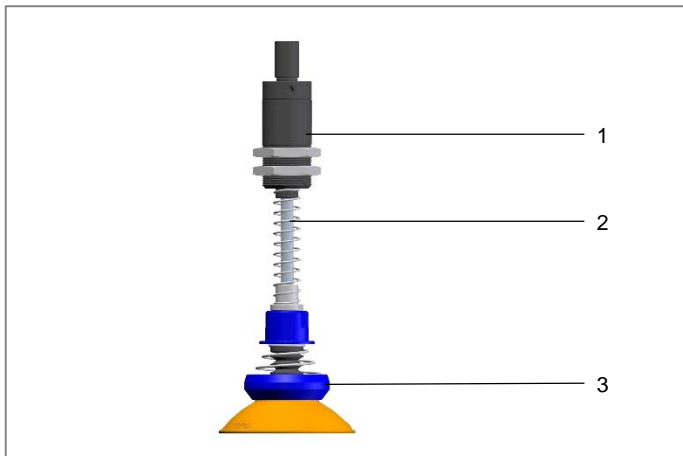
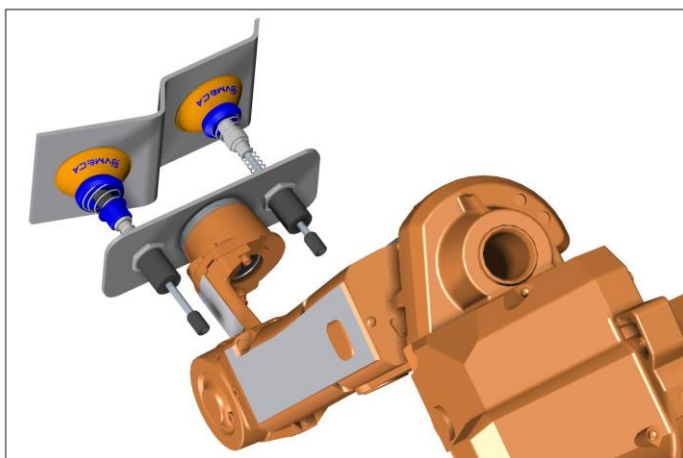




Valock : Automatically fix the positioning according to application



Products Structure of VMECA Valock system



Valock system being used in automobile industry - Body line

Suitable for handling

Features & Strengths

- ▶ Automatic flexible positioning which fixates and locks its positioning regardless of shape (Elimination of multiple special jigs / fixtures)
- ▶ No vibration while transferring products in rotating application
- ▶ Various shapes of products can be handled with one VALOCK SYSTEM

Products Structure

- ▶ Strong locking force by level locking structure¹⁾
- ▶ Level compensator²⁾ for long life-span due to bearing inserted
- ▶ Easily changeable with different size and material suction cups without any tools – Smart cups³⁾

Applications

- ▶ Automobile industry (Body / Assembly line)
- ▶ Metal Sheet
- ▶ Glass
- ▶ Wood panel
- ▶ Uploading products of different angles
- ▶ Clamping type Zig system

BS245 series

Designation Ordering No.

Level compensator locking	Smart cup			Ball Joint*	Suction cup Material	Thread
	F – Series*	C – Series*				
BS245 – 24Ø locking piston & 50mm stroke	F60T F70T F80T	FCF40 FCF50 FCF60 FCF70 FCF80	VDF40 VDF50 VDF60 VDF80	No Mark – No Ball joint BJ – Ball joint	N - NBR S - Silicone PU - Polyurethane	18F
- Example) BS245-F60T-N-18F or BS245-VDF80-BJ-PU-18F						

* F - Series smart cup is not available for PU material and BJ (Ball joint).

* In C - series, VDF suction cup is available only for PU material.

* For detail information, dimension section on request.

