

Magic

Grippers



MV - Series



Magic Gripper (MV - series)

Feature

- ▶ High vacuum flow rate - with up to 4 cartridges, Micro Premium Cartridge (previous Magic Gripper can have max. 2 cartridges)
- ▶ Non-return check valve (integrated) function.
- ▶ Both Magic cup and Suction cup are available.
- ▶ Manifold type (with bracket) and Robot mounted flange available.
- ▶ Vertical design for securing space
- ▶ 45% reduced volume - against MC10 Magic Gripper



Magic
Grippers 

Specification

Description	MV10-02	MV10-03	MV10-04
Max. Vacuum level	- 83 kPa	- 83 kPa	- 83 kPa
Open Vacuum flow	32 NI/min	48 NI/min	64 NI/min
Max. Feed pressure	7 bar	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	50 ~ 60 dBA	50 ~ 60 dBA	50 ~ 60 dBA
Weight	40.1 g	40.5 g	40.9 g

Description	MV15-02	MV15-03	MV15-04
Max. Vacuum level	- 85 kPa	- 85 kPa	- 85 kPa
Open Vacuum flow	34 NI/min	51 NI/min	68 NI/min
Max. Feed pressure	7 bar	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	65 ~ 68 dBA	65 ~ 68 dBA	65 ~ 68 dBA
Weight	39.9 g	40.2 g	40.5 g

Vacuum Flow

Model	Max. Vacuum (-kPa)	Feed Pressure (bar)	Air Consumption (NI/min)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
				0	10	20	30	40	50	60	70	80	90
MV10 - 02	50.0	1.1	11.8	23	12.6	4.4	3.2	1.4	-	-	-	-	-
	83.0	1.8	16.4	28.4	18.8	6.6	4.4	4	2.8	1.6	0.8	0.4	-
	83.0	2.2	20	32	23.8	10.2	4.6	2.8	2.6	1.8	0.6	0.2	-
	79.8	3	26	18	15.6	12.4	8.4	5.6	4	2.4	0.6	-	-

Model	Max. Vacuum (-kPa)	Feed Pressure (bar)	Air Consumption (NI/min)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
				0	10	20	30	40	50	60	70	80	90
MV10 - 03	50.0	1.1	17.7	34.5	18.9	6.6	4.8	2.1	-	-	-	-	-
	83.0	1.8	24.6	42.6	28.2	9.9	6.6	6	4.2	2.4	1.2	0.6	-
	83.0	2.2	30	48	35.7	15.3	6.9	4.2	3.9	2.7	0.9	0.3	-
	79.8	3	39	27	23.4	18.6	12.6	8.4	6	3.6	0.9	-	-

Model	Max. Vacuum (-kPa)	Feed Pressure (bar)	Air Consumption (NI/min)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
				0	10	20	30	40	50	60	70	80	90
MV10 - 04	50.0	1.1	23.6	46	25.2	8.8	6.4	2.8	-	-	-	-	-
	83.0	1.8	32.8	56.8	37.6	13.2	8.8	8	5.6	3.2	1.6	0.8	-
	83.0	2.2	40	64	47.6	20.4	9.2	5.6	5.2	3.6	1.2	0.4	-
	79.8	3	52	36	31.2	24.8	16.8	11.2	8	4.8	1.2	-	-

