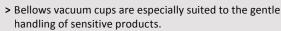
#### Vacuum cups by size | Bellows vacuum cups at a glance

#### Application / Uses



- > They allow for easy height and angle compensation for variable surfaces and lift the product up as soon as the vacuum is turned on.
- > The more folds the vacuum cup has, the greater the lifting movement and thus the height compensation. However, lateral stability is reduced by the number of folds. Bellows vacuum cups are therefore only recommended for vertical handling tasks.



#### Designs



FIPA bellows vacuum cups are available in various different versions (generally 1.5 - 4.5 folds) They are available with supporting ribs towards the product, with supporting ribs between the folds and without supporting ribs.

#### Supporting ribs towards the product (supporting ribs make contact with the object being handled):

- > Increased stability and suction power
- > Prevent flexible product parts from being sucked in
- > Avoid slipping of the product while suction is being applied

#### Supporting ribs between the folds:

- > Improve lateral stability
- > Accelerate the depositing process, as the folds are prevented from sticking together

#### Methods of connection



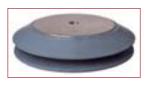
#### Vacuum cups for attaching to the fittings (plug-in)

- > Secure hold
- > Quick replacement
- > Cost-efficient and environmentally-friendly, as only the rubber part needs to be replaced



#### **Bolted fittings**

- > Vacuum cups are bolted from below into a threaded counterpart using a hollow bolt
- > Extremely secure hold
- > Eliminates twisting of the vacuum cups
- > Cost-efficient and environmentally-friendly, as only the rubber part needs to be replaced



#### **Vulcanised fittings / retainer plates**

- > Very secure hold
- > Secured against rotation
- > High degree of dimensional stability

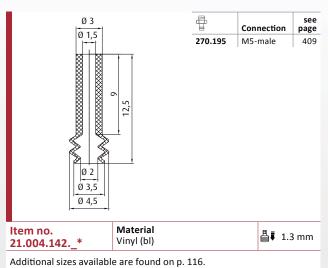
283

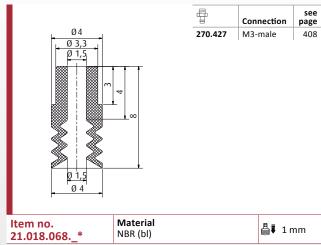


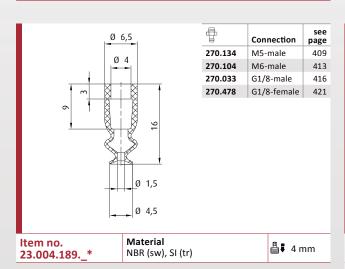
# Vacuum cups by size | Notes

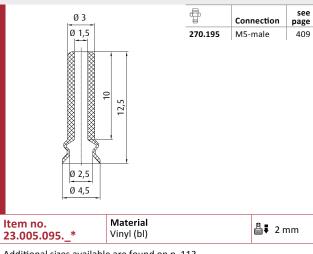
Notes:

Ø 4 - 5 mm

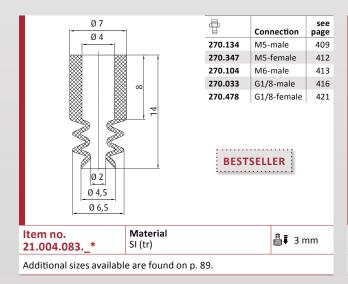


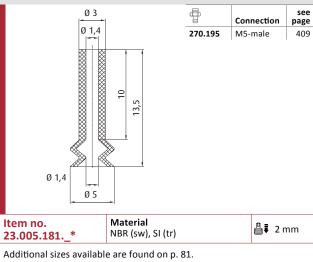






Additional sizes available are found on p. 113.



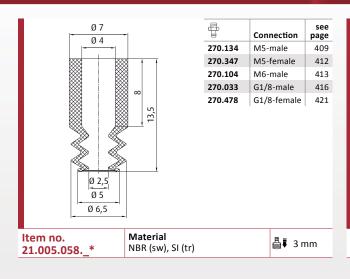


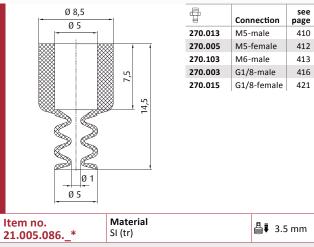
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

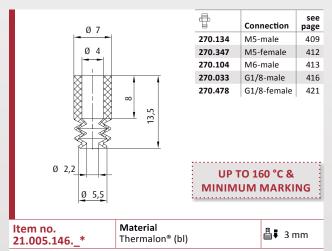


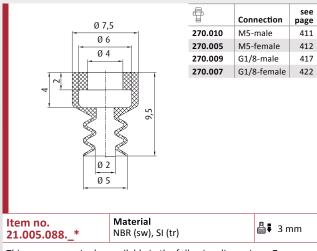


Ø 5 - 6 mm



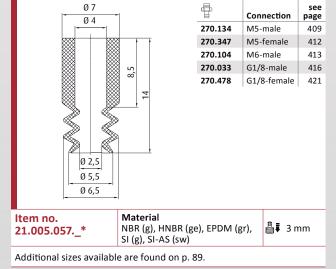


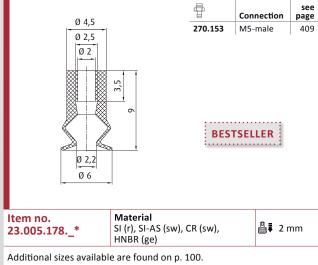




Additional sizes available are found on p. 92.

This vacuum cup is also available in the following dimensions: 7 mm



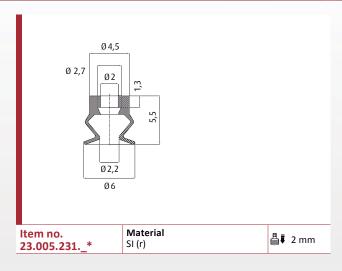


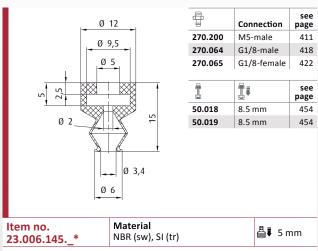
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



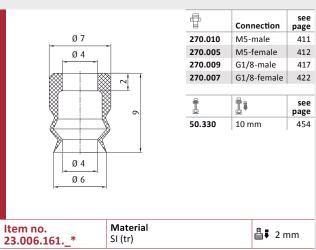
Ø 6 - 7 mm



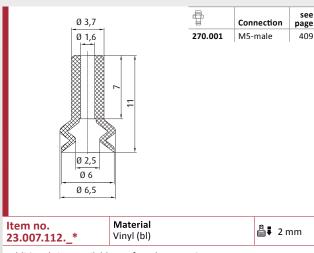




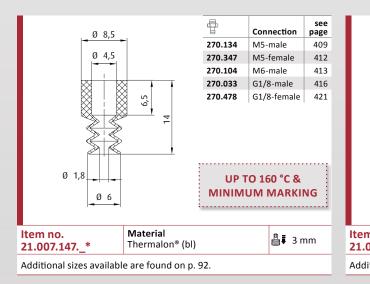
Additional sizes available are found on p. 122.



This vacuum cup is also available in the following dimensions: 10 mm, 15 mm, 20 mm, 30 mm



Additional sizes available are found on p. 113.

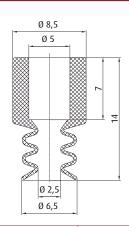


Ø 8	-	#	Connection	see page
<del>  04</del>		270.134	M5-male	409
	1 1	270.347	M5-female	412
		270.104	M6-male	413
	፟	270.033	G1/8-male	416
	≬ ∞	270.478	G1/8-female	421
03 06	Matarial			
m no. 006.093*	Material NBR (sw), SI (tr)		<b>₽</b> 3 n	nm
litional sizes available	e are found on p.	89.		

<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



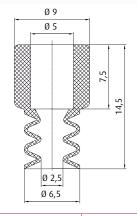
Ø 6 - 8 mm



	Connection	see page
270.013	M5-male	410
270.005	M5-female	412
270.103	M6-male	413
270.003	G1/8-male	416
270.015	G1/8-female	421

₫ 3.5 mm

₫ 2 mm



<b>a</b>	Connection	see page
270.013	M5-male	410
270.005	M5-female	412
270.103	M6-male	413
270.003	G1/8-male	416
270.015	G1/8-female	421

Item no. 21.006.001.\_

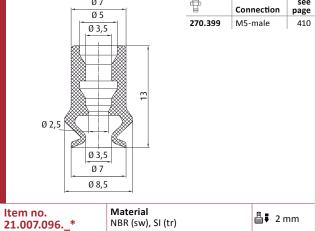
Material NBR (sw), EPDM (gr), NBR-AS (sw), SI (tr), Vinyl (bl) Item no. 21.006.087.\_\*

Material NBR (sw), SI (tr)

₫ **3.5 mm** 

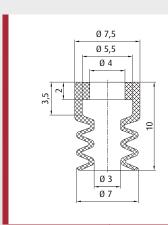
Additional sizes available are found on p. 116.





NBR (sw), SI (tr)

Additional sizes available are found on p. 89.



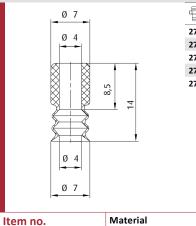
₽	Connection	see page
270.010	M5-male	411
270.005	M5-female	412
270.009	G1/8-male	417
270.007	G1/8-female	422

Item no. 21.007.089.\_\*

Material NBR (sw), HNBR (ge), SI (tr), SI-AS (sw), PU (bl)

₫**፣** 3 mm

Additional sizes available are found on p. 94. This vacuum cup is also available in the following dimensions: 5 mm



SI (tr)

270.134     M5-male     409       270.347     M5-female     412       270.104     M6-male     413       270.033     G1/8-male     416       270.476     G1/8-male     416			
<b>270.104</b> M6-male 413 <b>270.033</b> G1/8-male 416	270.134	M5-male	409
<b>270.033</b> G1/8-male 416	270.347	M5-female	412
	270.104	M6-male	413
270 470 C1 /0 famile 424	270.033	G1/8-male	416
2/0.4/8   G1/8-female   421	270.478	G1/8-female	421

**♣** 4 mm

Connection

Ø4 Ø 7,5

Ø8

Ø 4

₽	Connection	see page
270.134	M5-male	409
270.347	M5-female	412
270.104	M6-male	413
270.033	G1/8-male	416
270.478	G1/8-female	421

**BESTSELLER** 

Item no. 21.008.094.\_\*

Material NBR (sw), SI (tr) **₫** 4 mm

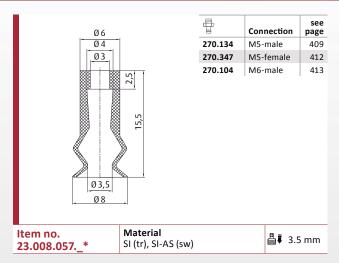
Additional sizes available are found on p. 89.

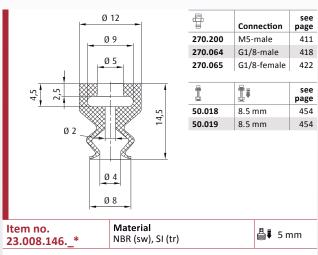
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



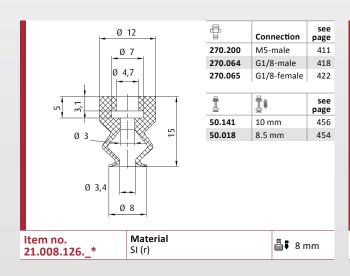
21.007.120.\_\*

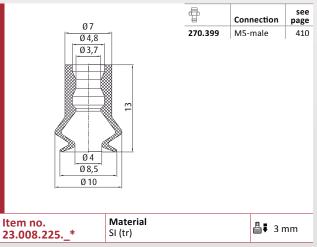
Ø 8 - 9 mm

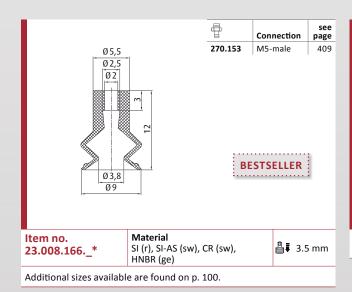


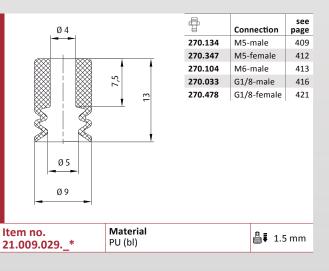


Additional sizes available are found on p. 122.





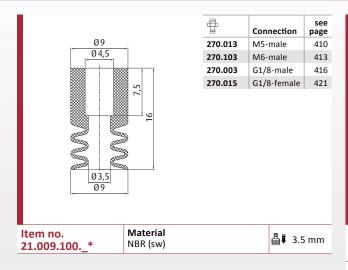


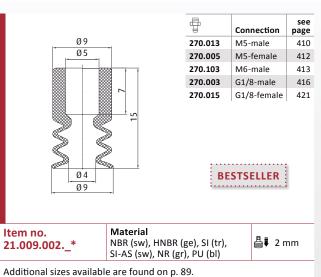


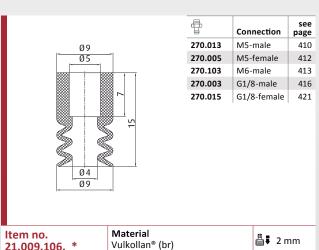
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 9 - 10 mm

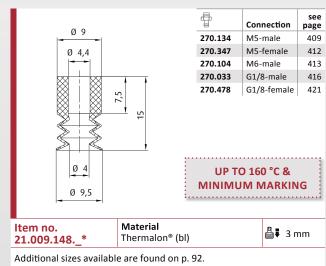




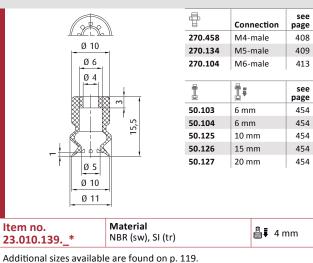


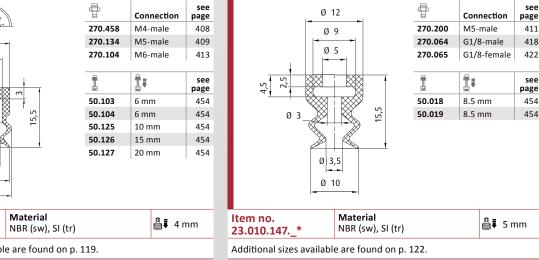


Additional sizes available are found on p. 97.



Ø 12



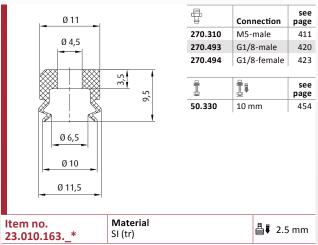


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

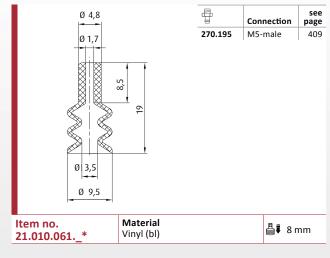


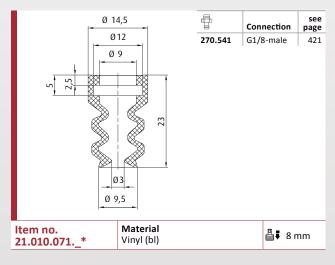
Ø 10 mm

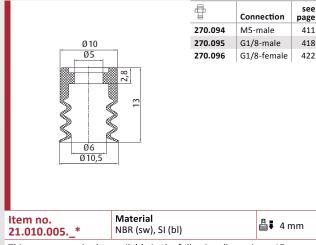




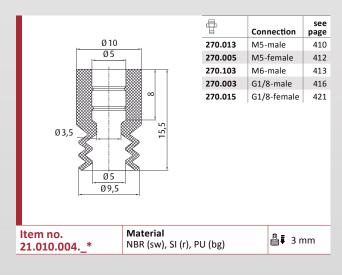
This vacuum cup is also available in the following dimensions: 6 mm, 15 mm, 20 mm, 30 mm  $\,$ 

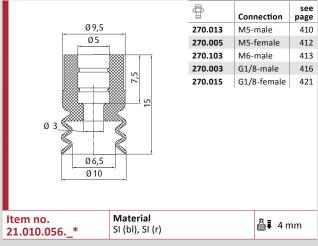






This vacuum cup is also available in the following dimensions: 15 mm, 18 mm, 24 mm, 30 mm, 40 mm

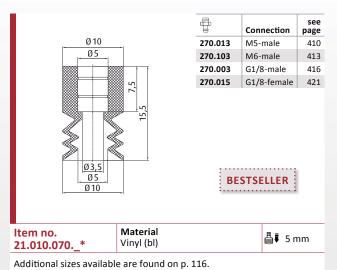


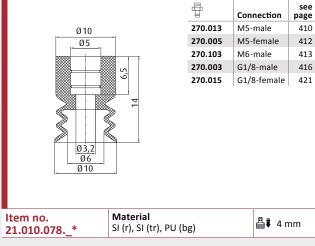


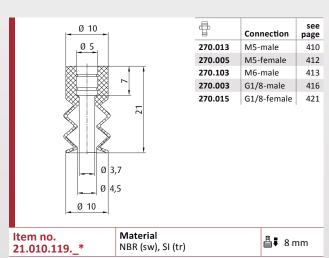
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

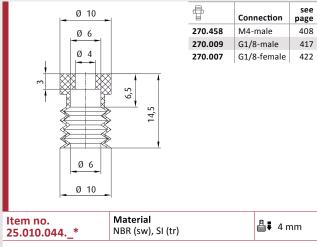


Ø 10 - 11 mm



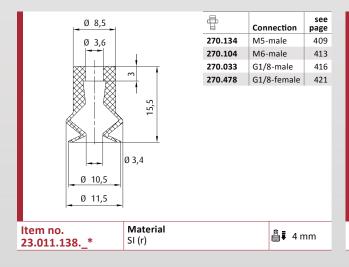


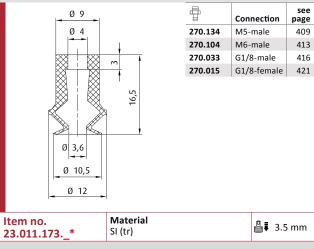




Additional sizes available are found on p. 89.