Automatically fixing the positioning – Valock

Model	Code	Model	Code
BS245-FCF40-N-18F	1A78 4009 000	BS245-FCF40-BJ-N-18F	1A76 4009 000
BS245-FCF50-N-18F	1A78 5009 000	BS245-FCF50-BJ-N-18F	1A76 5009 000
BS245-FCF60-N-18F	1A78 6009 000	BS245-FCF60-BJ-N-18F	1A76 6009 000
BS245-FCF70-N-18F	1A78 7009 000	BS245-FCF70-BJ-N-18F	1A76 7009 000
BS245-FCF80-N-18F	1A78 8009 000	BS245-FCF80-BJ-N-18F	1A76 8009 000
BS245-FCF40-PU-18F	1A78 9009 000	BS245-FCF40-BJ-PU-18F	1A77 0009 000
BS245-FCF50-PU-18F	1A79 0009 000	BS245-FCF50-BJ-PU-18F	1A77 1009 000
BS245-FCF60-PU-18F	1A79 1009 000	BS245-FCF60-BJ-PU-18F	1A77 5009 000
BS245-FCF70-PU-18F	1A79 2009 000	BS245-FCF70-BJ-PU-18F	1A77 9009 000
BS245-FCF80-PU-18F	1A79 3009 000	BS245-FCF80-BJ-PU-18F	1A77 4009 000
BS245-VDF40-PU-18F	1A79 4009 000	BS245-VDF40-BJ-PU-18F	1A78 3009 000
BS245-VDF50-PU-18F	1A79 5009 000	BS245-VDF50-BJ-PU-18F	1A79 9009 000
BS245-VDF60-PU-18F	1A79 6009 000	BS245-VDF60-BJ-PU-18F	1A7A 1009 000
BS245-VDF80-PU-18F	1A79 7009 000	BS245-VDF80-BJ-PU-18F	1A7A 2009 000

Spare part Ordering data for Suction cups

Suction cup	Code	PU - Polyurethane	Code
FCF40-N	5202 0400 100 000	FCF40-PU	5202 0400 800 000
FCF50-N	5202 0500 100 000	FCF50-PU	5202 0500 800 000
FCF60-N	5202 0600 100 000	FCF60-PU	5202 0600 800 000
FCF70-N	5202 0700 100 000	FCF70-PU	5202 0700 800 000
FCF80-N	5202 0800 100 000	FCF80-PU	5202 0800 800 000
FCF40-S	5202 0400 200 000	VDF40-PU	5201 0400 800 000
FCF50-S	5202 0500 200 000	VDF50-PU	5201 0500 800 000
FCF60-S	5202 0600 200 000	VDF60-PU	5201 0600 800 000
FCF70-S	5202 0700 200 000	VDF80-PU	5201 0800 800 000
FCF80-S	5202 0800 200 000		
F60T-N	12U0 1010 000	F60T-S	12U0 1020 000
F70T-N	12U0 2010 000	F70T-S	12U0 2020 000
F80T-N	12U0 3010 000	F80T-S	12U0 3020 000

* For detail information, dimension section on request.

BS245 series

Technical Data – Valock (Brake cylinder – BS245)

Description	Unit	Data
Cylinder locking piston diameter	Ø	24
Cylinder stroke*	mm	50
Lock torque	N	330
Cylinder rod thread	-	G1/8"
Supply air type	-	Dry Compressed Air
Supply air pressure	Bar	2~7
Max. hose inner diameter	Ø	4
Net weight**	g	190

* Another cylinder stroke option is on request to VMECA.

** Net weight is calculated only for brake cylinder.

Performance Data (Lifting force) – Suction cup (F - series)

