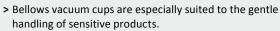
Vacuum cups by size | Bellows vacuum cups at a glance

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

FiPA



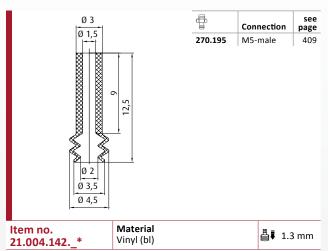
Vacuum cups by size | Notes

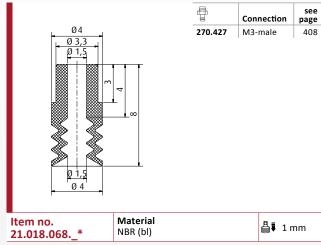
Notes:



Vacuum cups by size | Bellows vacuum cups by \emptyset

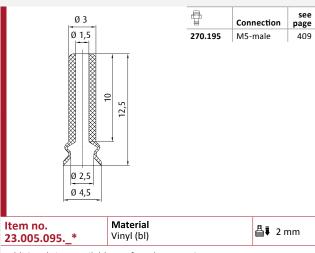
Ø 4 - 5 mm



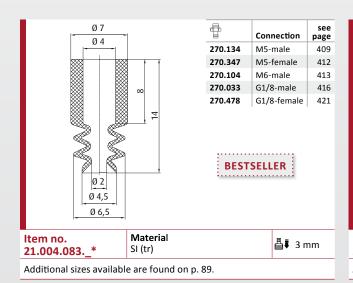


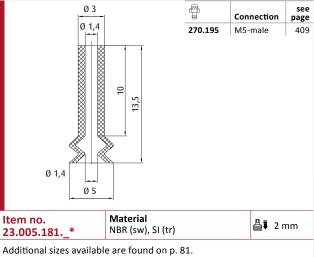
see Ø 6,5 Connection page 270.134 M5-male 409 Ø 4 270.104 M6-male 413 270.033 G1/8-male 416 270.478 421 G1/8-female Ø 1,5

Additional sizes available are found on p. 116.



Additional sizes available are found on p. 113.



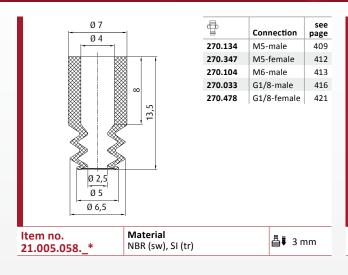


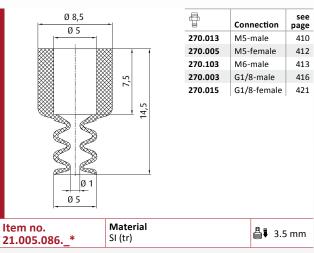
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

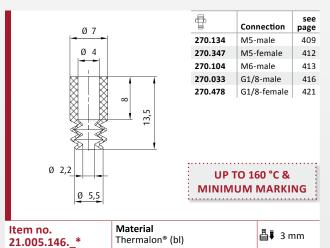


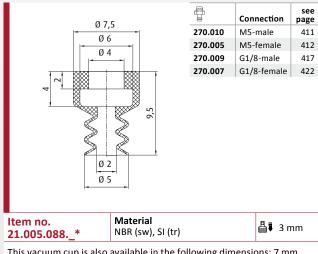


Ø 5 - 6 mm

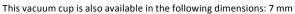


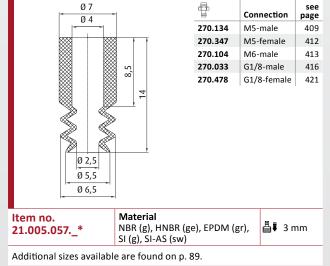


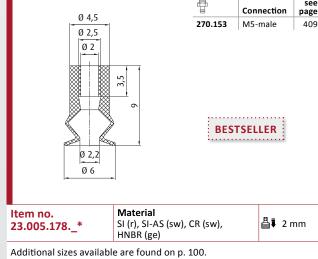




Additional sizes available are found on p. 92.





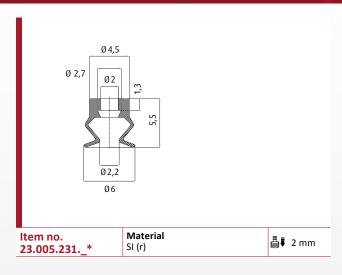


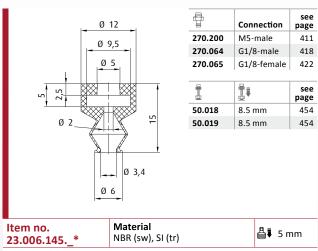
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



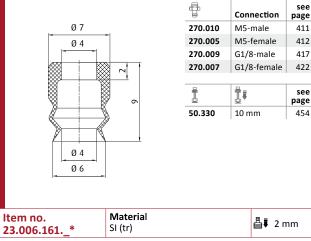
<u>Ø 6 - 7</u> mm



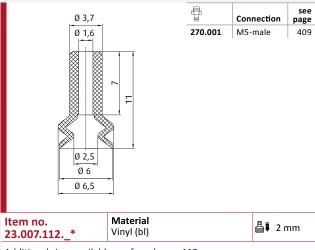




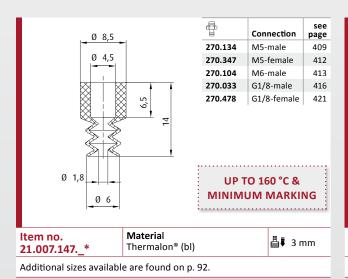
Additional sizes available are found on p. 122.

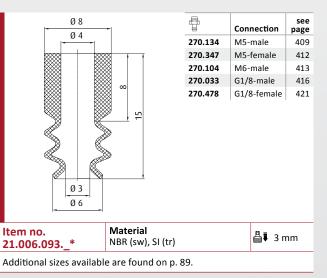


This vacuum cup is also available in the following dimensions: 10 mm, 15 mm, 20 mm, 30 mm



Additional sizes available are found on p. 113.

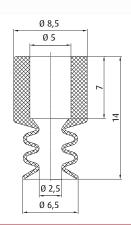




^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 6 - 8 mm



Additional sizes available are found on p. 116.

-	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)

270.399

Item no. ₫ 3.5 mm 21.006.087._*

see

page

Connection

Ø9 Ø5 Ø 6,5

see page

410

412

413

416

421

₫ **3**.5 mm

Connection

M5-female

G1/8-male

G1/8-female

M5-male

M6-male

270.013

270.005

270.103

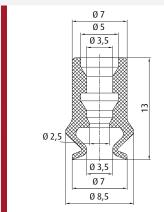
270.003

270.015

Additional sizes available are found on p. 89.

Material

NBR (sw), SI (tr)

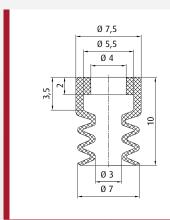


Ø 2,5 Ø 3,5 Ø 7 Ø 8,5		
Item no	Material	_

21.007.096._*

NBR (sw), SI (tr)

₫ 2 mm



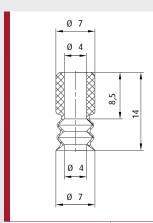
4	Connection	see page
270.010	M5-male	411
270.005	M5-female	412
270.009	G1/8-male	417
270.007	G1/8-female	422

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

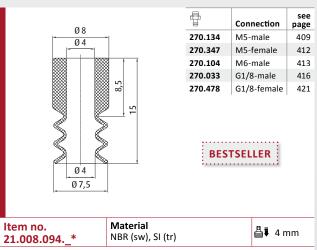


\Box	Connection	page
270.134	M5-male	409
270.347	M5-female	412
270.104	M6-male	413
270.033	G1/8-male	416
270.478	G1/8-female	421

Item no. 21.007.120._*

Material SI (tr)

4 mm

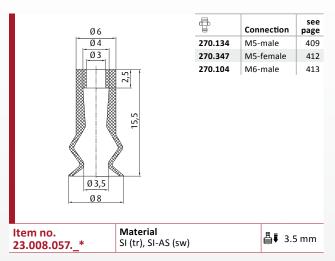


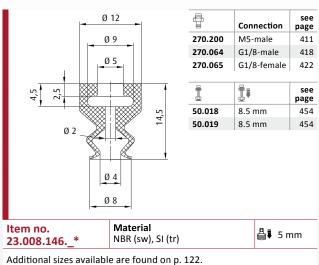
Additional sizes available are found on p. 89.

^{*} 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

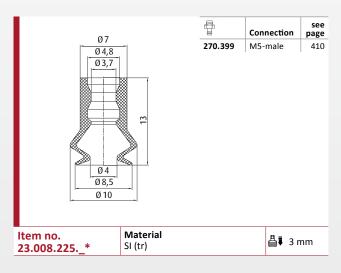


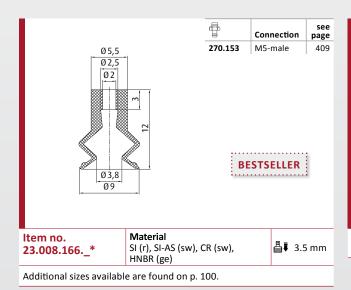
Ø 8 - 9 mm

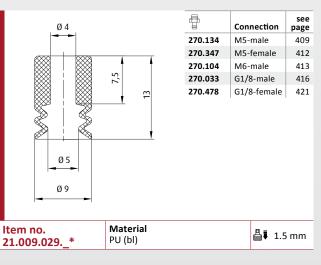




see Ø 12 Connection page 270.200 M5-male 411 Ø 7 270.064 G1/8-male 418 Ø 4,7 270.065 G1/8-female 422 see page Ĭ. 3,1 50.141 10 mm 456 50.018 8.5 mm 454 Ø 3,4 Ø 8 Material Item no. ₫ 8 mm 21.008.126._* SI (r)



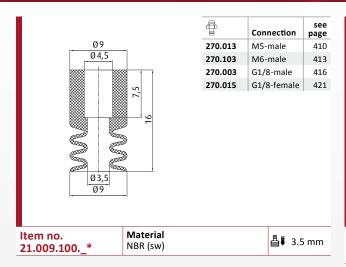


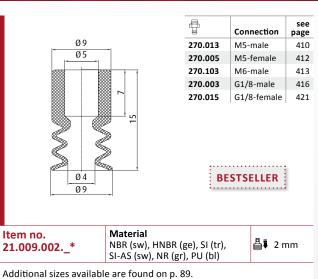


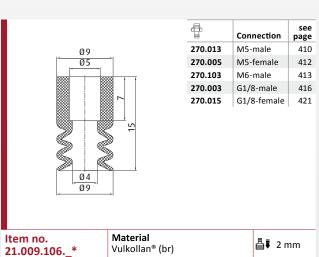
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 9 - 10 mm

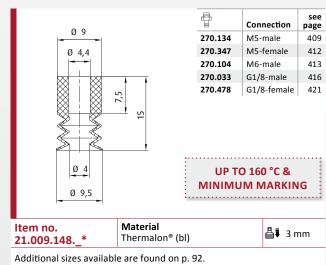


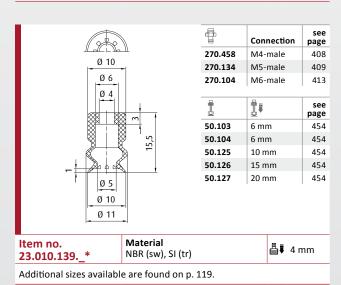


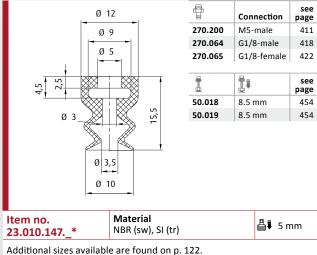




Additional sizes available are found on p. 97.



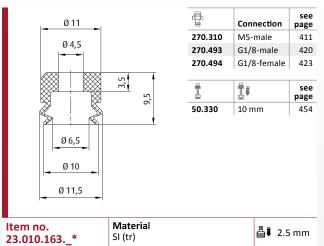




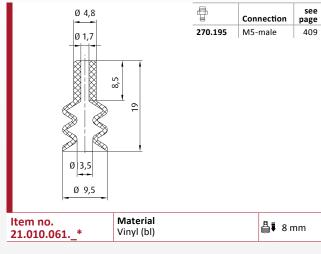
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

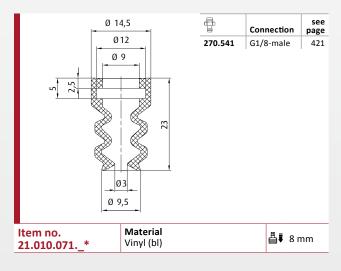


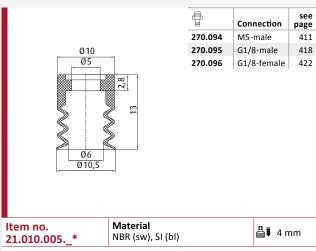
Ø 10 mm



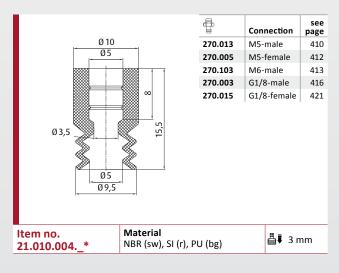
This vacuum cup is also available in the following dimensions: 6 mm, 15 mm, 20 mm, 30 mm

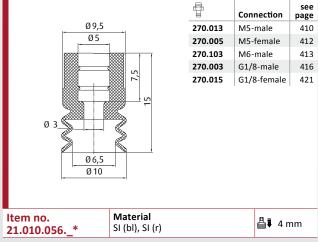






This vacuum cup is also available in the following dimensions: 15 mm, 18 mm, 24 mm, 30 mm, 40 mm





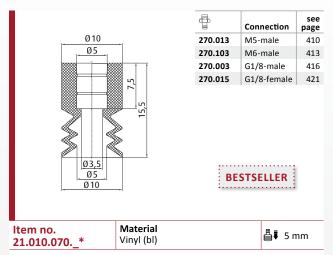
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



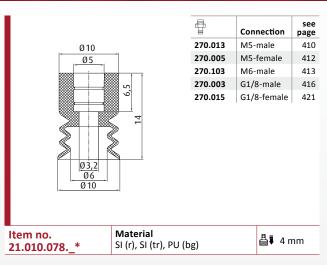


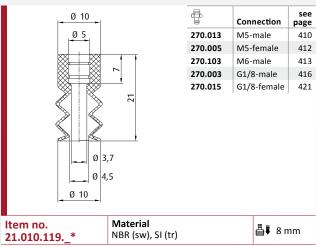
Vacuum cups by size | Bellows vacuum cups by \emptyset

Ø 10 - 11 mm

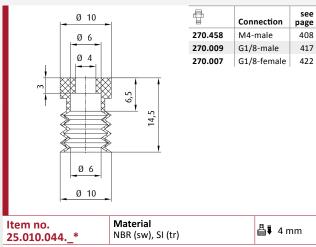


Additional sizes available are found on p. 116.

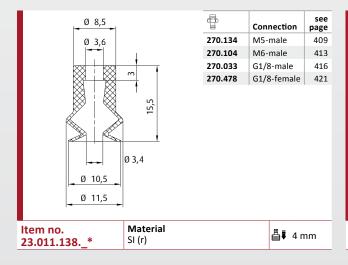


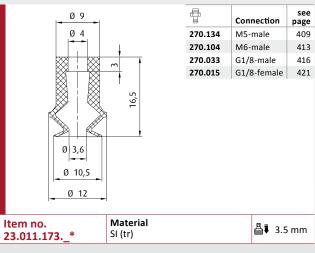


Additional sizes available are found on p. 89.



Additional sizes available are found on p. 124.



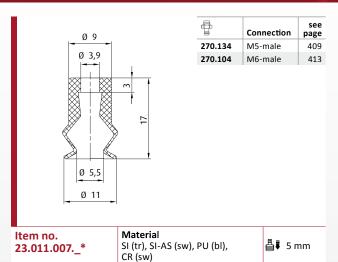


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



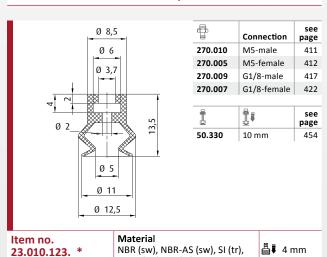
Ø 11 mm

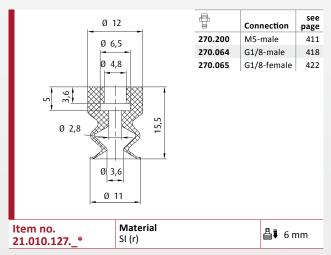




see page Connection Ø9 270.134 M5-male 409 Ø 3,7 270.104 M6-male 413 270.033 G1/8-male 416 270.478 G1/8-female 421 Ø 5,5 Ø 11 Item no. Material 4 mm ₫ NBR (sw), SI (r) 23.011.131.

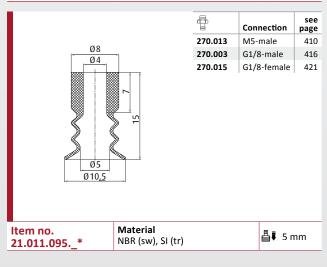
Additional sizes available are found on p. 100.

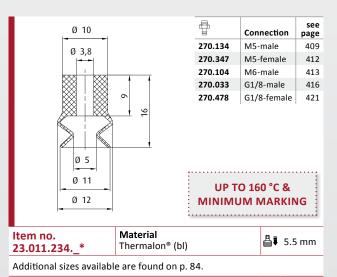




SI-AS (sw), PU (bl)

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

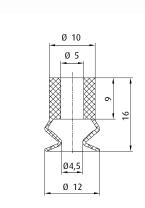




^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 12 - 13 mm



a	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

25 mm

50.037

4

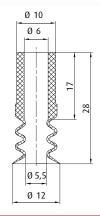
Item no. 23.011.008._*

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

₫**፣** 4.5 mm

456

Additional sizes available are found on p. 81.



