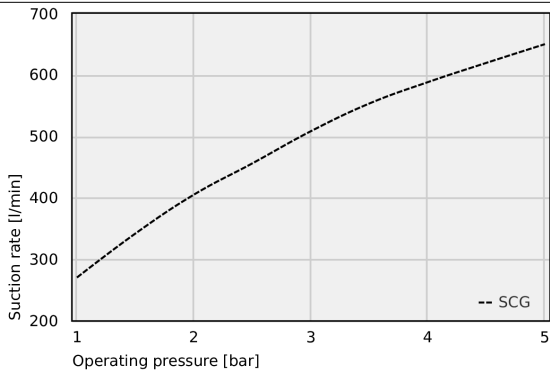
## Performance Data Flow Grippers SCG



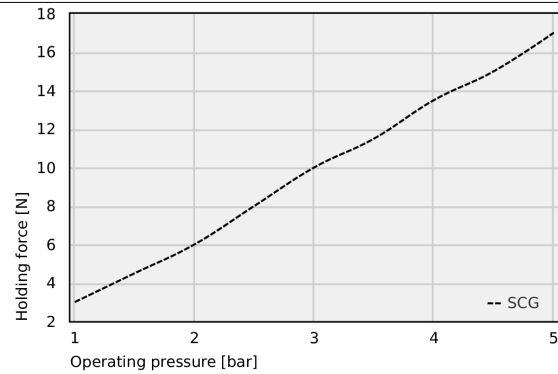
Achievable vacuum at various operating pressures



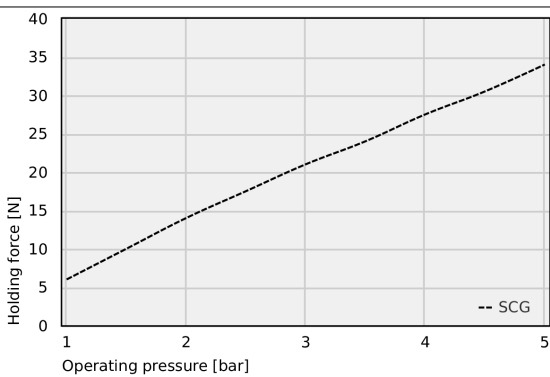
Air consumption



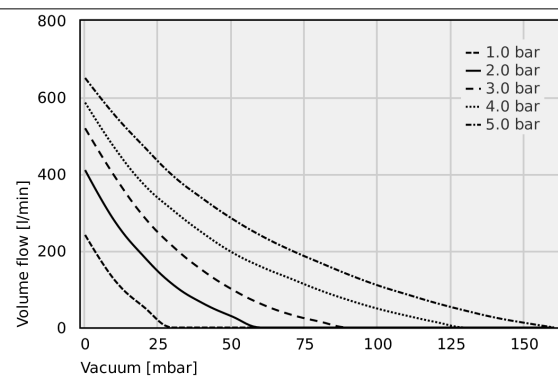
Suction rate at different operating pressures



Holding force with suction area 40 at various operating pressures (measured on a suction-tight workpiece)



Holding force with suction area 60 at various operating pressures (measured on a suction-tight workpiece)



Suction capacity at various degrees of evacuation

## Achievable vacuum at various operating pressures

Typ	1	2	3	4	5
SCG	30.0	61.0	92.0	128.0	160.0

## Flow Grippers SCG

Suction rate from 270 l/min to 650 l/min

### Air consumption

Typ	1	1.5	2	2.5	3	3.5	4	4.5	5
SCG	60.00	77.00	90.00	107.00	120.00	137.00	158.00	178.00	198.00

### Suction rate at different operating pressures

Typ	1	1.5	2	2.5	3	3.5	4	4.5	5
SCG	270.00	341.73	405.00	455.98	508.32	553.42	588.20	619.58	650.00

### Holding force with suction area 40 at various operating pressures (measured on a suction-tight workpiece)

Typ	1	1.5	2	2.5	3	3.5	4	4.5	5
SCG	3.00	4.50	6.00	8.00	10.00	11.50	13.50	15.00	17.00

### Holding force with suction area 60 at various operating pressures (measured on a suction-tight workpiece)

Typ	1	1.5	2	2.5	3	3.5	4	4.5	5
SCG	6.00	10.00	14.00	17.50	21.00	24.00	27.50	30.50	34.00

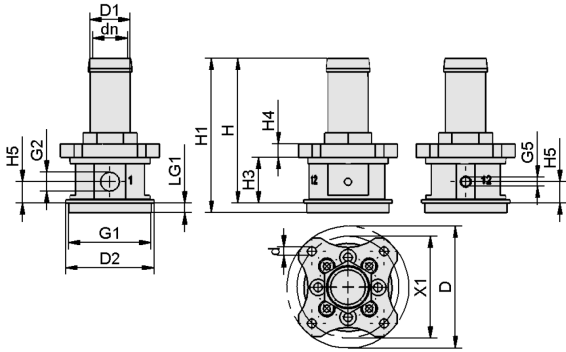
### Suction capacity at various degrees of evacuation

