



Universal flat vacuum cups – Series SFU-A



Product Description

Very shallow cup with single-lip seal for handling various products with smooth or rough surfaces. Connection up to Ø 50 mm by means of plug nipple, from Ø 60 mm with vulcanized carrier plate (bolttable)

Advantage

- > Great lateral stability allows high acceleration
- > Fast cycle times are possible, due to the cup's low volume
- > Cost-effective replacement of worn seals

Ordering notes

Ø 1 mm to Ø 3 mm: PU = 10 pieces

Technical Data

Item no.	Model / Lip dimensions		Material / color	Connection thread
102.001.001.*	SFU-A -1	0.1	NBR (sw), SI (tr)	--
102.001.002.*	SFU-A -1.5	0.3	NBR (sw), SI (tr)	--
102.002.004.*	SFU-A -2	0.4	NBR (sw), NBR-AS (sw), SI (tr), SI-AS (sw), PU (bl)	--
102.003.005.*	SFU-A -3	0.5	NBR (sw), NBR-AS (sw), SI (tr), SI-AS (sw), PU (bl), FKM (sw)	--
102.005.009.*	SFU-A -5	0.9	NBR (sw), NBR-AS (sw), SI (tr), SI-AS (sw), PU (bl)	--
102.006.013.*	SFU-A -6	1	NBR (sw), NBR-AS (sw), SI (tr), SI-AS (sw), PU (bl), FKM (sw)	--
102.008.017.*	SFU-A -8	1.4	NBR (sw), NBR-AS (sw), SI (tr), SI-AS (sw), PU (bl), FKM (sw)	--
102.010.024.*	SFU-A -10	1.2	NBR (sw), NBR-AS (sw), SI (tr), SI-AS (sw), PU (bl)	--
102.015.030.*	SFU-A -15	2	NBR (sw), SI (tr), PU (bl)	--
102.015.309.*	SFU-A -15A	1.9	NBR (sw), SI (tr), PU (bl)	--
102.020.041.*	SFU-A -20	2	NBR (sw), SI (tr), PU (bl)	--
102.025.047.*	SFU-A -25	2.5	NBR (sw), SI (tr), PU (bl)	--
102.030.053.*	SFU-A -30	2	NBR (sw), SI (tr), PU (bl)	--
102.035.056.*	SFU-A -35	3	NBR (sw), SI (tr)	--
102.040.061.*	SFU-A -40	3.5	NBR (sw), SI (tr), PU (bl)	--
102.050.065.*	SFU-A -50	4	NBR (sw), SI (tr), PU (bl)	--
102.060.303.*	SFU-A -60	5	NBR (sw), SI (tr), PU (bl)	G1/4-female
102.080.304.*	SFU-A -80	6	NBR (sw), SI (tr), PU (bl)	G1/4-female
102.095.305.*	SFU-A -95	6	NBR (sw), SI (tr), PU (bl)	G1/4-female
154.120.018.*	SFU-A -120	7	NBR (sw), SI (tr), PU (bl)	--
154.150.020.*	SFU-A -150	9	NBR (sw), SI (tr)	--
154.191.025.*	SFU-A -200	13	NBR (sw), SI (tr), PU (bl)	--

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



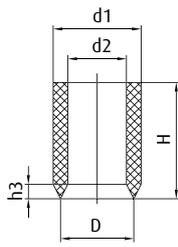
Accessories												
Item no.	Suitable fittings										Suitable spring plungers	
	M3-male	M5-male	M5-female	M6-male	M10x1.25-female	G1/8-male	G1/8-female	G1/4-male	G1/4-female	G1/2-female	Spring plunger	
102.001.001.*	270.026 (p. 446)	--	--	--	--	--	--	--	--	--	--	--
102.001.002.*	270.011 (p. 446)	--	--	--	--	--	--	--	--	--	--	--
102.002.004.*	270.014 (p. 446)	270.300 (p. 449)	--	--	--	--	--	--	--	--	--	--
102.003.005.*	270.014 (p. 446)	270.300 (p. 449)	--	--	--	--	--	--	--	--	--	--
102.005.009.*	--	270.010 (p. 449)	270.005 (p. 450)	--	--	270.009 (p. 455)	270.007 (p. 460)	--	--	--	50.330 (p. 494)	10
102.006.013.*	--	270.010 (p. 449)	270.005 (p. 450)	--	--	270.009 (p. 455)	270.007 (p. 460)	--	--	--	50.330 (p. 494)	10
102.008.017.*	--	270.010 (p. 449)	270.005 (p. 450)	--	--	270.009 (p. 455)	270.007 (p. 460)	--	--	--	50.330 (p. 494)	10
102.010.024.*	--	270.010 (p. 449)	270.005 (p. 450)	--	--	270.009 (p. 455)	270.007 (p. 460)	--	--	--	50.330 (p. 494)	10
102.015.030.*	--	270.200 (p. 449)	--	--	--	270.064 (p. 457)	270.065 (p. 461)	--	--	--	--	--
102.015.309.*	--	270.010 (p. 449)	270.005 (p. 450)	--	--	270.009 (p. 455)	270.007 (p. 460)	--	--	--	50.330 (p. 494)	10
102.020.041.*	--	270.311 (p. 449)	--	--	--	270.063 (p. 457)	270.061 (p. 461)	--	--	--	--	--
102.025.047.*	--	--	--	270.312/19 (p. 452)	--	270.030 (p. 457)	270.019 (p. 461)	270.274 (p. 465)	270.275 (p. 471)	--	--	--
102.030.053.*	--	--	--	270.312/19 (p. 452)	--	270.030 (p. 457)	270.019 (p. 461)	270.274 (p. 465)	270.275 (p. 471)	--	--	--
102.035.056.*	--	--	--	270.312/19 (p. 452)	--	270.030 (p. 457)	270.019 (p. 461)	270.274 (p. 465)	270.275 (p. 471)	--	--	--
102.040.061.*	--	--	--	270.312/19 (p. 452)	--	270.030 (p. 457)	270.019 (p. 461)	270.274 (p. 465)	270.275 (p. 471)	--	--	--
102.050.065.*	--	--	--	--	--	270.490 (p. 458)	270.489 (p. 461)	270.491 (p. 468)	270.492 (p. 473)	--	--	--
102.060.303.*	--	--	--	--	270.090 (p. 504)	--	--	270.191 (p. 503)	--	--	--	--
102.080.304.*	--	--	--	--	270.090 (p. 504)	--	--	270.191 (p. 503)	--	--	--	--
102.095.305.*	--	--	--	--	270.090 (p. 504)	--	--	270.191 (p. 503)	--	--	--	--
154.120.018.*	--	--	--	--	--	--	--	--	--	270.056 (p. 476)	--	--
154.150.020.*	--	--	--	--	--	--	--	--	--	270.056 (p. 476)	--	--
154.191.025.*	--	--	--	--	--	--	--	--	--	270.056 (p. 476)	--	--

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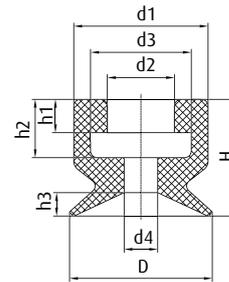
* When ordering please add the appropriate material code to the item no. You will find it in the foldout.