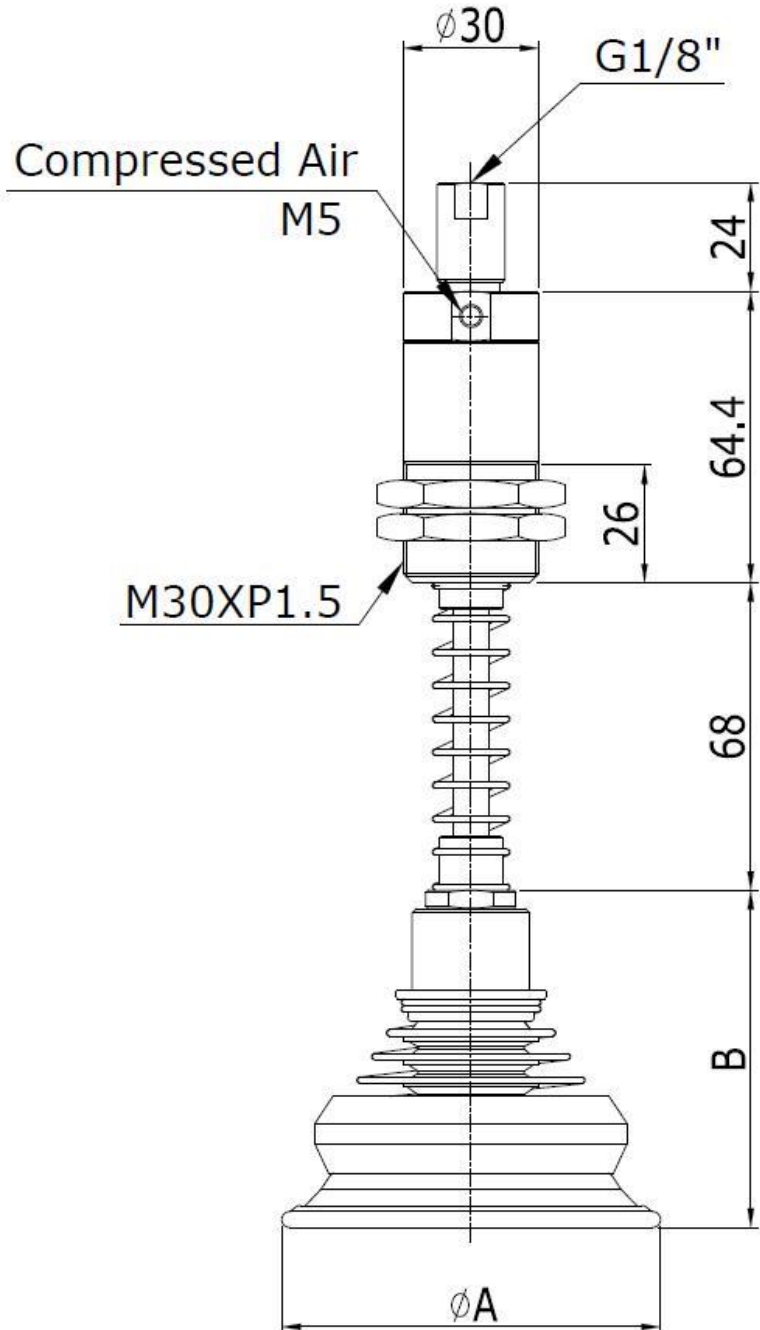
Model	Volume (cm ³)	Lifting Force (kg) - Perpendicular		
		-20 kPa	-60 kPa	-90 kPa
F60T	16	5.8	12.6	17.3
F70T	23.5	8.4	16.9	26.3
F80T	30	10.5	24.6	35.0

Performance Data (Lifting force) – Suction cup (C – series)

Model	Volume (cm ³)	Lifting Force (kg) - Perpendicular			Lifting Force (kg) - Parallel		
		-20 kPa	-60 kPa	-90 kPa	-20 kPa	-60 kPa	-90 kPa
FCF40	4.4	2.9	6.9	9.9	2.1	5.0	7.2
FCF50	8	4.2	10.8	15.4	3.7	6.7	8.9
FCF60	14.6	5.6	15.2	22.3	5.5	13.3	16.7
FCF70	20.7	7.6	19.6	28.2	6.3	15.8	20.1
FCF80	36.0	10.3	25.9	34.4	6.7	17.7	23.8
VDF40	7	2.7	6.2	8.3	2.4	4.7	7.1
VDF50	14	4.1	10.1	14	3.5	9.2	18.5
VDF60	24	5.6	13.7	19	4.3	13.8	24.5
VDF80	50.5	8.6	21.2	29.3	7.2	18.5	27

Dimensional Data

BS245 with Smart ball joint type (F series)

