



VACUUM TECHNOLOGY - II

Magic Grippers



Korea

VMECA Co., Ltd.
24, Beotkkot-ro 10-gil
Geumcheon-gu Seoul 08606 Korea
Tel: +82-2-2617-5008 (Rep.)
Fax: +82-2-2617-5009
Web: www.vmeca.com
e-mail: info@vmeca.com

Germany

VMECA GmbH
Gutenberg Strasse 20
D-70794 Filderstadt, Germany
Tel: +49-711-4408-3260
Fax: +49-711-4408-3261
Web: www.vmeca.com
e-mail: vtec@vmeca.com

Thailand

VMECA Co., Ltd. (Thailand)
99/349 Na Nakorn Building Floor 1st,
Chaengwatta Rd., Thung Song Hong,
Laksi, Bangkok, Thailand
Tel: +66-2-982-0700
Fax: + 66-2-982-0799
Web: www.vmeca.com
e-mail: inquiry@vmeca.com

USA

Vtec USA Inc.
1305 San Gabriel Blvd., Suite 203
Rosemead, CA 91770
Tel: +1-213-258-7114 (Rep.)
Fax: +1-626-569-9978
Web: www.vmeca.com
e-mail: infousa@vmeca.com

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Specializing in Vacuum products since 1991

VMECA headquarter / R&D center



VMECA Co., Ltd.

08606, 24 Beotkkot-ro
Geumcheon-gu, Seoul
Korea

Tel: +82-2-2617-5008
Fax: +82-2-2617-5009
Email: info@vmecca.com

www.vmecca.com

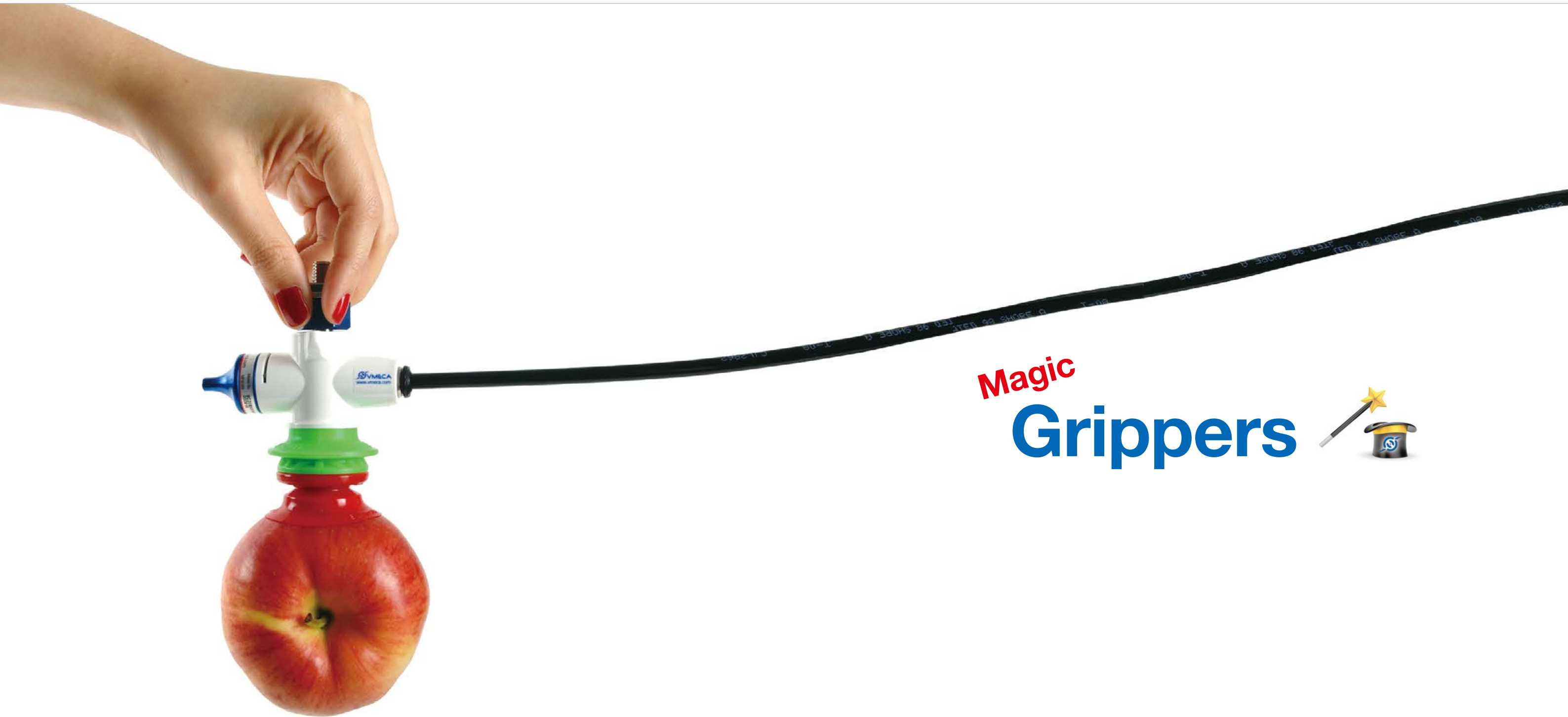
Vacuum Categories



- **VACUUM TECHNOLOGY - I** General vacuum
- **VACUUM TECHNOLOGY - II** Automobile vacuum
- **VACUUM TECHNOLOGY - III** Magic Gripper
- **VACUUM TECHNOLOGY - IV** Vacuum conveyor

※ VACUUM TECHNOLOGY - I, II and IV are required to contact VMECA.

EASY, EFFICIENT, RELIABLE and COMPACT!!



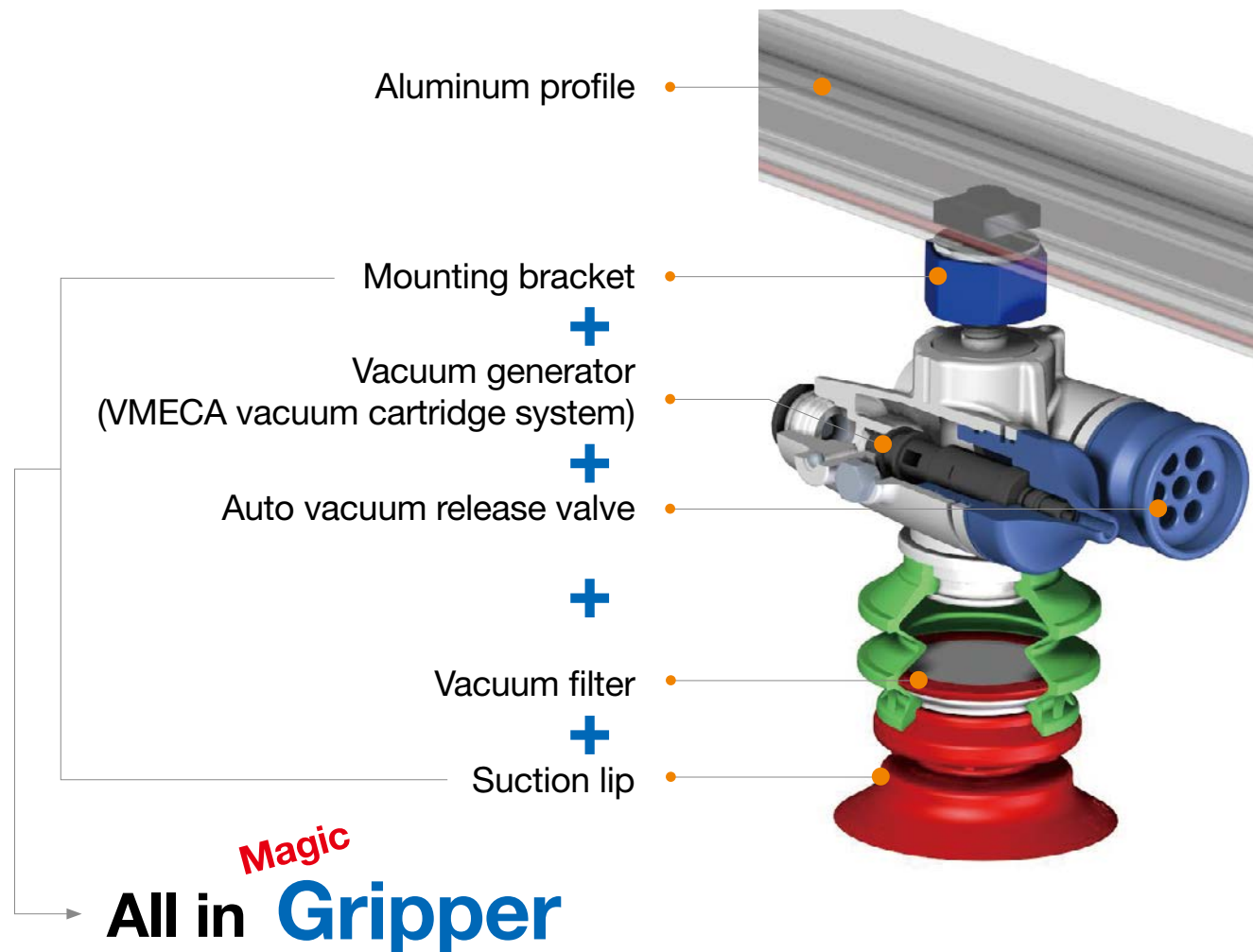
Magic
Grippers





What is the ^{Magic} Gripper?

Patent & Patent pending



Features

- ✓ Cost efficient
- ✓ Easy to build vacuum systems
- ✓ Various suction lips
- ✓ Fast response & excellent performance
- ✓ Individual vacuum systems
- ✓ 73% less energy consumption
- ✓ Custom profile options - Easy mounting
- ✓ Various flow rate options available
- ✓ VMECA multi-stage vacuum cartridge integrated

Conventional systems

- ✓ High cost for installation and process
- ✓ Various piping & connectors needed
- ✓ High energy consumption
- ✓ Difficult installation and complicated structure
- ✓ Difficult to select suitable model without vacuum knowledge
- ✓ Not available as an individual vacuum system



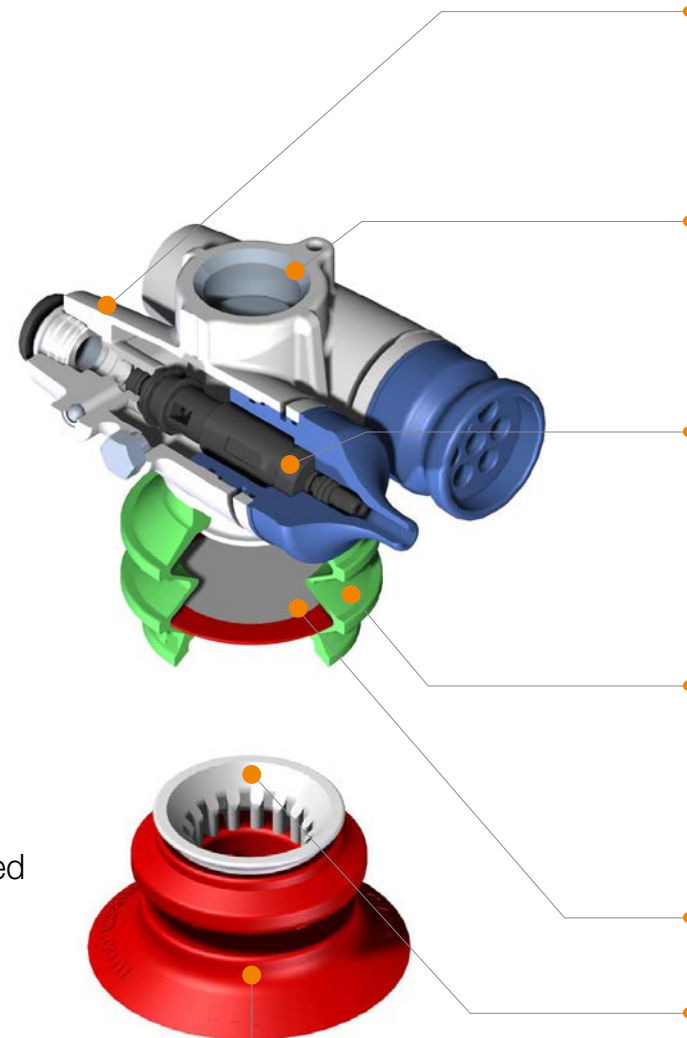


Magic Grippers

Excellent Gripping systems

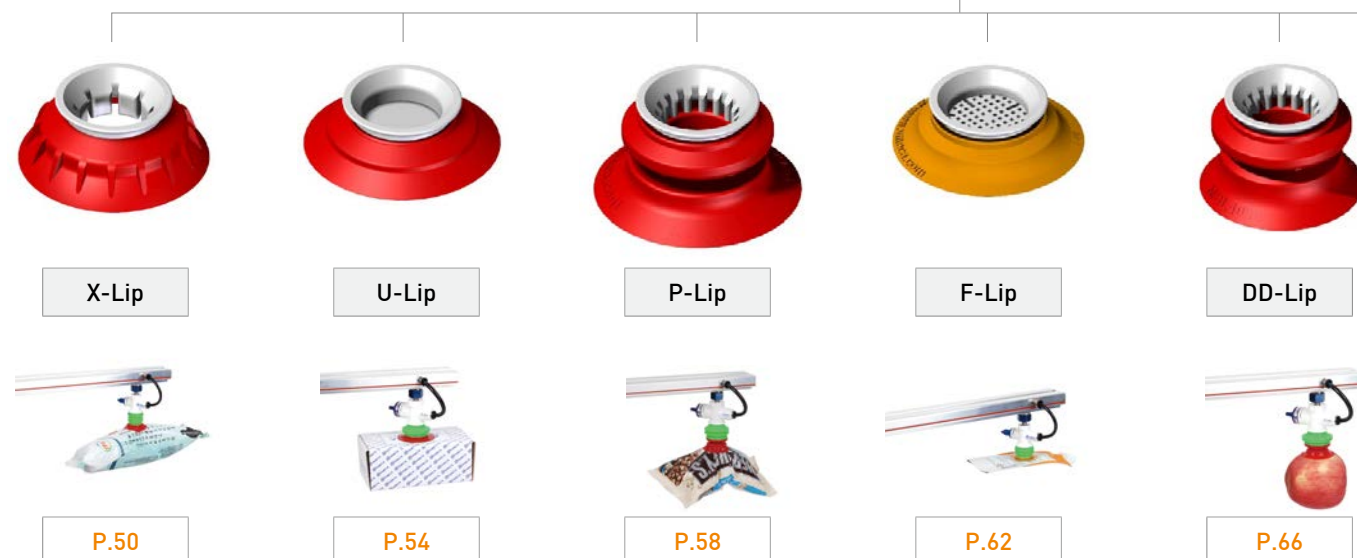
Features

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7 Suction lip
- See page 20

Various Suction Lips



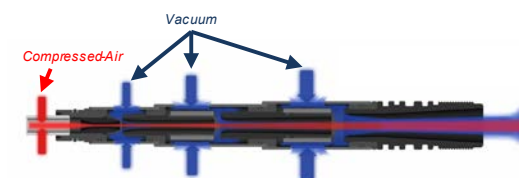
1 Type - See page 12



2 Mount options - See page 14



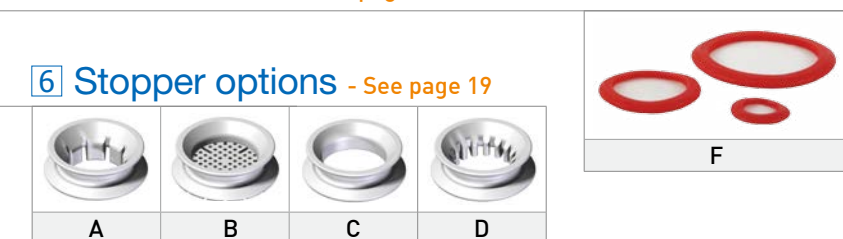
3 Cartridge - See page 16



4 Top bellows options - See page 18



5 Vacuum filter - See page 18



6 Stopper options - See page 19



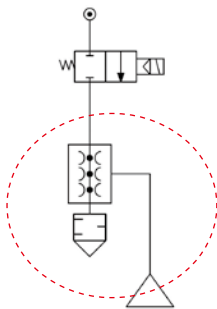
Stopper
Suction lip

1 Vacuum Generator options

1. Single cartridge – “A-TYPE”



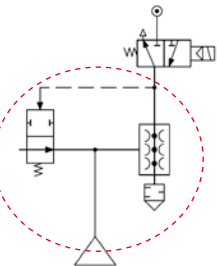
- Single cartridge



2. Single cartridge & Automatic vacuum release function – “B-TYPE”



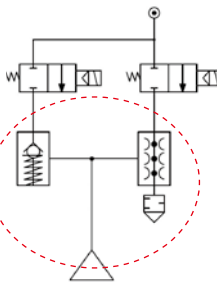
- Automatic vacuum release function is available.
- Vacuum release valve is not necessary.
- 3/2 way valve is required for air control valve.



3. Single cartridge & Check valve – “C-TYPE”



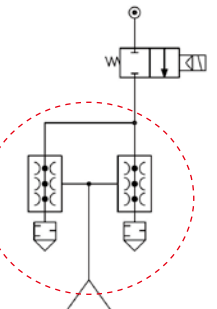
- Check valve integrated and it makes fast evacuation time.
- Vacuum release control valve is required.



4. Dual cartridges – “D-TYPE”



- Dual cartridges for large vacuum flow

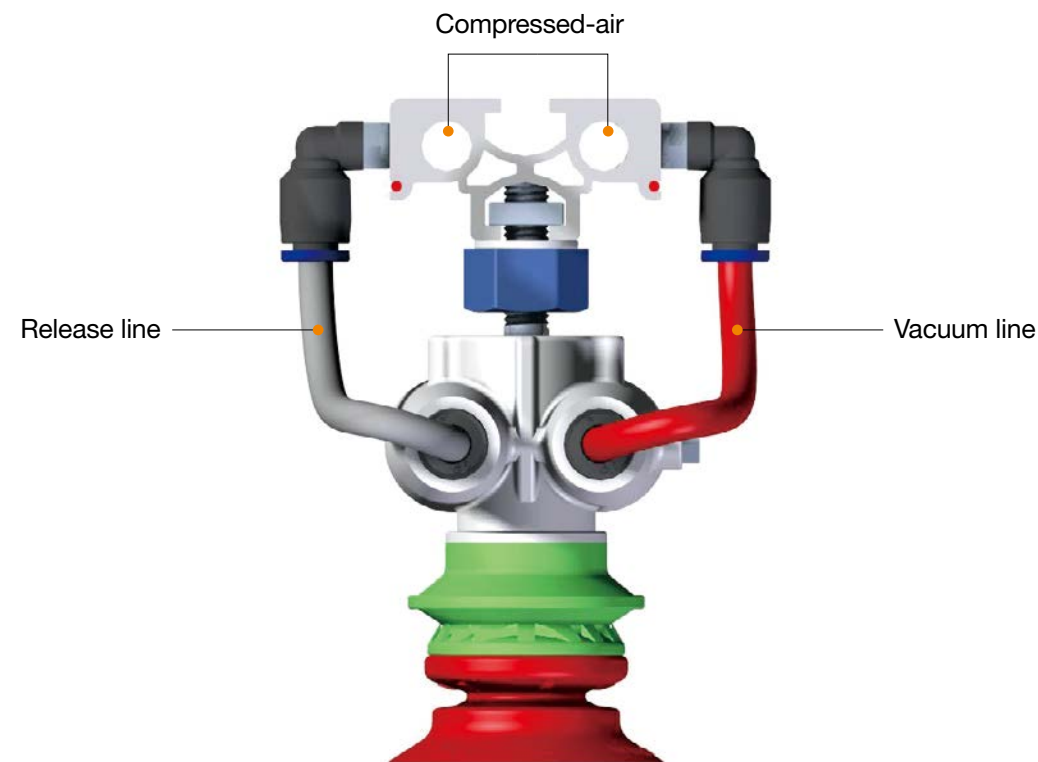


Magic Gripper Characteristics

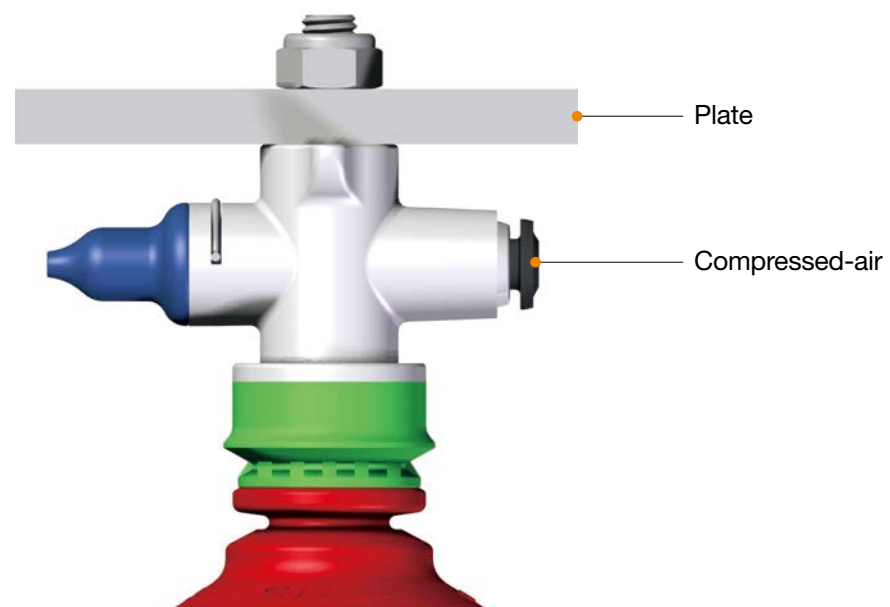
Model	Type	Product view	Symbol	Supply Air Pressure (bar)	Max. Vacuum (- kPa)	Max. Vacuum Flow (NI/m)	Air Consumption (NI/m)	Page
MC10	A		MC10A	1.1	48	9.2	5.9	P. 26
				1.8	83	12.3	8.7	
				2.2	81	14	9.9	
	B		MC10B	1.1	48	9.2	5.9	P. 32
				1.8	83	12.3	8.7	
				2.2	81	14	9.9	
	C		MC10C	1.1	48	9.2	5.9	P. 38
				1.8	83	12.3	8.7	
				2.2	81	14	9.9	
	D		MC10D	1.1	48	16.4	11.3	P. 44
				1.8	83	20.2	16.4	
				2.2	81	23.0	20.3	
MC20	A		MC20A	2.2	63	36.8	21	P. 26
				3.3	92	40.5	27	
				4.0	91	42.2	32	
	B		MC20B	2.2	63	36.8	21	P. 32
				3.3	92	40.5	27	
				4.0	91	42.2	32	
	C		MC20C	2.2	63	36.8	21	P. 38
				3.3	92	40.5	27	
				4.0	91	42.2	32	
	D		MC20D	2.2	63	66.2	40	P. 44
				3.3	92	74	55	
				4.0	91	75.7	56	
MC23	A		MC23A	2.2	63	62.4	21	P. 26
				3.3	91	80	27	
				4.0	90	85	32	
	B		MC23B	2.2	63	62.4	21	P. 32
				3.3	91	80	27	
				4.0	90	85	32	
	C		MC23C	2.2	63	62.4	21	P. 38
				3.3	91	80	27	
				4.0	90	85	32	
	D		MC23D	2.2	63	90.5	40.1	P. 44
				3.3	91	111.9	53.3	
				4.0	90	139.0	56.2	
MC25	A		MC25A	4.5	87.5	109	65	P. 26
				5.5	94.5	113	77	
				6.0	94	111	83.5	
	B		MC25B	4.5	87.5	109	65	P. 32
				5.5	94.5	113	77	
				6.0	94	111	83.5	
	C		MC25C	4.5	87.5	109	65	P. 38
				5.5	94.5	113	77	
				6.0	94	111	83.5	

2 Mounting options

1. Aluminum profile mount



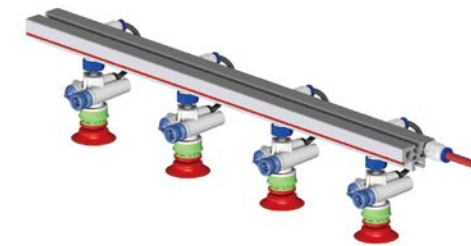
2. Direct mount



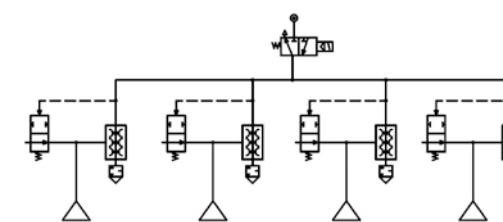
Applications



B-type Grippers on aluminum profile



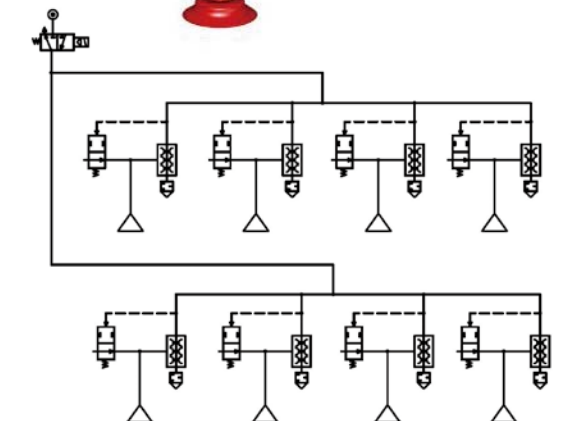
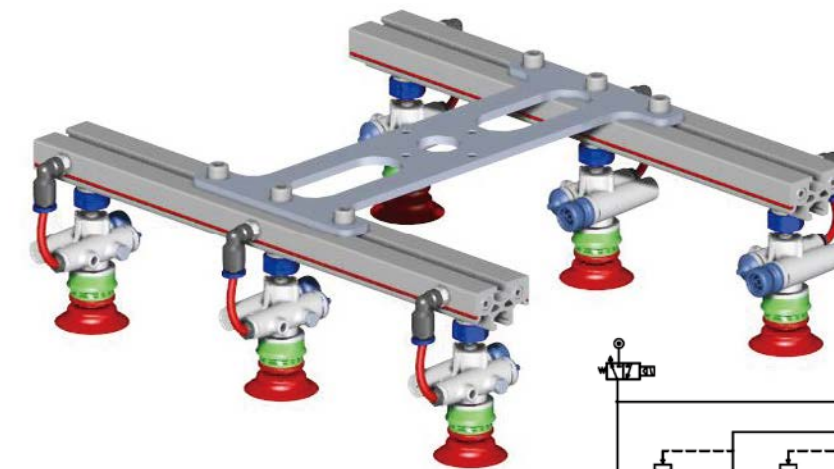
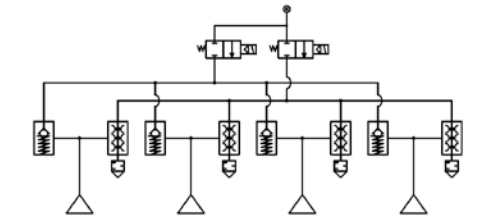
- Auto vacuum release function integrated
- Vacuum release valve is not required



C-type Grippers on aluminum profile



- Check valve integrated at vacuum release port for fast evacuation time
- Air control valve for vacuum release is required

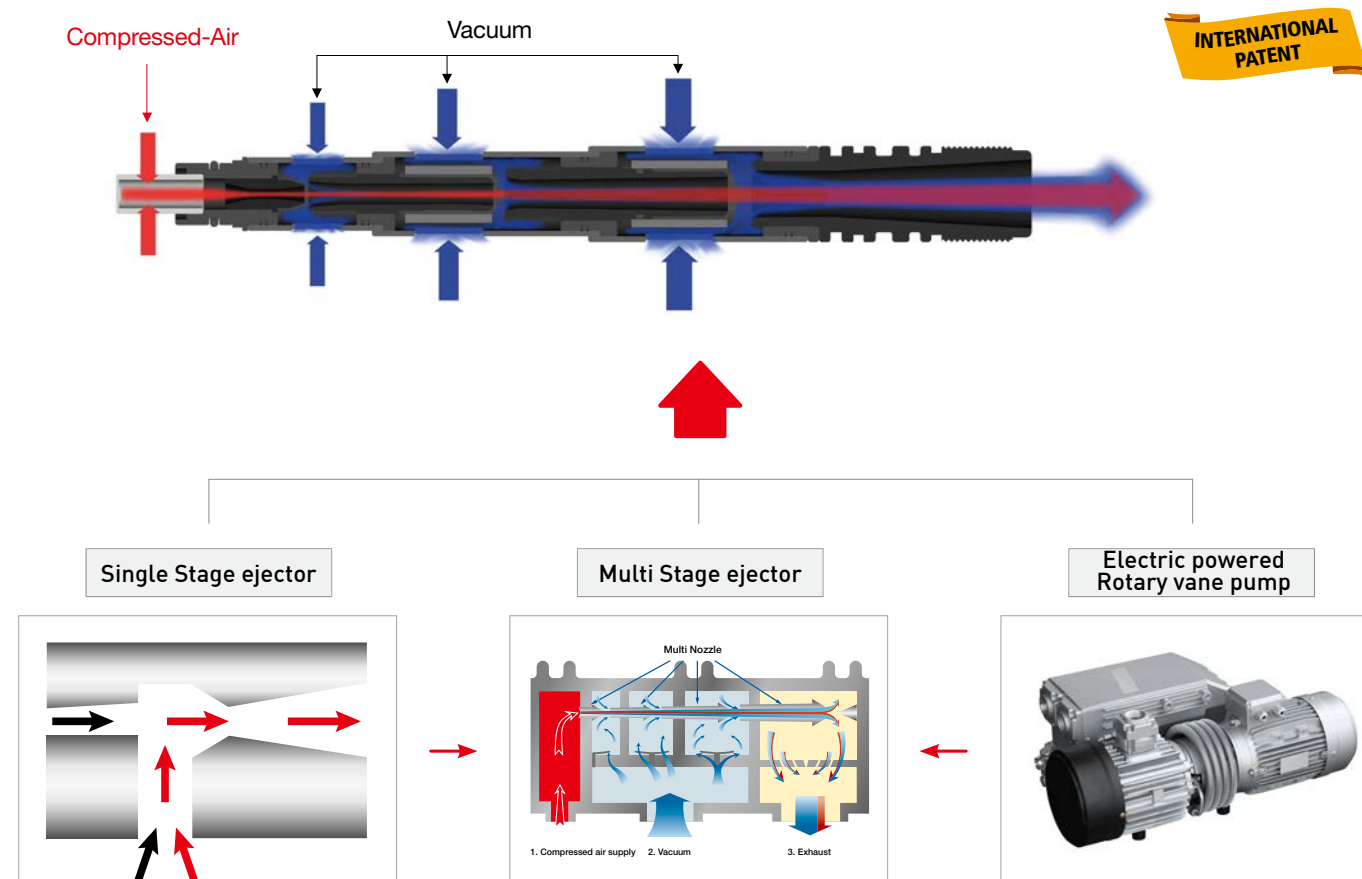


3 Integrated with Innovative VMECA Vacuum cartridge systems

- ✓ Low energy consumption
- ✓ Excellent performance
 - High vacuum flow and vacuum level
- ✓ Stable performance despite fluctuation or dropping compressed air pressure
- ✓ Easy installation
- ✓ Long lifetime

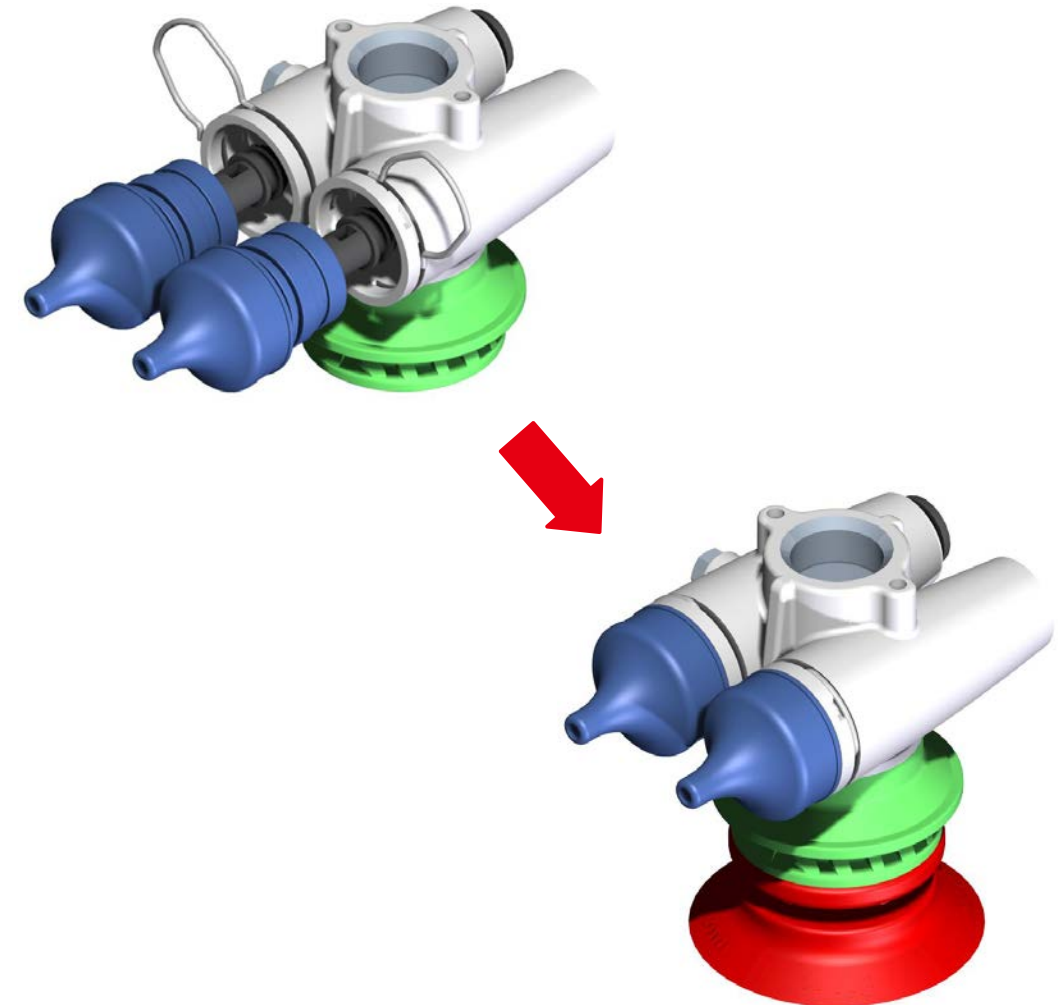


73% less energy consumption &
3 times higher vacuum flow



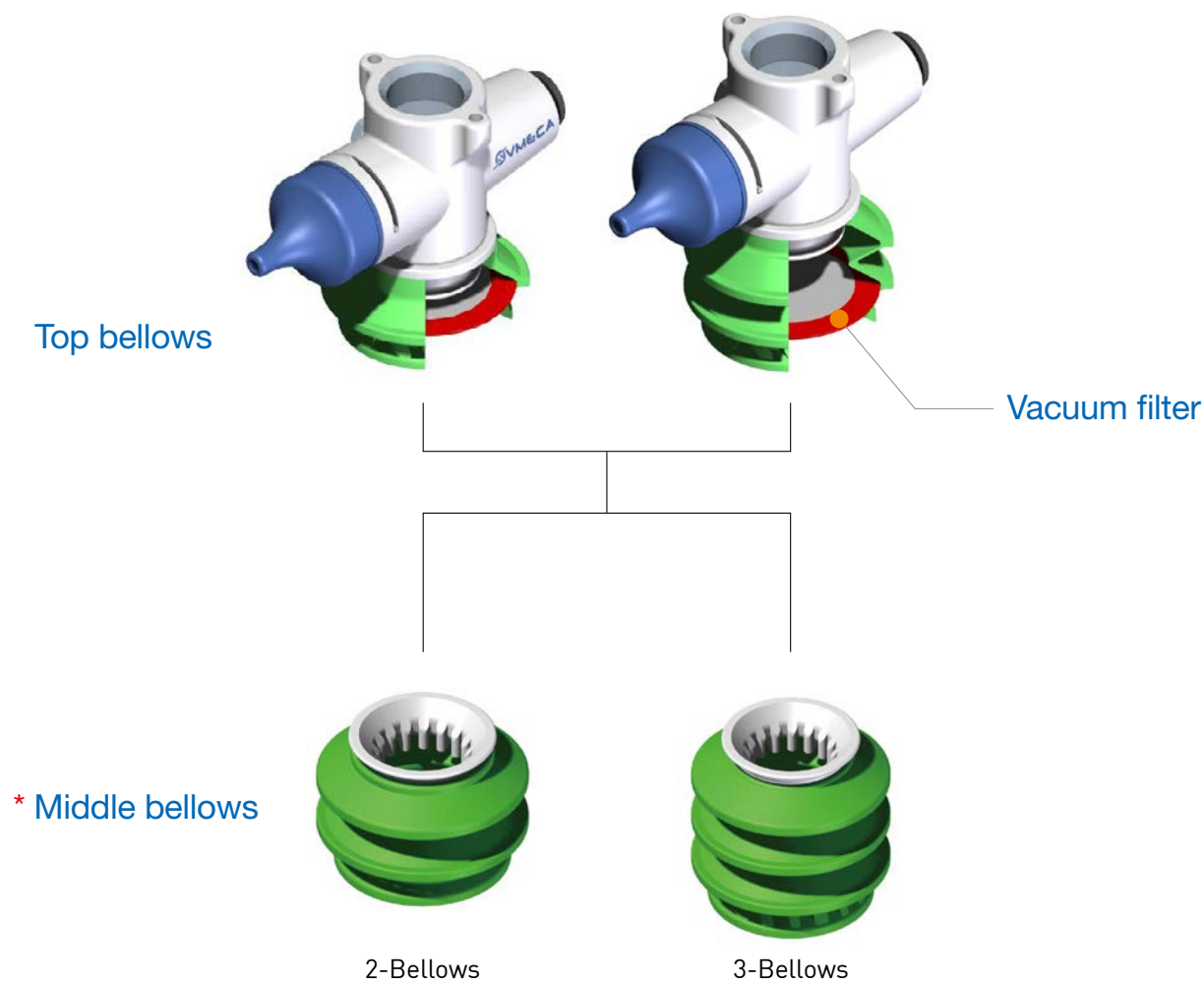
Compact and Light weight

70% more energy saving &
40% less weight



4 Top & Middle bellows / 5 Vacuum filter

- ✓ Easy to connect with suction lips
- ✓ Several bellows folds options available
- ✓ Compensating different height
- ✓ Long lifetime
- ✓ Vacuum filter integrated (Optional)



* See page 50-89 for more information.