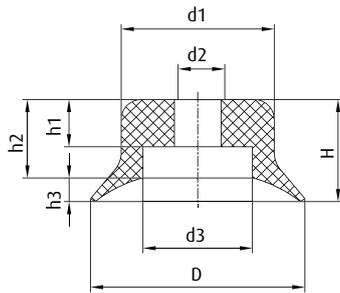
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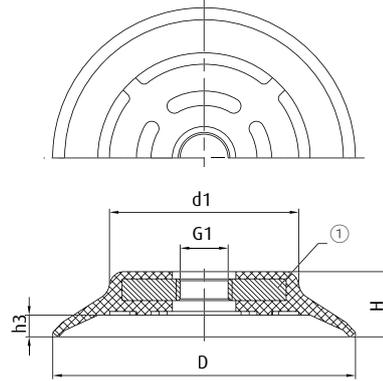
Ø 1 | 1.5 mm



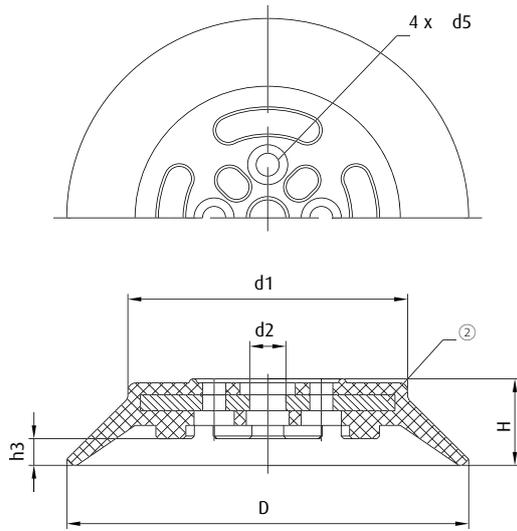
Ø 2.5 | 4 | 5 | 6.5 | 8.5 | 11 | 15.5 mm



Ø 15 | 21 | 25 | 30 | 36 | 42 | 50 mm



Ø 62 | 83 | 95 mm



Ø 117 | 150 | 193 mm

① = Aluminum

② = Steel

Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	Ø d5 [mm]	G1	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]
102.001.001_*	1	1.2	0.8	--	--	--	--	1.6	--	--	0.2
102.001.002_*	1.5	1.8	1.2	--	--	--	--	2.5	--	--	0.3
102.002.004_*	2.5	4	2	3	1.2	--	--	4	1.5	2.5	0.5
102.003.005_*	4	4	2	3	1.2	--	--	4	1.5	2.5	0.5
102.005.009_*	5	7.5	3.8	6	1.3	--	--	6.5	1.8	3.9	0.8
102.006.013_*	6.5	7.5	4	6	2	--	--	7	2	4	1
102.008.017_*	8.5	8	4	6	2	--	--	7	2	3.5	1.4
102.010.024_*	11	8.5	4	6	2	--	--	7.5	1.8	3.8	1.4

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Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	Ø d5 [mm]	G1	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]
102.015.030.*	15	12	4.5	7.5	--	--	--	8	2.6	2.1	2.1
102.015.309.*	15.5	9	3.8	6	2	--	--	8	2.2	4.4	2
102.020.041.*	21	15	4.6	11	--	--	--	10	4.5	8	2.4
102.025.047.*	25	16	6	11	--	--	--	14	7	11	3
102.030.053.*	30	14	6	11	--	--	--	12	7	10	2
102.035.056.*	36	21	6	11	--	--	--	14	7	11.2	2.8
102.040.061.*	42	24	6	11	--	--	--	14	7	11.2	2.8
102.050.065.*	50	27	8	20	--	--	--	15	7.4	11.5	3.5
102.060.303.*	62	38	--	--	--	--	G1/4	16	--	--	4.8
102.080.304.*	83	52	--	--	--	--	G1/4	18	--	--	6
102.095.305.*	95	66	--	--	--	--	G1/4	18	--	--	5.5
154.120.018.*	117	90	14	--	--	8.5	--	26	--	--	9
154.150.020.*	150	104	13.5	--	--	8.5	--	33	--	--	10
154.191.025.*	193	142	13	--	--	8.5	--	40	--	--	15.5

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Universal flat vacuum cups – Series SFU-B



Product Description

Extremely shallow cup with single-lip seal for handling various products with smooth or slightly rough surfaces. Connection up to Ø 15 mm by means of plug nipple, from Ø 20 mm with firmly screwed-in nipple. Compatible „snap-in“ spring plungers available.

Advantage

- > Great lateral stability allows high acceleration
- > Supported by support faces from Ø 30 mm
- > Fastest cycle times are possible due to the cup's low volume
- > Cost-effective replacement of worn seals
- > High process reliability due to fixed, non-rotating seat of the screw nipple

Technical Data

Item no.	Model / Lip dimensions	Material / color	
102.001.425.*	SFU-B-0.7	NBR (sw), SI-AS (sw)	0
102.001.463.*	SFU-B-1	NBR (sw), SI-AS (sw)	0
102.002.464.*	SFU-B-1.5	NBR (sw), SI-AS (sw)	0
102.002.279.*	SFU-B-2	NBR (sw), SI (tr), SI-AS (sw), PU (bl), FKM (gr)	0.2
102.003.280.*	SFU-B-3	NBR (sw), SI (tr), SI-AS (sw), PU (bl), FKM (gr)	0.3
102.004.281.*	SFU-B-4	NBR (sw), SI (tr), SI-AS (sw), PU (bl), FKM (gr)	0.3
102.006.282.*	SFU-B-6	NBR (sw), SI (tr), SI-AS (sw), PU (bl), FKM (gr)	0.5
102.008.283.*	SFU-B-8	NBR (sw), SI (tr), SI-AS (sw), PU (bl), FKM (gr)	1
102.010.284.*	SFU-B-10	NBR (sw), SI (tr), SI-AS (sw), PU (bl), FKM (gr)	1
102.015.285.*	SFU-B-15	NBR (sw), SI (tr), SI-AS (sw), PU (bl), FKM (gr)	1.5
102.020.286.*	SFU-B-20	NBR (sw), SI (tr), PU (bl), FKM (gr)	2
102.025.287.*	SFU-B-25	NBR (sw), SI (tr), PU (bl), FKM (gr)	2
102.030.288.*	SFU-B-30	NBR (sw), SI (tr), PU (bl), FKM (gr)	2
102.040.289.*	SFU-B-40	NBR (sw), SI (tr), PU (bl), FKM (gr)	2
102.050.290.*	SFU-B-50	NBR (sw), SI (tr), PU (bl), FKM (gr)	2
102.060.291.*	SFU-B-60	NBR (sw), SI (tr), PU (bl), FKM (gr)	2.5

