

Bellows Suction Cups FGA PVC (1.5 Folds)

Suction area (\emptyset) from 13 mm to 22 mm



Suitability for industry specific applications

Application

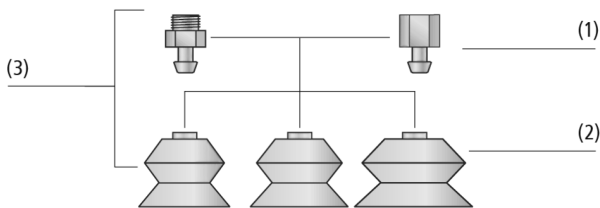
- Round bellows suction cup with 1.5 folds for handling of fragile workpieces thanks to damping effect of folds and soft sealing lip
- Usage in box openers and for handling of non-rigid workpieces and soft packaging materials
- Handling tasks in special processes which use chlorinated water, such as rinsing of plastic bags



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Design

- Robust and wear-resistant suction cup FGA (2) with 1.5 folds and single sealing lip
- Very adaptable geometry and soft, flexible material
- Large effective internal diameter
- With each nipple family, the replacement cups and nipples (1) can be combined as desired (3)



System design Bellows Suction Cups FGA PVC (1.5 Folds)



Bellows suction cups FGA PVC being used for handling non-rigid workpieces

Product highlights

- 1.5 folds offer good damping effect when placed on workpieces
- Large effective diameter for high suction force
- Soft, flexible sealing lip and lower fold adapt to curved surfaces and unevenness
- Rigid upper fold provides high stability during horizontal acceleration

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Designation code Bellows Suction Cups FGA PVC (1.5 Folds)

FGA	–	13	–	PVC-50	–	N016
1		2		3		4

1 – Abbreviated designation

Code	Version
FGA	1.5 folds

2 – Suction area

Code	Diameter in mm
13...22	ø 13 to 22

3 – Material

Code	Material
PVC-50	Polyvinylchloride

4 – Connection

Code	Connection
N016	N016
N056	N056

Suction cup FGA PVC (elastomer part + connection element) is delivered assembled. The assembly consists of:

- Suction cup of type FGA PVC – elastomer part, available in various diameters
- Connection nipple of type SA-NIP – available with various threads

Ordering data Bellows Suction Cups FGA PVC (1.5 Folds)

Type*	Part no.
FGA 13 PVC-50 N016	10.01.06.01549
FGA 19 PVC-50 N056	10.01.06.01975
FGA 22 PVC-50 N016	10.01.06.01947

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

Ordering data Accessories Bellows Suction Cups FGA PVC (1.5 Folds)

Type	Accessories	M5-M	G1/8"-M	G1/8"-F
FGA 13	Suction cup connection nipple	10.01.06.00123	10.01.06.05735	10.01.06.05731
FGA 19	Suction cup connection nipple	10.01.06.03080	10.01.06.03571	10.01.06.03572
FGA 22	Suction cup connection nipple	10.01.06.00123	10.01.06.05735	10.01.06.05731

Technical data Bellows Suction Cups FGA PVC (1.5 Folds)

Type	Suction force (-600 mbar) [N]*	Pull-off force [N]	Volume [cm³]	Workpiece radius min. (convex) [mm]	Hose inner diameter (recom.) d [mm]**
FGA 13 PVC-50 N016	1.7	6	0.7	10	4
FGA 19 PVC-50 N056	5.9	10	2.1	20	4
FGA 22 PVC-50 N016	5.3	16	2.3	20	4

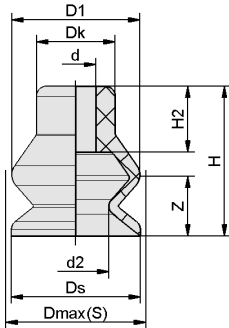
*The specified suction forces are theoretical values at a vacuum of -0.6 bar and with a smooth, dry workpiece surface - they do not include a safety factor

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

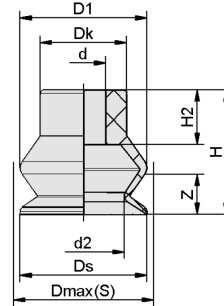
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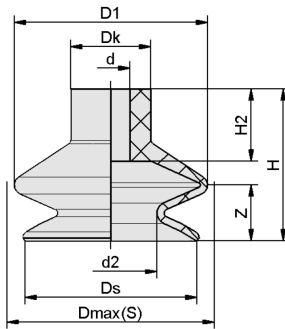
Design data Bellows Suction Cups FGA PVC (1.5 Folds)



FGA 13 PVC-50



FGA 19 PVC-50



FGA 22 PVC-50

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Design data Bellows Suction Cups FGA PVC (1.5 Folds)

Type*	D1 [mm]	d [mm]	d2 [mm]	Dk [mm]	Dmax(S) [mm]**	Ds [mm]	H [mm]	H2 [mm]	Z (Stroke) [mm]
FGA 13 PVC-50 N016	12.8	4.0	6.6	7.9	15	12.9	15.0	6.6	6
FGA 19 PVC-50 N056	19.0	6.6	12.2	13.0	22	19.0	18.7	8.2	6
FGA 22 PVC-50 N016	24.2	4.8	11.5	10.0	25	21.5	19.0	9.0	7

*Acceptable dimensional tolerances for rubber parts concerning to DIN ISO 3302-1 E3

**External dimension of the suction cup when it is pressed against the workpiece by the vacuum