6 Stoppers

Stopper A	Stopper B
• Recommended with X suction lip • Suitable for thin and light plastic bags	• Recommended with X, U & F suction lip • Suitable for plastic bags, flexible objects • Minimized mark for plastic bags
Stopper C	Stopper D
• Recommended with X, U & F suction lip • Vacuum filter (PE) integrated • No mark for film, aluminum foil, and thin sheets	• Recommended with X, U, F, P, MBU, DD & MD suction lip • Use for connecting each bellows cartridge • Suitable for flat and thin objects
Stopper F	Stopper G
• Recommended with S suction lip • Sponge suction lip	• Recommended with MU & MF suction lip • Stopper is not visible when used with suction lip "MU" and "MF" type

7 Suction lips

"X" suction lip	"U" suction lip
• X suction lip is excellent in handing thin and light plastic bag applications • Ice cream bags, Aluminum foil	• U suction lip is excellent in handing flat and slightly curved object applications • Carton boxes, Flat objects
"F" suction lip	"P" suction lip
• F suction lip is excellent in handing flat object applications • Thin boxes, Wooden panel	• P suction lip is excellent for handling heavy or thick plastic bag applications • Liquid filled plastic bags, Powder filled plastic bags

"DD" suction lip	"MBU" suction lip
• DD suction lip is excellent for irregular curved surface, rough surface, and dual lip design offers a safety factor against suction lip wear and tear.	• MBU suction lip is excellent in compensating the height difference for curved objects
"MD" suction lip	"S" suction lip
• MD suction lip is suitable for curved or uneven surface with excellent performance for rounded corners and edges	• S suction lip is excellent in handling uneven surface and porous material

Applications

"MU" suction lip	"MF" suction lip
• MU suction lip offers great gripping force for flat and stable surfaces • Metal sheets, Carton boxes, Glass, Veneer sheets	• MF suction lip offers great gripping force for both horizontal and vertical applications



"P" suction lip



"DD" suction lip



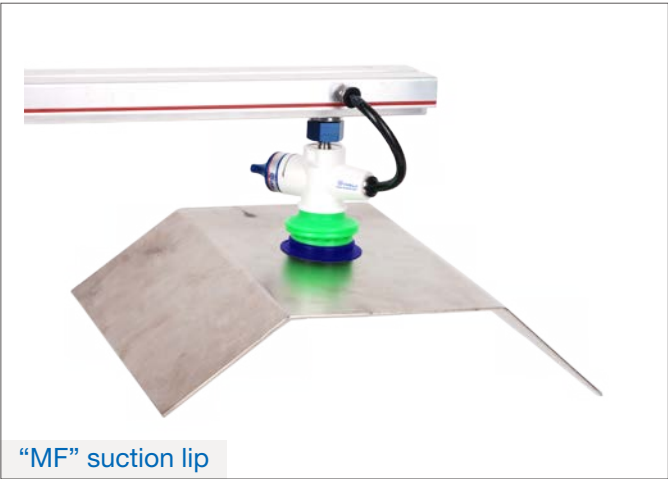
"X" suction lip



"MD" suction lip

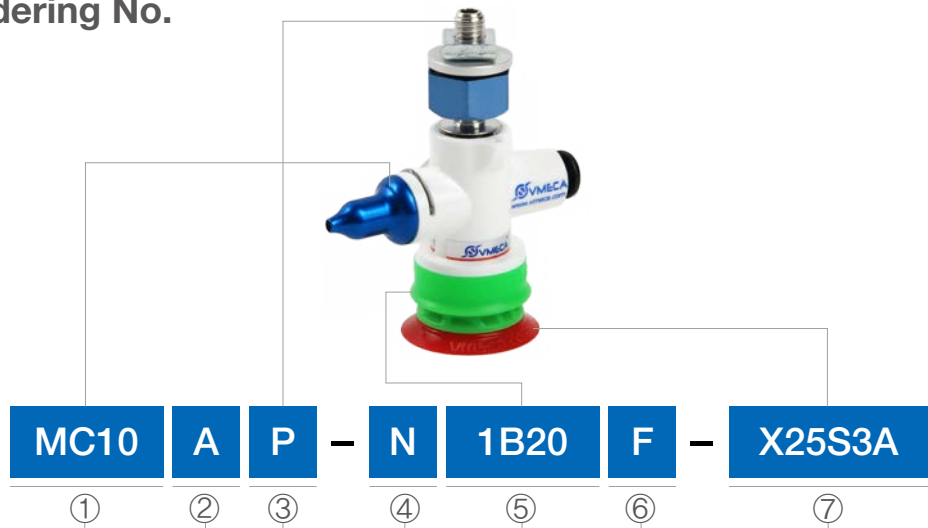


"S" suction lip



"MF" suction lip

Build an Ordering No.



① Base pump	
Symbol	Description
MC10	Micro cartridge 2-Stage
MC20	Mini cartridge 2-Stage
MC23	Mini cartridge 3-Stage
MC25	Mini premium cartridge 2-Stage

② Body type	
Symbol	Description
A	Single vacuum cartridge (Page 26.)
B	Single vacuum cartridge, Automatic vacuum release (Page 32.)
C	Single vacuum cartridge, Check valve (Page 38.)
D	Dual vacuum cartridge (Page 44.)

③ Mounting	
Symbol	Description
X	No mount
M	Direct mount
P	Aluminum profile mount

④ Sealing	
Symbol	Description
N	NBR
E	EPDM
V	Viton

⑤ Top bellows	
Symbol	Description
1B20	Top bellows 1 fold, 20mm: Available pump: MC10
1B40	Top bellows 1fold, 40mm: Available pump: MC10, MC20 and MC25
1B60	Top bellows 1 fold, 60mm: Available pump: MC20 and MC25
2B20	Top bellows 2 folds, 20mm: Available pump: MC10
2B40	Top bellows 2 folds, 40mm: Available pump: MC10, MC20 and MC25
2B60	Top bellows 2folds, 60mm: Available pump: MC20 and MC25

⑥ Vacuum filter	
Symbol	Description
X	No filter
F	Filter (200 mesh)

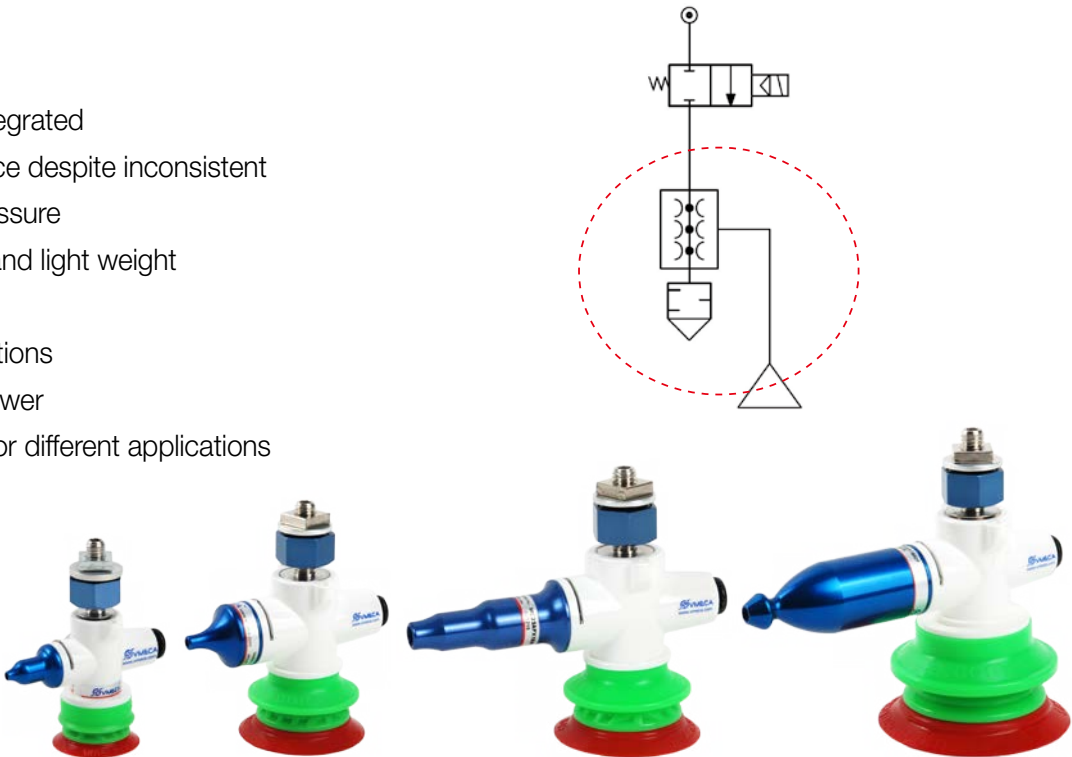
⑦ Suction lip

Symbol	Description	Bellows size			Suction lip material		Stopper	
		20mm	40mm	60mm	Symbol	Material	Symbol	Description
X25	"X" suction lip, 25mm dia.	O			N6	NBR (Nitrile)	A B C D	A type B type C type D type
X30	"X" suction lip, 30mm dia.	O			S3	Silicone, 30° hardness		
X45	"X" suction lip, 45mm dia.		O		S5	Silicone, 50° hardness		
X55	"X" suction lip, 55mm dia.		O		W3	White Silicone, 30° hardness		
X65	"X" suction lip, 65mm dia.			O	W5	White Silicone, 50° hardness		
X75	"X" suction lip, 75mm dia.			O	W3(FDA)	White Silicone, 30° hardness (FDA)		
U25	"U" suction lip, 25mm dia.	O			W5(FDA)	White Silicone, 50° hardness (FDA)	B C D	B type C type D type
U30	"U" suction lip, 30mm dia.	O			U6	Urethane		
U45	"U" suction lip, 45mm dia.		O		PU	Polyurethane		
U55	"U" suction lip, 55mm dia.		O		N6	NBR (Nitrile)		
U65	"U" suction lip, 65mm dia.			O	S3	Silicone, 30° hardness		
U75	"U" suction lip, 75mm dia.			O	S5	Silicone, 50° hardness		
P15	"P" suction lip, 15mm dia.	O			W3	White Silicone, 30° hardness	D	D type
P17	"P" suction lip, 17mm dia.	O			W5	White Silicone, 50° hardness		
P20	"P" suction lip, 20mm dia.	O			W3(FDA)	White Silicone, 30° hardness (FDA)		
P27	"P" suction lip, 27mm dia.	O			W5(FDA)	White Silicone, 50° hardness (FDA)		
P32	"P" suction lip, 32mm dia.	O			U6	Urethane		
P48	"P" suction lip, 48mm dia.		O		PU	Polyurethane		
P60	"P" suction lip, 60mm dia.		O		N6	NBR (Nitrile)	B C D	B type C type D type
P72	"P" suction lip, 72mm dia.			O	S3	Silicone, 30° hardness		
P85	"P" suction lip, 85mm dia.			O	S5	Silicone, 50° hardness		
F25	"F" suction lip, 25mm dia.	O			W3	White Silicone, 30° hardness		
F30	"F" suction lip, 30mm dia.	O			W5	White Silicone, 50° hardness		
F45	"F" suction lip, 45mm dia.		O		W3(FDA)	White Silicone, 30° hardness (FDA)		
F55	"F" suction lip, 55mm dia.		O		W5(FDA)	White Silicone, 50° hardness (FDA)	E	Sponge lip EPDM
DD4030	"DD" suction lip, inner lip 30mm dia, outer lip 41mm dia.		O		U6	Urethane		
MBU17	"MBU" suction lip, 17mm dia.	O			N6	NBR (Nitrile)		
MBU23	"MBU" suction lip, 23mm dia.	O			S3	Silicone, 30° hardness		
MBU27	"MBU" suction lip, 27mm dia.	O			S5	Silicone, 50° hardness		
MD22	"MD" suction lip, 22mm dia.	O			W3	White Silicone, 30° hardness		
S30	"S" suction lip, 30mm dia.	O			W5	White Silicone, 50° hardness	G	G type: Only for MU & MF suction lip
S50	"S" suction lip, 50mm dia.		O		W3(FDA)	White Silicone, 30° hardness (FDA)		
S60	"S" suction lip, 60mm dia.			O	W5(FDA)	White Silicone, 50° hardness (FDA)		
MU45	"MU" suction lip, 45mm dia.		O		U6	Urethane		
MU55	"MU" suction lip, 55mm dia.		O		N6	NBR (Nitrile)		
MU65	"MU" suction lip, 65mm dia.			O	S3	Silicone, 30° hardness		
MU75	"MU" suction lip, 75mm dia.			O	S5	Silicone, 50° hardness	G	G type: Only for MU & MF suction lip
MU80	"MU" suction lip, 80mm dia.			O	W3	White Silicone, 30° hardness		
MF45	"MF" suction lip, 45mm dia.		O		W5	White Silicone, 50° hardness		
MF55	"MF" suction lip, 55mm dia.		O		W3(FDA)	White Silicone, 30° hardness (FDA)		
MF65	"MF" suction lip, 65mm dia.			O	W5(FDA)	White Silicone, 50° hardness (FDA)		
MF75	"MF" suction lip, 75mm dia.			O	U6	Urethane		
MF80	"MF" suction lip, 80mm dia.			O	N6	NBR (Nitrile)	G	G type: Only for MU & MF suction lip
					S3	Silicone, 30° hardness		
					S5	Silicone, 50° hardness		
					W3	White Silicone, 30° hardness		
					W5	White Silicone, 50° hardness		
					W3(FDA)	White Silicone, 30° hardness (FDA)		

A-type

Features

- ✓ VMECA cartridge integrated
 - Reliable performance despite inconsistent compressed air pressure
- ✓ Extremely compact and light weight
- ✓ Low air consumption
- ✓ Various mounting options
- ✓ Excellent gripping power
- ✓ Various suction lips for different applications



Vacuum Flow

Model	Max. vacuum (-kPa)	Feed Pressure (bar)	Air Consumption (N/min)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
				0	10	20	30	40	50	60	70	80	90
MC10A	48	1.1	5.9	9.2	5.7	2.1	1.4	0.6	-	-	-	-	-
	83	1.8	8.7	12.3	7.5	3.2	2.5	2.0	1.5	0.8	0.3	-	-
	81	2.2	9.9	14.0	9.4	5.0	2.5	2.0	1.3	0.6	0.2	-	-
MC20A	63	2.2	21	36.8	27	17.8	16.8	12.7	7.6	2.0	-	-	-
	92	3.3	27	40.5	33.6	23.7	16.5	13.8	11.9	7.8	3.8	2.3	-
	91	4.0	32	42.2	40.2	26.5	19.3	14.3	11.6	8.8	5.8	2.6	-
MC23A	63	2.2	21	62.4	32.7	18.5	16.7	12.4	6.4	0.7	-	-	-
	91	3.3	27	80	40	26.6	17	14.8	13	10.5	7.3	4.0	-
	90	4.0	32	85	49.5	34.4	22	16.5	13	10.5	7.5	3.0	-
MC25A	87.5	4.5	65	134.0	106.0	58.0	42.0	36.0	28.0	22.0	17.0	12.6	-
	94.5	5.5	77	141.0	109.0	71.0	51.0	32.0	26.0	22.0	17.5	11.0	2.8
	94	6.0	83.5	146.0	108.0	75.0	60.0	42.0	25.0	21.0	16.0	9.6	2.3

Specifications

Description	MC10A	MC20A	MC23A	MC25A
Max. Vacuum level	-83 kPa	-92 kPa	-91 kPa	-94.5 kPa
Open Vacuum flow	14.0 NI/min	42.2 NI/min	85.0 NI/min	146 NI/min
Max. Feed pressure	4 Bar	7 Bar	7 Bar	7 Bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	44~53 dBA	51 ~ 60 dBA	58 ~ 68 dBA	67 ~ 71 dBA
Weight	17.4 g	25.5 g	60.0 g	81.5 g

* Weight is calculated without top bellows and suction lip.

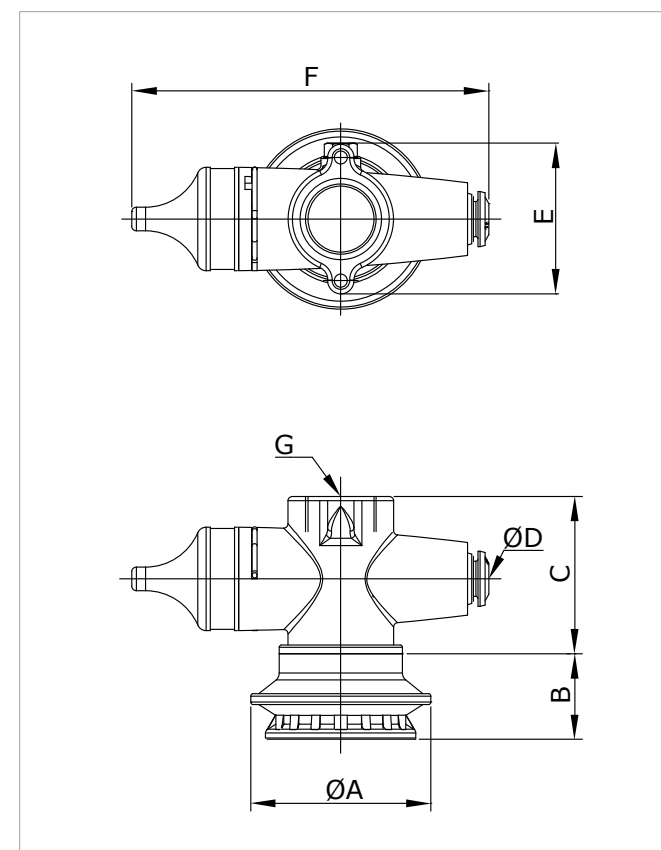


Evacuation time

Model	Max. vacuum (-kPa)	Feed Pressure (bar)	Evacuation time (sec) at different vacuum levels (-kPa)								
			10	20	30	40	50	60	70	80	90
MC10AX-N1B20X	48	1.1	0.12	0.15	0.18	0.22	0.31	-	-	-	-
	83	1.8	0.09	0.11	0.13	0.16	0.20	0.27	0.42	0.86	-
	81	2.2	0.08	0.10	0.13	0.16	0.20	0.28	0.45	1.04	-
MC10AX-N2B20X	48	1.1	0.13	0.16	0.20	0.26	0.33	-	-	-	-
	83	1.8	0.10	0.12	0.15	0.18	0.23	0.29	0.44	0.89	-
	81	2.2	0.09	0.11	0.14	0.17	0.22	0.30	0.47	1.10	-
MC10AX-N1B40X	48	1.1	0.15	0.22	0.28	0.37	0.47	-	-	-	-
	83	1.8	0.12	0.16	0.21	0.28	0.33	0.41	0.59	1.13	-
	81	2.2	0.10	0.14	0.19	0.26	0.32	0.42	0.62	1.30	-
MC10AX-N2B40X	48	1.1	0.16	0.23	0.32	0.45	0.60	-	-	-	-
	83	1.8	0.13	0.17	0.25	0.33	0.41	0.53	0.80	1.55	-
	81	2.2	0.11	0.16	0.22	0.32	0.40	0.54	0.85	1.70	-
MC20AX-N1B40X	63	2.2	0.07	0.09	0.11	0.13	0.15	0.20	-	-	-
	92	3.3	0.07	0.09	0.10	0.12	0.14	0.16	0.20	0.26	-
	91	4.0	0.07	0.08	0.10	0.11	0.13	0.15	0.19	0.25	-
MC20AX-N2B40X	63	2.2	0.08	0.10	0.13	0.15	0.18	0.23	-	-	-
	92	3.3	0.07	0.09	0.12	0.13	0.15	0.18	0.24	0.33	-
	91	4.0	0.07	0.09	0.11	0.12	0.15	0.18	0.22	0.29	-
MC20AX-N1B60X	63	2.2	0.10	0.16	0.18	0.20	0.23	0.28	-	-	-
	92	3.3	0.09	0.12	0.15	0.17	0.20	0.24	0.29	0.42	-
	91	4.0	0.09	0.12	0.14	0.16	0.19	0.22	0.28	0.38	-
MC20AX-N2B60X	63	2.2	0.12	0.17	0.20	0.23	0.27	0.36	-	-	-
	92	3.3	0.11	0.15	0.17	0.19	0.23	0.27	0.33	0.46	-
	91	4.0	0.10	0.13	0.16	0.18	0.22	0.26	0.31	0.43	-
MC23AX-N1B40X	63	2.2	0.08	0.09	0.11	0.12	0.15	0.20	-	-	-
	91	3.3	0.07	0.08	0.10	0.11	0.13	0.14	0.17	0.22	-
	90	4.0	0.08	0.08	0.10	0.11	0.13	0.15	0.17	0.22	-
MC23AX-N2B40X	63	2.2	0.08	0.10	0.12	0.14	0.17	0.25	-	-	-
	91	3.3	0.07	0.09	0.11	0.12	0.14	0.17	0.20	0.24	-
	90	4.0	0.07	0.08	0.10	0.11	0.13	0.17	0.19	0.24	-
MC23AX-N1B60X	63	2.2	0.08	0.12	0.14	0.16	0.18	0.22	-	-	-
	91	3.3	0.08	0.09	0.11	0.12	0.15	0.17	0.20	0.26	-
	90	4.0	0.08	0.10	0.11	0.13	0.15	0.17	0.21	0.26	-
MC23AX-N2B60X	63	2.2	0.10	0.14	0.17	0.20	0.23	0.28	-	-	-
	91	3.3	0.09	0.11	0.15	0.16	0.19	0.22	0.26	0.32	-
	90	4.0	0.09	0.11	0.13	0.15	0.17	0.21	0.25	0.32	-
MC25AX-N1B40X	87.5	4.5	0.06	0.08	0.08	0.09	0.10	0.12	0.12	0.15	-
	94.5	5.5	0.06	0.08	0.08	0.09	0.10	0.11	0.12	0.14	0.18
	94	6.0	0.06	0.08	0.08	0.09	0.10	0.11	0.12	0.14	0.19
MC25AX-N2B40X	87.5	4.5	0.06	0.08	0.09	0.10	0.11	0.12	0.13	0.16	-
	94.5	5.5	0.06	0.07	0.09	0.09	0.10	0.11	0.13	0.15	0.19
	94	6.0	0.06	0.08	0.09	0.09	0.10	0.11	0.13	0.15	0.20
MC25AX-N1B60X	87.5	4.5	0.07	0.09	0.10	0.11	0.12	0.13	0.14	0.18	-
	94.5	5.5	0.07	0.08	0.09	0.10	0.11	0.12	0.14	0.16	0.22
	94	6.0	0.07	0.08	0.09	0.10	0.11	0.12	0.14	0.16	0.23
MC25AX-N2B60X	87.5	4.5	0.08	0.10	0.11	0.12	0.14	0.15	0.17	0.20	-
	94.5	5.5	0.08	0.09	0.10	0.11	0.13	0.14	0.15	0.19	0.27
	94	6.0	0.08	0.09	0.11	0.11	0.13	0.14	0.16	0.19	0.28

Dimensional Data

MC10A / MC20A / MC23A / MC25A (Without mounting option)



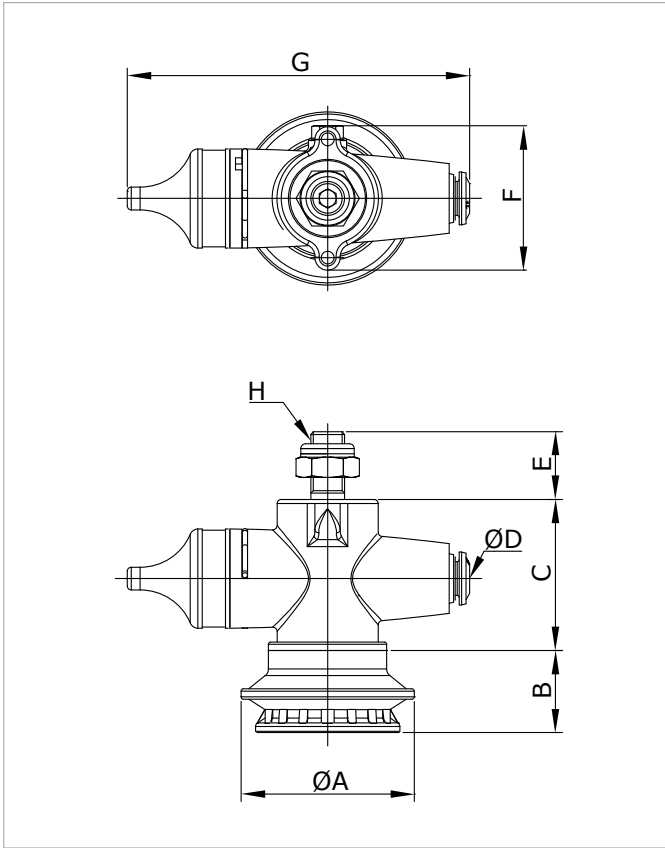
[Unit : mm]

※ Male thread on section "G" not available longer than 7mm

Model	ØA	B	C	ØD	E	F	G
MC10AX-N1B20F	23	11.5	25.7	4	23.5	53.3	M10xP1.0 / DP 8
MC10AX-N1B40F	41	21.4	25.7	4	23.5	53.3	M10xP1.0 / DP 8
MC10AX-N2B20F	23	19.5	25.7	4	23.5	53.3	M10xP1.0 / DP 8
MC10AX-N2B40F	41	31.4	25.7	4	23.5	53.3	M10xP1.0 / DP 8
MC20AX-N1B40F	41	21.4	35.8	6	34.3	81.2	M16xP1.0 / DP 8
MC20AX-N1B60F	56	30.4	35.8	6	34.3	81.2	M16xP1.0 / DP 8
MC20AX-N2B40F	41	31.4	35.8	6	34.3	81.2	M16xP1.0 / DP 8
MC20AX-N2B60F	56	44.8	35.8	6	34.3	81.2	M16xP1.0 / DP 8
MC23AX-N1B40F	41	21.4	35.8	6	34.3	105.5	M16xP1.0 / DP 8
MC23AX-N1B60F	56	30.4	35.8	6	34.3	105.5	M16xP1.0 / DP 8
MC23AX-N2B40F	41	31.4	35.8	6	34.3	105.5	M16xP1.0 / DP 8
MC23AX-N2B60F	56	44.8	35.8	6	34.3	105.5	M16xP1.0 / DP 8
MC25AX-N1B40F	41	21.4	35.8	6	34.3	118.4	M16xP1.0 / DP 8
MC25AX-N1B60F	56	30.4	35.8	6	34.3	118.4	M16xP1.0 / DP 8
MC25AX-N2B40F	41	31.4	35.8	6	34.3	118.4	M16xP1.0 / DP 8
MC25AX-N2B60F	56	44.8	35.8	6	34.3	118.4	M16xP1.0 / DP 8

Dimensional Data

MC10A / MC20A / MC23A / MC25A (For Direct mounting option)

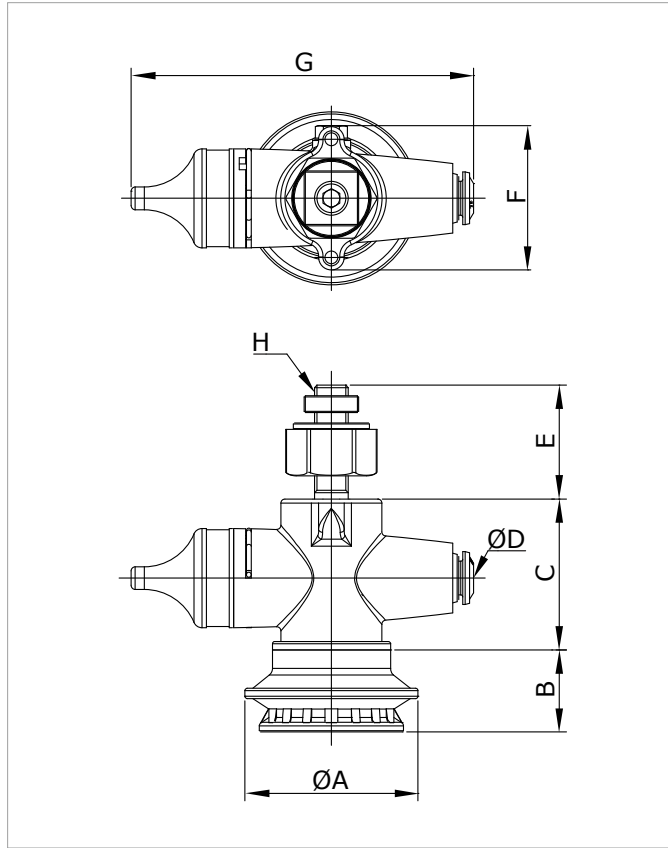


[Unit : mm]

Model	ØA	B	C	ØD	E	F	G	H
MC10AM-N1B20F	23	11.5	25.7	4	14	23.5	53.3	M6xP1.0
MC10AM-N1B40F	42	21.4	25.7	4	14	23.5	53.3	M6xP1.0
MC10AM-N2B20F	23	19.5	25.7	4	14	23.5	53.3	M6xP1.0
MC10AM-N2B40F	41	31.4	25.7	4	14	23.5	53.3	M6xP1.0
MC20AM-N1B40F	41	21.4	35.8	6	16	34.3	81.2	M8xP1.25
MC20AM-N1B60F	56	30.4	35.8	6	16	34.3	81.2	M8xP1.25
MC20AM-N2B40F	41	31.4	35.8	6	16	34.3	81.2	M8xP1.25
MC20AM-N2B60F	56	44.8	35.8	6	16	34.3	81.2	M8xP1.25
MC23AM-N1B40F	41	21.4	35.8	6	16	34.3	105.5	M8xP1.25
MC23AM-N1B60F	56	30.4	35.8	6	16	34.3	105.5	M8xP1.25
MC23AM-N2B40F	41	31.4	35.8	6	16	34.3	105.5	M8xP1.25
MC23AM-N2B60F	56	44.8	35.8	6	16	34.3	105.5	M8xP1.25
MC25AM-N1B40F	41	21.4	35.8	6	16	34.3	118.4	M8xP1.25
MC25AM-N1B60F	56	30.4	35.8	6	16	34.3	118.4	M8xP1.25
MC25AM-N2B40F	41	31.4	35.8	6	16	34.3	118.4	M8xP1.25
MC25AM-N2B60F	56	44.8	35.8	6	16	34.3	118.4	M8xP1.25

Dimensional Data

MC10A / MC20A / MC23A / MC25A (For Aluminum profile mounting option)



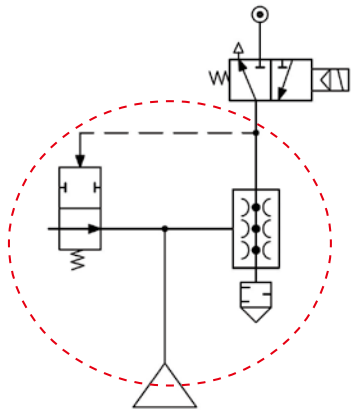
[Unit : mm]

Model	ØA	B	C	ØD	E	F	G	H
MC10AP-N1B20F	23	11.5	25.7	4	22	23.5	53.3	M6xP1.0
MC10AP-N1B40F	42	21.4	25.7	4	22	23.5	53.3	M6xP1.0
MC10AP-N2B20F	23	19.5	25.7	4	22	23.5	53.3	M6xP1.0
MC10AP-N2B40F	41	31.4	25.7	4	22	23.5	53.3	M6xP1.0
MC20AP-N1B40F	41	21.4	35.8	6	27	34.3	81.2	M8xP1.25
MC20AP-N1B60F	56	30.4	35.8	6	27	34.3	81.2	M8xP1.25
MC20AP-N2B40F	41	31.4	35.8	6	27	34.3	81.2	M8xP1.25
MC20AP-N2B60F	56	44.8	35.8	6	27	34.3	81.2	M8xP1.25
MC23AP-N1B40F	41	21.4	35.8	6	27	34.3	105.5	M8xP1.25
MC23AP-N1B60F	56	30.4	35.8	6	27	34.3	105.5	M8xP1.25
MC23AP-N2B40F	41	31.4	35.8	6	27	34.3	105.5	M8xP1.25
MC23AP-N2B60F	56	44.8	35.8	6	27	34.3	105.5	M8xP1.25
MC25AP-N1B40F	41	21.4	35.8	6	27	34.3	118.4	M8xP1.25
MC25AP-N1B60F	56	30.4	35.8	6	27	34.3	118.4	M8xP1.25
MC25AP-N2B40F	41	31.4	35.8	6	27	34.3	118.4	M8xP1.25
MC25AP-N2B60F	56	44.8	35.8	6	27	34.3	118.4	M8xP1.25

B-type

Features

- ✓ VMECA cartridge integrated
 - Reliable performance despite inconsistent compressed air pressure
- ✓ Quick release without release control valve
- ✓ Compact & Light weight
- ✓ Low air consumption
- ✓ Various mounting options
- ✓ Excellent gripping power
- ✓ Various suction lips for different applications



Specifications

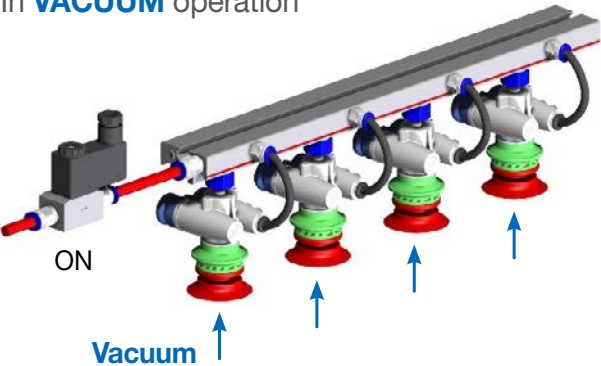
Description	MC10B	MC20B	MC23B	MC25B
Max. Vacuum level	-83 kPa	-92 kPa	-91 kPa	-94.5 kPa
Open Vacuum flow	14.0 NI/min	42.2 NI/min	85.0 NI/min	146 NI/min
Max. Feed pressure	4 Bar	7 Bar	7 Bar	7 Bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	44 ~ 53 dBA	51 ~ 60 dBA	58 ~ 68 dBA	67 ~ 71 dBA
Weight	25.5 g	96.3 g	124 g	124.2 g

* Weight is calculated without top bellows and suction lip.