Accessories

Item no.	Suitable fittings								Suitable spring plungers							
	M3-male	M5-male	M6-male	M10-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female	Spring plunger		Spring plunger		Spring plunger		Spring plunger	
102.001.425.*	270.524 (p. 446)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
102.001.463.*	270.524 (p. 446)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
102.002.464.*	270.524 (p. 446)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
102.002.279.*	270.427 (p. 446)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
102.003.280.*	270.427 (p. 446)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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Accessories

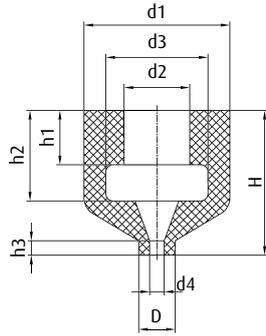
Item no.	Suitable fittings								Suitable spring plungers							
	M3- male	M5- male	M6- male	M10- male	G1/8- male	G1/8- female	G1/4- male	G1/4- female	Spring plunger		Spring plunger		Spring plunger		Spring plunger	
102.004.281.*	270.427 (p. 446)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
102.006.282.*	--	270.283 (p. 447)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
102.008.283.*	--	270.283 (p. 447)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
102.010.284.*	--	270.010 (p. 449)	--	--	270.009 (p. 455)	270.007 (p. 460)	--	--	50.103 (p. 494)	6	50.125 (p. 494)	10	50.126 (p. 494)	15	50.127 (p. 494)	20
102.015.285.*	--	270.010 (p. 449)	--	--	270.009 (p. 455)	270.007 (p. 460)	--	--	50.103 (p. 494)	6	50.125 (p. 494)	10	50.126 (p. 494)	15	50.127 (p. 494)	20
102.020.286.*	--	270.311 (p. 449)	270.459 (p. 452)	--	270.480 (p. 458)	270.479 (p. 461)	--	--	50.095 (p. 496)	20	50.096 (p. 496)	30	50.097 (p. 496)	40	50.098 (p. 496)	50
102.025.287.*	--	270.311 (p. 449)	270.459 (p. 452)	--	270.480 (p. 458)	270.479 (p. 461)	--	--	50.095 (p. 496)	20	50.096 (p. 496)	30	50.097 (p. 496)	40	50.098 (p. 496)	50
102.030.288.*	--	--	270.460 (p. 452)	--	270.482 (p. 458)	270.481 (p. 461)	270.483 (p. 468)	270.484 (p. 472)	50.095 (p. 496)	20	50.096 (p. 496)	30	50.097 (p. 496)	40	50.098 (p. 496)	50
102.040.289.*	--	--	270.498 (p. 453)	--	270.486 (p. 458)	270.485 (p. 461)	270.487 (p. 468)	270.488 (p. 473)	50.170 (p. 496)	20	50.171 (p. 496)	30	50.172 (p. 496)	40	50.173 (p. 496)	50
102.050.290.*	--	--	270.499 (p. 453)	--	270.490 (p. 458)	270.489 (p. 461)	270.491 (p. 468)	270.492 (p. 473)	50.174 (p. 496)	20	50.175 (p. 496)	30	50.176 (p. 496)	40	50.177 (p. 496)	50
102.060.291.*	--	--	--	270.512 (p. 454)	--	--	--	--	--	--	--	--	--	--	--	--

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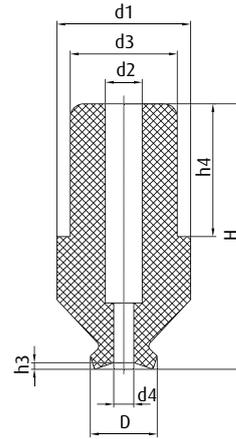
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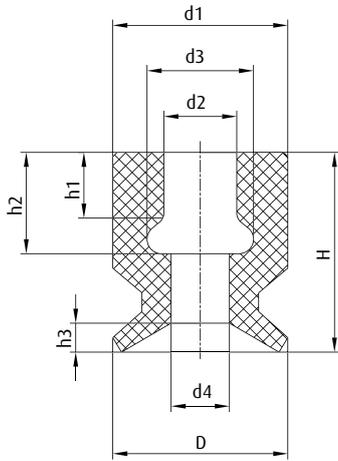
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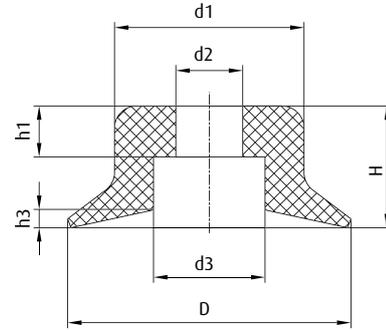
Ø 0.7 | 1 | 1.5 mm