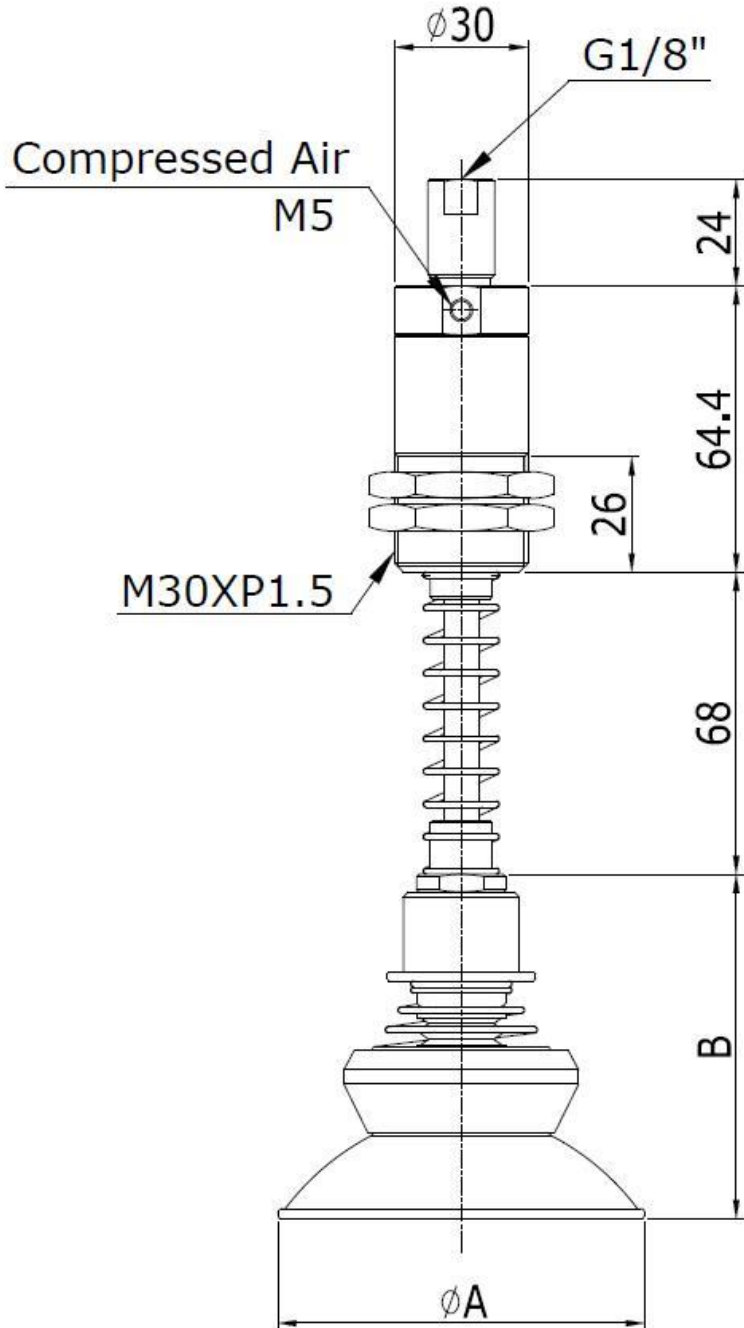


Model	ϕA	B
F60T	62.5	65.5
F70T	73.7	70.5
F80T	83.7	70.5

[Measure unit : mm]

Dimensional Data

BS245 with Smart ball joint type (FCF suction cup)