Quick release function without a release control valve

(Required a single 3/2way valve for air control valve only)

In VACUUM operation



In RELEASE operation



Vacuum Flow

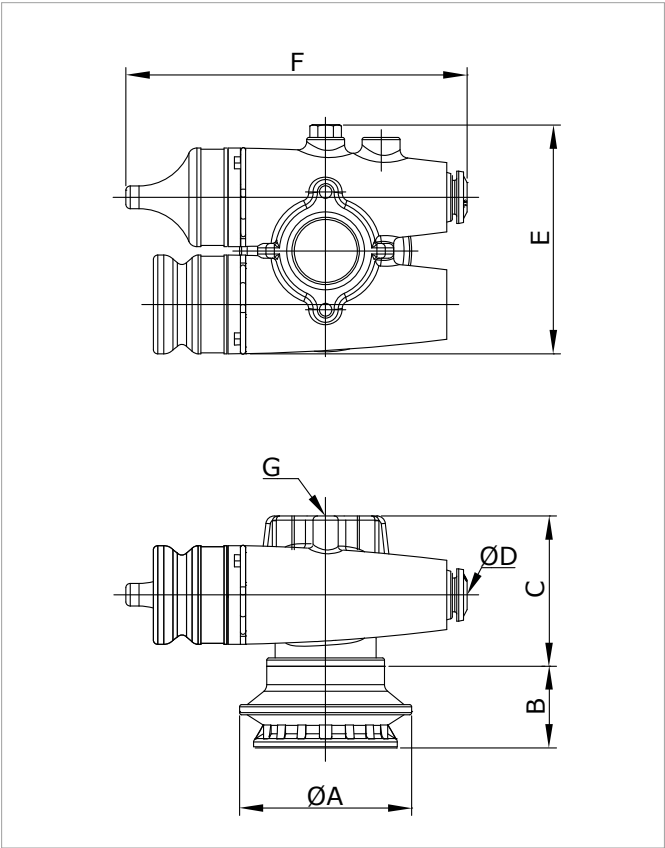
Model	Max. vacuum (-kPa)	Feed Pressure (bar)	Air Consumption (N/min)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
				0	10	20	30	40	50	60	70	80	90
MC10B	48	1.1	5.9	9.2	5.7	2.1	1.4	0.6	-	-	-	-	-
	83	1.8	8.7	12.3	7.5	3.2	2.5	2.0	1.5	0.8	0.3	-	-
	81	2.2	9.9	14	9.4	5.0	2.5	2.0	1.3	0.6	0.2	-	-
MC20B	63	2.2	21	36.8	27	17.8	16.8	12.7	7.6	2.0	-	-	-
	92	3.3	27	40.5	33.6	23.7	16.5	13.8	11.9	7.8	3.8	2.3	-
	91	4.0	32	42.2	40.2	26.5	19.3	14.3	11.6	8.8	5.8	2.6	-
MC23B	63	2.2	21	62.4	32.7	18.5	16.7	12.4	6.4	0.7	-	-	-
	91	3.3	27	80	40	26.6	17	14.8	13	10.5	7.3	4.0	-
	90	4.0	32	85	49.5	34.4	22	16.5	13	10.5	7.5	3.0	-
MC25B	87.5	4.5	65	134	106	58	42	36	28	22	17	12.6	-
	94.5	5.5	77	141	109	71	51	32	26	22	17.5	11	2.8
	94	6.0	83.5	146	108	75	60	42	25	21	16	9.6	2.3

Evacuation time

Model	Max. vacuum (-kPa)	Feed Pressure (bar)	Evacuation time (sec) at different vacuum levels (-kPa)								
			10	20	30	40	50	60	70	80	90
MC10BX-N1B20X	48	1.1	0.12	0.15	0.18	0.22	0.31	-	-	-	-
	83	1.8	0.09	0.11	0.13	0.16	0.20	0.27	0.42	0.86	-
	81	2.2	0.08	0.10	0.13	0.16	0.20	0.28	0.45	1.04	-
MC10BX-N2B20X	48	1.1	0.13	0.16	0.20	0.26	0.33	-	-	-	-
	83	1.8	0.10	0.12	0.15	0.18	0.23	0.29	0.44	0.89	-
	81	2.2	0.09	0.11	0.14	0.17	0.22	0.30	0.47	1.10	-
MC10BX-N1B40X	48	1.1	0.15	0.22	0.28	0.37	0.47	-	-	-	-
	83	1.8	0.12	0.16	0.21	0.28	0.33	0.41	0.59	1.13	-
	81	2.2	0.10	0.14	0.19	0.26	0.32	0.42	0.62	1.30	-
MC10BX-N2B40X	48	1.1	0.16	0.23	0.32	0.45	0.60	-	-	-	-
	83	1.8	0.13	0.17	0.25	0.33	0.41	0.53	0.80	1.55	-
	81	2.2	0.11	0.16	0.22	0.32	0.40	0.54	0.85	1.70	-
MC20BX-N1B40X	63	2.2	0.07	0.09	0.11	0.13	0.15	0.20	-	-	-
	92	3.3	0.07	0.09	0.10	0.12	0.14	0.16	0.20	0.26	-
	91	4.0	0.07	0.08	0.10	0.11	0.13	0.15	0.19	0.25	-
MC20BX-N2B40X	63	2.2	0.08	0.10	0.13	0.15	0.18	0.23	-	-	-
	92	3.3	0.07	0.09	0.12	0.13	0.15	0.18	0.24	0.33	-
	91	4.0	0.07	0.09	0.11	0.12	0.15	0.18	0.22	0.29	-
MC20BX-N1B60X	63	2.2	0.10	0.16	0.18	0.20	0.23	0.28	-	-	-
	92	3.3	0.09	0.12	0.15	0.17	0.20	0.24	0.29	0.42	-
	91	4.0	0.09	0.12	0.14	0.16	0.19	0.22	0.28	0.38	-
MC20BX-N2B60X	63	2.2	0.12	0.17	0.20	0.23	0.27	0.36	-	-	-
	92	3.3	0.11	0.15	0.17	0.19	0.23	0.27	0.33	0.46	-
	91	4.0	0.10	0.13	0.16	0.18	0.22	0.26	0.31	0.43	-
MC23BX-N1B40X	63	2.2	0.08	0.09	0.11	0.13	0.15	0.18	-	-	-
	91	3.3	0.07	0.08	0.09	0.11	0.13	0.15	0.18	0.23	-
	90	4.0	0.07	0.08	0.09	0.11	0.12	0.15	0.17	0.23	-
MC23BX-N2B40X	63	2.2	0.08	0.10	0.12	0.14	0.18	0.23	-	-	-
	91	3.3	0.07	0.08	0.10	0.23	0.15	0.17	0.21	0.27	-
	90	4.0	0.07	0.08	0.10	0.11	0.13	0.16	0.20	0.28	-
MC23BX-N1B60X	63	2.2	0.08	0.12	0.15	0.17	0.21	0.27	-	-	-
	91	3.3	0.08	0.10	0.12	0.14	0.17	0.19	0.24	0.30	-
	90	4.0	0.08	0.10	0.11	0.13	0.16	0.19	0.23	0.29	-
MC23BX-N2B60X	63	2.2	0.10	0.15	0.19	0.22	0.26	0.36	-	-	-
	91	3.3	0.08	0.11	0.14	0.16	0.19	0.23	0.28	0.35	-
	90	4.0	0.09	0.11	0.13	0.16	0.18	0.22	0.27	0.35	-
MC25BX-N1B40X	87.5	4.5	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.16	-
	94.5	5.5	0.07	0.08	0.08	0.09	0.10	0.11	0.13	0.15	0.22
	94	6.0	0.07	0.08	0.09	0.10	0.10	0.11	0.13	0.15	0.24
MC25BX-N2B40X	87.5	4.5	0.07	0.08	0.09	0.10	0.11	0.13	0.14	0.17	-
	94.5	5.5	0.07	0.08	0.09	0.10	0.11	0.12	0.14	0.16	0.23
	94	6.0	0.07	0.08	0.09	0.10	0.11	0.12	0.14	0.16	0.26
MC25BX-N1B60X	87.5	4.5	0.08	0.09	0.10	0.11	0.12	0.14	0.15	0.18	-
	94.5	5.5	0.07	0.08	0.10	0.10	0.11	0.13	0.14	0.17	0.24
	94	6.0	0.07	0.09	0.10	0.11	0.12	0.13	0.14	0.17	0.25
MC25BX-N2B60X	87.5	4.5	0.09	0.10	0.11	0.12	0.14	0.15	0.17	0.21	-
	94.5	5.5	0.08	0.09	0.10	0.12	0.13	0.14	0.16	0.19	0.28
	94	6.0	0.08	0.09	0.11	0.12	0.13	0.14	0.16	0.19	0.29

Dimensional Data

MC10B / MC20B / MC23B / MC25B (Without mounting option)

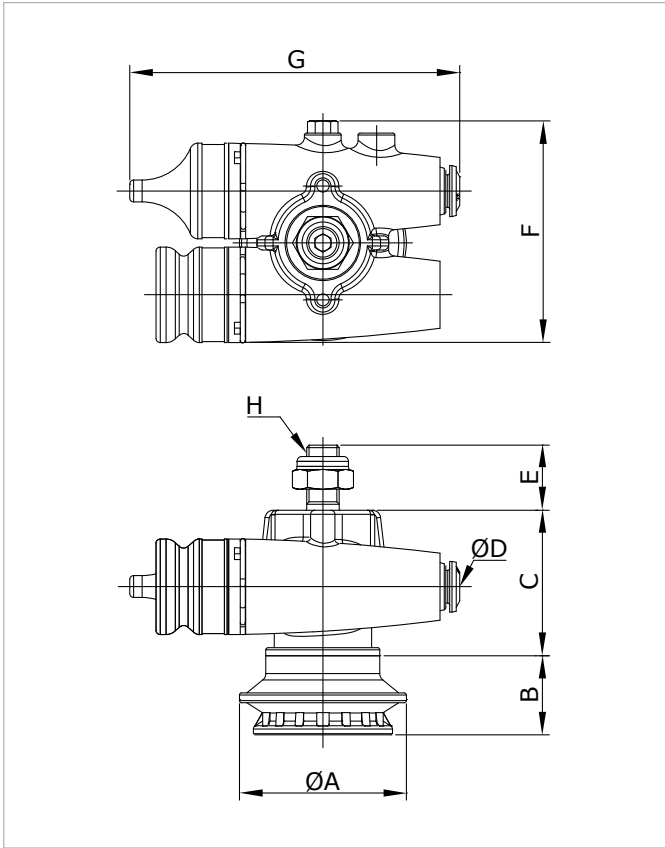


[Unit : mm]
※ Male thread on section "G" not available longer than 7mm

Model	ØA	B	C	ØD	E	F	G
MC10BX-N1B20F	23	11.5	25.7	4	35.2	53.3	M10xP1.0 / DP 8
MC10BX-N1B40F	41	21.4	25.7	4	35.2	53.3	M10xP1.0 / DP 8
MC10BX-N2B20F	23	19.5	25.7	4	35.2	53.3	M10xP1.0 / DP 8
MC10BX-N2B40F	41	31.4	25.7	4	35.2	53.3	M10xP1.0 / DP 8
MC20BX-N1B40F	41	21.4	35.8	6	54.4	81.2	M16xP1.0 / DP 8
MC20BX-N1B60F	56	30.4	35.8	6	54.4	81.2	M16xP1.0 / DP 8
MC20BX-N2B40F	41	31.4	35.8	6	54.4	81.2	M16xP1.0 / DP 8
MC20BX-N2B60F	56	44.8	35.8	6	54.4	81.2	M16xP1.0 / DP 8
MC23BX-N1B40F	41	21.4	35.8	6	54.4	105.5	M16xP1.0 / DP 8
MC23BX-N1B60F	56	30.4	35.8	6	54.4	105.5	M16xP1.0 / DP 8
MC23BX-N2B40F	41	31.4	35.8	6	54.4	105.5	M16xP1.0 / DP 8
MC23BX-N2B60F	56	44.8	35.8	6	54.4	105.5	M16xP1.0 / DP 8
MC25BX-N1B40F	41	21.4	35.8	6	54.4	118.4	M16xP1.0 / DP 8
MC25BX-N1B60F	56	30.4	35.8	6	54.4	118.4	M16xP1.0 / DP 8
MC25BX-N2B40F	41	31.4	35.8	6	54.4	118.4	M16xP1.0 / DP 8
MC25BX-N2B60F	56	44.8	35.8	6	54.4	118.4	M16xP1.0 / DP 8

Dimensional Data

MC10B / MC20B / MC23B / MC25B (For Direct mounting option)

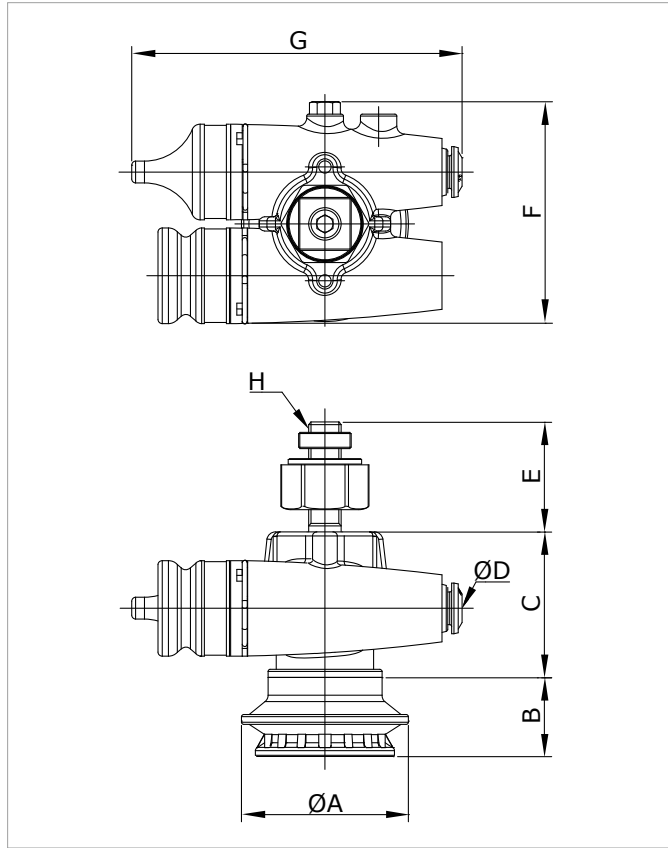


[Unit : mm]

Model	ØA	B	C	ØD	E	F	G	H
MC10BM-N1B20F	23	11.5	25.7	4	14	35.2	53.9	M6XP1.0
MC10BM-N1B40F	41	21.4	25.7	4	14	35.2	53.9	M6XP1.0
MC10BM-N2B20F	23	19.5	25.7	4	14	35.2	53.9	M6XP1.0
MC10BM-N2B40F	41	31.4	25.7	4	14	35.2	53.9	M6XP1.0
MC20BM-N1B40F	41	21.4	35.8	6	16	54.4	81.2	M8XP1.25
MC20BM-N1B60F	56	30.4	35.8	6	16	54.4	81.2	M8XP1.25
MC20BM-N2B40F	41	31.4	35.8	6	16	54.4	81.2	M8XP1.25
MC20BM-N2B60F	56	44.8	35.8	6	16	54.4	81.2	M8XP1.25
MC23BM-N1B40F	41	21.4	35.8	6	16	54.4	105.5	M8xP1.25
MC23BM-N1B60F	56	30.4	35.8	6	16	54.4	105.5	M8xP1.25
MC23BM-N2B40F	41	31.4	35.8	6	16	54.4	105.5	M8xP1.25
MC23BM-N2B60F	56	44.8	35.8	6	16	54.4	105.5	M8xP1.25
MC25BM-N1B40F	41	21.4	35.8	6	16	54.4	118.4	M8XP1.25
MC25BM-N1B60F	56	30.4	35.8	6	16	54.4	118.4	M8XP1.25
MC25BM-N2B40F	41	31.4	35.8	6	16	54.4	118.4	M8XP1.25
MC25BM-N2B60F	56	44.8	35.8	6	16	54.4	118.4	M8XP1.25

Dimensional Data

MC10B / MC20B / MC23B / MC25B (For Aluminum profile mounting option)



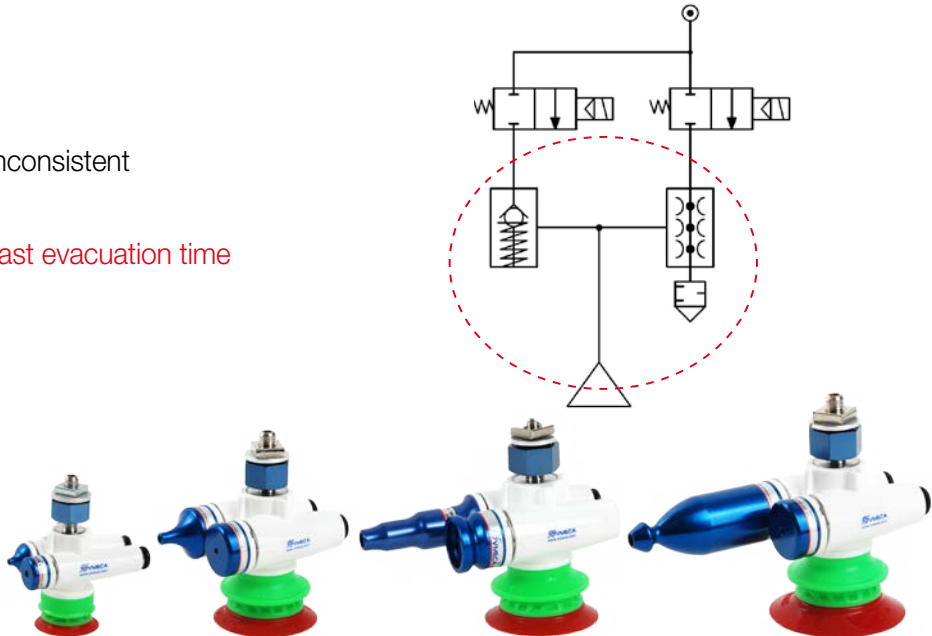
[Unit : mm]

Model	ØA	B	C	ØD	E	F	G	H
MC10BP-N1B20F	23	11.5	25.7	4	22	35.2	53.9	M6XP1.0
MC10BP-N1B40F	41	21.4	25.7	4	22	35.2	53.9	M6XP1.0
MC10BP-N2B20F	23	19.5	25.7	4	22	35.2	53.9	M6XP1.0
MC10BP-N2B40F	41	31.4	25.7	4	22	35.2	53.9	M6XP1.0
MC20BP-N1B40F	41	21.4	35.8	6	27	54.4	81.2	M8XP1.25
MC20BP-N1B60F	56	30.4	35.8	6	27	54.4	81.2	M8XP1.25
MC20BP-N2B40F	41	21.4	35.8	6	27	54.4	81.2	M8XP1.25
MC20BP-N2B60F	56	30.4	35.8	6	27	54.4	81.2	M8XP1.25
MC23BP-N1B40F	41	21.4	35.8	6	27	54.4	105.5	M8xP1.25
MC23BP-N1B60F	56	30.4	35.8	6	27	54.4	105.5	M8xP1.25
MC23BP-N2B40F	41	31.4	35.8	6	27	54.4	105.5	M8xP1.25
MC23BP-N2B60F	56	44.8	35.8	6	27	54.4	105.5	M8xP1.25
MC25BP-N1B40F	41	21.4	35.8	6	27	54.4	118.4	M8XP1.25
MC25BP-N1B60F	56	30.4	35.8	6	27	54.4	118.4	M8XP1.25
MC25BP-N2B40F	41	21.4	35.8	6	27	54.4	118.4	M8XP1.25
MC25BP-N2B60F	56	30.4	35.8	6	27	54.4	118.4	M8XP1.25

C-type

Features

- ✓ VMECA cartridge integrated
 - Reliable performance despite inconsistent compressed air pressure
- ✓ Check valve on release port for fast evacuation time
- ✓ Compact & Light weight
- ✓ Low air consumption
- ✓ Various mounting options
- ✓ Excellent gripping power
- ✓ Various suction lips for different applications



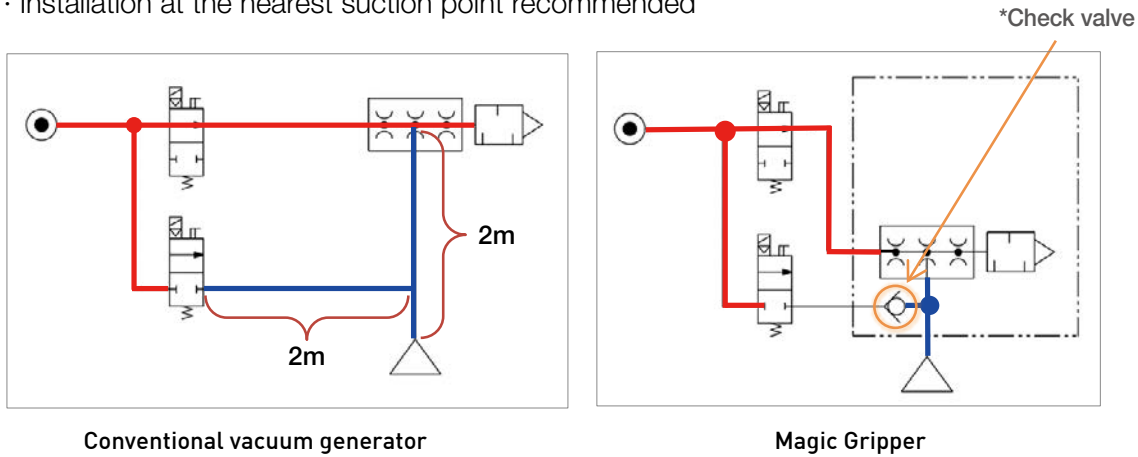
Specifications

Description	MC10C	MC20C	MC23C	MC25C
Max. Vacuum level	-83 kPa	-92 kPa	-91 kPa	-94.5 kPa
Open Vacuum flow	14.0 NI/min	42.2 NI/min	85.0 NI/min	146 NI/min
Max. Feed pressure	4 Bar	7 Bar	7 Bar	7 Bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	44 ~ 53 dBA	51 ~ 60 dBA	58 ~ 68 dBA	67 ~ 71 dBA
Weight	25.5 g	88.8 g	118 g	117.8 g

* Weight is calculated without top bellows and suction lip.

Check valve “2 times Faster” evacuation time!!

- Quicker evacuation due to lack of vacuum release line
- Installation at the nearest suction point recommended



Vacuum Flow

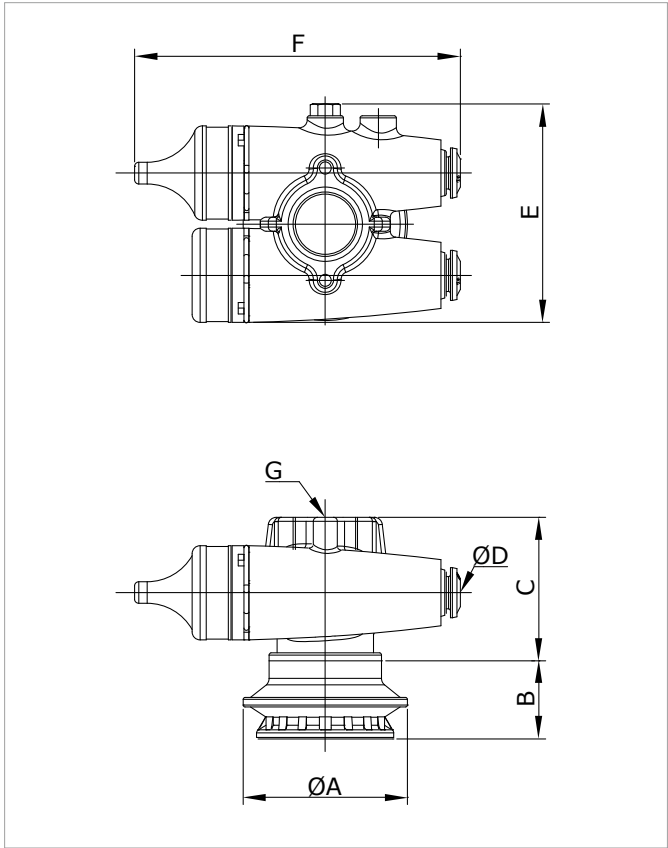
Model	Max. vacuum (-kPa)	Feed Pressure (bar)	Air Consumption (N/min)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
				0	10	20	30	40	50	60	70	80	90
MC10C	48	1.1	5.9	9.2	5.7	2.1	1.4	0.6	-	-	-	-	-
	83	1.8	8.7	12.3	7.5	3.2	2.5	2.0	1.5	0.8	0.3	-	-
	81	2.2	9.9	14	9.4	5.0	2.5	2.0	1.3	0.6	0.2	-	-
MC20C	63	2.2	21	36.8	27	17.8	16.8	12.7	7.6	2.0	-	-	-
	92	3.3	27	40.5	33.6	23.7	16.5	13.8	11.9	7.8	3.8	2.3	-
	91	4.0	32	42.2	40.2	26.5	19.3	14.3	11.6	8.8	5.8	2.6	-
MC23C	63	2.2	21	62.4	32.7	18.5	16.7	12.4	6.4	0.7	-	-	-
	91	3.3	27	80	40	26.6	17	14.8	13	10.5	7.3	4.0	-
	90	4.0	32	85	49.5	34.4	22	16.5	13	10.5	7.5	3.0	-
MC25C	87.5	4.5	65	134	106	58	42	36	28	22	17	12.6	-
	94.5	5.5	77	141	109	71	51	32	26	22	17.5	11	2.8
	94	6.0	83.5	146	108	75	60	42	25	21	16	9.6	2.3

Evacuation time

Model	Max. vacuum (-kPa)	Feed Pressure (bar)	Evacuation time (sec) at different vacuum levels (-kPa)								
			10	20	30	40	50	60	70	80	90
MC10CX-N1B20X	48	1.1	0.12	0.15	0.18	0.22	0.31	-	-	-	-
	83	1.8	0.09	0.11	0.13	0.16	0.20	0.27	0.42	0.86	-
	81	2.2	0.08	0.10	0.13	0.16	0.20	0.28	0.45	1.04	-
MC10CX-N2B20X	48	1.1	0.13	0.16	0.20	0.26	0.33	-	-	-	-
	83	1.8	0.10	0.12	0.15	0.18	0.23	0.29	0.44	0.89	-
	81	2.2	0.09	0.11	0.14	0.17	0.22	0.30	0.47	1.10	-
MC10CX-N1B40X	48	1.1	0.15	0.22	0.28	0.37	0.47	-	-	-	-
	83	1.8	0.12	0.16	0.21	0.28	0.33	0.41	0.59	1.13	-
	81	2.2	0.10	0.14	0.19	0.26	0.32	0.42	0.62	1.30	-
MC10CX-N2B40X	48	1.1	0.16	0.23	0.32	0.45	0.60	-	-	-	-
	83	1.8	0.13	0.17	0.25	0.33	0.41	0.53	0.80	1.55	-
	81	2.2	0.11	0.16	0.22	0.32	0.40	0.54	0.85	1.70	-
MC20CX-N1B40X	63	2.2	0.07	0.09	0.11	0.13	0.15	0.20	-	-	-
	92	3.3	0.07	0.09	0.10	0.12	0.14	0.16	0.20	0.26	-
	91	4.0	0.07	0.08	0.10	0.11	0.13	0.15	0.19	0.25	-
MC20CX-N2B40X	63	2.2	0.08	0.10	0.13	0.15	0.18	0.23	-	-	-
	92	3.3	0.07	0.09	0.12	0.13	0.15	0.18	0.24	0.33	-
	91	4.0	0.07	0.09	0.11	0.12	0.15	0.18	0.22	0.29	-
MC20CX-N1B60X	63	2.2	0.10	0.16	0.18	0.20	0.23	0.28	-	-	-
	92	3.3	0.09	0.12	0.15	0.17	0.20	0.24	0.29	0.42	-
	91	4.0	0.09	0.12	0.14	0.16	0.19	0.22	0.28	0.38	-
MC20CX-N2B60X	63	2.2	0.12	0.17	0.20	0.23	0.27	0.36	-	-	-
	92	3.3	0.11	0.15	0.17	0.19	0.23	0.27	0.33	0.46	-
	91	4.0	0.10	0.13	0.16	0.18	0.22	0.26	0.31	0.43	-
MC23CX-N1B40X	63	2.2	0.08	0.09	0.11	0.13	0.15	0.18	-	-	-
	91	3.3	0.07	0.08	0.09	0.11	0.13	0.15	0.18	0.23	-
	90	4.0	0.07	0.08	0.09	0.11	0.12	0.15	0.17	0.23	-
MC23CX-N2B40X	63	2.2	0.08	0.10	0.12	0.14	0.18	0.23	-	-	-
	91	3.3	0.07	0.08	0.10	0.23	0.15	0.17	0.21	0.27	-
	90	4.0	0.07	0.08	0.10	0.11	0.13	0.16	0.20	0.28	-
MC23CX-N1B60X	63	2.2	0.08	0.12	0.15	0.17	0.21	0.27	-	-	-
	91	3.3	0.08	0.10	0.12	0.14	0.17	0.19	0.24	0.30	-
	90	4.0	0.08	0.10	0.11	0.13	0.16	0.19	0.23	0.29	-
MC23CX-N2B60X	63	2.2	0.10	0.15	0.19	0.22	0.26	0.36	-	-	-
	91	3.3	0.08	0.11	0.14	0.16	0.19	0.23	0.28	0.35	-
	90	4.0	0.09	0.11	0.13	0.16	0.18	0.22	0.27	0.35	-
MC25CX-N1B40X	87.5	4.5	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.16	-
	94.5	5.5	0.07	0.08	0.08	0.09	0.10	0.11	0.13	0.15	0.22
	94	6.0	0.07	0.08	0.09	0.10	0.10	0.11	0.13	0.15	0.24
MC25CX-N2B40X	87.5	4.5	0.07	0.08	0.09	0.10	0.11	0.13	0.14	0.17	-
	94.5	5.5	0.07	0.08	0.09	0.10	0.11	0.12	0.14	0.16	0.23
	94	6.0	0.07	0.08	0.09	0.10	0.11	0.12	0.14	0.16	0.26
MC25CX-N1B60X	87.5	4.5	0.08	0.09	0.10	0.11	0.12	0.14	0.15	0.18	-
	94.5	5.5	0.07	0.08	0.10	0.10	0.11	0.13	0.14	0.17	0.24
	94	6.0	0.07	0.09	0.10	0.11	0.12	0.13	0.14	0.17	0.25
MC25CX-N2B60X	87.5	4.5	0.09	0.10	0.11	0.12	0.14	0.15	0.17	0.21	-
	94.5	5.5	0.08	0.09	0.10	0.12	0.13	0.14	0.16	0.19	0.28
	94	6.0	0.08	0.09	0.11	0.12	0.13	0.14	0.16	0.19	0.29

Dimensional Data

MC10C / MC20C / MC23C / MC25C (Without mounting option)