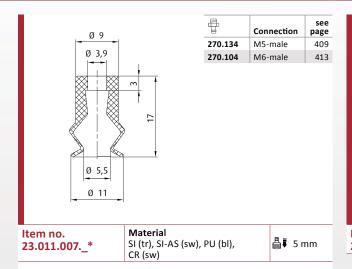


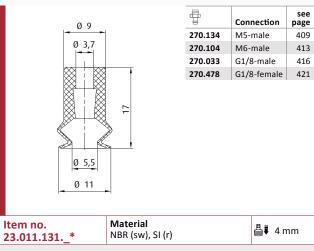
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

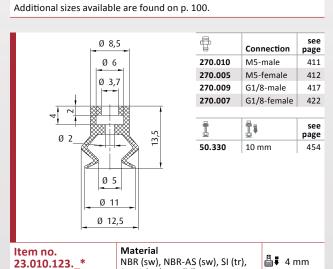


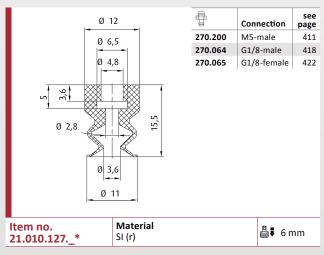
Ø 11 mm





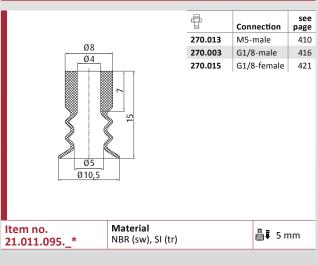


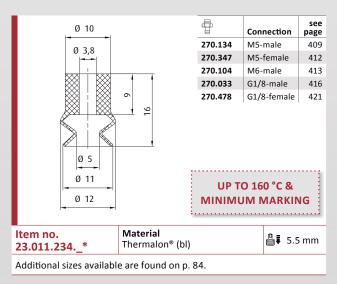




SI-AS (sw), PU (bl)

This vacuum cup is also available in the following dimensions: 15 mm, 21 mm, 32 mm, 42 mm, 54 mm





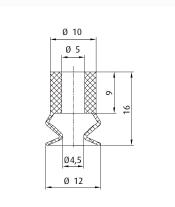
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 12 - 13 mm

Item no.

23.011.008.\_\*



	Connection	see page
270.013	M5-male	410
270.005	M5-female	412
270.103	M6-male	413
270.003	G1/8-male	416
270.015	G1/8-female	421
	##	see page
50.037	25 mm	456

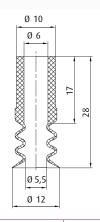
4.5 mm

Additional sizes available are found on p. 81.

Material

NBR (sw), HNBR (ge), SI (tr)

0



<b>-</b>	Connection	see page
270.443	M5-male	410
270.238	G1/8-male	417
270.110	G1/8-female	422
270.534	G1/4-male	425

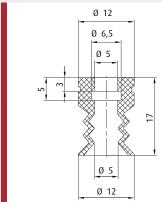
**FOR HIGHLY STRUCTURED SURFACES (3D)** 

Item no. 21.012.079.\_\*

Material NBR (sw), SI (w), SI (tr)

**₽** 7 mm

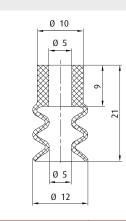
Additional sizes available are found on p. 125.



270.200	M5-male	411
270.064	G1/8-male	418
270.065	G1/8-female	422
#	Ħi	see
	₾ ▼	page
50.141	10 mm	<b>page</b> 456
50.141 50.018	10 mm 8.5 mm	
	20 111111	456

Connection

Material Item no. 21.012.108.\_\* **4** 5 mm SI (r)



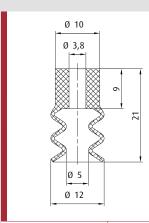
<b>a</b>	Connection	see page
270.013	M5-male	410
270.005	M5-female	412
270.103	M6-male	413
270.003	G1/8-male	416
270.015	G1/8-female	421

Item no. 21.012.135.\_\*

Material NBR (sw), HNBR (ge), SI (tr), NR (gr), PU (bl)

- 7 mm

Additional sizes available are found on p. 89.



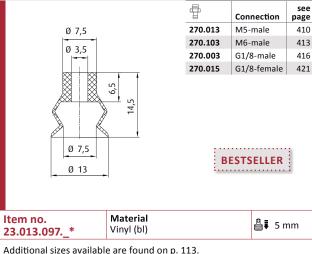
₽	Connection	see page
270.134	M5-male	409
270.347	M5-female	412
270.104	M6-male	413
270.033	G1/8-male	416
270.478	G1/8-female	421

**UP TO 160 °C &** MINIMUM MARKING

Item no. 21.012.149.\_\*

Material Thermalon® (bl) - 7 mm

Additional sizes available are found on p. 92.



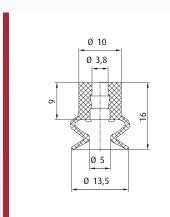
Additional sizes available are found on p. 113.

<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 13 - 14 mm





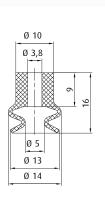
#	Connection	see page
270.013	M5-male	410
270.005	M5-female	412
270.103	M6-male	413
270.003	G1/8-male	416
270.015	G1/8-female	421
	-	
	##	see page
50.037	25 mm	456

Item no. 23.013.120.\_ Material

NBR (sw), SI (tr), NR (gr)

4 mm 4 mm

Additional sizes available are found on p. 81.



Connection	see page
M5-male	409
M5-female	412
M6-male	413
G1/8-male	416
G1/8-female	421
	M5-male M5-female M6-male G1/8-male

**UP TO 160 °C & MINIMUM MARKING** 

Item no. 23.014.235.

Material Thermalon® (bl)

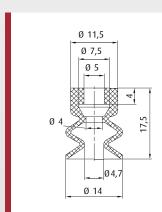
**₫** 5 mm

Additional sizes available are found on p. 84.

Ø 12

Ø 7,7

Ø 5



<b>a</b>	Connection	see page
270.013	M5-male	410
270.005	M5-female	412
270.103	M6-male	413
270.003	G1/8-male	416
270.015	G1/8-female	421

Item no. 23.014.010.\_\* Material

NBR (sw), SI (r), NR (bg), PU (bl)



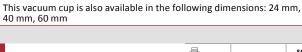
Item no. 21.014.006.\_\*

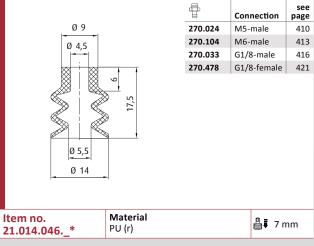
see Connection 270.013 M5-male 410 270.005 M5-female 412 270.103 M6-male 413 G1/8-male 416 270.003 270.015 G1/8-female 421

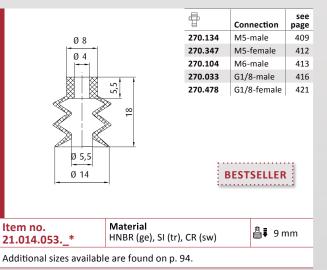
Material NBR (sw), SI (r), NR (bg), PU (bl)

Ø 14

₫**፣** 10 mm





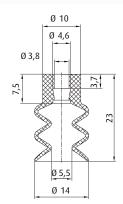


\* When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

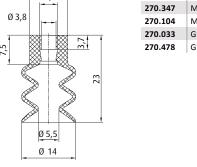




Ø 14 - 15 mm

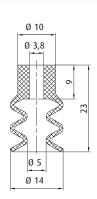


	Connection	see page
270.134	M5-male	409
270.347	M5-female	412
270.104	M6-male	413
270.033	G1/8-male	416
270.478	G1/8-female	421



Item no. Material NBR (sw), SI (tr), NR (gr) 21.014.133.

Additional sizes available are found on p. 89.



<b>a</b>	Connection	see page
270.134	M5-male	409
270.347	M5-female	412
270.104	M6-male	413
270.033	G1/8-male	416
270.478	G1/8-female	421

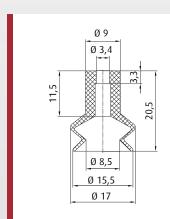
**UP TO 160 °C & MINIMUM MARKING** 

Item no. 21.014.150.\_\*

Material Thermalon® (bl)

₫ **1**0 mm

Additional sizes available are found on p. 92.



Item no.

23.015.098.

¥	Connection	page
270.134	M5-male	409
270.347	M5-female	412
270.104	M6-male	413
270.033	G1/8-male	416
270.478	G1/8-female	421

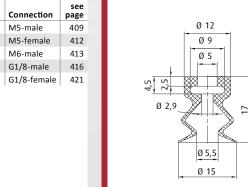
**♣** 5 mm

₫ 11 mm

Additional sizes available are found on p. 113.

Material

Vinyl (bl)



270.200     M5-male     411       270.064     G1/8-male     418       270.065     G1/8-female     422       Image: Comparison of the properties o	#	Connection	see page
270.065 G1/8-female 422  \$\begin{array}{cccccccccccccccccccccccccccccccccccc	270.200	M5-male	411
see page 50.018 8.5 mm 454	270.064	G1/8-male	418
50.018 8.5 mm 454	270.065	G1/8-female	422
<b>50.019</b> 8.5 mm 454	50.018	8.5 mm	454
	50.019	8.5 mm	454

Item no. 23.015.148.\_\*

Material NBR (sw), SI (tr)

**₽** 7 mm

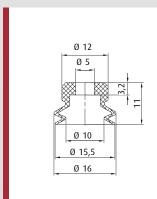
see page

411

418

422

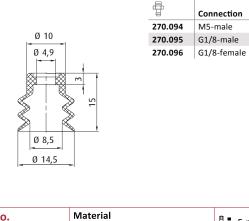
Additional sizes available are found on p. 122.



₩	Connection	page
270.310	M5-male	411
270.493	G1/8-male	420
270.494	G1/8-female	423
	1.	see page
50.330	10 mm	454

Item no. NBR (sw), SI (tr) 23.015.164.

This vacuum cup is also available in the following dimensions: 6 mm, 10 mm, 20 mm, 30 mm



Item no. 21.015.009.

NBR (sw), SI (tr)

**₫** 5 mm

Phone +49 (0)89 / 96 24 89-0

This vacuum cup is also available in the following dimensions: 10 mm, 18 mm, 24 mm, 30 mm, 40 mm

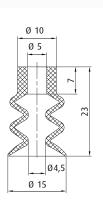
4 3.5 mm



<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

Ø 15 - 16 mm



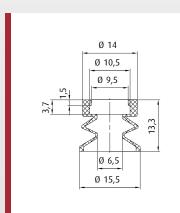


#	Connection	see page
270.013	M5-male	410
270.005	M5-female	412
270.103	M6-male	413
270.003	G1/8-male	416
270.015	G1/8-female	421

Item no. 21.014.007.\_\* Material NBR (sw), SI (tr), PU (bI)

₫**፣** 12 mm

Additional sizes available are found on p. 89.

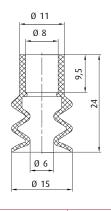


T	Connection	page
270.311	M5-male	411
270.312/19	M6-male	414
	<b>]</b>	see page
50.005	5 mm	456
50.145	10 mm	456
50.146	30 mm	456

Item no. 23.016.232. Material SI (tr)

₫ 6 mm

Additional sizes available are found on p. 130.



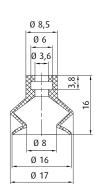
a		see
_ <del> </del>	Connection	page
270.112	G1/8-male	419
270.113	G1/4-male	425

Item no. 21.015.008.

Material NBR (sw), SI (r)

**₫** 7 mm

This vacuum cup is also available in the following dimensions: 20 mm,



#	Connection	see page
270.010	M5-male	411
270.005	M5-female	412
270.009	G1/8-male	417
270.007	G1/8-female	422
	<b>#</b>	see page
50.330	10 mm	454

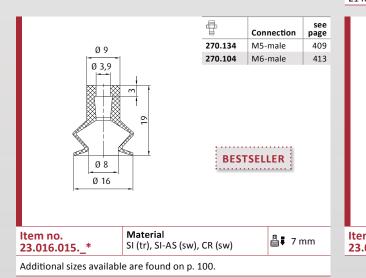
Item no. 23.015.122.\_\*

Material NBR (sw), SI (tr), PU (bl), HNBR (ge)

**₫** 5 mm

Additional sizes available are found on p. 86.

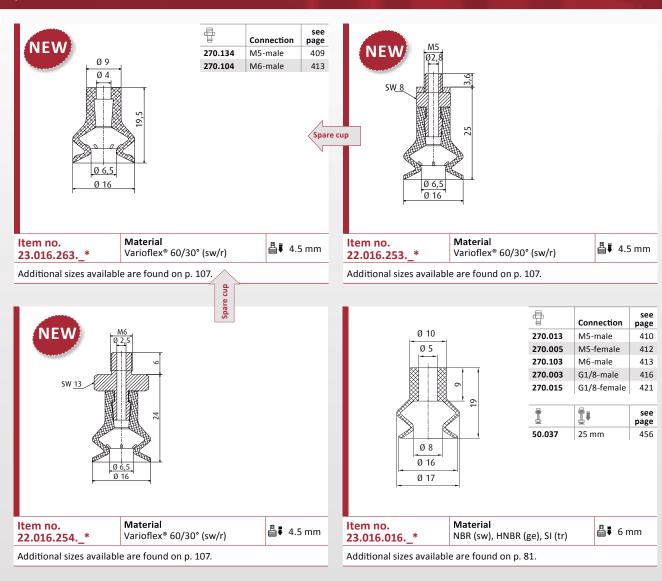
This vacuum cup is also available in the following dimensions: 11 mm, 21 mm, 32 mm, 42 mm, 54 mm

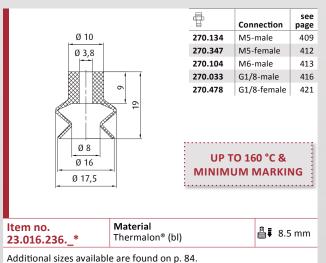


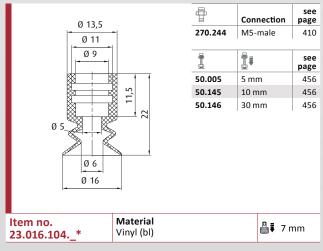
		#	Connection	see page
Ø 9		270.134	M5-male	409
0 4		270.104	M6-male	413
	2,8	270.033	G1/8-male	416
		270.015	G1/8-female	421
Ø 8,5 Ø 16 Ø 17,5	Material			
m no. .016.174*	<b>Material</b> SI (tr)		<b>ૄૄ</b> 5 r	nm
<del>-</del>	<u> </u>			

<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

Ø 16 mm





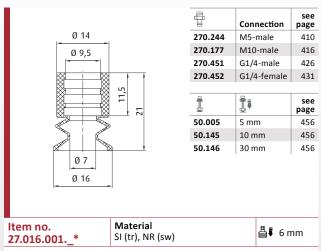


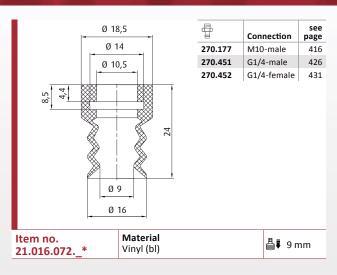
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



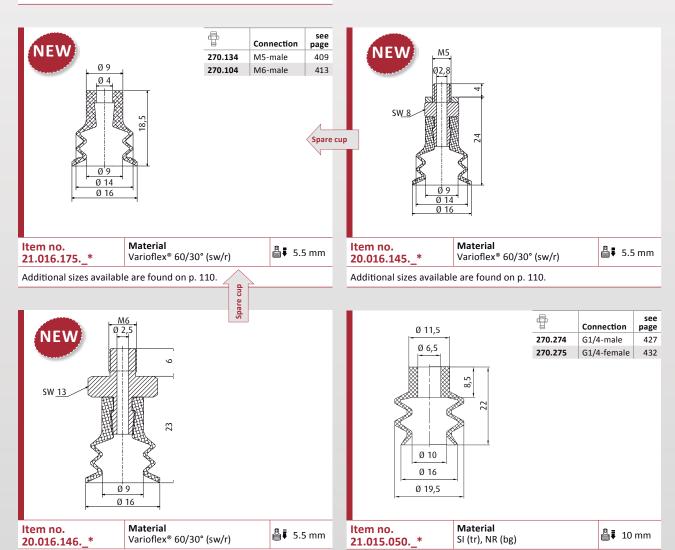
m H

Ø 16 mm





Additional sizes available are found on p. 125.



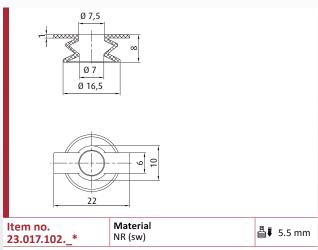
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



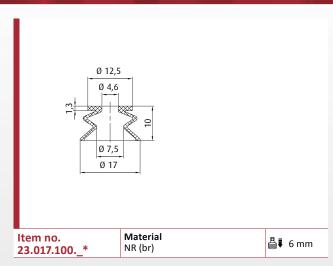
Additional sizes available are found on p. 110.

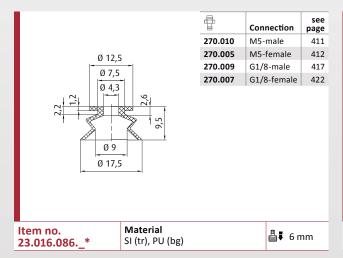


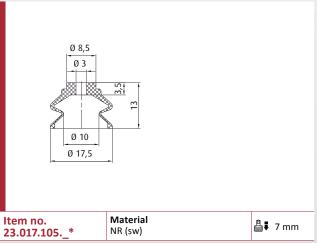
Ø 17 - 18 mm

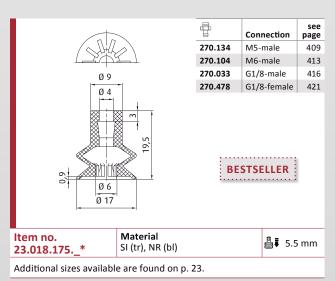


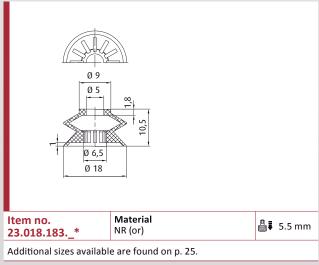
Additional sizes available are found on p. 23.







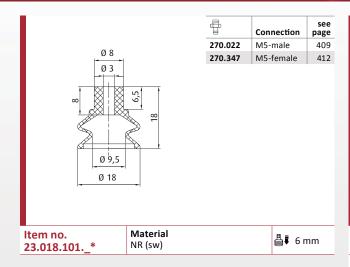


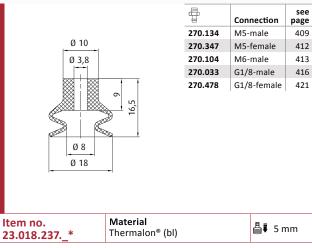


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

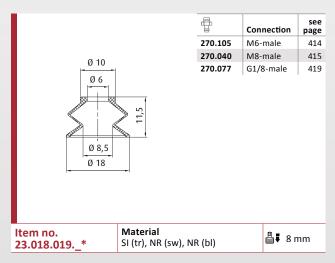


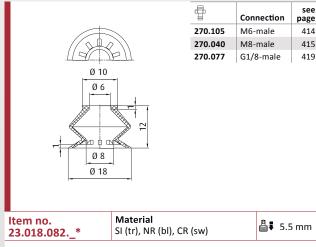
Ø 18 mm



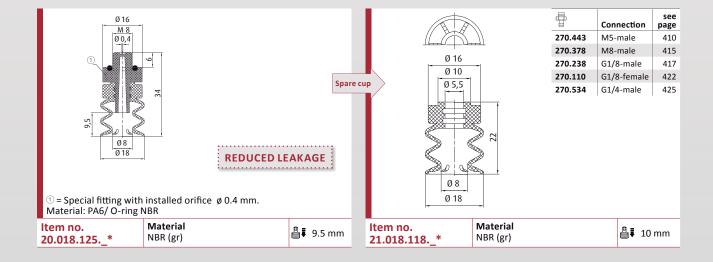


Additional sizes available are found on p. 84.





