



## **➤ Vacuum Components**

**SOMMER**  
*automatic*

# Combination possibilities

		Adapter with external thread	Adapter with external thread and intergrated vacuum generator	Adapter with external thread and spring-loaded compensation	Adapter with external thread, spring-loaded compensation and integr.vacuum generator	Adapter with external thread and workpiece identification	Adapter with external thread, workpiece identification and integr.vacuum generator	Adapter with internal thread	Adapter with internal thread and ball joint	Hand-held vacuum with integrated vacuum generator	For use with compact linear cylinder and integr. vacuum generator
➔	Mini-vacuum cups Page 8	Dimension [mm] Page 18	Page 22	Page 20	Page 21	Page 25	Page 24	Page 19	Page 26	Page 27	Page 28
	SM	1		VGS-M	FA	FAV				HS10	
	SM	2		VGS-M	FA	FAV				HS10	
	SM	3		VGS-M	FA	FAV				HS10	
	SM	4		VGS-M	FA	FAV				HS10	
	SM	5		VGS-M	FA	FAV				HS10	
	SM	6		VGS-M	FA	FAV				HS10	
	SM	8			FB	FBV					
	SM	10			FB	FBV					
	SM	12			FB	FBV					
	SM	15			FC	FCV					
	SM	18			FC	FCV					
	SM	20			FC	FCV					
	SM	25			FD	FDV					
	SM	30			FD	FDV					
	SM	35			FD	FDV					
➔	Vacuum cups Page 0	Dimension [mm]									
	SG	6		VGS-A							
	SG	8		VGS-A							
	SG	10		VGS-B							X
	SG	12		VGS-B							X
	SG	15		VGS-B							X
	SG	18		VGS-B							X
	SG	22		VGS-B							X
	SG	25		VGS-B							X
	SG	30		VGS-B							X
	SG	35		VGS-B							X
	SG	40		VGS-C							X
	SG	60		VGS-C							X
	SG	85		VGS-D							
	SG	130		VGS-D							
➔	Knobbed vacuum cups Page 10	Dimension [mm]									
	NS	10	SA1/8	SAV1/8	FC	FCV	SAM14X1	SAVM14X1	SI1/8		
	NS	15	SA1/8	SAV1/8	FC	FCV	SAM14X1	SAVM14X1	SI1/8		
	NS	18	SA1/8	SAV1/8	FC	FCV		SAVM14X1	SI1/8		
	NS	24	SA1/4	SAV1/4	FE	FEV	SAM16X1	SAVM16X1	SI1/4		
	NS	30	SA1/4	SAV1/4	FE	FEV	SAM16X1	SAVM16X1	SI1/4		
	NS	40	SA1/4	SAV1/4	FE	FEV	SAM16X1	SAVM16X1	SI1/4		
	NS	50	SA1/4	SAV1/4	FE	FEV	SAM16X1	SAVM16X1	SI1/4		
	NS	60	SA1/4	SAV1/4	FE	FEV	SAM16X1	SAVM16X1	SI1/4		
	NS	70	SA1/4	SAV1/4	FE	FEV	SAM16X1	SAVM16X1	SI1/4		
	NS	85	SA1/4	SAV1/4	FE	FEV	SAM16X1	SAVM16X1	SI1/4		
	NS	100	SA1/4	SAV1/4	FE	FEV	SAM16X1	SAVM16X1	SI1/4		
➔	Knobbed vacuum cups Page 11	Dimension [mm]									
	PNS..A	100	SA22	SAV22							
	PNS..A	125	SA22	SAV22							
	PNS..A	150	SA22	SAV22							
	KNS..A	100							SGA22		
	KNS..A	125							SGA22		
	KNS..A	150							SGA22		
➔	Bellows cups short stroke Page 12	Dimension [mm]									
	SFK	24	SA1/4	SAV1/4	FE	FEV			SI1/4		
	SFK	30	SA1/4	SAV1/4	FE	FEV			SI1/4		
	SFK	40	SA1/4	SAV1/4	FE	FEV			SI1/4		

# Combination possibilities

Adapter with external thread

Adapter with external thread and integrated vacuum generator

Adapter with external thread and spring-loaded compensation

Adapter with external thread, spring-loaded compensation and integr. vacuum generator

Adapter with external thread and workpiece identification

Adapter with external thread, workpiece identification and integr. vacuum generator

Adapter with internal thread

Adapter with internal thread and ball joint

Hand-held vacuum with integrated vacuum generator

For use with compact linear cylinder and integr. vacuum generator

Bellows Cups Page 13	Dimension [mm]	Page 18	Page 22	Page 20	Page 21	Page 25	Page 24	Page 19	Page 26	Page 27	Page 28
SF 10		SA1/8	SAV1/8	FC	FCV			SI1/8			
SF 15		SA1/8	SAV1/8	FC	FCV			SI1/8			
SF 18		SA1/8	SAV1/8	FC	FCV			SI1/8			
SF 24		SA1/4	SAV1/4	FE	FEV			SI1/4			
SF 30		SA1/4	SAV1/4	FE	FEV			SI1/4			
SF 40		SA1/4	SAV1/4	FE	FEV			SI1/4			
SF 60		SA1/4	SAV1/4	FE	FEV			SI1/4			
SF 85		SA1/4	SAV1/4	FE	FEV			SI1/4			

Torus vacuum cups Page 14	Dimension [mm]										
SR12/SK6		SA1/8	SAV1/8	FC	FCV			SI1/8			
SR12/SK9		SA1/8	SAV1/8	FC	FCV			SI1/8			
SR15/SK6		SA1/8	SAV1/8	FC	FCV			SI1/8			
SR15/SK9		SA1/8	SAV1/8	FC	FCV			SI1/8			
SR20/SK6		SA1/8	SAV1/8	FC	FCV			SI1/8			
SR20/SK9		SA1/8	SAV1/8	FC	FCV			SI1/8			
SR20/SK13		SA1/8	SAV1/8	FC	FCV			SI1/8			
SR25/SK11		SA1/4	SAV1/4	FE	FEV			SI1/4			
SR25/SK19		SA1/4	SAV1/4	FE	FEV			SI1/4			
SR30/SK11		SA1/4	SAV1/4	FE	FEV			SI1/4			
SR30/SK19		SA1/4	SAV1/4	FE	FEV			SI1/4			
SR35/SK11		SA1/4	SAV1/4	FE	FEV			SI1/4			
SR35/SK19		SA1/4	SAV1/4	FE	FEV			SI1/4			
SR35/SK25		SA1/4	SAV1/4	FE	FEV			SI1/4			
SR40/SK11		SA1/4	SAV1/4	FE	FEV			SI1/4			
SR40/SK19		SA1/4	SAV1/4	FE	FEV			SI1/4			
SR40/SK25		SA1/4	SAV1/4	FE	FEV			SI1/4			
SR50/SK11		SA1/4	SAV1/4	FE	FEV			SI1/4			
SR50/SK19		SA1/4	SAV1/4	FE	FEV			SI1/4			
SR50/SK25		SA1/4	SAV1/4	FE	FEV			SI1/4			

Oval vacuum cups Page 15	Dimension [mm]										
OV 3 x 10		SA1/8	SAV1/8	FC	FCV	SAM14X1	SAVM14X1	SI1/8			
OV 5 x 15		SA1/8	SAV1/8	FC	FCV	SAM14X1	SAVM14X1	SI1/8			
OV 6 x 18		SA1/8	SAV1/8	FC	FCV	SAM14X1	SAVM14X1	SI1/8			
OV 8 x 24		SA1/8	SAV1/8	FC	FCV	SAM14X1	SAVM14X1	SI1/8			
OV 10 x 30		SA1/8	SAV1/8	FC	FCV	SAM14X1	SAVM14X1	SI1/8			
OV 12 x 36		SA1/8	SAV1/8	FC	FCV	SAM14X1	SAVM14X1	SI1/8			
OV 15 x 45		SA1/4	SAV1/4	FE	FEV	SAM16X1	SAVM16X1	SI1/4			
OV 20 x 60		SA1/4	SAV1/4	FE	FEV	SAM16X1	SAVM16X1	SI1/4			
OV 25 x 75		SA1/4	SAV1/4	FE	FEV	SAM16X1	SAVM16X1	SI1/4			
OV 28 x 85		SA1/4	SAV1/4	FE	FEV	SAM16X1	SAVM16X1	SI1/4			
OV 35 x 100		SA1/4	SAV1/4	FE	FEV	SAM16X1	SAVM16X1	SI1/4			

Oval vacuum cups Page 16	Dimension [mm]										
POV..A 50 x 150		SA22	SAV22								
POV..A 60 x 180		SA22	SAV22								
POV..A 70 x 210		SA22	SAV22								
KOV..A 50 x 150									SGA22		
KOV..A 60 x 180									SGA22		
KOV..A 70 x 210									SGA22		

Oval vacuum cups Page 17	Dimension [mm]										
SFO 8 x 25		SA1/8	SAV1/8	FC	FCV			SI1/8			
SFO 15 x 45		SA1/4	SAV1/4	FE	FEV			SI1/4			
SFO 25 x 75		SA1/4	SAV1/4	FE	FEV			SI1/4			