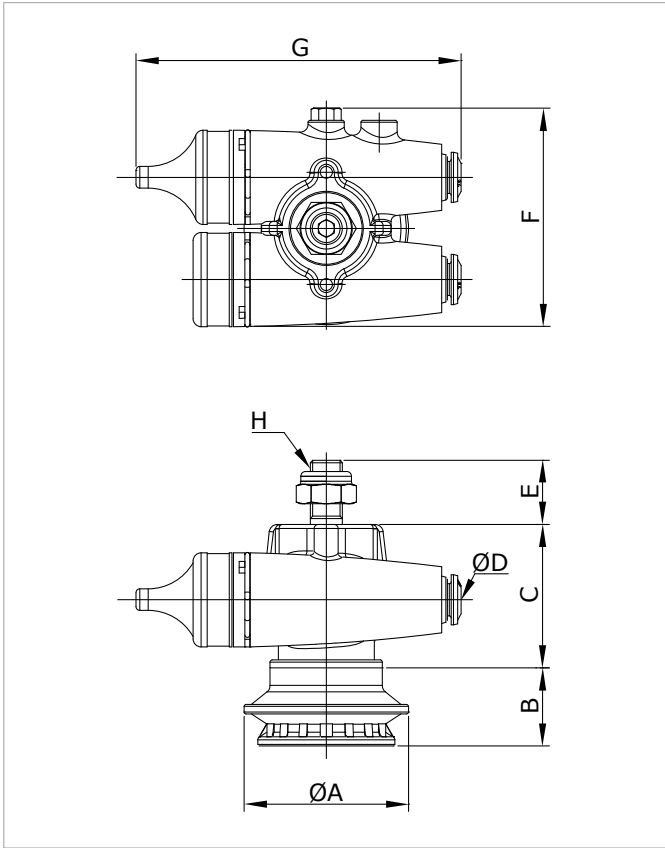


[Unit : mm]
※ Male thread on section "G" not available longer than 7mm

Model	ØA	B	C	ØD	E	F	G
MC10CX-N1B20F	23	11.5	25.7	4	35.2	53.9	M10xP1.0 / DP 8
MC10CX-N1B40F	41	21.4	25.7	4	35.2	53.9	M10xP1.0 / DP 8
MC10CX-N2B20F	23	19.5	25.7	4	35.2	53.9	M10xP1.0 / DP 8
MC10CX-N2B40F	41	31.4	25.7	4	35.2	53.9	M10xP1.0 / DP 8
MC20CX-N1B40F	41	21.4	35.8	6	54.4	81.2	M16xP1.0 / DP 8
MC20CX-N1B60F	56	30.4	35.8	6	54.4	81.2	M16xP1.0 / DP 8
MC20CX-N2B40F	41	31.4	35.8	6	54.4	81.2	M16xP1.0 / DP 8
MC20CX-N2B60F	56	44.8	35.8	6	54.4	81.2	M16xP1.0 / DP 8
MC23CX-N1B40F	41	21.4	35.8	6	54.4	105.5	M16xP1.0 / DP 8
MC23CX-N1B60F	56	30.4	35.8	6	54.4	105.5	M16xP1.0 / DP 8
MC23CX-N2B40F	41	31.4	35.8	6	54.4	105.5	M16xP1.0 / DP 8
MC23CX-N2B60F	56	44.8	35.8	6	54.4	105.5	M16xP1.0 / DP 8
MC25CX-N1B40F	41	21.4	35.8	6	54.4	118.4	M16xP1.0 / DP 8
MC25CX-N1B60F	56	30.4	35.8	6	54.4	118.4	M16xP1.0 / DP 8
MC25CX-N2B40F	41	31.4	35.8	6	54.4	118.4	M16xP1.0 / DP 8
MC25CX-N2B60F	56	44.8	35.8	6	54.4	118.4	M16xP1.0 / DP 8

Dimensional Data

MC10C / MC20C / MC23C / MC25C (For Direct mounting option)

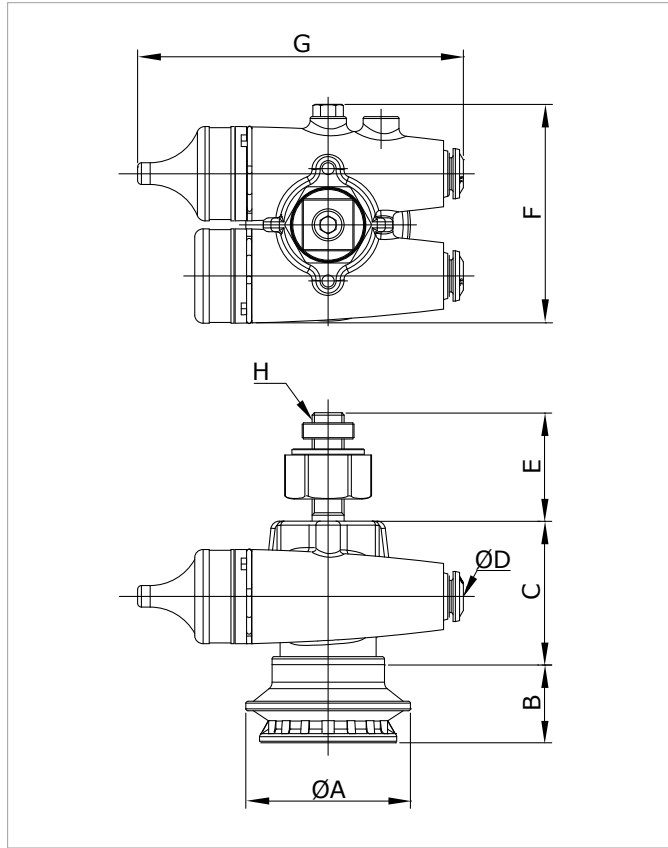


[Unit : mm]

Model	ØA	B	C	ØD	E	F	G	H
MC10CM-N1B20F	23	11.5	25.7	4	14	35.2	53.9	M6XP1.0
MC10CM-N1B40F	41	21.4	25.7	4	14	35.2	53.9	M6XP1.0
MC10CM-N2B20F	23	19.5	25.7	4	14	35.2	53.9	M6XP1.0
MC10CM-N2B40F	41	31.4	25.7	4	14	35.2	53.9	M6XP1.0
MC20CM-N1B40F	41	21.4	35.8	6	16	54.4	81.2	M8XP1.25
MC20CM-N1B60F	56	30.4	35.8	6	16	54.4	81.2	M8XP1.25
MC20CM-N2B40F	41	31.4	35.8	6	16	54.4	81.2	M8XP1.25
MC20CM-N2B60F	56	44.8	35.8	6	16	54.4	81.2	M8XP1.25
MC23CM-N1B40F	41	21.4	35.8	6	16	54.4	105.5	M8xP1.25
MC23CM-N1B60F	56	30.4	35.8	6	16	54.4	105.5	M8xP1.25
MC23CM-N2B40F	41	31.4	35.8	6	16	54.4	105.5	M8xP1.25
MC23CM-N2B60F	56	44.8	35.8	6	16	54.4	105.5	M8xP1.25
MC25CM-N1B40F	41	21.4	35.8	6	16	54.4	118.4	M8XP1.25
MC25CM-N1B60F	56	30.4	35.8	6	16	54.4	118.4	M8XP1.25
MC25CM-N2B40F	41	31.4	35.8	6	16	54.4	118.4	M8XP1.25
MC25CM-N2B60F	56	44.8	35.8	6	16	54.4	118.4	M8XP1.25

Dimensional Data

MC10C / MC20C / MC23C / MC25C (For Aluminum profile mounting option)



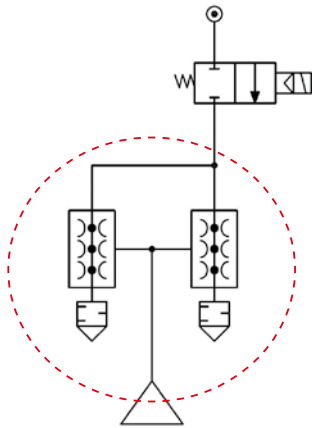
[Unit : mm]

Model	ØA	B	C	ØD	E	F	G	H
MC10CP-N1B20F	23	11.5	25.7	4	22	35.2	53.9	M6XP1.0
MC10CP-N1B40F	41	21.4	25.7	4	22	35.2	53.9	M6XP1.0
MC10CP-N2B20F	23	19.5	25.7	4	22	35.2	53.9	M6XP1.0
MC10CP-N2B40F	41	31.4	25.7	4	22	35.2	53.9	M6XP1.0
MC20CP-N1B40F	41	21.4	35.8	6	27	54.4	81.2	M8XP1.25
MC20CP-N1B60F	56	30.4	35.8	6	27	54.4	81.2	M8XP1.25
MC20CP-N2B40F	41	31.4	35.8	6	27	54.4	81.2	M8XP1.25
MC20CP-N2B60F	56	44.8	35.8	6	27	54.4	81.2	M8XP1.25
MC23CP-N1B40F	41	21.4	35.8	6	27	54.4	105.5	M8xP1.25
MC23CP-N1B60F	56	30.4	35.8	6	27	54.4	105.5	M8xP1.25
MC23CP-N2B40F	41	31.4	35.8	6	27	54.4	105.5	M8xP1.25
MC23CP-N2B60F	56	44.8	35.8	6	27	54.4	105.5	M8xP1.25
MC25CP-N1B40F	41	21.4	35.8	6	27	54.4	118.4	M8XP1.25
MC25CP-N1B60F	56	30.4	35.8	6	27	54.4	118.4	M8XP1.25
MC25CP-N2B40F	41	31.4	35.8	6	27	54.4	118.4	M8XP1.25
MC25CP-N2B60F	56	44.8	35.8	6	27	54.4	118.4	M8XP1.25

D-type

Features

- ✓ VMECA cartridge integrated
 - Reliable performance despite inconsistent compressed air pressure
- ✓ Dual cartridge - Double capacity (High flow)
- ✓ Compact & Light weight
- ✓ Low air consumption
- ✓ Various mounting options
- ✓ Excellent gripping power
- ✓ Various suction lips for different applications



Specifications

Description	MC10D	MC20D	MC23D
Max. Vacuum level	-83 kPa	-92 kPa	-91 kPa
Open Vacuum flow	23.0 NI/min	75.7 NI/min	139 NI/min
Max. Feed pressure	4 Bar	7 Bar	7 Bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	51 ~ 53 dBA	55 ~ 65 dBA	59 ~ 70 dBA
Weight	24.6 g	87.5 g	100 g

* Weight is calculated without top bellows and suction lip.

Vacuum Flow

Model	Max. vacuum (-kPa)	Feed Pressure (bar)	Air Consumption (N/min)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
				0	10	20	30	40	50	60	70	80	90
MC10D	48	1.1	11.3	16.4	8.3	3.8	2.2	1.0	-	-	-	-	-
	83	1.8	16.4	20.2	12.6	5.2	4.7	3.9	2.9	1.6	0.5	-	-
	81	2.2	20.3	23	16.6	687	5.1	4.3	3.2	1.8	0.8	-	-
MC20D	63	2.2	40	66.2	49.2	32.2	28	18	13	3.1	-	-	-
	92	3.3	55	74	57.5	41.5	28	22.5	18.5	16.4	10.3	5.8	-
	91	4.0	56	75.7	73.6	44.5	34	22	18.2	17.2	11.7	5.2	-
MC23D	63	2.2	40.1	90.5	57.8	36.4	26.8	20.8	14.8	1.4	-	-	-
	91	3.3	53.3	111.9	77.9	58.6	42.4	24.8	23.2	18.0	12.5	7.0	-
	90	4.0	56.2	139.0	92.0	65.1	49.2	35.4	21.7	18.8	13.8	6.1	-

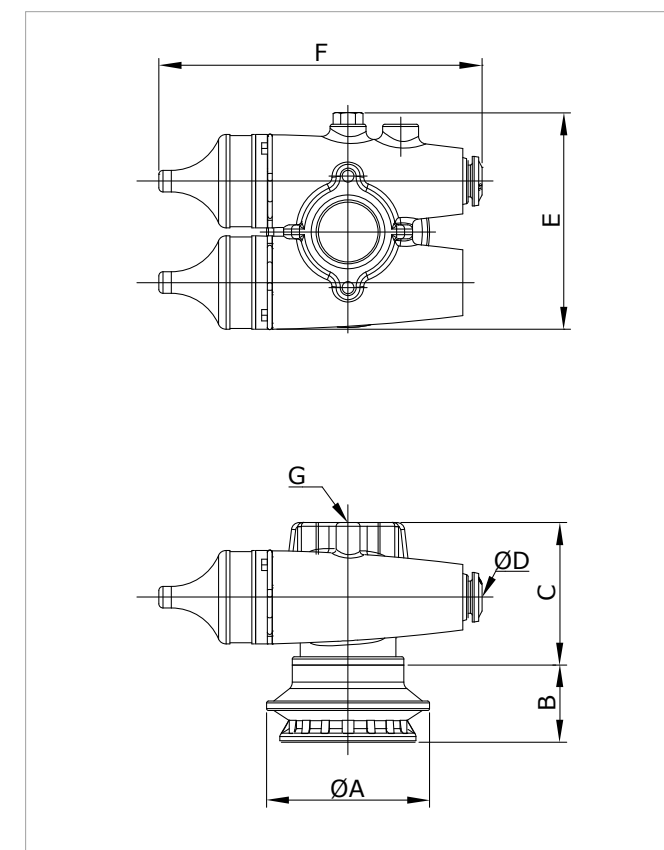


Evacuation time

Model	Max. vacuum (-kPa)	Feed Pressure (bar)	Evacuation time (sec) at different vacuum levels (-kPa)								
			10	20	30	40	50	60	70	80	90
MC10DX-N1B20X	48	1.1	0.09	0.11	0.13	0.18	0.27	-	-	-	-
	83	1.8	0.07	0.09	0.10	0.12	0.15	0.19	0.29	0.40	-
	81	2.2	0.07	0.08	0.10	0.12	0.14	0.18	0.30	0.56	-
MC10DX-N2B20X	48	1.1	0.09	0.12	0.14	0.21	0.30	-	-	-	-
	83	1.8	0.07	0.09	0.11	0.13	0.16	0.20	0.30	0.44	-
	81	2.2	0.07	0.09	0.11	0.13	0.15	0.20	0.31	0.57	-
MC10DX-N1B40X	48	1.1	0.12	0.17	0.23	0.30	0.41	-	-	-	-
	83	1.8	0.10	0.14	0.18	0.23	0.26	0.31	0.40	0.66	-
	81	2.2	0.09	0.13	0.17	0.22	0.25	0.30	0.41	0.72	-
MC10DX-N2B40X	48	1.1	0.14	0.20	0.28	0.36	0.48	-	-	-	-
	83	1.8	0.11	0.16	0.21	0.26	0.31	0.37	0.50	0.80	-
	81	2.2	0.10	0.15	0.20	0.24	0.28	0.35	0.52	0.86	-
MC20DX-N1B40X	63	2.2	0.07	0.09	0.10	0.11	0.13	0.19	-	-	-
	92	3.3	0.07	0.08	0.09	0.10	0.12	0.13	0.15	0.19	-
	91	4.0	0.06	0.08	0.09	0.10	0.11	0.13	0.15	0.20	-
MC20DX-N2B40X	63	2.2	0.08	0.09	0.11	0.12	0.14	0.20	-	-	-
	92	3.3	0.07	0.09	0.10	0.11	0.13	0.15	0.17	0.21	-
	91	4.0	0.07	0.08	0.09	0.11	0.12	0.14	0.17	0.22	-
MC20DX-N1B60X	63	2.2	0.08	0.11	0.13	0.15	0.17	0.24	-	-	-
	92	3.3	0.08	0.10	0.12	0.13	0.15	0.18	0.19	0.26	-
	91	4.0	0.08	0.10	0.11	0.12	0.14	0.16	0.19	0.26	-
MC20DX-N2B60X	63	2.2	0.09	0.13	0.15	0.17	0.20	0.28	-	-	-
	92	3.3	0.09	0.11	0.13	0.15	0.18	0.19	0.23	0.28	-
	91	4.0	0.09	0.11	0.12	0.14	0.16	0.18	0.23	0.29	-
MC23DX-N1B40X	63	2.2	0.07	0.09	0.09	0.11	0.13	0.17	-	-	-
	91	3.3	0.06	0.07	0.08	0.10	0.11	0.12	0.14	0.17	-
	90	4.0	0.07	0.07	0.09	0.10	0.11	0.13	0.14	0.18	-
MC23DX-N2B40X	63	2.2	0.08	0.09	0.10	0.12	0.17	0.18	-	-	-
	91	3.3	0.07	0.08	0.09	0.10	0.12	0.13	0.15	0.18	-
	90	4.0	0.07	0.08	0.09	0.10	0.12	0.13	0.15	0.19	-
MC23DX-N1B60X	63	2.2	0.08	0.09	0.11	0.13	0.15	0.20	-	-	-
	91	3.3	0.07	0.09	0.10	0.11	0.13	0.14	0.17	0.22	-
	90	4.0	0.08	0.08	0.10	0.11	0.13	0.14	0.17	0.22	-
MC23DX-N2B60X	63	2.2	0.09	0.11	0.13	0.15	0.17	0.24	-	-	-
	91	3.3	0.07	0.09	0.11	0.13	0.14	0.17	0.19	0.24	-
	90	4.0	0.08	0.10	0.11	0.12	0.14	0.16	0.17	0.24	-

Dimensional Data

MC10D / MC20D / MC23D (Without mounting option)



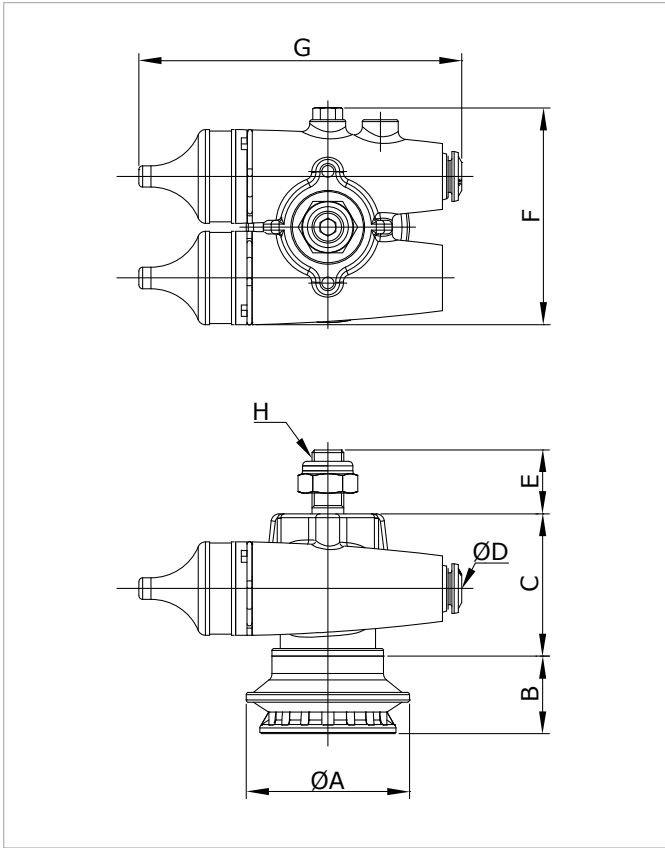
[Unit : mm]

※ Male thread on section "G" not available longer than 7mm

Model	ØA	B	C	ØD	E	F	G
MC10DX-N1B20F	23	11.5	25.7	4	35.2	53.9	M10xP1.0 / DP 8
MC10DX-N1B40F	41	21.4	25.7	4	35.2	53.9	M10xP1.0 / DP 8
MC10DX-N2B20F	23	19.5	25.7	4	35.2	53.9	M10xP1.0 / DP 8
MC10DX-N2B40F	41	31.4	25.7	4	35.2	53.9	M10xP1.0 / DP 8
MC20DX-N1B40F	41	21.4	35.8	6	54.4	81.2	M16xP1.0 / DP 8
MC20DX-N1B60F	56	30.4	35.8	6	54.4	81.2	M16xP1.0 / DP 8
MC20DX-N2B40F	41	31.4	35.8	6	54.4	81.2	M16xP1.0 / DP 8
MC20DX-N2B60F	56	44.8	35.8	6	54.4	81.2	M16xP1.0 / DP 8
MC23DX-N1B40F	41	21.4	35.8	6	54.4	105.5	M16xP1.0 / DP 8
MC23DX-N1B60F	56	30.4	35.8	6	54.4	105.5	M16xP1.0 / DP 8
MC23DX-N2B40F	41	31.4	35.8	6	54.4	105.5	M16xP1.0 / DP 8
MC23DX-N2B60F	56	44.8	35.8	6	54.4	105.5	M16xP1.0 / DP 8

Dimensional Data

MC10D / MC20D / MC23D (For Direct mounting option)

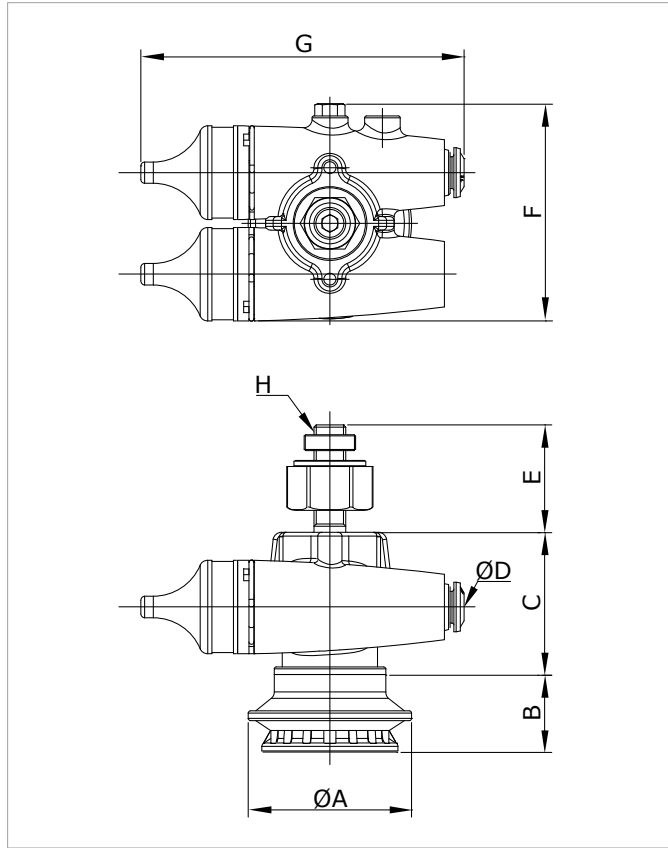


[Unit : mm]

Model	ØA	B	C	ØD	E	F	G	H
MC10DM-N1B20F	23	11.5	25.7	4	14	35.2	53.9	M6XP1.0
MC10DM-N1B40F	41	21.4	25.7	4	14	35.2	53.9	M6XP1.0
MC10DM-N2B20F	23	19.5	25.7	4	14	35.2	53.9	M6XP1.0
MC10DM-N2B40F	41	31.4	25.7	4	14	35.2	53.9	M6XP1.0
MC20DM-N1B40F	41	21.4	35.8	6	16	54.4	81.2	M8XP1.25
MC20DM-N1B60F	56	30.4	35.8	6	16	54.4	81.2	M8XP1.25
MC20DM-N2B40F	41	31.4	35.8	6	16	54.4	81.2	M8XP1.25
MC20DM-N2B60F	56	44.8	35.8	6	16	54.4	81.2	M8XP1.25
MC23DM-N1B40F	41	21.4	35.8	6	16	54.4	105.5	M8xP1.25
MC23DM-N1B60F	56	30.4	35.8	6	16	54.4	105.5	M8xP1.25
MC23DM-N2B40F	41	31.4	35.8	6	16	54.4	105.5	M8xP1.25
MC23DM-N2B60F	56	44.8	35.8	6	16	54.4	105.5	M8xP1.25

Dimensional Data

MC10D / MC20D / MC23D (For Aluminum profile mounting option)



[Unit : mm]

Model	ØA	B	C	ØD	E	F	G	H
MC10DP-N1B20F	23	11.5	25.7	4	22	35.2	53.9	M6XP1.0
MC10DP-N1B40F	41	21.4	25.7	4	22	35.2	53.9	M6XP1.0
MC10DP-N2B20F	23	19.5	25.7	4	22	35.2	53.9	M6XP1.0
MC10DP-N2B40F	41	31.4	25.7	4	22	35.2	53.9	M6XP1.0
MC20DP-N1B40F	41	21.4	35.8	6	27	54.4	81.2	M8XP1.25
MC20DP-N1B60F	56	30.4	35.8	6	27	54.4	81.2	M8XP1.25
MC20DP-N2B40F	41	31.4	35.8	6	27	54.4	81.2	M8XP1.25
MC20DP-N2B60F	56	44.8	35.8	6	27	54.4	81.2	M8XP1.25
MC23DP-N1B40F	41	21.4	35.8	6	27	54.4	105.5	M8xP1.25
MC23DP-N1B60F	56	30.4	35.8	6	27	54.4	105.5	M8xP1.25
MC23DP-N2B40F	41	31.4	35.8	6	27	54.4	105.5	M8xP1.25
MC23DP-N2B60F	56	44.8	35.8	6	27	54.4	105.5	M8xP1.25

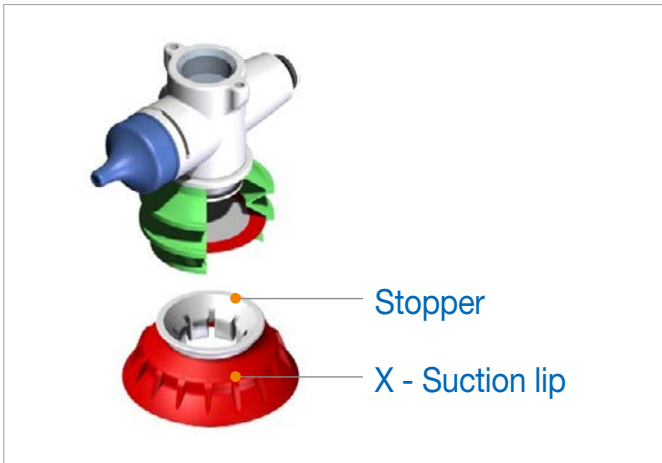
X suction lip



X - Suction lip

Features

- ✓ Excellent in handling very thin and flexible plastic bags
- ✓ Various stopper & lip material options to cover a wide range of vacuum applications



Structure of X-Suction lip

Structure

- ✓ Stopper
- ✓ X - Suction lip



X - Suction lip being used in thin plastic bag application – Ice cream

Applications

- ✓ Thin & flexible plastic bags
- ✓ Pouch bags
- ✓ Frozen food package
- ✓ Aluminum foil

Recommended Lifting Force (Max.)

Model	Volume (cm³)	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
1B20-X25	2.93	0.8	1.79	2.44
1B20-X30	4.53	1.08	2.13	2.62
1B40-X45	17.8	2.14	3.57	5.0
1B40-X55	23.05	2.6	5.27	5.92
1B60-X65	43	4.8	11.5	15.9
1B60-X75	62.5	5.6	12.3	17.9
2B20-X25	5.04	0.8	1.79	2.44
2B20-X30	6.64	1.08	2.13	2.62
2B40-X45	25.2	2.14	3.57	5.0
2B40-X55	32.4	2.6	5.27	5.92
2B60-X65	63.8	4.8	11.5	15.9
2B60-X75	83.3	5.6	12.3	17.9

* The lifting force does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
N6- NBR (Nitrile)	60	Blue	-20~110
S3 - Silicone	30	Translucent White	-70~200
S5 - Silicone	50	Red	-70~200
W3 - White Silicone	30	Translucent White	-70~200
W5 - White Silicone	50	Translucent White	-70~200
W3(FDA) - White Silicone (FDA)	30	Translucent White	-70~200
W5(FDA) - White Silicone (FDA)	50	Translucent White	-70~200
U6 – Urethane	60	Dark Grey	0~100
PU - Polyurethane	60	Translucent Orange	0~60

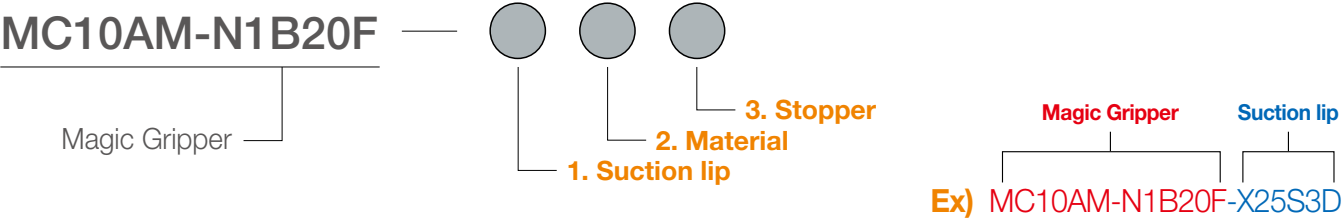
* The temperature data is only for suction lip. Please contact us if it is used in over 60°C

** For additional materials, please contact us

Material Resistance

Description	NBR (Nitrile)	Silicone	White Silicone	Urethane	Polyurethane
Wear Resistance	Excellent	Good	Good	Excellent	Excellent
Oil	Excellent	Poor	Poor	Excellent	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Fair	Fair
Acid	Fair	Poor	Poor	Poor	Fair

Build an Ordering No.



1. Suction lip

Description	Top Bellow 20	Top Bellow 40	Top Bellow 60	Symbol
X type lip, 25mm diameter	○			X25
X type lip, 30mm diameter	○			X30
X type lip, 45mm diameter		○		X45
X type lip, 55mm diameter		○		X55
X type lip, 65mm diameter			○	X65
X type lip, 75mm diameter			○	X75

2. Material

Description	Symbol
NBR (Nitrile)	N6
Silicone, 30° hardness	S3
Silicone, 50° hardness	S5
White Silicone, 30° hardness	W3
White Silicone, 50° hardness	W5
White Silicone, 30° hardness (FDA)	W3(FDA)
White Silicone, 50° hardness (FDA)	W5(FDA)
Urethane	U6
Polyurethane	PU

3. Stopper

Description	Symbol
A type	A
B type	B
C type	C
D type	D

Spare Parts

1. Stopper

Part No.	Description	Part No.	Description
MS20-A	Stopper A type for X25 & X30	MS40-C	Stopper C type for X45 & X55
MS20-B	Stopper B type for X25 & X30	MS40-D	Stopper D type for X45 & X55
MS20-C	Stopper C type for X25 & X30	MS60-A	Stopper A type for X65 & X75
MS20-D	Stopper D type for X25 & X30	MS60-B	Stopper B type for X65 & X75
MS40-A	Stopper A type for X45 & X55	MS60-C	Stopper C type for X65 & X75
MS40-B	Stopper B type for X45 & X55	MS60-D	Stopper D type for X65 & X75

2. Middle bellows

Part No.	Description	Part No.	Description
2MB/20	Middle bellows 2 folds for X25 & X30	3MB/20	Middle bellows 3 folds for X25 & X30
2MB/40	Middle bellows 2 folds for X45 & X55	3MB/40	Middle bellows 3 folds for X45 & X55
		3MB/60	Middle bellows 3 folds for X65 & X75

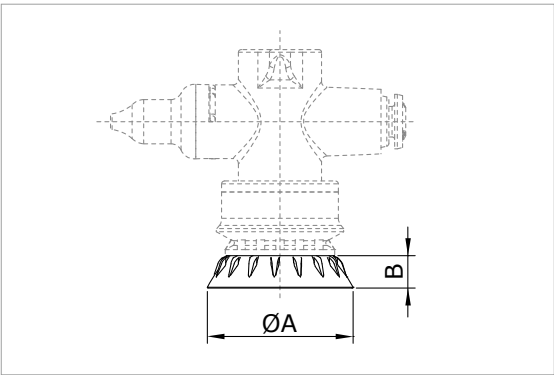
3. Filter

Part No.	Description	Part No.	Description
VTFE20	Filter (200mesh) for 20mm bellow diameter	VTFE60	Filter (200mesh) for 60mm bellow diameter
VTFE40	Filter (200mesh) for 40mm bellow diameter		

4. Suction lip

Part No.	Description	Part No.	Description
X25-N6	X suction lip - 25mm diameter, NBR	X25-W3(FDA)	X suction lip - 25mm diameter, White Silicone, 30° hardness (FDA)
X30-N6	X suction lip - 30mm diameter, NBR	X30-W3(FDA)	X suction lip - 30mm diameter, White Silicone, 30° hardness (FDA)
X45-N6	X suction lip - 45mm diameter, NBR	X45-W3(FDA)	X suction lip - 45mm diameter, White Silicone, 30° hardness (FDA)
X55-N6	X suction lip - 55mm diameter, NBR	X55-W3(FDA)	X suction lip - 55mm diameter, White Silicone, 30° hardness (FDA)
X65-N6	X suction lip - 65mm diameter, NBR	X65-W3(FDA)	X suction lip - 65mm diameter, White Silicone, 30° hardness (FDA)
X75-N6	X suction lip - 75mm diameter, NBR	X75-W3(FDA)	X suction lip - 75mm diameter, White Silicone, 30° hardness (FDA)
X25-S3	X suction lip - 25mm diameter, Silicone, 30° hardness	X25-W5(FDA)	X suction lip - 25mm diameter, White Silicone, 50° hardness (FDA)
X30-S3	X suction lip - 30mm diameter, Silicone, 30° hardness	X30-W5(FDA)	X suction lip - 30mm diameter, White Silicone, 50° hardness (FDA)
X45-S3	X suction lip - 45mm diameter, Silicone, 30° hardness	X45-W5(FDA)	X suction lip - 45mm diameter, White Silicone, 50° hardness (FDA)
X55-S3	X suction lip - 55mm diameter, Silicone, 30° hardness	X55-W5(FDA)	X suction lip - 55mm diameter, White Silicone, 50° hardness (FDA)
X65-S3	X suction lip - 65mm diameter, Silicone, 30° hardness	X65-W5(FDA)	X suction lip - 65mm diameter, White Silicone, 50° hardness (FDA)
X75-S3	X suction lip - 75mm diameter, Silicone, 30° hardness	X75-W5(FDA)	X suction lip - 75mm diameter, White Silicone, 50° hardness (FDA)
X25-S5	X suction lip - 25mm diameter, Silicone, 50° hardness	X25-U6	X suction lip - 25mm diameter, Urethane
X30-S5	X suction lip - 30mm diameter, Silicone, 50° hardness	X30-U6	X suction lip - 30mm diameter, Urethane
X45-S5	X suction lip - 45mm diameter, Silicone, 50° hardness	X45-U6	X suction lip - 45mm diameter, Urethane
X55-S5	X suction lip - 55mm diameter, Silicone, 50° hardness	X55-U6	X suction lip - 55mm diameter, Urethane
X65-S5	X suction lip - 65mm diameter, Silicone, 50° hardness	X65-U6	X suction lip - 65mm diameter, Urethane
X75-S5	X suction lip - 75mm diameter, Silicone, 50° hardness	X75-U6	X suction lip - 75mm diameter, Urethane
X25-W3	X suction lip - 25mm diameter, White Silicone, 30° hardness	X25-PU	X suction lip - 25mm diameter, Polyurethane
X30-W3	X suction lip - 30mm diameter, White Silicone, 30° hardness	X30-PU	X suction lip - 30mm diameter, Polyurethane
X45-W3	X suction lip - 45mm diameter, White Silicone, 30° hardness	X45-PU	X suction lip - 45mm diameter, Polyurethane
X55-W3	X suction lip - 55mm diameter, White Silicone, 30° hardness	X55-PU	X suction lip - 55mm diameter, Polyurethane
X65-W3	X suction lip - 65mm diameter, White Silicone, 30° hardness	X65-PU	X suction lip - 65mm diameter, Polyurethane
X75-W3	X suction lip - 75mm diameter, White Silicone, 30° hardness	X75-PU	X suction lip - 75mm diameter, Polyurethane
X25-W5	X suction lip - 25mm diameter, White Silicone, 50° hardness		
X30-W5	X suction lip - 30mm diameter, White Silicone, 50° hardness		
X45-W5	X suction lip - 45mm diameter, White Silicone, 50° hardness		
X55-W5	X suction lip - 55mm diameter, White Silicone, 50° hardness		
X65-W5	X suction lip - 65mm diameter, White Silicone, 50° hardness		
X75-W5	X suction lip - 75mm diameter, White Silicone, 50° hardness		

Dimensional Data



※ Dimensions are measured with the suction lip assembled

[Unit : mm]

Model	ØA	B
X25	26	5.8
X30	32	7.3
X45	46	11.1
X55	54.5	14.2
X65	65	14.3
X75	75	19.3

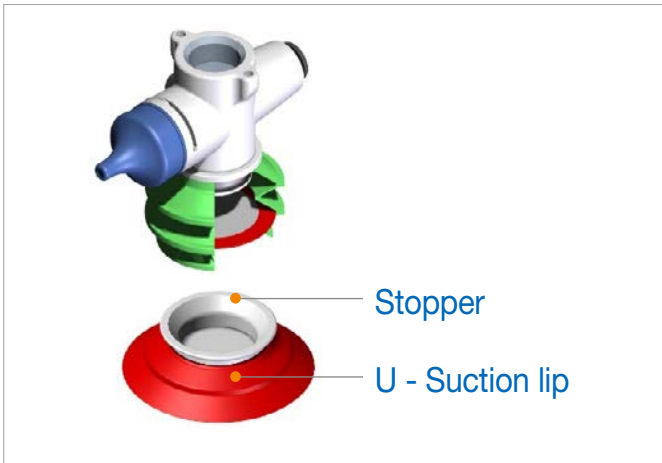
U suction lip



U - Suction lip

Features

- ✓ Excellent in handling flat and slightly curved objects
- ✓ Various stopper & lip material options to cover a wide range of vacuum applications



Structure of U-Suction lip

Structure

- ✓ Stopper
- ✓ U - Suction lip

Applications

- ✓ Carton boxes
- ✓ Metal sheets
- ✓ Glass



U-Suction lip being used in flat object application - Carton box

Recommended Lifting Force (Max.)

