

Bellows Suction Cups PSPF

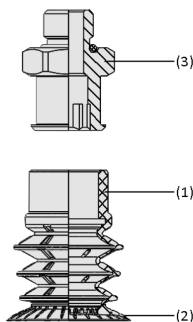
Suction area (Ø) from 33 mm to 53 mm



Suitability for Industry Specific Applications



Bellows Suction Cups PSPF



System Design Bellows Suction Cups PSPF



Bellows suction cups PSPF for handling flexible pouch packaging

Applications

- 2-component bellows suction cup with 3.5 bellows for handling very thin and flexible bags
- Used for handling bags and packages filled with liquids, solids or powders, especially with a low degree of filling
- Use in dynamic packaging processes in combination with delta robots, in case packers and in pick-and-place applications

Design

- 2C bellows suction cup PSPF consisting of flexible bellows (1) and a soft and adaptable sealing lip (2)
- Suction cup with 3.5 bellows available in food grade silicone
- Very large shaft diameter for high flow rates
- Use of one-piece, plug-in connection elements (3)
- Connection element with external thread and integrated sealing ring

Product Highlights

- Reliable handling of thin, flexible or liquid-filled bags
- High-strength 2C connection of bellows and sealing lip combines sophisticated material properties in one suction cup
- Supple and soft sealing lip enables optimum sealing even on bags with strong wrinkling
- Reinforced bellows with interlocking bellows ensures optimum stability and support during rapid cycles
- Suction cup made of FDA-compliant silicone is suitable for direct contact with food

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Designation Code Bellows Suction Cups PSPF

PSPF	-	33	-	SI-30/55	-	G1/4-AG
1		2		3		4

1 – Abbreviated designation

Code	Version
PSPF	3.5 folds

2 – Suction area

Code	Diameter in mm
33...53	ø 33 to 53

3 – Material

Code	Material
SI-30/55	Silicone

4 – Connection

Code	Connection
G1/8-AG	G1/8-AG (AG = male (M))
G1/8-IG	G1/8-IG (IG = female (F))
G1/4-AG	G1/4-AG
G1/4-IG	G1/4-IG
G3/8-AG	G3/8-AG
G3/8-IG	G3/8-IG

The bellows suction cup PSPF (elastomer part + connection element) is delivered assembled. The product consists of:

- Suction cup of type PSPF - elastomer part, available in various diameters
- Connection element of type SC - available with different threads

Ordering Data Bellows Suction Cups PSPF

Type		Vacuum connection:					
		G1/8-AG	G1/8-IG	G1/4-AG	G1/4-IG	G3/8-AG	G3/8-IG
PSPF	33	10.01.06.05586	10.01.06.05588	10.01.06.05589	10.01.06.05590	10.01.06.05591	10.01.06.05592
PSPF	43	10.01.06.05595	10.01.06.05596	10.01.06.05597	10.01.06.05598	10.01.06.05599	10.01.06.05600
PSPF	53	-	-	10.01.06.05605	10.01.06.05606	10.01.06.05607	10.01.06.05608

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Suction area (Ø) from 33 mm to 53 mm

Ordering Data Spare Parts Bellows Suction Cups PSPF

Type			Suction cup material with ShA: * SI-30/55
PSPF	33	SC 080	10.01.06.05502
PSPF	43	SC 080	10.01.06.05244
PSPF	53	SC 090	10.01.06.05505

*Additional material specifications at beginning of the section "Vacuum Suction Cups"

Type	Spare Parts			Part no.	
PSPF	33	G1/8"-M	Schmalz-Connector	SC 080 G1/8-AG	10.01.06.03142
PSPF	33	G1/8"-F	Schmalz-Connector	SC 080 G1/8-IG	10.01.06.03270
PSPF	33	G1/4"-M	Schmalz-Connector	SC 080 G1/4-AG	10.01.06.03268
PSPF	33	G1/4"-F	Schmalz-Connector	SC 080 G1/4-IG	10.01.06.03271
PSPF	43	G1/8"-M	Schmalz-Connector	SC 080 G1/8-AG	10.01.06.03142
PSPF	43	G1/8"-F	Schmalz-Connector	SC 080 G1/8-IG	10.01.06.03270
PSPF	43	G1/4"-M	Schmalz-Connector	SC 080 G1/4-AG	10.01.06.03268
PSPF	43	G1/4"-F	Schmalz-Connector	SC 080 G1/4-IG	10.01.06.03271
PSPF	53	G1/4"-M	Schmalz-Connector	SC 090 G1/4-AG	10.01.06.02793
PSPF	53	G1/4"-F	Schmalz-Connector	SC 090 G1/4-IG	10.01.06.03273
PSPF	33	G3/8"-M	Schmalz-Connector	SC 080 G3/8-AG	10.01.06.02593
PSPF	33	G3/8"-F	Schmalz-Connector	SC 080 G3/8-IG	10.01.06.02594
PSPF	43	G3/8"-M	Schmalz-Connector	SC 080 G3/8-AG	10.01.06.02593
PSPF	43	G3/8"-F	Schmalz-Connector	SC 080 G3/8-IG	10.01.06.02594
PSPF	53	G3/8"-M	Schmalz-Connector	SC 090 G3/8-AG	10.01.06.02791
PSPF	53	G3/8"-F	Schmalz-Connector	SC 090 G3/8-IG	10.01.06.03274