# Vacuum-Components



## Mini vacuum cups SM/SG

### Range of application:

- flat and light arched surface

### Special features:

- possible to transfer high valve forces
- suction diameter from 1 mm

from Page 8



## Knobbed vacuum cups NS/PNS

### Range of application:

- flat and unstable surfaces

### Special features:

- knobs prevent to suck away thin material
- high stability

from Page 10



## Bellows cups SFK/SF

### Range of application:

- light arched, bevel and uneven surfaces

### Special features:

- compensates differences in height
- the suction process creates a lifting effect

from Page 12



## Torus vacuum cups SR/SK

### Range of application:

- flat, light arched and not closed surfaces

### Special features:

- rubber core allowed picking up parts with holes

from Page 14



## Oval vacuum cups OV/POV/KOV

### Range of application:

- long, narrow and light arched surfaces

### Special features:

- depending on type, metal base plate
- flexibel seal lips

from Page 15



### Oval bellow vacuum cups SFO

**Range of application:**

- long, narrow and light uneven surfaces

**Special features:**

- compensates differences in height
- the suction process creates a lifting effect

from Page 17



### Adapter

**Range of application:**

- connection between suction cup and adapter

**Special features:**

- depending on type with integrated pin for workpiece identification available
- depending on type with vacuum generator available

from Page 18



### Hand-held vacuum

**Range of application:**

- handling of very small parts with flat and light arched surfaces

**Special features:**

- integrated vacuum generator, vacuum can be applied or removed by hand
- possible to combine with suction cup of the SM series

from Page 27



### Compact linear cylinder

**Range of application:**

- load and unload of workpieces

**Special features:**

- integrated vacuum generator, vacuum can be applied or removed by hand
- possible to combine with suction cup of the SG series

from Page 28



### Vacuum generator

**Range of application:**

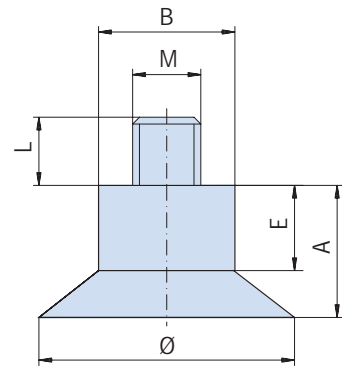
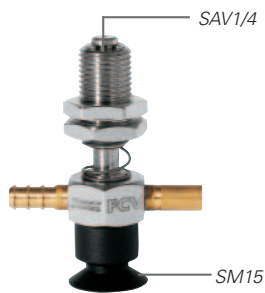
- vacuum generation

**Special features:**

- compact design

from Page 29

# Mini-Vacuum Cups **SM**



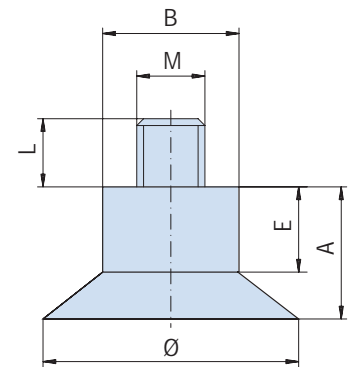
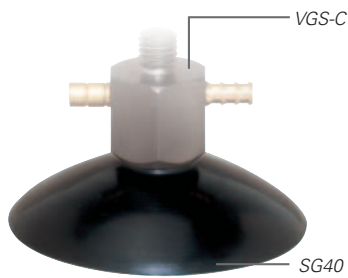
Order no.:	SM1	SM2	SM3	SM4	SM5	SM6	SM8	SM10
Vacuum force [N]:	0,05	0,19	0,42	0,75	1,18	1,70	3,01	4,71
Dimension Ø [mm]:	1	2	3	4	5	6	8	10
Dimension A [mm]:	6	6	6	6	6	6	10	10
Dimension B [mm]:	3	3	3	3	3	3	10	10
Dimension E [mm]:	4	4	4	4	4	4	4	5
Dimension L [mm]:	4	4	4	4	4	4	4	4
Dimension M [mm]:	M4	M4	M4	M4	M4	M4	-	-

Order no.:	SM12	SM15	SM18	SM20	SM25	SM30	SM35
Vacuum force [N]:	6,78	10,60	15,20	22,80	29,40	42,40	57,70
Dimension Ø [mm]:	12	15	18	20	25	30	35
Dimension A [mm]:	10	12,5	12,5	12,5	16	16	16
Dimension B [mm]:	10	12	12	12	16	16	16
Dimension E [mm]:	5	10	10	9	12	10	8
Dimension L [mm]:	4	4	4	4	6	6	6
Dimension M [mm]:	-	-	-	-	-	-	-

All data measured at 0.6 bar vacuum.

Design	Material	Color	Heat-resistant	Durometer	Extra charge	Add to part # when ordering
Standard	NBR	black	-20°C bis + 110°C.	65 ±3	no	-
Heat-resistant	Silicon	blue	-55°C bis + 200°C	60 ±5	no	SI (e. g. SM10SI)
Food-handling	Silicon tempered	white	-55°C bis + 180°C	60 ±5	yes	L (e. g. SM10L)

# Vacuum Cups **SG**



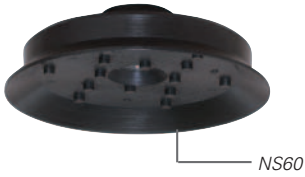
Order no.:	SG6	SG8	SG10	SG12	SG15	SG18	SG22
Vacuum force [N]:	1,70	3,01	4,71	6,78	10,60	15,20	22,80
Dimension Ø [mm]:	6	8	10	12	15	18	22
Dimension A [mm]:	8	8	8	9	10	10	11
Dimension B [mm]:	5	5	8	8	8	8	8
Dimension E [mm]:	7	7	7	7	6	6	6
Dimension L [mm]:	4	4	4	4	4	4	4
Dimension M [mm]:	M4	M4	M5	M5	M5	M5	M5

Order no.:	SG25	SG30	SG35	SG40	SG60	SG85	SG130
Vacuum force [N]:	29,40	42,40	57,70	75,40	170	340	769
Dimension Ø [mm]:	25	30	35	40	60	85	130
Dimension A [mm]:	11	12	12	14	16	36	42
Dimension B [mm]:	8	8	8	15	15	25	25
Dimension E [mm]:	6	6	6	4	4	12	12
Dimension L [mm]:	6	6	6	10	10	10	10
Dimension M [mm]:	M5	M5	M5	M8	M8	M12	M12

All data measured at 0.6 bar vacuum.

Design	Material	Color	Heat-resistant	Durometer	Extra charge	Add to part # when ordering
Standard	NBR	schwarz	-20°C bis + 110°C	65 ±3	no	-
Heat-resistant	Silikon	blue	-55°C bis + 200°C	60 ±5	no	SI (e. g. SG10SI)
Food-handling	Silicon tempered	white	-55°C bis + 180°C	60 ±5	yes	L (e. g. SG10L)

# Knopped Vacuum Cups **NS**



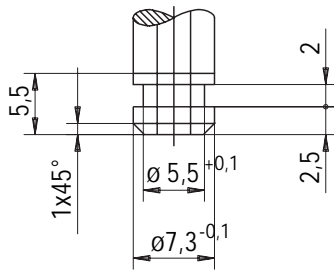
NS60

Order no.:	NS10	NS15	NS18	NS24	NS30	NS40	NS50	NS60	NS70	NS85	NS100
Vacuum force [N]:	4,7	10,6	15,2	27,1	42,4	75,4	118	170	230	340	471
Dimension Ø [mm]:	10	15	18	24	30	40	50	60	70	85	100
Height [mm]:	12	12	12	22	22	22	22	22	22	22	22

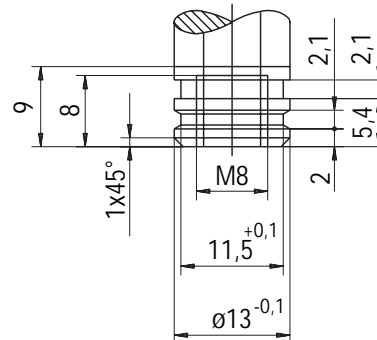
All data measured at 0.6 bar vacuum.

Design	Material	Color	Heat-resistant	Durometer	Extra charge	Add to part # when ordering
Standard	NBR	black	-20°C bis + 110°C	65 ±3	no	-
Heat-resistant	Silicon	blue	-55°C bis + 200°C	60 ±5	no	SI (e.g. SM10SI)
Food-handling	Silicon tempered	white	-55°C bis + 180°C C	60 ±5	yes	L (e.g. SM10L)