Model	Volume (cm³)	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
1B20-U25	1.83	0.83	2.2	3.06
1B20-U30	2.63	1.22	2.45	3.06
1B40-U45	12.1	2.55	5.66	9.18
1B40-U55	17	3.78	7.09	9.56
1B60-U65	28.8	5.3	13.3	19.4
1B60-U75	40.4	6.6	15	20.5
2B20-U25	3.94	0.83	2.2	3.06
2B20-U30	4.74	1.22	2.45	3.06
2B40-U45	19.5	2.55	5.66	9.18
2B40-U55	24.4	3.78	7.09	9.56
2B60-U65	49.6	5.3	13.3	19.4
2B60-U75	61.2	6.6	15	20.5

* The lifting force does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
N6- NBR (Nitrile)	60	Blue	-20~110
S3 - Silicone	30	Translucent White	-70~200
S5 - Silicone	50	Red	-70~200
W3 - White Silicone	30	Translucent White	-70~200
W5 - White Silicone	50	Translucent White	-70~200
W3(FDA) - White Silicone (FDA)	30	Translucent White	-70~200
W5(FDA) - White Silicone (FDA)	50	Translucent White	-70~200
U6 – Urethane	60	Dark Grey	0~100
PU - Polyurethane	60	Translucent Orange	0~60

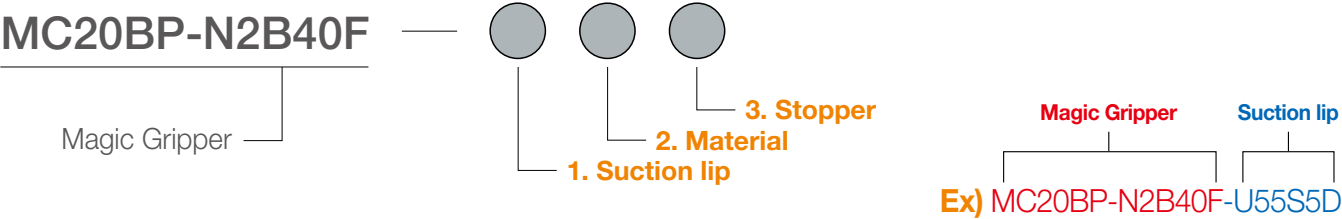
* The temperature data is only for suction lip. Please contact us if it is used in over 60°C

** For additional materials, please contact us

Material Resistance

Description	NBR (Nitrile)	Silicone	White Silicone	Urethane	Polyurethane
Wear Resistance	Excellent	Good	Good	Excellent	Excellent
Oil	Excellent	Poor	Poor	Excellent	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Fair	Fair
Acid	Fair	Poor	Poor	Poor	Fair

Build an Ordering No.



1. Suction lip

Description	Top Bellow 20	Top Bellow 40	Top Bellow 60	Symbol
U type lip, 25mm diameter	○			U25
U type lip, 30mm diameter	○			U30
U type lip, 45mm diameter		○		U45
U type lip, 55mm diameter		○		U55
U type lip, 65mm diameter			○	U65
U type lip, 75mm diameter			○	U75

2. Material

Description	Symbol
NBR (Nitrile)	N6
Silicone, 30° hardness	S3
Silicone, 50° hardness	S5
White Silicone, 30° hardness	W3
White Silicone, 50° hardness	W5
White Silicone, 30° hardness (FDA)	W3(FDA)
White Silicone, 50° hardness (FDA)	W5(FDA)
Urethane	U6
Polyurethane	PU

3. Stopper

Description	Symbol
B type	B
C type	C
D type	D

Spare Parts

1. Stopper

Part No.	Description	Part No.	Description
MS20-B	Stopper B type for U25 & U30	MS60-B	Stopper B type for U65 & U75
MS20-C	Stopper C type for U25 & U30	MS60-C	Stopper C type for U65 & U75
MS20-D	Stopper D type for U25 & U30	MS60-D	Stopper D type for U65 & U75
MS40-B	Stopper B type for U45 & U55		
MS40-C	Stopper C type for U45 & U55		
MS40-D	Stopper D type for U45 & U55		

2. Middle bellows

Part No.	Description	Part No.	Description
2MB/20	Middle bellows 2 folds for U25 & U30	3MB/20	Middle bellows 3 folds for U25 & U30
2MB/40	Middle bellows 2 folds for U45 & U55	3MB/40	Middle bellows 3 folds for U45 & U55
		3MB/60	Middle bellows 3 folds for U65 & U75

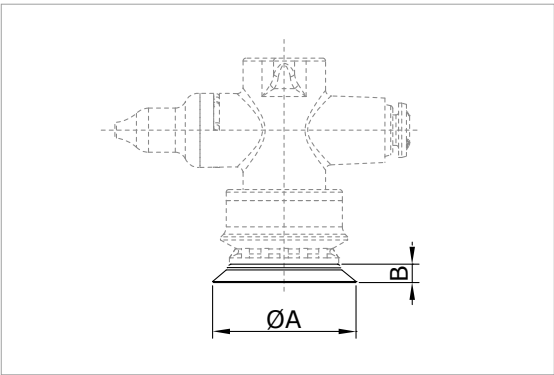
3. Filter

Part No.	Description	Part No.	Description
VTFE20	Filter (200mesh) for 20mm bellow diameter	VTFE60	Filter (200mesh) for 60mm bellow diameter
VTFE40	Filter (200mesh) for 40mm bellow diameter		

4. Suction lip

Part No.	Description	Part No.	Description
U25-N6	U suction lip - 25mm diameter, NBR	U25-W3(FDA)	U suction lip - 25mm diameter, White Silicone, 30° hardness (FDA)
U30-N6	U suction lip - 30mm diameter, NBR	U30-W3(FDA)	U suction lip - 30mm diameter, White Silicone, 30° hardness (FDA)
U45-N6	U suction lip - 45mm diameter, NBR	U45-W3(FDA)	U suction lip - 45mm diameter, White Silicone, 30° hardness (FDA)
U55-N6	U suction lip - 55mm diameter, NBR	U55-W3(FDA)	U suction lip - 55mm diameter, White Silicone, 30° hardness (FDA)
U65-N6	U suction lip - 65mm diameter, NBR	U65-W3(FDA)	U suction lip - 65mm diameter, White Silicone, 30° hardness (FDA)
U75-N6	U suction lip - 75mm diameter, NBR	U75-W3(FDA)	U suction lip - 75mm diameter, White Silicone, 30° hardness (FDA)
U25-S3	U suction lip - 25mm diameter, Silicone, 30° hardness	U25-W5(FDA)	U suction lip - 25mm diameter, White Silicone, 50° hardness (FDA)
U30-S3	U suction lip - 30mm diameter, Silicone, 30° hardness	U30-W5(FDA)	U suction lip - 30mm diameter, White Silicone, 50° hardness (FDA)
U45-S3	U suction lip - 45mm diameter, Silicone, 30° hardness	U45-W5(FDA)	U suction lip - 45mm diameter, White Silicone, 50° hardness (FDA)
U55-S3	U suction lip - 55mm diameter, Silicone, 30° hardness	U55-W5(FDA)	U suction lip - 55mm diameter, White Silicone, 50° hardness (FDA)
U65-S3	U suction lip - 65mm diameter, Silicone, 30° hardness	U65-W5(FDA)	U suction lip - 65mm diameter, White Silicone, 50° hardness (FDA)
U75-S3	U suction lip - 75mm diameter, Silicone, 30° hardness	U75-W5(FDA)	U suction lip - 75mm diameter, White Silicone, 50° hardness (FDA)
U25-S5	U suction lip - 25mm diameter, Silicone, 50° hardness	U25-U6	U suction lip - 25mm diameter, Urethane
U30-S5	U suction lip - 30mm diameter, Silicone, 50° hardness	U30-U6	U suction lip - 30mm diameter, Urethane
U45-S5	U suction lip - 45mm diameter, Silicone, 50° hardness	U45-U6	U suction lip - 45mm diameter, Urethane
U55-S5	U suction lip - 55mm diameter, Silicone, 50° hardness	U55-U6	U suction lip - 55mm diameter, Urethane
U65-S5	U suction lip - 65mm diameter, Silicone, 50° hardness	U65-U6	U suction lip - 65mm diameter, Urethane
U75-S5	U suction lip - 75mm diameter, Silicone, 50° hardness	U75-U6	U suction lip - 75mm diameter, Urethane
U25-W3	U suction lip - 25mm diameter, White Silicone, 30° hardness	U25-PU	U suction lip - 25mm diameter, Polyurethane
U30-W3	U suction lip - 30mm diameter, White Silicone, 30° hardness	U30-PU	U suction lip - 30mm diameter, Polyurethane
U45-W3	U suction lip - 45mm diameter, White Silicone, 30° hardness	U45-PU	U suction lip - 45mm diameter, Polyurethane
U55-W3	U suction lip - 55mm diameter, White Silicone, 30° hardness	U55-PU	U suction lip - 55mm diameter, Polyurethane
U65-W3	U suction lip - 65mm diameter, White Silicone, 30° hardness	U65-PU	U suction lip - 65mm diameter, Polyurethane
U75-W3	U suction lip - 75mm diameter, White Silicone, 30° hardness	U75-PU	U suction lip - 75mm diameter, Polyurethane
U25-W5	U suction lip - 25mm diameter, White Silicone, 50° hardness		
U30-W5	U suction lip - 30mm diameter, White Silicone, 50° hardness		
U45-W5	U suction lip - 45mm diameter, White Silicone, 50° hardness		
U55-W5	U suction lip - 55mm diameter, White Silicone, 50° hardness		
U65-W5	U suction lip - 65mm diameter, White Silicone, 50° hardness		
U75-W5	U suction lip - 75mm diameter, White Silicone, 50° hardness		

Dimensional Data



※ Dimensions are measured with the suction lip assembled

[Unit : mm]

Model	ØA	B
U25	26	9.5
U30	33	6.7
U45	47	4.3
U55	55	3.3
U65	65	9
U75	75	12.7

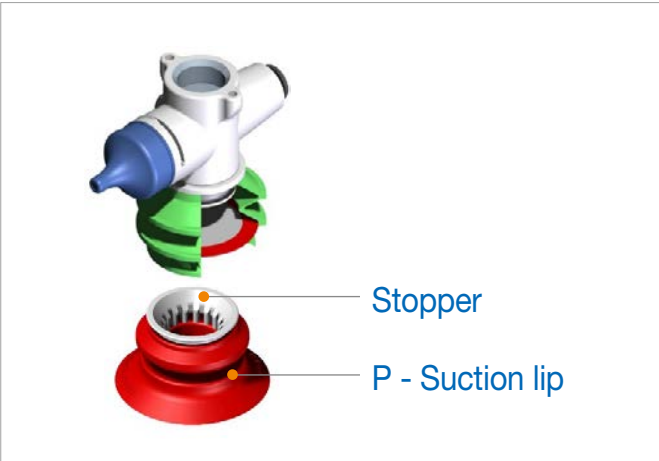
P suction lip



P - Suction lip

Features

- ✓ Excellent in handling heavy or thick plastic bags, liquid filled plastic bags and powder filled plastic bags.
- ✓ Various stopper & lip material options to cover a wide range of vacuum applications



Structure of P-Suction lip

Structure

- ✓ Stopper
- ✓ P - Suction lip

Applications

- ✓ Plastic bags
- ✓ Pouch bags



P-Suction lip being used in heavy plastic bag application - Chocolate bag

Recommended Lifting Force (Max.)

Model	Volume (cm³)	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
1B20-P15	1.43	0.30	0.50	0.60
1B20-P17	1.53	0.35	0.60	0.74
1B20-P20	1.83	0.40	0.80	0.90
1B20-P27	2.73	0.80	1.79	2.44
1B20-P32	4.13	1.08	2.13	2.62
1B40-P48	14.4	2.14	3.57	5.00
1B40-P60	21.5	2.60	5.27	5.92
1B60-P72	Please contact VMECA for lifting force.			
1B60-P85	Please contact VMECA for lifting force.			
2B20-P15	3.54	0.30	0.50	0.60
2B20-P17	3.64	0.35	0.60	0.74
2B20-P20	3.94	0.40	0.80	0.90
2B20-P27	4.84	0.80	1.79	2.44
2B20-P32	6.24	1.08	2.13	2.62
2B40-P48	21.8	2.14	3.57	5.00
2B40-P60	28.9	2.60	5.27	5.92
2B60-P72	Please contact VMECA for lifting force.			
2B60-P85	Please contact VMECA for lifting force.			

* The lifting force does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
N6- NBR (Nitrile)	60	Blue	-20~110
S3 - Silicone	30	Translucent White	-70~200
S5 - Silicone	50	Red	-70~200
W3 - White Silicone	30	Translucent White	-70~200
W5 - White Silicone	50	Translucent White	-70~200
W3(FDA) - White Silicone (FDA)	30	Translucent White	-70~200
W5(FDA) - White Silicone (FDA)	50	Translucent White	-70~200
U6 – Urethane	60	Dark Grey	0~100

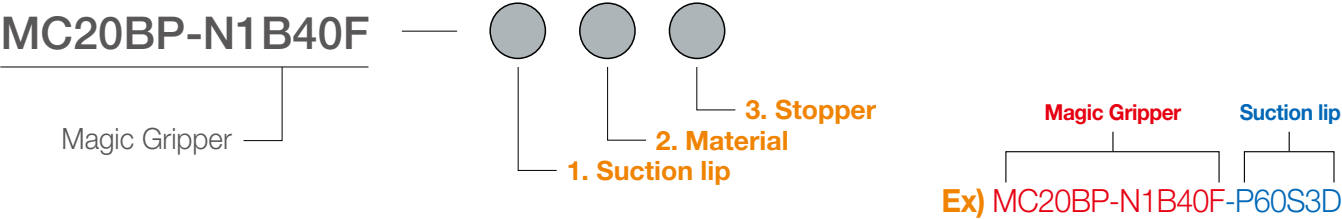
* The temperature data is only for suction lip. Please contact us if it is used in over 60°C

** For additional materials, please contact us

Material Resistance

Description	NBR (Nitrile)	Silicone	White Silicone	Urethane
Wear Resistance	Excellent	Good	Good	Excellent
Oil	Excellent	Poor	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Fair
Acid	Fair	Poor	Poor	Poor

Build an Ordering No.



1. Suction lip

Description	Top Bellow 20	Top Bellow 40	Top Bellow 60	Symbol
P type lip, 15mm diameter	O			P15
P type lip, 17mm diameter	O			P17
P type lip, 20mm diameter	O			P20
P type lip, 27mm diameter	O			P27
P type lip, 32mm diameter	O			P32
P type lip, 48mm diameter		O		P48
P type lip, 60mm diameter		O		P60
P type lip, 72mm diameter			O	P72
P type lip, 85mm diameter			O	P85

2. Material

Description	Symbol
NBR (Nitrile)	N6
Silicone, 30° hardness	S3
Silicone, 50° hardness	S5
White Silicone, 30° hardness	W3
White Silicone, 50° hardness	W5
White Silicone, 30° hardness (FDA)	W3(FDA)
White Silicone, 50° hardness (FDA)	W5(FDA)
Urethane	U6

3. Stopper

Description	Symbol
D type	D

Spare Parts

1. Stopper

Part No.	Description	Part No.	Description
MS20-D	Stopper D type for P15, P17, P20, P27 & P32	MS60-D	Stopper D type for P72 & P85
MS40-D	Stopper D type for P48 & P60		

2. Middle bellows

Part No.	Description	Part No.	Description
2MB/20	Middle bellows 2 folds for P15, P17, P20, P27 & P32	3MB/20	Middle bellows 3 folds for P15, P17, P20, P27 & P32
2MB/40	Middle bellows 2 folds for P48 & P60	3MB/40	Middle bellows 3 folds for P48 & P60
		3MB/60	Middle bellows 3 folds for P72 & P85

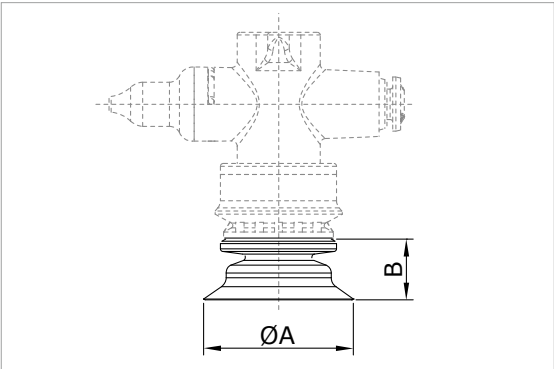
3. Filter

Part No.	Description	Part No.	Description
VTFE20	Filter (200mesh) for 20mm bellow diameter	VTFE60	Filter (200mesh) for 60mm bellow diameter
VTFE40	Filter (200mesh) for 40mm bellow diameter		

4. Suction lip

Part No.	Description	Part No.	Description
P15-N6	P suction lip - 15mm diameter, NBR	P15-W5	P suction lip - 15mm diameter, White Silicone, 50° hardness
P17-N6	P suction lip - 17mm diameter, NBR	P17-W5	P suction lip - 17mm diameter, White Silicone, 50° hardness
P20-N6	P suction lip - 20mm diameter, NBR	P20-W5	P suction lip - 20mm diameter, White Silicone, 50° hardness
P27-N6	P suction lip - 27mm diameter, NBR	P27-W5	P suction lip - 27mm diameter, White Silicone, 50° hardness
P32-N6	P suction lip - 32mm diameter, NBR	P32-W5	P suction lip - 32mm diameter, White Silicone, 50° hardness
P48-N6	P suction lip - 48mm diameter, NBR	P48-W5	P suction lip - 48mm diameter, White Silicone, 50° hardness
P60-N6	P suction lip - 60mm diameter, NBR	P60-W5	P suction lip - 60mm diameter, White Silicone, 50° hardness
P72-N6	P suction lip - 72mm diameter, NBR	P72-W5	P suction lip - 72mm diameter, White Silicone, 50° hardness
P85-N6	P suction lip - 85mm diameter, NBR	P85-W5	P suction lip - 85mm diameter, White Silicone, 50° hardness
P15-S3	P suction lip - 15mm diameter, Silicone, 30° hardness	P15-W3 (FDA)	P suction lip - 15mm diameter, White Silicone, 30° hardness (FDA)
P17-S3	P suction lip - 17mm diameter, Silicone, 30° hardness	P17-W3 (FDA)	P suction lip - 17mm diameter, White Silicone, 30° hardness (FDA)
P20-S3	P suction lip - 20mm diameter, Silicone, 30° hardness	P20-W3 (FDA)	P suction lip - 20mm diameter, White Silicone, 30° hardness (FDA)
P27-S3	P suction lip - 27mm diameter, Silicone, 30° hardness	P27-W3 (FDA)	P suction lip - 27mm diameter, White Silicone, 30° hardness (FDA)
P32-S3	P suction lip - 32mm diameter, Silicone, 30° hardness	P32-W3 (FDA)	P suction lip - 32mm diameter, White Silicone, 30° hardness (FDA)
P48-S3	P suction lip - 48mm diameter, Silicone, 30° hardness	P48-W3 (FDA)	P suction lip - 48mm diameter, White Silicone, 30° hardness (FDA)
P60-S3	P suction lip - 60mm diameter, Silicone, 30° hardness	P60-W3 (FDA)	P suction lip - 60mm diameter, White Silicone, 30° hardness (FDA)
P72-S3	P suction lip - 72mm diameter, Silicone, 30° hardness	P72-W3 (FDA)	P suction lip - 72mm diameter, White Silicone, 30° hardness (FDA)
P85-S3	P suction lip - 85mm diameter, Silicone, 30° hardness	P85-W3 (FDA)	P suction lip - 85mm diameter, White Silicone, 30° hardness (FDA)
P15-S5	P suction lip - 15mm diameter, Silicone, 50° hardness	P15-W5 (FDA)	P suction lip - 15mm diameter, White Silicone, 50° hardness (FDA)
P17-S5	P suction lip - 17mm diameter, Silicone, 50° hardness	P17-W5 (FDA)	P suction lip - 17mm diameter, White Silicone, 50° hardness (FDA)
P20-S5	P suction lip - 20mm diameter, Silicone, 50° hardness	P20-W5 (FDA)	P suction lip - 20mm diameter, White Silicone, 50° hardness (FDA)
P27-S5	P suction lip - 27mm diameter, Silicone, 50° hardness	P27-W5 (FDA)	P suction lip - 27mm diameter, White Silicone, 50° hardness (FDA)
P32-S5	P suction lip - 32mm diameter, Silicone, 50° hardness	P32-W5 (FDA)	P suction lip - 32mm diameter, White Silicone, 50° hardness (FDA)
P48-S5	P suction lip - 48mm diameter, Silicone, 50° hardness	P48-W5 (FDA)	P suction lip - 48mm diameter, White Silicone, 50° hardness (FDA)
P60-S5	P suction lip - 60mm diameter, Silicone, 50° hardness	P60-W5 (FDA)	P suction lip - 60mm diameter, White Silicone, 50° hardness (FDA)
P72-S5	P suction lip - 72mm diameter, Silicone, 50° hardness	P72-W5 (FDA)	P suction lip - 72mm diameter, White Silicone, 50° hardness (FDA)
P85-S5	P suction lip - 85mm diameter, Silicone, 50° hardness	P85-W5 (FDA)	P suction lip - 85mm diameter, White Silicone, 50° hardness (FDA)
P15-U6	P suction lip - 15mm diameter, White Silicone, 30° hardness	P15-U6	P suction lip - 15mm diameter, Urethane
P17-U6	P suction lip - 17mm diameter, White Silicone, 30° hardness	P17-U6	P suction lip - 17mm diameter, Urethane
P20-U6	P suction lip - 20mm diameter, White Silicone, 30° hardness	P20-U6	P suction lip - 20mm diameter, Urethane
P27-U6	P suction lip - 27mm diameter, White Silicone, 30° hardness	P27-U6	P suction lip - 27mm diameter, Urethane
P32-U6	P suction lip - 32mm diameter, White Silicone, 30° hardness	P32-U6	P suction lip - 32mm diameter, Urethane
P48-U6	P suction lip - 48mm diameter, White Silicone, 30° hardness	P48-U6	P suction lip - 48mm diameter, Urethane
P60-U6	P suction lip - 60mm diameter, White Silicone, 30° hardness	P60-U6	P suction lip - 60mm diameter, Urethane
P72-U6	P suction lip - 72mm diameter, White Silicone, 30° hardness	P72-U6	P suction lip - 72mm diameter, Urethane
P85-U6	P suction lip - 85mm diameter, White Silicone, 30° hardness	P85-U6	P suction lip - 85mm diameter, Urethane

Dimensional Data



※ The dimension is measured when the lip is assembled

[Unit : mm]

Model	ØA	B
P15	15.5	8.6
P17	17	9
P20	20	9.9
P27	27	11
P32	34	13.2
P48	48	18.7
P60	60	21.7
P72	Please contact VMECA for dimensions.	
P85	Please contact VMECA for dimensions.	

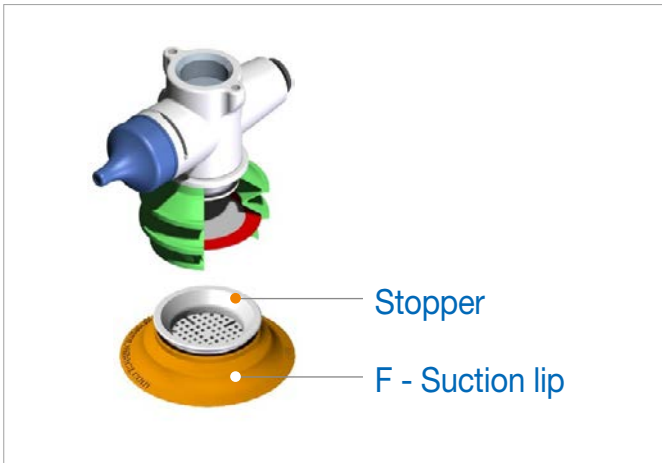
F suction lip



F - Suction lip

Features

- ✓ F-type lip is excellent in handing flat and heavy objects
- ✓ Various stopper options to cover a wide range of vacuum applications



Structure of F-Suction lip

Structure

- ✓ Stopper
- ✓ F - Suction lip



F-Suction lip being used in flat object application - Flat box

Applications

- ✓ Thin boxes
- ✓ Wooden panel
- ✓ Metal sheets
- ✓ Thin film

Recommended Lifting Force (Max.)

Model	Volume (cm³)	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
1B20-F25	1.53	1.4	2.9	3.7
1B20-F30	2.03	1.9	3.8	4.3
1B40-F45	10.9	3.4	8.0	9.3
1B40-F55	11.7	4.4	9.9	11.9
2B20-F25	3.64	1.4	2.9	3.7
2B20-F30	4.14	1.9	3.8	4.3
2B40-F45	18.3	3.4	8.0	9.3
2B40-F55	19.1	4.4	9.9	11.9

* The lifting force does not include safety factor

Material Specifications

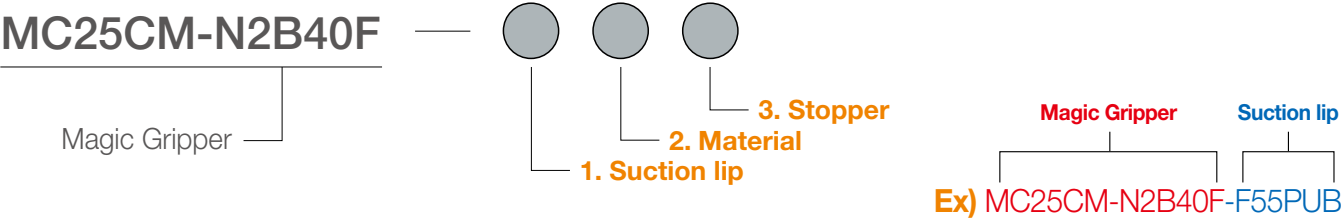
Material	Hardness Shore (°)	Color	Temperature (°C)
Polyurethane	60	Translucent Orange	0~60

* The temperature data is only for suction lip. Please contact us if it is used in over 60℃

Material Resistance

Description	Polyurethane
Wear Resistance	Excellent
Oil	Excellent
Weather / Ozone	Excellent
Alcohol	Fair
Acid	Fair

Build an Ordering No.



1. Suction lip

Description	Top Bellow 20	Top Bellow 40	Top Bellow 60	Symbol
F type lip, 25mm diameter	O			F25
F type lip, 30mm diameter	O			F30
F type lip, 45mm diameter		O		F45
F type lip, 55mm diameter		O		F55

2. Material

Description	Symbol
Polyurethane	PU

3. Stopper

Description	Symbol
B type	B
C type	C
D type	D

3. Filter

Part No.	Description	Part No.	Description
VTFE20	Filter (200mesh) for 20mm bellow diameter	VTFE40	Filter (200mesh) for 40mm bellow diameter

4. Suction lip

Part No.	Description	Part No.	Description
F25-PU	F suction lip - 25mm diameter, Polyurethane	F45-PU	F suction lip - 45mm diameter, Polyurethane
F30-PU	F suction lip - 30mm diameter, Polyurethane	F55-PU	F suction lip - 55mm diameter, Polyurethane

Spare Parts

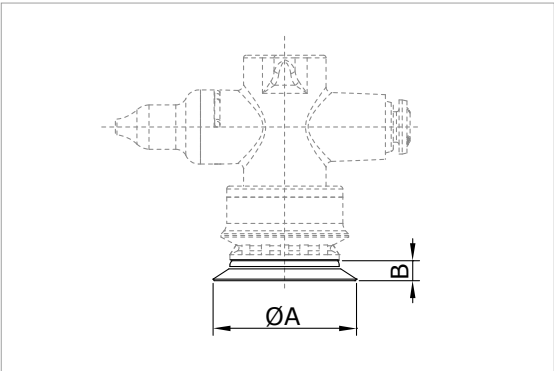
1. Stopper

Part No.	Description	Part No.	Description
MS20-B	Stopper B type for F25 & F30	MS40-B	Stopper B type for F45 & F55
MS20-C	Stopper C type for F25 & F30	MS40-C	Stopper C type for F45 & F55
MS20-D	Stopper D type for F25 & F30	MS40-D	Stopper D type for F45 & F55

2. Middle bellows

Part No.	Description	Part No.	Description
2MB/20	Middle bellows 2 folds for F25 & F30	3MB/20	Middle bellows 3 folds for F25 & F30
2MB/40	Middle bellows 2 folds for F45 & F55	3MB/40	Middle bellows 3 folds for F45 & F55

Dimensional Data



※ Dimensions are measured with the suction lip assembled

[Unit : mm]

Model	ØA	B
F25	26	3.5
F30	33	3.5
F45	47	6
F55	55	6

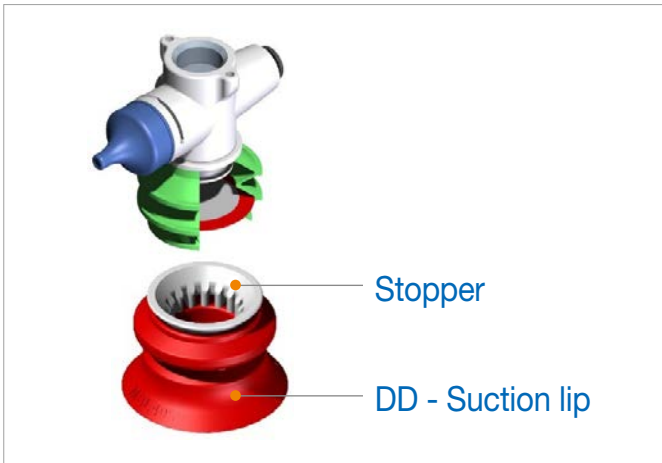
DD-type



DD - Suction lip

Features

- ✓ Excellent for irregular curved and rough surface products
- ✓ Dual lip design offers a safety factor against suction lip wear and tear
- ✓ Various lip material options to cover a wide range of vacuum applications



Structure of DD-Suction lip

Structure

- ✓ Stopper
- ✓ DD - Suction lip



DD-Suction lip being used in various applications - Apple

Applications

- ✓ Food packages
- ✓ Eggs
- ✓ Plastic bags
- ✓ Pouch bags

Recommended Lifting Force (Max.)

Model	Volume (cm³)	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
1B40-DD4030	17.36	1.07 / 1.84	2.1 / 3.8	2.76 / 4.79
2B40-DD4030	24.76	1.07 / 1.84	2.1 / 3.8	2.76 / 4.79

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
N6- NBR (Nitrile)	60	Blue	-20~110
S3 - Silicone	30	Translucent White	-70~200
S5 - Silicone	50	Red	-70~200
W3 - White Silicone	30	Translucent White	-70~200
W5 - White Silicone	50	Translucent White	-70~200
W3(FDA) - White Silicone (FDA)	30	Translucent White	-70~200
W5(FDA) - White Silicone (FDA)	50	Translucent White	-70~200
U6 – Urethane	60	Dark Grey	0~100

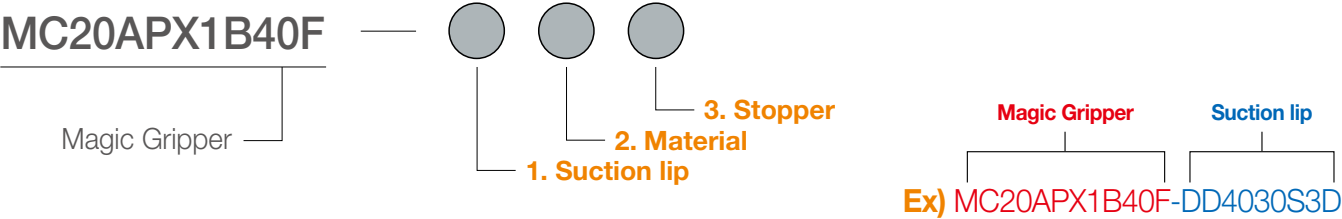
* The temperature data is only for suction lip. Please contact us if it is used in over 60°C

** For additional materials, please contact us

Material Resistance

Description	NBR (Nitrile)	Silicone	White Silicone	Urethane
Wear Resistance	Excellent	Good	Good	Excellent
Oil	Excellent	Poor	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Fair
Acid	Fair	Poor	Poor	Poor

Build an Ordering No.