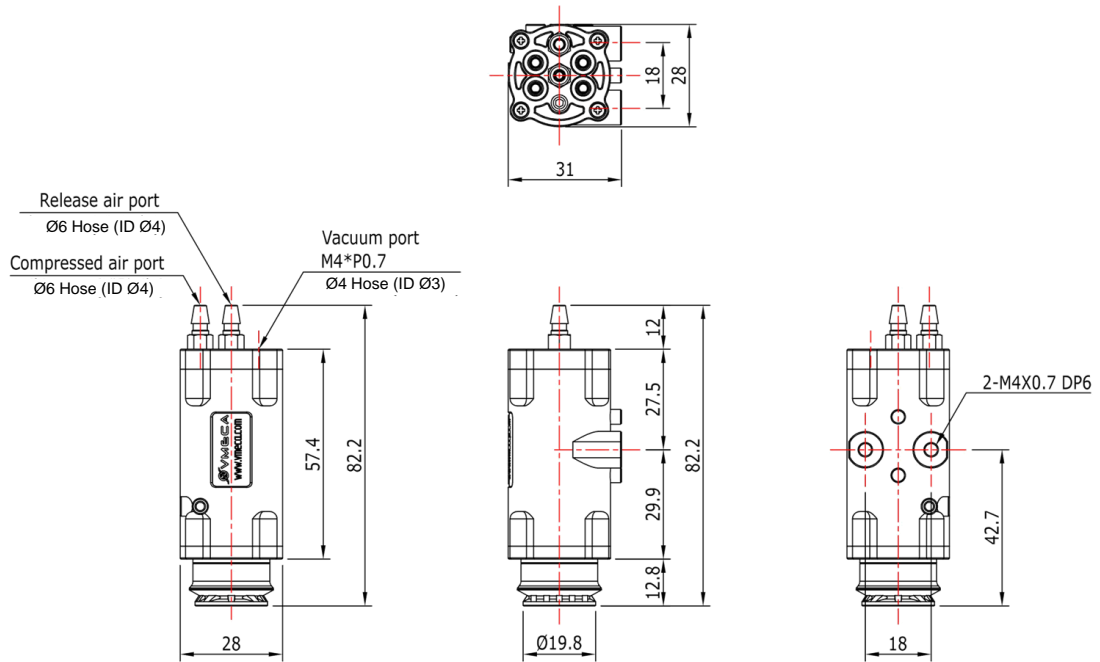
Vacuum Flow

Model	Max. Vacuum (-kPa)	Feed Pressure (bar)	Air Consumption (NI/min)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
				0	10	20	30	40	50	60	70	80	90
MV15-02	66.5	3	26	29.2	21.2	15	12.4	9.8	5.8	2	-	-	-
	87.3	4	32.2	32.6	26.2	17	14.8	12.6	10.4	8.2	5	1.2	-
	85.8	5	37.2	33.8	28	21.2	13.6	11.6	9.8	7.6	4.8	0.8	-

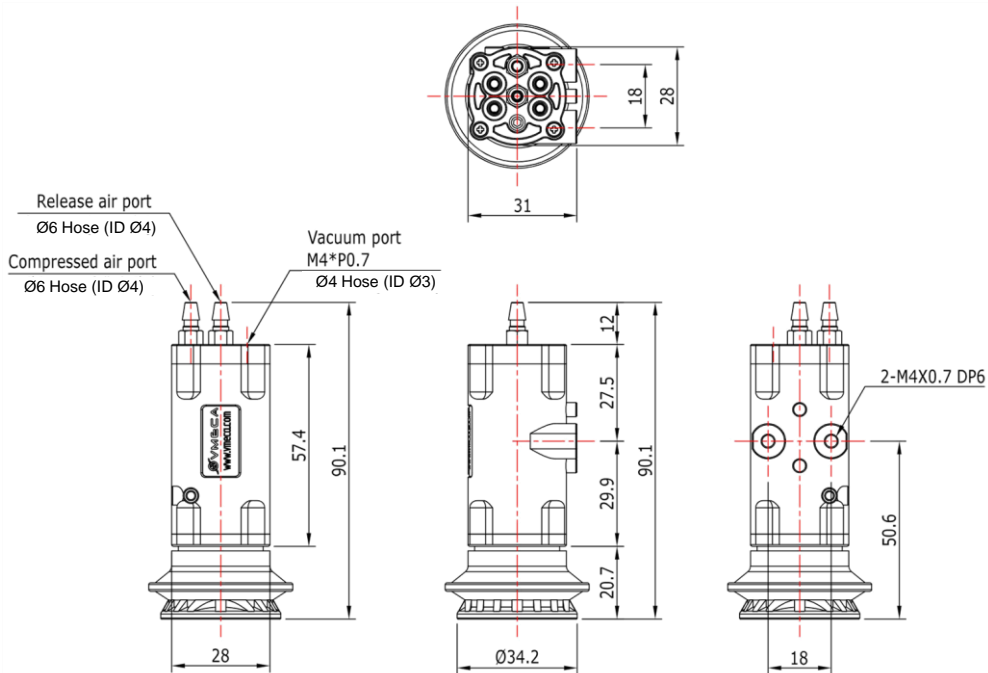
Model	Max. Vacuum (-kPa)	Feed Pressure (bar)	Air Consumption (NI/min)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
				0	10	20	30	40	50	60	70	80	90
MV15-03	66.5	3	39	43.8	31.8	22.5	18.6	14.7	8.7	3	-	-	-
	87.3	4	48.3	48.9	39.3	25.5	22.2	18.9	15.6	12.3	7.5	1.8	-
	85.8	5	55.8	50.7	42	31.8	20.4	17.4	14.7	11.4	7.2	1.2	-