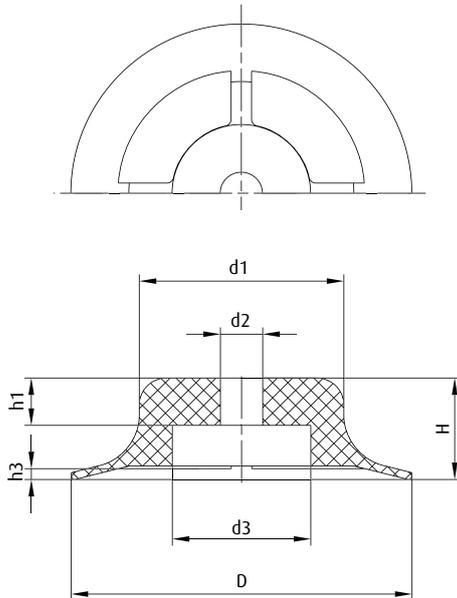
Ø 2 | 3 | 4 mm



Ø 6 mm



Ø 8 | 10 | 15 | 20 | 25 mm



Ø 30 | 40 | 50 | 60 mm

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Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]	h4 [mm]
102.001.425.*	0.7	4	1.8	2.9	0.2	4	1.5	2.4	0.4	--
102.001.463.*	1	4	1.8	2.8	0.4	4	1.5	2.5	0.4	--
102.002.464.*	1.5	4	1.8	2.8	0.7	4	1.5	2.5	0.4	--
102.002.279.*	2	4	1.1	3.2	0.6	8	--	--	0.2	4
102.003.280.*	3	4	1.2	3.3	0.8	8	--	--	0.3	4
102.004.281.*	4	4	1.2	3.3	1.2	8	--	--	0.5	4
102.006.282.*	6	6	2.5	3.6	2	7	2.3	3.5	1	--
102.008.283.*	8	6	2.6	3.6	--	5.5	2.6	--	1	--
102.010.284.*	10	10	4	6	--	8	3	--	1	--
102.015.285.*	15	11	3.9	6	--	9	3.1	--	2.4	--
102.020.286.*	20	15	6	10	--	10	4.1	--	1.7	--
102.025.287.*	25	17	6	10	--	11	4.6	--	1.7	--
102.030.288.*	30	17	6	12	--	11	5	--	1.9	--
102.040.289.*	40	25	6	15	--	14	7	--	1.6	--
102.050.290.*	50	30	6	20	--	15	7	--	1.6	--
102.060.291.*	60	40	10.5	28	--	22	11	--	2.3	--

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Flat vacuum cups with a flexible lip – Series SFU-F



Product Description

Flat vacuum cups with a soft, very flexible single-lip seal for handling highly sensitive products. Connection via plug nipple. Compatible „snap-in“ spring plungers available.

Advantage

- > Gentle product handling
- > Very good fit to the product surface
- > Good seal over a slightly rough surface
- > Low volume of the cup enables fast cycle times
- > Cost-effective replacement of worn seals

Technical Data

Item no.	Model / Lip dimensions		Material / color
102.004.216.*	SFU-F-4	1	NBR (sw), SI (tr)
102.006.217.*	SFU-F-6	1	NBR (sw), SI (tr)
102.008.218.*	SFU-F-8	1	NBR (sw), SI (tr)
102.010.219.*	SFU-F-10	1	NBR (sw), SI (tr)
102.015.220.*	SFU-F-15	2	NBR (sw), SI (tr)
102.020.221.*	SFU-F-20	2	NBR (sw), SI (tr)
102.030.222.*	SFU-F-30	2	NBR (sw), SI (tr)
102.040.223.*	SFU-F-40	2	NBR (sw), SI (tr)

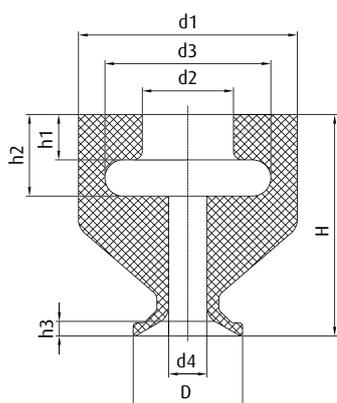
Accessories

Item no.	 Suitable fittings					 Suitable spring plungers					
	M5-male	M6-male	G1/8-male	G1/8-female	G1/4-male	Spring plunger		Hose outside Ø [mm]	Spring plunger		Hose outside Ø [mm]
102.004.216.*	270.200 (p. 449)	--	270.064 (p. 457)	270.065 (p. 461)	--	50.018 (p. 494)	8.5	4	50.019 (p. 494)	8.5	6
102.006.217.*	270.200 (p. 449)	--	270.064 (p. 457)	270.065 (p. 461)	--	50.018 (p. 494)	8.5	4	50.019 (p. 494)	8.5	6
102.008.218.*	270.200 (p. 449)	--	270.064 (p. 457)	270.065 (p. 461)	--	50.018 (p. 494)	8.5	4	50.019 (p. 494)	8.5	6
102.010.219.*	270.200 (p. 449)	--	270.064 (p. 457)	270.065 (p. 461)	--	50.018 (p. 494)	8.5	4	50.019 (p. 494)	8.5	6
102.015.220.*	270.200 (p. 449)	--	270.064 (p. 457)	270.065 (p. 461)	--	50.018 (p. 494)	8.5	4	50.019 (p. 494)	8.5	6
102.020.221.*	270.317 (p. 448)	270.103 (p. 451)	270.205 (p. 454)	270.109 (p. 460)	270.194 (p. 463)	--	--	--	50.020 (p. 494)	8.5	6
102.030.222.*	270.317 (p. 448)	270.103 (p. 451)	270.205 (p. 454)	270.109 (p. 460)	270.194 (p. 463)	--	--	--	50.020 (p. 494)	8.5	6
102.040.223.*	270.317 (p. 448)	270.103 (p. 451)	270.205 (p. 454)	270.109 (p. 460)	270.194 (p. 463)	--	--	--	50.020 (p. 494)	8.5	6

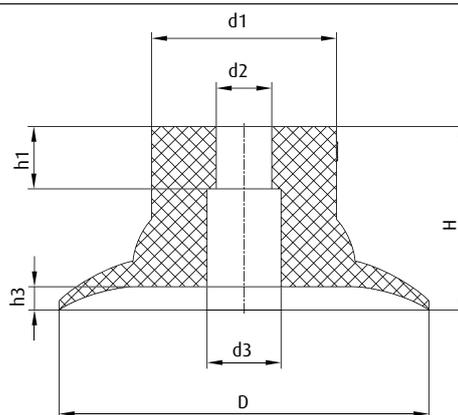
* When ordering please add the appropriate material code to the item no. You will find it in the foldout.



Dimensions



Ø 3.8 | 6 | 8 | 10.5 | 16 mm



Ø 20 | 30 | 40 mm

Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]
102.004.216.*	3.8	12	5	9	1.1	12	2.5	4.5	0.7
102.006.217.*	6	12	5	9	2.1	12.5	2.5	4.5	0.8
102.008.218.*	8	12	5	9	2	12.5	2.5	4.5	1.7
102.010.219.*	10.5	12	5	9	3	14.5	2.5	4.5	4.2
102.015.220.*	16	12	5	9.5	3.3	14	2.4	4.7	2.3
102.020.221.*	20	12	4.5	6	--	15	4.7	--	2.1
102.030.222.*	30	15	4.5	6	--	15	5	--	1.9
102.040.223.*	40	19.5	4.7	6.5	--	15	5	--	2

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



Flat vacuum cups with curved lip – Series SFU-D



Product Description

Universal flat vacuum cups with tapering curved sealing lip. Connection via plug nipple.