1. Suction lip

Description	Top Bellow 20	Top Bellow 40	Top Bellow 60	Symbol
DD type lip, inner lip 30mm diameter, outer lip 41mm diameter		O		DD4030

2. Material

Description	Symbol
NBR (Nitrile)	N6
Silicone, 30° hardness	S3
Silicone, 50° hardness	S5
White Silicone, 30° hardness	W3
White Silicone, 50° hardness	W5
White Silicone, 30° hardness (FDA)	W3(FDA)
White Silicone, 50° hardness (FDA)	W5(FDA)
Urethane	U6

3. Stopper

Description	Symbol
D type	D

3. Filter

Part No.	Description
VTFE40	Filter (200mesh) for 40mm bellow diameter

4. Suction lip

Part No.	Description
DD4030-N6	DD type - inner lip 30mm diameter, outer lip 41mm diameter, NBR
DD4030-S3	DD type - inner lip 30mm diameter, outer lip 41mm diameter, Silicone, 30° hardness
DD4030-S5	DD type - inner lip 30mm diameter, outer lip 41mm diameter, Silicone, 50° hardness
DD4030-W3	DD type - inner lip 30mm diameter, outer lip 41mm diameter, White Silicone, 30° hardness
DD4030-W5	DD type - inner lip 30mm diameter, outer lip 41mm diameter, White Silicone, 50° hardness
DD4030-W3(FDA)	DD type - inner lip 30mm diameter, outer lip 41mm diameter, White Silicone, 30° hardness (FDA)
DD4030-W5(FDA)	DD type - inner lip 30mm diameter, outer lip 41mm diameter, White Silicone, 50° hardness (FDA)
DD4030-U6	DD type - inner lip 30mm diameter, outer lip 41mm diameter, Urethane

Spare Parts

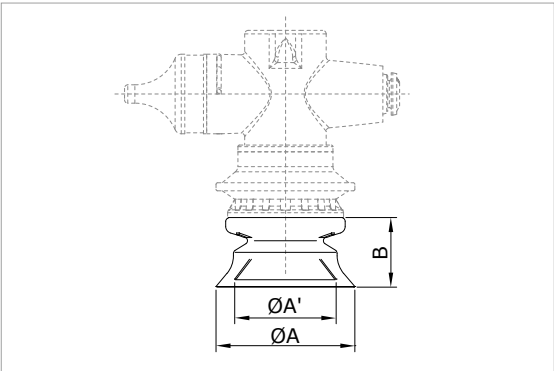
1. Stopper

Part No.	Description
MS40-D	Stopper D type

2. Middle bellows

Part No.	Description	Part No.	Description
2MB/40	Middle bellows 2 folds for DD4030	3MB/40	Middle bellows 3 folds for DD4030

Dimensional Data



※ Dimensions are measured with the suction lip assembled

[Unit : mm]

Model	ØA	ØA'	B
DD4030	41	30	20.5

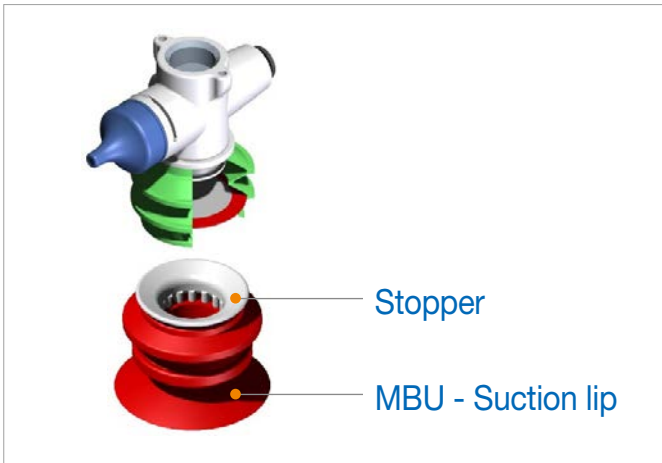
MBU suction lip



MBU - Suction lip

Features

- ✓ Wide cover for increased degree of height compensation
- ✓ Excellent for curved products
- ✓ Various lip material options to cover a wide range of vacuum applications



Structure of MBU-Suction lip

Structure

- ✓ Stopper
- ✓ MBU - Suction lip

Applications

- ✓ Plastic bags
- ✓ Metal sheets
- ✓ Plywood
- ✓ Light Carton boxes



MBU-Suction lip being used in uneven object application - Cone package

Recommended Lifting Force (Max.)

Model	Volume (cm³)	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
1B20-MBU17	1.92	0.39	0.57	0.67
1B20-MBU23	2.49	0.52	0.79	0.91
1B20-MBU27	3.1	0.55	0.94	1.05
2B20-MBU17	4.03	0.39	0.57	0.67
2B20-MBU23	4.6	0.52	0.79	0.91
2B20-MBU27	5.21	0.55	0.94	1.05

* The lifting force does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
N6- NBR (Nitrile)	60	Blue	-20~110
S3 - Silicone	30	Translucent White	-70~200
S5 - Silicone	50	Red	-70~200
W3 - White Silicone	30	Translucent White	-70~200
W5 - White Silicone	50	Translucent White	-70~200
W3(FDA) - White Silicone (FDA)	30	Translucent White	-70~200
W5(FDA) - White Silicone (FDA)	50	Translucent White	-70~200
U6 – Urethane	60	Dark Grey	0~100

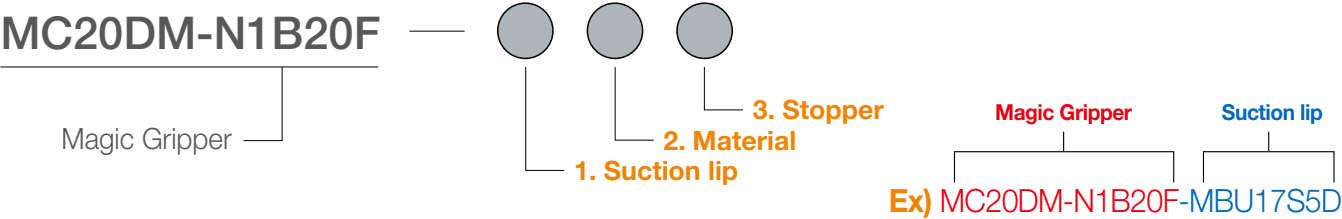
* The temperature data is only for suction lip. Please contact us if it is used in over 60°C

** For additional materials, please contact us

Material Resistance

Description	NBR (Nitrile)	Silicone	White Silicone	Urethane
Wear Resistance	Excellent	Good	Good	Excellent
Oil	Excellent	Poor	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Fair
Acid	Fair	Poor	Poor	Poor

Build an Ordering No.



1. Suction lip

Description	Top Bellow 20	Top Bellow 40	Top Bellow 60	Symbol
MBU type lip, 17mm diameter	○			MBU17
MBU type lip, 23mm diameter	○			MBU23
MBU type lip, 27mm diameter	○			MBU27

2. Material

Description	Symbol
NBR (Nitrile)	N6
Silicone, 30° hardness	S3
Silicone, 50° hardness	S5
White Silicone, 30° hardness	W3
White Silicone, 50° hardness	W5
White Silicone, 30° hardness (FDA)	W3(FDA)
White Silicone, 50° hardness (FDA)	W5(FDA)
Urethane	U6

3. Stopper

Description	Symbol
D type	D

Spare Parts

1. Stopper

Part No.	Description
MS20-D	Stopper D type

2. Middle bellows

Part No.	Description	Part No.	Description
2MB/20	Middle bellows 2 folds for MBU17, MBU23 & MBU27	3MB/20	Middle bellows 3 folds for MBU17, MBU23 & MBU27

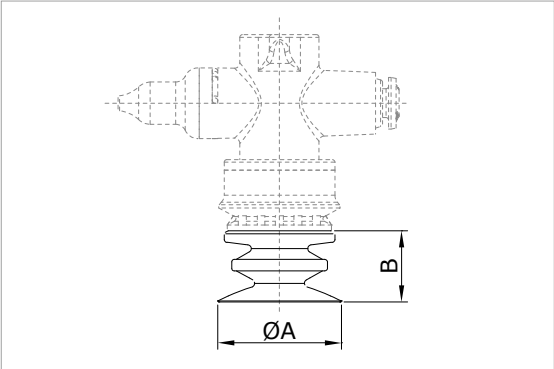
3. Filter

Part No.	Description
VTFE20	Filter (200mesh) for 20mm bellow diameter

4. Suction lip

Part No.	Description	Part No.	Description
MBU17-N6	MBU suction lip - 17mm diameter, NBR	MBU17-W5	MBU suction lip - 17mm diameter, White Silicone, 50° hardness
MBU23-N6	MBU suction lip - 23mm diameter, NBR	MBU23-W5	MBU suction lip - 23mm diameter, White Silicone, 50° hardness
MBU27-N6	MBU suction lip - 27mm diameter, NBR	MBU27-W5	MBU suction lip - 27mm diameter, White Silicone, 50° hardness
MBU17-S3	MBU suction lip - 17mm diameter, Silicone, 30° hardness	MBU17-W3 (FDA)	MBU suction lip - 17mm diameter, White Silicone, 30° hardness (FDA)
MBU23-S3	MBU suction lip - 23mm diameter, Silicone, 30° hardness	MBU23-W3 (FDA)	MBU suction lip - 23mm diameter, White Silicone, 30° hardness (FDA)
MBU27-S3	MBU suction lip - 27mm diameter, Silicone, 30° hardness	MBU27-W3 (FDA)	MBU suction lip - 27mm diameter, White Silicone, 30° hardness (FDA)
MBU17-S5	MBU suction lip - 17mm diameter, Silicone, 50° hardness	MBU17-W5 (FDA)	MBU suction lip - 17mm diameter, White Silicone, 50° hardness (FDA)
MBU23-S5	MBU suction lip - 23mm diameter, Silicone, 50° hardness	MBU23-W5 (FDA)	MBU suction lip - 23mm diameter, White Silicone, 50° hardness (FDA)
MBU27-S5	MBU suction lip - 27mm diameter, Silicone, 50° hardness	MBU27-W5 (FDA)	MBU suction lip - 27mm diameter, White Silicone, 50° hardness (FDA)
MBU17-W3	MBU suction lip - 17mm diameter, White Silicone, 30° hardness	MBU17-U6	MBU suction lip - 17mm diameter, Urethane
MBU23-W3	MBU suction lip - 23mm diameter, White Silicone, 30° hardness	MBU23-U6	MBU suction lip - 23mm diameter, Urethane
MBU27-W3	MBU suction lip - 27mm diameter, White Silicone, 30° hardness	MBU27-U6	MBU suction lip - 27mm diameter, Urethane

Dimensional Data



※ Dimensions are measured with the suction lip assembled

[Unit : mm]

Model	ØA	B
MBU17	17	13.5
MBU23	23	13.5
MBU27	27	13.5

MD suction lip



MD - Suction lip

Features

- ✓ Excellent in handling curved or rounded objects
- ✓ Various stopper & lip material options to cover a wide range of vacuum applications



Structure of MD-Suction lip

Structure

- ✓ Stopper
- ✓ MD - Suction lip



MD-Suction lip being used in rounded object application - Plastic bottle

Applications

- ✓ Automobile roof & doors
- ✓ Metal sheets
- ✓ Veneer sheets

Recommended Lifting Force (Max.)

Model	Volume (cm³)	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
1B20-MD22	2.67	0.71	1.61	2.2
2B20-MD22	4.78	0.71	1.61	2.2

* The lifting force does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
N6- NBR (Nitrile)	60	Blue	-20~110
S3 - Silicone	30	Translucent White	-70~200
S5 - Silicone	50	Red	-70~200
W3 - White Silicone	30	Translucent White	-70~200
W5 - White Silicone	50	Translucent White	-70~200
W3(FDA) - White Silicone (FDA)	30	Translucent White	-70~200
W5(FDA) - White Silicone (FDA)	50	Translucent White	-70~200
U6 – Urethane	60	Dark Grey	0~100

* The temperature data is only for suction lip. Please contact us if it is used in over 60°C

** For additional materials, please contact us

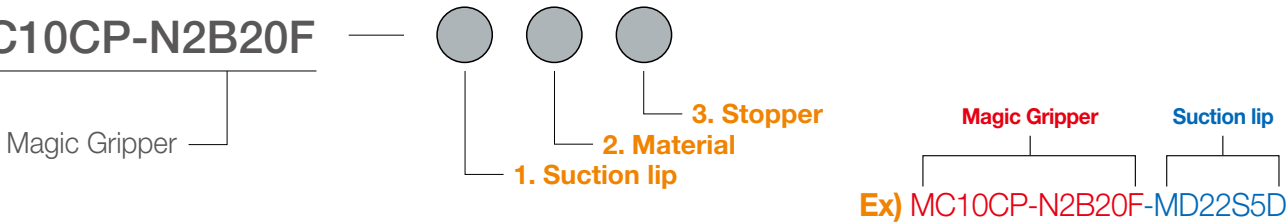
Material Resistance

Description	NBR (Nitrile)	Silicone	White Silicone	Urethane
Wear Resistance	Excellent	Good	Good	Excellent
Oil	Excellent	Poor	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Fair
Acid	Fair	Poor	Poor	Poor



Build an Ordering No.

MC10CP-N2B20F



1. Suction lip

Description	Top Bellow 20	Top Bellow 40	Top Bellow 60	Symbol
MD type lip, 22mm diameter	O			MD22

2. Material

Description	Symbol
NBR (Nitrile)	N6
Silicone, 30° hardness	S3
Silicone, 50° hardness	S5
White Silicone, 30° hardness	W3
White Silicone, 50° hardness	W5
White Silicone, 30° hardness (FDA)	W3(FDA)
White Silicone, 50° hardness (FDA)	W5(FDA)
Urethane	U6

3. Stopper

Description	Symbol
D type	D

3. Filter

Part No.	Description
VTFE20	Filter (200mesh) for 20mm bellow diameter

4. Suction lip

Part No.	Description
MD22-N6	MD type - 22mm diameter, NBR
MD22-S3	MD type - 22mm diameter, Silicone, 30° hardness
MD22-S5	MD type - 22mm diameter, Silicone, 50° hardness
MD22-W3	MD type - 22mm diameter, White Silicone, 30° hardness
MD22-W5	MD type - 22mm diameter, White Silicone, 50° hardness
MD22-W3 (FDA)	MD type - 22mm diameter, White Silicone, 30° hardness (FDA)
MD22-W5 (FDA)	MD type - 22mm diameter, White Silicone, 50° hardness (FDA)
MD22-U6	MD type - 22mm diameter, Urethane

Spare Parts

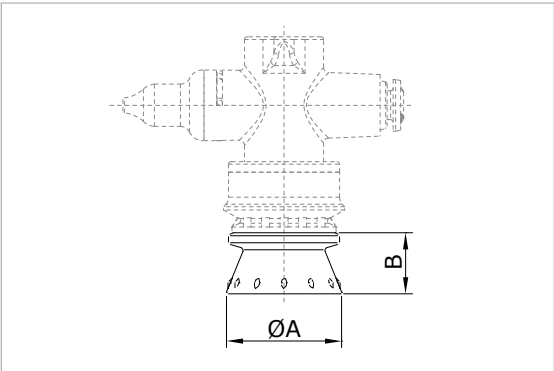
1. Stopper

Part No.	Description
MS20-D	Stopper D type

2. Middle bellows

Part No.	Description	Part No.	Description
2MB/20	Middle bellows 2 folds for MD22	3MB/20	Middle bellows 3 folds for MD22

Dimensional Data



※ Dimensions are measured with the suction lip assembled

[Unit : mm]

Model	ØA	B
MD22	22	11.6

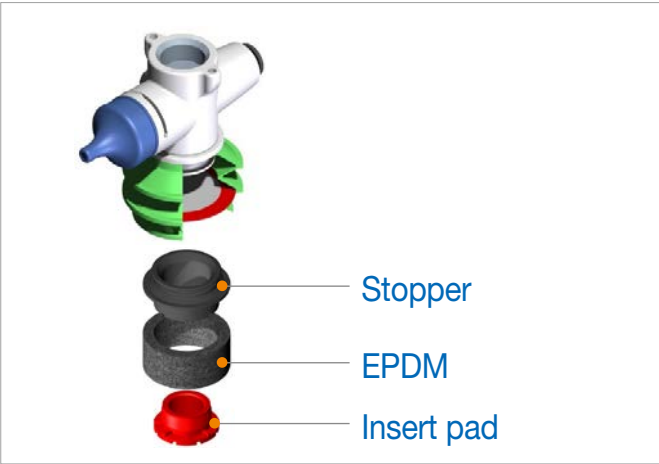
S suction lip



S - Suction lip

Features

- ✓ Excellent in handling uneven, rough surface products, and porous objects
- ✓ Various stopper & lip material options to cover a wide range of vacuum applications



Structure of S-Suction lip

Structure

- ✓ Stopper
- ✓ S - Suction lip
- ✓ Insert pad



S-Suction lip being used in uneven & slightly curved object application - Coffee cup

Applications

- ✓ Uneven surface products
- ✓ Bricks
- ✓ Marble
- ✓ Metal sheets
- ✓ Rough lumber products

Recommended Lifting Force (Max.)

Model	Volume (cm³)	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
1B20-S30	3.35	0.94	2.53	3.30
1B40-S50	13.75	1.74	4.36	6.12
1B60-S60	34.17	2.87	7.30	10.34
2B20-S30	5.48	0.94	2.53	3.30
2B40-S50	21.02	1.74	4.36	6.12
2B60-S60	54.93	2.87	7.30	10.34

* The lifting force does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
EPDM	15	Black	-0~120

* The temperature data is only for suction lip. Please contact us if it is used in over 60°C

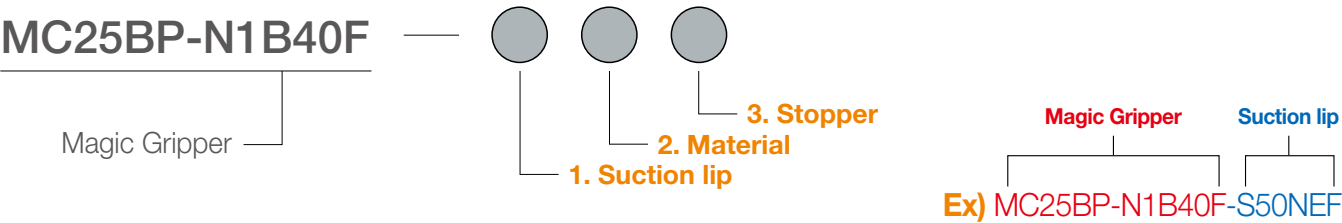
Insert Pad

Material	Hardness Shore (°)	Color	Temperature (°C)
NBR (Nitrile)	60	Black	-20 ~ 110
S5 - Silicone	50	Red	-70 ~ 200
W5 - White Silicone	50	Translucent White	-70 ~ 200

Material Resistance

Description	NBR (Nitrile)	Silicone	White Silicone
Wear Resistance	Excellent	Good	Good
Oil	Excellent	Poor	Poor
Weather / Ozone	Fair	Excellent	Excellent
Alcohol	Good	Good	Good
Acid	Fair	Poor	Poor

Build an Ordering No.



1. Suction lip

Description	Top Bellow 20	Top Bellow 40	Top Bellow 60	Symbol
S type lip, 30mm diameter	○			S30
S type lip, 50mm diameter		○		S50
S type lip, 61mm diameter			○	S60

2. Material

Description	Symbol
Insert pad NBR, sponge lip EPDM	NE
Insert pad Silicone 50° hardness, sponge lip EPDM	SE
Insert pad White Silicone 50° hardness, sponge lip EPDM	WSE

3. Stopper

Description	Symbol
F type : Only for S Suction lip	F

3. Filter

Part No.	Description	Part No.	Description
VTFE20	Filter (200mesh) for 20mm bellow diameter	VTFE60	Filter (200mesh) for 60mm bellow diameter
VTFE40	Filter (200mesh) for 40mm bellow diameter		

4. Suction lip

Part No.	Description	Part No.	Description
S3020-E	S type - 30mm diameter, EPDM	S5030-E	S type - 50mm diameter, EPDM
S6040-E	S type - 60mm diameter, EPDM		

5. Insert pad

Part No.	Description	Part No.	Description
S30-IN	S suction lip – Insert pad, NBR for S30	S30-IWS	S suction lip – Insert pad, White Silicone, 50° hardness for S30
S50-IN	S suction lip – Insert pad, NBR for S50	S50-IWS	S suction lip – Insert pad, White Silicone, 50° hardness for S50
S60-IN	S suction lip – Insert pad, NBR for S60	S60-IWS	S suction lip – Insert pad, White Silicone, 50° hardness for S60
S30-IS	S suction lip – Insert pad, Silicone, 50° hardness for S30		
S50-IS	S suction lip – Insert pad, Silicone, 50° hardness for S50		
S60-IS	S suction lip – Insert pad, Silicone, 50° hardness for S60		

Spare Parts

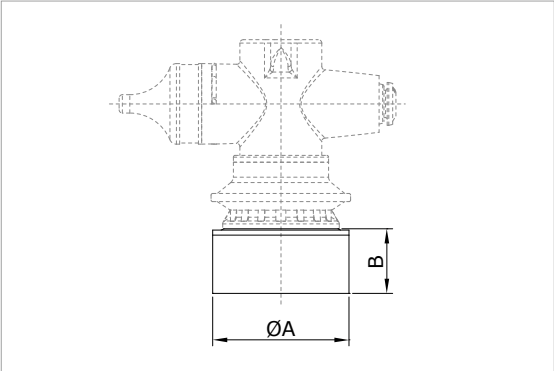
1. Stopper

Part No.	Description	Part No.	Description
MS20-F	Stopper F type for S30	MS60-F	Stopper F type for S60
MS40-F	Stopper F type for S50		

2. Middle bellows

Part No.	Description	Part No.	Description
2MB/20	Middle bellows 2 folds for S30	3MB/20	Middle bellows 3 folds for S30
2MB/40	Middle bellows 2 folds for S50	3MB/40	Middle bellows 3 folds for S50
		3MB/60	Middle bellows 3 folds for S60

Dimensional Data



※ Dimensions are measured with the suction lip assembled

[Unit : mm]

Model	ØA	B
S30	30	14.5
S50	50	22.3
S60	61	30.6

MU suction lip



MU - Suction lip

Features

- ✓ Offers great gripping force for flat and stable surfaces
- ✓ Various stopper & lip material options to cover a wide range of vacuum applications



Structure of MU-Suction lip

Structure

- ✓ Stopper
- ✓ MU - Suction lip



MU-Suction lip being used in flat object application - Cell phone

Applications

- ✓ Metal sheets
- ✓ Carton boxes
- ✓ Glass
- ✓ Veneer sheets
- ✓ Printing industry

Recommended Lifting Force (Max.)

Model	Volume (cm³)	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
1B40-MU45	9.93	0.66	1.34	1.79
1B40-MU55	12.19	1.34	2.81	3.37
1B60-MU65	26.90	2.24	4.37	5.50
1B60-MU75	31.98	3.93	8.18	10.32
1B60-MU80	Please contact VMECA for lifting force.			
2B40-MU45	17.33	0.66	1.34	1.79
2B40-MU55	19.58	1.34	2.81	3.37
2B60-MU65	47.70	2.24	4.37	5.50
2B60-MU75	52.78	3.93	8.18	10.32
2B60-MU80	Please contact VMECA for lifting force.			

* The lifting force does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
N6- NBR (Nitrile)	60	Blue	-20~110
S3 - Silicone	30	Translucent White	-70~200
S5 - Silicone	50	Red	-70~200
W3 - White Silicone	30	Translucent White	-70~200
W5 - White Silicone	50	Translucent White	-70~200
W3(FDA) - White Silicone (FDA)	30	Translucent White	-70~200
W5(FDA) - White Silicone (FDA)	50	Translucent White	-70~200
U6 – Urethane	60	Dark Grey	0~100

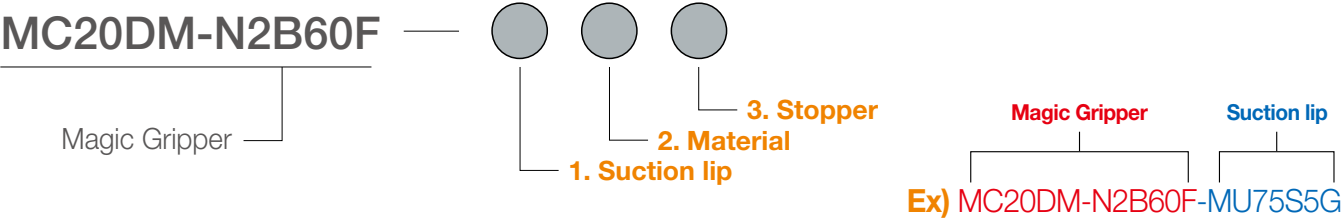
* The temperature data is only for suction lip. Please contact us if it is used in over 60°C

** For additional materials, please contact us

Material Resistance

Description	NBR (Nitrile)	Silicone	White Silicone	Urethane
Wear Resistance	Excellent	Good	Good	Excellent
Oil	Excellent	Poor	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Fair
Acid	Fair	Poor	Poor	Poor

Build an Ordering No.



1. Suction lip

Description	Top Bellow 20	Top Bellow 40	Top Bellow 60	Symbol
MU type lip, 45mm diameter		○		MU45
MU type lip, 55mm diameter		○		MU55
MU type lip, 65mm diameter			○	MU65
MU type lip, 75mm diameter			○	MU75
MU type lip, 80mm diameter			○	MU80

2. Material

Description	Symbol
NBR (Nitrile)	N6
Silicone, 30° hardness	S3
Silicone, 50° hardness	S5
White Silicone, 30° hardness	W3
White Silicone, 50° hardness	W5
White Silicone, 30° hardness (FDA)	W3(FDA)
White Silicone, 50° hardness (FDA)	W5(FDA)
Urethane	U6

3. Stopper

Description	Symbol
G type : Only for MF&MU Suction lip	G

3. Filter

Part No.	Description	Part No.	Description
VTFE40	Filter (200mesh) for 40mm bellow diameter	VTFE60	Filter (200mesh) for 60mm bellow diameter

4. Suction lip

Part No.	Description	Part No.	Description
MU45-N6	MU suction lip - 45mm diameter, NBR	MU45-W5	MU suction lip - 45mm diameter, White Silicone, 50° hardness
MU55-N6	MU suction lip - 55mm diameter, NBR	MU55-W5	MU suction lip - 55mm diameter, White Silicone, 50° hardness
MU65-N6	MU suction lip - 65mm diameter, NBR	MU65-W5	MU suction lip - 65mm diameter, White Silicone, 50° hardness
MU75-N6	MU suction lip - 75mm diameter, NBR	MU75-W5	MU suction lip - 75mm diameter, White Silicone, 50° hardness
MU80-N6	MU suction lip - 80mm diameter, NBR	MU80-W5	MU suction lip - 80mm diameter, White Silicone, 50° hardness
MU45-S3	MU suction lip - 45mm diameter, Silicone, 30° hardness	MU45-W3 (FDA)	MU suction lip - 45mm diameter, White Silicone, 30° hardness (FDA)
MU55-S3	MU suction lip - 55mm diameter, Silicone, 30° hardness	MU55-W3 (FDA)	MU suction lip - 55mm diameter, White Silicone, 30° hardness (FDA)
MU65-S3	MU suction lip - 65mm diameter, Silicone, 30° hardness	MU65-W3 (FDA)	MU suction lip - 65mm diameter, White Silicone, 30° hardness (FDA)
MU75-S3	MU suction lip - 75mm diameter, Silicone, 30° hardness	MU75-W3 (FDA)	MU suction lip - 75mm diameter, White Silicone, 30° hardness (FDA)
MU80-S3	MU suction lip - 80mm diameter, Silicone, 30° hardness	MU80-W3 (FDA)	MU suction lip - 80mm diameter, White Silicone, 30° hardness (FDA)
MU45-S5	MU suction lip - 45mm diameter, Silicone, 50° hardness	MU45-W5 (FDA)	MU suction lip - 45mm diameter, White Silicone, 50° hardness (FDA)
MU55-S5	MU suction lip - 55mm diameter, Silicone, 50° hardness	MU55-W5 (FDA)	MU suction lip - 55mm diameter, White Silicone, 50° hardness (FDA)
MU65-S5	MU suction lip - 65mm diameter, Silicone, 50° hardness	MU65-W5 (FDA)	MU suction lip - 65mm diameter, White Silicone, 50° hardness (FDA)
MU75-S5	MU suction lip - 75mm diameter, Silicone, 50° hardness	MU75-W5 (FDA)	MU suction lip - 75mm diameter, White Silicone, 50° hardness (FDA)
MU80-S5	MU suction lip - 80mm diameter, Silicone, 50° hardness	MU80-W5 (FDA)	MU suction lip - 80mm diameter, White Silicone, 50° hardness (FDA)
MU45-U6	MU suction lip - 45mm diameter, White Silicone, 30° hardness	MU45-U6	MU suction lip - 45mm diameter, Urethane
MU55-U6	MU suction lip - 55mm diameter, White Silicone, 30° hardness	MU55-U6	MU suction lip - 55mm diameter, Urethane
MU65-U6	MU suction lip - 65mm diameter, White Silicone, 30° hardness	MU65-U6	MU suction lip - 65mm diameter, Urethane
MU75-U6	MU suction lip - 75mm diameter, White Silicone, 30° hardness	MU75-U6	MU suction lip - 75mm diameter, Urethane
MU80-U6	MU suction lip - 80mm diameter, White Silicone, 30° hardness	MU80-U6	MU suction lip - 80mm diameter, Urethane

Spare Parts

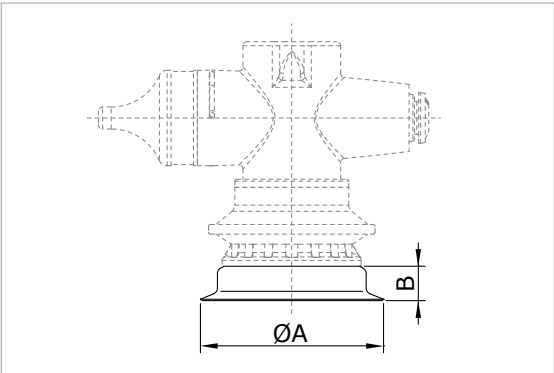
1. Stopper

Part No.	Description	Part No.	Description
MS40-G	Stopper G type for MU45 & MU55	MS60-G	Stopper G type for MU65 & MU75 & MU80

2. Middle bellows

Part No.	Description	Part No.	Description
2MB/40	Middle bellows 2 folds for MU45 & MU55	3MB/40	Middle bellows 3 folds for MU45 & MU55
		3MB/60	Middle bellows 3 folds for MU65 & MU75 & MU80

Dimensional Data



※ Dimensions are measured with the suction lip assembled

[Unit : mm]

Model	ØA	B
MU45	45	8.5
MU55	55	8.9
MU65	65	10.7
MU75	75	11.7
MU80	Please contact VMECA for dimensions.	

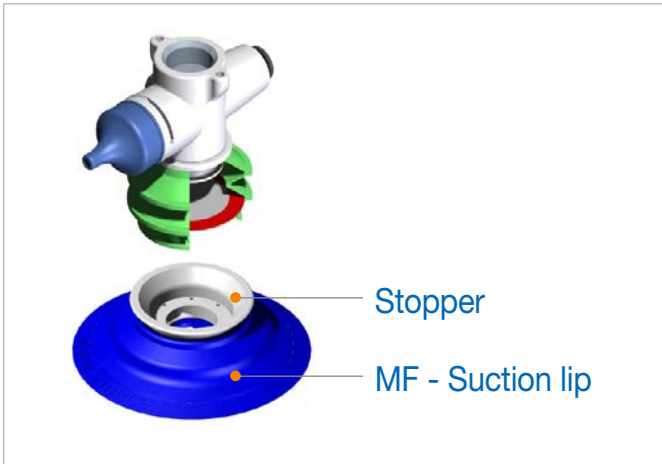
MF suction lip



MF - Suction lip

Features

- ✓ Excellent in handling flat heavy objects and offers great gripping force for both horizontal and vertical applications
- ✓ Various stopper & lip material options to cover a wide range of vacuum applications



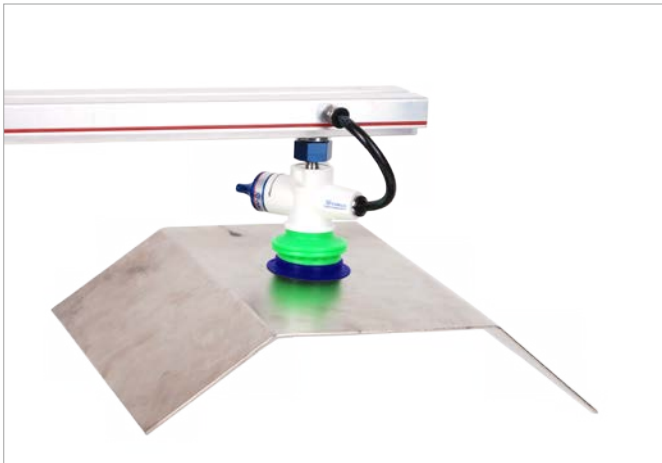
Structure of MF-Suction lip

Structure

- ✓ Stopper
- ✓ MF - Suction lip

Applications

- ✓ Metal sheets
- ✓ Veneer sheets
- ✓ Caron boxes



MF-Suction lip being used in flat object application - Steel plate

Recommended Lifting Force (Max.)

Model	Volume (cm³)	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
1B40-MF45	9.63	0.67	1.62	2.12
1B40-MF55	12.19	1.34	2.81	3.48
1B60-MF65	26.40	2.24	4.49	5.61
1B60-MF75	31.58	4.04	8.31	10.70
1B60-MF80	Please contact VMECA for lifting force.			
2B40-MF45	17.03	0.67	1.62	2.12
2B40-MF55	19.59	1.34	2.81	3.48
2B60-MF65	47.20	2.24	4.49	5.61
2B60-MF75	52.38	4.04	8.31	10.70
2B60-MF80	Please contact VMECA for lifting force.			

* The lifting force does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
N6- NBR (Nitrile)	60	Blue	-20~110
S3 - Silicone	30	Translucent White	-70~200
S5 - Silicone	50	Red	-70~200
W3 - White Silicone	30	Translucent White	-70~200
W5 - White Silicone	50	Translucent White	-70~200
W3(FDA) - White Silicone (FDA)	30	Translucent White	-70~200
W5(FDA) - White Silicone (FDA)	50	Translucent White	-70~200
U6 – Urethane	60	Dark Grey	0~100

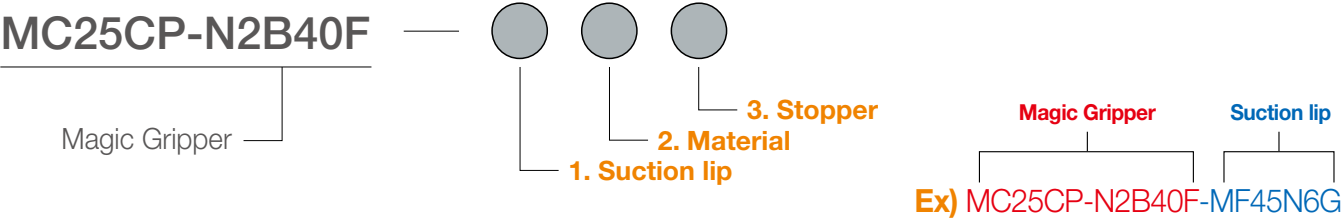
* The temperature data is only for suction lip. Please contact us if it is used in over 60°C

** For additional materials, please contact us

Material Resistance

Description	NBR (Nitrile)	Silicone	White Silicone	Urethane
Wear Resistance	Excellent	Good	Good	Excellent
Oil	Excellent	Poor	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Fair
Acid	Fair	Poor	Poor	Poor

Build an Ordering No.