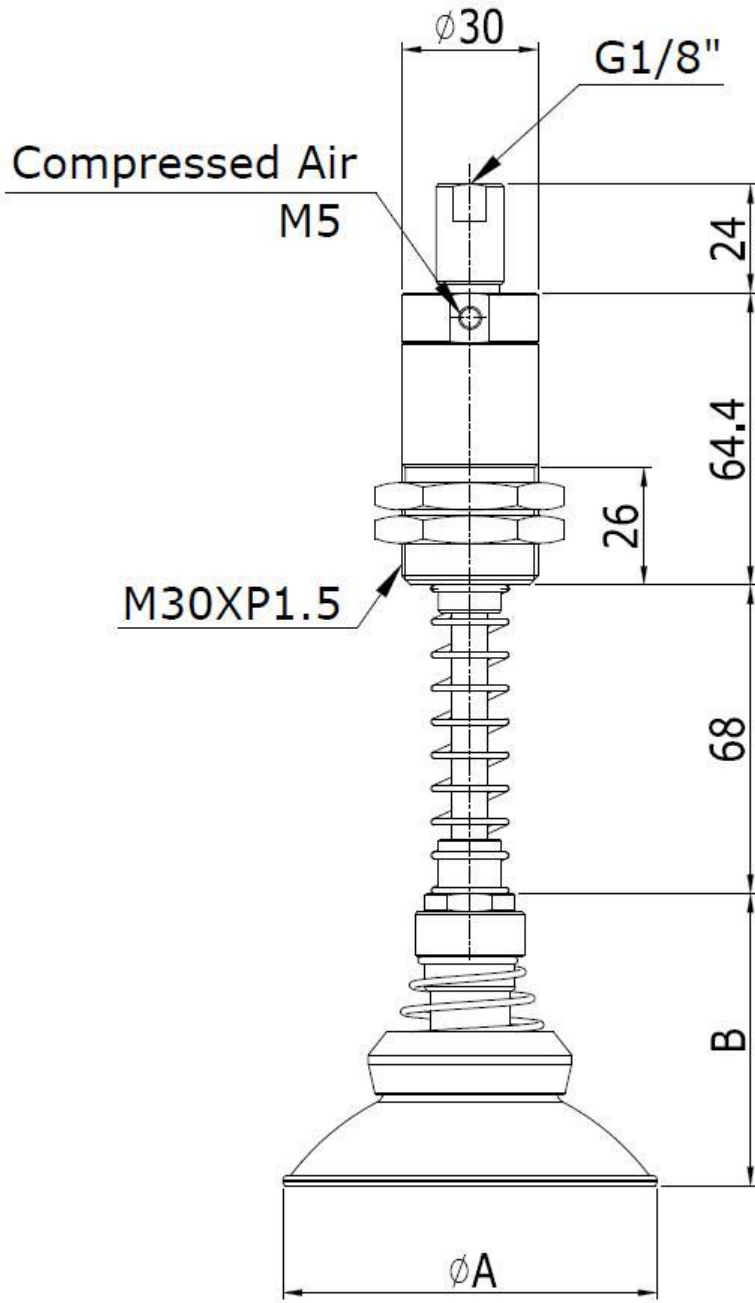


Model	ϕA	B
FCF40	42.0	59.5
FCF50	52.0	71.0
FCF60	62.0	74.0
FCF70	72.0	74.0
FCF80	82.5	77.5

[Measure unit : mm]

Dimensional Data

BS245 without Smart ball joint type (FCF suction cup)

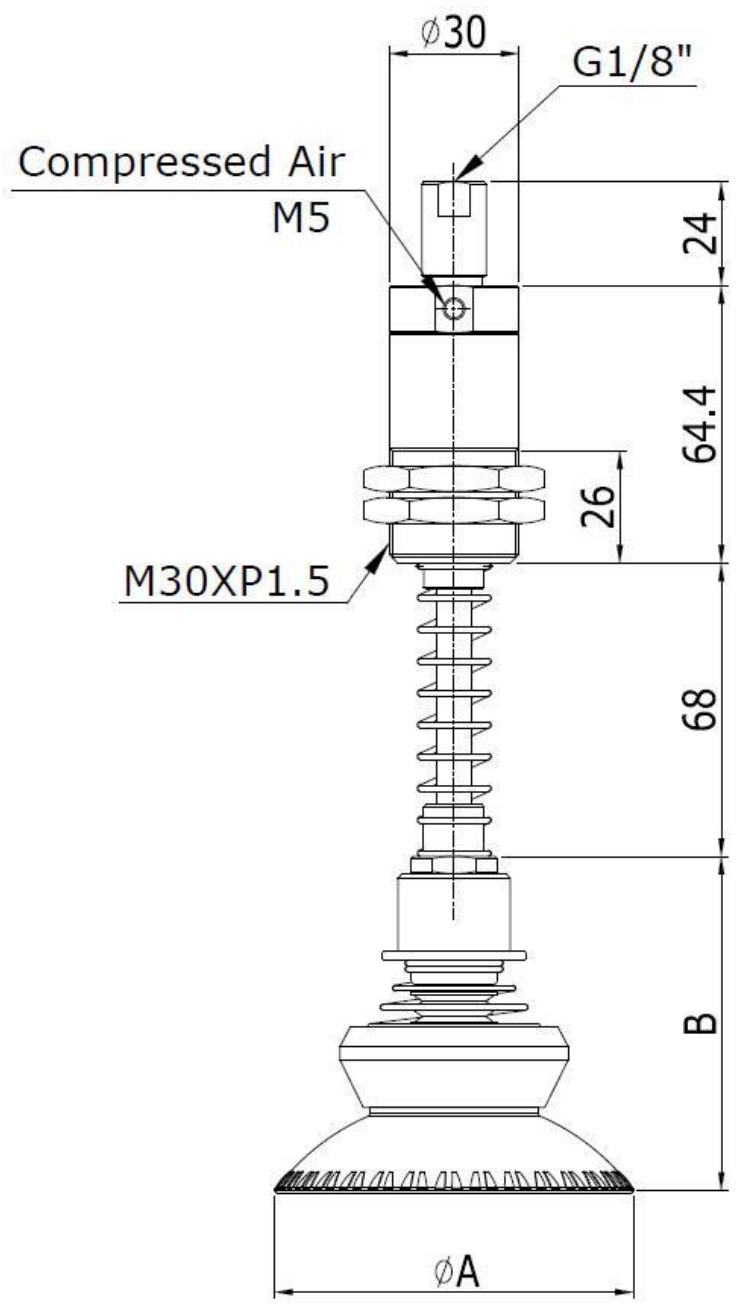


Model	Ø A	B
FCF40	42.0	59.5
FCF50	52.0	59
FCF60	62.0	61
FCF70	72.0	61
FCF80	82.5	64.5

[Measure unit : mm]