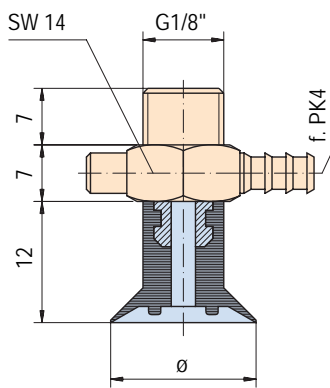
## Plug-in-connection for vacuum cups



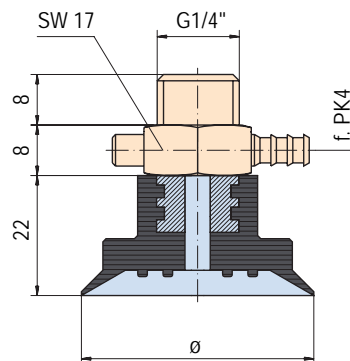
NS10 up to NS18



NS24 up to NS100



SAV1/8



SAV1/4

Subject to change without prior notice



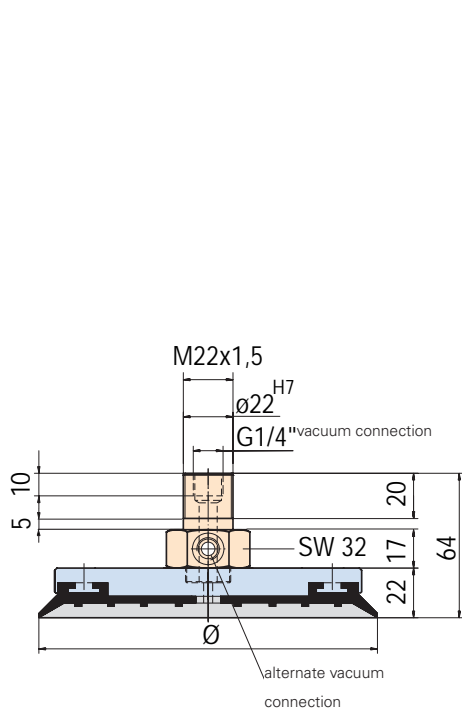
# Knopped Vacuum Cups **PNS/KNS**



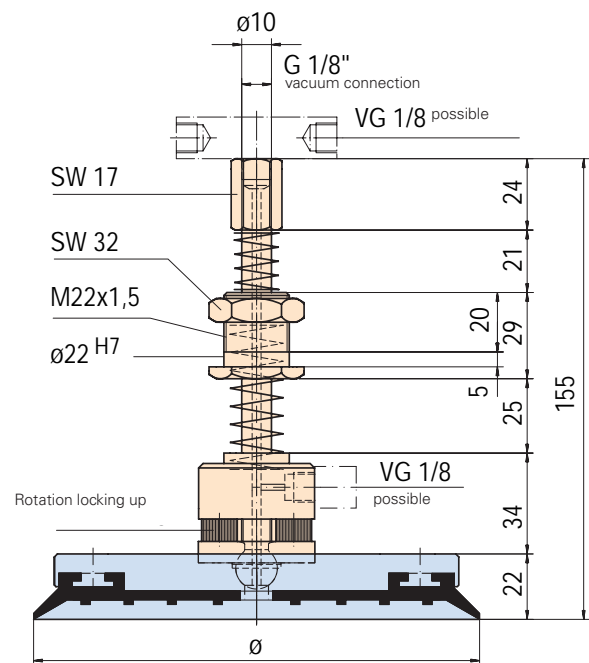
Order no.:	PNS100A	PNS125A	PNS150A	KNS100A	KNS125A	KNS150A
Vacuum force [N]:	471	735	1055	471	735	1055
Dimension Ø [mm]:	100	125	150	100	125	150

All data measured at 0,6 bar Vacuum.

Design	Material	Color	Heat-resistant	Durometer	Extra charge	Add to part # when ordering
Standard	NBR	black	-20°C bis + 110°C.	65 ±3	no	-
Heat-resistant	Silicon	blue	-55°C bis + 200°C	60 ±5	no	SI (e. g. SM10SI)
Food-handling	Silicon	white	-55°C bis + 180°C	60 ±5	yes	L (e. g. SM10L)
	tempered					



SA22 + PNS



SGA22 + KNS

Subject to change without prior notice

# Bellows Cups **SFK**

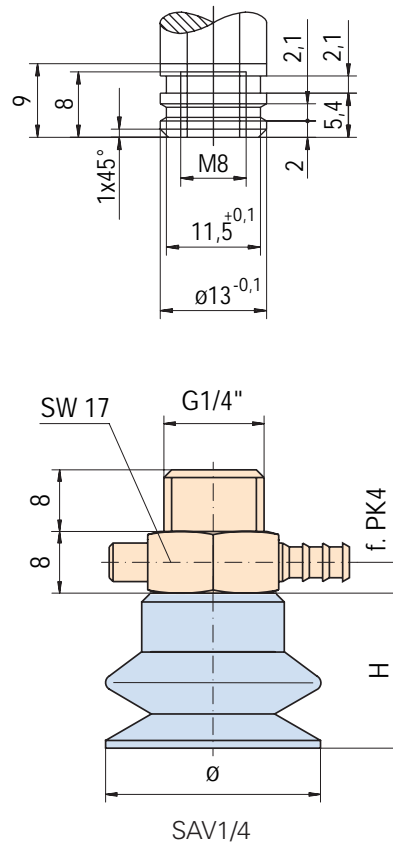


Order no:	SFK24	SFK30	SFK40
Vacuum force [N]:	27,10	42,40	75,40
Lifting force at 0,8 bar vacuum [N]:	9,8	13,2	25,1
Dimension Ø [mm]:	24	30	40
Dimension H max. [mm]:	19	22	27
Dimension H min. [mm]:	13	15	20

All data measured at 0,6 bar vacuum

Design	Material	Color	Heat-resistant	Durometer	Extra charge	Add to part # when ordering
Standard	NBR	black	-20°C bis + 110°C	65 ±3	no	-
Heat-resistant	Silicon	blue	-55°C bis + 200°C	60 ±5	no	SI (e. g. SFK24SI)
Food-handling	Silicon tempered	white	-55°C bis + 180°C	60 ±5	yes	L (e. g. SFK24L)

Plug-in-connection for vacuum cups



Subject to change without prior notice

# Bellows Cups **SF**

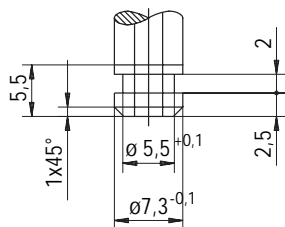


Order no.:	SF10	SF15	SF18	SF24	SF30	SF40	SF60	SF85
Vacuum force [N]:	4,7	10,6	15,2	27,1	42,2	75,4	170	340
Lifting force at 0,8 bar vacuum [N]:	2,56	4,0	6,3	9,8	13,2	25,1	54,7	90,7
Dimension Ø [mm]:	10	15	18	24	30	40	60	85
Dimension H max. [mm]:	14	16	18	26	34	45	55	80
Dimension H min. [mm]:	10	10	10	18	22	27	35	50

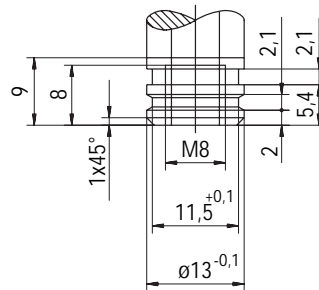
All data measured at 0,6 bar vacuum

Design	Material	Color	Heat-resistant	Durometer	Extra charge	Add to part # when ordering
Standard	NBR	black	-20°C bis + 110°C	65 ±3	no	-
Heat-resistant	Silicon	blue	-55°C bis + 200°C	60 ±5	no	SI (e. g. SG10SI)
Food-handling	Silicon tempered	white	-55°C bis + 180°C	60 ±5	yes	L (e. g. SG10L)

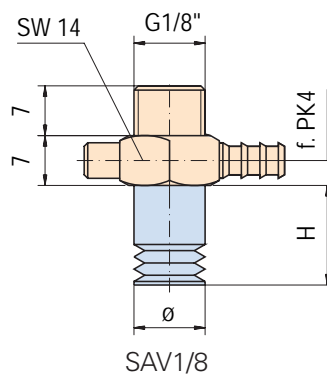
Plug-in-connection for vacuum cups



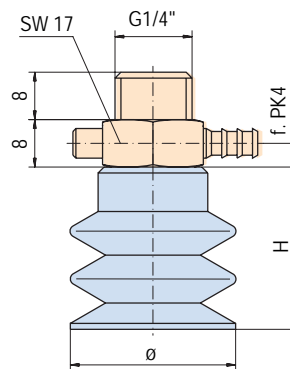
SF10 up to SF18



SF24 up to SF85



SAV1/8



SAV1/4

Subject to change without prior notice

# Torus Vacuum Cups **SR/SK**



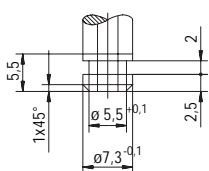
Order no.:	SR12 + SK6	SR12 + SK9	SR15 + SK6	SR15 + SK9	SR20 + SK6	SR20 + SK9	SR20 + SK13	SR25 + SK11	SR25 + SK19	SR30 + SK11
Vacuum force [N]:	5	3	9	7	17	15	11	23.5	12	36
Dimension outer-Ø [mm]:	12	12	15	15	20	20	20	25	25	30
Dimension inner-Ø [mm]:	6	9	6	9	6	9	13	11	19	11
Height [mm]:	15	15	15	15	15	15	15	22	22	22

Order no.:	SR30 + SK19	SR35 + SK11	SR35 + SK19	SR35 + SK25	SR40 + SK11	SR40 + SK19	SR40 + SK25	SR50 + SK11	SR50 + SK19	SR50 + SK25
Vacuum force [N]:	25	52	40	28	69	58	46	110	100	88
Dimension outer-Ø [mm]:	30	35	35	35	40	40	40	50	50	50
Dimension inner-Ø [mm]:	19	11	19	25	11	19	25	11	19	25
Height [mm]:	22	22	22	22	22	22	22	22	22	22

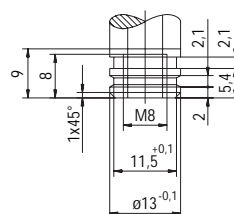
All data measured at 0.6 bar vacuum

Design	Material	Color	Heat-resistant	Durometer	Extra charge	Add to part # when ordering
Standard	NBR	black	-20°C bis + 110°C	65 ±3	no	-
Heat-resistant	Silicon	blue	-55°C bis + 200°C	60 ±5	no	SI (e.g. SR12SI)
Food-handling	Silicon tempered	white	-55°C bis + 180°C	60 ±5	yes	L (e.g. SR12L)

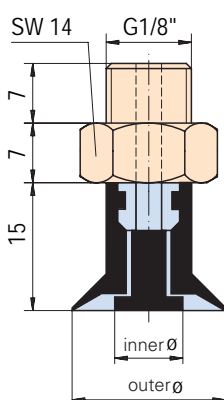
## Plug-in-connection for vacuum cups



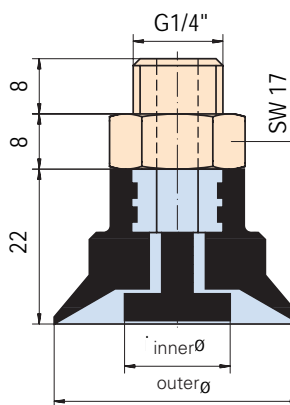
SR12 up to SR20



SR25 up to SR50



SA1/8



SAV1/4

Subject to change without prior notice

# Torus Vacuum Cups **OV**

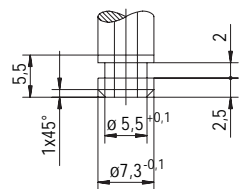


Order no	OV3-10	OV5-15	OV6-18	OV8-24	OV10-30	OV12-36	OV15-45	OV20-60	OV25-75	OV28-85	OV35-100
Vacuum force [N]:	1,5	4,1	6	10,7	16,7	24	37,6	66,8	104,4	132,7	194
Dimension Ø [mm]:	3/10	5/15	6/18	8/24	10/30	12/36	15/45	20/60	25/75	28/85	35/100
Height [mm]:	12	12	12	12	12	12	21	21	21	21	21