1. Suction lip

Description	Top Bellow 20	Top Bellow 40	Top Bellow 60	Symbol
MF type lip, 45mm diameter		○		MF45
MF type lip, 55mm diameter		○		MF55
MF type lip, 65mm diameter			○	MF65
MF type lip, 75mm diameter			○	MF75
MF type lip, 80mm diameter			○	MF80

2. Material

Description	Symbol
NBR (Nitrile)	N6
Silicone, 30° hardness	S3
Silicone, 50° hardness	S5
White Silicone, 30° hardness	W3
White Silicone, 50° hardness	W5
White Silicone, 30° hardness (FDA)	W3(FDA)
White Silicone, 50° hardness (FDA)	W5(FDA)
Urethane	U6

3. Stopper

Description	Symbol
G type : Only for MF&MU Suction lip	G

3. Filter

Part No.	Description	Part No.	Description
VTFE40	Filter (200mesh) for 40mm bellow diameter	VTFE60	Filter (200mesh) for 60mm bellow diameter

4. Suction lip

Part No.	Description	Part No.	Description
MF45-N6	MF suction lip - 45mm diameter, NBR	MF45-W5	MF suction lip - 45mm diameter, White Silicone, 50° hardness
MF55-N6	MF suction lip - 55mm diameter, NBR	MF55-W5	MF suction lip - 55mm diameter, White Silicone, 50° hardness
MF65-N6	MF suction lip - 65mm diameter, NBR	MF65-W5	MF suction lip - 65mm diameter, White Silicone, 50° hardness
MF75-N6	MF suction lip - 75mm diameter, NBR	MF75-W5	MF suction lip - 75mm diameter, White Silicone, 50° hardness
MF80-N6	MF suction lip - 80mm diameter, NBR	MF80-W5	MF suction lip - 80mm diameter, White Silicone, 50° hardness
MF45-S3	MF suction lip - 45mm diameter, Silicone, 30° hardness	MF45-W3 (FDA)	MF suction lip - 45mm diameter, White Silicone, 30° hardness (FDA)
MF55-S3	MF suction lip - 55mm diameter, Silicone, 30° hardness	MF55-W3 (FDA)	MF suction lip - 55mm diameter, White Silicone, 30° hardness (FDA)
MF65-S3	MF suction lip - 65mm diameter, Silicone, 30° hardness	MF65-W3 (FDA)	MF suction lip - 65mm diameter, White Silicone, 30° hardness (FDA)
MF75-S3	MF suction lip - 75mm diameter, Silicone, 30° hardness	MF75-W3 (FDA)	MF suction lip - 75mm diameter, White Silicone, 30° hardness (FDA)
MF80-S3	MF suction lip - 80mm diameter, Silicone, 30° hardness	MF80-W3 (FDA)	MF suction lip - 80mm diameter, White Silicone, 30° hardness (FDA)
MF45-S5	MF suction lip - 45mm diameter, Silicone, 50° hardness	MF45-W5 (FDA)	MF suction lip - 45mm diameter, White Silicone, 50° hardness (FDA)
MF55-S5	MF suction lip - 55mm diameter, Silicone, 50° hardness	MF55-W5 (FDA)	MF suction lip - 55mm diameter, White Silicone, 50° hardness (FDA)
MF65-S5	MF suction lip - 65mm diameter, Silicone, 50° hardness	MF65-W5 (FDA)	MF suction lip - 65mm diameter, White Silicone, 50° hardness (FDA)
MF75-S5	MF suction lip - 75mm diameter, Silicone, 50° hardness	MF75-W5 (FDA)	MF suction lip - 75mm diameter, White Silicone, 50° hardness (FDA)
MF80-S5	MF suction lip - 80mm diameter, Silicone, 50° hardness	MF80-W5 (FDA)	MF suction lip - 80mm diameter, White Silicone, 50° hardness (FDA)
MF45-U6	MF suction lip - 45mm diameter, White Silicone, 30° hardness	MF45-U6	MF suction lip - 45mm diameter, Urethane
MF55-U6	MF suction lip - 55mm diameter, White Silicone, 30° hardness	MF55-U6	MF suction lip - 55mm diameter, Urethane
MF65-U6	MF suction lip - 65mm diameter, White Silicone, 30° hardness	MF65-U6	MF suction lip - 65mm diameter, Urethane
MF75-U6	MF suction lip - 75mm diameter, White Silicone, 30° hardness	MF75-U6	MF suction lip - 75mm diameter, Urethane
MF80-U6	MF suction lip - 80mm diameter, White Silicone, 30° hardness	MF80-U6	MF suction lip - 80mm diameter, Urethane

Spare Parts

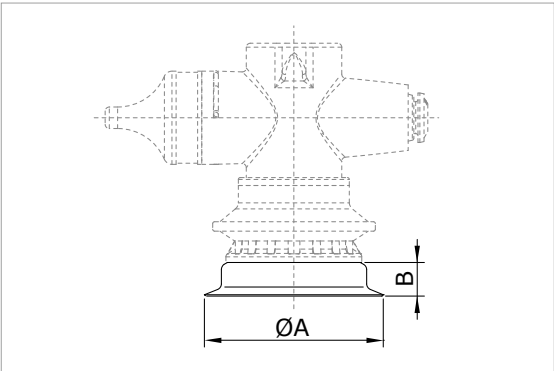
1. Stopper

Part No.	Description	Part No.	Description
MS40-G	Stopper G type for MF45 & MF55	MS60-G	Stopper G type for MF65 & MF75 & MF80

2. Middle bellows

Part No.	Description	Part No.	Description
2MB/40	Middle bellows 2 folds for MF45 & MF55	3MB/40	Middle bellows 3 folds for MF45 & MF55
		3MB/60	Middle bellows 3 folds for MF65 & MF75 & MF80

Dimensional Data

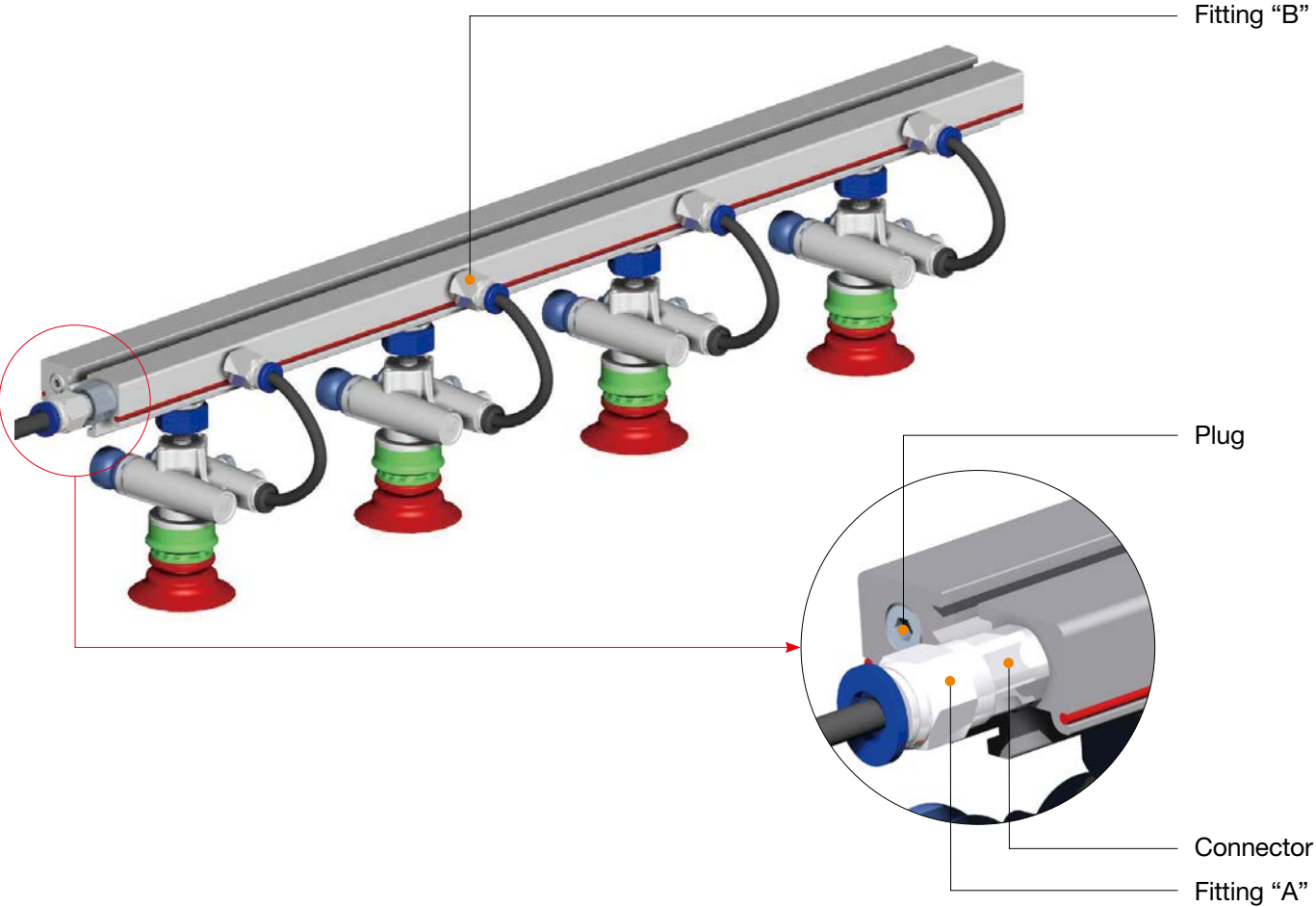


※ Dimensions are measured with the suction lip assembled

[Unit : mm]

Model	ØA	B
MF45	45	8.5
MF55	55	8.9
MF65	65	10.7
MF75	75	11.7
MF80	Please contact VMECA for dimensions.	

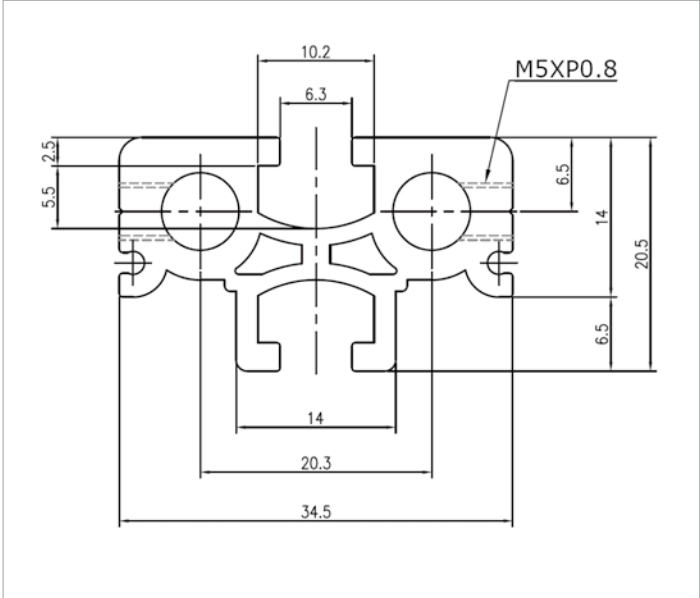
T-slotted aluminum profile – T06 series



Profile

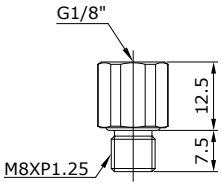
Model	Description
T06 – 500	Profile length 0.5m
T06 – 1000	Profile length 1m
T06 – 1500	Profile length 1.5m
T06 – 2000	Profile length 2m

* For specific profile length contact VMECA



Dimensional Data

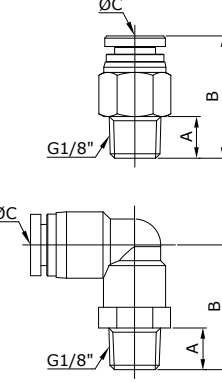
Connector

Product view	Part No.	Description	
	CF18	Connector for T06 profile	

Plug

Product view	Part No.	Description
	HL8	Plug for profile

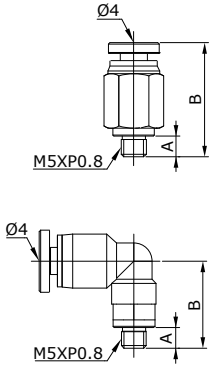
Fitting "A"

Product view	Part No.	Description	
	FI1806	G1/8 thread, 6Ø one touch fitting	
	FI1808	G1/8 thread, 8Ø one touch fitting	
	FL1806	G1/8 thread, 6Ø one touch fitting	
	FL1808	G1/8 thread, 8Ø one touch fitting	

[Unit : mm]

Part No.	A	B	C
FI1806	8	23.2	6
FI1808	8	28.5	8
FL1806	8	24	6
FL1808	8	27	8

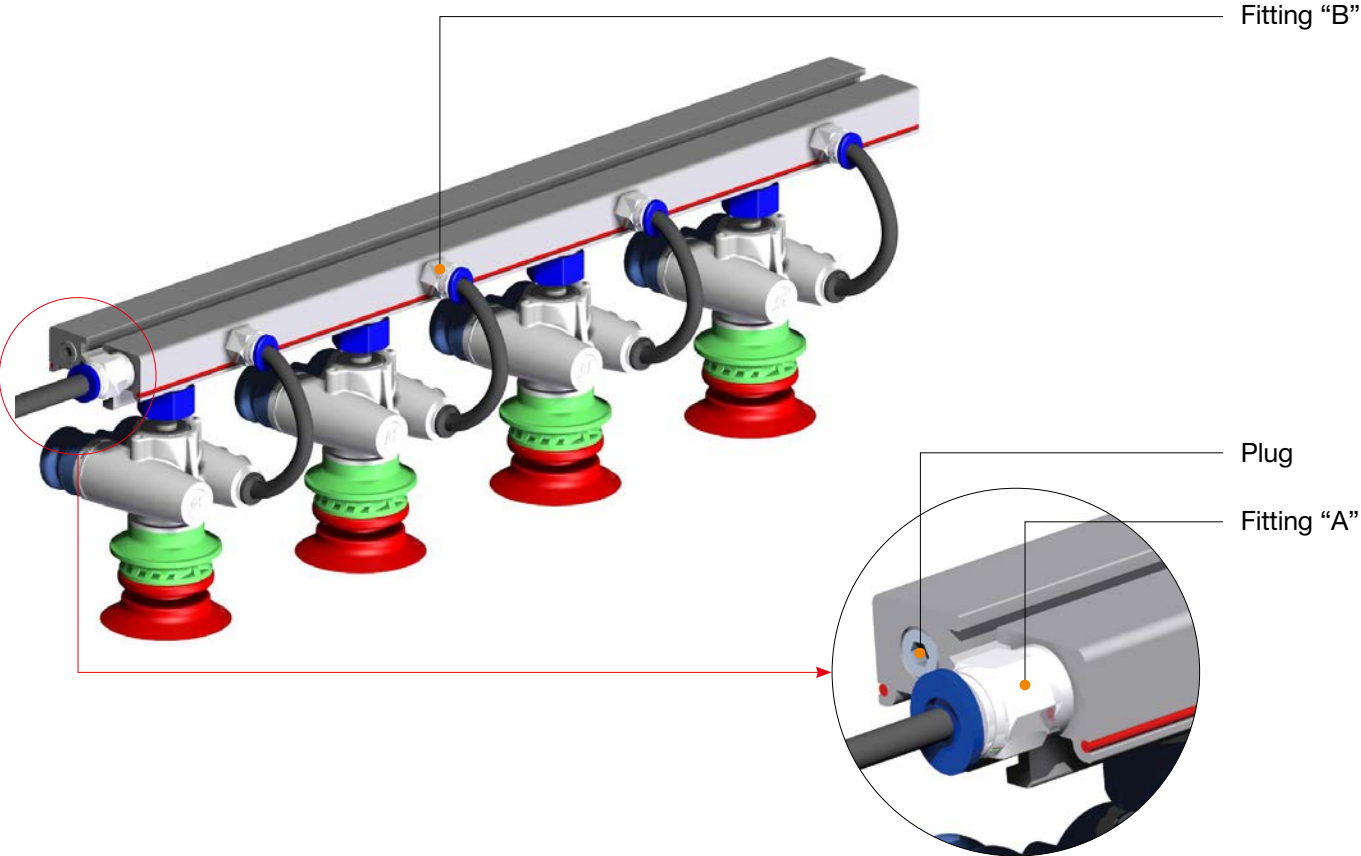
Fitting "B"

Product view	Part No.	Description	
	FIM504	M5 thread, 4Ø one touch fitting	
	FLM504	M5 thread, 4Ø one touch fitting	

[Unit : mm]

Part No.	A	B
FIM504	4	22
FLM504	4	16.8

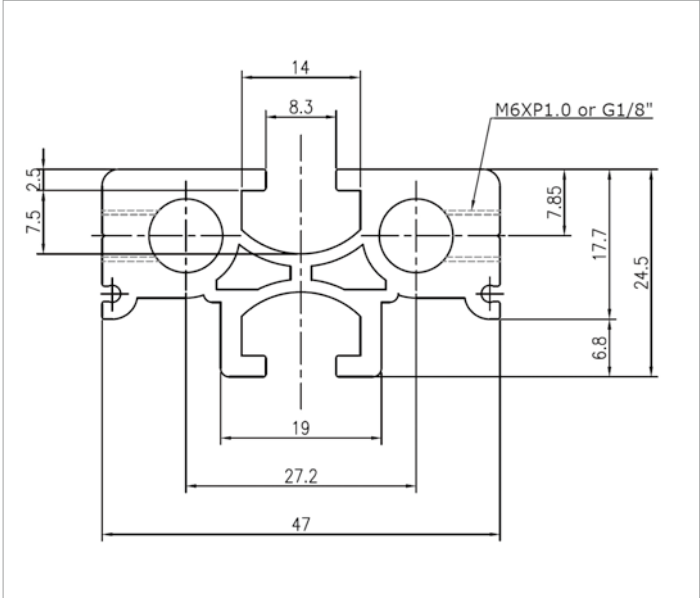
T-slotted aluminum profile – T08 series



Profile

Model	Description
T08 – 500	Profile length 0.5m
T08 – 1000	Profile length 1m
T08 – 1500	Profile length 1.5m
T08 – 2000	Profile length 2m

* For specific profile length contact VMECA



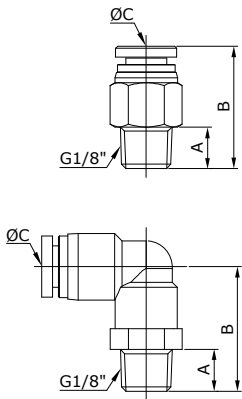
Dimensional Data

Plug

Product view	Part No.	Description
	HLG18	Plug for profile

Fitting “A”

Product view	Part No.	Description
	FI1808	G1/8 thread, 8Ø one touch fitting
	FI1810	G1/8 thread, 10Ø one touch fitting
	FL1808	G1/8 thread, 8Ø one touch fitting
	FL1810	G1/8 thread, 10Ø one touch fitting

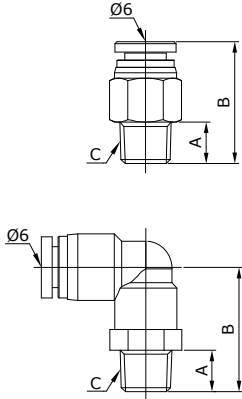


[Unit : mm]

Part No.	A	B	C
FI1808	8	28.5	8
FI1810	8	31	10
FL1808	8	27	8
FL1810	8	32	10

Fitting “B”

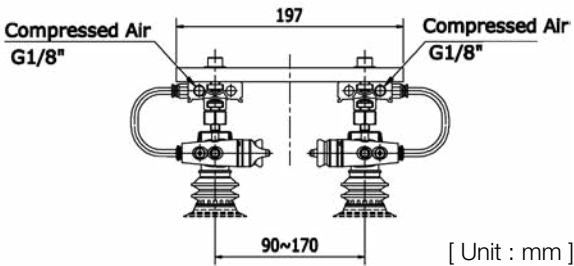
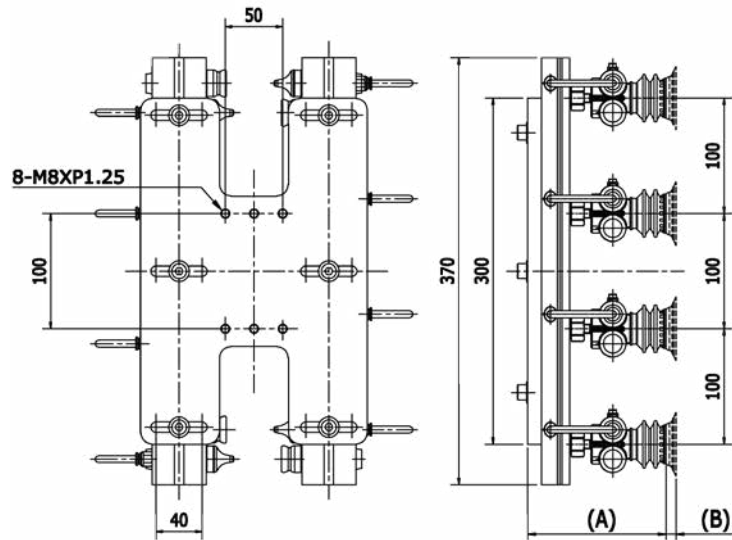
Product view	Part No.	Description
	FIM606	M6 thread, 6Ø one touch fitting
	FI1806	G1/8 thread, 6Ø one touch fitting
	FLM606	M6 thread, 6Ø one touch fitting
	FL1806	G1/8 thread, 6Ø one touch fitting



[Unit : mm]

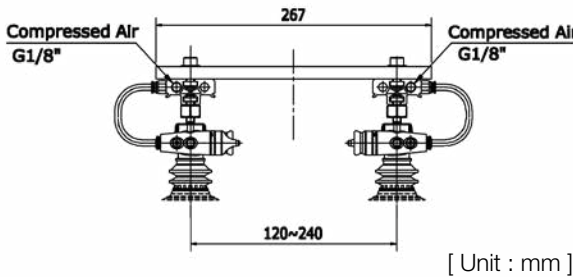
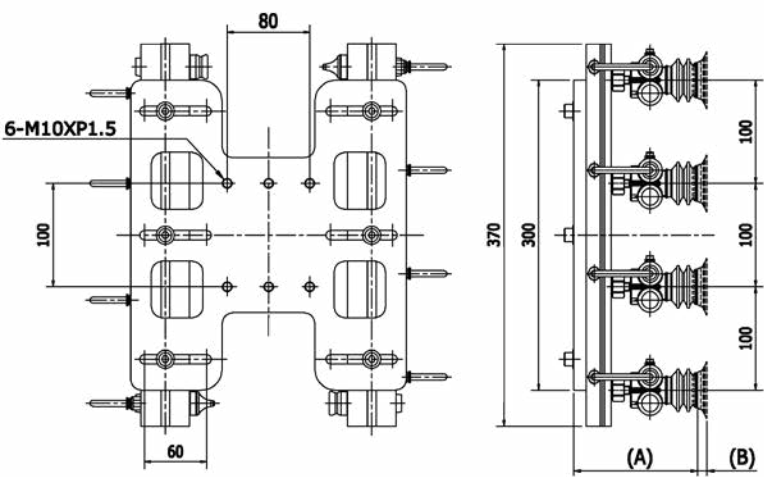
Part No.	A	B	C
FIM606	6.5	25.7	M6XP1.0
FI1806	8	23.5	G1/8"
FLM606	6.5	23.5	M6XP1.0
FL1806	8	24	G1/8"

A130x300



Part No.	A	B
1B40	110.2	See page 85 for suction lip dimension
2B40	120.2	
1B60	121.0	
2B60	135.6	

A200x300



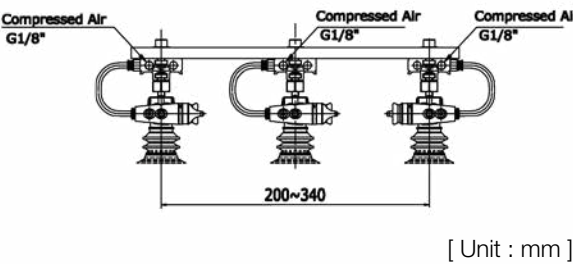
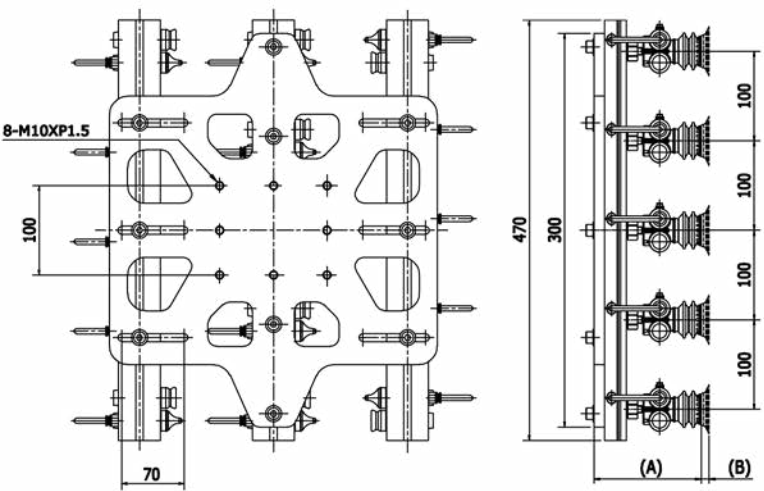
Part No.	A	B
1B40	110.2	See page 85 for suction lip dimension
2B40	120.2	
1B60	121.0	
2B60	135.6	

1. Size	2. Magic Gripper	3. Top bellows	4. Suction lip	5. Suction lip material
Model	Model	Model	Model	Model
A130x300	MC20A	1B40	MU45	N6
A200x300	MC20B	2B40	MU55	S3
A300x400	MC20C	1B60	MU65	S5
	MC20D	2B60	MU75	W3
	MC23A		MU80	W5
	MC23B			W3(FDA)
	MC23C			W5(FDA)
	MC23D			U6

※ See page 82~85 for more detail information of Suction lip

※ See page 26~49 for more detail information of Magic grippers

A300x400



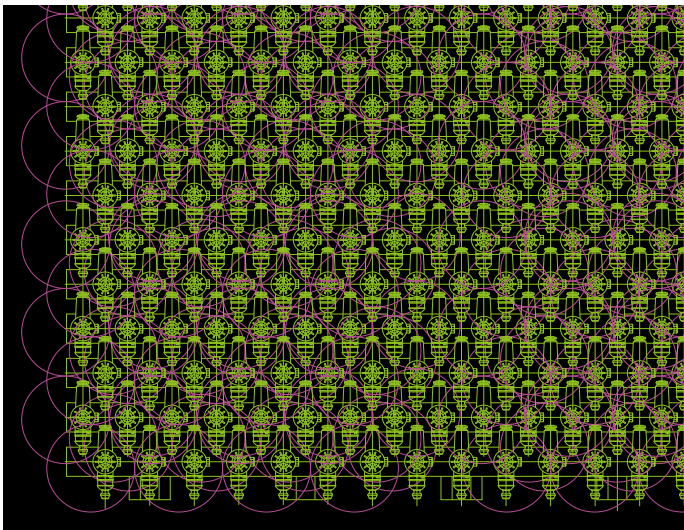
Part No.	A	B
1B40	110.2	See page 85 for suction lip dimension
2B40	120.2	
1B60	121.0	
2B60	135.6	



Application

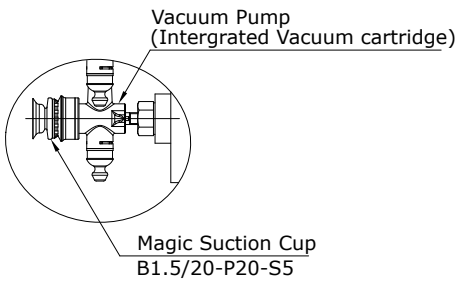
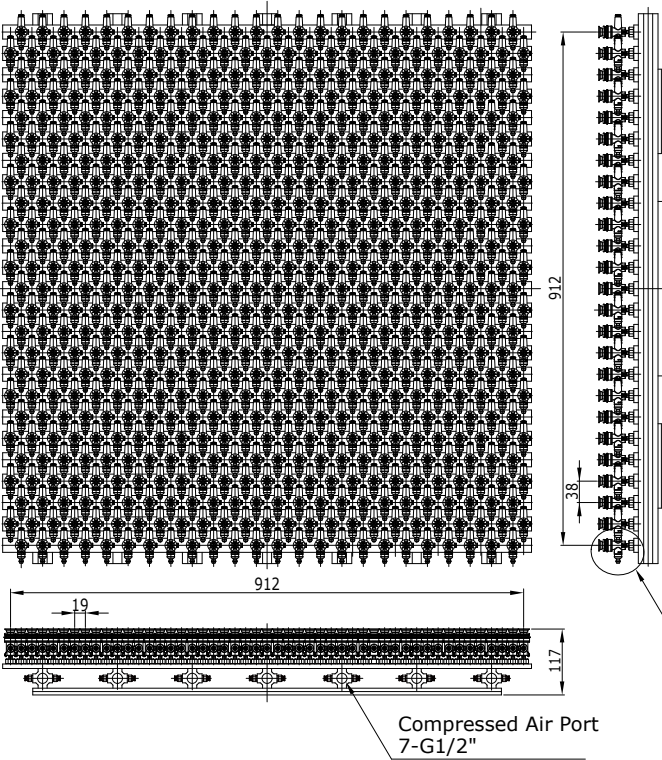


Palletizing
– Cat food cans which are randomly located on conveyor



[VMECA R&D checked all possibility]

[VMECA Solution]



View "A"

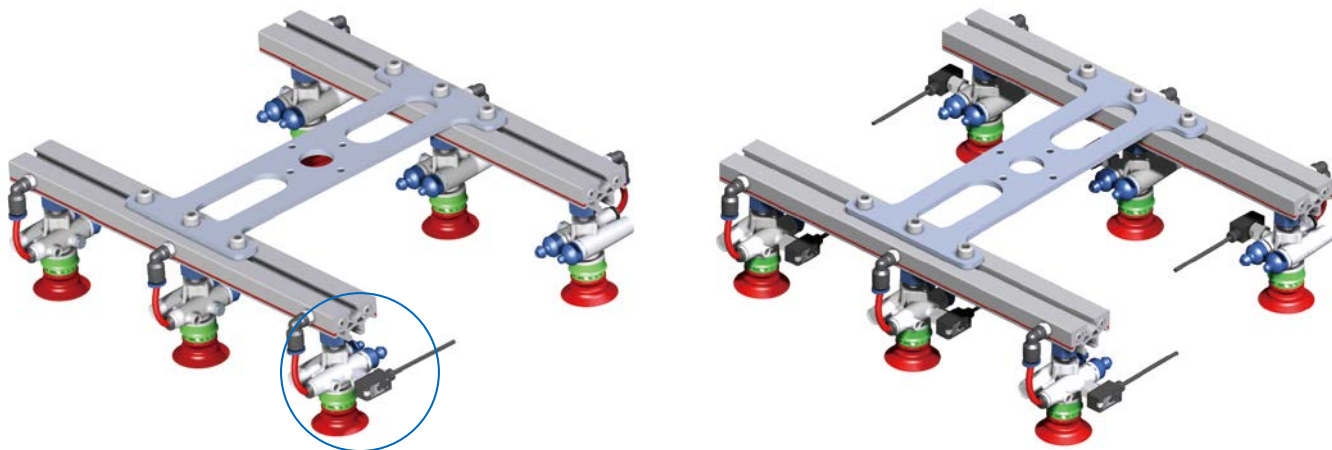
Model no: S1021-900-B1.5/20-P20-S5
Max Vacuum Leve : -83 kPa
Air consumption (2bar) : 5,080 l/min
Total quantity of pumps and suction cups : 612 EA
Total weight : about 40 Kg

※ Air consumption is calculated when it is operated while picking the objects (It means there is no air consumption without the time to pick the objects)

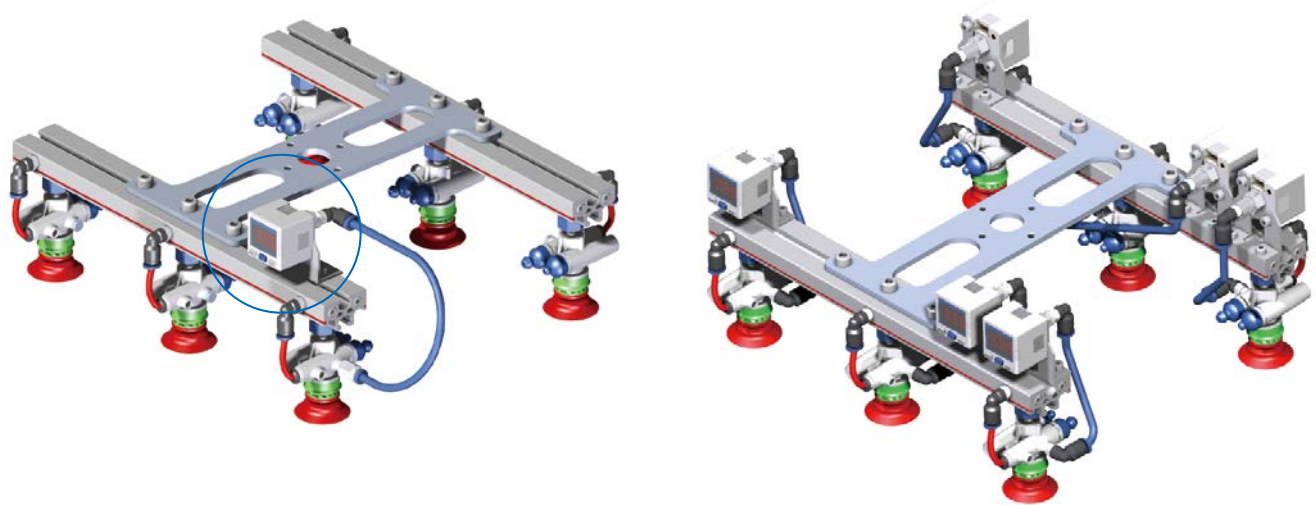
Applications with Switch

(Recommended for application which is generally safely handled)

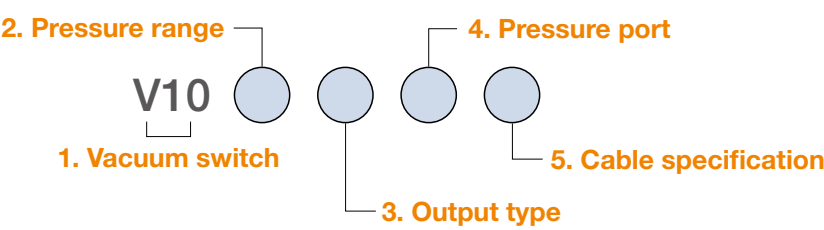
With V10 switch
– Directly located on Magic Gripper



With VP20 / VP30 / VP32 switch
– Located on top of mount plate



Vacuum Switch – V10



Build an Ordering No.