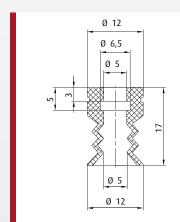
P	Connection	see page
270.443	M5-male	410
270.238	G1/8-male	417
270.110	G1/8-female	422
270.534	G1/4-male	425

FOR HIGHLY STRUCTURED SURFACES (3D)

Item no. 21.012.079. *

Material NBR (sw), SI (w), SI (tr) **₽** 7 mm

d on p. 81. 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
	1	see page
50.141	10 mm	456
50.018	8.5 mm	454
	20 111111	456

Connection

Item no. 21.012.108._*

Material SI (r) **₽** 5 mm

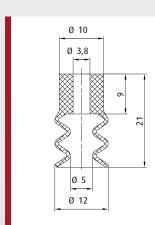
Ø 10 Ø 5 Ø 5 Ø 12

a	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.



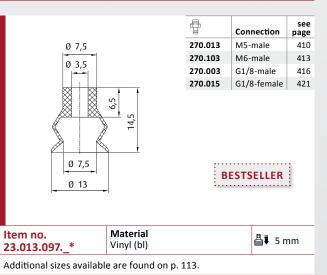
=	Connection	see page
270.134	M5-male	409
270.347	M5-female	412
270.104	M6-male	413
270.033	G1/8-male	416
270.478	G1/8-female	421

UP TO 160 °C & MINIMUM MARKING

Item no. 21.012.149._*

Material Thermalon® (bl) **ૄૄ 7** mm

Additional sizes available are found on p. 92.



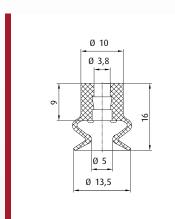
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Vacuum cups by size | Bellows vacuum cups by \emptyset

Ø 13 - 14 mm





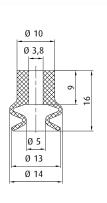
		1
#	Connection	see page
270.013	M5-male	410
270.005	M5-female	412
270.103	M6-male	413
270.003	G1/8-male	416
270.015	G1/8-female	421
		see page
50.037	25 mm	456

Item no. 23.013.120. Material

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

₫ 4 mm

Additional sizes available are found on p. 81.



#	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. 23.014.235.

Material Thermalon® (bl) **₫** 5 mm

see

410

412

413

416

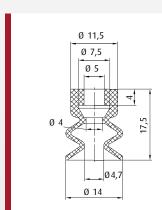
421

Additional sizes available are found on p. 84.

Ø 12

Ø 7,7

Ø 5



#	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

Connection

M5-male

M6-male

Item no. 23.014.010._* Material

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

Item no. - 8 mm

page

410

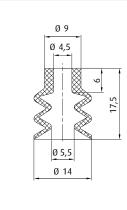
Connection 270.013 M5-male 270.005 M5-female 270.103 M6-male G1/8-male 270.003 270.015 G1/8-female

Material NBR (sw), SI (r), NR (bg), PU (bl) 21.014.006._*

Ø 14

₫ 10 mm

This vacuum cup is also available in the following dimensions: 24 mm, 40 mm, 60 mm



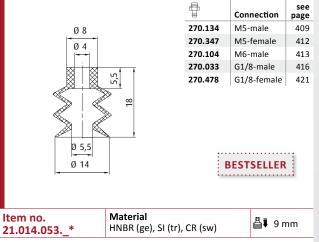
 	270.033	G1/8-male	416
	270.478	G1/8-female	421
0 5.5 0 14			

270.024

270.104

Item no. 21.014.046._* Material PU (r)

₽ 7 mm



Additional sizes available are found on p. 94.

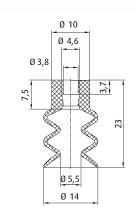
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 14 - 15 mm

Item no.

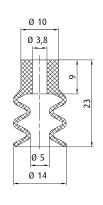
21.014.133.



	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

Material ₫ 11 mm NBR (sw), SI (tr), NR (gr)

Additional sizes available are found on p. 89.



Additional sizes available are found on p. 92.

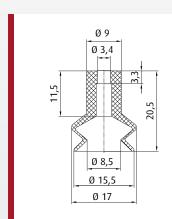
4	Connection	see page
270.134	M5-male	409
270.347	M5-female	412
270.104	M6-male	413
270.033	G1/8-male	416
270.478	G1/8-female	421

UP TO 160 °C & MINIMUM MARKING

Item no. 21.014.150._*

Material Thermalon® (bl)

₫**↓** 10 mm

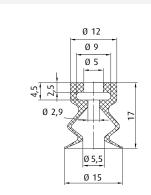


Ŧ	Connection	page
270.134	M5-male	409
270.347	M5-female	412
270.104	M6-male	413
270.033	G1/8-male	416
270.478	G1/8-female	421

Item no. 23.015.098. Material Vinyl (bl)

______ 5 mm

Additional sizes available are found on p. 113.



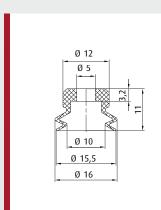
Ŧ	Connection	see page
270.200	M5-male	411
270.064	G1/8-male	418
270.065	G1/8-female	422
	I	see page
50.018	8.5 mm	454
50.019	8.5 mm	454

Item no. 23.015.148.

Material NBR (sw), SI (tr)

- 7 mm

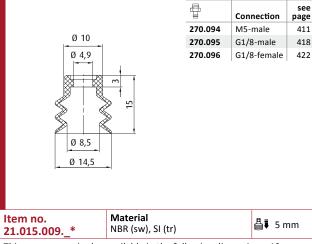
Additional sizes available are found on p. 122.



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

Item no. 4 3.5 mm 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



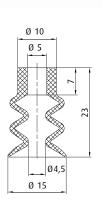
This vacuum cup is also available in the following dimensions: 10 mm, 18 mm, 24 mm, 30 mm, 40 mm

^{*} 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 15 - 16 mm

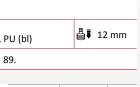


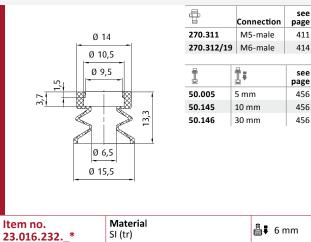


P	Connection	see page
270.013	M5-male	410
270.005	M5-female	412
270.103	M6-male	413
270.003	G1/8-male	416
270.015	G1/8-female	421

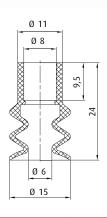
Item no. 21.014.007._* Material NBR (sw), SI (tr), PU (bl)

Additional sizes available are found on p. 89.





Additional sizes available are found on p. 130.



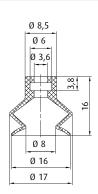
P	Connection	see page
270.112	G1/8-male	419
270.113	G1/4-male	425

Item no. 21.015.008.

Material NBR (sw), SI (r)

₽ 7 mm

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



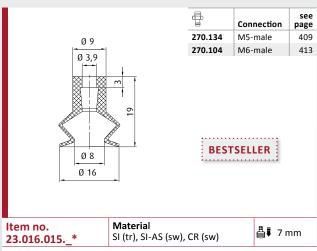
#	Connection	see page
270.010	M5-male	411
270.005	M5-female	412
270.009	G1/8-male	417
270.007	G1/8-female	422
	1	see page
_		
50.330	10 mm	454

Item no. 23.015.122._*

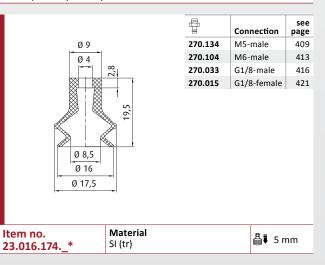
Material NBR (sw), SI (tr), PU (bl), HNBR (ge)

∰ 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



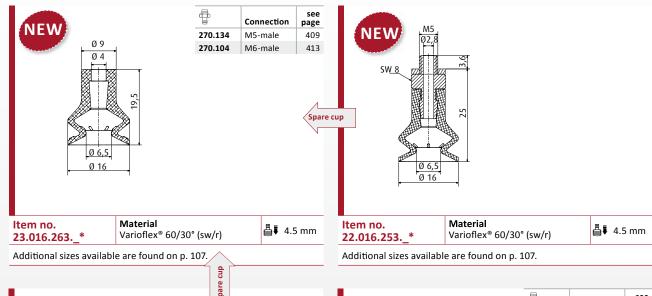
Additional sizes available are found on p. 100.

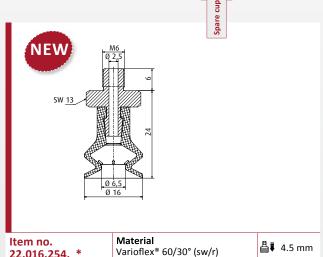


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

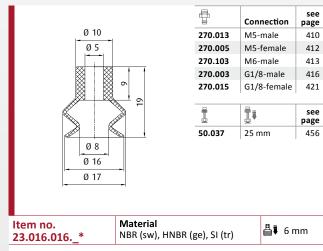


Ø 16 mm

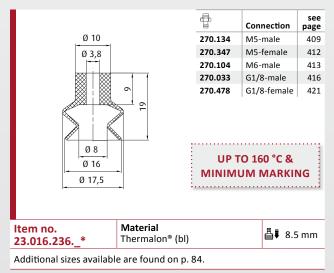


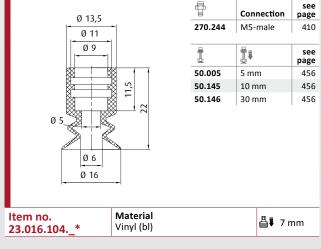


Additional sizes available are found on p. 107.



Additional sizes available are found on p. 81.

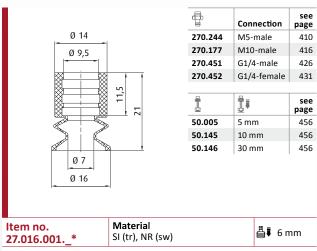


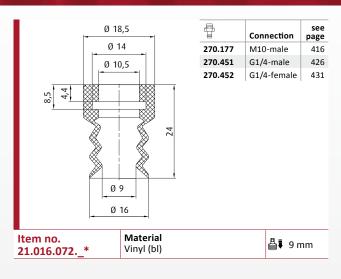


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

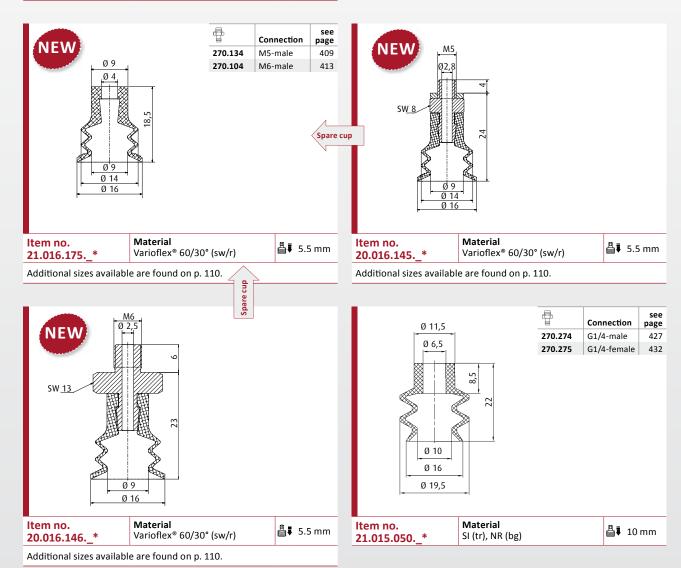


Ø 16 mm





Additional sizes available are found on p. 125.

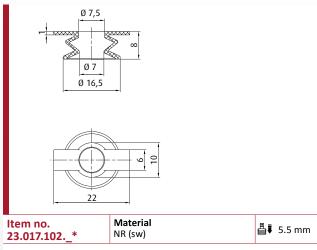


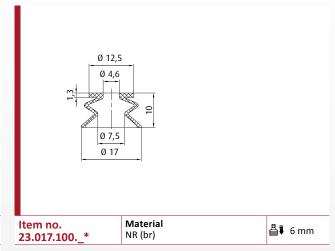
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



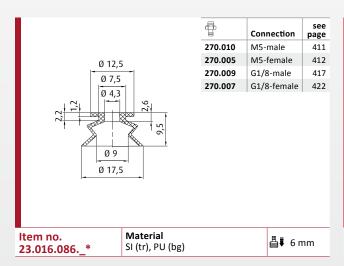


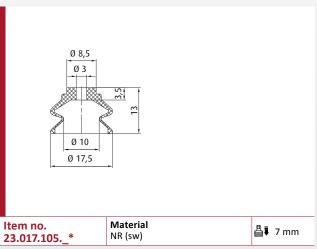
Ø 17 - 18 mm

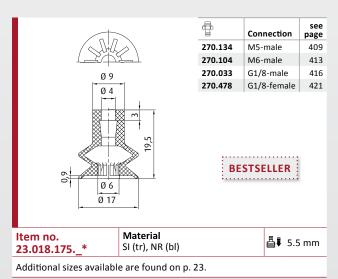


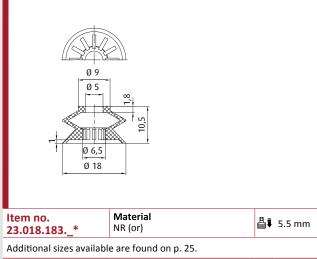


Additional sizes available are found on p. 23.





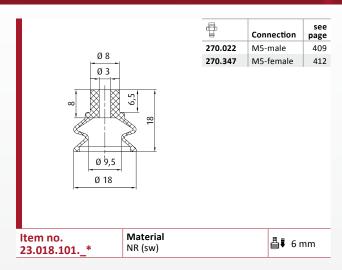


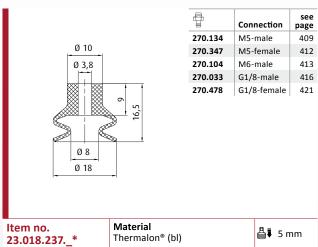


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

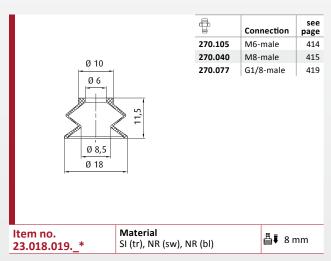


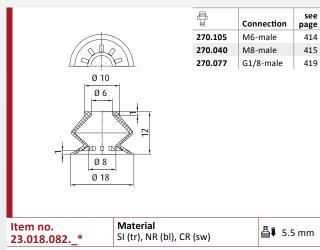
Ø 18 mm



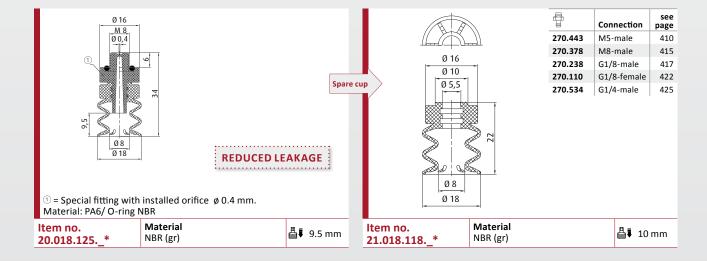


Additional sizes available are found on p. 84.





Additional sizes available are found on p. 23.

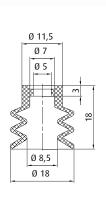


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

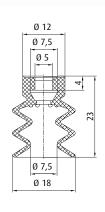




Ø 18 mm



	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



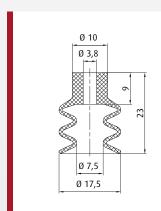
#	Connection	see page
270.013	M5-male	410
270.005	M5-female	412
270.103	M6-male	413
270.003	G1/8-male	416
270.015	G1/8-female	421

Item no. 21.018.012._*

Material NBR (sw), SI (bl)

 Material NBR (sw), SI (r), NR (bg), PU (bl) **₽** 8 mm

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



a	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

Connection

M5-male

M6-male

G1/8-male

G1/8-female

Item no. 21.018.151._

Material Thermalon® (bl)

4

270.024

270.104

270.033

270.478

♣ 10 mm

see page

410

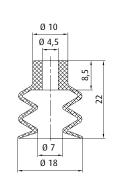
413

416

421

12 mm

Additional sizes available are found on p. 92.

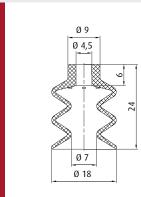


雷	Connection	see page
270.013	M5-male	410
270.005	M5-female	412
270.103	M6-male	413
270.003	G1/8-male	416
270.015	G1/8-female	421

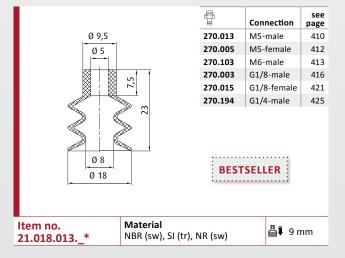
Item no. 21.018.010._* Material NBR (sw), HNBR (ge), SI (tr), PU (bl)

₽ 8 mm

Additional sizes available are found on p. 89.