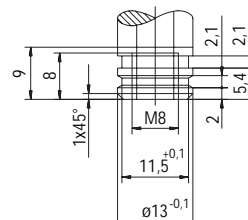
All data measured at 0.6 bar vacuum

Design	Material	Color	Heat-resistant	Durometer	Extra charge	Add to part # when ordering
Standard	NBR	black	-20°C bis + 110°C	65 ±3	no	-
Heat-resistant	Silicon	blue	-55°C bis + 200°C	60 ±5	no	SI (e. g. OV3-10SI)
Food-handling	Silicon	white tempered	-55°C bis + 180°C	60 ±5	yes	L (e. g. OV3-10L)

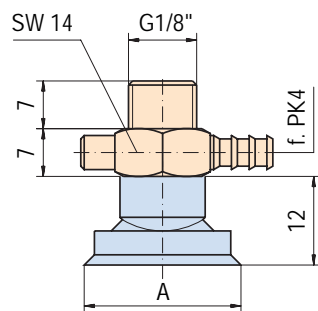
## Plug-in-connection for vacuum cups



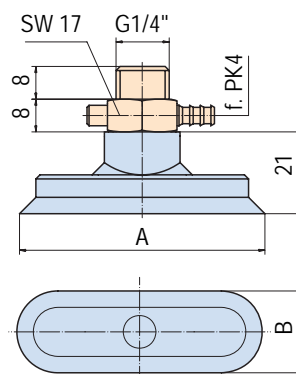
OV3-10 up to OV12-36



OV15-45 up to OV35-100



SAV1/8



SAV1/4

Subject to change without prior notice

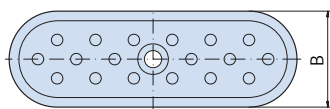
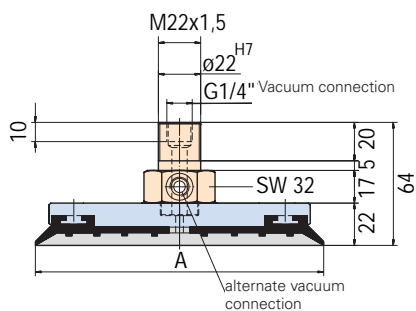
# Torus Vacuum Cups **POV**



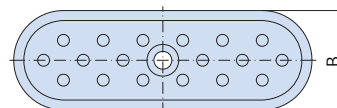
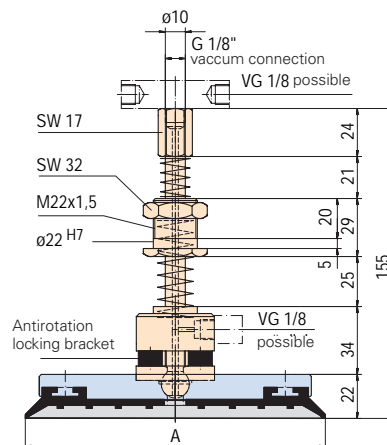
Order no.:	POV 50-150A	POV 60-180A	POV 70-210A	KOV 50-150A	KOV 60-180A	KOV 70-210A
Vacuum force [N]:	415	600	815	415	600	815
Dimension Ø [mm]:	50/150	60/180	70/210	50/150	60/180	70/210
Dimension A [mm]:	150	180	210	150	180	210
Dimension B [mm]:	50	60	70	50	60	70

All data measured at 0.6 bar vacuum

Design	Material	Color	Heat-resistant	Durometer	Extra charge	Add to part # when ordering
Standard	NBR	black	-20°C bis + 110°C	65 ±3	no	-
Heat-resistant	Silicon	blue	-55°C bis + 200°C	60 ±5	no	SI (e. g. POV50-150ASI)
Food-handling	Silicon tempered	white	-55°C bis + 180°C	60 ±5	yes	L (e. g. POV50-150AL)



SA22 + POV



SGA22 + KOV

Subject to change without prior notice

# Torus Vacuum Cups **SFO**

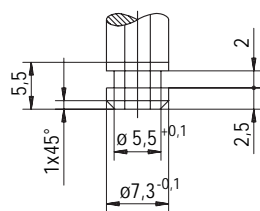


Order no.	SFO 8-25	SFO 15-45	SFO 25-75
Vacuum force [N]:	11	37,6	104
Lifting force at 0,8 bar vacuum [N]:	2,56	4,0	6,3
Dimension [mm]:	8/24	15/45	25/75
Dimension A [mm]:	25	45	75
Dimension B [mm]:	8	15	25
Dimension H max. [mm]:	18,5	28,5	34,5
Dimension H min. [mm]:	14	18	22

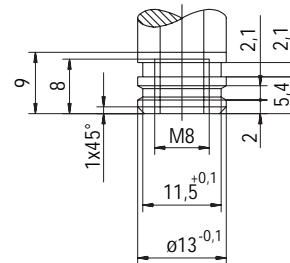
All data measured at 0.6 bar vacuum

Design	Material	Color	Heat-resistant	Durometer	Extra charge	Add to part # when ordering
Standard	NBR	black	-20°C bis + 110°C	65 ±3	no	-
Heat-resistant	Silicon	blue	-55°C bis + 200°C	60 ±5	no	SI (e. g. SFO8-25SI)
Food-handling	Silicon tempered	white	-55°C bis + 180°C	60 ±5	yes	L (e. g. SFO8-25L)

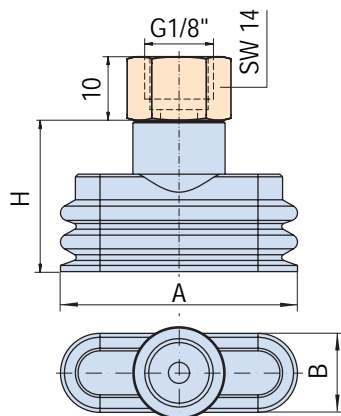
Plug-in-connection for vacuum cups



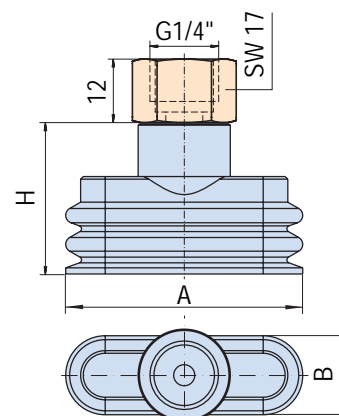
SF08-25



SF015/45 and SF25-75



SI1/8



SI1/4

Subject to change without prior notice

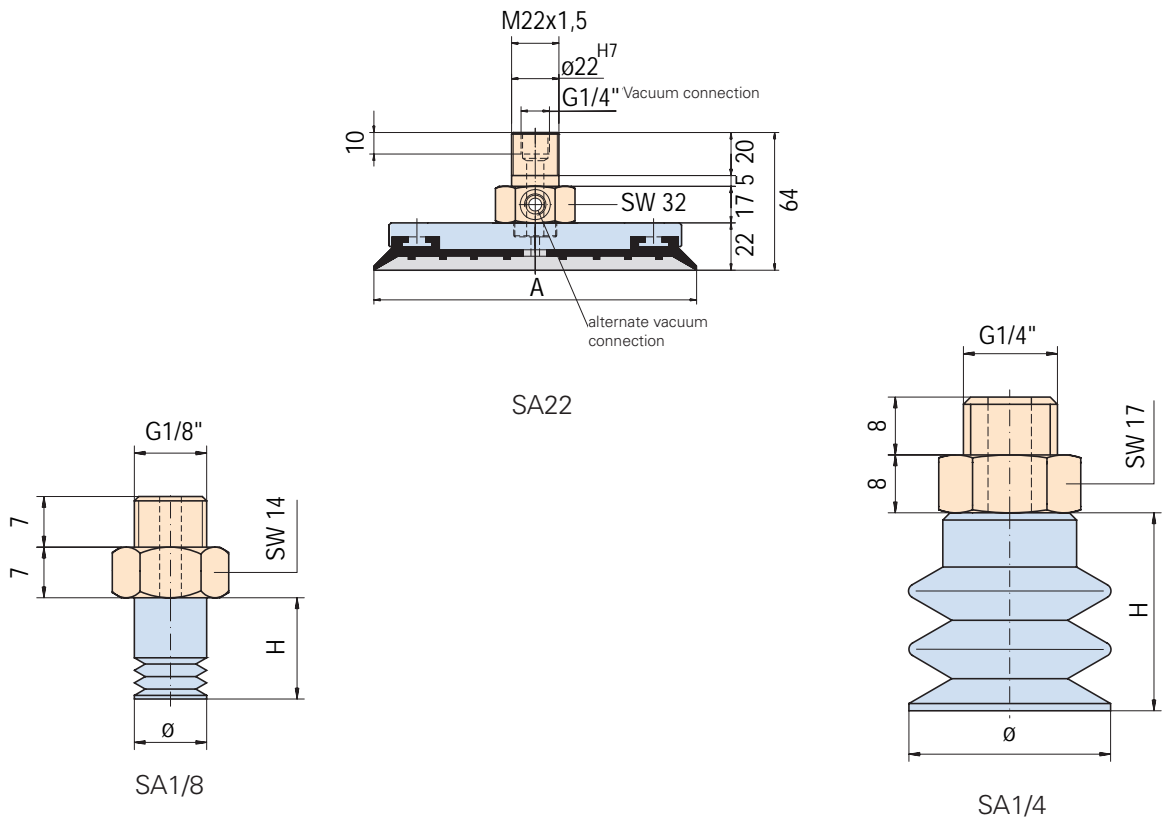
# Adapter SA



## Special features:

- external thread
- vacuum connection

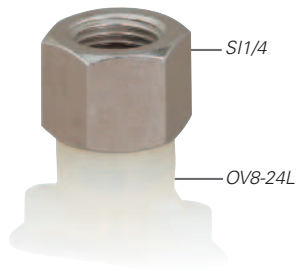
Order no.:	SA1/4	SA1/8	SA22
Fixing thread:	1/4"	1/8"	M22x1.5