Dimensional Data

BS245 with Smart ball joint type (VDF suction cup)

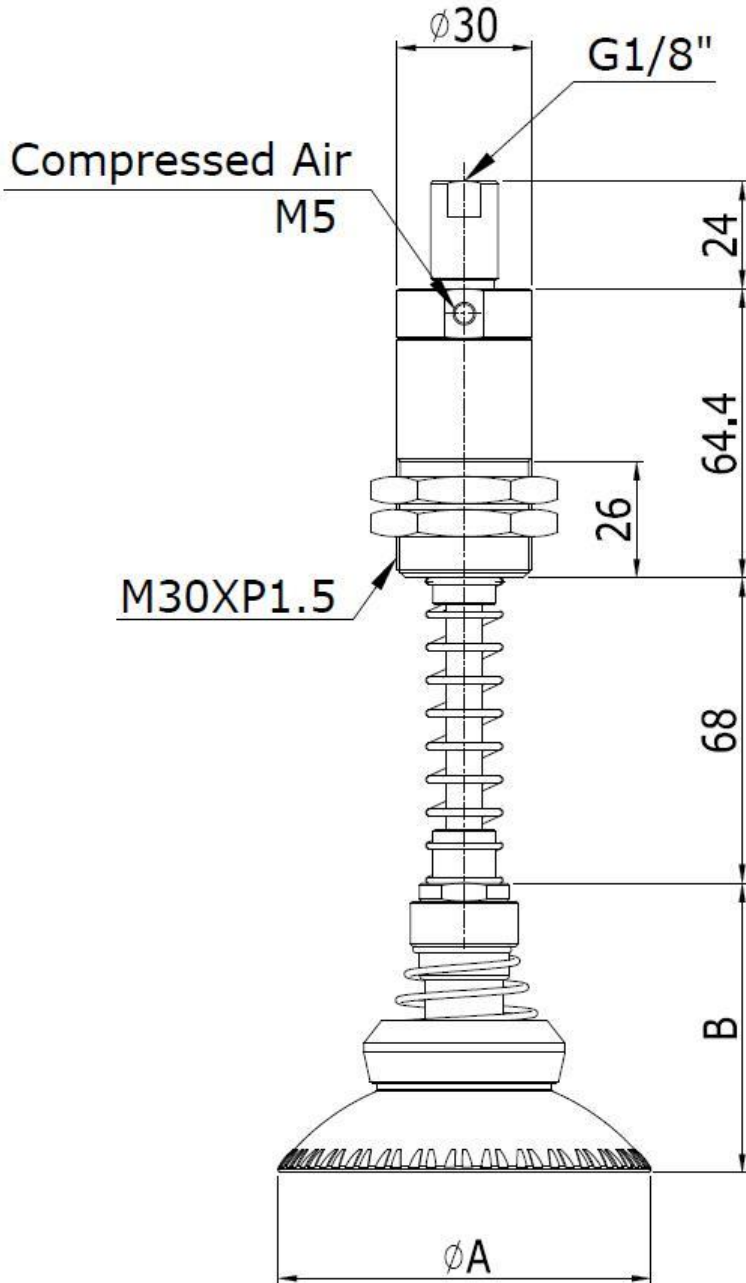


Model	Ø A	B
VDF40	42.5	61.5
VDF50	53.0	71.6
VDF60	63.5	74.9
VDF80	83.5	79.4

[Measure unit : mm]

Dimensional Data

BS245 without Smart ball joint type (VDF suction cup)