Model	Max. Vacuum (-kPa)	Feed Pressure (bar)	Air Consumption (NI/min)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
				0	10	20	30	40	50	60	70	80	90
MV15-04	66.5	3	52	58.4	42.4	30	24.8	19.6	11.6	4	-	-	-
	87.3	4	64.4	65.2	52.4	34	29.6	25.2	20.8	16.4	10	2.4	-
	85.8	5	74.4	67.6	56	42.4	27.2	23.2	19.6	15.2	9.6	1.6	-

Dimensions – Basic Pump

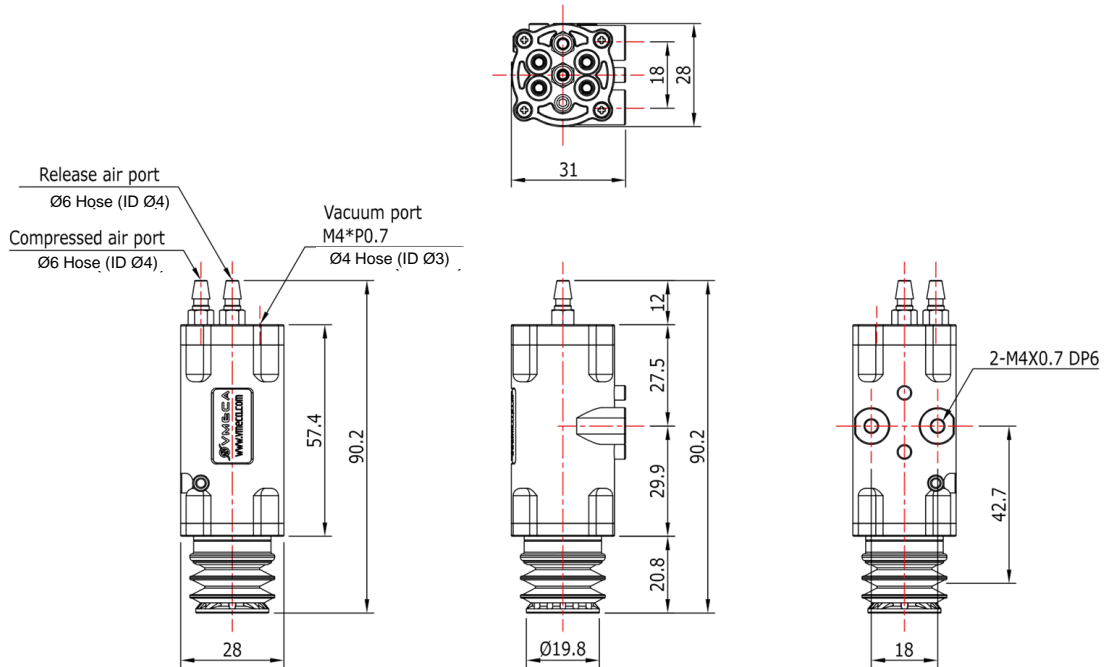


MV(15)-(02)-N1B20F
[TB1.5-20]