Subject to change without prior notice



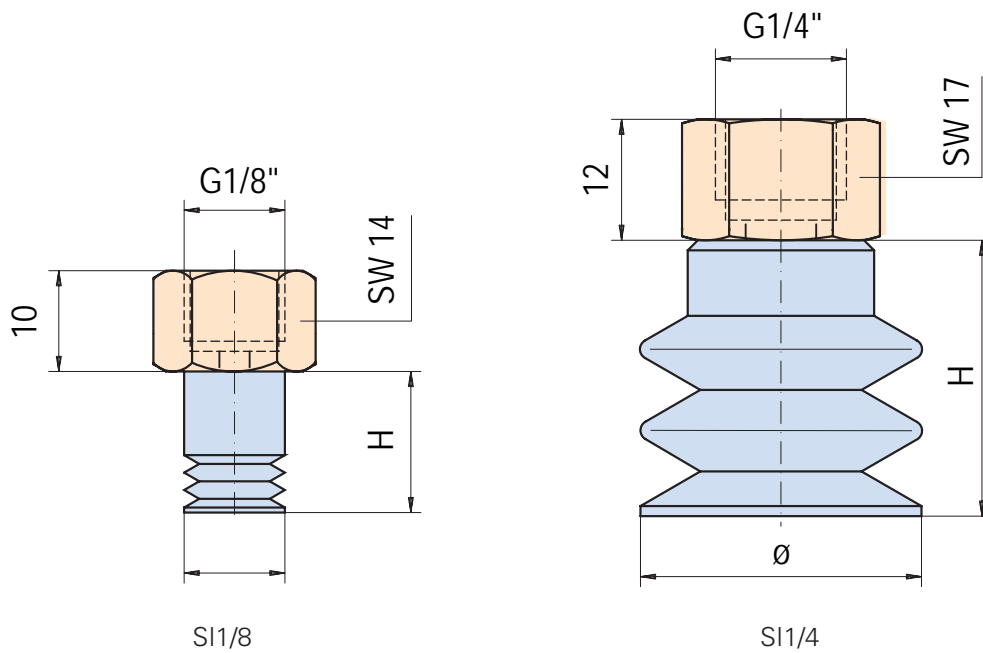
# Adapter SI



**Special features:**

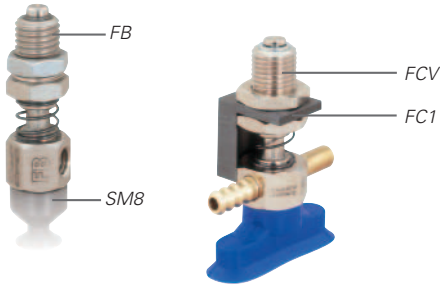
- external thread
- vacuum connection

<b>Order no.:</b>	<b>SI1/8</b>	<b>SI1/4</b>
Fixing thread:	1/8"	1/4"



Subject to change without prior notice

# Adapter F



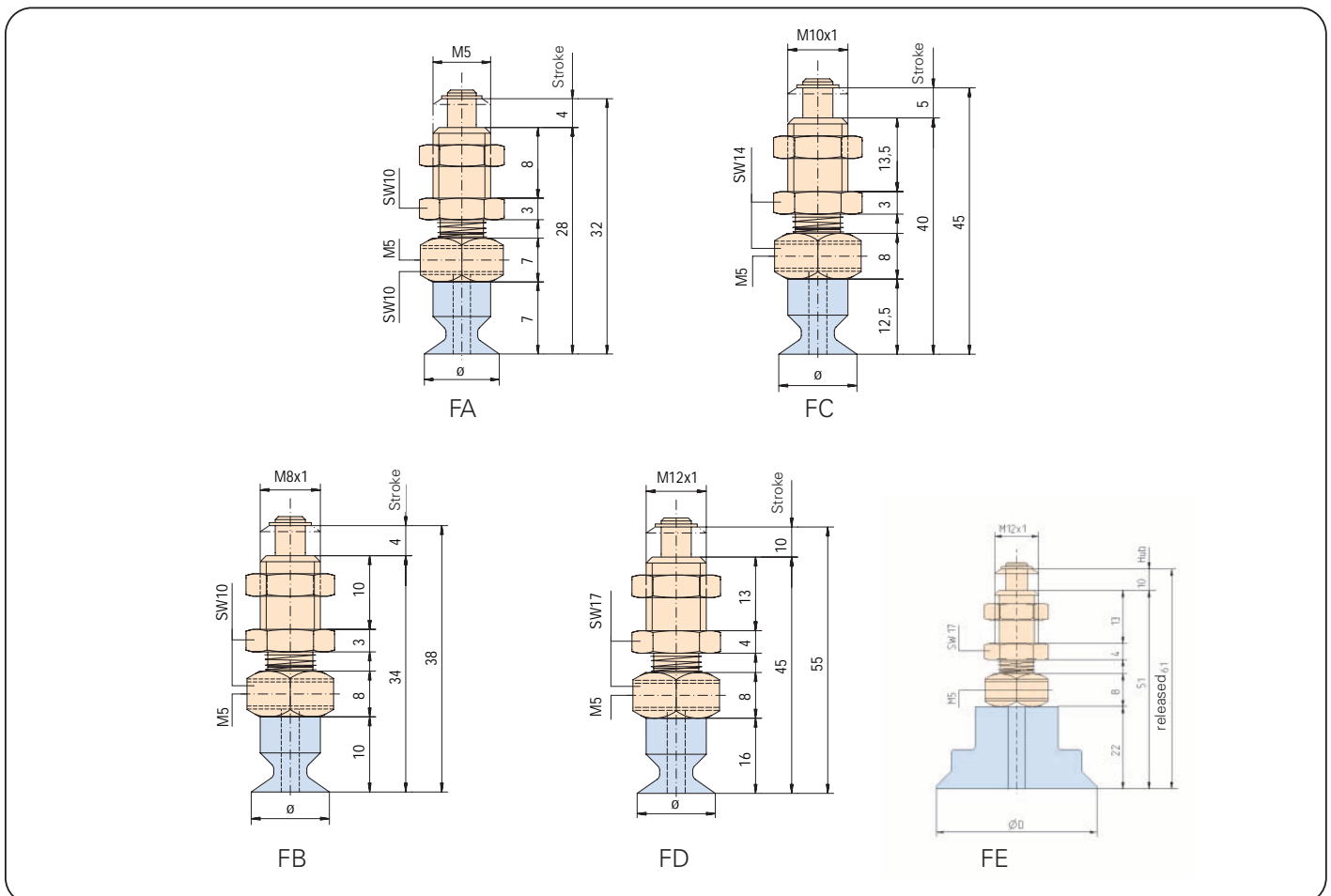
### Special features:

- external thread
- spring loaded
- vacuum connection
- antirotation locking bracket available