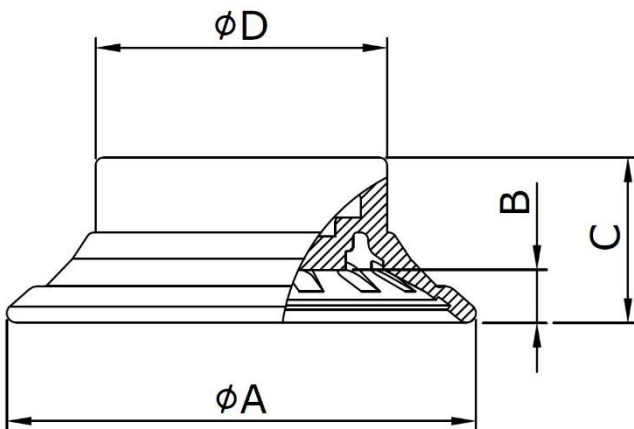


Model	$\varnothing A$	B
VDF40	42.5	61.5
VDF50	53.0	59.5
VDF60	63.5	61.8
VDF80	83.5	65.3

[Measure unit : mm]

Dimensional Data for Suction cup

F suction cup for F-series

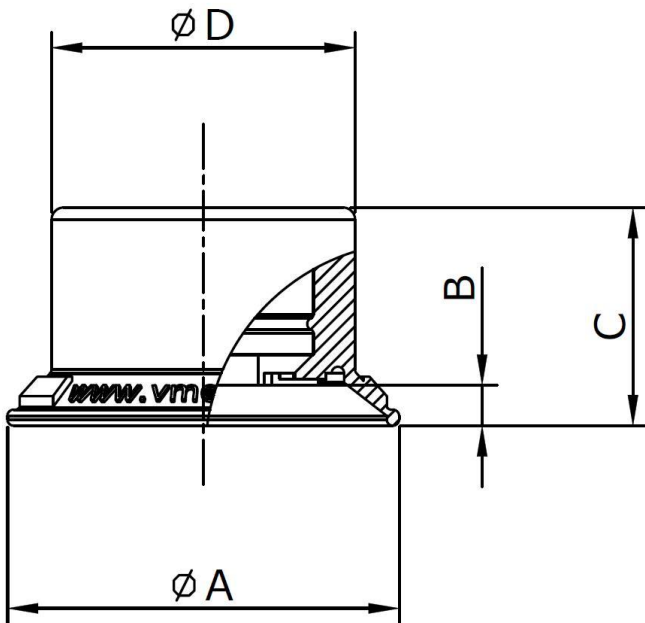


Model	ϕA	B	C	ϕD
F60T	62.5	7	22	38.8
F70T	73.7	9.5	23	50
F80T	83.7	9.5	23	60

[Measure unit : mm]

Dimensional Data for Suction cup

FCF suction cup

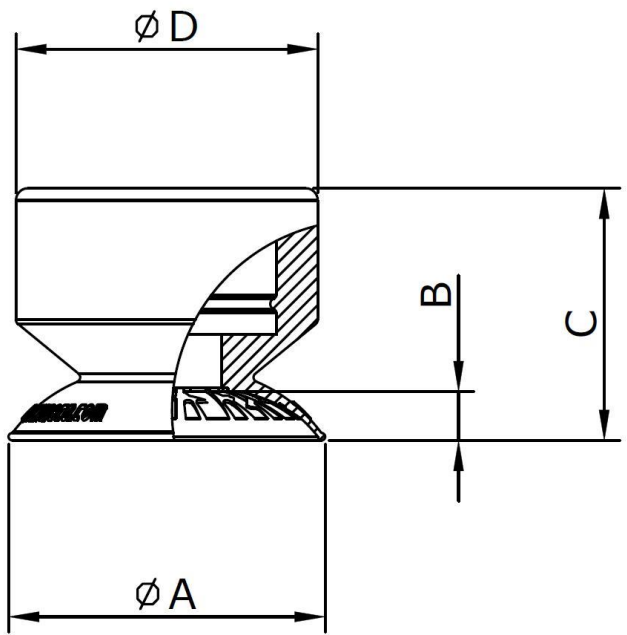


Model	Ø A	B	C	Ø D
FCF40	42	4	19.5	24.8
FCF50	52	5	23.5	38.5
FCF60	62	6	26.5	38.5
FCF70	72	6.5	26.5	38.5
FCF80	82.5	7.5	30	38.5

[Measure unit : mm]

Dimensional Data for Suction cup

VDF suction cup



Model	Ø A	B	C	Ø D
VDF40	42.5	6.9	21.6	24.8
VDF50	53	8.4	38.8	24
VDF60	63	10.9	27	38.8
VDF80	83	13.9	30.6	38.8

[Measure unit : mm]

Air Circuit Diagram