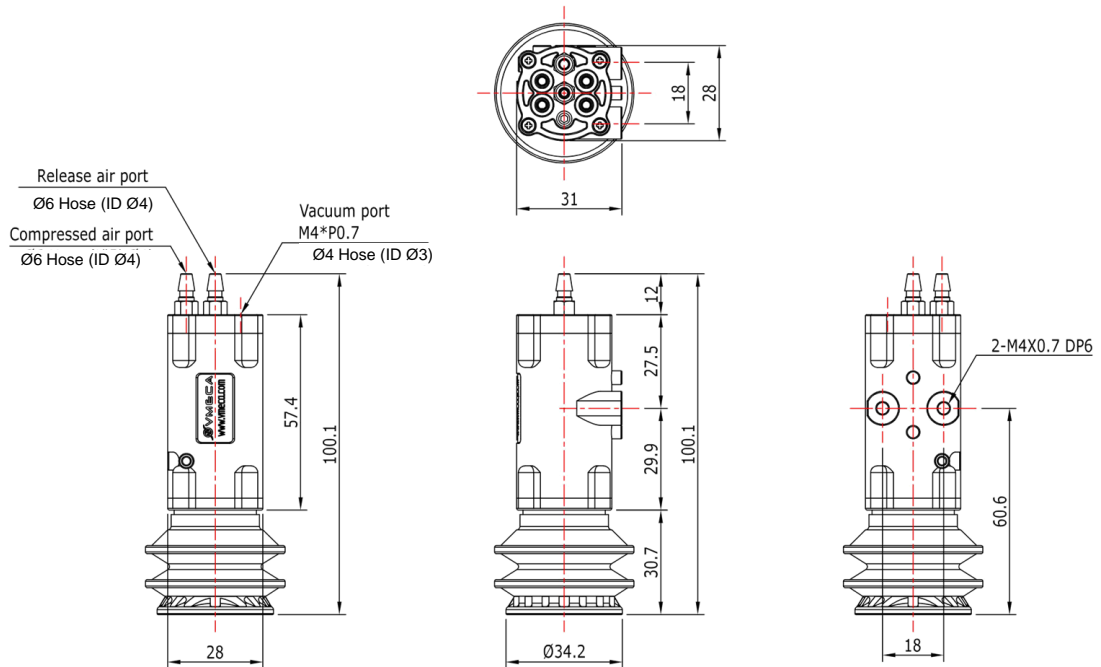


MV(15)-(02)-N1B40F
[TB1.5-40]

Dimensions – Basic Pump

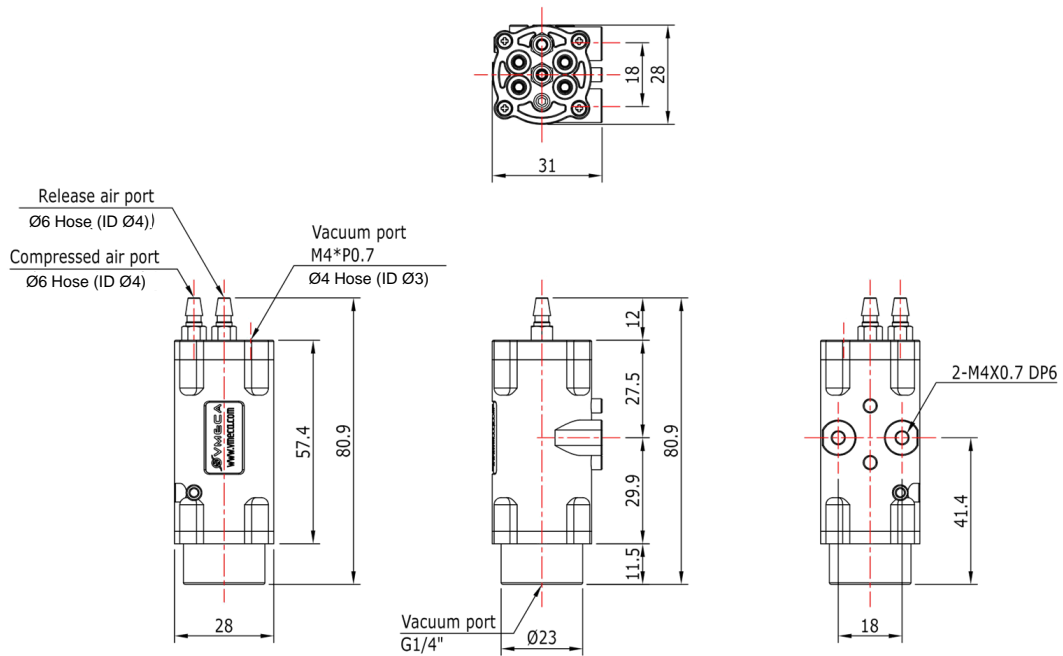


MV(15)-(02)-N2B20F
[TB2.5-20]