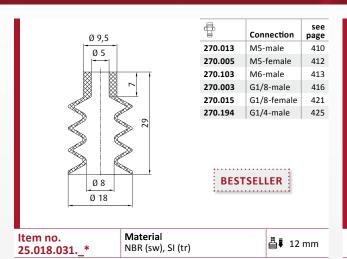
Ø 7 Ø 18		
Item no. 21.018.047*	Material PU (g)	



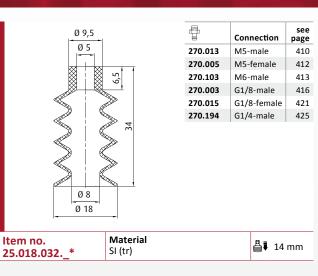
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

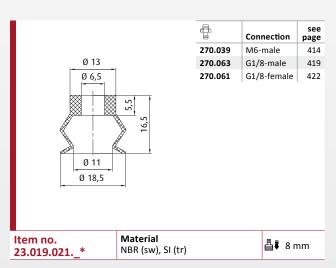


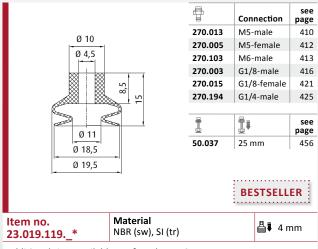
Ø 18 - 19 mm



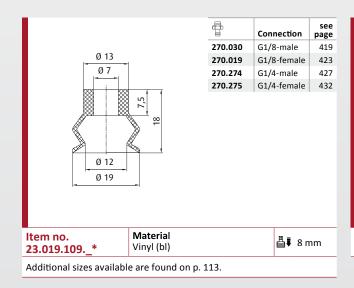








Additional	sizes	availabl	e are	found	on r	. 81.



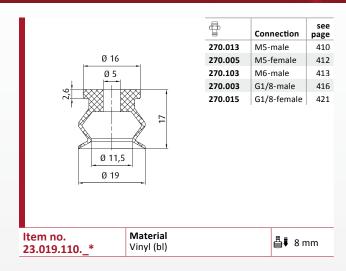
		廿	Connection	see page
Ø 13		270.200	M5-male	411
Ø 7,5		270.064	G1/8-male	418
Ø 5 Ø 12 Ø 19	17	270.065	G1/8-female	422
Item no. 23.019.179*	Material Vinyl (bl)		₽ 7 n	nm

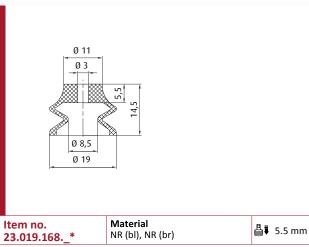
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



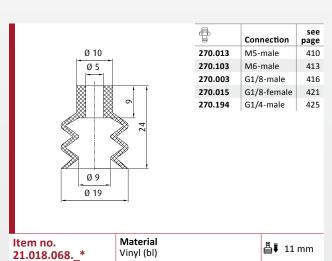


Ø 19 - 20 mm

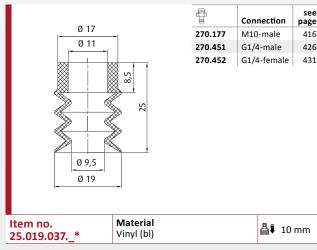


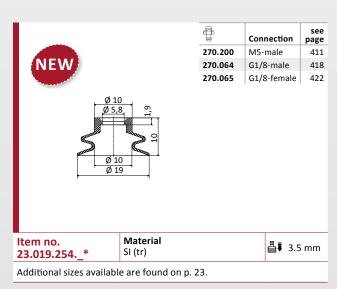


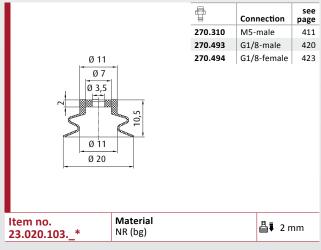
Additional sizes available are found on p. 23.



Additional sizes available are found on p. 116.



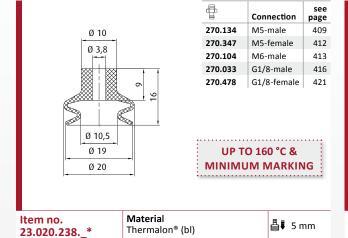




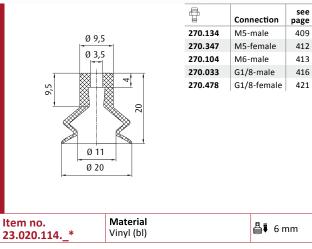
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



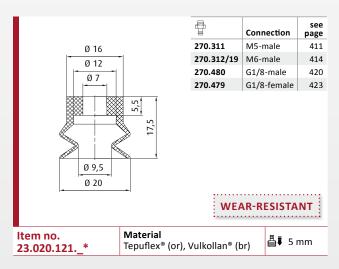
Ø 20 mm

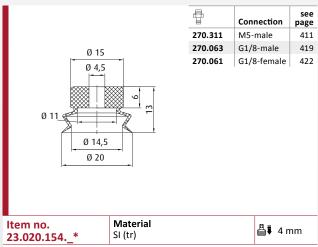


Additional sizes available are found on p. 84.

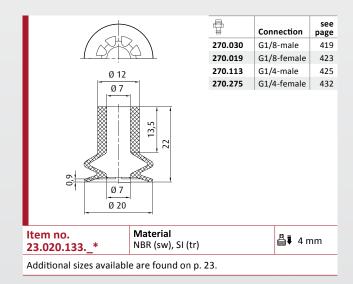


Additional sizes available are found on p. 113.





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

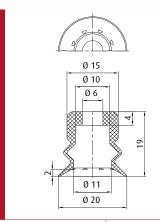


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760





Ø 20 mm



a	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	6 mm	454
50.128	10 mm	454
50.129	15 mm	454
50.095	20 mm	456

40 mm

50 mm

50.097

50.098

Item no. 23.020.140._

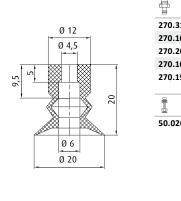
NBR (sw), SI (tr)

₫ 6 mm

456

456

Additional sizes available are found on p. 119.



see page Connection 270.317 M5-male 410 270.103 M6-male 413 G1/8-male 270.205 416 270.109 G1/8-female 421 270.194 G1/4-male 425 see page Īŧ 50.020 8.5 mm 454

Item no. 23.020.149._

Material NBR (sw), SI (tr)

₫ 6 mm

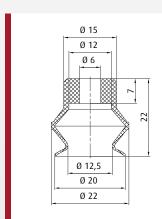
see

416

426

page

Additional sizes available are found on p. 122.



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 page
50.095	20 mm	
	20 mm 30 mm	page
50.095		page 456
50.095 50.096	30 mm	page 456 456

Connection

Item no. 23.020.169._*

Material Vulkollan® (br)

₫ 7 mm

page

419

425

431

Connection

G1/8-male

G1/4-male

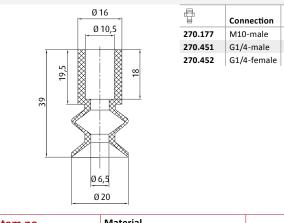
G1/4-female

270.112

270.113

270.178

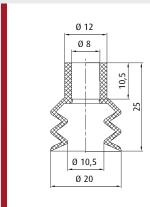
Additional sizes available are found on p. 97.





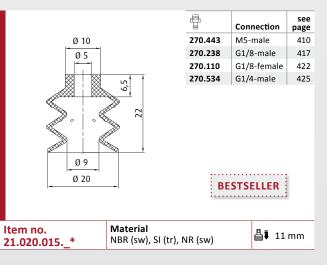
Material SI (tr), NR (sw), NR (br)

₫ 10 mm



Item no. 21.020.014*	Material NBR (sw), SI (tr)	₽₽	10 mm

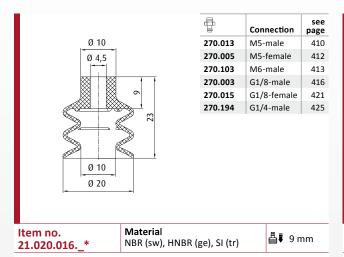
This vacuum cup is also available in the following dimensions: 15 mm, 30 mm



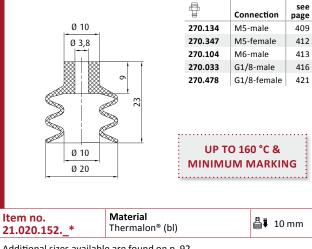
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



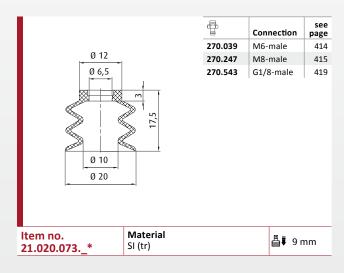
Ø 20 mm

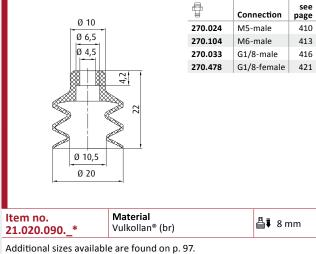


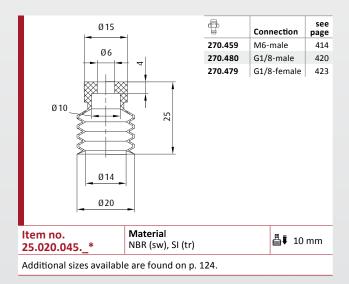
Additional sizes available are found on p. 89.



Additional sizes available are found on p. 92.



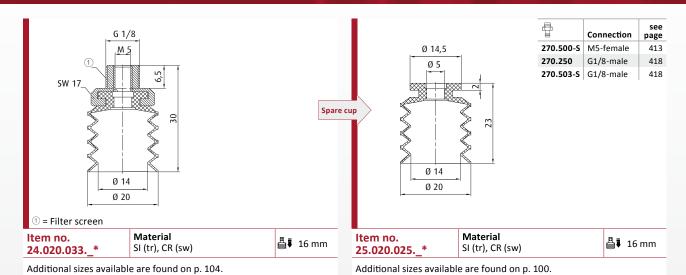




^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



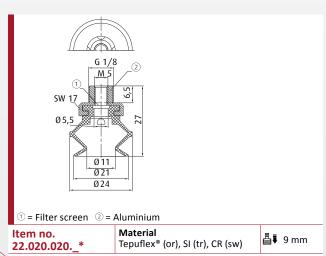
Ø 20 - 21 mm



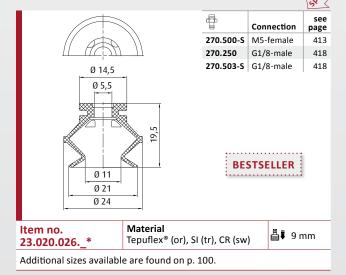
0 10
0 6,5
270.105
M6-male
414
270.040
M8-male
415
270.077
G1/8-male
419

 Item no.
 Material

 25.020.002._*
 SI (w)



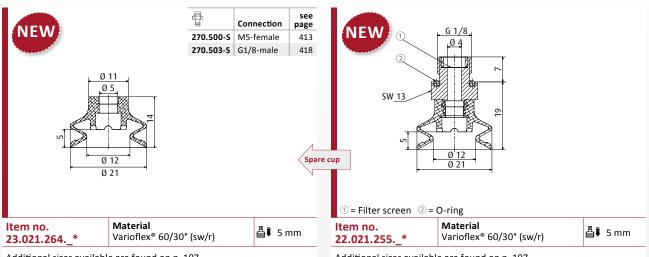
Additional sizes available are found on p. 104.



^{*} 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

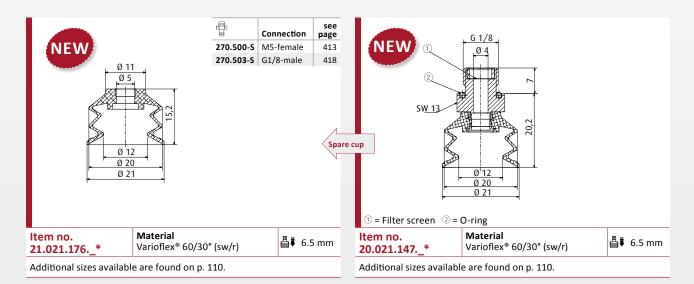


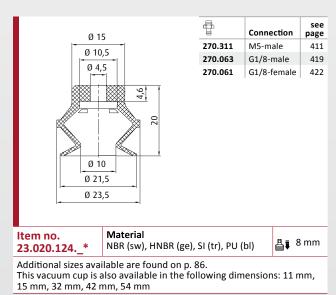




Additional sizes available are found on p. 107.

Additional sizes available are found on p. 107.

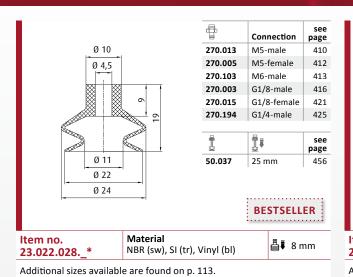


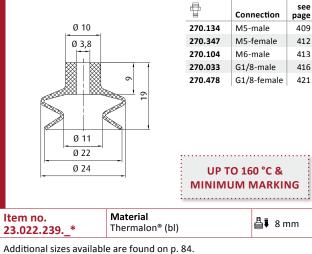


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 22 - 24 mm

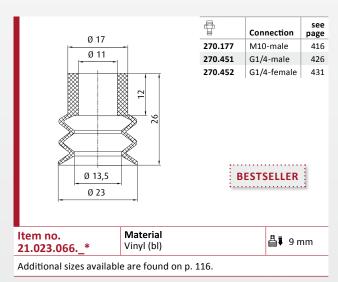


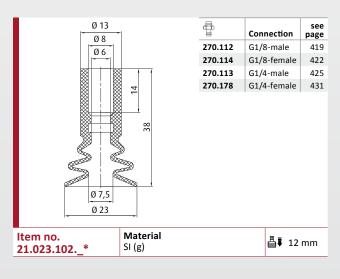


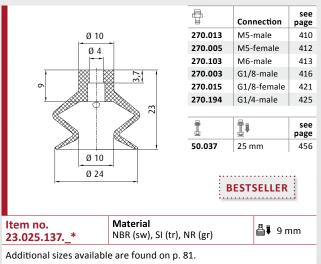
4 see Connection page 270.443 M5-male 410 270.238 G1/8-male 417 270.110 G1/8-female 422 Ø 12 270.534 G1/4-male 425 Ø 6,5 Ø 6,5 Ø 22 Material Item no. **₫** 5 mm

23.023.099._* NR (br)

Additional sizes available are found on p. 23.





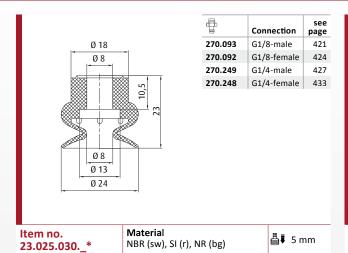


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

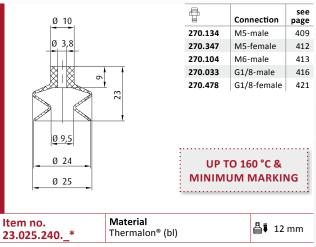


<u>Ø 2</u>4 - 25 mm

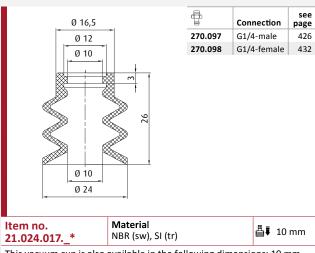




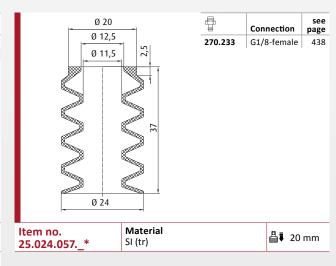
This vacuum cup is also available in the following dimensions: 14 mm, 40 mm, 60 mm

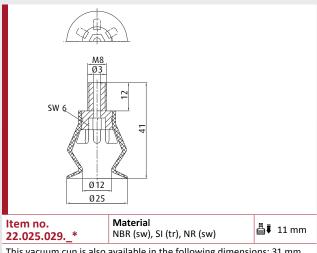


Additional sizes available are found on p. 84.

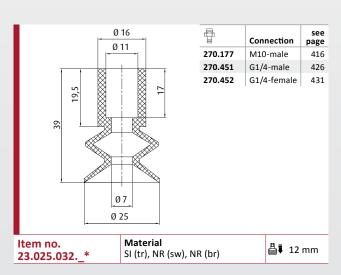


This vacuum cup is also available in the following dimensions: 10 mm, 15 mm, 18 mm, 30 mm, 40 mm





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



^{*} 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





see

410

412

413

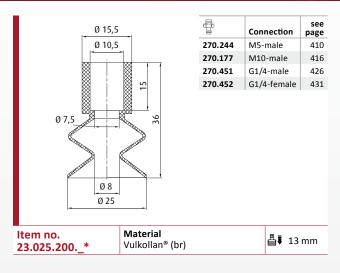
416

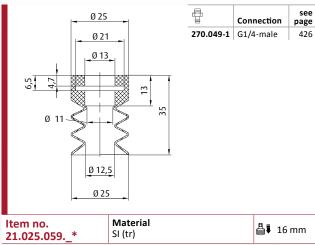
421

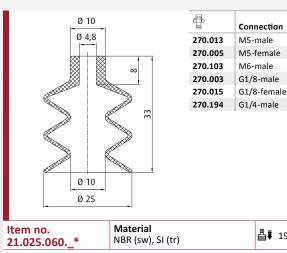
425

page

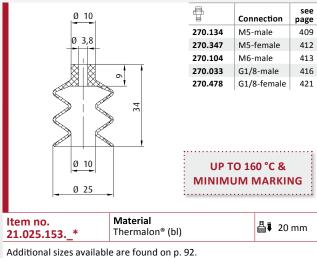
Ø 25 mm

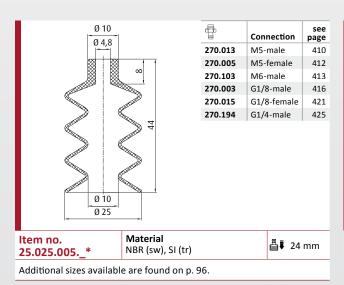


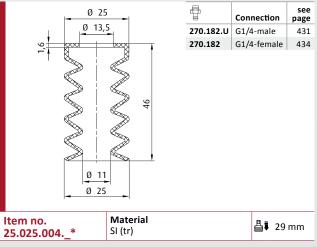








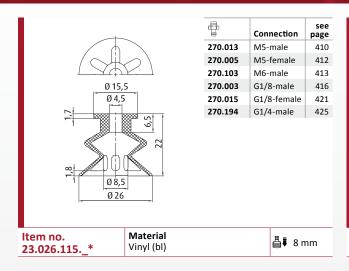


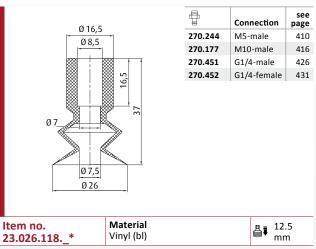


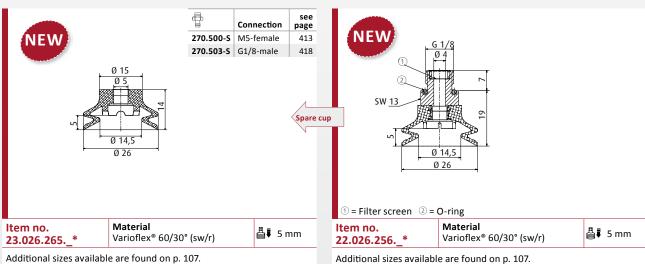
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 26 mm







Additional sizes available are found on p. 107.