Additional sizes available are found on p. 23.



<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

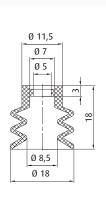




Ø 18 mm

Item no.

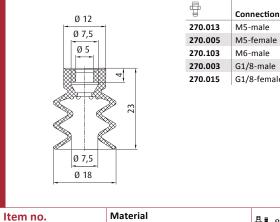
21.018.012.



	Connection	see page
270.013	M5-male	410
270.103	M6-male	413
270.003	G1/8-male	416
270.015	G1/8-female	421

Material **₫** 7 mm NBR (sw), SI (bl)

This vacuum cup is also available in the following dimensions: 10 mm, 15 mm, 24 mm, 30 mm, 40 mm



M5-male 410 M5-female 412 M6-male 413 G1/8-male 416 G1/8-female 421

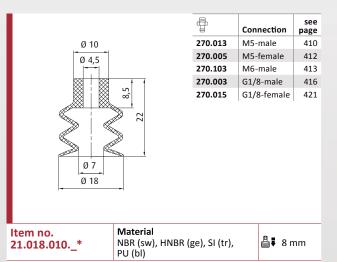
see page

**₽** 8 mm

0 see Connection page Ø 10 270.134 M5-male 409 Ø 3,8 270.347 M5-female 412 270.104 M6-male 413 270.033 G1/8-male 416 270.478 G1/8-female 421 Ø 7,5 **UP TO 160 °C &** Ø 17,5 MINIMUM MARKING

Material Item no. ₫ 10 mm Thermalon® (bl)

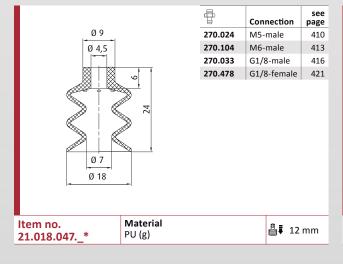
Additional sizes available are found on p. 92.

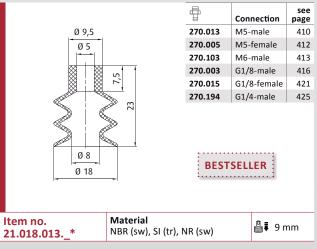


NBR (sw), SI (r), NR (bg), PU (bl)

Additional sizes available are found on p. 89.

21.018.011.

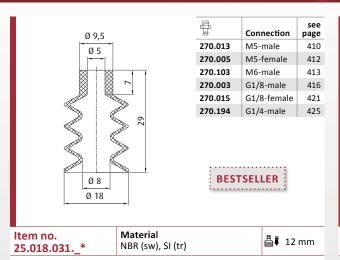




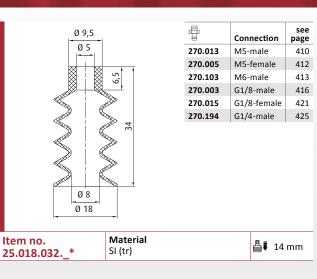
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

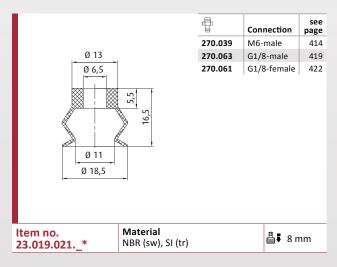


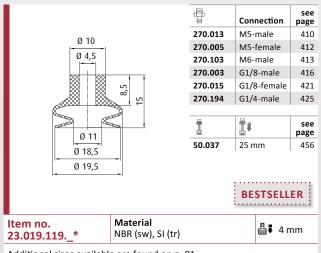
Ø 18 - 19 mm



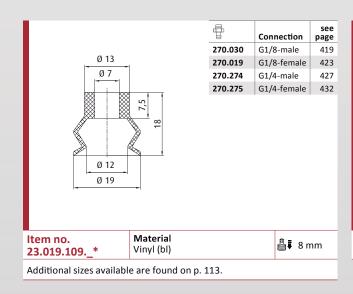








Additional sizes available are found on p. 81.



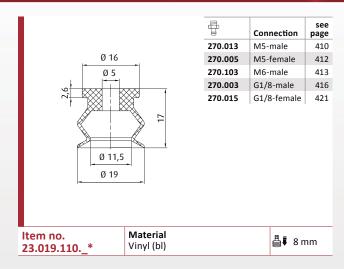
		#	Connection	see page
Ø 13		270.200	M5-male	411
Ø 7,5		270.064	G1/8-male	418
Ø 5 Ø 12 Ø 19	17	270.065	G1/8-female	422
Item no. 23.019.179*	<b>Material</b> Vinyl (bl)		<b>ૄૄૄ 7</b> n	nm

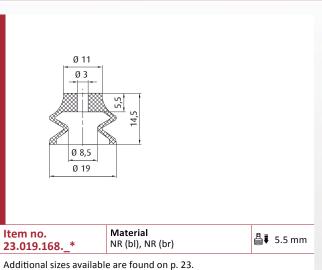
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

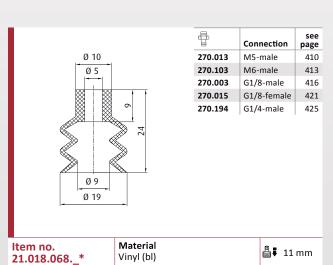


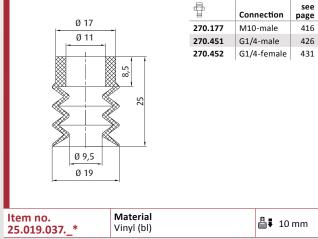


Ø 19 - 20 mm

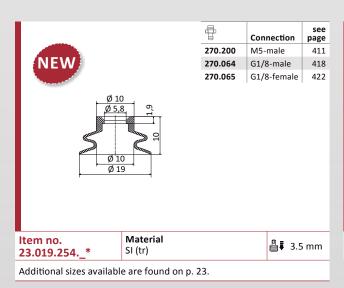


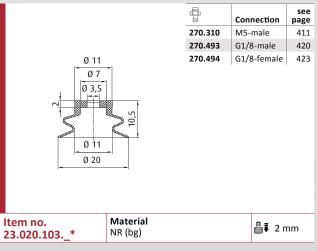






Additional sizes available are found on p. 116.



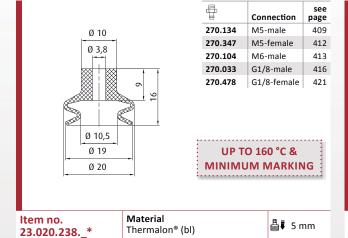


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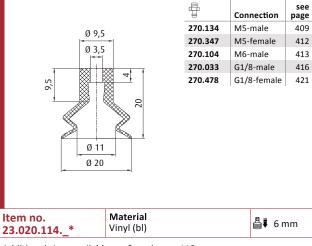
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



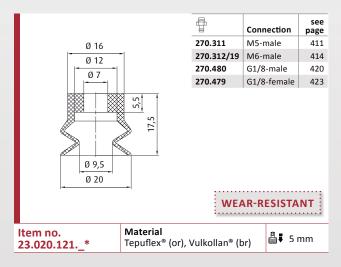
Ø 20 mm

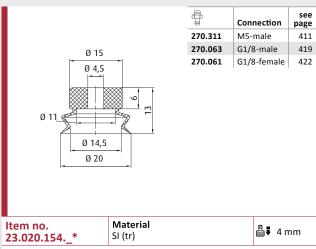


Additional sizes available are found on p. 84.

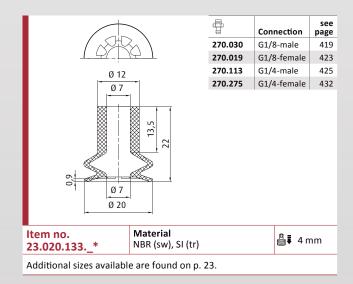


Additional sizes available are found on p. 113.





This vacuum cup is also available in the following dimensions: 6 mm, 10 mm, 15 mm, 30 mm

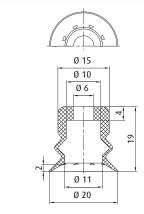


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760





Ø 20 mm



<u> </u>	Connection	see page
270.311	M5-male	411
270.459	M6-male	414
270.480	G1/8-male	420
270.479	G1/8-female	423
#	₩=	see
_ ₫	₫.₹	page
50.085	<b>≛</b> ♥ 6 mm	
50.085 50.128	<b>♣</b> 6 mm 10 mm	page
		page 454
50.128	10 mm	<b>page</b> 454 454

40 mm

50 mm

50.097

50.098

Item no. 23.020.140.\_\*

Material NBR (sw), SI (tr) **å** 6 mm

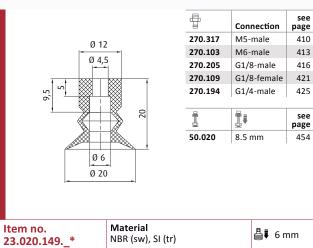
456

456

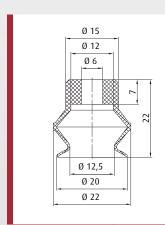
see

page

Additional sizes available are found on p. 119.



Additional sizes available are found on p. 122.



270.482	G1/8-male	420
270.481	G1/8-female	423
270.483	G1/4-male	429
270.484	G1/4-female	433
₩.		see
_ &		page
50.095	<b>4</b> 20 mm	
50.095 50.096	20 mm 30 mm	page
		page 456
50.096	30 mm	<b>page</b> 456 456

Connection

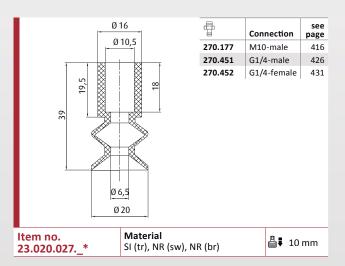
270.312/19 M6-male

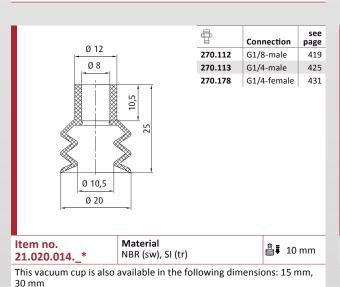
Item no. 23.020.169.\_\*

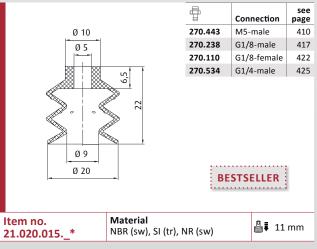
Material Vulkollan® (br)

**₽** 7 mm

Additional sizes available are found on p. 97.



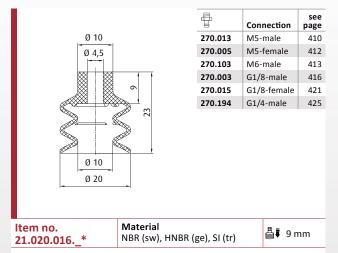




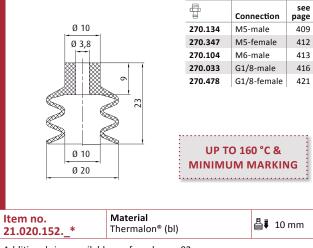
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



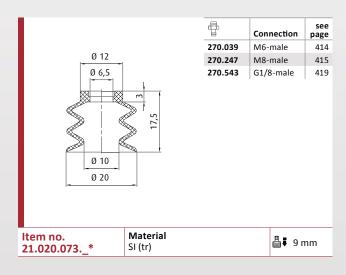
Ø 20 mm

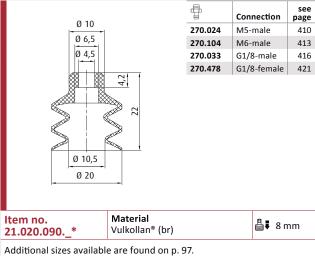


Additional sizes available are found on p. 89.



Additional sizes available are found on p. 92.



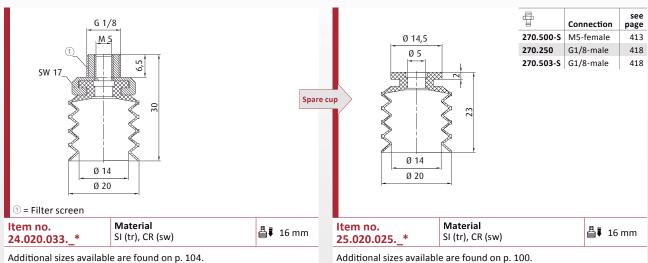


Ø 15	_1	<b>a</b>	Connection	see page
		270.459	M6-male	414
Ø6	4	270.480	G1/8-male	420
Ø10 — Ø14 — Ø20	55	270.479	G1/8-female	423
Item no. 25.020.045*	Material NBR (sw), SI (tr)		₫ 10	mm
Additional sizes availabl	e are found on p. :	124.		

<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

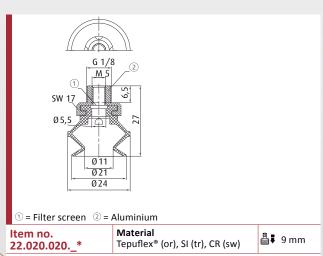


Ø 20 - 21 mm

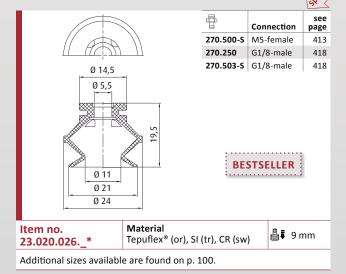


Additional sizes available are found on p. 104.

Ø 10 see page Connection 270.105 M6-male 414 270.040 M8-male 415 270.077 G1/8-male 419 Material Item no. ₫ 26 mm SI (w)



Additional sizes available are found on p. 104.

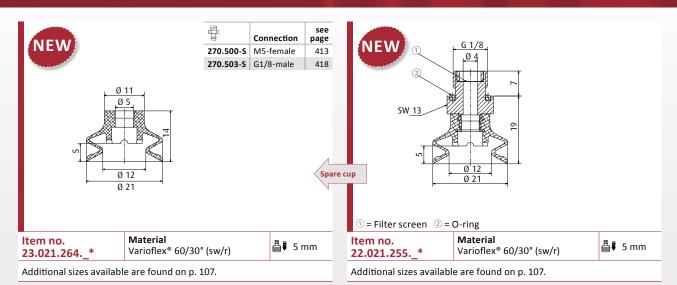


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

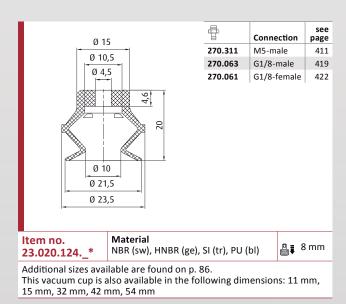


25.020.002.\_\*





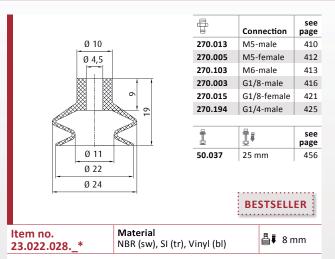
Connection page G 1/8 **NEW** NEW 270.500-S M5-female **270.503-S** G1/8-male 418 SW 13 Spare cup Ø 20 Ø 21 1 = Filter screen 2 = O-ring Material Material Item no. Item no. ₫ **6.5 mm** 4 6.5 mm Varioflex® 60/30° (sw/r) Varioflex® 60/30° (sw/r) 20.021.147.\_\* Additional sizes available are found on p. 110. Additional sizes available are found on p. 110.



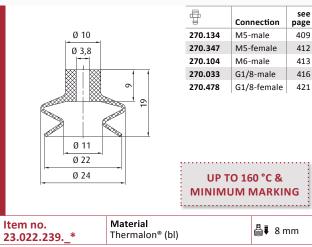
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



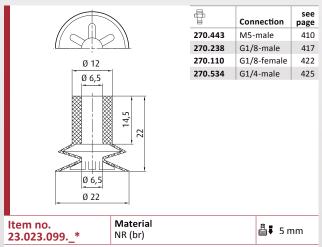
Ø 22 - 24 mm



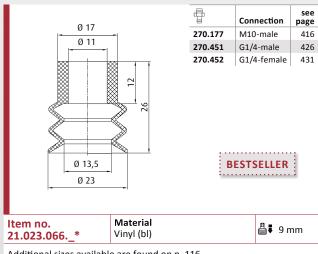
Additional sizes available are found on p. 113.



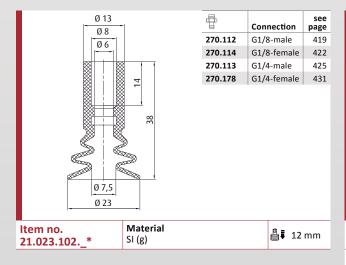
Additional sizes available are found on p. 84.

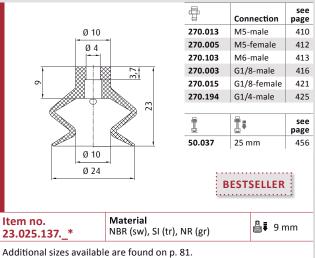


Additional sizes available are found on p. 23.



Additional sizes available are found on p. 116.



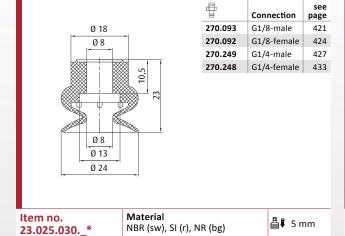


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

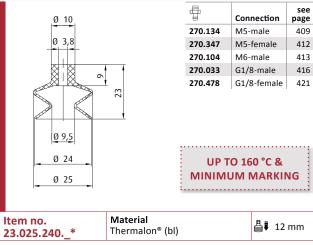


Ø 24 - 25 mm

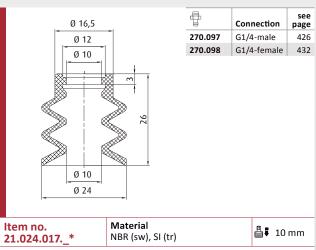




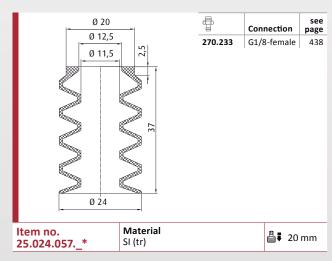
This vacuum cup is also available in the following dimensions: 14 mm, 40 mm, 60 mm

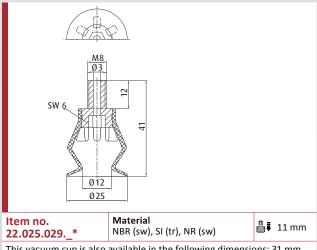


Additional sizes available are found on p. 84.