Typ	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160
1.0 bar	241.0	124.1	53.6	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-
2.0 bar	410.0	277.9	185.1	111.7	63.8	29.2	0.0	-	-	-	-	-	-	-	-	-	-
3.0 bar	519.0	394.6	289.0	210.8	149.2	99.9	61.5	34.0	15.4	0.0	-	-	-	-	-	-	-
4.0 bar	586.0	468.7	373.0	305.5	246.9	196.4	158.6	127.8	97.3	71.2	48.7	30.3	13.6	0.0	-	-	-
5.0 bar	650.0	554.1	472.0	395.2	336.5	284.2	239.5	202.1	169.3	137.6	109.4	85.8	63.2	43.5	25.7	12.1	0.0

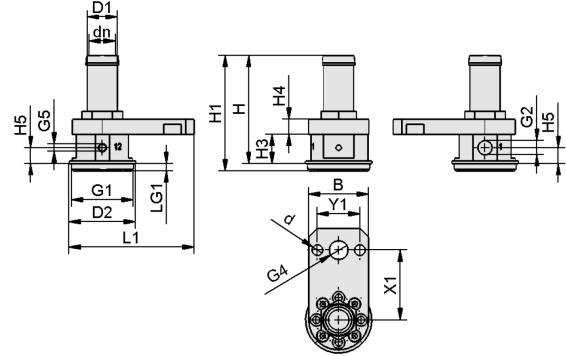
# Flow Grippers SCG

Suction rate from 270 l/min to 650 l/min

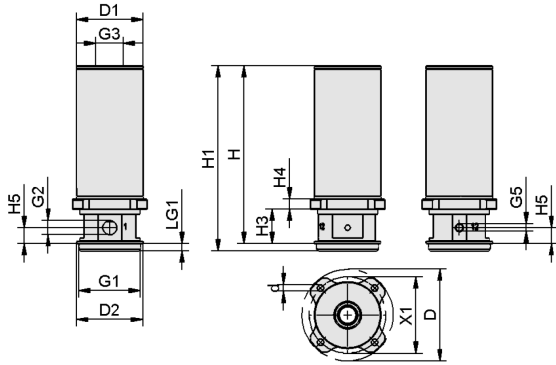
Design Data Flow Grippers SCG



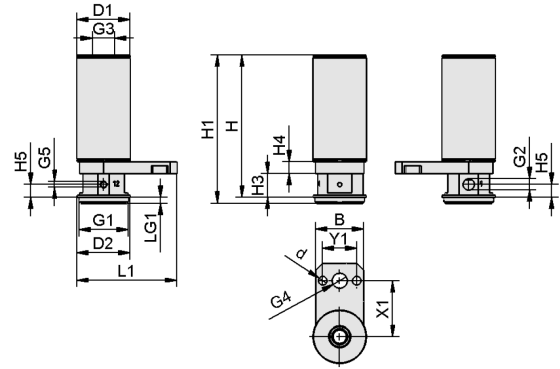
SCG A MA



SCG A M5



SCG A MA SDA



SCG A M5 SDA

## Flow Grippers SCG

Suction rate from 270 l/min to 650 l/min

### Design Data Flow Grippers SCG

Type	B [mm]	d [mm]	dn [mm]	D [mm]	D1 [mm]	D2 [mm]	G1	G2	G3	G4
SCG 1xE100 A MA AR M37x1- AG	-	4.0	12.5	55	18	39.8	M37x1-M	G1/8"-F	-	-
SCG 1xE100 A MS AR M37x1- AG	36	6.6	12.5	-	18	39.8	M37x1-M	G1/8"-F	-	G1/4"-F
SCG 1xE100 A MA SDA M37x1-AG	-	4.0	-	55	40	39.8	M37x1-M	G1/8"-F	G3/8"-F	-
SCG 1xE100 A MS SDA M37x1-AG	36	6.6	-	-	40	39.8	M37x1-M	G1/8"-F	G3/8"-F	G1/4"-F

Type	G5	H [mm]	H1 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L1 [mm]	LG1 [mm]	X1 [mm]	Y1 [mm]
SCG 1xE100 A MA AR M37x1- AG	M5-F	66	69.6	20.6	6	9.5	-	4.5	46	-
SCG 1xE100 A MS AR M37x1- AG	M5-F	66	69.6	17.6	9	9.5	74.9	4.5	42	25.5
SCG 1xE100 A MA SDA M37x1-AG	M5-F	107	111.1	20.6	6	9.6	-	4.5	46	-
SCG 1xE100 A MS SDA M37x1-AG	M5-F	107	111.1	17.6	9	9.6	74.9	4.5	42	25.5