Connection page NEW 270.500-S M5-female 413 **270.503-S** G1/8-male SW <u>13</u> Spare cup Ø 23 Ø 12 Ø 26 1 = Filter screen 2 = O-ring Material Item no.

20.026.148.

21.026.177._* Additional sizes available are found on p. 110.

 $\begin{tabular}{ll} \textbf{Ordering notes:} For version with in bellows inserted filter disc please add "-FI" to material code \\ \end{tabular}$

Varioflex® 60/30° (sw/r)

₽ 8 mm



Varioflex® 60/30° (sw/r)

Additional sizes available are found on p. 110.

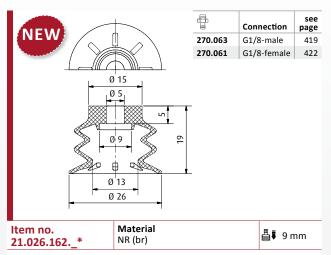
Item no.

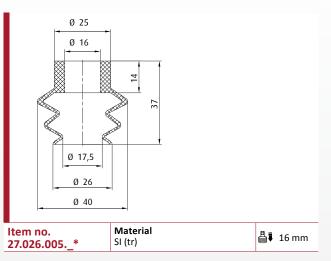
₫**፣** 8 mm

^{*} 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

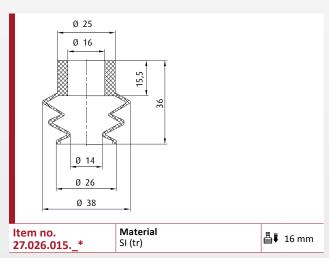


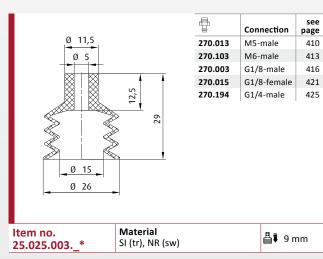
Ø 26 - 29 mm

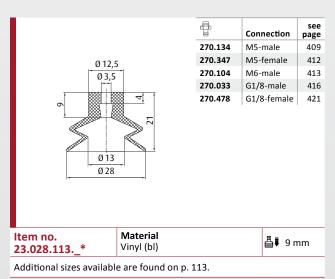


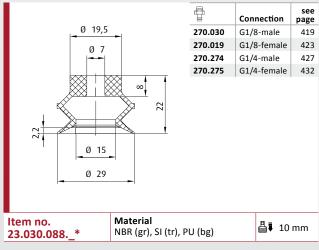


Additional sizes available are found on p. 23.







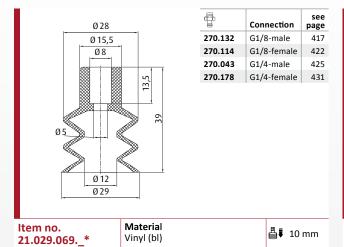


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

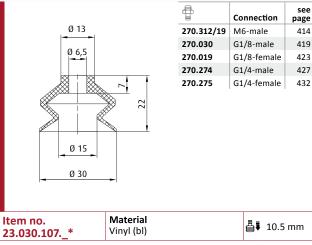


Ø 29 - 30 mm

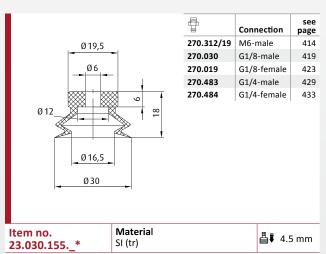




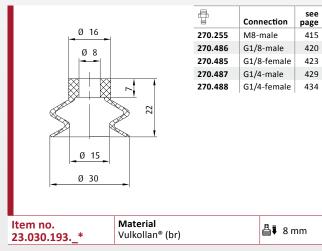
Additional sizes available are found on p. 116.

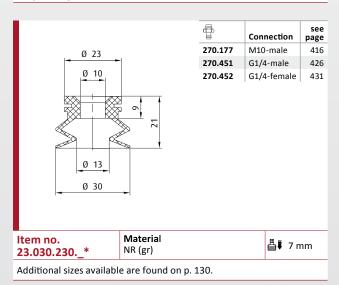


d on p. 116. Additional sizes available are found on p. 113.



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



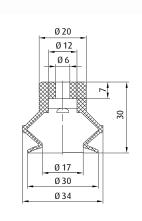


_					
		4	Con	nection	see page
	\sim	270.460	M6-	male	414
		270.482	G1/	8-male	420
0.17		270.481	G1/	8-female	423
Ø 17	-	270.483	G1/4	4-male	429
Ø 12	4	270.484	G1/4	4-female	433
06				see page	
	50.085	6 mm		454	
	3 (50.128	10 n	nm	454
I		50.129	15 n	nm	454
8,7	-	50.095	20 mm		456
Ø 14		50.096	30 mm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

^{*} 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



P	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
		1

	#	see page
50.095	20 mm	456
50.096	30 mm	456
50.097	40 mm	456
50.098	50 mm	456

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

₿ 8 mm

Item no. 23.033.134.

Material Vinyl (bl)

Ø 11

Ø 10

Ø_30

 connection
 see page

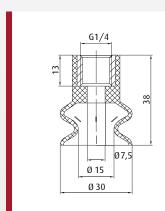
 270.177
 M10-male
 416

 270.451
 G1/4-male
 426

 270.452
 G1/4-female
 431

₫**↓** 10 mm

Additional sizes available are found on p. 97.

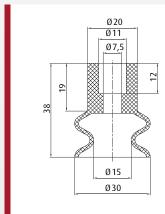


Item no. 22.030.035.

Material SI (tr), NR (sw)

♣ 16 mm

This vacuum cup is also available in the following dimensions: 40 mm, 44 mm, 50 mm



 Connection
 see page

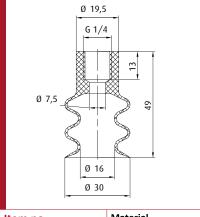
 270.177
 M10-male
 416

 270.451
 G1/4-male
 426

 270.452
 G1/4-female
 431

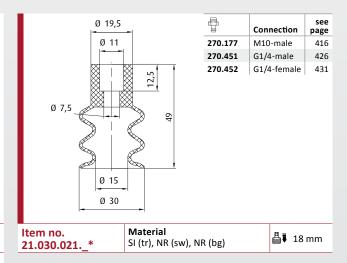
Item no. 23.030.038._* Material NBR (sw), SI (tr)

₫ 16 mm



Item no. 20.030.044._* Material SI (tr), NR (sw) ₫**↓** 19 mm

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



see page

417

422

425

431

Ø 30 mm

Connection

G1/8-male

G1/4-male

G1/8-female

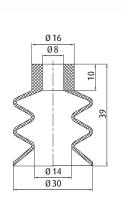
G1/4-female

270.132

270.114

270.208

270.178



a	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 Ø 12

Item no.

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

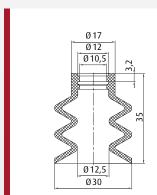
Item no. 21.030.018.

Material NBR (sw), SI (r)

₫**‡** 18 mm

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

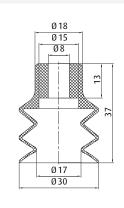
₫**፣** 13 mm



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

Material Item no. ₫ 14 mm NBR (sw), SI (bl)

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



7	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.

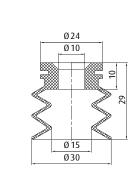
see page

Connection

Material Vulkollan® (br)

₫ 16 mm

Additional sizes available are found on p. 97.



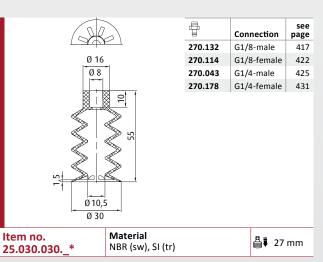
	270.177	M10-male	416
Ø 24	270.451	G1/4-male	426
Ø 10	270.452	G1/4-female	431
© 15 © 30			

4

Additional sizes available are found on p. 130.

Material

SI (tr), NR (bl)



^{*} 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

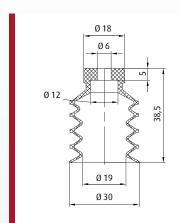
₫**፣** 13 mm

Item no.

21.030.030._*



Ø 30 - 31 mm



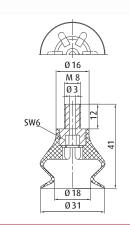
a	Connection	see page
270.460	M6-male	414
270.482	G1/8-male	420
270.481	G1/8-female	423
270.483	G1/4-male	429
270.484	G1/4-female	433

Item no. 25.030.046.

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

Connection

M6-male

G1/8-male

G1/8-female

G1/4-male

G1/4-female

see

414

419

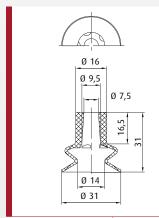
423

427

432

page

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

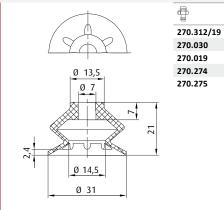


270.132 G1/8-male 417 270.114 G1/8-female 422 270.208 G1/4-male 425
270.208 G1/4-male 425
270.178 G1/4-female 431

Item no.

Material NBR (sw), SI (r) ₫ 11 mm

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



Item no.

Material Vinyl (bl)

₫ 6 mm

G1/8-female

G1/8-female

G1/4-male

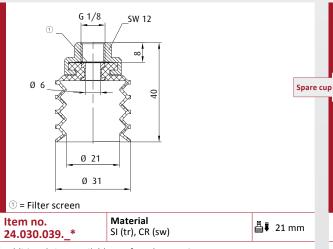
see page

423

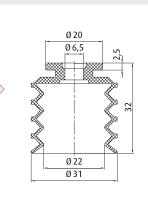
424

428

Additional sizes available are found on p. 113.



Additional sizes available are found on p. 104.



Material Item no. SI (tr), CR (sw) **25.03**0.026._*

₫ 21 mm

270.251

270.501-S

270.506-S

270.505-S G3/8-male

Additional sizes available are found on p. 100.

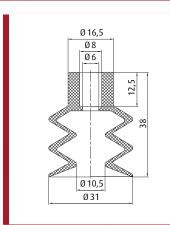
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



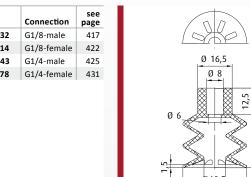
Ø 31

Ø 31 - 32 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



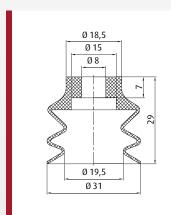
#	Connection	see page
270.132	G1/8-male	417
270.114	G1/8-female	422
270.043	G1/4-male	425
270.178	G1/4-female	431

Item no. 21.030.023. Material NBR (sw), SI (tr), NR (sw)

Item no. ₫**፣** 15 mm 27.030.006._*

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

₫ 15 mm



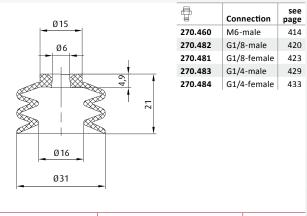
#	Connection	see page
270.255	M8-male	415
270.486	G1/8-male	420
270.485	G1/8-female	423
270.487	G1/4-male	429
270.488	G1/4-female	434

WEAR-RESISTANT

Item no.

Material Vulkollan® (br)

₫**፣** 14 mm

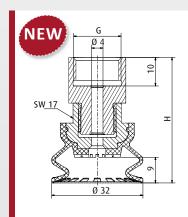


Item no. 21.031.048.

Material SI (tr), NR (sw)

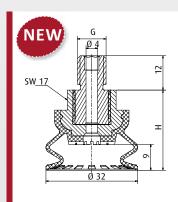
₫ 6 mm

Additional sizes available are found on p. 97.



Item no.	Material	□ [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.



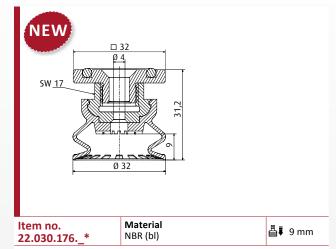
Item no.	Material	₽₽	[mm]	Connection thread	H [mm]
22.030.171*	NBR (bl)	9		G1/4-male	28
22.030.174*	NBR (bl)	9		M10-male	28
22.030.175*	NBR (bl)	9		M14x1.5-male	29

Additional sizes available are found on p. 133.

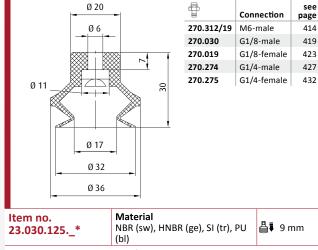
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 32 mm

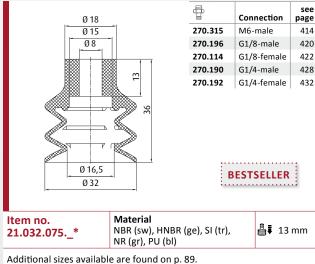


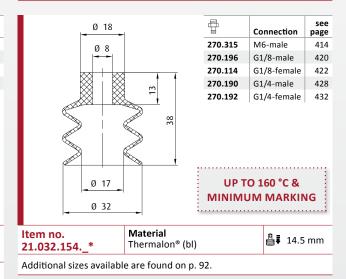
Additional sizes available are found on p. 133.

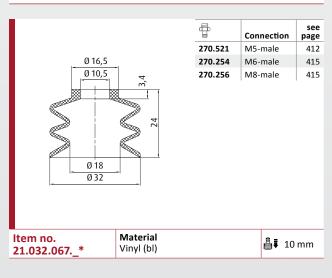


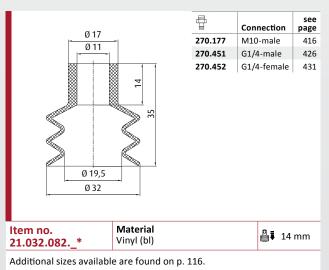
Additional sizes available are found on p. 86.

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







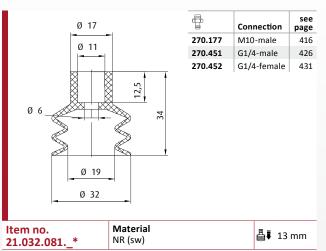


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

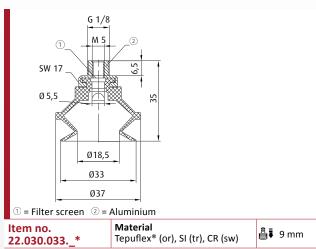


Ø 32 - 33 mm





NR (sw)



Connection page Ø 15 270.500-S M5-female 413 Ø 5,5 270.250 G1/8-male 418 270.503-S G1/8-male 418 28 Ø 18,5 Ø 33 Ø 37

Tepuflex® (or), SI (tr), CR (sw)

see Ø 18 Connection page 270.315 M6-male 414 Ø 8 270.196 G1/8-male 420 270.114 G1/8-female 422 270.190 G1/4-male 428 12,5 G1/4-female 270.192 432 Ø 17,5 Ø 33,5 Ø 36 Material ₫**‡** 12 mm 23.033.039. * NBR (sw), SI (tr), NR (gr)

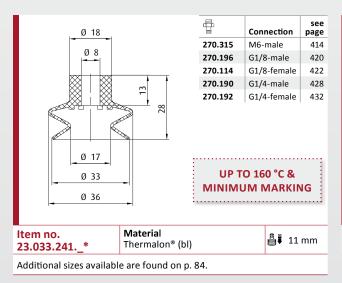
Additional sizes available are found on p. 100.

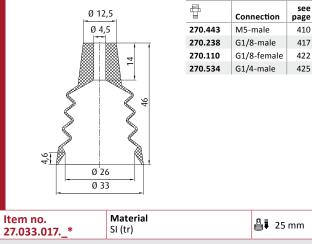
23.030.037. *

Material

Additional sizes available are found on p. 81.

Additional sizes available are found on p. 104.



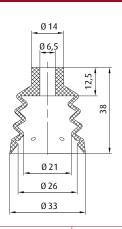


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

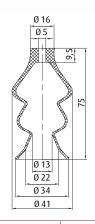
₽ 9 mm



Ø 33 - 35 mm



₽ ·	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



₽ ·	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)

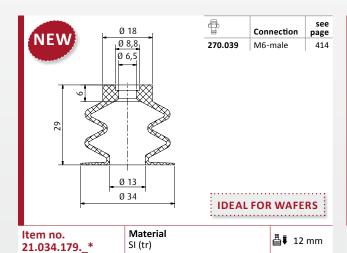
16 mm Iter

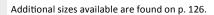
Item no. 27.034.023._* Material SI (r)

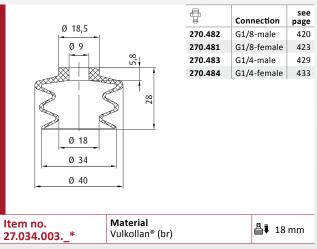
₫**↓** 39 mm

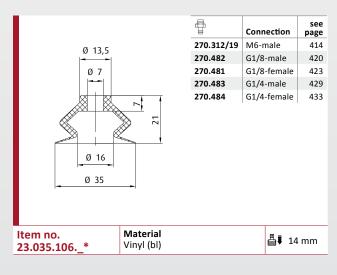
Additional sizes available are found on p. 129.