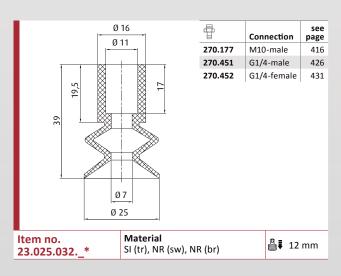


This vacuum cup is also available in the following dimensions: 10 mm, 15 mm, 18 mm, 30 mm, 40 mm





This vacuum cup is also available in the following dimensions: 31 mm, 44 mm  $\,$ 

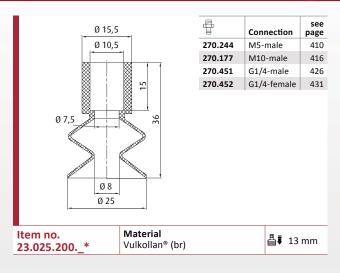


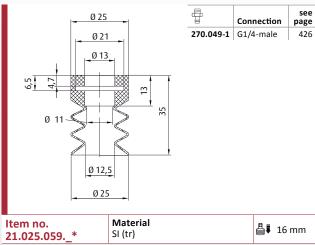
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

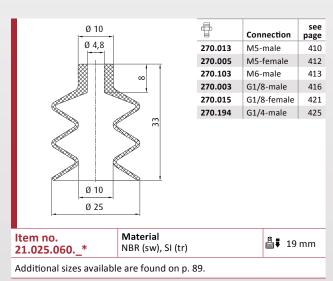


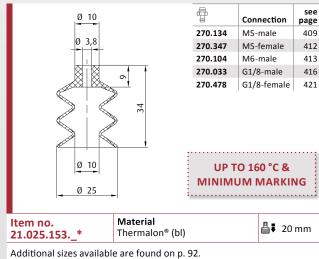


Ø 25 mm

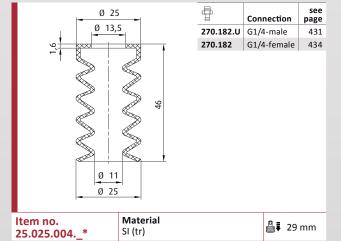








<u>  0 10</u>   0 4,8	#	Connection	see page
9 4,0	270.013	M5-male	410
	270.005	M5-female	412
	270.103	M6-male	413
	270.003	G1/8-male	416
	270.015	G1/8-female	421
	270.194	G1/4-male	425
0 10 0 25			



Additional sizes available are found on p. 96.

Material

NBR (sw), SI (tr)

₫**‡** 24 mm



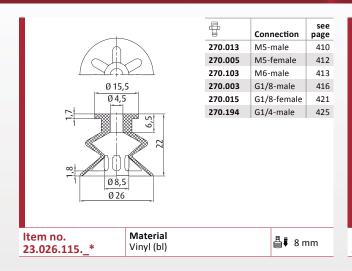
Item no.

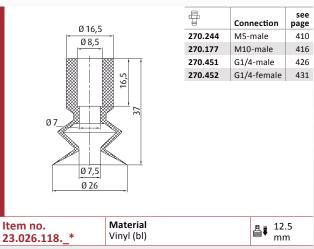
25.025.005.\_\*

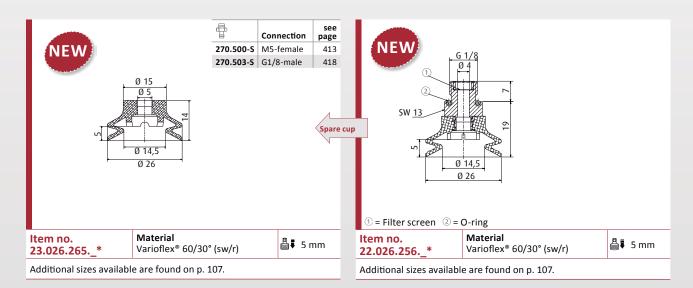
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

mm 🖹

Ø 26 mm







see page Connection NEW NEW G 1/8270.500-S M5-female 413 Ø 4 **270.503-S** G1/8-male SW <u>13</u> Spare cup Ø 12 Ø 23 Ø 12 Ø 26 Ø 23

Item no. Material Varioflex® 60/30° (sw/r)

å ₹8 mm

Additional sizes available are found on p. 110. **Ordering notes:** For version with in bellows inserted filter disc please add "-FI" to material code

Additional sizes available are found on p. 110.

Varioflex® 60/30° (sw/r)

1 = Filter screen 2 = O-ring

Item no.

20.026.148.

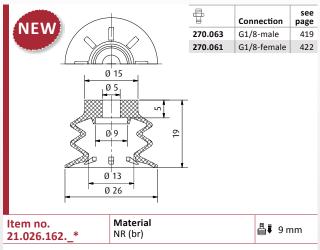


**₿** 8 mm

<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

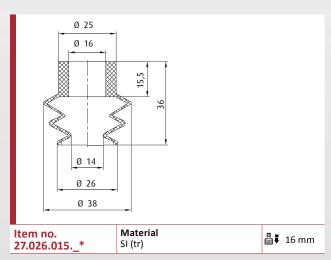


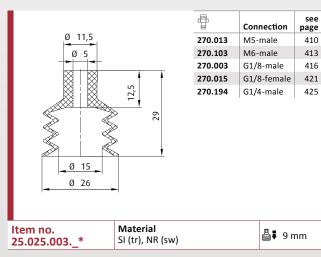
Ø 26 - 29 mm

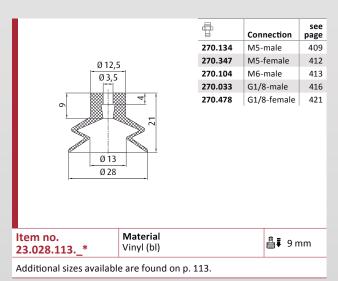


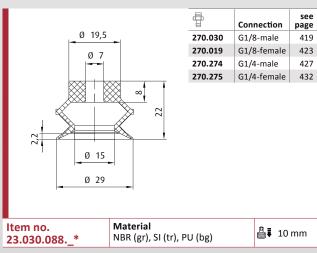
0 25 0 16 0 17,5 0 26 0 40 | Material | Si (tr) | 16 mm

Additional sizes available are found on p. 23.







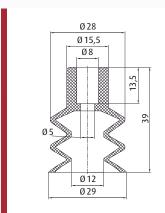


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

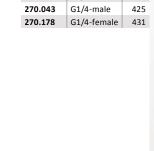


Ø 29 - 30 mm





-	Connection	see page
270.132	G1/8-male	417
270.114	G1/8-female	422
270.043	G1/4-male	425
270.178	G1/4-female	431

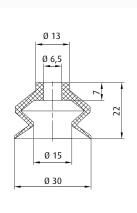


 Item no.
 Material

 21.029.069.\_\*
 Vinyl (bl)

# 10 mm

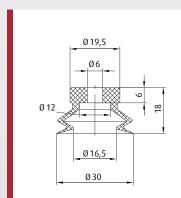
Additional sizes available are found on p. 116.



Item no. 23.030.107.\_\* Material Vinyl (bl)

₫**፣** 10.5 mm

Additional sizes available are found on p. 113.

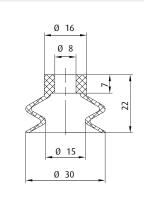


₩	Connection	page
270.312/19	M6-male	414
270.030	G1/8-male	419
270.019	G1/8-female	423
270.483	G1/4-male	429
270.484	G1/4-female	433

Item no. 23.030.155.\_\*

Material SI (tr) 4.5 mm

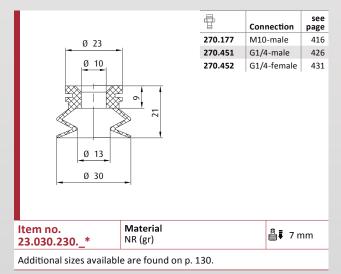
This vacuum cup is also available in the following dimensions: 6 mm, 10 mm, 15 mm, 20 mm  $\,$ 



<b>P</b>	Connection	see page
270.255	M8-male	415
270.486	G1/8-male	420
270.485	G1/8-female	423
270.487	G1/4-male	429
270.488	G1/4-female	434

Item no. 23.030.193.\_\*

Material Vulkollan® (br) **₽** 8 mm

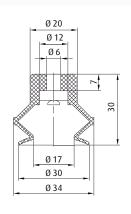


_					
		#	Con	nection	see page
	~ \	270.460	M6-	male	414
194		270.482	G1/8	8-male	420
0.17		270.481	G1/8	3-female	423
Ø 17	-	270.483	G1/4	4-male	429
Ø 12		270.484	G1/4	4-female	433
Ø 6			<b>#</b>		see page
	<u> </u>	50.085	6 mi	m	454
	S   E	50.128	10 n	nm	454
		50.129	15 n	nm	454
8,7	1	50.095	20 mm		456
Ø 14		50.096	30 n	nm	456
_ Ø 30	` _	50.097	40 n	nm	456
	-	50.098	50 n	nm	456
Item no. 23.030.141*	Material NBR (sw), SI (tr)			<b>₫</b> 8 n	nm
Additional sizes available	e are found on p. 1	119.			

<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 30 mm



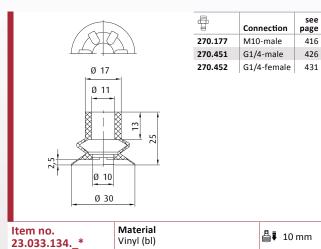
<b>P</b>	Connection	see page
270.312/19	M6-male	414
270.482	G1/8-male	420
270.481	G1/8-female	423
270.483	G1/4-male	429
270.484	G1/4-female	433
₽	₩=	See

270.404	G1/4 Terriale	- 433
	##	see page
50.095	20 mm	456
50.096	30 mm	456
50.097	40 mm	456
50.098	50 mm	456

Item no. Material 23.030.170.\_\* Vulkollan® (br)

**₽** 8 mm

Additional sizes available are found on p. 97.



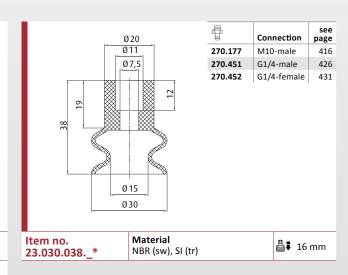
Ø 15

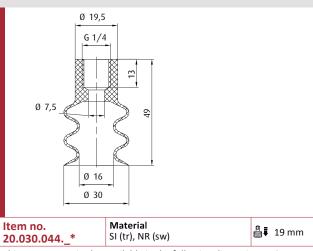
Item no. 22.030.035.\_\*

Material SI (tr), NR (sw)

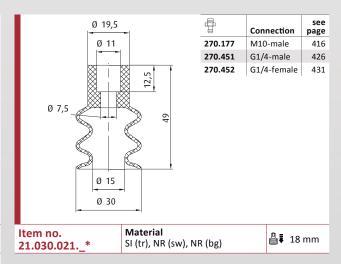
4 16 mm

This vacuum cup is also available in the following dimensions: 40 mm,





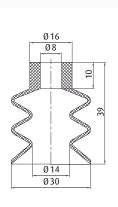
This vacuum cup is also available in the following dimensions: 40 mm, 50 mm



<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760







#	Connection	see page
270.315	M6-male	414
270.132	G1/8-male	417
270.114	G1/8-female	422
270.540	G1/4-male	429
270.539	G1/4-female	434

Ø 13,5 Ø8 Ø12

<b>a</b>	Connection	see page
270.132	G1/8-male	417
270.114	G1/8-female	422
270.208	G1/4-male	425
270.178	G1/4-female	431

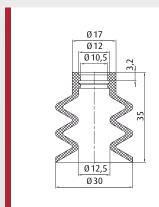
Item no. Material NBR (sw), SI (r) 21.030.018.

This vacuum cup is also available in the following dimensions: 15 mm,

Item no. 21.030.019.

NBR (sw), SI (r), NR (bg), PU (bl)

₫**፣** 13 mm



₽ -	Connection	see page
270.097	G1/4-male	426
270.098	G1/4-female	432
270.098	G1/4-female	432

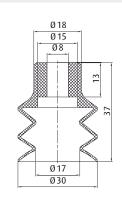
₫**‡** 18 mm

Item no. 21.030.022.\_\* Material NBR (sw), SI (bl)

4 14 mm

see page

This vacuum cup is also available in the following dimensions: 10 mm, 15 mm, 18 mm, 24 mm, 40 mm



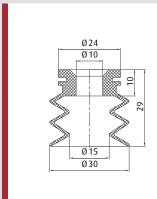
#	Connection	see page
270.315	M6-male	414
270.132	G1/8-male	417
270.114	G1/8-female	422
270.190	G1/4-male	428
270.540	G1/4-male	429
270.192	G1/4-female	432
270.539	G1/4-female	434

Item no. 21.032.091.

Material Vulkollan® (br)

4 16 mm

Additional sizes available are found on p. 97.



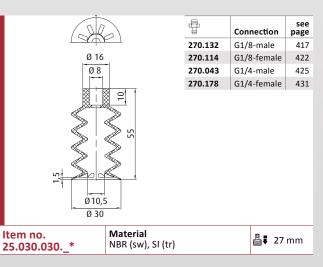
270.177	M10-male	416	
270.451	G1/4-male	426	
270.452	G1/4-female	431	

Connection

Item no. 21.030.030.\_\* SI (tr), NR (bl)

₫**፣** 13 mm

Additional sizes available are found on p. 130.

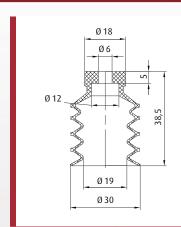


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760





Ø 30 - 31 mm



#	Connection	see page
270.460	M6-male	414
270.482	G1/8-male	420
270.481	G1/8-female	423
270.483	G1/4-male	429
270.484	G1/4-female	433

Item no. 25.030.046.

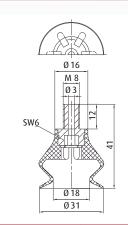
Item no.

23.030.035.\_\*

Material NBR (sw), SI (tr)

₫ 14 mm

Additional sizes available are found on p. 124.



Item no. 22.030.036.

Material NBR (sw), SI (tr), NR (sw)

**₽** 9 mm

see

414

419

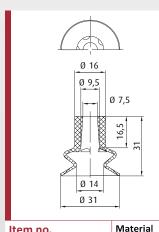
423

427

432

page

This vacuum cup is also available in the following dimensions: 25 mm,

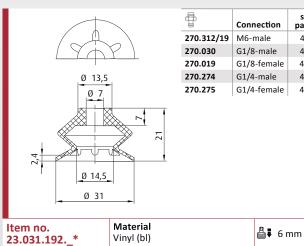


<b>P</b>	Connection	see page
270.132	G1/8-male	417
270.114	G1/8-female	422
270.208	G1/4-male	425
270.178	G1/4-female	431

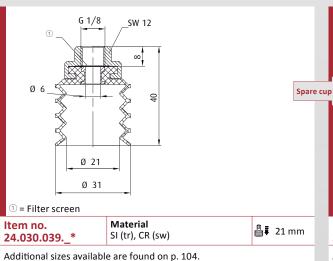
4 11 mm

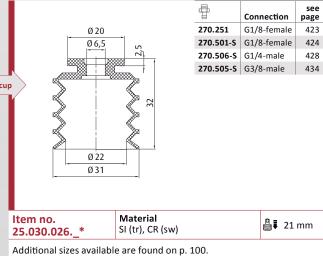
This vacuum cup is also available in the following dimensions: 53 mm,

NBR (sw), SI (r)



Additional sizes available are found on p. 113.



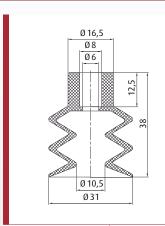


\* When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

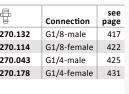


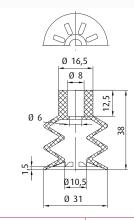
Ø 31 - 32 mm





<b>P</b>	Connection	see page
270.132	G1/8-male	417
270.114	G1/8-female	422
270.043	G1/4-male	425
270.178	G1/4-female	431

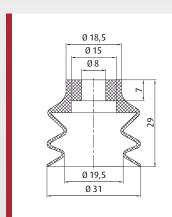




<b>a</b>	Connection	see page
270.132	G1/8-male	417
270.114	G1/8-female	422
270.043	G1/4-male	425
270.178	G1/4-female	431

Item no. 21.030.023. Material NBR (sw), SI (tr), NR (sw) Item no. 27.030.006.\_\* Material NBR (sw), SI (tr), NR (sw)

₫ 15 mm

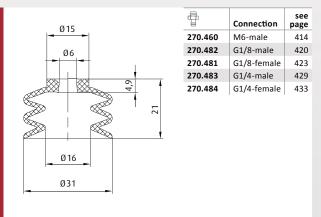


₽	Connection	see page
270.255	M8-male	415
270.486	G1/8-male	420
270.485	G1/8-female	423
270.487	G1/4-male	429
270.488	G1/4-female	434

₫ 15 mm

**WEAR-RESISTANT** 

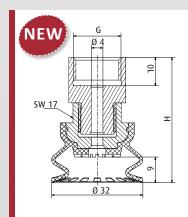
Item no. 21.030.076.\_\* Material Vulkollan® (br) ₫**፣** 14 mm



Material Item no. SI (tr), NR (sw) 21.031.048.

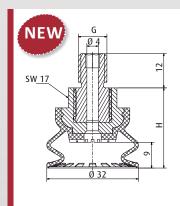
**₫** 6 mm

Additional sizes available are found on p. 97.



Item no.	Material	<b>□</b> [mm]	Connection thread	H [mm]
22.030.172*	NBR (bl)	9	G1/4-female	28
22.030.173*	NBR (bl)	9	G3/8-female	44

Additional sizes available are found on p. 133.



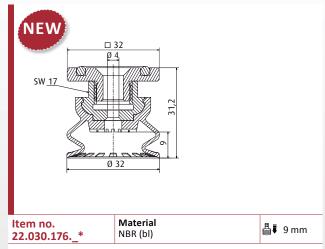
Item no.	Material	₽	[mm]	Connection thread	H [mm]
22.030.171*	NBR (bl)	9		G1/4-male	28
22.030.174*	NBR (bl)	9		M10-male	28
22.030.175*	NBR (bl)	9		M14x1.5-male	29

Additional sizes available are found on p. 133.

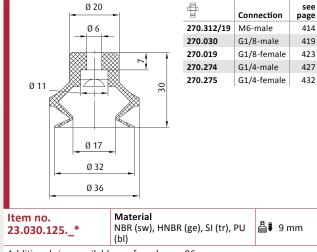
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 32 mm

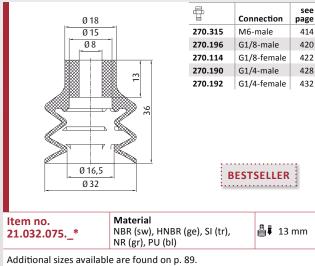


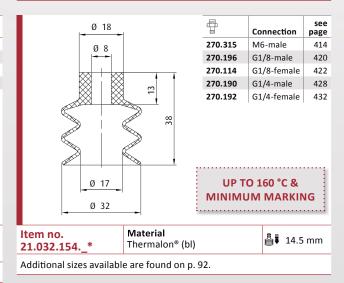
Additional sizes available are found on p. 133.

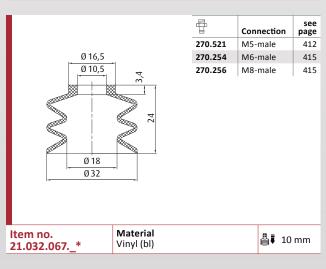


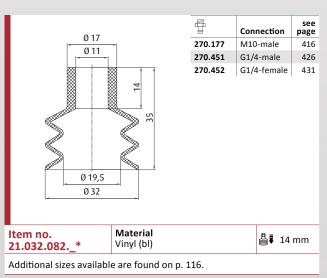
Additional sizes available are found on p. 86.