Order no.:	FA	FB	FC	FD	FE
Fixing thread:	M5	M8x1	M10x1	M12x1	M12x1

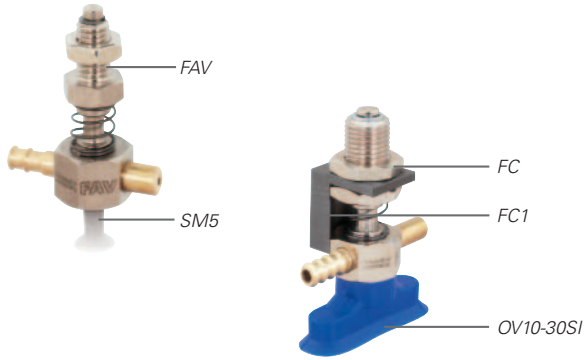
### Antirotation locking bracket

Order no.:	FA1	FB1	FC1	FD1
to match:	FA	FB	FC	FD/FE



Subject to change without prior notice

# Adapter F



### Special features:

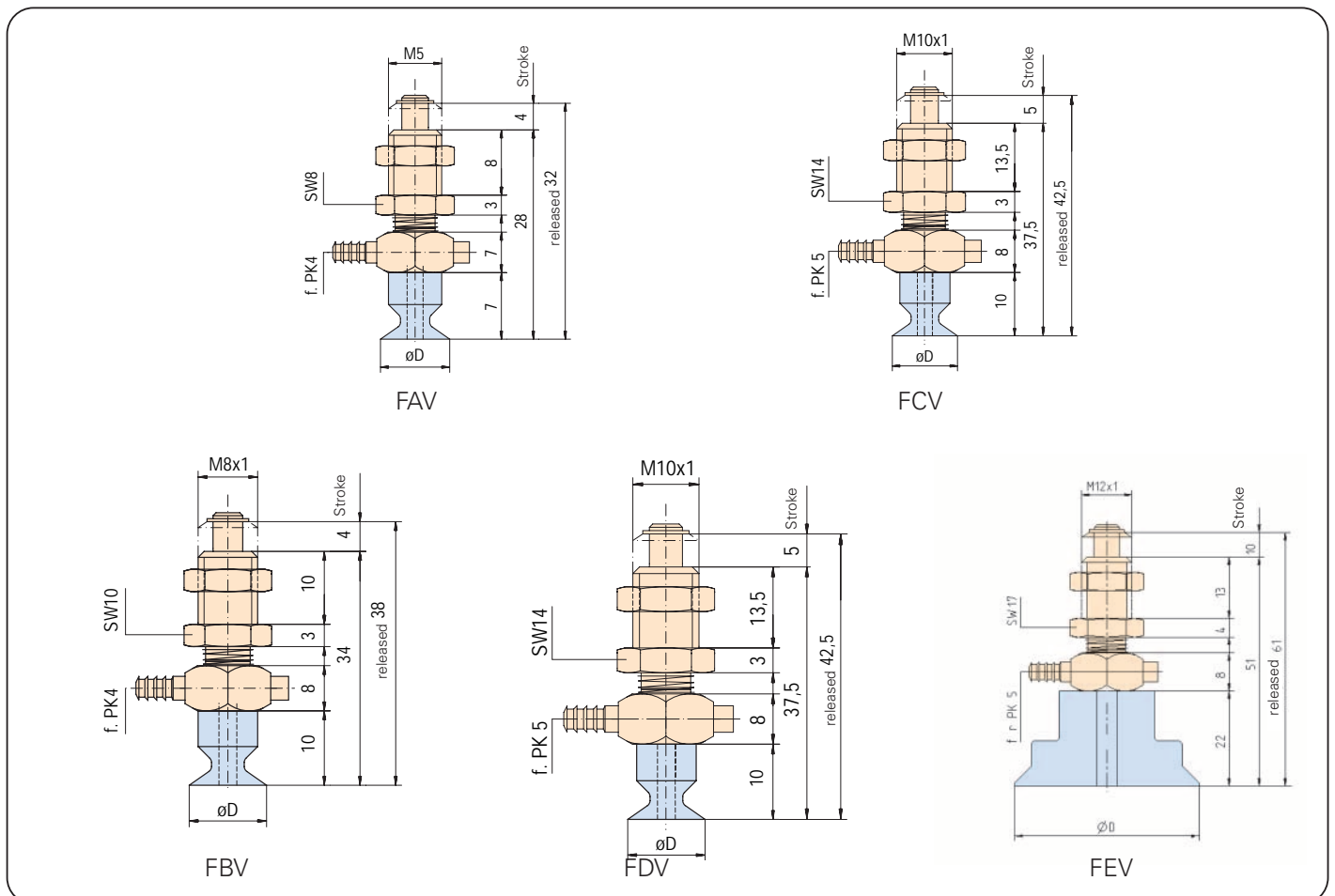
- external thread
- spring loaded
- integrated vacuum connection
- vacuum (bar) -0.8
- compressed air connection
- antirotation locking bracket available

Order no.:	FAV	FBV	FCV	FDV	FEV
Fixing thread:	M5	M8x1	M10x1	M12x1	M12x1
Air consumption per minute [l norm]:	13	13	13	13	13

All data measured at 6 bar.

### Antirotation locking bracket

Order no.:	FA1	FB1	FC1	FD1
to match:	FAV	FBV	FCV	FDV/FEV



Subject to change without prior notice

# Adapter VGS/SAV

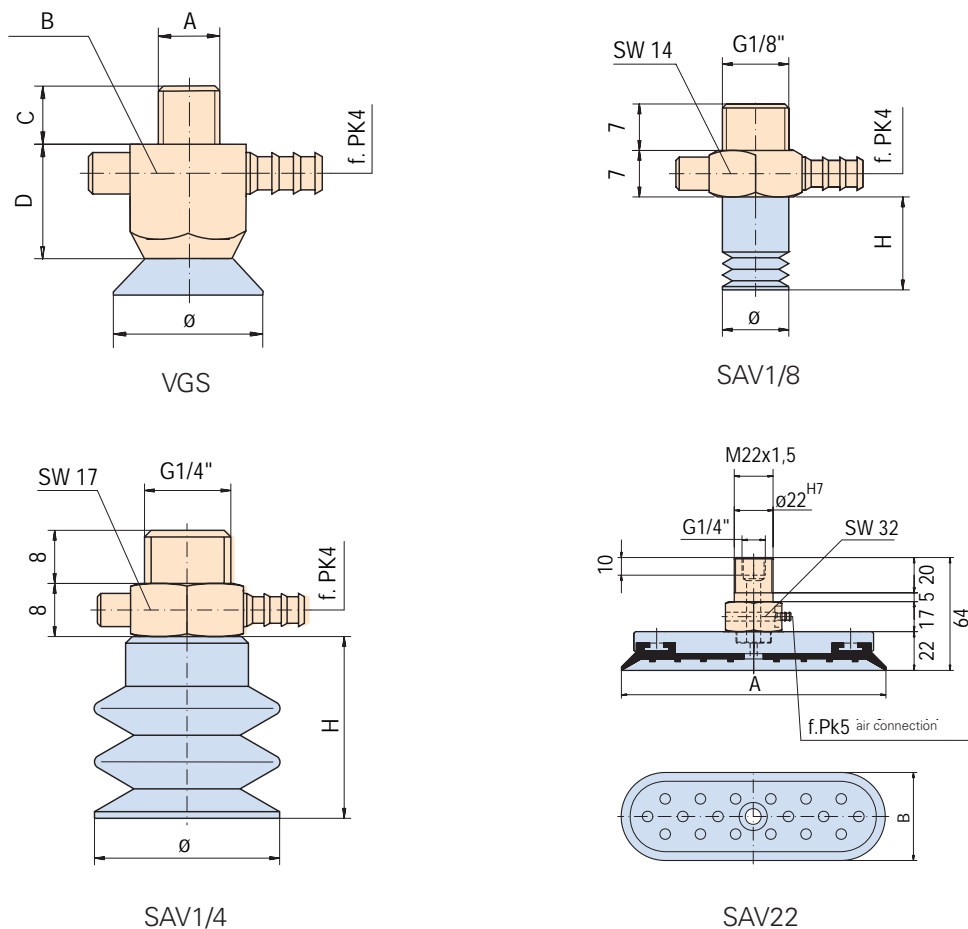


## Special features:

- external thread
- integrated vacuum generator
- vacuum (bar) -0.8
- compressed air connection

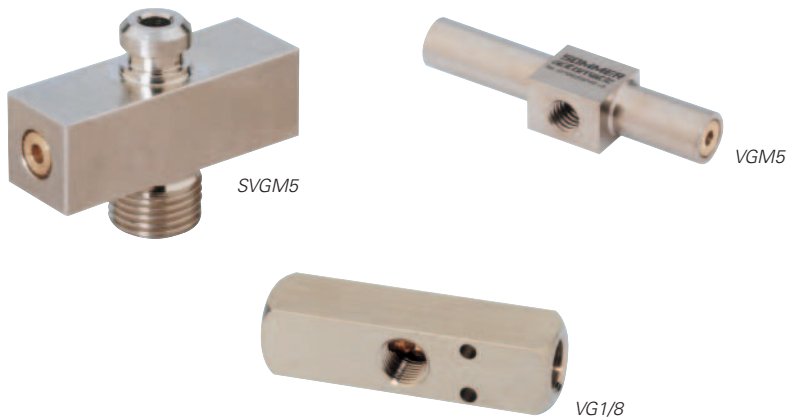
Order no.:	VGS-M	VGS-A	VGS-B	VGS-C	VGS-D	SAV22	SAV1/8	SAV1/4
Fixing thread Mass A:	M8	M8	M8	M8	M10	M22x1,5	1/8"	1/4"
Vacuum [bar]:	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
Air consumption per minute [l norm]:	13	13	13	13	13	63	13	63
Dimension B:	SW13	SW13	SW14	SW19	SW27	-	-	-
Dimension C [mm]:	8	8	8	8	11	-	-	-
Dimension D [mm]:	23	16	18	18	30	-	-	-

All data measured at 6 bar.



Subject to change without prior notice

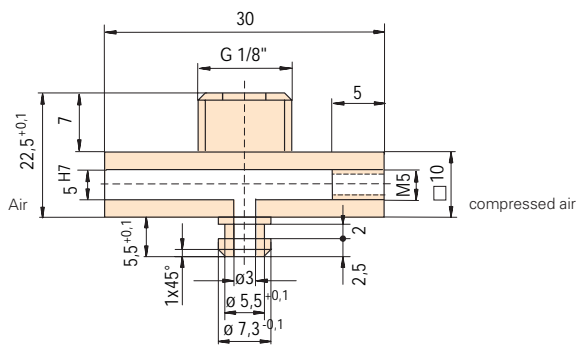
# Adapter SV/VG



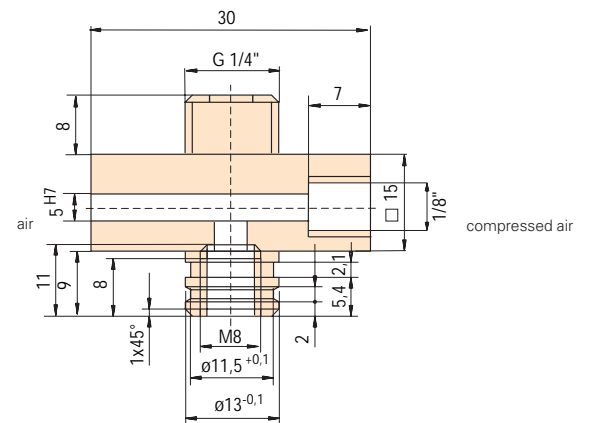
## Special features:

- integrated vacuum connection
- vacuum (bar) -0.8
- compressed air connection

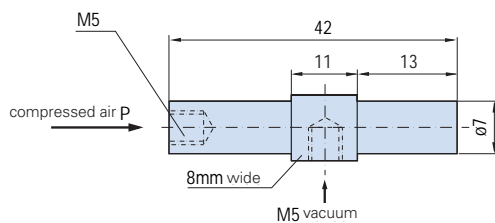
Order no.:	SVG1/8	SVG M5	VG1/8	VGM5
Vacuum [bar]:	-0.8	-0.8	-0.8	-0.8
Air consumption per minute [l norm.]:	63	63	63	63
Connecting thread:	1/8"	M5	1/8"	M5
Fixing thread:	G1/4"	G1/8"	-	-



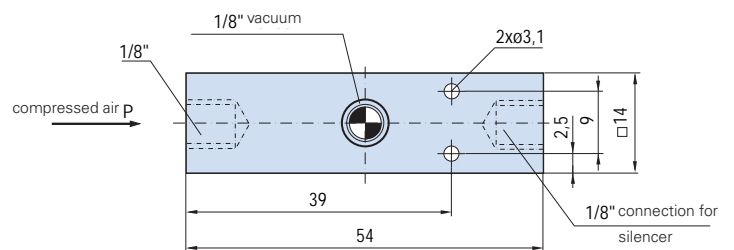
SVG M5



SVG 1/8



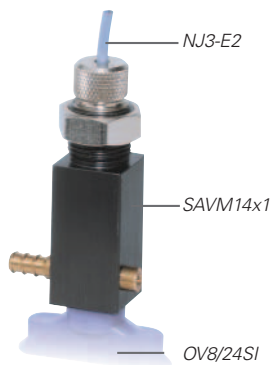
VGM5



VG 1/8

Subject to change without prior notice

# Adapter SAV

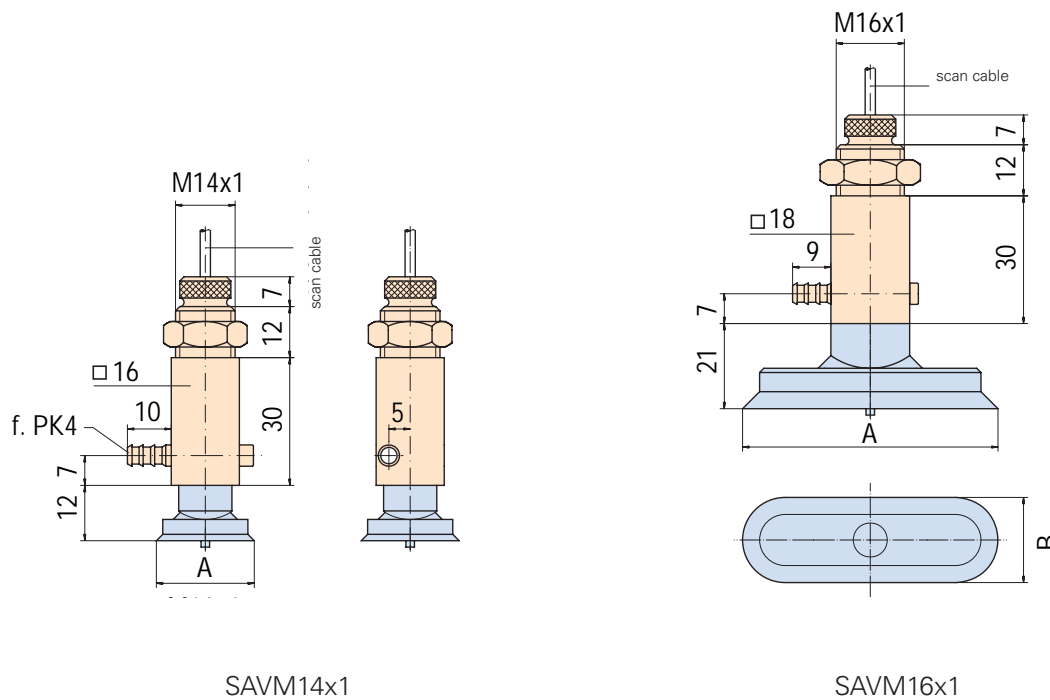


## Special features:

- external thread
- integrated pin for workpiece identification
- integrated vacuum generator
- vacuum (bar) -0.8
- compressed air connection

Order no.:	SAV M14x1	SAV M16x1
Vacuum [bar]:	-0,8	-0,8
Air consumption per minute [l norm.]:	13	13
Fixing thread:	M14x1	M16x1

All data measured at 6 bar.



Subject to change without prior notice

# Adapter SAM

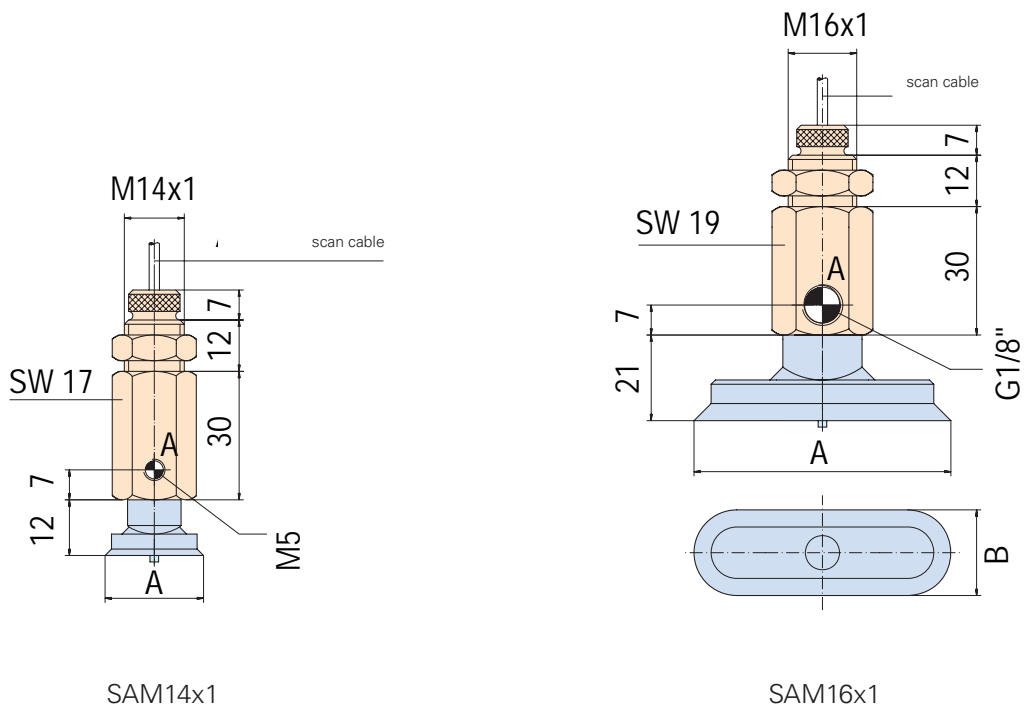


### Special features:

- external thread
- integrated pin for workpiece identification
- vacuum connection

### Adapter

Order no.:	SAM 14x1	SAM 16x1
Fixing thread:	M14x1	M16x1



Subject to change without prior notice

# Adapter SGA

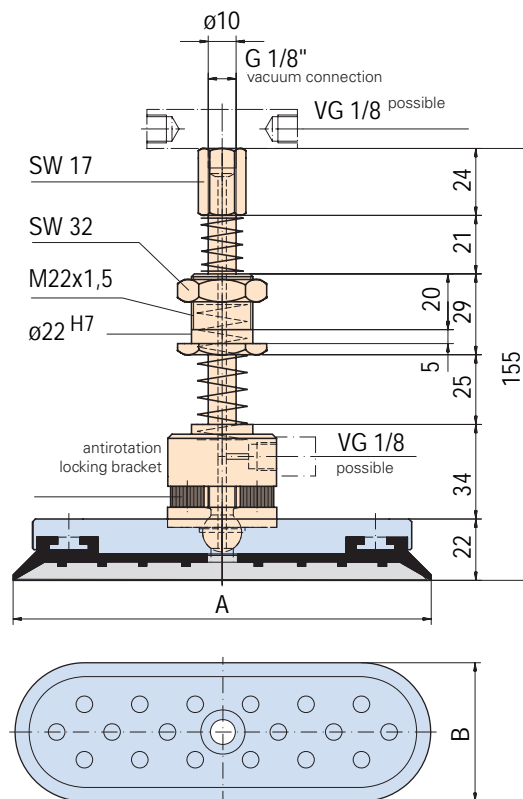


## Special features:

- internal thread
- spring loaded compensation
- locking system
- ball joint
- vacuum connection

**Order no.:** SGA22

**Fixing thread:** M22x1.5



*Subject to change without prior notice*



# Hand-held Vacuum



## Special features:

- integrated vacuum generator, vacuum can be applied or removed by hand
- possible to combine with suction cup of the SM series

**Order no.:** **HS10**

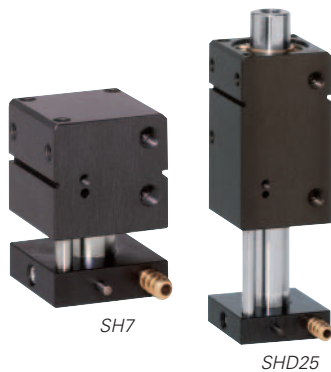
Air consumption per minute [l norm.]: 13

*All data measured at 6 bar.*

<b>Order no.:</b>	<b>SM1</b>	<b>SM2</b>	<b>SM3</b>	<b>SM4</b>	<b>SM5</b>	<b>SM6</b>
Vacuum force [N]:	0.05	0.19	0.42	0.75	1.18	1.70
Dimension Ø [mm]:	1	2	3	4	5	6

*All data measured at 0.6 bar vacuum.*

# Compact Linear Cylinder **SH**



## Remark:

- SH and SHD cylinder can be combined with suction cups of the SG series
- fixing screws for the cups are included in the delivery of the cylinder