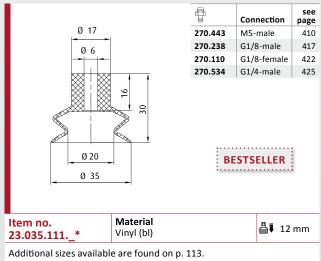
Additional sizes available are found on p. 129.









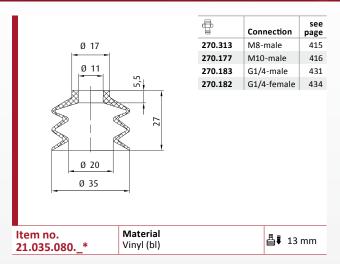


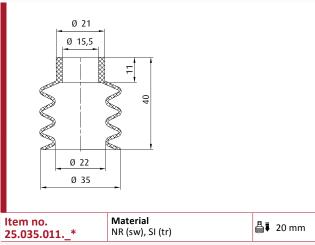
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

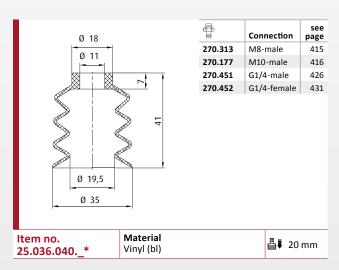


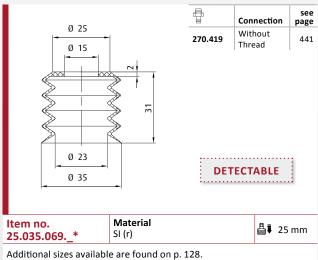
mm =

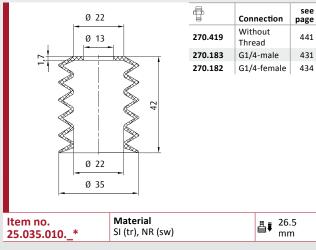
Ø 35 mm

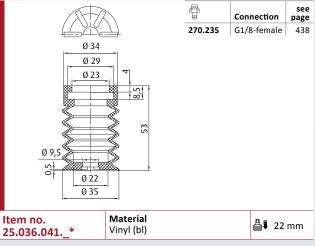










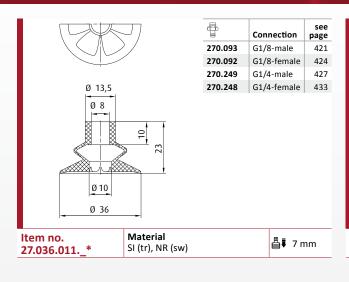


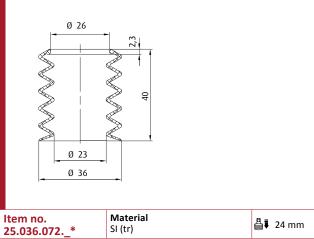
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

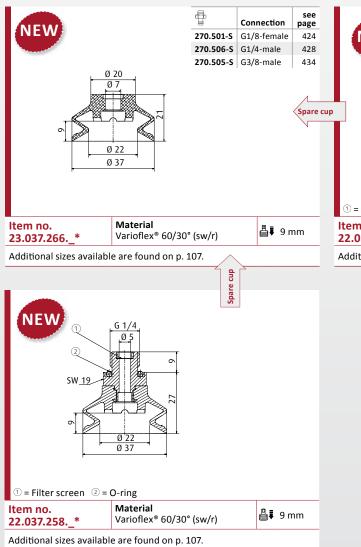


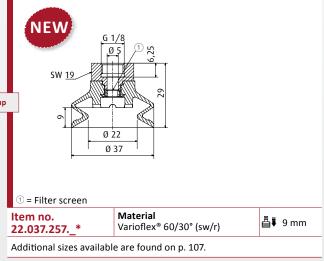


Ø 36 - 37 mm



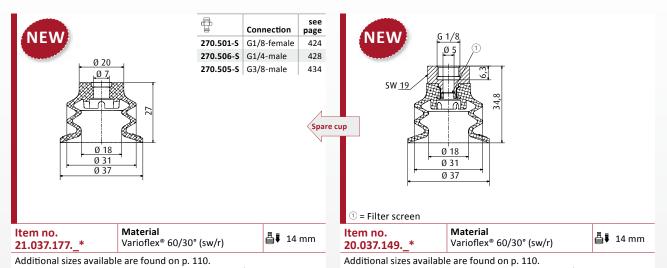






^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760





Additional sizes available are found on p. 110.

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

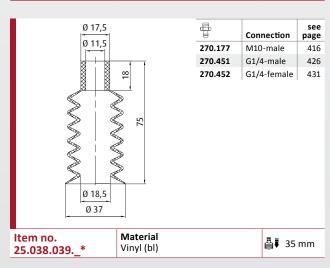
NEW SW 19 1 = Filter screen Material Item no. ₫**፣** 14 mm

Additional sizes available are found on p. 110.

20.037.150._

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

Varioflex® 60/30° (sw/r)



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

add "-FI" to material code

Ø 37

Item no.	Material	₽₽
25.037.012. *	SI (bl)	



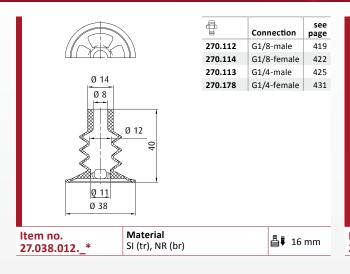
19 mm

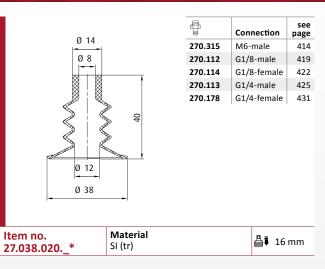
see page Connection Ø 25 Without 270,419 441 Ø 15 Thread 270.183 G1/4-male 431 270.182 G1/4-female 434 Ø 25

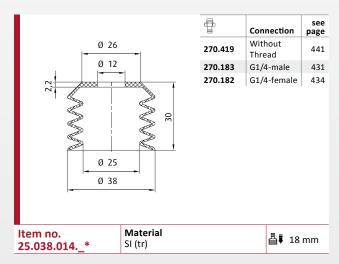
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

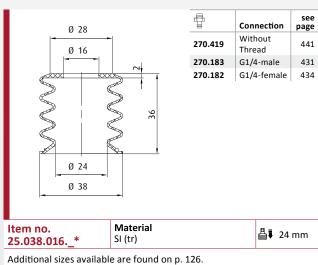


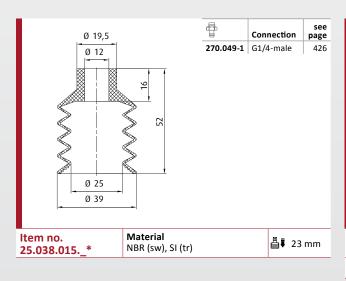
Ø 38 - 39 mm

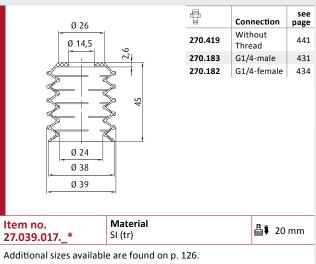








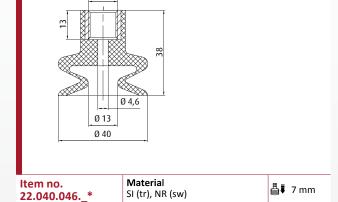




^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

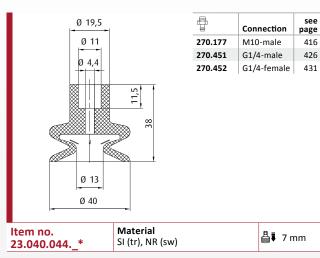


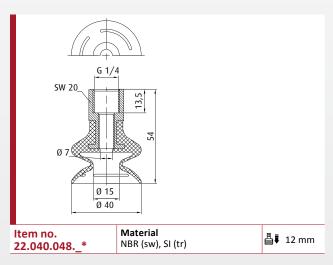
Ø 40 mm

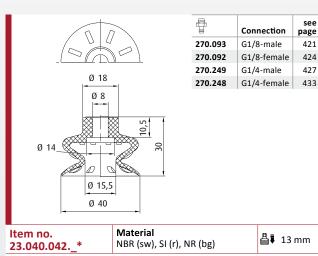


G1/4

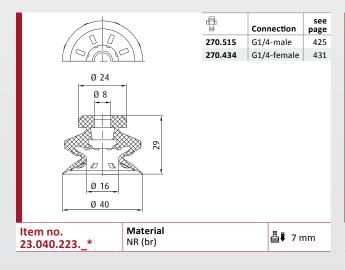
This vacuum cup is also available in the following dimensions: 30 mm, 44 mm, 50 mm $\,$

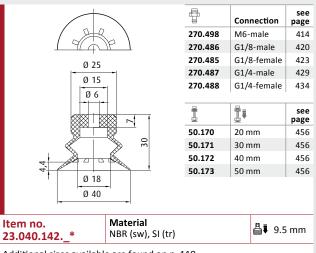






This vacuum cup is also available in the following dimensions: 14 mm, 24 mm, 60 mm





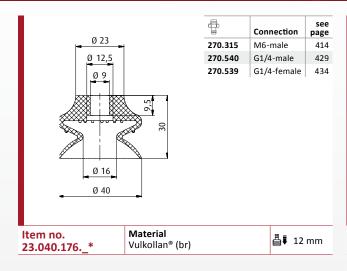
Additional sizes available are found on p. 119.

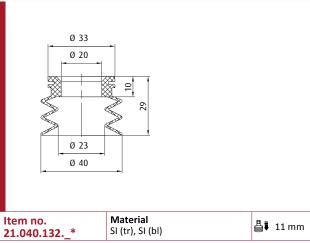


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

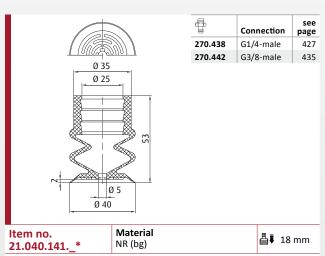


Ø 40 mm

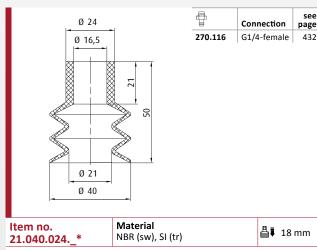




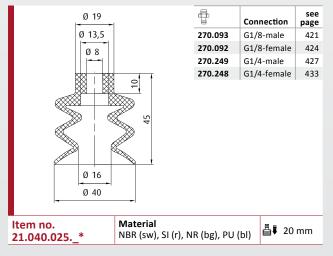
Additional sizes available are found on p. 130.

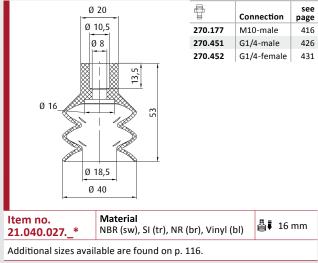


Additional sizes available are found on p. 23.



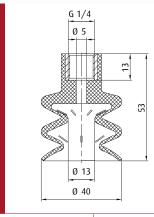
This vacuum cup is also available in the following dimensions: 60 mm





^{*} 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





Item no. 20.040.054.

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

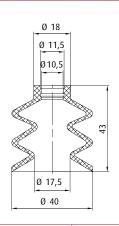
₫ 16 mm

see

Connection

Without

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



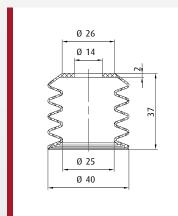
P	Connection	see page
270.097	G1/4-male	426
270.098	G1/4-female	432

Item no. 21.040.028.

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



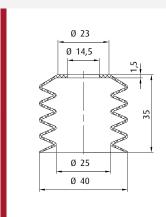
270.419	Without Thread	441
270.183	G1/4-male	431
270.182	G1/4-female	434

Item no.

Material SI (tr)

₫ 24 mm

Additional sizes available are found on p. 126.



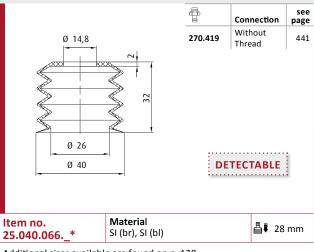
1	Connection	see page
270.419	Without Thread	441
270.183	G1/4-male	431
270.182	G1/4-female	434

Item no. 25.040.058.

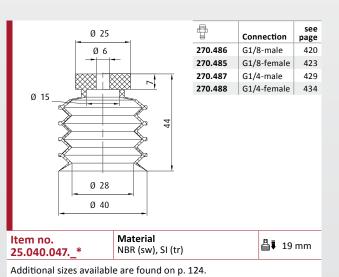
Material SI (bl)

₫ 25 mm

Additional sizes available are found on p. 126.



Additional sizes available are found on p. 128.

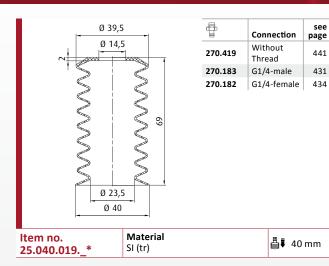


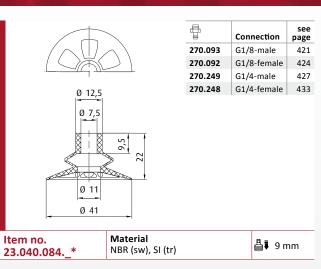
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

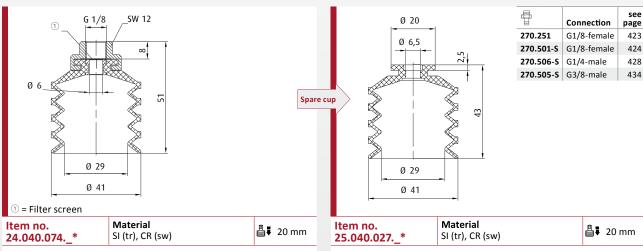




Ø 40 - 42 mm





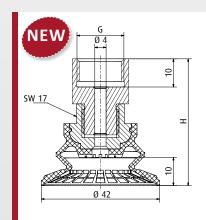


441

431

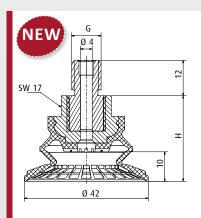
Additional sizes available are found on p. 104.

Additional sizes available are found on p. 100.



Item no.	Material	□ [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.



Item no.	Material	₫ [m	nm]	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.

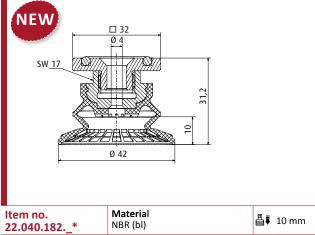
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



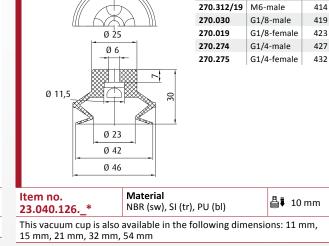
Ø 42 mm

Connection

see page

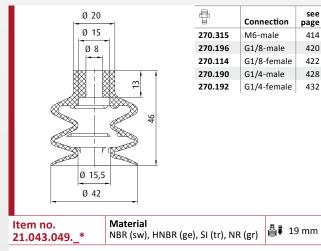


Additional sizes available are found on p. 133.

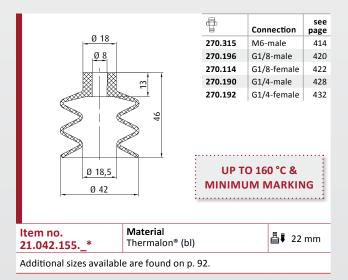


see Connection page Without 270.419 441 Thread Ø 20 270.182.U G1/4-male 431 270.182 G1/4-female 434 Ø 16 Ø 26 Ø 42 Material Item no. ₫ 11 mm SI (tr), NR (sw), NR (br)

This vacuum cup is also available in the following dimensions: 47 \mbox{mm}



Additional sizes available are found on p. 89.

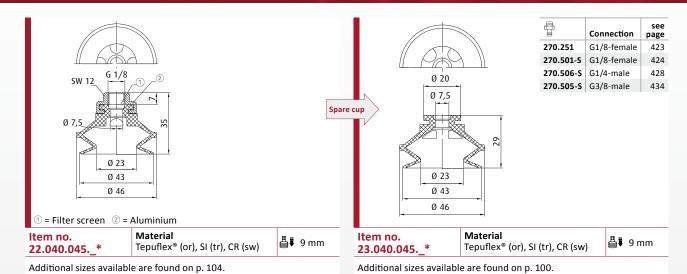


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

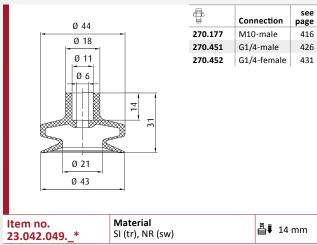


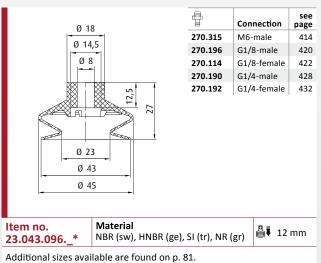
Vacuum cups by size | Bellows vacuum cups by \emptyset

Ø 43 - 44 mm



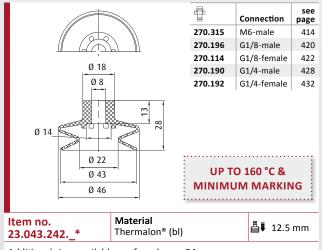
4 Ø 44





Ø 24

Ø 44



Item no. SI (tr), NR (sw) 22.044.054._* This vacuum cup is also available in the following dimensions: 25 mm, Additional sizes available are found on p. 84. 31 mm

^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout.