This vacuum cup is also available in the following dimensions: 11 mm, 15 mm, 21 mm, 42 mm, 54 mm







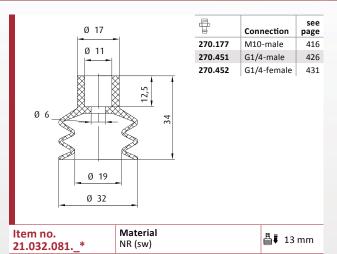


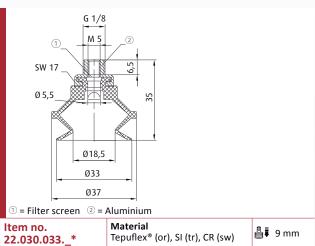
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



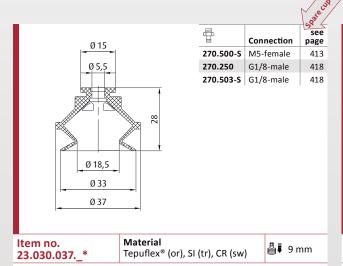
Ø 32 - 33 mm



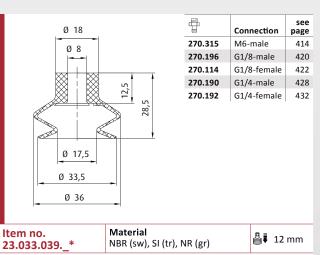




Additional sizes available are found on p. 104.

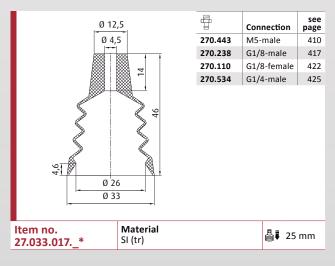


Additional sizes available are found on p. 100.



Additional sizes available are found on p. 81.

Ø 18		<b>a</b>	Connection	see page
		270.315	M6-male	414
Ø 8		270.196	G1/8-male	420
		270.114	G1/8-female	422
	m	270.190	G1/4-male	428
	-	270.192	G1/4-female	432
0 17 0 33 0 36			O 160 °C & JM MARKIN	IG
Item no. 23.033.241*	Material Thermalon® (bl)		<b>♣</b> 11	mm
Additional sizes availabl	e are found on p.	84.		

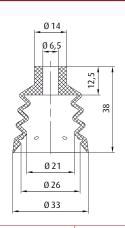


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

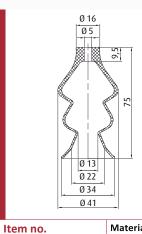




Ø 33 - 35 mm



<b>a</b>	Connection	see page
270.132	G1/8-male	417
270.114	G1/8-female	422
270.208	G1/4-male	425
270.178	G1/4-female	431



<b>a</b>	Connection	see page
270.443	M5-male	410
270.238	G1/8-male	417
270.110	G1/8-female	422
270.534	G1/4-male	425

Item no. 27.033.008.\_\*

Material SI (tr) ₫ 16 mm

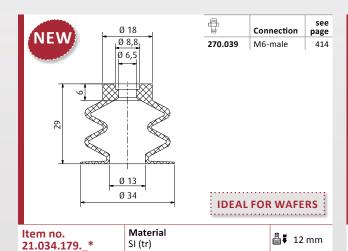
Material SI (r)

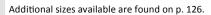
al al ag mm

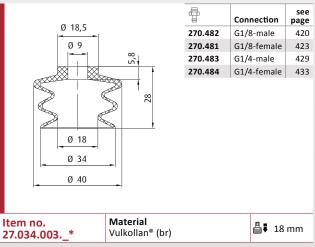
Additional sizes available are found on p. 129.

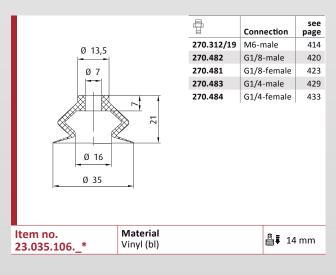
Additional sizes available are found on p. 129.

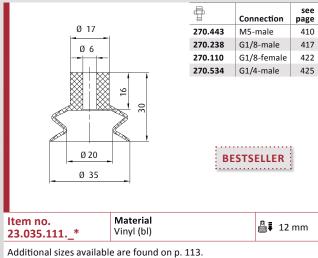
27.034.023.









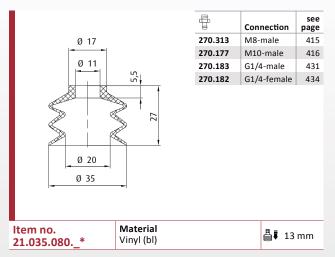


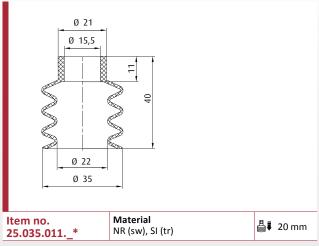
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

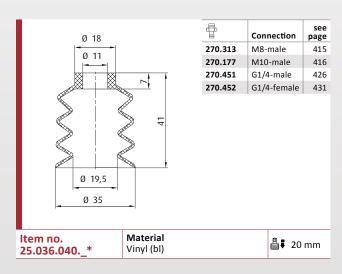


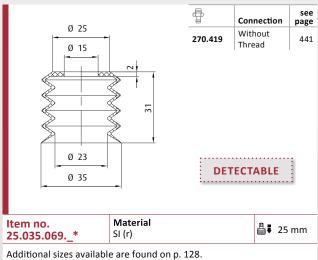
mm  $\stackrel{\longleftarrow}{\leqslant}$ 

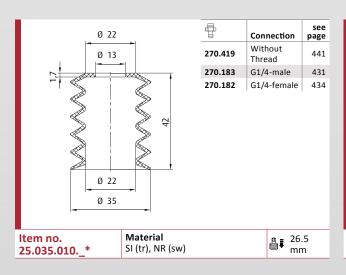
Ø 35 mn

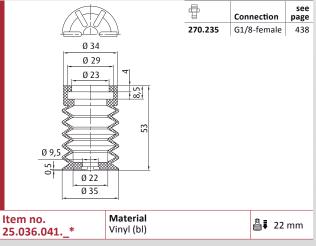










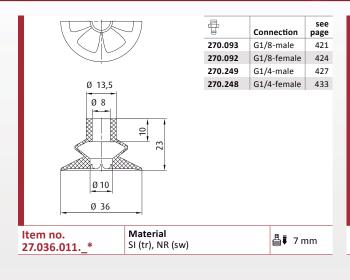


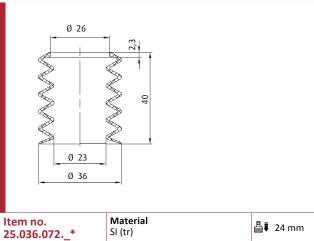
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

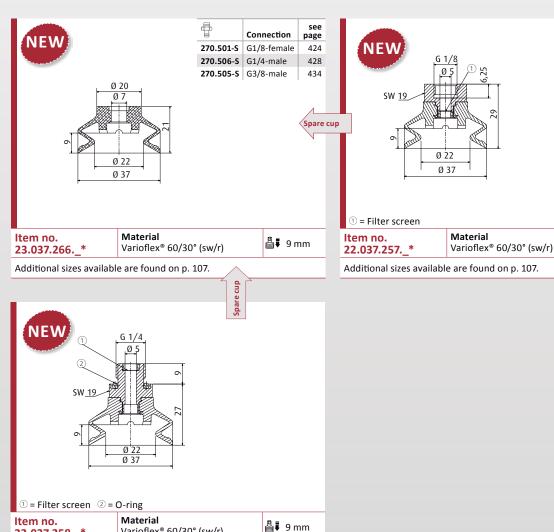




Ø 36 - 37 mm







Varioflex® 60/30° (sw/r)

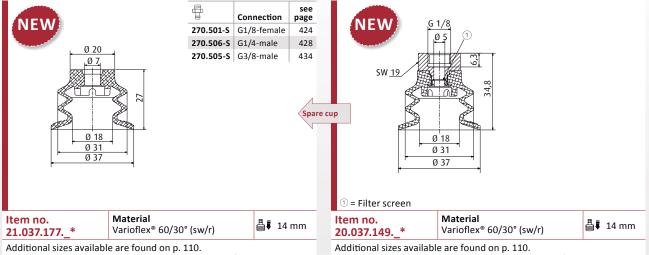


Additional sizes available are found on p. 107.

**₽** 9 mm

22.037.258.\_\*

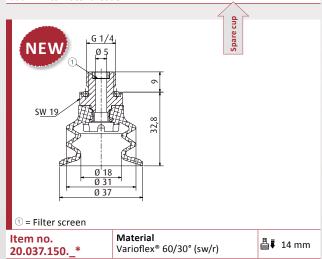
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



add "-FI" to material code

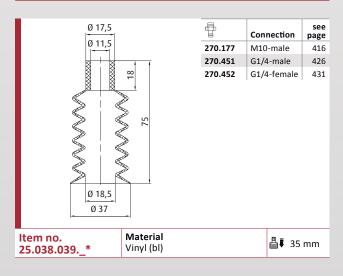
Additional sizes available are found on p. 110.

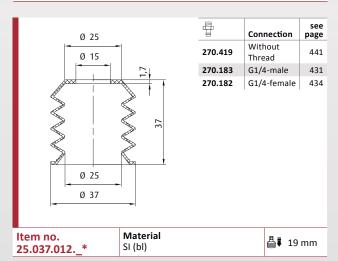
Ordering notes: For version with in bellows inserted filter disc please add "-FI" to material code



Additional sizes available are found on p. 110.

**Ordering notes:** For version with in bellows inserted filter disc please add "-FI" to material code



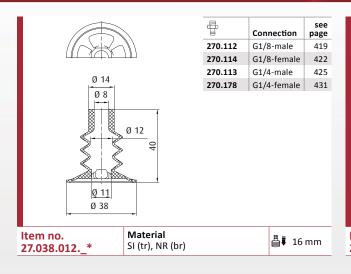


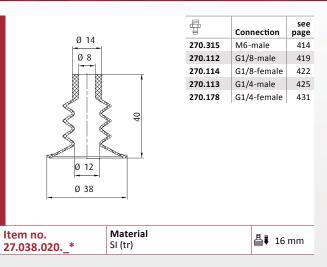
Ordering notes: For version with in bellows inserted filter disc please

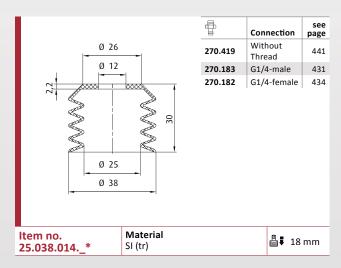
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

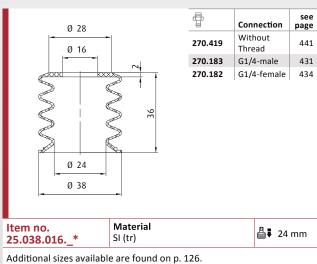


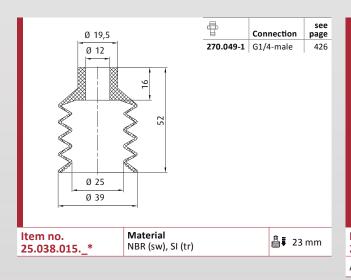
Ø 38 - 39 mm

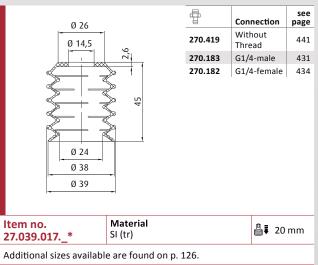










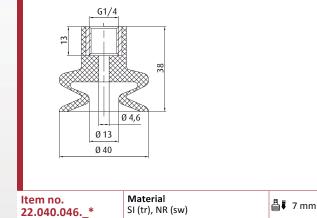


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

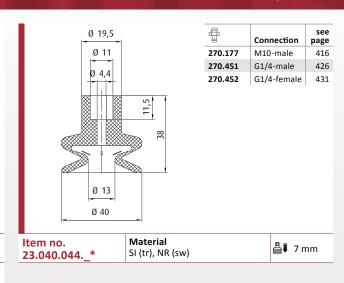


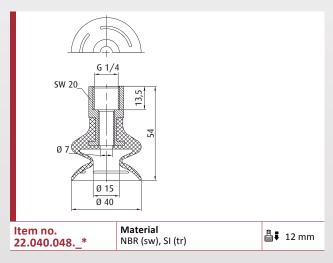
) mm

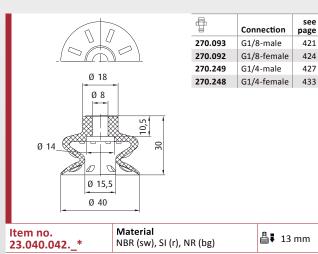
Ø 40 mm



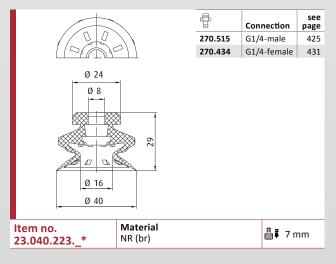
This vacuum cup is also available in the following dimensions: 30 mm, 44 mm, 50 mm  $\,$ 

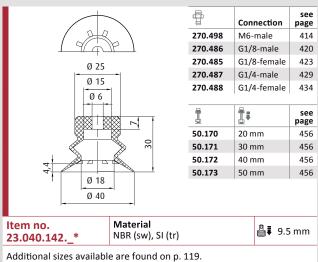






This vacuum cup is also available in the following dimensions: 14 mm, 24 mm, 60 mm



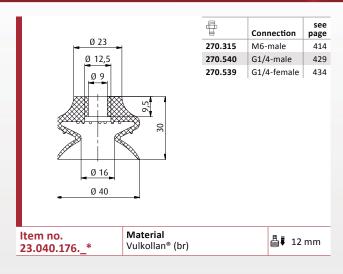


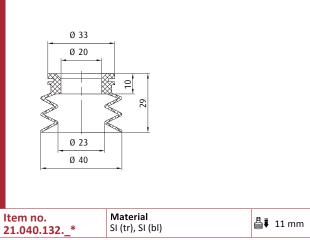
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



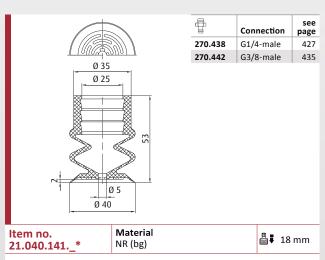


Ø 40 mm

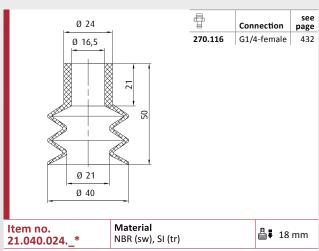




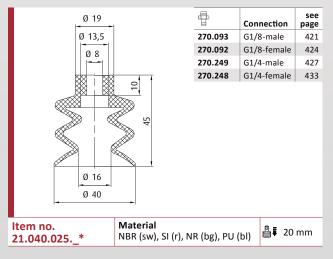
Additional sizes available are found on p. 130.

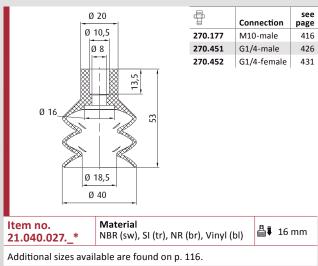


 $\label{eq:Additional sizes} Additional \ sizes \ available \ are \ found \ on \ p. \ 23.$ 



This vacuum cup is also available in the following dimensions: 60 mm





<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 18

Ø 11,5

Ø10,5

Ø 17,5

Ø 40

Ø 40 mm

Connection

G1/4-female

G1/4-male

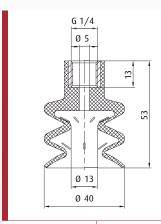
270.097

270.098

see page

426

432



Item no. 20.040.054.

This vacuum cup is also available in the following dimensions: 30 mm,

NBR (sw), SI (tr), NR (sw), NR (bg)

₫ 16 mm

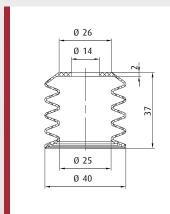
Item no.

see

Material NBR (sw), SI (bl)

₫**‡** 20 mm

This vacuum cup is also available in the following dimensions: 10 mm, 15 mm, 18 mm, 24 mm, 30 mm



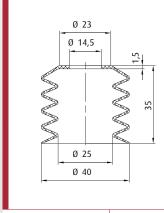
	Connection	page
270.419	Without Thread	441
270.183	G1/4-male	431
270.182	G1/4-female	434

Item no. 25.040.043.\_\*

Material SI (tr)

₫ 24 mm

Additional sizes available are found on p. 126.



#	Connection	see page
270.419	Without Thread	441
270.183	G1/4-male	431
270.182	G1/4-female	434

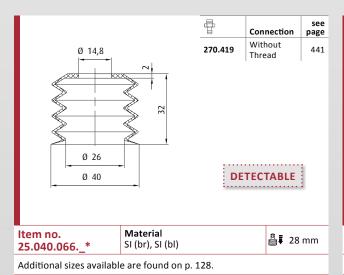
Item no. 25.040.058.\_\*

21.040.028.

Material SI (bl)

₫**፣** 25 mm

Additional sizes available are found on p. 126.



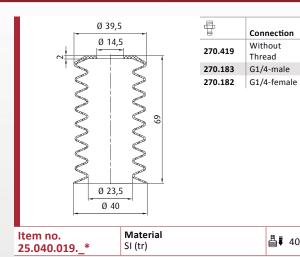
Ø 25		₽ ·	Connection	see page
Ø 6		270.486	G1/8-male	420
	-	270.485	G1/8-female	423
	× . 1 +	270.487	G1/4-male	429
Ø 15	× '`-'	270.488	G1/4-female	434
Ø 28 Ø 40	Material			
Item no. 25.040.047*	NBR (sw), SI (tr)		₫ 19	mm
Additional sizes availabl	e are found on p. :	124.		

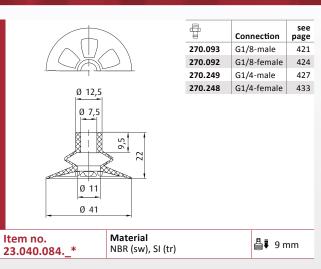
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

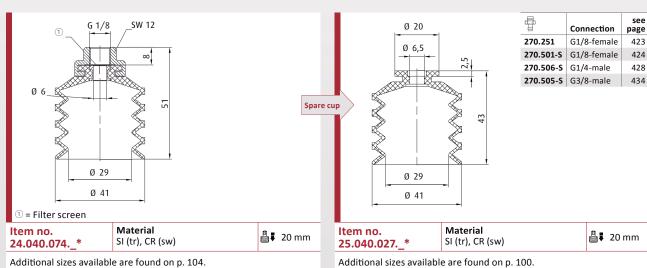




Ø 40 - 42 mm





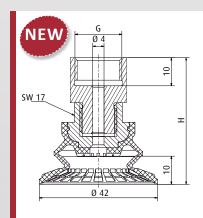


see page

441

431

₫ **4**0 mm



Item no.	Material	<b>ૄૄ</b> [mm]	Connection thread	H [mm]
22.040.178*	NBR (bl)	10	G1/4-female	29
22.040.179*	NBR (bl)	10	G3/8-female	29

Additional sizes available are found on p. 133.