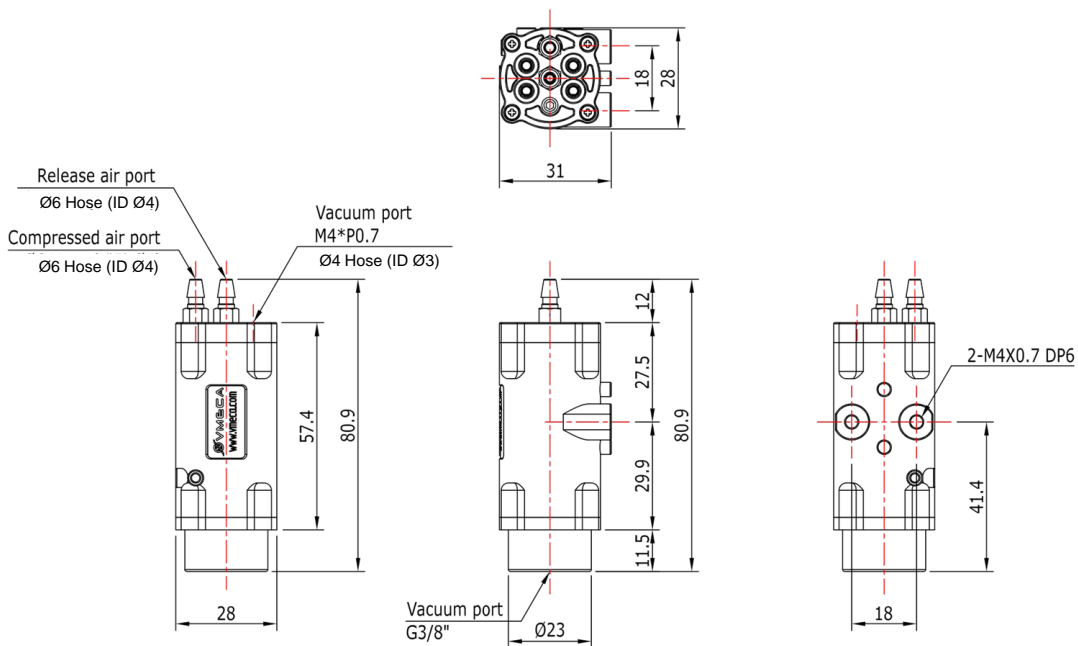


MV(15)-(02)-N2B40F
[TB2.5-40]