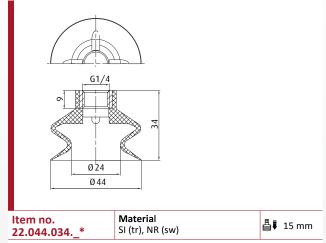


₫ 14 mm

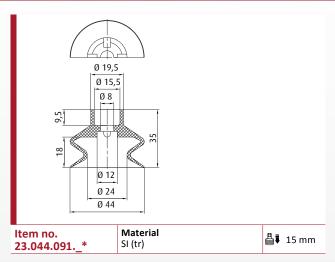
Vacuum cups by size | Bellows vacuum cups by \emptyset

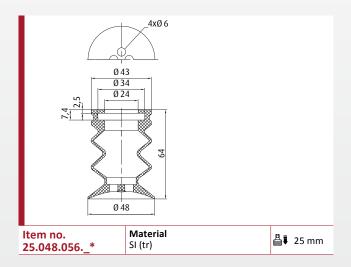
Ø 44 - 50 mm

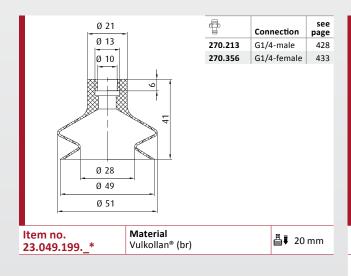


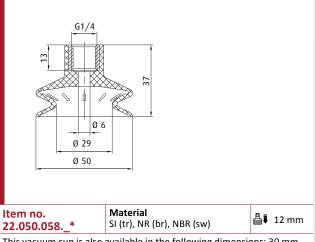


This vacuum cup is also available in the following dimensions: 30 mm, 40 mm, 50 mm $\,$









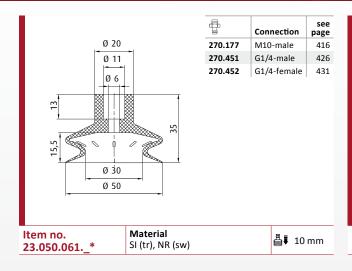
This vacuum cup is also available in the following dimensions: 30 mm, 40 mm, 44 mm $\,$

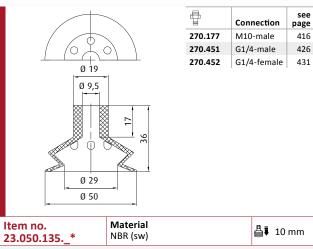


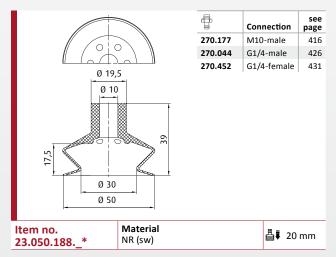
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

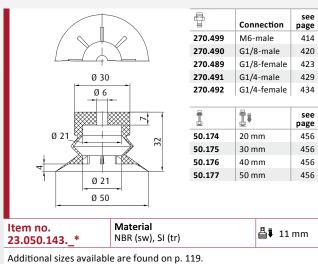


Ø 50 mm









see page 4 Connection 270.314 M6-male 415 270.490 G1/8-male 270.489 G1/8-female 423 Ø 28 270.491 G1/4-male 429 Ø 20 G1/4-female 270.492 434 Ø9 see Īŧ page 50.174 20 mm 456 50.175 30 mm 456 50.176 40 mm 456 Ø 31 50 mm 456 Ø 50 Ø 56

23.050.171._* Additional sizes available are found on p. 97.

Material

Vulkollan® (br)

₫**፣** 10 mm

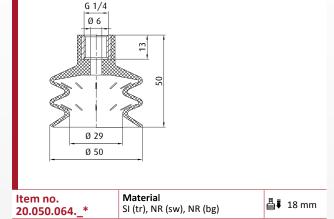


Item no.

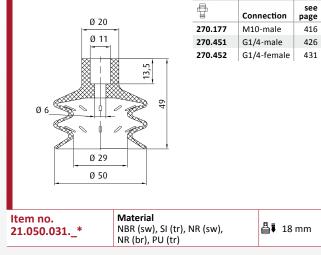
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

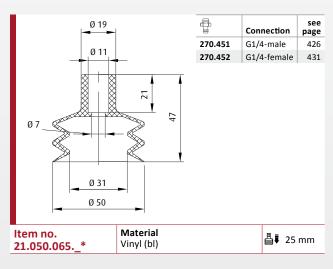
mm =

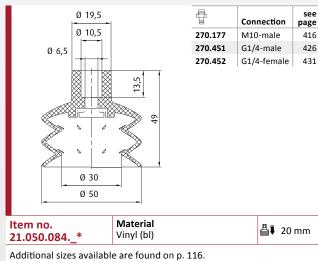
Ø 50 mm

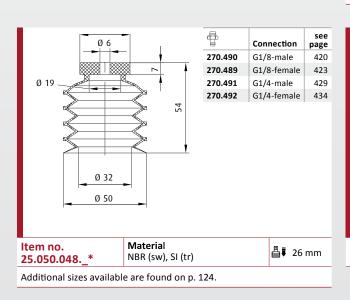


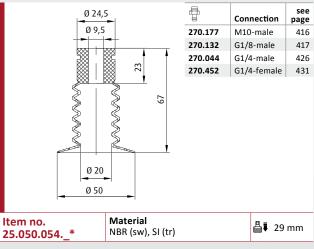
This vacuum cup is also available in the following dimensions: 30 mm,







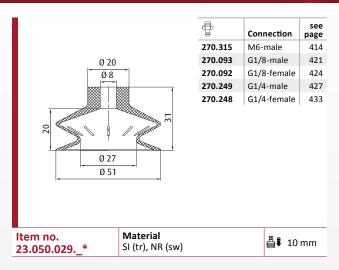


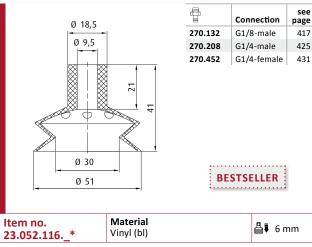


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

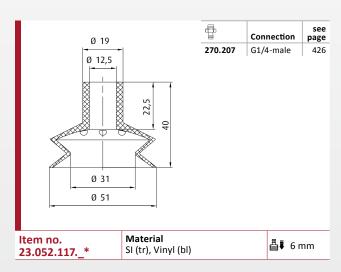


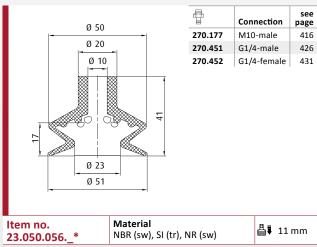
Ø 51 mm

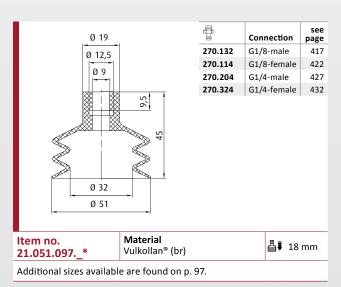


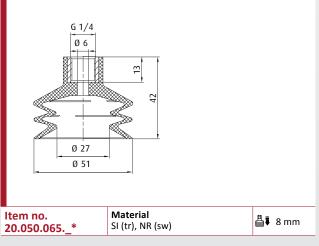


Additional sizes available are found on p. 113.







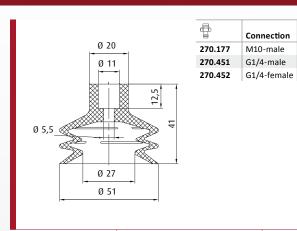


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 51 - 52 mm



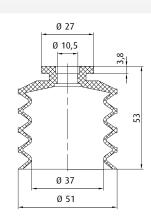


SW 12 Ø 37 Ø 51 ① = Filter screen ② = Aluminium Material Item no. ₫ **3**0 mm SI (tr), CR (sw)

Material Item no. **₽** 8 mm 21.050.032._* NBR (sw), SI (tr), NR (sw), NR (br)

Additional sizes available are found on p. 104.

24.050.087._*



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

see page

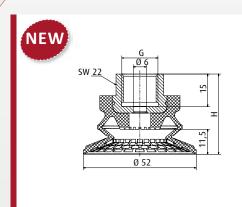
416

426

431

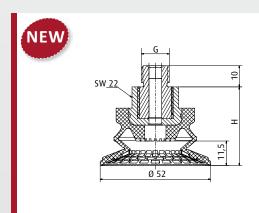
Item no. 25.050.028. *	Material SI (tr), CR (sw)	ૄૄ 25 mm
25.050.028.	31 (ti), Cit (3W)	

Additional sizes available are found on p. 100.



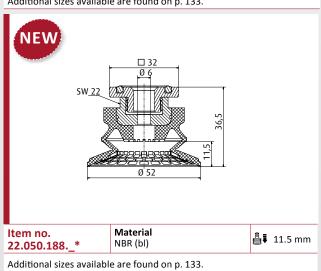
Item no.	Material	ૄૄ [mm]	Connection thread	H [mm]
22.050.184*	NBR (bl)	11.5	G1/4-female	42
22.050.185*	NBR (bl)	11.5	G3/8-female	37

Additional sizes available are found on p. 133.



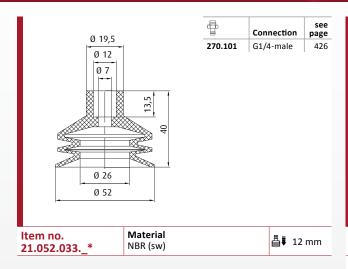
Item no.	Material	₽ [mm]	Connection thread	H [mm]
22.050.183*	NBR (bl)	11.5	G1/4-male	37
22.050.186*	NBR (bl)	11.5	M10-male	37
22.050.187*	NBR (bl)	11.5	M14x1.5-male	37

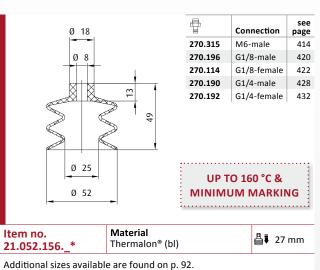
Additional sizes available are found on p. 133.





Ø <u>5</u>2 - 53 mm





4 see Connection page 270.132 G1/8-male 417 270.114 G1/8-female 422 270.208 G1/4-male 425 Ø 19 270.192 G1/4-female 432 ø 11,5 Ø 8 Ø 30 Ø 53

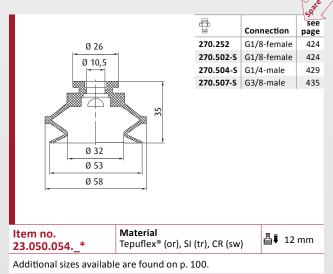
SW 12 1 Ø 10,5 42 Ø 32 Ø 53 Ø 58 1 = Filter screen 2 = Aluminium Material Item no. ₫**፣** 12 mm Tepuflex® (or), SI (tr), CR (sw) 22.050.056._*

Additional sizes available are found on p. 104.

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

NBR (sw), SI (r)

Material



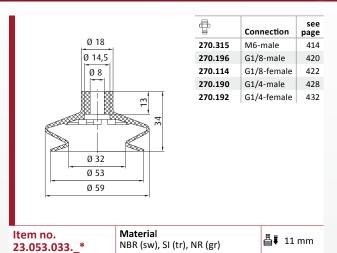
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

₫ 11 mm



Item no.

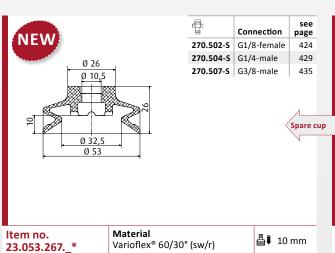
Ø 53 mm



Additional sizes available are found on p. 81.

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

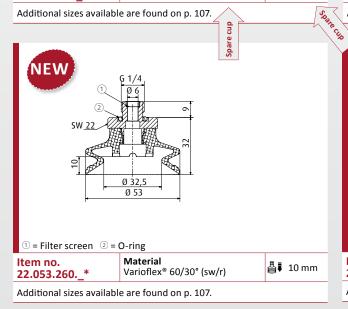
Additional sizes available are found on p. 84.



1 = Filter screen Material Item no. ₫**፣** 10 mm Varioflex® 60/30° (sw/r)

Additional sizes available are found on p. 107.

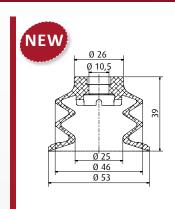
22.053.259._* Additional sizes available are found on p. 107.



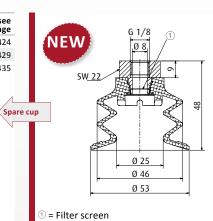
Ø 32,5 Ø 53 1 = Filter screen 2 = O-ring Material ₫ 10 mm 22.053.261. Varioflex® 60/30° (sw/r) Additional sizes available are found on p. 107.

^{*} 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



•	Connection	see page
270.502-S	G1/8-female	424
270.504-S	G1/4-male	429
270.507-S	G3/8-male	435



Additional sizes available are found on p. 110.

Item no. 21.053.178. Material

₫ 19 mm Varioflex® 60/30° (sw/r)

Spare cup

Item no. 20.053.151

NEW

add "-FI" to material code

Spare cup

Material Varioflex® 60/30° (sw/r)

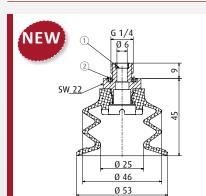
Ordering notes: For version with in bellows inserted filter disc please

4 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



Item no. 20.053.152.

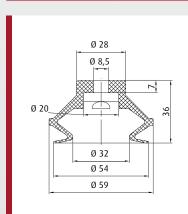
1 = Filter screen 2 = O-ring

Material Varioflex® 60/30° (sw/r) ₫**፣** 19 mm

1 = Filter screen Item no. 20.053.153.

Material Varioflex® 60/30° (sw/r) ₫**፣** 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



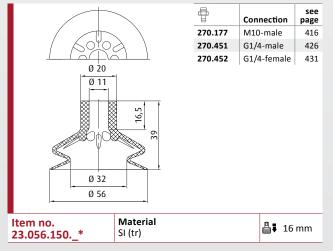
#	Connection	see page
270.314	M6-male	415
270.499	M6-male	414
270.490	G1/8-male	420
270.489	G1/8-female	423
270.492	G1/4-female	434

ltem no. 23.050.127*	Material NBR (sw), SI (tr), PU (bl)	₫₽	10 mm

This vacuum cup is also available in the following dimensions: 11 mm, 15 mm, 21 mm, 32 mm, 42 mm

Ø 53

② = **O**-ring



^{*} 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

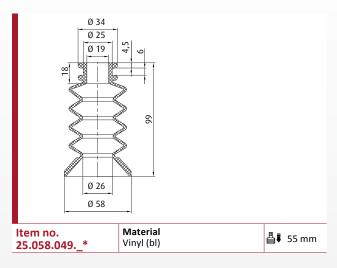


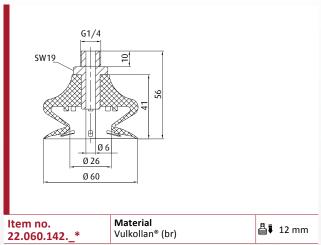
Additional sizes available are found on p. 110. Ordering notes: For version with in bellows inserted filter disc please add "-FI" to material code

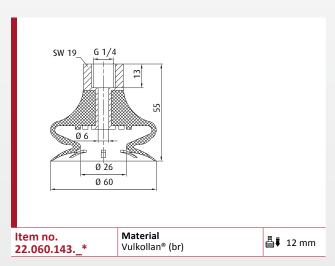
Vacuum cups by size | Bellows vacuum cups by \emptyset

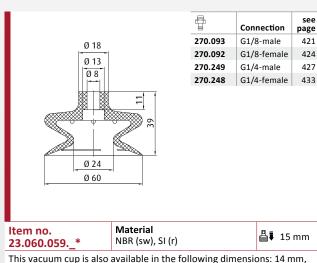
Ø 58 - 60 mm



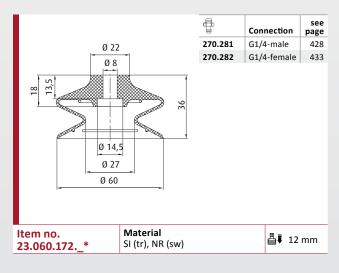


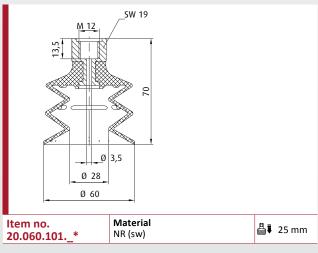






24 mm, 40 mm

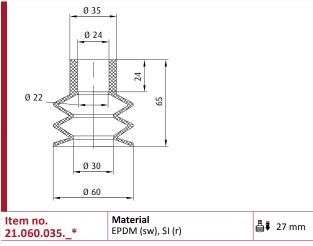




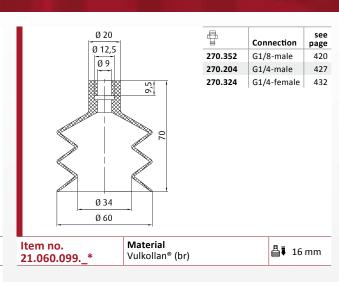
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

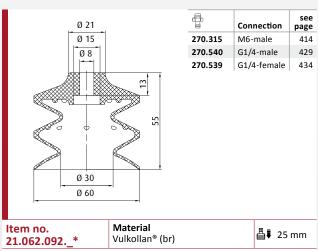


Ø 60 - 61 mm

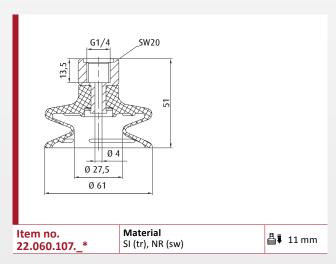


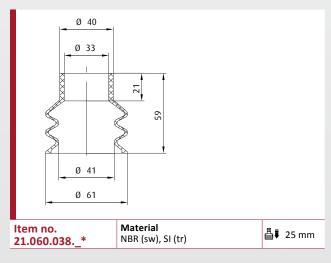
This vacuum cup is also available in the following dimensions: 40 mm

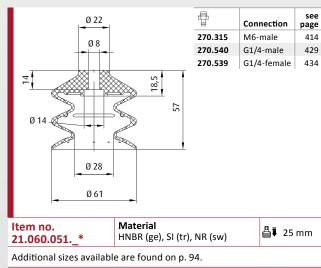




Additional sizes available are found on p. 97.