Advantage

- > Pre-tension of the sealing lip enables gripping of uneven, slightly curved products
- > Large stroke

Technical Data

Item no.	Model / Lip dimensions		Material / color
112.004.001.*	SFU-D-4	0.5	NBR (sw), SI (r)
112.005.002.*	SFU-D-5	0.7	NBR (sw), SI (r)
112.006.003.*	SFU-D-6	1	NBR (sw), SI (r)
112.008.007.*	SFU-D-8	1.5	NBR (sw), SI (w), NR (sw)
112.010.011.*	SFU-D-10	2	NBR (sw), SI (w)
112.012.015.*	SFU-D-12	2	NBR (sw), SI (w), NR (sw)
112.015.022.*	SFU-D-15	2	NBR (sw), SI (w), NR (sw)
112.018.024.*	SFU-D-18	2.3	NBR (sw), SI (w), NR (sw)
112.020.031.*	SFU-D-20	2.3	NBR (sw), SI (w), NR (sw)
112.022.037.*	SFU-D-22	2.5	NBR (sw), SI (w)
112.025.042.*	SFU-D-25	4.5	NBR (sw), SI (w), NR (sw)
112.030.052.*	SFU-D-30	4.5	NBR (sw), SI (w), NR (sw)
112.035.060.*	SFU-D-35	5	NBR (sw), SI (w), NR (sw)
112.040.071.*	SFU-D-40	4	NBR (sw), SI (tr)
112.045.077.*	SFU-D-45	7	NBR (sw), SI (w), NR (sw)
112.060.091.*	SFU-D-60	9	NBR (sw), SI (tr)
112.085.102.*	SFU-D-85	12	NBR (sw), SI (tr), NR (sw)

Accessories

Item no.	 Suitable fittings							
	M3-male	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
112.004.001.*	270.025 (p. 446)	--	--	--	--	--	--	--
112.005.002.*	270.025 (p. 446)	--	--	--	--	--	--	--
112.006.003.*	270.025 (p. 446)	--	--	--	--	--	--	--
112.008.007.*	--	270.536 (p. 447)	--	--	--	--	--	--
112.010.011.*	--	270.134 (p. 447)	270.347 (p. 450)	270.104 (p. 451)	270.033 (p. 454)	270.478 (p. 459)	--	--
112.012.015.*	--	270.134 (p. 447)	270.347 (p. 450)	270.104 (p. 451)	270.033 (p. 454)	270.478 (p. 459)	--	--
112.015.022.*	--	270.134 (p. 447)	--	270.104 (p. 451)	270.033 (p. 454)	270.478 (p. 459)	--	--
112.018.024.*	--	270.134 (p. 447)	270.347 (p. 450)	270.104 (p. 451)	270.033 (p. 454)	270.478 (p. 459)	--	--
112.020.031.*	--	270.134 (p. 447)	270.347 (p. 450)	270.104 (p. 451)	270.033 (p. 454)	270.478 (p. 459)	--	--
112.022.037.*	--	270.134 (p. 447)	270.347 (p. 450)	270.104 (p. 451)	270.033 (p. 454)	270.478 (p. 459)	--	--
112.025.042.*	--	270.443 (p. 448)	--	--	270.238 (p. 455)	270.110 (p. 460)	270.534 (p. 463)	--

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



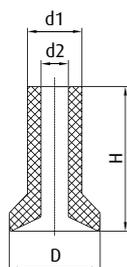
Accessories



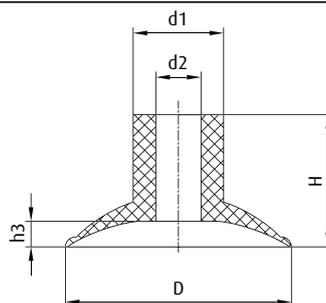
Suitable fittings

Item no.	M3-male	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
112.030.052.*	--	270.443 (p. 448)	--	--	270.238 (p. 455)	270.110 (p. 460)	270.534 (p. 463)	--
112.035.060.*	--	--	--	--	--	--	270.451 (p. 464)	270.452 (p. 470)
112.040.071.*	--	--	--	--	--	--	270.451 (p. 464)	270.452 (p. 470)
112.045.077.*	--	--	--	--	--	--	270.451 (p. 464)	270.452 (p. 470)
112.060.091.*	--	--	--	--	--	--	270.184 (p. 470)	270.452 (p. 470)
112.085.102.*	--	--	--	--	--	--	270.216 (p. 470)	--

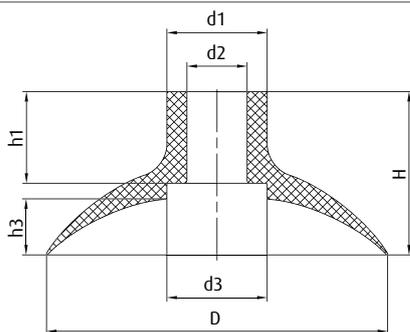
Dimensions



Ø 4 | 5 | 6 mm



Ø 8 | 10 | 12 | 15 | 18 | 20 |
22 | 25 | 30 | 35 | 40 | 45 mm



Ø 60 | 85 mm

Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	H [mm]	h1 [mm]	h3 [mm]
112.004.001.*	4	3	1.5	--	7.5	--	--
112.005.002.*	5	3	1.5	--	8	--	--
112.006.003.*	6	3	1.5	--	8	--	--
112.008.007.*	8	5	2.8	--	8	--	1.6
112.010.011.*	10	6.5	3.8	--	10.5	--	1.9
112.012.015.*	12	8	4	--	11	--	1.7
112.015.022.*	15	8	4	--	12	--	2.5
112.018.024.*	18	8	3.9	--	11.5	--	2.3
112.020.031.*	20	8	4	--	12	--	2.3
112.022.037.*	22	8	4	--	13	--	2.5
112.025.042.*	25	12	6	--	16	--	4.3
112.030.052.*	30	12	6	--	17	--	4.4
112.035.060.*	35	15	10	--	16.5	--	5.2
112.040.071.*	40	15	10	--	16	--	4
112.045.077.*	45	15.5	10	--	17	--	7.5
112.060.091.*	60	15	10	25	23	10	9
112.085.102.*	85	25	15	25	41	23	14

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



Flat vacuum cups with a long shaft – Series SFU-L



Product Description

Flat vacuum cups for handling sensitive or uneven and slightly curved products. Long, slim design enables pipe mounting and low gimbal leveling for uneven product surfaces.