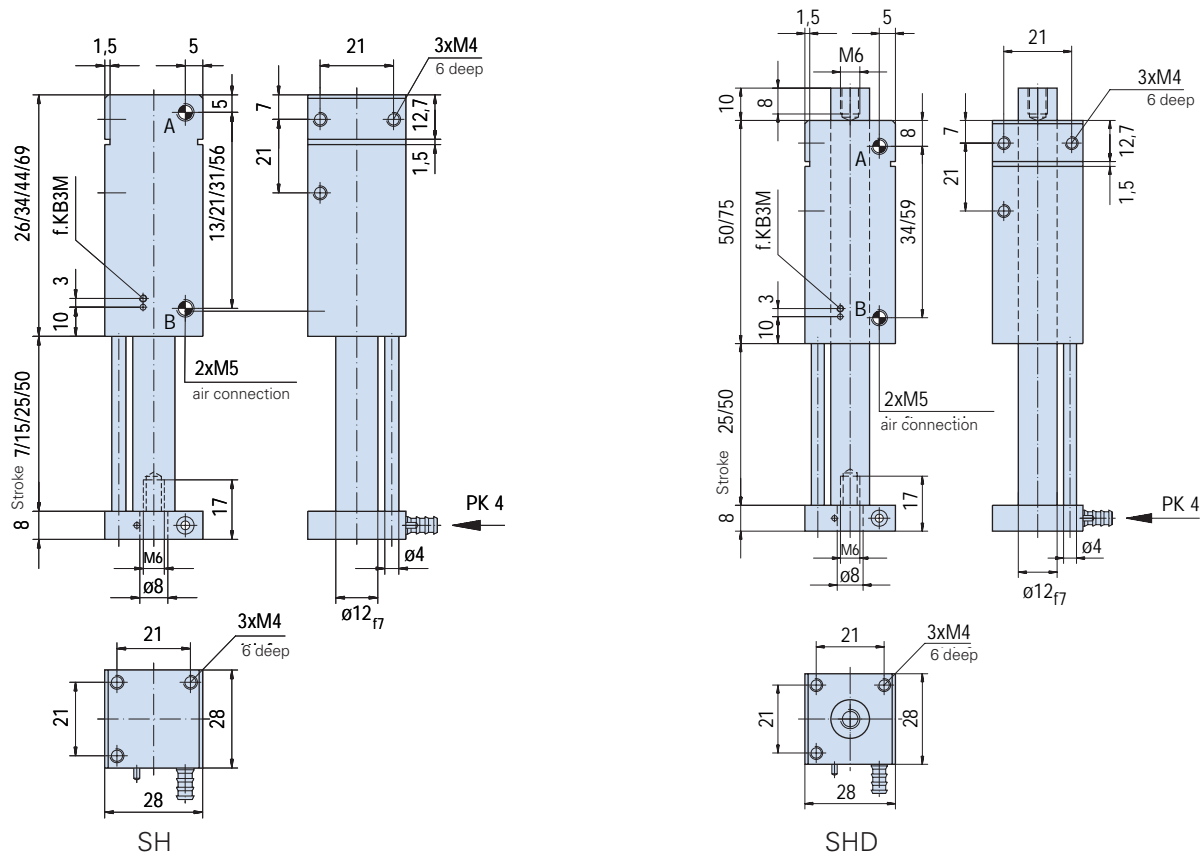
## Special features:

- integrated vacuum generator
- can be combined with suction cups of the SG series

Order no.:	SH7	SH15	SH25	SH50	SHD25	SHD50
Stroke [mm]:	7	15	25	50	25	50
Retract force [N]:	170	170	170	170	100	100
Extension force [N]:	100	100	100	100	100	100
Air volume per cycle [cm <sup>3</sup> ]:	4	9	15	30	12	25
Min./max. operating temperature [°C]*:	5/80	5/80	5/80	5/80	5/80	5/80
Weight [kg]:	0.090	0.100	0.130	0.180	0.190	0.270

All data measured at 6 bar.

\* High-temperature-resistant model (up to 150°C) add T to part number



Subject to change without prior notice

# Vacuum Generator VIP

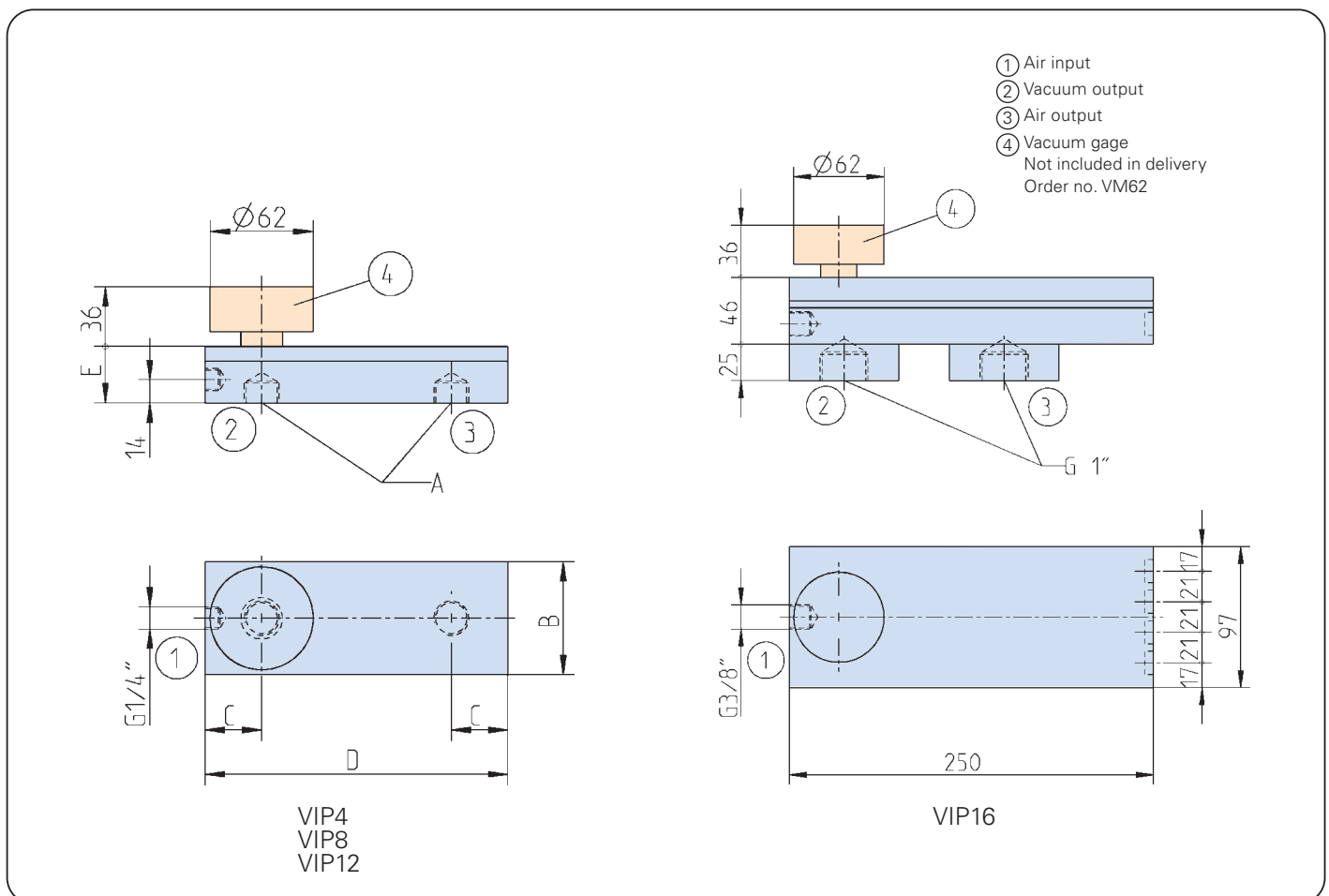


**Remark:**

Gage order no. VM62, suitable for VIP4 up to VIP16 is not included in delivery.

Order no.:	VIP4	VIP8	VIP12	VIP16
Vacuum output at 4 bar [%]:	90	90	90	90
Air consumption per minute [l norm.]:	95	190	380	250
Vacuum volume [l norm./min.]:	260	400	630	750
Min./max. operating pressure [bar]:	4/7	4/7	4/7	4/7
Sound pressure level without load [dB]:	65	65	65	65
Sound pressure level under load [dB]:	50	50	50	50
Min./max. operating temperature [°C]:	-20/+ 80	-20/+ 80	-20/+ 80	-20/+ 80
Dimension A:	G1/2"	G1/2"	G1/2"	G1"
Dimension B [mm]:	68	68	68	97
Dimension C [mm]:	30	34	29	100
Dimension D [mm]:	182	182	182	250
Dimension E [mm]:	34	34	52	52
Weight [kg]:	0.60	0.80	0.90	2.10

All data measured at 4 bar.



Subject to change without prior notice

➤ <b>Grippers</b> <i>pneumatic</i>	01
➤ <b>Grippers</b> <i>electrical</i>	02
➤ <b>Grippers</b> <i>hydraulic</i>	03
➤ <b>Grippers</b> <i>Special</i>	04
➤ <b>Grip &amp; Rotate Modules</b> <i>pneumatic</i>	05
➤ <b>Separators</b>	06
➤ <b>Swivel Units</b> <i>pneumatic</i>	07
➤ <b>Swivel Units</b> <i>electrical</i>	08
➤ <b>Swivel Units</b> <i>hydraulic</i>	09
➤ <b>Rotation Jaws</b> <i>pneumatic</i>	10
➤ <b>Axial Compensation Modules</b>	11
➤ <b>Tool Changers</b>	12
➤ <b>Robotics Accessories</b>	13
➤ <b>Linear Cylinders</b>	14
➤ <b>Shock Absorber</b>	15
➤ <b>Air Vane Motors</b>	16
➤ <b>Rotary Cylinders</b>	17
➤ <b>Vacuum Components</b>	18