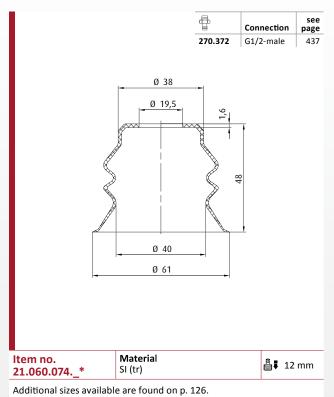


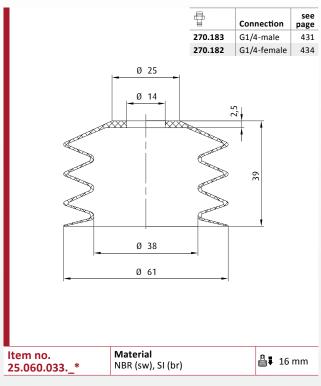
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



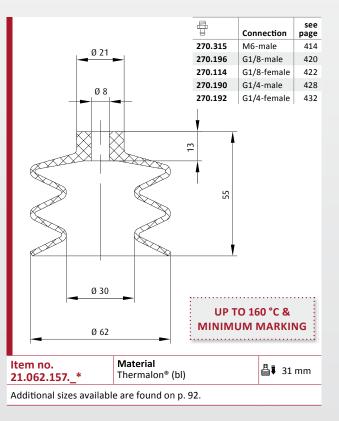
Vacuum cups by size | Bellows vacuum cups by \emptyset

Ø 61 - 62 mm





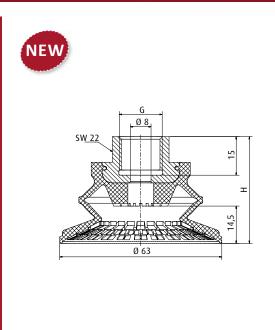
see page Connection 270.315 M6-male 414 270.540 G1/4-male 429 Ø 21 270.539 G1/4-female 434 Ø 14,5 Ø 8,5 Ø 27,5 Ø 62 Material NBR (sw), SI (tr) Item no. ₫ **2**5 mm 21.062.055. * Additional sizes available are found on p. 89.

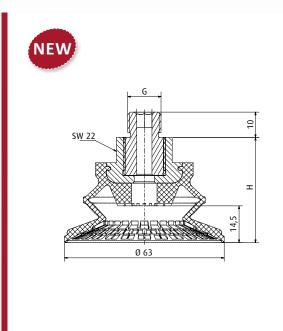


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 62 - 63 mm





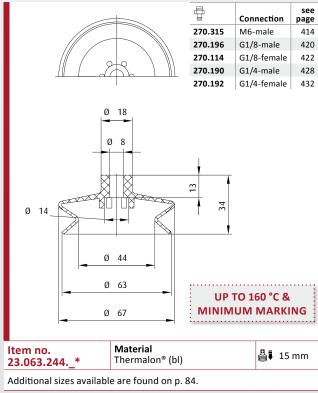
Item no.	Material	∰ [mm]	Connection thread	H [mm]
22.060.190*	NBR (bl)	14.5	G1/4-female	46.5
22.060.191*	NBR (bl)	14.5	G3/8-female	41.5

Additional sizes available are found on p. 133.

Item no.	Material	₽ [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.



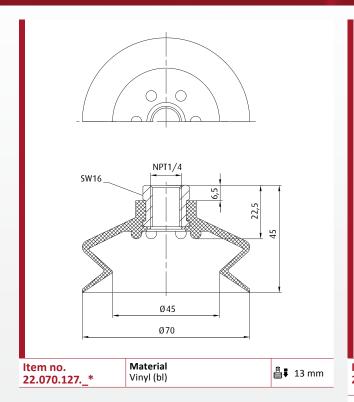


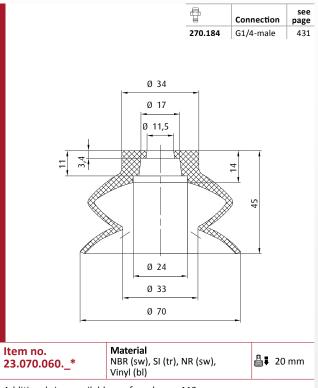
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



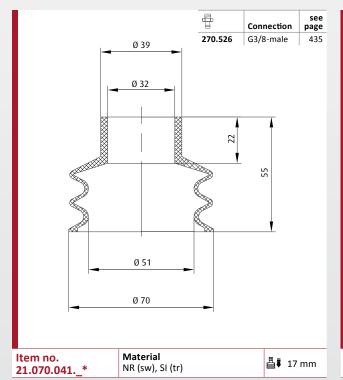


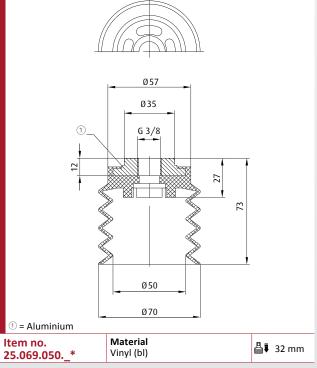
Ø 70 mr





Additional sizes available are found on p. 113.



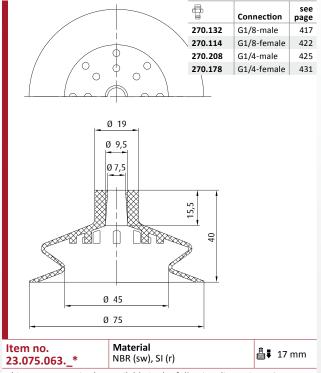




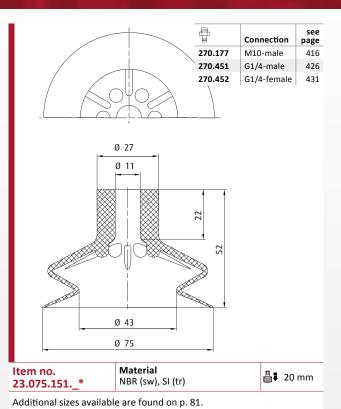
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

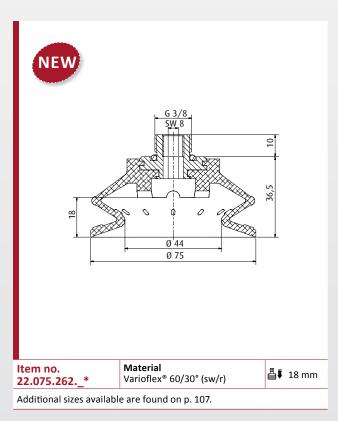


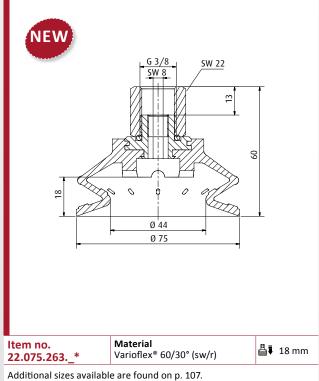
Ø 75 mm



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



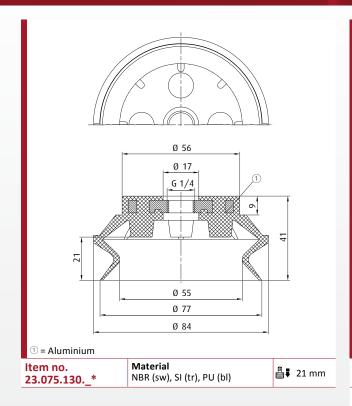


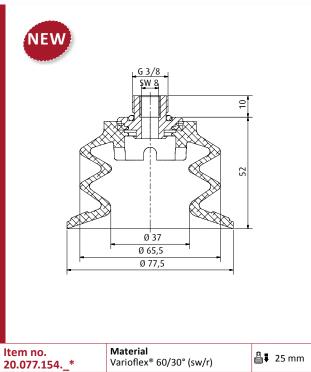


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

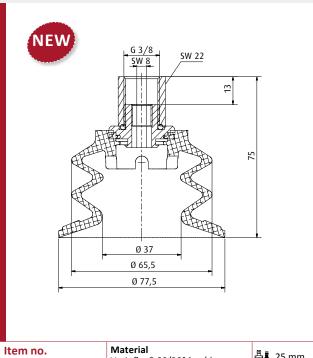


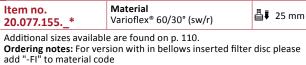
Ø 77 - 78 mm





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



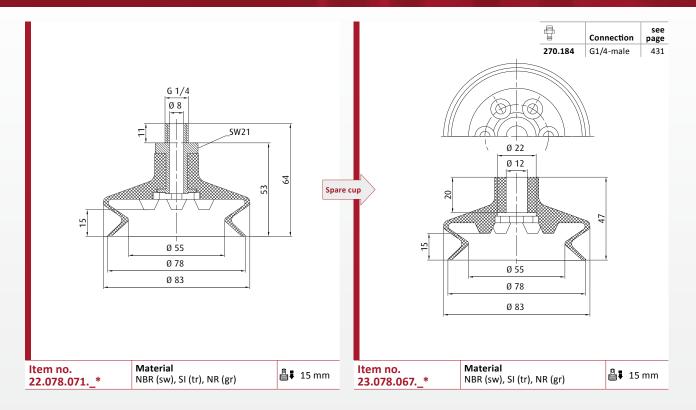


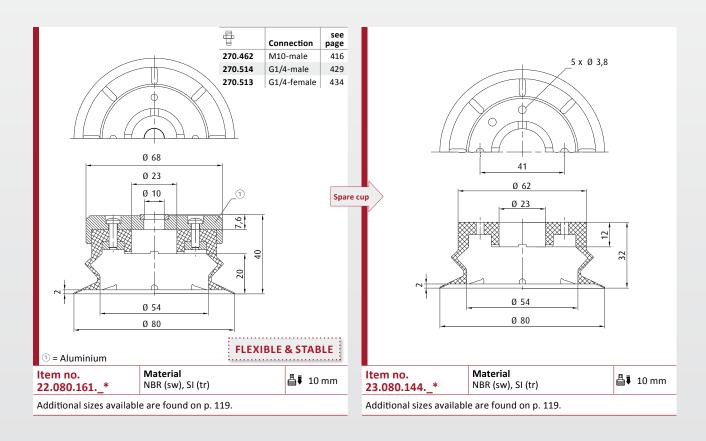
Connection page 270.364 G1/4-male 430 Ø 46 Ø 13,5 49 Ø 40 Ø 78 1 = Aluminium Item no. Material ₫ 23 mm SBR (br) 22.080.144. *

^{*} 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

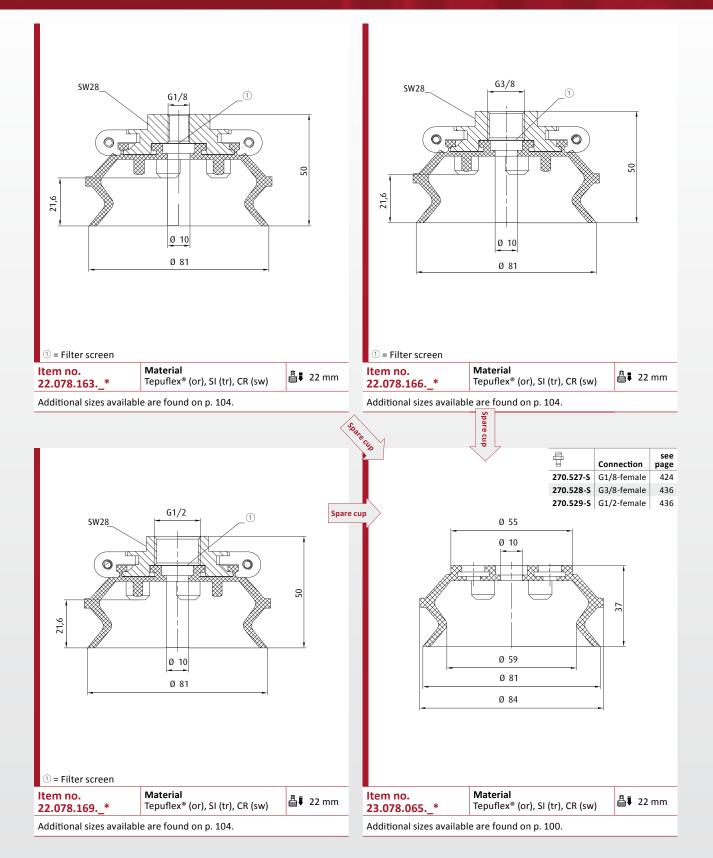




^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



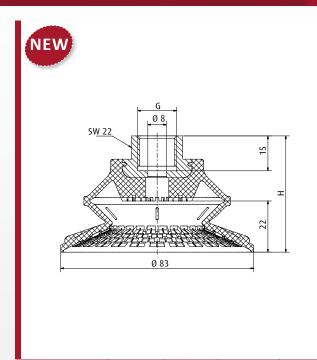


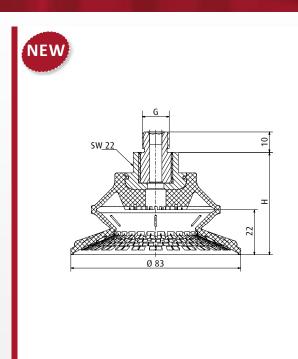


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 82 - 84 mm



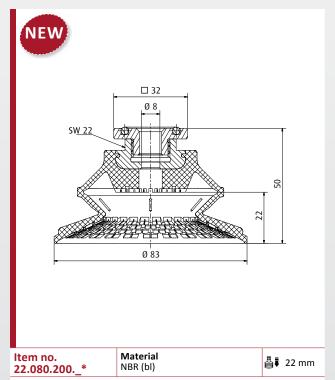


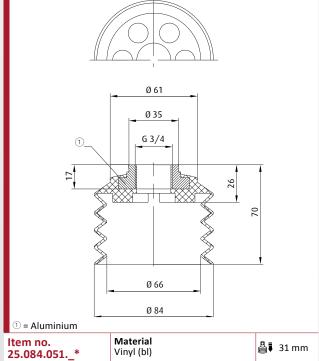
Item no.	Material	♣ [mm]	Connection thread	H [mm]
22.080.196*	NBR (bl)	22	G1/4-female	55
22.080.197*	NBR (bl)	22	G3/8-female	50

Additional sizes available are found on p. 133.

Item no.	Material	4	[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.



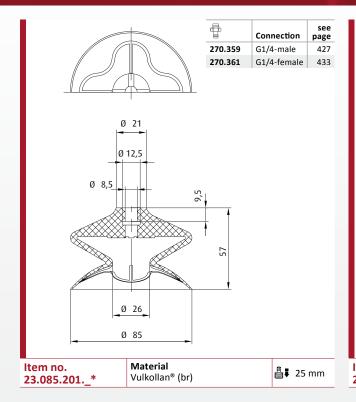


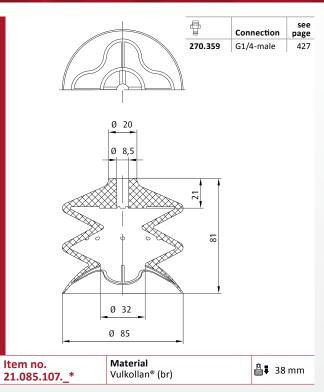
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

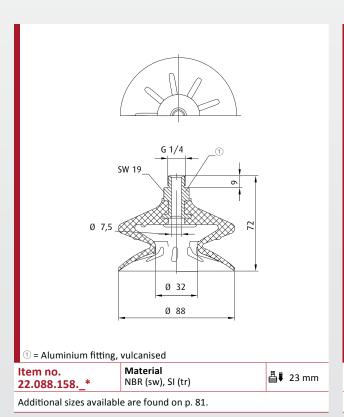


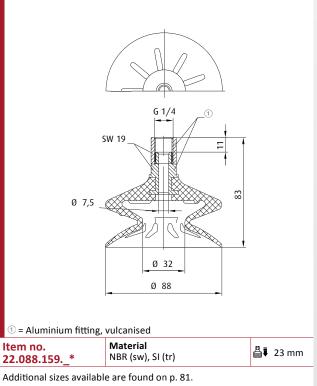
Additional sizes available are found on p. 133.