NEW G 0 4	
SW 17	12
	Ξ
	10
Ø 42	

Item no.	Material	₽₽	[mm]	Connection thread	H [mm]
22.040.177*	NBR (bl)	10		G1/4-male	29
22.040.180*	NBR (bl)	10		M10-male	29
22.040.181*	NBR (bl)	10		M14x1.5-male	29

Additional sizes available are found on p. 133.

<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 25

Ø6

Ø 23

Ø 42 Ø 46

Ø 42

Item no.

21.043.049.

Material

Additional sizes available are found on p. 89.

NBR (sw), HNBR (ge), SI (tr), NR (gr)

Ø 11,5

Ø 42 mm

Connection

M6-male

G1/8-male

G1/4-male

G1/8-female

G1/4-female

270.312/19

270.030

270.019

270.274

270.275

see page

414

419

423

427

432

see

page

414

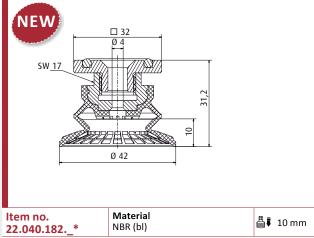
420

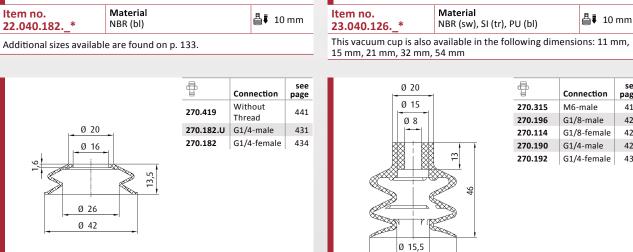
422

428

432

₫ 19 mm

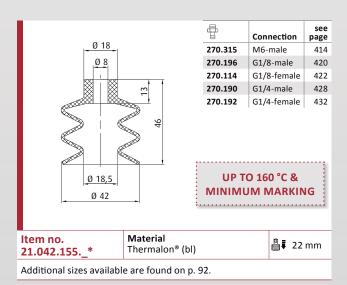




4 11 mm

SI (tr), NR (sw), NR (br) This vacuum cup is also available in the following dimensions: 47 mm

Material

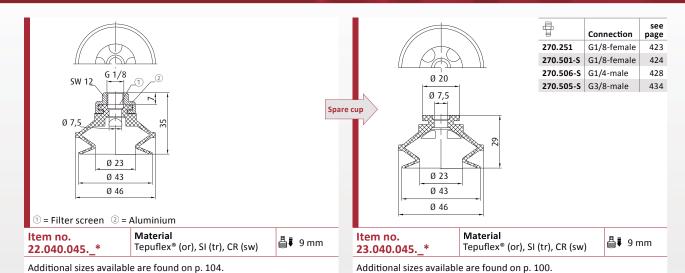


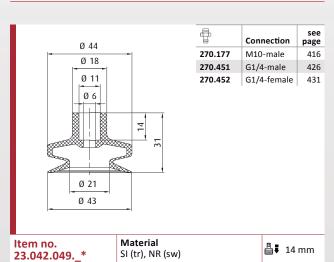
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

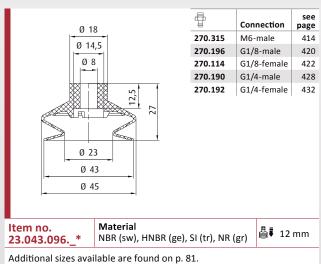


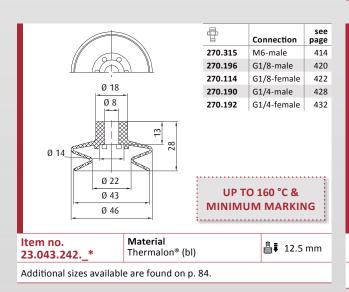
Item no.

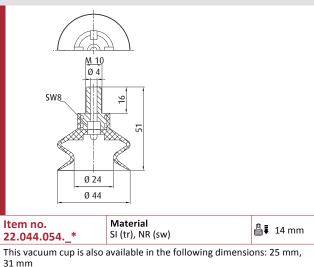
Ø 43 - 44 mm









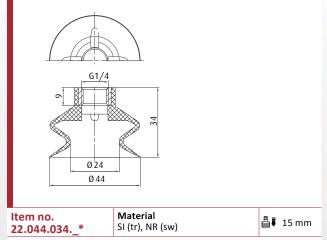


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

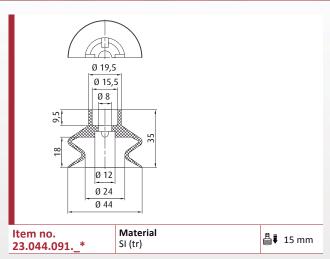


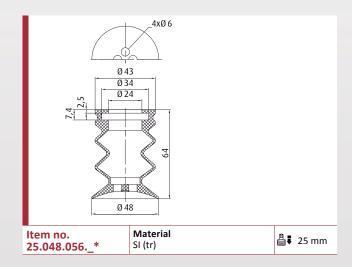
Ø 44 - 50 mm

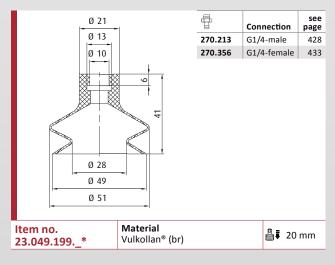


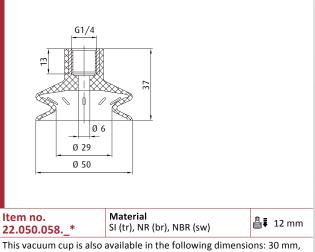


This vacuum cup is also available in the following dimensions: 30 mm, 40 mm, 50 mm  $\,$ 









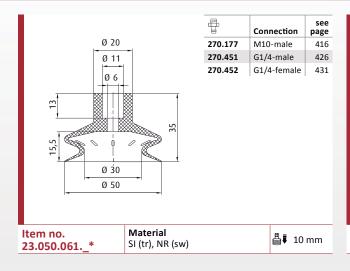
This vacuum cup is also available in the following dimensions: 30 mm 40 mm, 44 mm

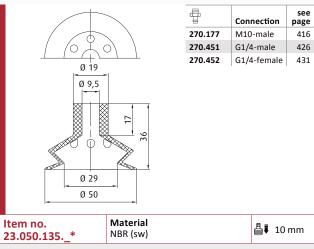


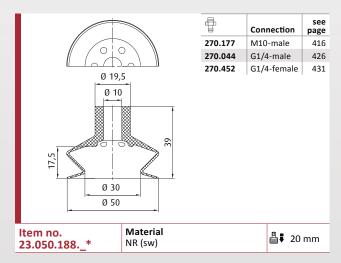
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

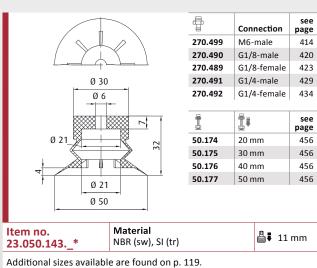


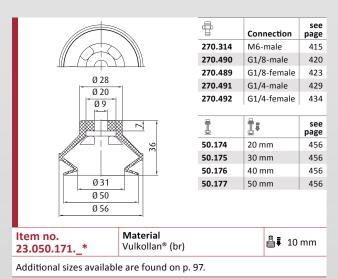
Ø 50 mm











<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 20

Ø 50 mm

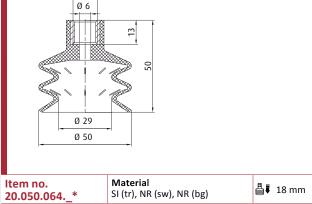
Connection

M10-male

270.177

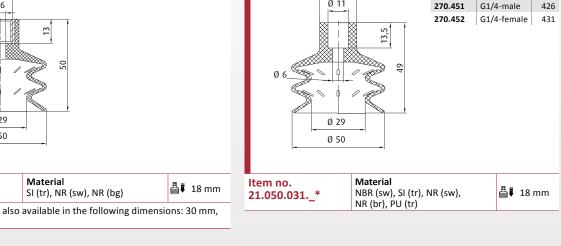
see page

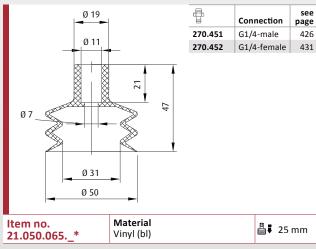
416

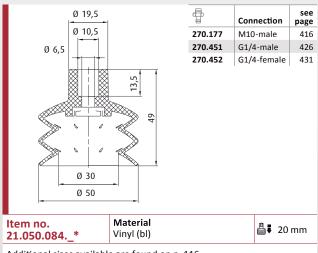


G 1/4

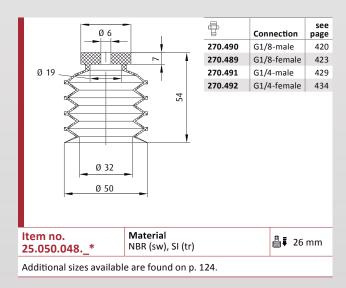
This vacuum cup is also available in the following dimensions: 30 mm,

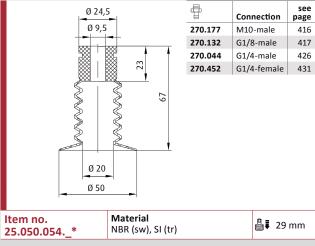






Additional sizes available are found on p. 116.



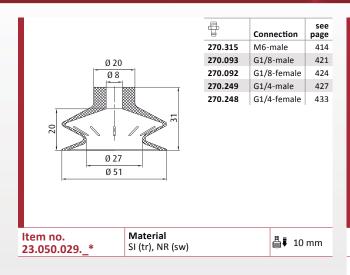


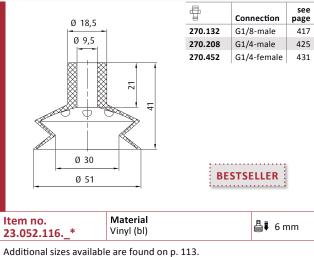
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



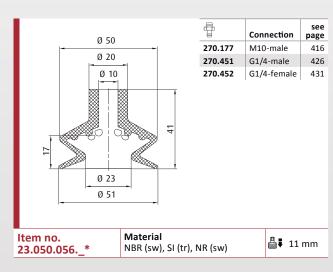


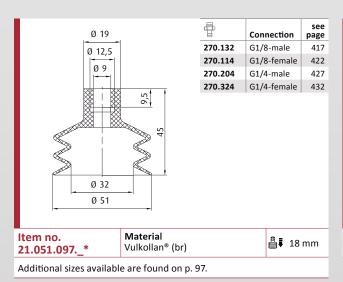
Ø 51 mm

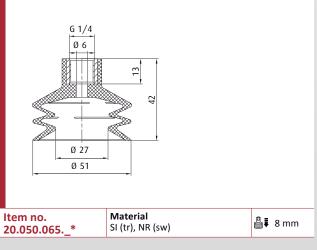




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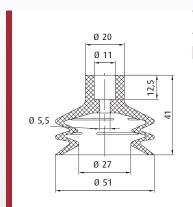


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 51 - 52 mm





<b>a</b>	Connection	see page
270.177	M10-male	416
270.451	G1/4-male	426
270.452	G1/4-female	431

| Item no. | Material | NBR (sw), SI (tr), NR (sw), NR (br) |

1 = Filter screen 2 = Aluminium

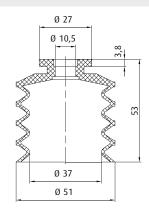
Item no. Material

24.050.087.\_\*

Material SI (tr), CR (sw)

₫ **3**0 mm

Additional sizes available are found on p. 104.



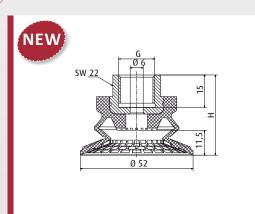
骨	Connection	see page
	Comiccion	Pubc
270.252	G1/8-female	424
270.502-S	G1/8-female	424
270.504-S	G1/4-male	429
270.507-S	G3/8-male	435

Item no. 25.050.028.\_\*

Material SI (tr), CR (sw)

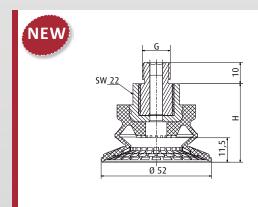
₫ **2**5 mm

Additional sizes available are found on p. 100.



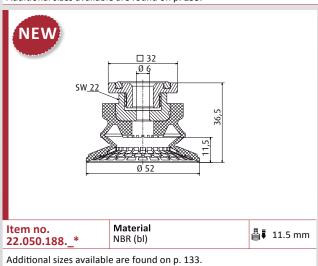
Item no.	Material	[mm]	Connection thread	H [mm]
22.050.184*	NBR (bl)	11.5	G1/4-female	42
22.050.185*	NBR (bl)	11.5	G3/8-female	37

Additional sizes available are found on p. 133.



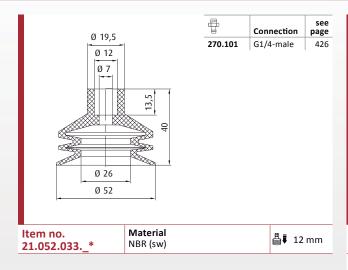
Item no.	Material	<b>□</b> [mm]	Connection thread	<b>H</b> [mm]
22.050.183*	NBR (bl)	11.5	G1/4-male	37
22.050.186*	NBR (bl)	11.5	M10-male	37
22.050.187*	NBR (bl)	11.5	M14x1.5-male	37

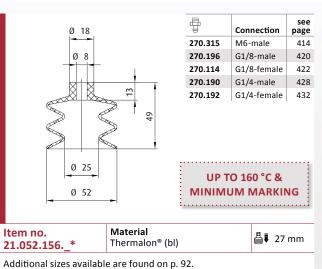
Additional sizes available are found on p. 133.

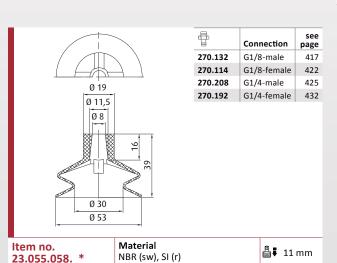


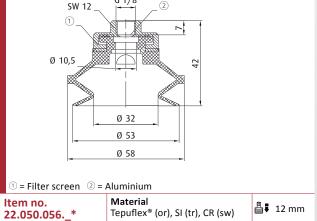


Ø 52 - 53 mm



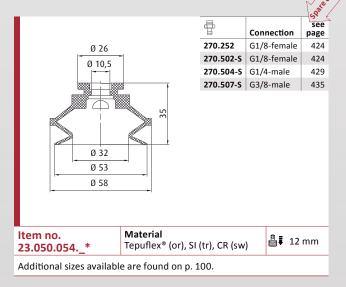






Additional sizes available are found on p. 104.

This vacuum cup is also available in the following dimensions: 31 mm, 75 mm  $\,$ 

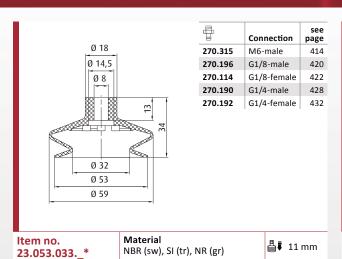


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



m E

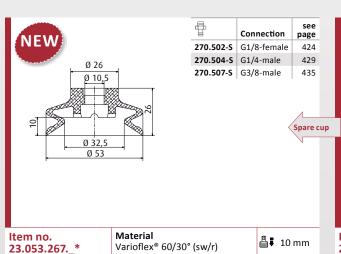
Ø 53 mr

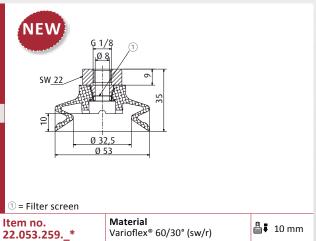


Additional sizes available are found on p. 81.

see page Connection 270.315 M6-male 414 Ø 18 270.196 G1/8-male 420 Ø8 270.114 G1/8-female 422 270.190 G1/4-male 428 270.192 G1/4-female 432 Ø 14 Ø 33 Ø 53 **UP TO 160 °C & MINIMUM MARKING** Ø 59 Item no. Material ₫**፣** 15 mm Thermalon® (bl) 23.053.243.

Additional sizes available are found on p. 84.

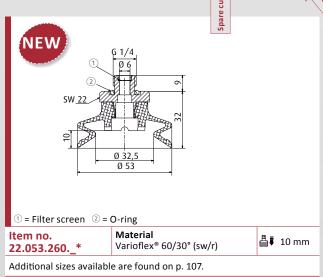




Additional sizes available are found on p. 107.

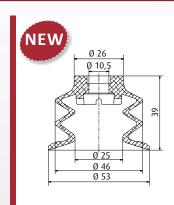
Additional sizes available are found on p. 107.

NEW



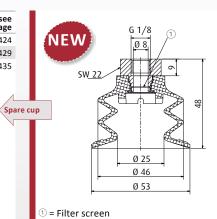
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

Ø 53 - 56 mm



<b>a</b>	Connection	see page
270.502-S	G1/8-female	424
270.504-S	G1/4-male	429
270.507-S	G3/8-male	435

₫ 19 mm



Additional sizes available are found on p. 110.

Item no. 21.053.178. Material Varioflex® 60/30° (sw/r)

Spare cup

Item no. 20.053.151

NEW

add "-FI" to material code

SW 2

Material Varioflex® 60/30° (sw/r)

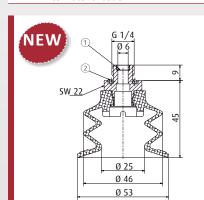
Ordering notes: For version with in bellows inserted filter disc please

**♣** 19 mm

Additional sizes available are found on p. 110.

Ordering notes: For version with in bellows inserted filter disc please

add "-FI" to material code



Additional sizes available are found on p. 110.

Item no. 20.053.152.