Advantage

- > Gentle handling of particularly sensitive products
- > Cost-effective replacement of worn seals

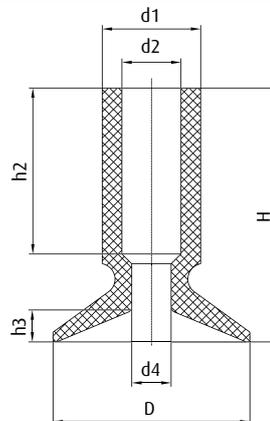
Technical Data

Item no.	Model / Lip dimensions		Material / color
122.006.002.*	SFU-L-6	1.5	NBR (sw), SI (r)
122.010.005.*	SFU-L-10	1.5	NBR (sw), SI (tr)
122.016.009.*	SFU-L-16	5	NBR (sw), SI (tr), NR (sw)
122.025.025.*	SFU-L-25	5	NBR (sw), SI (tr), NR (sw)
122.040.043.*	SFU-L-40	4	SI (tr), NR (sw)
122.060.059.*	SFU-L-60	10	SI (tr), NR (sw)

Accessories

Item no.	 Suitable fittings				
	M5-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
122.006.002.*	270.001 (p. 447)	--	--	--	--
122.010.005.*	270.022 (p. 447)	--	--	--	--
122.016.009.*	270.013 (p. 448)	270.003 (p. 455)	270.015 (p. 459)	270.194 (p. 463)	--
122.025.025.*	--	270.132 (p. 455)	270.114 (p. 460)	270.043 (p. 463)	270.178 (p. 470)
122.040.043.*	--	--	--	270.049-1 (p. 465)	--
122.060.059.*	--	--	--	270.049-1 (p. 465)	--

Dimensions



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



Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d4 [mm]	H [mm]	h2 [mm]	h3 [mm]
122.006.002.*	6	4	2	1	12	8	1.3
122.010.005.*	10	5	3	2	13	8.5	1.6
122.016.009.*	16	8	4.8	3	20	13	3.8
122.025.025.*	25	12	8	4	30	18	5.5
122.040.043.*	43	20	11	4.4	41	22	10.2
122.060.059.*	62	24	11	6	45	21	14.5

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



Flat vacuum cups with a long shaft made of Vulkollan® – Series SFU-L-VU



Product Description

Extremely wear-resistant vacuum cups for handling sensitive or uneven and slightly curved products. Long, slim design enables pipe mounting and low gimbal leveling for uneven product surfaces.

Advantage

- > Minimal abrasion
- > Very long life cycle
- > Very good resetting, enabling fast cycle times
- > Gentle handling of particularly sensitive products
- > Connection via pipe mounting or plug nipple (cost-effective replacement)

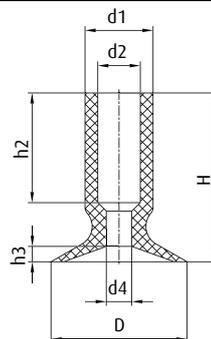
Technical Data

Item no.	Model / Lip dimensions		Material / color
122.006.002._*	SFU-L-VU-6	1.5	Vulkollan® (br)
122.010.005._*	SFU-L-VU-10	1.5	Vulkollan® (br)
122.016.076._*	SFU-L-VU-16	2.5	Vulkollan® (br)
122.025.077._*	SFU-L-VU-25	4	Vulkollan® (br)

Accessories

Item no.	 Suitable fittings				
	M5-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
122.006.002._*	270.001 (p. 447)	--	--	--	--
122.010.005._*	270.022 (p. 447)	--	--	--	--
122.016.076._*	270.013 (p. 448)	270.003 (p. 455)	270.015 (p. 459)	270.194 (p. 463)	--
122.025.077._*	--	270.132 (p. 455)	270.114 (p. 460)	270.043 (p. 463)	270.178 (p. 470)

Dimensions



Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d4 [mm]	H1 [mm]	h2 [mm]	h3 [mm]
122.006.002._*	6	4	2	1	12	8	1.3
122.010.005._*	10	5	3	2	13	8.5	1.6
122.016.076._*	16	8	5	3	20	13	1.8
122.025.077._*	25	12	8	4	30	21	3.3

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



Flat vacuum cups for textured surfaces – Series SFU-R



Product Description

Flat vacuum cups with safety sealing lips to handle rough surfaces, as well as smooth but very uneven products. Connection via an interlocking, snap-in aluminum plate

Advantage

- > Leak-free gripping of many difficult product surfaces thanks to extremely flexible, thinly tapered sealing lip
- > High stability under lateral forces
- > Optimum process reliability due to additional double lip seal
- > Cleats help prevent warping of the product
- > Cost-effective, tool-free changing of worn seals

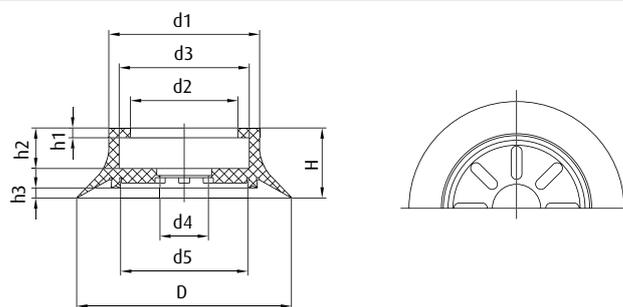
Technical Data

Item no.	Model / Lip dimensions	Interlocking	Material / color
102.040.357_*	SFU-R-40	3	SI (tr), NR (br)
102.070.234_*	SFU-R-70	6	NBR (gr), SBR (br), SI (tr), NR (bg), NR (br)
102.100.269_*	SFU-R-100	5	SBR (br), NBR (gr), NR (br)
102.200.350_*	SFU-R-200	5	NR (w)

Accessories

Item no.	Suitable fittings		
	G1/8-female	G1/4-female	G1/2-female
102.040.357_*	270.234 (p. 478)	--	--
102.070.234_*	--	270.179 (p. 478)	--
102.100.269_*	--	270.180 (p. 478)	--
102.200.350_*	--	--	270.335 (p. 478)

Dimensions



Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	Ø d5 [mm]	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]
102.040.357_*	40	26	17.5	21	8	21	12.5	2.9	6	2.5
102.070.234_*	70	50	33	43	14	40	30	3.5	17	5.4
102.100.269_*	100	70	50	61	23	59	33	4.6	19	4.7
102.200.350_*	200	168	148	158	25	158	31	5	18.5	3.2

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



Flat vacuum cups for separating porous products – Series SFU-RT



Product Description

Patented flat vacuum cups for stacking of partially air-permeable plate material that air is drawn through. Separates uppermost plate layer from underlying plate layers. Soft sealing lip made of abrasion-resistant NR. Secure handling even of rough surfaces thanks to additional internal safety sealing lip. High stability under lateral forces. Cost-effective replacement of the wear part, as it comes in two parts.

Functional principle

Task: Access the top layer of porous materials without carrying along the lower layers. Simultaneous intake (outer chamber) and selective blowing in a separate central chamber breaks adhesive forces between the layers. The unwanted take-up of lower layers is prevented. The air pressure level should be between 14.5 and 43.5 psi and is dependent on the nature of the product.