Technical Data Bellows Suction Cups PSPF

Type	Suction force (-600 mbar) [N]*	Material hardness [Shore A]	Material hardness [Shore A]	Volume [cm³]	Hose diameter (recom.) d [mm]**	
PSPF	33	24.0	30	55	7.5	9.0
PSPF	43	40.0	30	55	16.7	9.0
PSPF	53	61.0	30	55	31.9	12.0

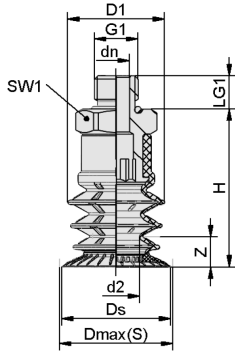
*The specified suction forces are theoretical values at a vacuum of -0.6 bar and with a smooth, dry workpiece surface - they do not include a safety factor

**The recommended hose diameter is based on a hose length of approx. 2 m

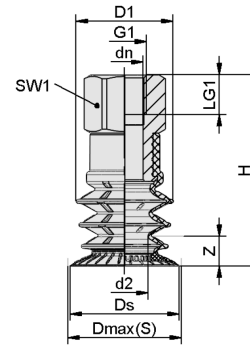
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Design Data Bellows Suction Cups PSPF



PSPF 33 - 53 AG



PSPF 33 - 53 IG

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Design Data Bellows Suction Cups PSPF

Type	d2 [mm]	dn [mm]	Dmax(S) [mm]	Ds [mm]	G1	H [mm]	LG1 [mm]	SW1 [mm]	Z (Stroke) [mm]
PSPF 33 SI-30/55 G1/8-AG	14.0	4.0	34	33.0	G1/8"-M	47.5	7.5	22	15
PSPF 33 SI-30/55 G1/8-IG	14.0	8.6	34	33.0	G1/8"-F	57.5	12.0	22	15
PSPF 33 SI-30/55 G1/4-AG	14.0	8.0	34	33.0	G1/4"-M	47.5	10.0	22	15
PSPF 33 SI-30/55 G1/4-IG	14.0	11.0	34	33.0	G1/4"-F	57.5	12.0	22	15
PSPF 33 SI-30/55 G3/8-AG	14.0	10.3	34	33.0	G3/8"-M	47.5	10.0	22	15
PSPF 33 SI-30/55 G3/8-IG	14.0	11.0	34	33.0	G3/8"-F	57.5	12.0	22	15
PSPF 43 SI-30/55 G1/8-AG	18.2	4.0	44	43.0	G1/8"-M	54.1	7.5	22	20
PSPF 43 SI-30/55 G1/8-IG	18.2	8.6	44	43.0	G1/8"-F	64.1	12.0	22	20
PSPF 43 SI-30/55 G1/4-AG	18.2	8.0	44	43.0	G1/4"-M	54.1	10.0	22	20
PSPF 43 SI-30/55 G1/4-IG	18.2	11.0	44	43.0	G1/4"-F	64.1	12.0	22	20
PSPF 43 SI-30/55 G3/8-AG	18.2	10.3	44	43.0	G3/8"-M	54.1	10.0	22	20
PSPF 43 SI-30/55 G3/8-IG	18.2	11.0	44	43.0	G3/8"-F	64.1	12.0	22	20
PSPF 53 SI-30/55 G1/4-AG	22.4	8.0	55	53.0	G1/4"-M	63.5	10.0	27	26
PSPF 53 SI-30/55 G1/4-IG	22.4	11.4	55	53.0	G1/4"-F	77.5	12.0	27	26
PSPF 53 SI-30/55 G3/8-AG	22.4	10.3	55	53.0	G3/8"-M	63.5	10.0	27	26
PSPF 53 SI-30/55 G3/8-IG	22.4	15.0	55	53.0	G3/8"-F	77.5	12.0	27	26

Multimedia product presentation

Medium

Application video

Product video

Link

<https://vimeo.com/747332590>
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