1 = Filter screen 2 = O-ring

Material Varioflex® 60/30° (sw/r)

Item no. ₫**፣** 19 mm 20.053.153.

see

415

414

420

423

434

page

Connection

M6-male

M6-male

G1/8-male

G1/8-female

G1/4-female

Spare cup

Material Varioflex® 60/30° (sw/r)

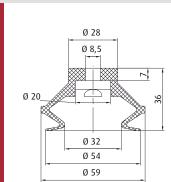
② = **O**-ring

₫ 19 mm

Additional sizes available are found on p. 110. Ordering notes: For version with in bellows inserted filter disc please add "-FI" to material code

1 = Filter screen

Ordering notes: For version with in bellows inserted filter disc please add "-FI" to material code



·		
Material NBR (sw), SI (tr), PU (bl)	₽	10 mm

270.314

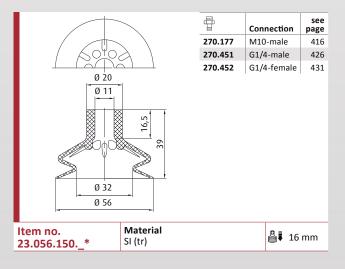
270,499

270.490

270.489

270.492

This vacuum cup is also available in the following dimensions: 11 mm,



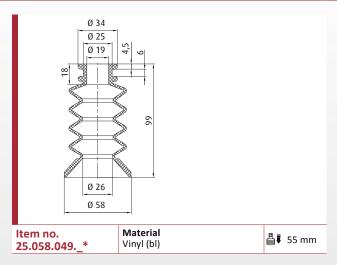
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

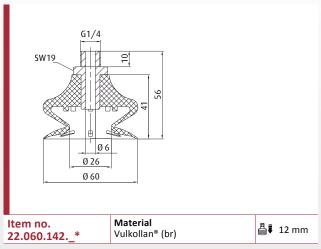


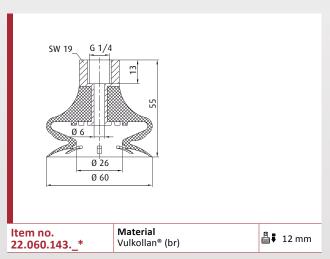
Item no.

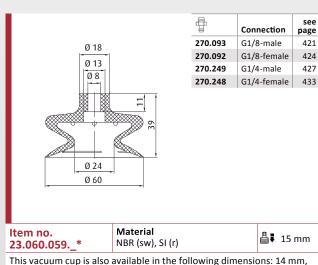
23.050.127.

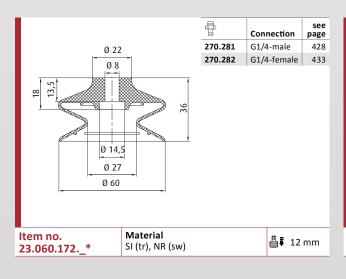
Ø 58 - 60 mm

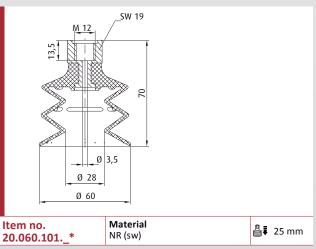










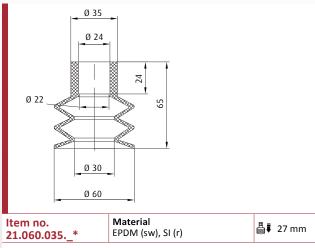


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

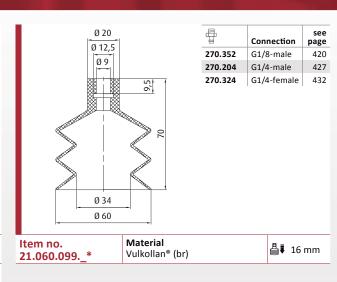


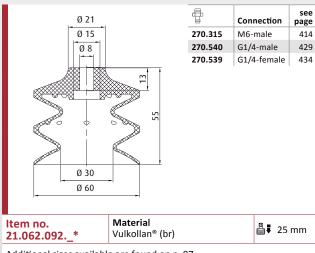


Ø 60 - 61 mm

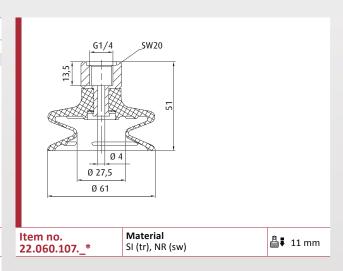


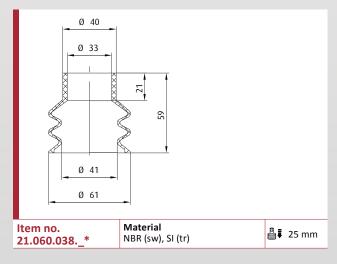
This vacuum cup is also available in the following dimensions: 40 mm

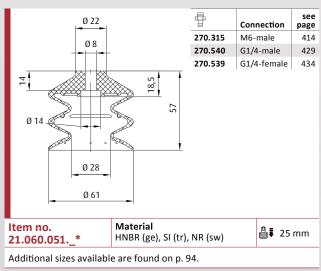




Additional sizes available are found on p. 97.



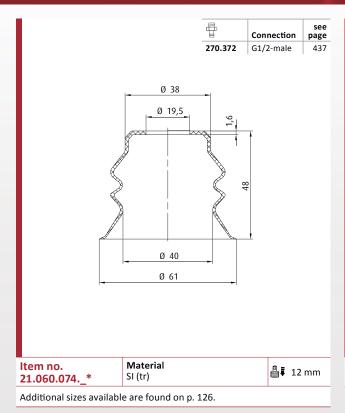


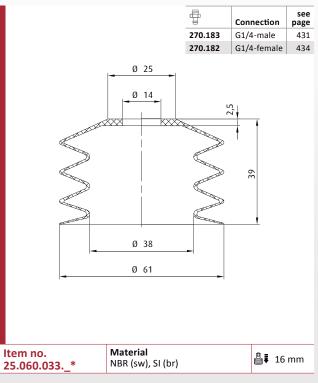


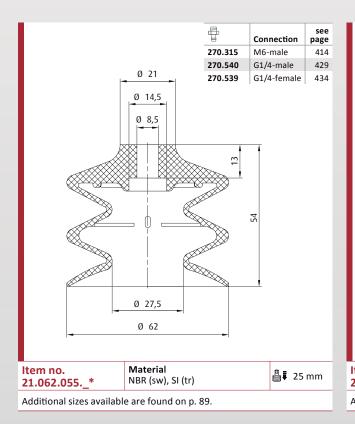
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

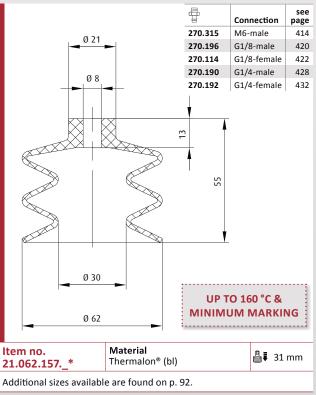


Ø 61 - 62 mm







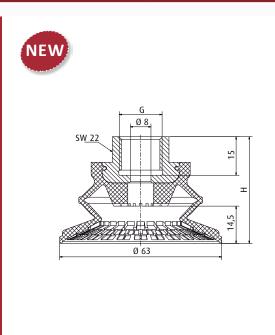


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



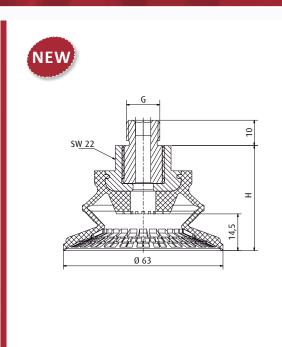


Ø 62 - 63 mm



lhama na	Makawial	[mm]	Connection	II [mama]
Item no.	Material		thread	H [mm]
22.060.190*	NBR (bl)	14.5	G1/4-female	46.5
22.060.191. *	NBR (bl)	14.5	G3/8-female	41.5

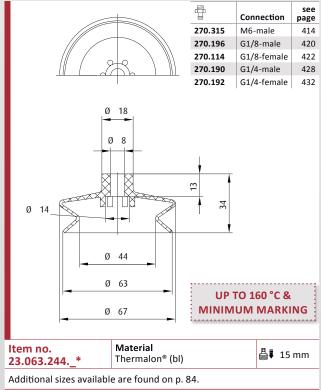
Additional sizes available are found on p. 133.



Item no.	Material	<b>₽</b> [mm]	Connection thread	H [mm]
22.060.189*	NBR (bl)	14.5	G1/4-male	41.5
22.060.192*	NBR (bl)	14.5	M10-male	41.5
22.060.193*	NBR (bl)	14.5	M14x1.5-male	41.5

Additional sizes available are found on p. 133.



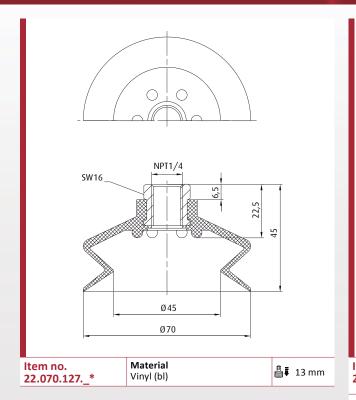


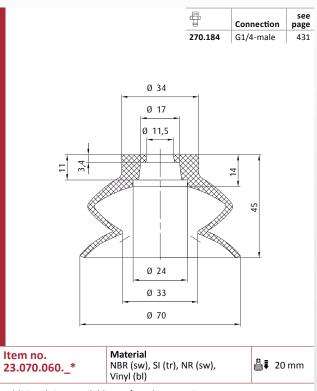
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



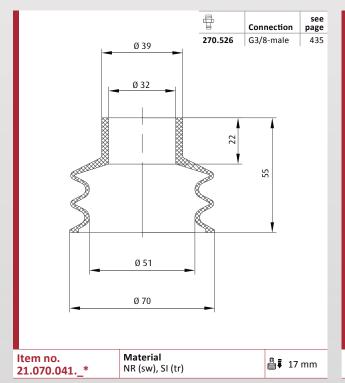


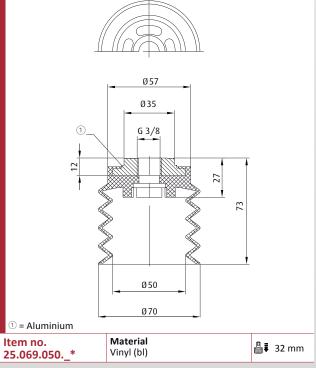
Ø 70 mm





Additional sizes available are found on p. 113.



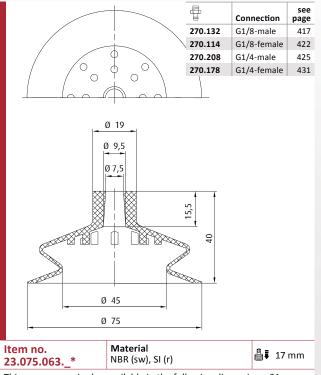




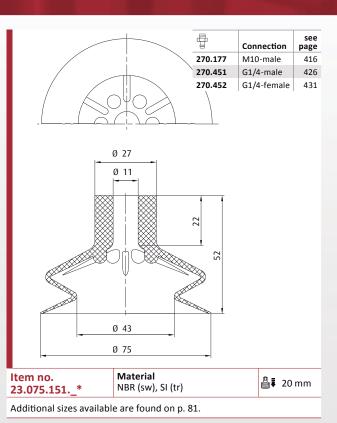
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



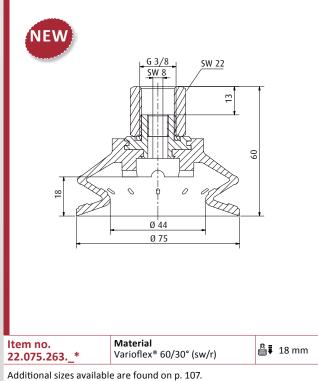
Ø 75 mm



This vacuum cup is also available in the following dimensions: 31 mm, 53 mm  $\,$ 



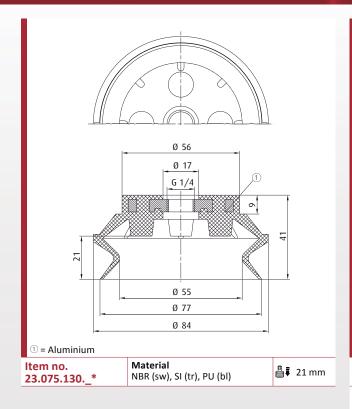


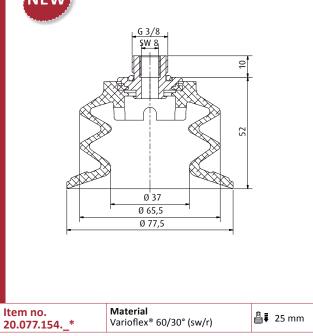


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

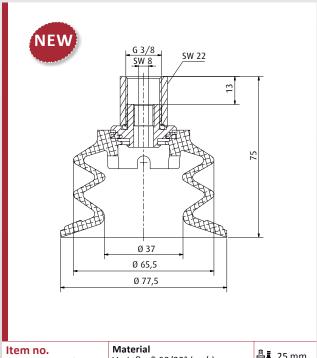


Ø 77 - 78 mm





Additional sizes available are found on p. 110. **Ordering notes:** For version with in bellows inserted filter disc please add "-FI" to material code



Item no.
20.077.155.\_\*

Material
Varioflex® 60/30° (sw/r)

Additional sizes available are found on p. 110.

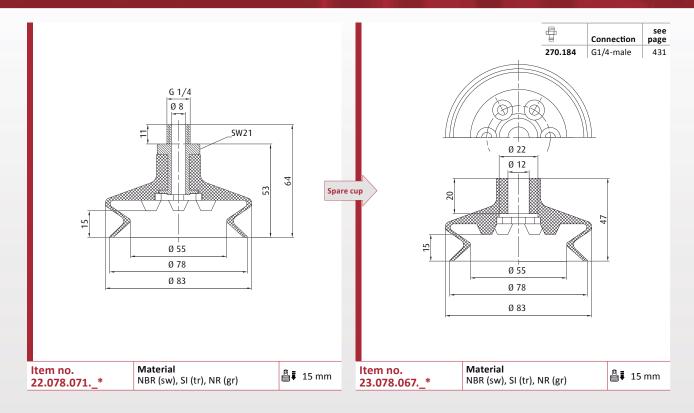
Ordering notes: For version with in bellows inserted filter disc please add "-FI" to material code

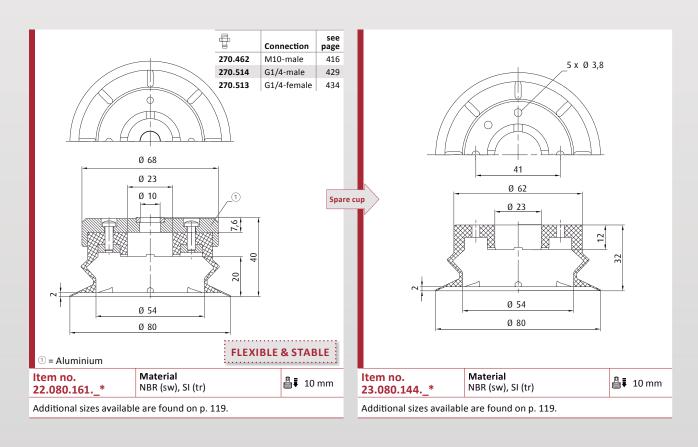
Connection page 270.364 G1/4-male 430 Ø 46 Ø 13,5 40 Ø 40 Ø 78 1 = Aluminium Material Item no. ₫ **2**3 mm SBR (br) 22.080.144.\_\*

<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 78 - 80 mm



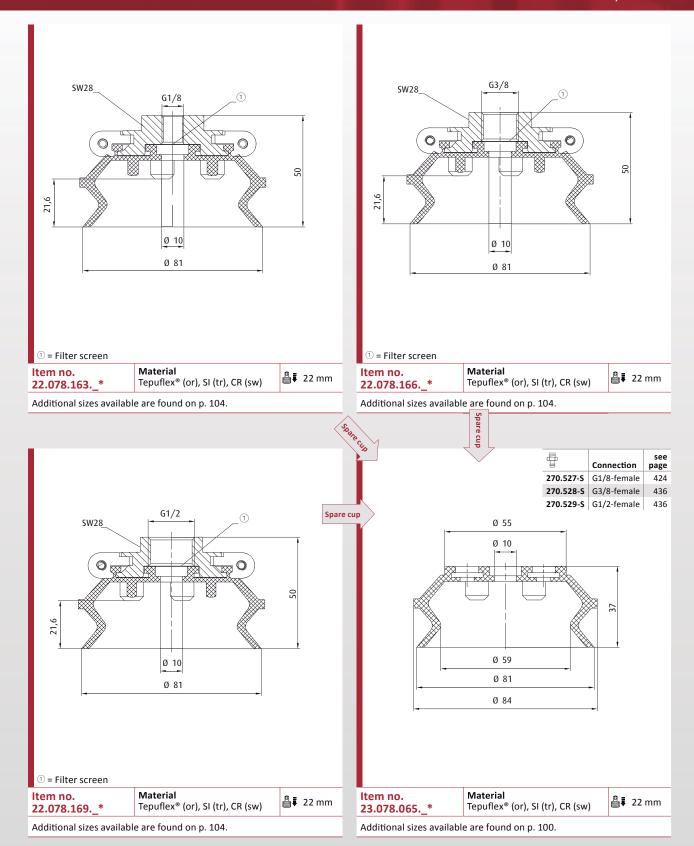


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760





Ø 81 mn

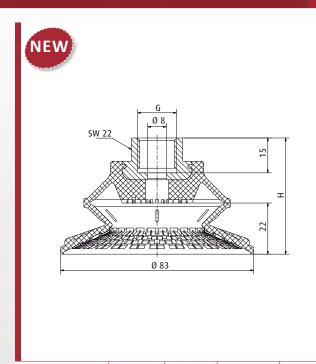


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760





Ø 82 - 84 mm



NEW	
SW 22	H 10
<u>. 0 83</u>	

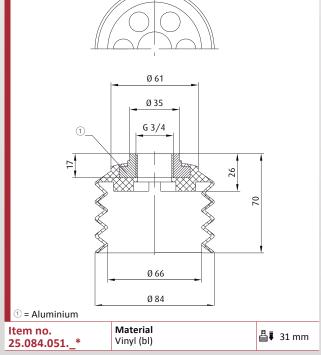
Item no.	Material	[mm]	Connection thread	H [mm]
22.080.196*	NBR (bl)	22	G1/4-female	55
22.080.197*	NBR (bl)	22	G3/8-female	50

Additional sizes available are found on p. 133.

Item no.	Material	<b>□</b> [mm]	Connection thread	H [mm]
22.080.195*	NBR (bl)	22	G1/4-male	50
22.080.198*	NBR (bl)	22	M10-male	50
22.080.199*	NBR (bl)	22	M14x1.5-male	50

Additional sizes available are found on p. 133.