1. Vacuum switch	Description	Ordering No.
	Vacuum switch V10	V10
2. Pressure range	Description	Ordering No.
	Negative pressure (0 ~ -101.3 kPa)	Blank
	Positive pressure (0 ~ 0.6 MPa)	P
3. Output type	Description	Ordering No.
	NPN	01
	PNP	02
4. Pressure port	Description	Ordering No.
	1/8" PT, M5	F1
	1/8" NPT, M5	F2
	M5	F3
	Ø4mm tube	F4
	Ø6mm tube	F5
5. Cable specification	Description	Ordering No.
	Lead wire type (3m)	Blank
	M8-3pin male connector	C

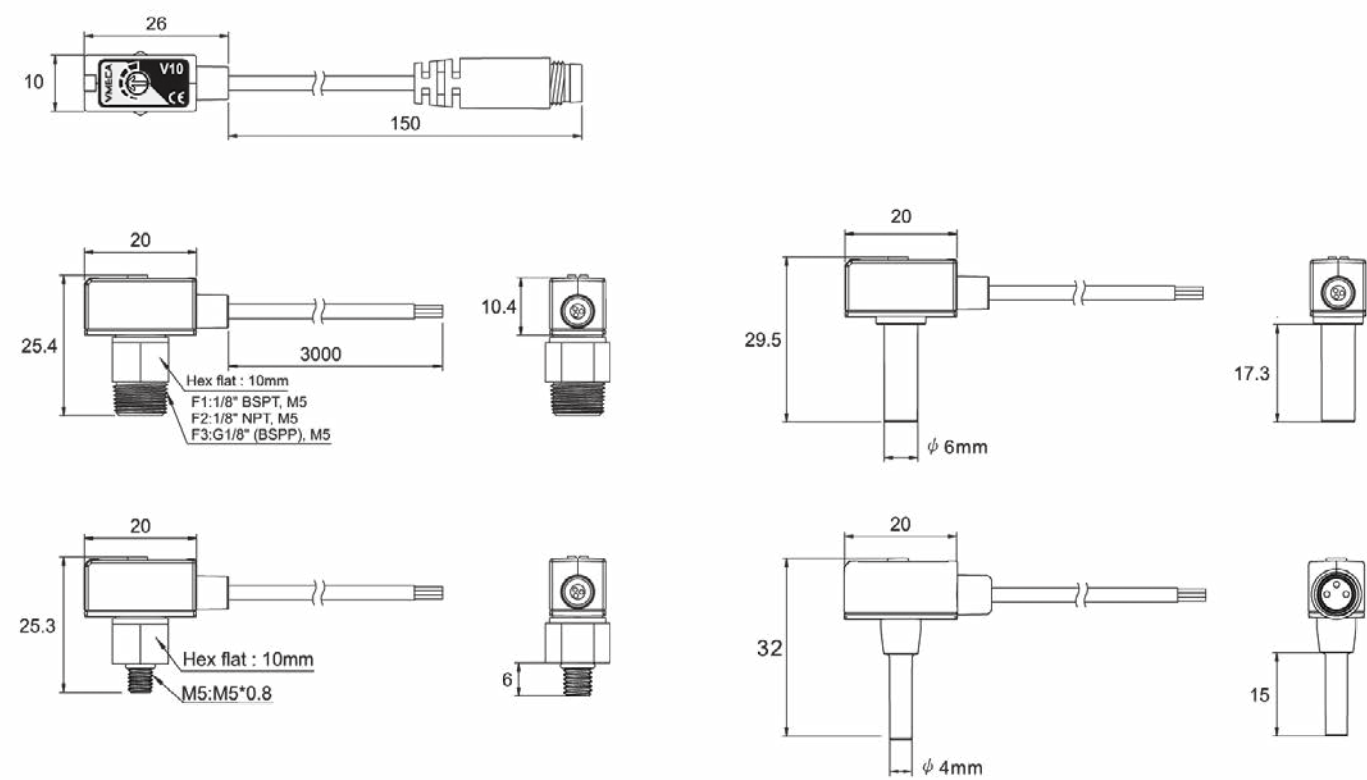
Build an Ordering No.

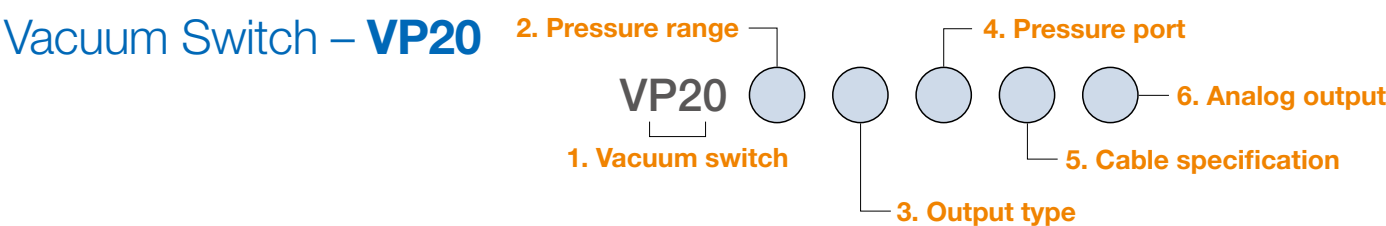
Model	V10	V10P
Setting pressure range	0.0 ~ -101.3 kPa	0 ~ 0.6 MPa
Withstand pressure	0.6 MPa	1.5 MPa
Fluid	Air, Non-corrosive / Non-flammable gas	
Power supply voltage	10.8 to 30V DC (include ripple voltage)	
Load current	80 mA max.	
Internal voltage drop	NPN / 0.8V, PNP / 0.8V	
Current consumption	10 mA max.	
Sensor type	NPN or PNP	
Output short circuit protection	Yes	
Setting method	Adjusting by VR	
Response time	Approx. 1 ms	
Repeatability	±1% F.S.	
Hysteresis	3% F.S. max.	
Indicator	Red LED turns ON	
Enclosure	IP 40	
Temperature characteristic	±3% F.S. of detected pressure (25°C) at temp. Range of 0 ~ 50°C (32 ~ 122°F)	
Ambient temp. range	Operation: 0 ~ 60°C (30 ~ 140°F), No condensation or freezing	
Ambient humidity. range	Operation / Storage: 35 ~ 85% RH (No condensation)	
Vibration	Total amplitude 1.5mm, 10Hz- 55Hz- 10Hz scan for 1minute, two hours each direction of X, Y and Z	
Piping method	Push-in tube or thread-in	
Lead wire	Oil-resistance cable, 3wires (0.18mm ²), 2.6mm, 3M	
Weight	Approx. *50g (with 3 meter lead wire)	

Circuit diagram



Dimensions





Build an Ordering No.

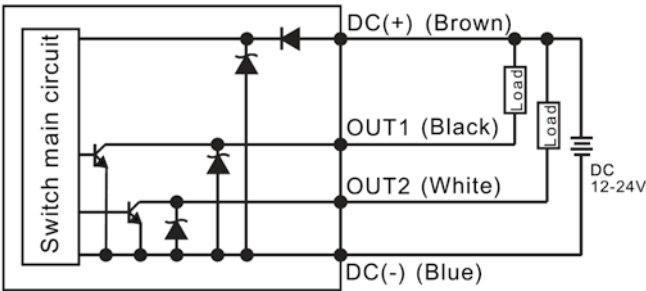
1. Vacuum switch	Description	Ordering No.
	Vacuum Switch, LED-Display	VP20
2. Pressure range	Description	Ordering No.
	Compound pressure (-100.0 ~ 100.0 kPa)	C
	Negative pressure (-101.3 ~ 0 kPa)	V
	Positive pressure (0.00 ~ 1.00 MPa)	P
3. Output type	Description	Ordering No.
	2 NPN output	01
	2 PNP output	03
4. Pressure port	Description	Ordering No.
	1/8 PT	G
5. Cable specification	Description	Ordering No.
	2m Lead wire type	Blank
	M8-4 pin male connector	C
6. Analog output	Description	Ordering No.
	No analog output	Blank
	Analog output: <i>Only for wire type</i>	A

Build an Ordering No.

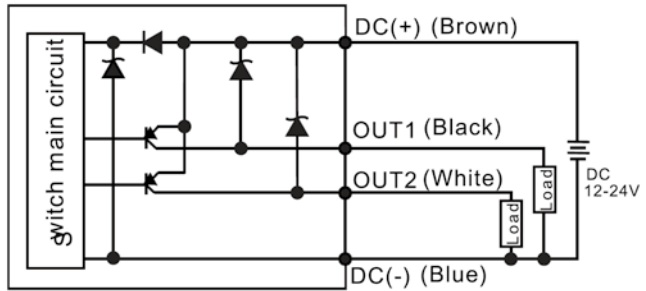
Model	VP20C	VP20V	VP20P
Applicable fluid	Non corrosive gases		
Pressure range	-100.0 ~ 100.0 kPa	0.0 ~ -101.3 kPa	0.000 ~ 1.000 MPa
Pressure proof force	3 time of rate pressure range		
Indicator resolution	0.1 kPa	0.1 kPa	0.01 MPa
Weight	135 g (with 2m lead wire)		
Material of pressure port	Zn die casting		
Power supply voltage	12 ~ 24 VDC $\pm$ 10%, Ripple (P-P) 10% or less		
Power consumption	55 mA or less		
Output	NPN or PNP open collector 2 outputs, Max. 80 mA		
Analog output (*Only for analog type)	Output voltage: 1 ~ 5V $\leq$ $\pm$ 5% (Within rated pressure range) Linearity: $\leq$ $\pm$ 1% F.S	Output voltage: 1 ~ 5V $\leq$ $\pm$ 2.5% (Within rated pressure range) Linearity: $\leq$ $\pm$ 1% F.S	
Repeatability	$\leq$ $\pm$ 2% F.S $\pm$ 1 digit		
Response time	$\leq$ 2.5ms (chattering-proof function: 25ms, 192ms and 768ms selections)		
Protection structure	IP 65		
Operating ambient temperature (°C)	Operation: 0°C ~ 50°C, Storage: -20°C ~ 60°C (No condensation freezing)		
Operating humidity	35 ~ 85% RH		
Temperature characteristic	$\leq$ $\pm$ 2% F.S of detected pressure (25°C) at temp. Range of 0°C ~ 50°C		
Vibration resistance	Total amplitude 1.5mm, 10Hz ~ 55Hz, -10Hz scan for 1 minute, two hours each direction of X, Y and Z		
Shock resistance	980m/s ² (100G), 3times each in direction of X, Y and Z		
Hysteresis	Hysteresis mode	Adjustable	
	Window comparator	Fixed (3digits)	
Indicator accuracy	$\leq$ $\pm$ 2% F.S $\pm$ 1digit (ambient temperature: 25 $\pm$ 3°C)		
Cable	Oil-resistance cable (0.15mm ²)		

Circuit diagram

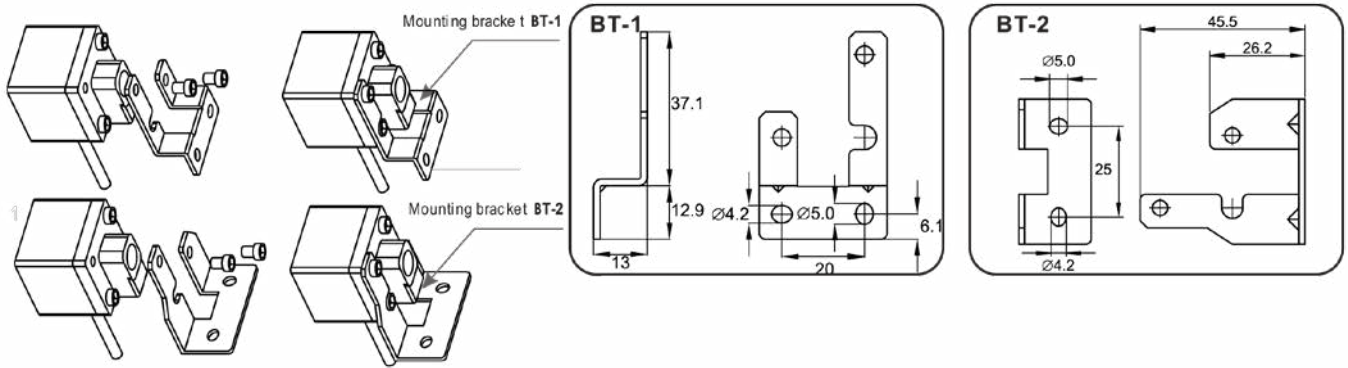
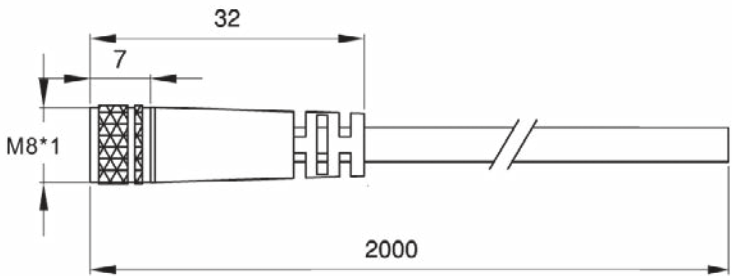
NPN

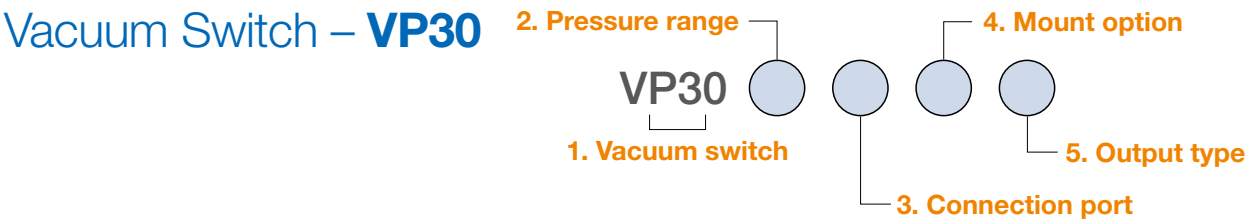


PNP



Dimensions





Build an Ordering No.

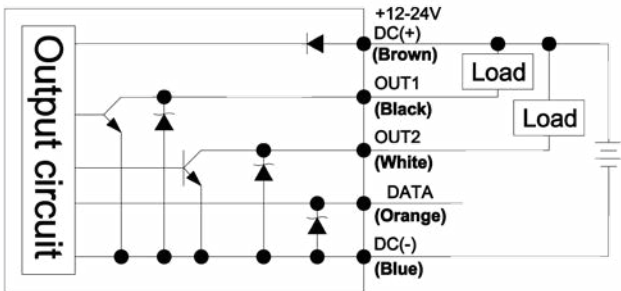
1. Vacuum switch	Description	Ordering No.
	Vacuum Switch, LED-Display	VP30
2. Pressure range	Description	Ordering No.
	-100.0 ~ 1000.0 kPa	10
	-100.0 ~ 100.0 kPa	01
3. Connection port	Description	Ordering No.
	R1/8	R
	NPT1/8	N
	G1/8	G
4. Mount option	Description	Ordering No.
	For panel installation	M
	For bracket installation	Z
5. Output type	Description	Ordering No.
	NPN	N
	PNP	P

Specification

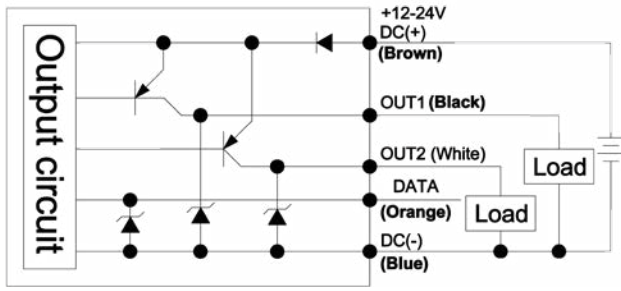
Model	VP30	
Input power	Voltage range	12 ~ 24V DC $\pm$ 1%
	Power consumption	40mA Max
Pressure Measurement	Pressure type	Noncorrosive gas, Gage pressure measure
	Measuring mode	Hysteresis model
	Measurement range	Upper and lower compare mode
		DPS-01: -100 kPa ~ 100 kPa (-0.1 ~ 0.1 MPa)
	Max pressure	DPS-10: -100 kPa ~ 1000 kPa (-0.1 ~ 1 MPa)
		DPS-01: 200 kPa (0.2 MPa)
Display	Measurement accuracy	$\pm$ 2% full scale
	Temperature error	$\pm$ 3% full scale
	Setup display	Double low LCD display 4words dalie
	Status display	Output LCD display
Output	Display mode	4 display mode for choice, Backlight is available
	Output path	Two group NPN / PNP output
	Output	Two group NPN / PNP output
	Response time	2.5ms, 20ms, 100ms, 500ms, 1000ms, 2000ms
	Output current	100mA Max
Connection port	R 1/8 male, NPT 1/8 male, M5 female	
Insulation voltage	100mA Max	
Insulation resistance	50M Ω (500V DC)	
Impact resistance	Max 100m S2, 3 Axis – 6 direction 3times	
Ambient temperature	Operating ambient temperature: 0 ~ 50 $^{\circ}$ C, Stock ambient temperature: -20 ~ 65 $^{\circ}$ C	
Ambient humidity	35 ~ 80% RH	

Circuit diagram

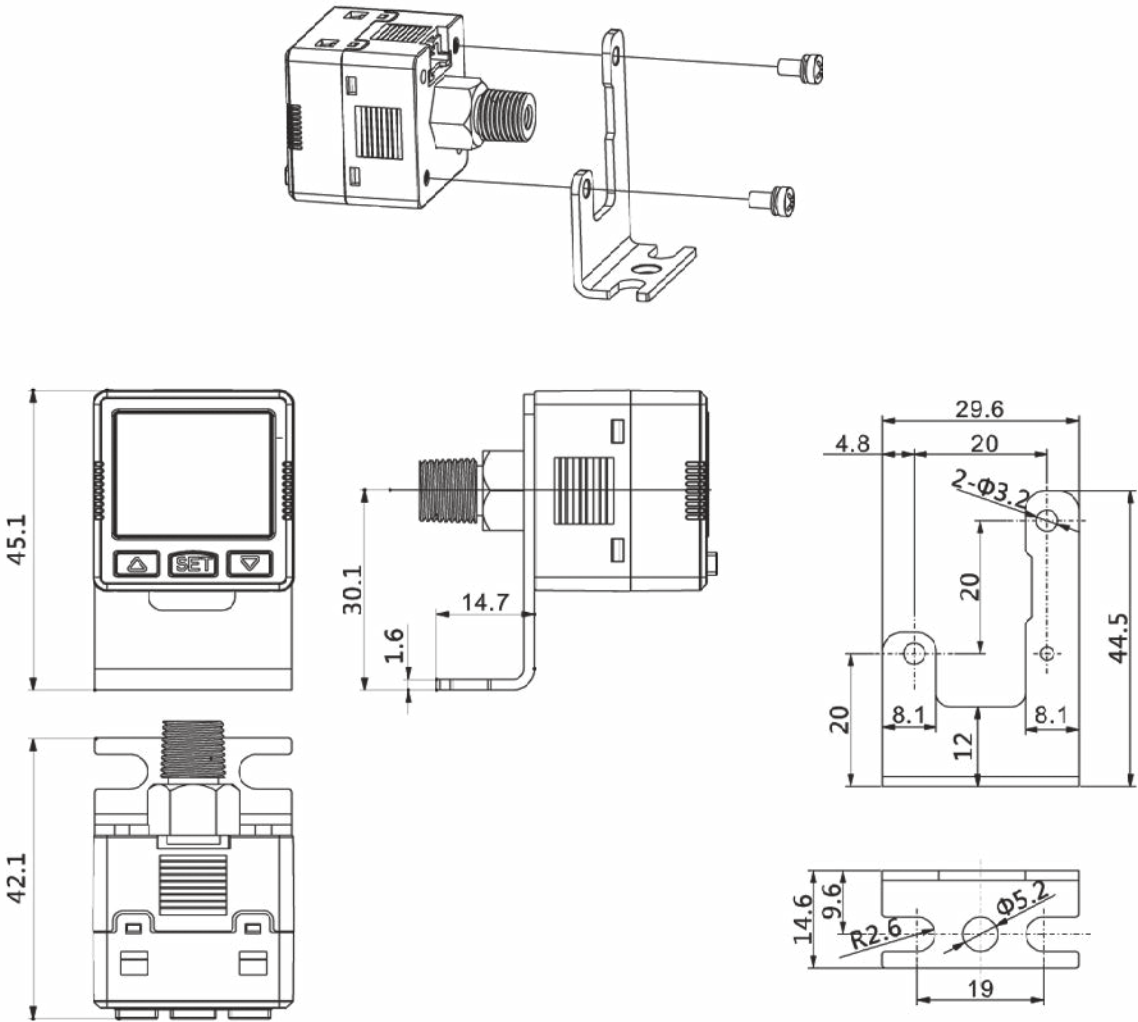
NPN

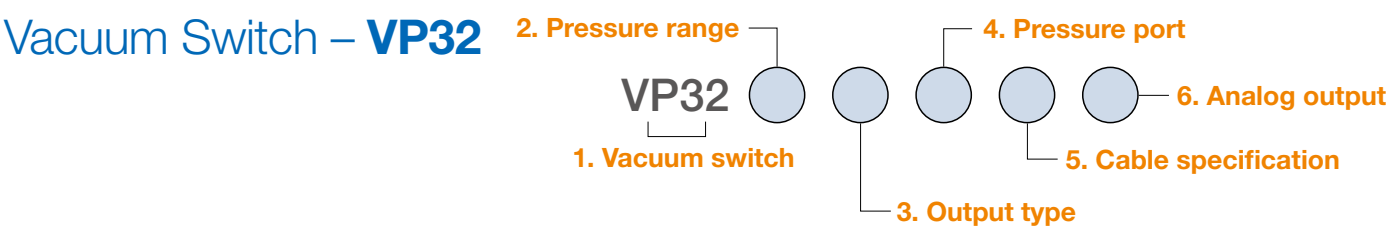


PNP



Dimensions





Build an Ordering No.

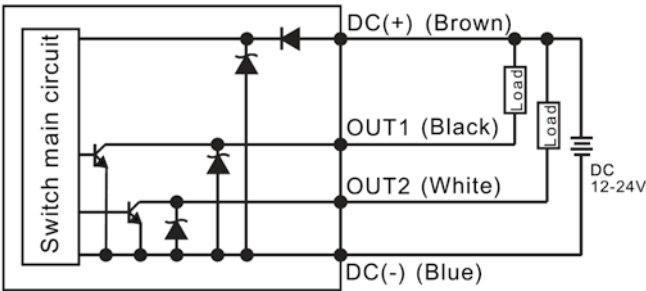
1. Vacuum switch	Description	Ordering No.
	Vacuum Switch, LED-Display	VP32
2. Pressure range	Description	Ordering No.
	Compound pressure (-100.0 ~ 100.0 kPa)	C
	Negative pressure (-101.3 ~ 0 kPa)	V
	Positive pressure (0.00 ~ 1.00 MPa)	P
3. Output type	Description	Ordering No.
	2 NPN output	01
	2 PNP output	02
4. Pressure port	Description	Ordering No.
	PT1/8" male, M5 female	F1
5. Cable specification	Description	Ordering No.
	2m Lead wire type	Blank
	M8-4 pin male connector	C
6. Analog output	Description	Ordering No.
	No analog output	Blank
	1 ~ 5V Analog output	A

Specification

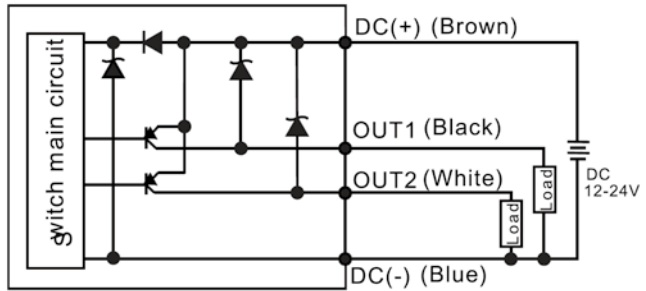
Model	VP32C	VP32V	VP32P
Applicable fluid	Air, Non corrosive gases, Incombustible gases		
Pressure range	-100.0 ~ 100.0 kPa	0.0 ~ -101.3 kPa	0.000 ~ 1.000 MPa
Withstand pressure	300 kPa		
Indicator resolution	kPa	0.1	-
	MPa	-	0.001
	Kgf / cm2	0.001	0.01
	bar	0.001	0.01
	Psi	0.01	0.1
	inHg	0.1	-
mmHg	1	-	-
Power supply voltage	12 ~ 24 VDC ±10%, Ripple (P-P) 10% or less		
Current consumption	≤ 40 mA (with no load)		
Switch output	NPN open collector Max. load currunt : 125mA Max. supply voltage: 30VDC Residual voltage : ≤ 1.5V (load currunt 125mA)		PNP open collector Max. load currunt : 125mA Max. supply voltage: 24VDC Residual voltage : ≤ 1.5V (load currunt 125mA)
Analog output	Output Voltage: 1~5V ≤±2.5%F.S.(within rated pressure range) Linearity : ≤±1% F.S. Output impedance : 1kΩ		
Repeatability (Switch output)	≤±0.2% F.S. ±1digit		
Response time	≤2.5ms (chattering-proof function : 25ms,100ms, 250ms, 500ms, 1000ms, 1500ms selections)		
Output short circuit protection	Yes		
Indicator accuracy	≤±2% F.S ±1 digit (ambient temperature : 25±3℃)		
Indicator resolution	One point set	Adjustable within 1~8 digits	
	Hysteresis mode	Adjustable within 1~8 digits	
	Window mode	Fixed (3 digits)	
Environment	Enclosure	IP40	
	Ambient temp. range	Operation : 0 ~ 50℃, Storage : -10 ~ 60℃ (No condensation or freezing)	
	Ambient humidity range	Operation/ Storage: 35~85% RH (No condensation)	
	Vibration	Total amplitude 1.5mm or 10G, 10Hz-150Hz-10Hz scan for 1 minute, hours each direction of X,Y and Z	
	Shock	1000 ⅈ (10G), 3 times each indirection of X,Y and Z	
Temperature characteristic	≤±2% F.S of detected pressure (25℃) at temp. range 0~50℃		
Port size	PT 1/8" male, M5		
Lead wire	F1: 1/8" PT, M5		
Weight	Approx. 80g (with 2M lead wire), Approx. 45g (with male connector)		

Circuit diagram

NPN

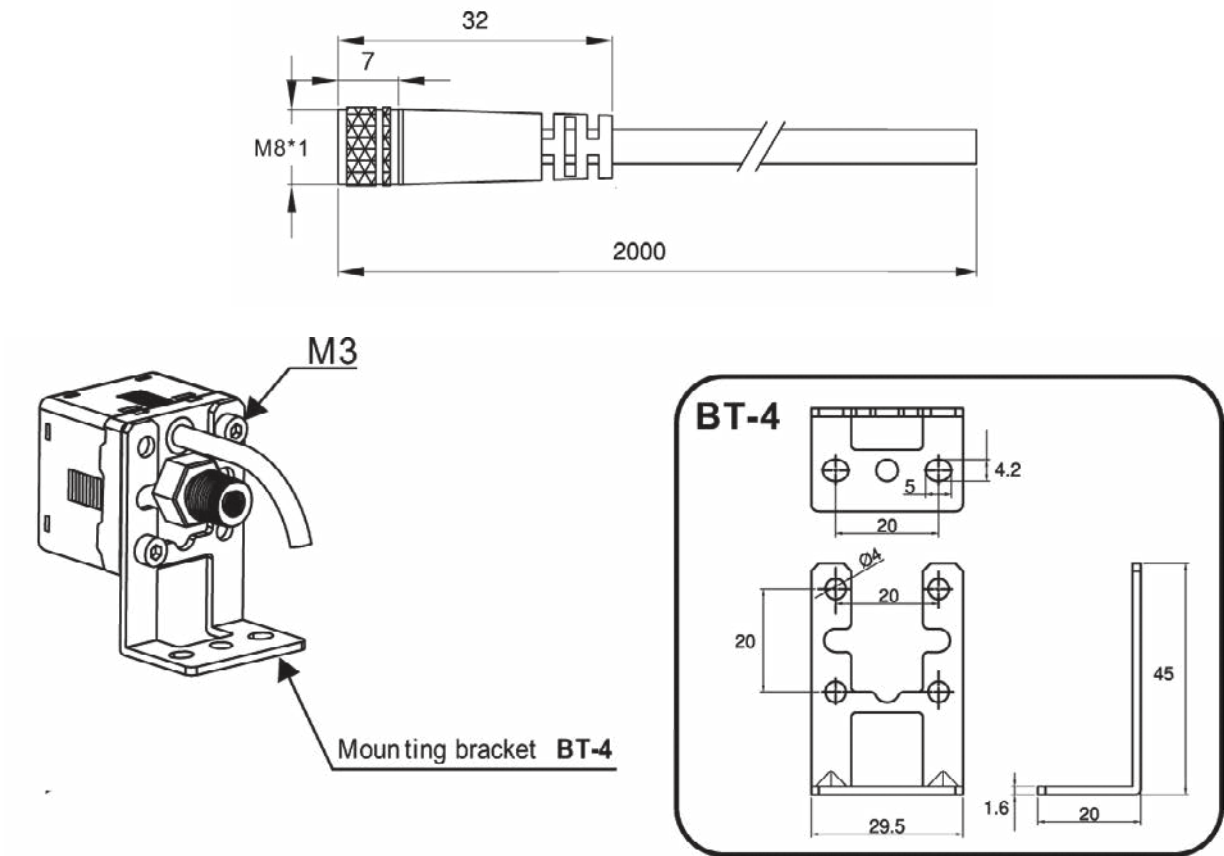


PNP

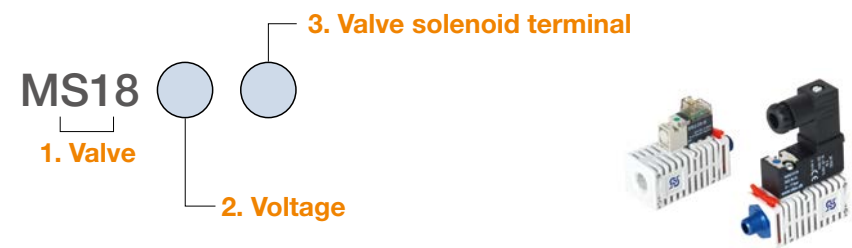


Dimensions

VCM842



Control valve – MS18



Build an Ordering No.

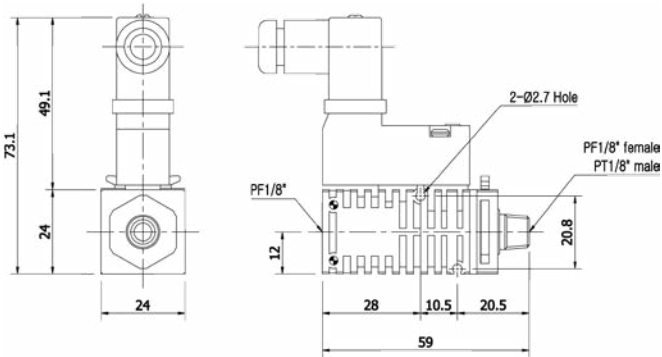
1. Valve	Description	Ordering No.
	2/2 way solenoid valve, PF1/8" female inlet	MS18
	2/2 way solenoid valve, PF1/8" male inlet	MS18M
2. Voltage	Description	Ordering No.
	AC110V	1
	AC220V	2
	DC24V	3
3. Valve terminal	Description	Ordering No.
	Solenoid Terminal, DIN, No LW	1
	Solenoid Terminal, DIN, Lamp, No LW	2
	Solenoid Terminal, Conn, Lamp & 0.3m LW: <i>Only available with DC24V</i>	3

Specification

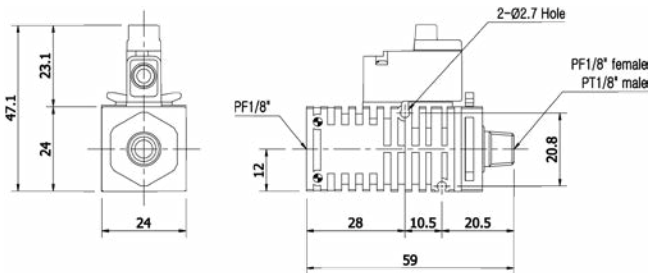
Description	MS18	Description	MS18
Connection	G1/8"	Standard voltage	AC : 110V, 220V – 50/60Hz
Normal flow	1,230 NI/m		DC : 24V
Pressure range	2.5 ~ 7 bar	Power consumption	0.85 ~ 1.3W
Temperature range	-18 ~ 65 °C	Weight	25g
Material	NYLON, AL, SUM, Ni, SS, CuZn, NBR, PPS		

Dimensions

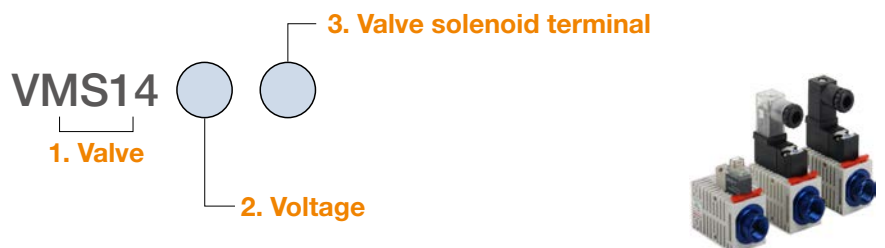
Din type



Connector type



Control valve – VMS14



Build an Ordering No.

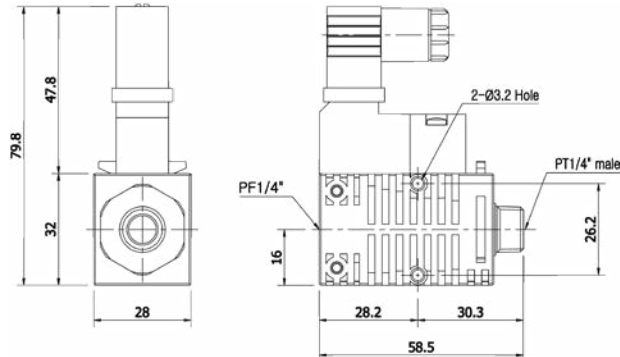
1. Valve	Description	Ordering No.
	2/2 way solenoid valve, G1/4" female inlet, Diaphragm	VMS14
	2/2 way solenoid valve, PT1/4" male inlet, Diaphragm	VMS14M
2. Voltage	Description	Ordering No.
	AC110V	1
	AC220V	2
	DC24V	3
3. Valve terminal	Description	Ordering No.
	Solenoid Terminal, DIN, No LW	1
	Solenoid Terminal, DIN, Lamp, No LW	2
	Solenoid Terminal, Conn, Lamp & 0.3m LW: <i>Only available with DC24V</i>	3

Specification

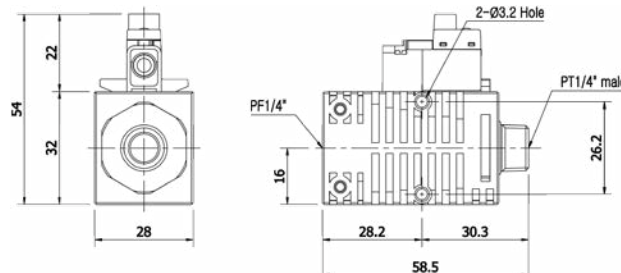
Description	VMS14	Description	VMS14
Connection	G1/4"	Standard voltage	AC : 110V, 220V – 50/60Hz
Normal flow	1410 NI/m		DC : 24V
Pressure range	2.5 ~ 7 bar	Power consumption	0.85 ~ 1.3W
Temperature range	-18 ~ 65 °C	Weight	80g
Material	Nylon, AL, SUM, Ni, SS, CuZn, NBR, PPS		

Dimensions

Din type



Connector type



Applications