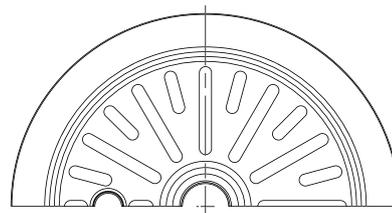
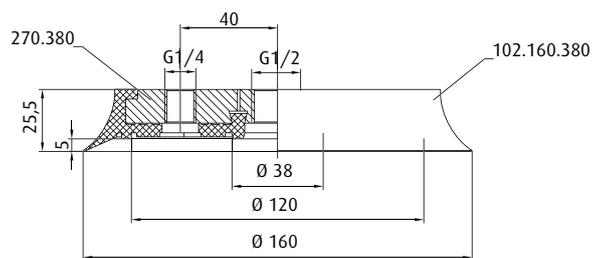
Ordering notes

Elastomer seal and retaining plate must be ordered separately.

Technical Data

Item no.	Model / Lip dimensions		Material / color	Suitable fittings
102.160.380.4	SFU-RT-160	6	NR (bg)	270.380

Dimensions



Gripping force [N] at vacuum level

Item no.	Vacuum level	20 % Vacuum	30 % Vacuum	40 % Vacuum	50 % Vacuum	60 % Vacuum	70 % Vacuum
102.160.380.4	Gripping force [N]	83	137	186	230	280	324

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



Flat vacuum cups with double safety sealing lips – Series SFU-S



Product Description

Flat vacuum cups with dual internal safety sealing lip as well as vulcanized carrier plate made of aluminum.

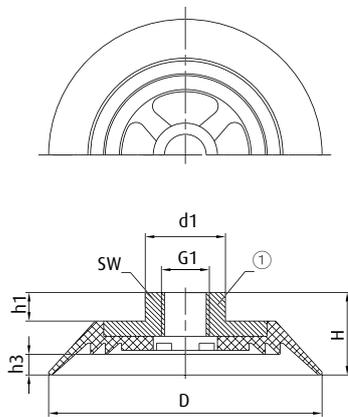
Advantage

- > High process reliability through multiple sealing lip
- > Excellent lateral stability due to vulcanized carrier plate, as well as support surfaces for the product

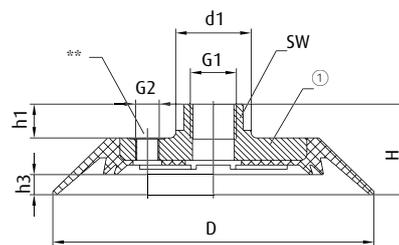
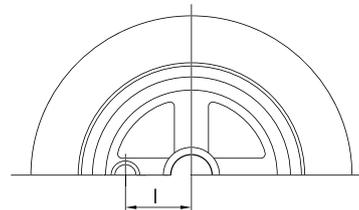
Technical Data

Item no.	Model / Lip dimensions	Connection thread		Material / color
150.030.031.*	SFU-S-30	M5-female	3	SI (r), CR (sw)
150.050.032.*	SFU-S-50	G1/8-female	5.5	SI (r), CR (sw)
150.075.033.*	SFU-S-75	G1/4-female	6	SI (r), FKM (sw), CR (sw)
150.100.034.*	SFU-S-100	G3/8-female	9	NBR (sw), SI (tr), NR (w)
150.150.010.*	SFU-S-150	G1/2-female	9	SI (gr), CR (gr)
150.225.018.*	SFU-S-225	G3/4-female	9.5	SI (gr), CR (gr)

Dimensions



Ø 29 | 50 | 75 | 100 mm



Ø 146 | 223 mm

① = Vulcanized aluminum carrier plate

** = Vacuum connection possible on the side

Item no.	Ø D [mm]	l [mm]	Ø d1 [mm]	G1	G2	H [mm]	h1 [mm]	h3 [mm]	SW
150.030.031.*	29	--	10	M5	--	17.5	7	3	8
150.050.032.*	50	--	18	G1/8	--	18.5	7	5.5	14
150.075.033.*	75	--	22	G1/4	--	23	8	5.5	17
150.100.034.*	100	--	30	G 3/8	--	30	10	9	24
150.150.010.*	146	30	34	G1/2	G1/8	42	15.5	9	27
150.225.018.*	223	50	49	G3/4	G1/8	52	20	9.5	40

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



Flat vacuum cups with a short stroke – Series SFK



Product Description

Flat vacuum cups with a minimum stroke for flat surfaces. SFK-G series particularly suitable for clamping elements. Connection via a form-locking, snap-in aluminum plate.

Advantage

- > Great suction power thanks to the largest active vacuum suction surface possible
- > Minimised wear, as the suction lip does not slide over the product during suction
- > Low space requirement
- > Cost-effective replacement of worn seals

Technical Data

Item no.	Model / Lip dimensions		Material / color
			
Series SFK-K			
102.020.458.*	SFK-K-20	0.5	HNBR (ge), NR (br)
102.030.459.*	SFK-K-30	0.8	HNBR (ge), NR (br)
102.045.460.*	SFK-K-45	1.2	HNBR (ge), NR (br)
			
Series SFK-G			
154.065.003.*	SFK-G-65	3	NBR (sw), SI (w), FKM (g)
154.085.008.*	SFK-G-85	1.5	NBR (sw), SI (w), FKM (g)
154.110.014.*	SFK-G-110	1.5	NBR (sw), SI (w), FKM (g)
154.150.021.*	SFK-G-150	2	NBR (sw), SI (w), FKM (g)

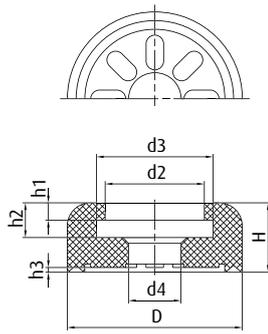
Accessories

Item no.	 Suitable fittings				
	M5-male	G1/8-female	G1/4-female	G3/8-female	G1/2-female
Series SFK-K					
102.020.458.*	270.521 (p. 450)	--	--	--	--
102.030.459.*	--	270.234 (p. 478)	--	--	--
102.045.460.*	--	270.235 (p. 478)	--	--	--
Series SFK-G					
154.065.003.*	--	270.158 (p. 478)	270.264 (p. 478)	270.161 (p. 478)	270.286 (p. 478)
154.085.008.*	--	270.158 (p. 478)	270.264 (p. 478)	270.161 (p. 478)	270.286 (p. 478)
154.110.014.*	--	--	270.224 (p. 478)	270.167 (p. 478)	270.266 (p. 478)
154.150.021.*	--	--	270.171 (p. 478)	270.173 (p. 478)	270.268 (p. 478)

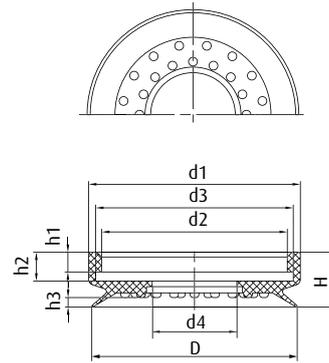
* When ordering please add the appropriate material code to the item no. You will find it in the foldout.