Ø 85 - 88 mm





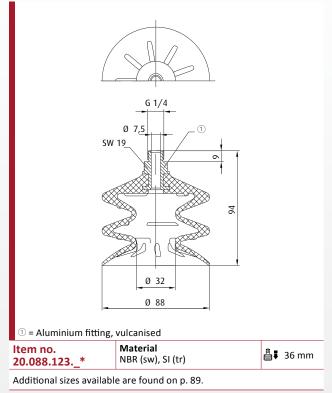


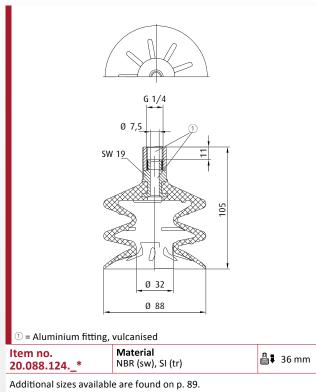


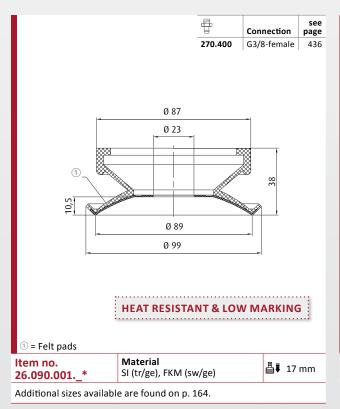
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

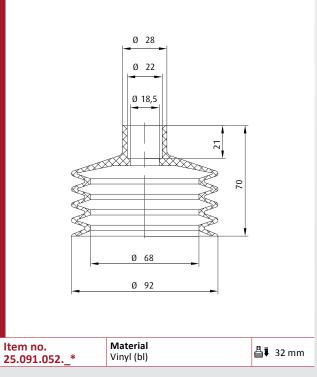


Ø 88 - 92 mm







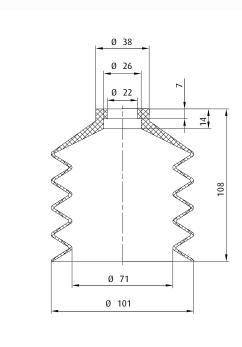


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 101 - 103 mm



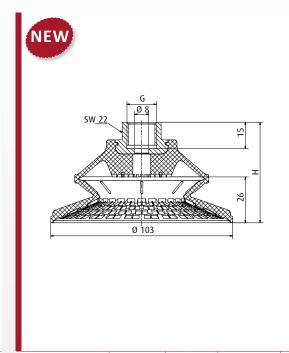


Material

Vinyl (bl)

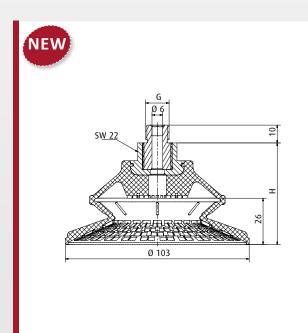
Item no.

25.102.053._*



Item no.	Material	∰ [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	∰ [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 Item no. ₫**‡** 26 mm

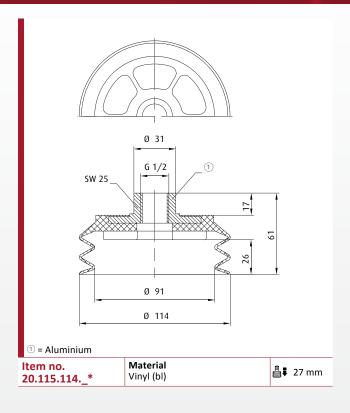
NBR (bl) Additional sizes available are found on p. 133.

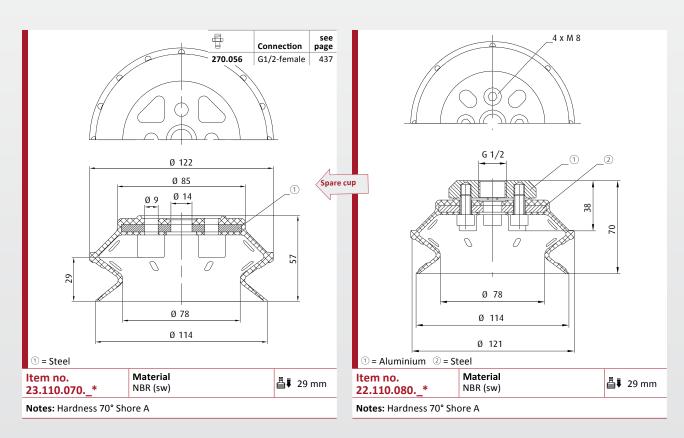
22.100.206._*

₫**፣** 55 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 114 mm



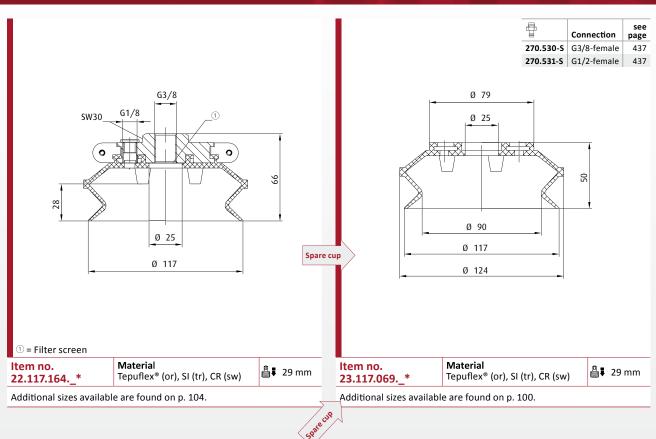


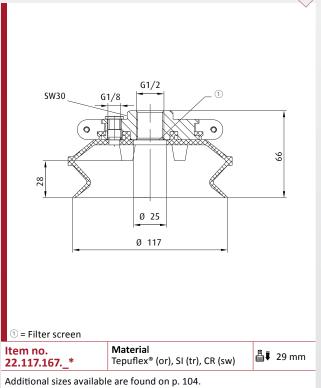
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

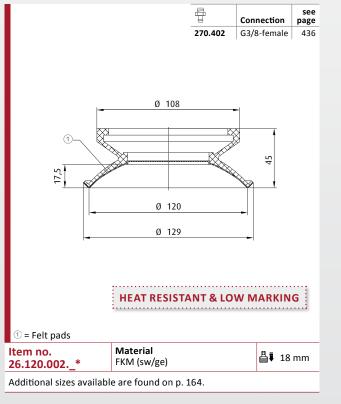


Vacuum cups by size | Bellows vacuum cups by \emptyset

Ø 117 - 120 mm



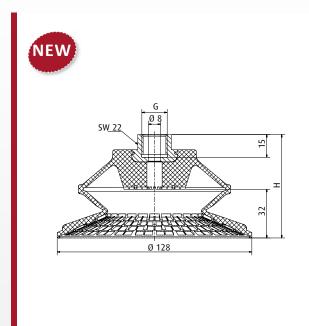


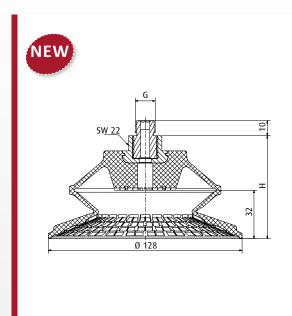


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 128 mm



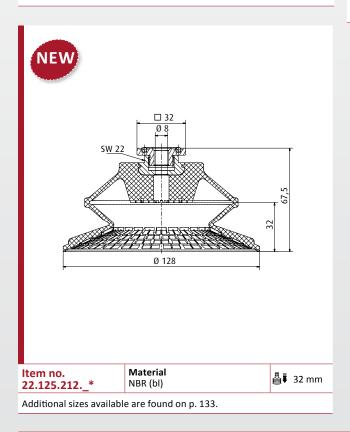


Item no.	Material	♣ [mm]	Connection thread	H [mm]
22.125.208*	NBR (bl)	32	G1/4-female	73
22.125.209*	NBR (bl)	32	G3/8-female	68

Additional sizes available are found on p. 133.

Item no.	Material	♣ [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.

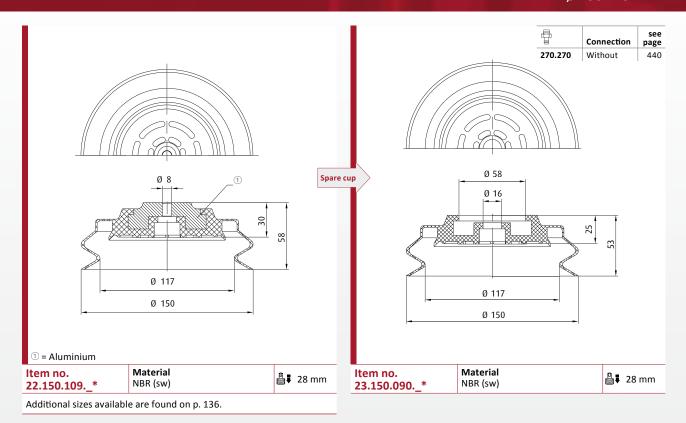


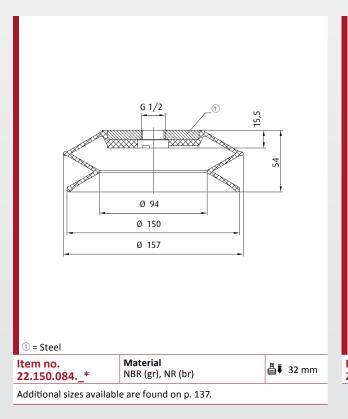
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

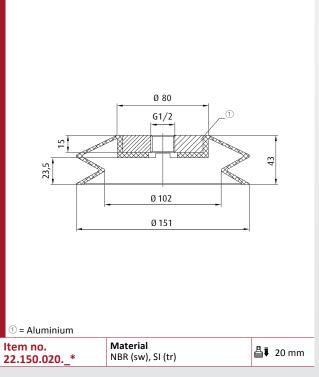


Vacuum cups by size | Bellows vacuum cups by \emptyset

Ø 150 - 151 mm



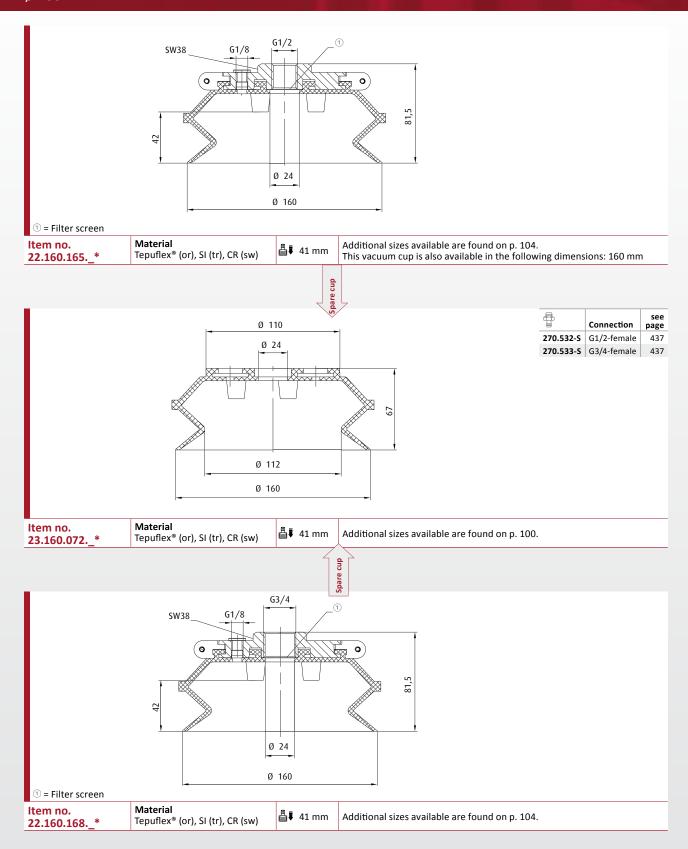






^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760

Ø 160 mm

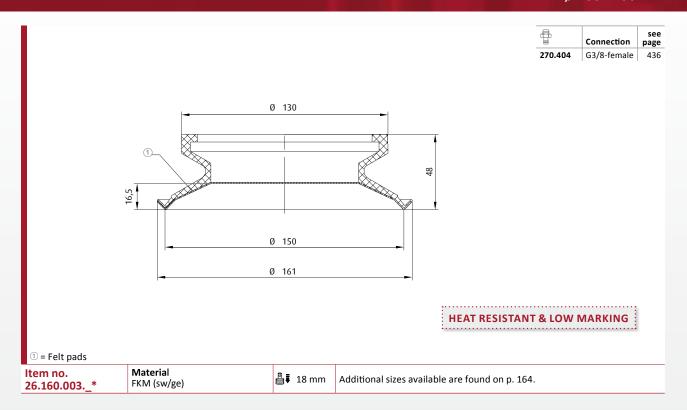


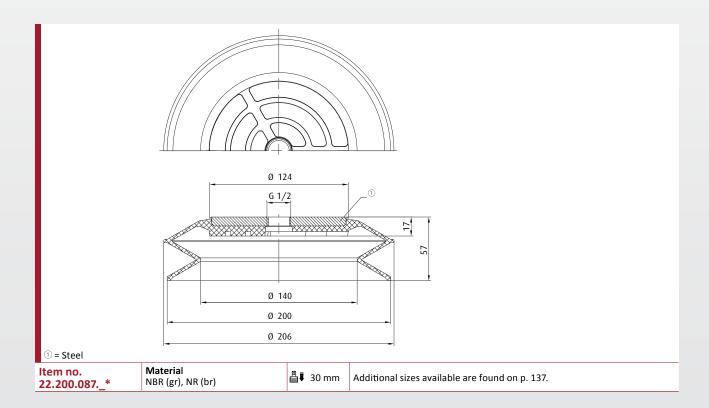
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Vacuum cups by size | Bellows vacuum cups by \emptyset

Ø 160 - 200 mm

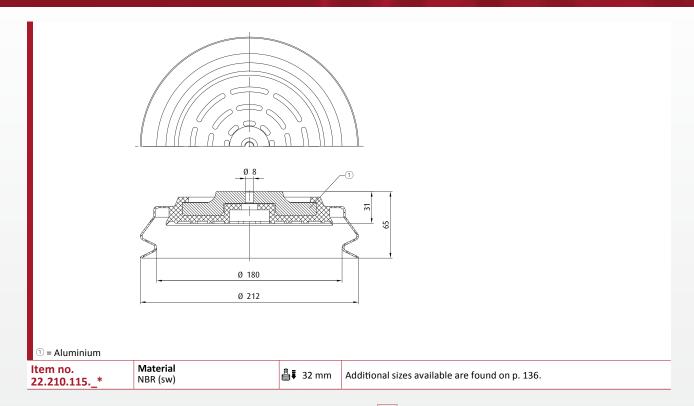


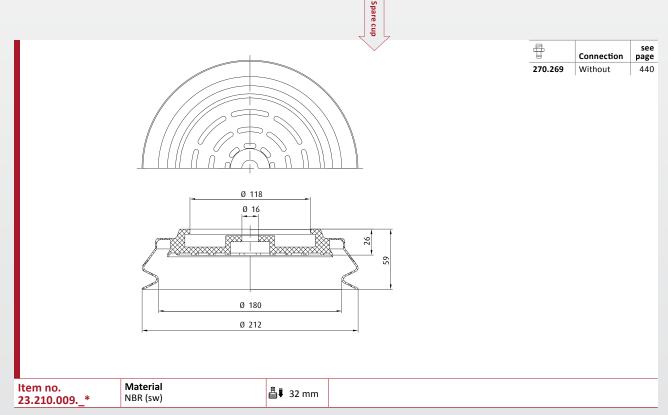


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760



Ø 212 mm



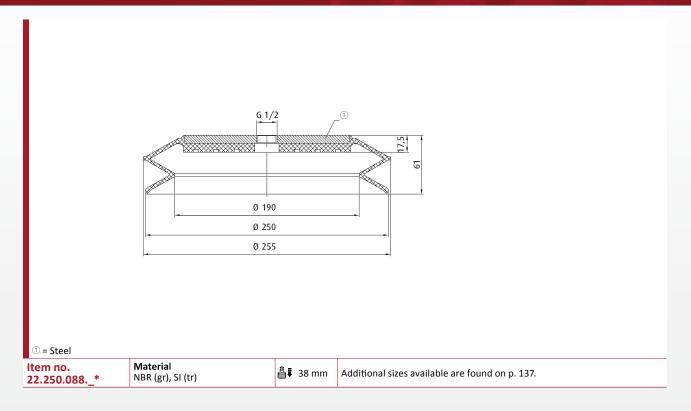


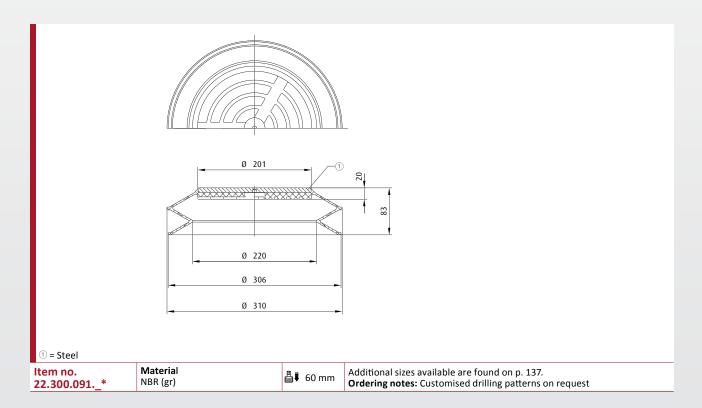
^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760





Ø 250 - 306 mm



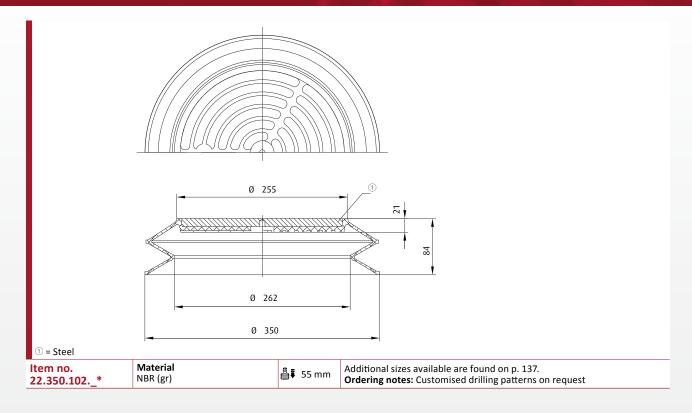


^{*} When ordering please add the appropriate material code to item no. You will find it in the foldout. Average holding forces for Vacuum cups you will find on page 760





Ø 350 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