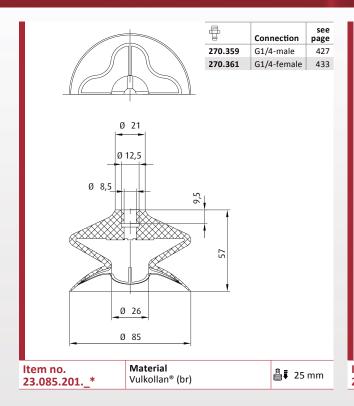


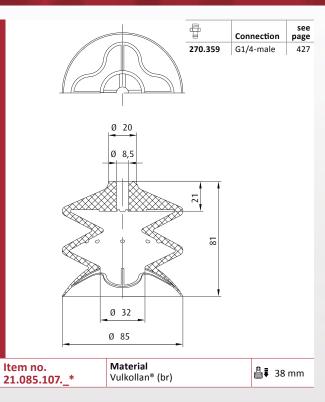


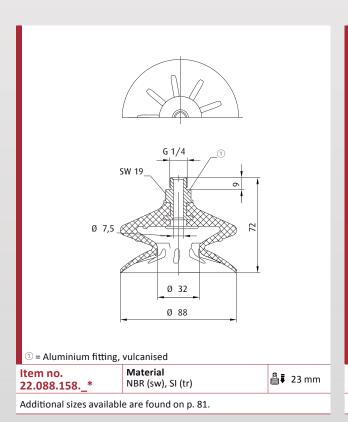
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

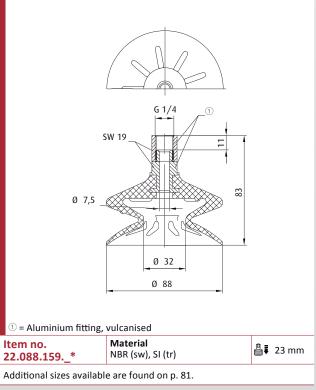


Ø 85 - 88 mm





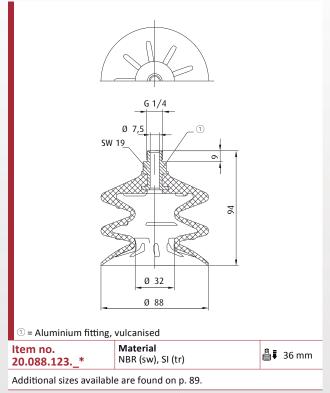


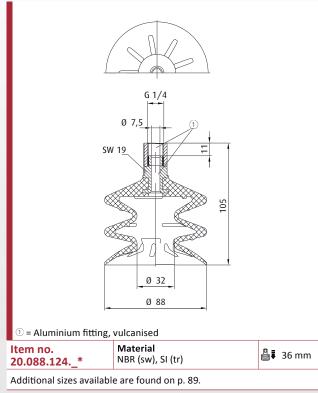


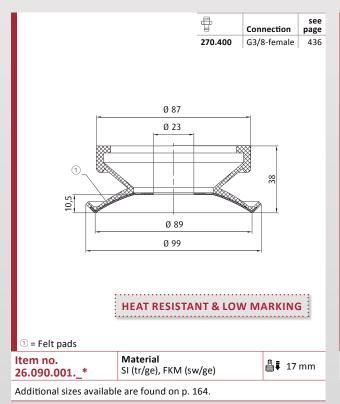
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

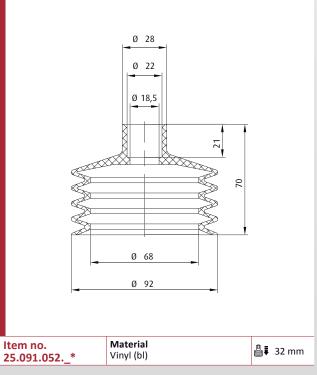


Ø 88 - 92 mm







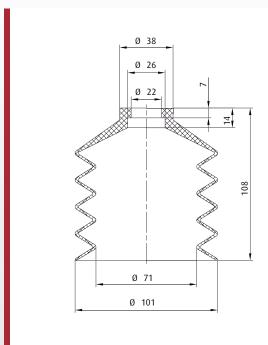


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 101 - 103 mm



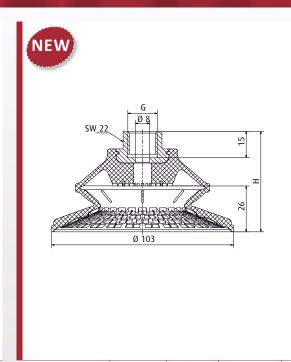


Material

Vinyl (bl)

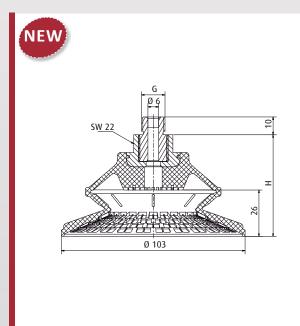
Item no.

25.102.053.\_\*



Item no.	Material	<b>□</b> [mm]	Connection thread	H [mm]
22.100.202*	NBR (bl)	26	G1/4-female	62
22.100.203*	NBR (bl)	26	G3/8-female	57

Additional sizes available are found on p. 133.



Item no.	Material	<b>♣</b> [mm]	Connection thread	H [mm]	
22.100.201*	NBR (bl)	26	G1/4-male	57	
22.100.204*	NBR (bl)	26	M10-male	57	
22.100.205*	NBR (bl)	26	M14x1.5-male	57	
Additional sizes available are found on p. 133.					

□ 32 Ø 103 Material NBR (bl) Item no. 📲 26 mm 22.100.206. \*

Additional sizes available are found on p. 133.

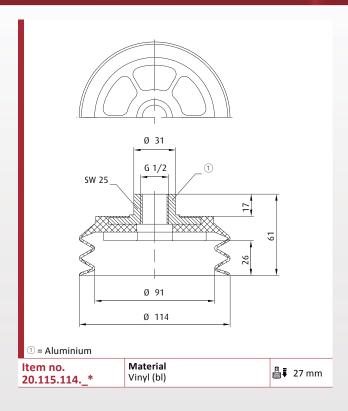
₫**፣** 55 mm

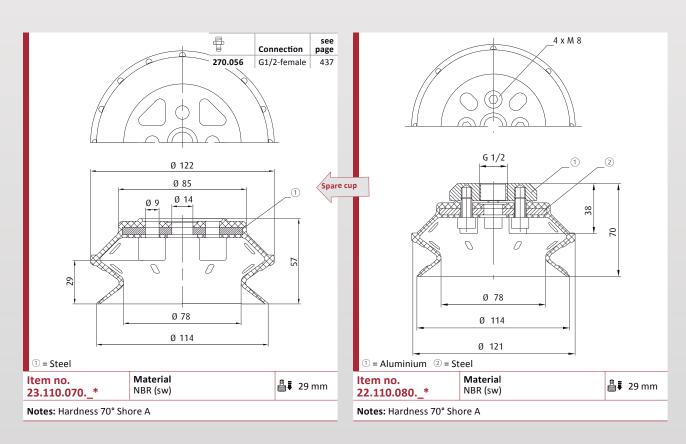


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 114 mm

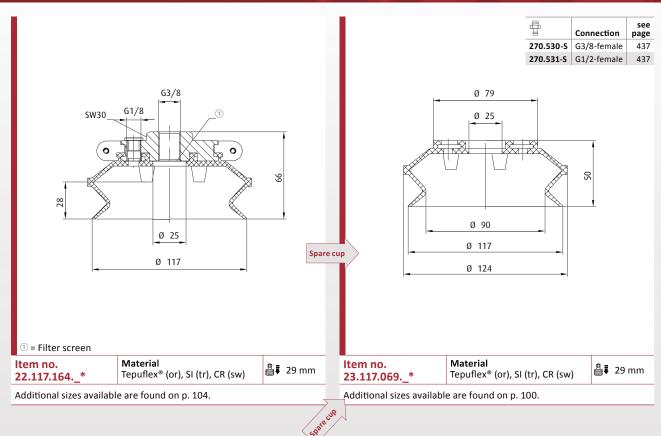


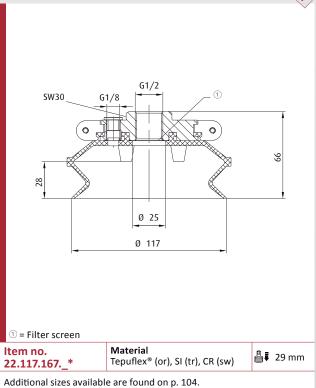


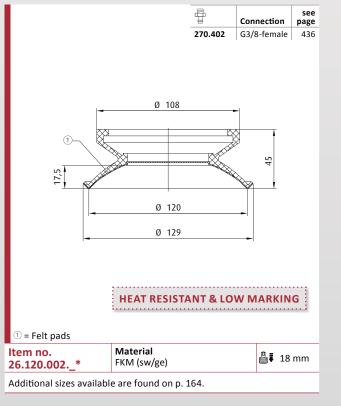
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 117 - 120 mm



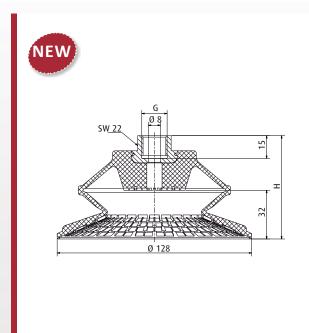




<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 128 mm





Item no.	Material	<b>♣</b> [mm]	Connection thread	H [mm]
22.125.208*	NBR (bl)	32	G1/4-female	73
22.125.209*	NBR (bl)	32	G3/8-female	68

Additional sizes available are found on p. 133.

Item no.	Material	<b>₽</b> [mm]	Connection thread	H [mm]
22.125.207*	NBR (bl)	32	G1/4-male	68
22.125.210*	NBR (bl)	32	M10-male	68
22.125.211*	NBR (bl)	32	M14x1.5-male	68

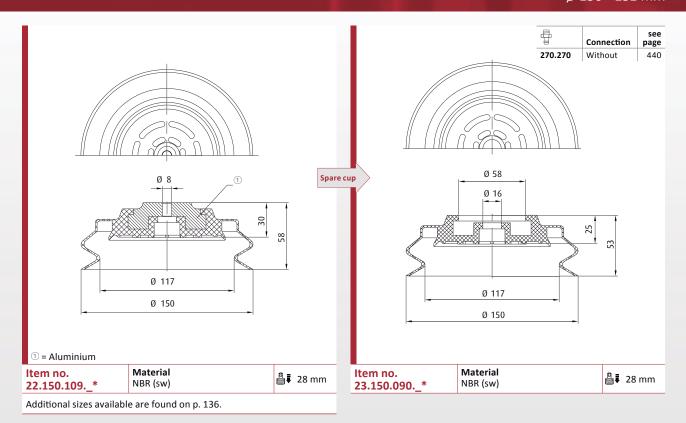
Additional sizes available are found on p. 133.

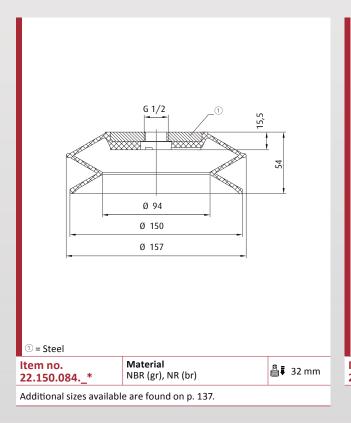


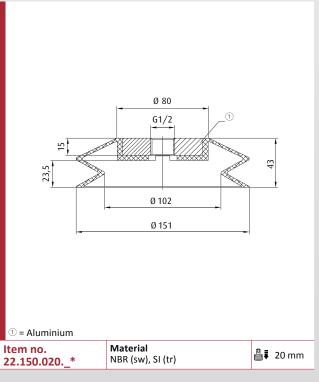
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 150 - 151 mm



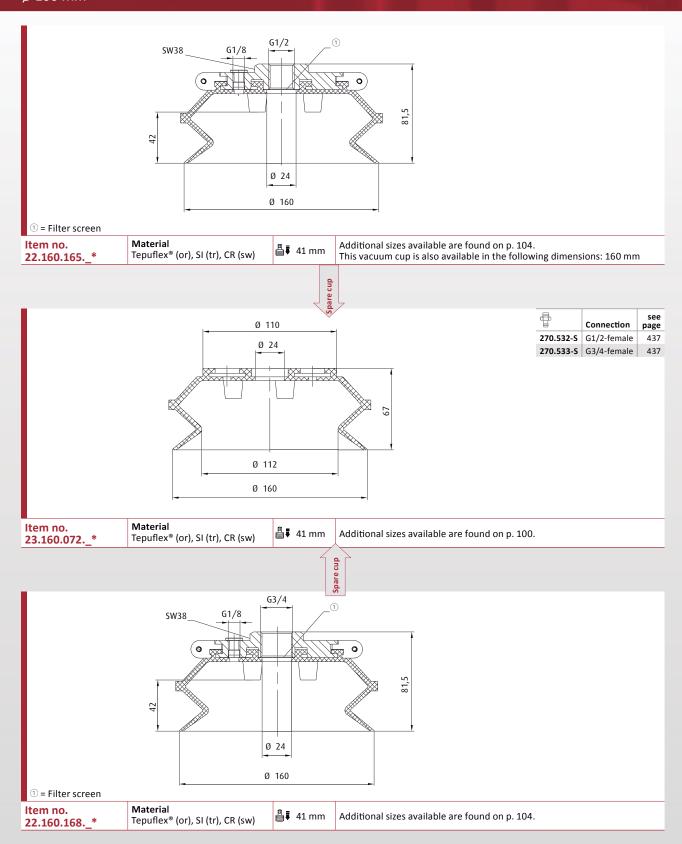




<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 160 mm

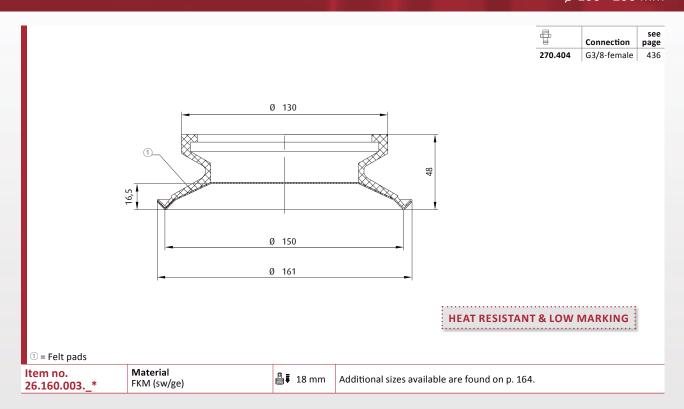


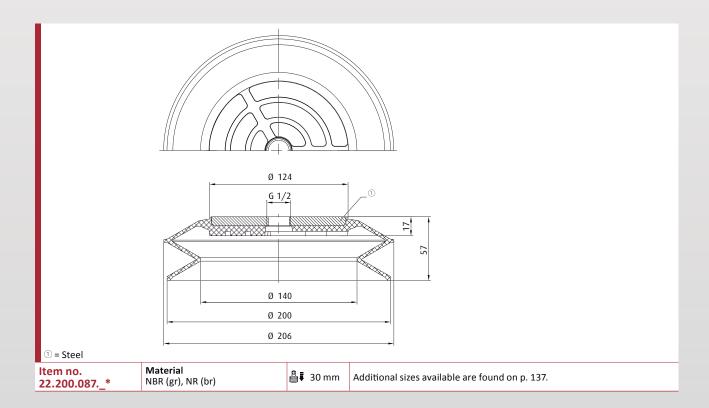
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760





Ø 160 - 200 mm

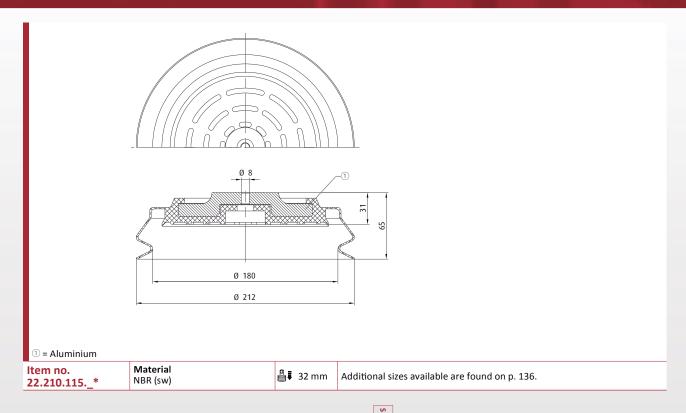


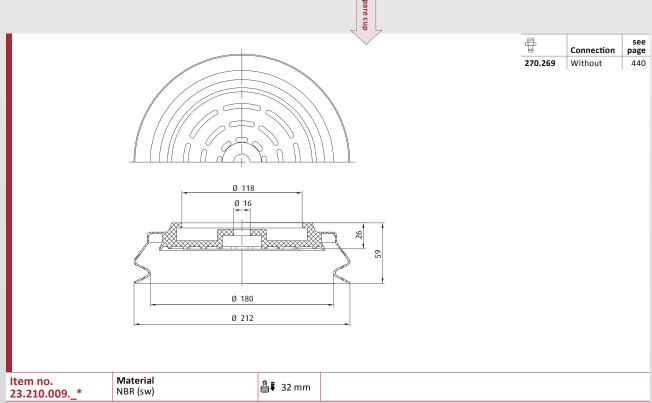


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 212 mm





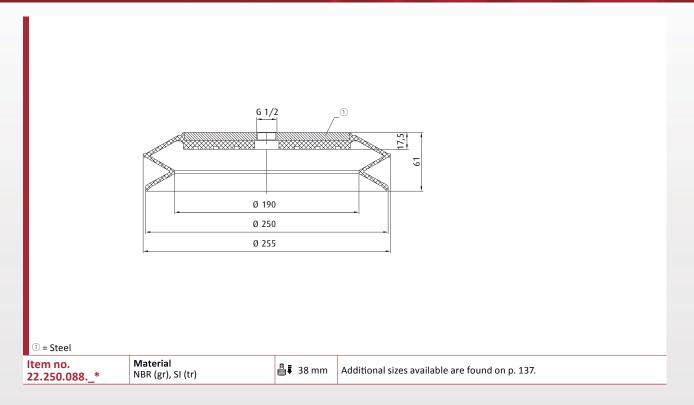
<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

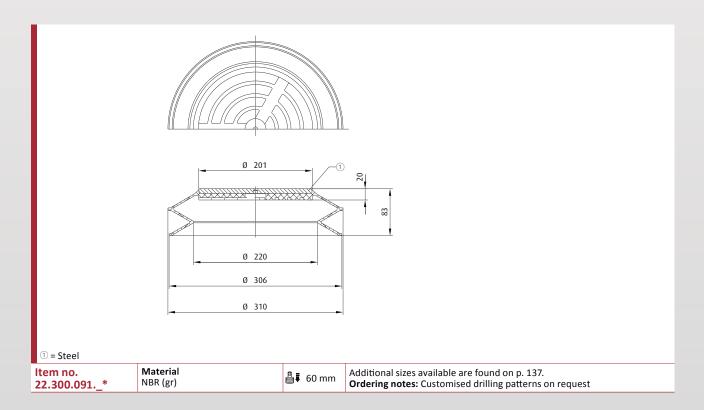


360



Ø 250 - 306 mm



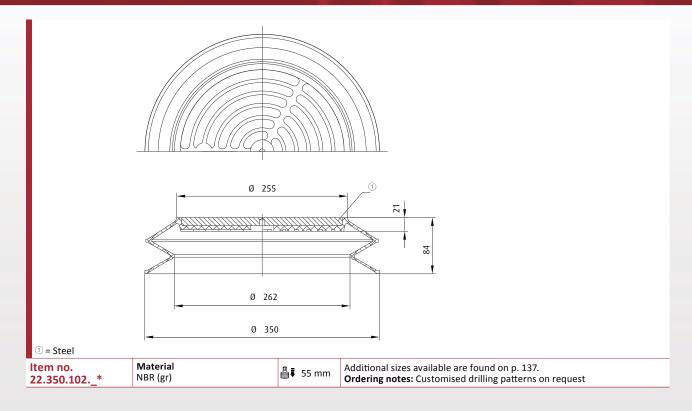


<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760





Ø 350 mm



<sup>\*</sup> When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