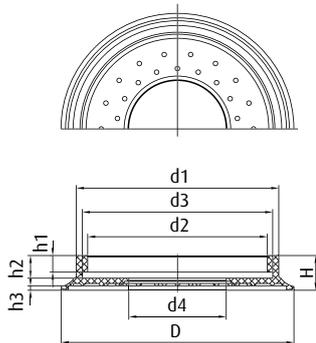
Dimensions



Series SFK-K
Ø 20 | 30 | 45 mm



Series SFK-G
Ø 65 mm



Series SFK-G
Ø 85 | 114 | 153 mm

Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]
Series SFK-K									
102.020.458_*	20	20	10	14	6.5	12	3	7	0.5
102.030.459_*	30	30	17	20	9	12	3	6	0.8
102.045.460_*	45	45	25	28	9	12	3.5	5.5	1.2
Series SFK-G									
154.065.003_*	65	67	59	63	27	17.5	6.3	9	3
154.085.008_*	85	68	58	62	27	17	7	10	1.2
154.110.014_*	114	96	88	91	53	17	8	11	1.2
154.150.021_*	153	133	118	125	64	23	11	15	3

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



Flat vacuum suction plates with fine lips – Series SFPL-F



Product Description

Vacuum suction plates made of low-marking NBR blend for even, sensitive surfaces. Undrilled steel carrier plate allows an individual machine connection.

Advantage

- > Gentle product handling through thinly tapering suction lip
- > Large bearing surfaces prevent deformation of the product and increase the lateral stability
- > Optimal grip due to vulcanized steel carrier plate

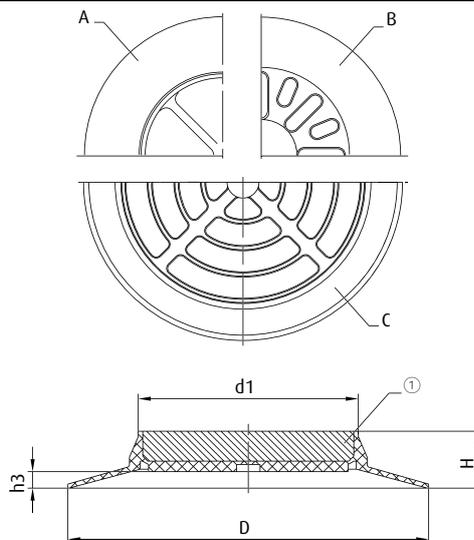
Ordering notes

Customized drilling patterns available on request

Technical Data

Item no.	Model / Lip dimensions		Weight [oz]	Material / color
152.055.092.*	SFPL-F-55	4	1.06	NBR (gr)
152.070.093.*	SFPL-F-70	4	2.29	NBR (gr)
152.105.094.*	SFPL-F-105	9	4.23	NBR (gr)
152.115.095.*	SFPL-F-115	4	9.88	NBR (gr)
152.140.096.*	SFPL-F-140	8	19.75	NBR (gr)
152.160.097.*	SFPL-F-160	8	27.51	NBR (gr)
152.180.067.*	SFPL-F-180	9	29.63	NBR (gr)
152.260.068.*	SFPL-F-260	13	78.31	NBR (gr)
152.300.098.*	SFPL-F-300	7	125.58	NBR (gr)

Dimensions



① = Vulcanized steel carrier plate

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



Item no.	Ø D [mm]	Ø d1 [mm]	H [mm]	h3 [mm]	Type of contact surface
152.055.092.*	56	31	11.5	3.5	A
152.070.093.*	72	44	11.5	3.3	A
152.105.094.*	105	65	22	9	B
152.115.095.*	115	80	15	4	A
152.140.096.*	140	100	23	7.5	B
152.160.097.*	160	121	22	8	A
152.180.067.*	180	120	23	9	A
152.260.068.*	269	202	26	13	A
152.300.098.*	300	242	27	7	C

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



Heavy-duty flat vacuum suction plates – Series SFPL-D



Product Description

Heavy-duty vacuum suction plate for both smooth and rough surfaces such as cut marble, granite, precast concrete, metal plates or rough-sawn wood. Central drill hole for connecting to the machine – lateral bore for connection to a vacuum source.

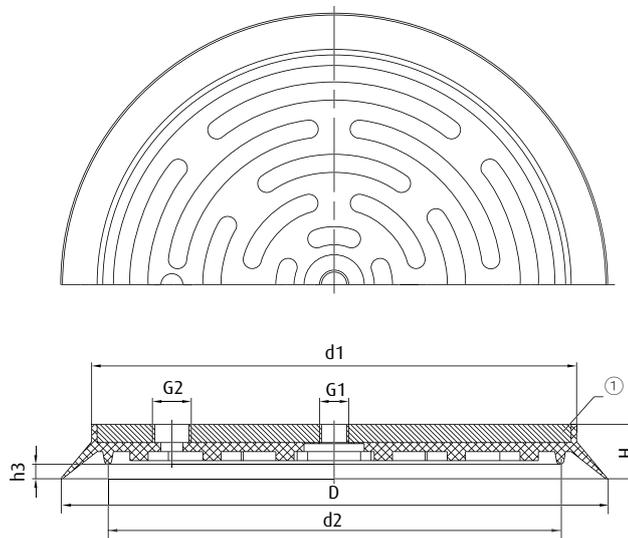
Advantage

- > Vulcanized steel carrier plate allows lifting of very heavy loads
- > Secure gripping of uneven surfaces thanks to additional inner sealing lip
- > Lateral vacuum connection

Technical Data

Item no.	Model / Lip dimensions	Connection thread		Weight [oz]	Material / color
152.160.127.*	SFPL-D-160	M12-female	9	34.22	CR (sw)
152.200.128.*	SFPL-D-200	M12-female	9	61.41	CR (sw)
152.250.129.*	SFPL-D-250	M12-female	9	105.47	CR (sw)
152.300.130.*	SFPL-D-300	M16-female	12	154.15	NBR (sw)
152.350.131.*	SFPL-D-350	M16-female	13	221.31	NBR (sw)

Dimensions



① = Vulcanized steel carrier plate

Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	G1	G2	H [mm]	h3 [mm]
152.160.127.*	160	124	109	M12	G3/8	28	9
152.200.128.*	200	166	146	M12	G3/8	27	7.5
152.250.129.*	250	212	194	M12	G3/8	27	7
152.300.130.*	300	266	248	M16	G1/2	30	8
152.350.131.*	350	316	298	M16	G1/2	30	8

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