Dimensions – Basic Pump

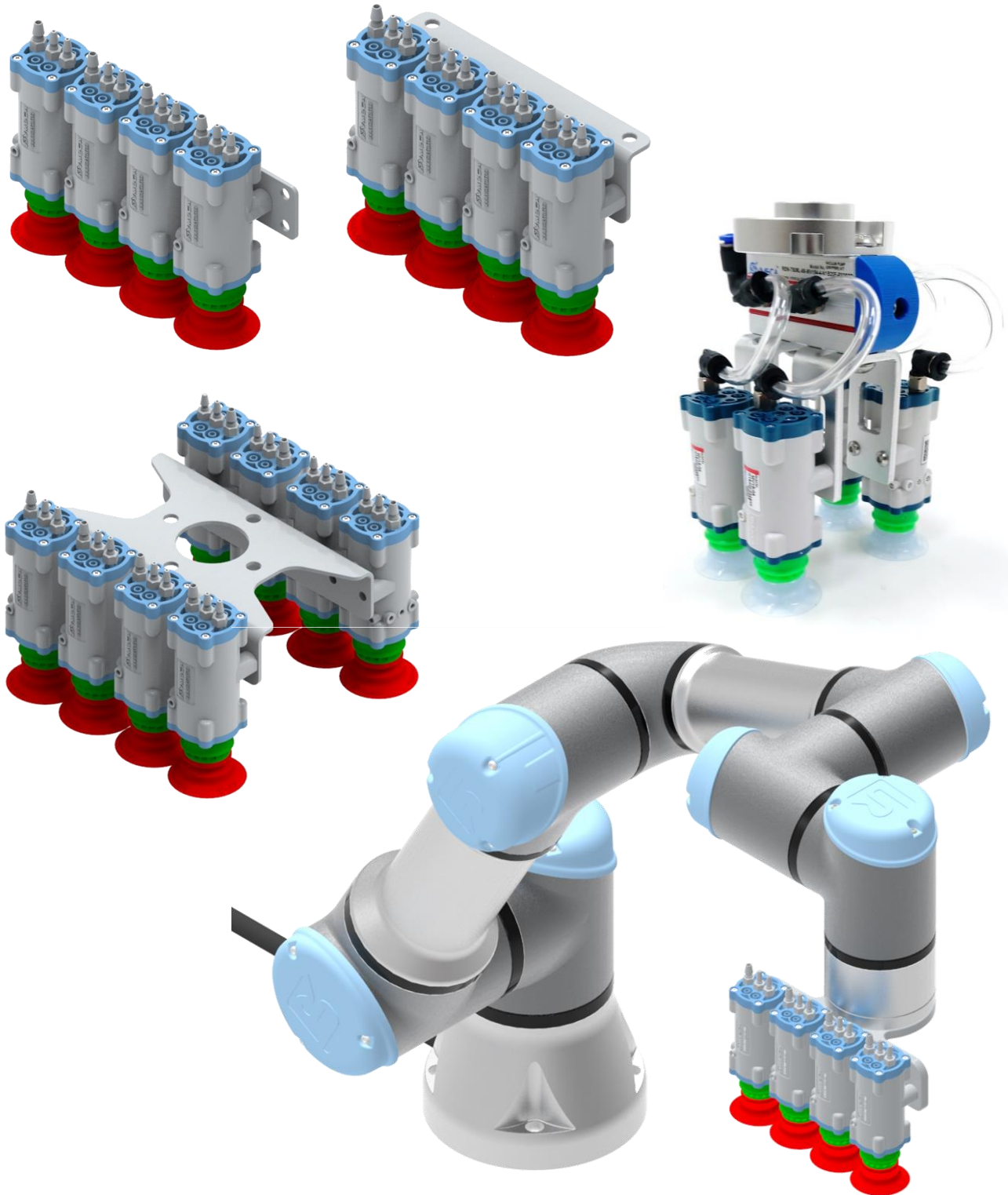


MV(15)-(02)-14F
[PF1/4" Female]

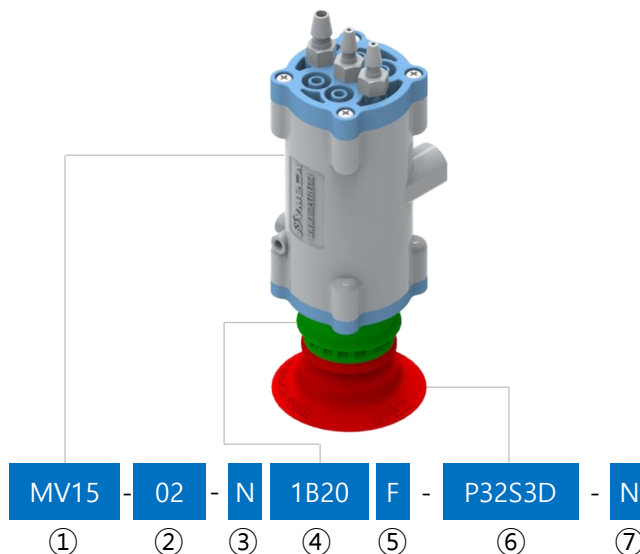


MV(15)-(02)-38F
[PF3/8" Female]

Applications



Build an Ordering No. (Magic cup type)



① Base pump

Symbol	Description
MV10	Micro cartridge 2-stage (VC102)
MV15	Micro premium cartridge 2-stage (VC152)

② Body type

Symbol	Description
02	Vacuum cartridge x 2EA
03	Vacuum cartridge x 3EA
04	Vacuum cartridge x 4EA

③ Sealing

Symbol	Description
N	NBR
E	EPDM
V	Viton

④ Top bellows

Symbol	Description
1B20*	Top bellows 1 fold, 20mm
1B40*	Top bellows 1 fold, 40mm
2B20*	Top bellows 2 folds, 20mm
2B40*	Top bellows 2 folds, 40mm

*Top bellows 60mm option is not available for MV-series.

⑤ Vacuum filter

Symbol	Description
F	Disk filter (200 mesh)

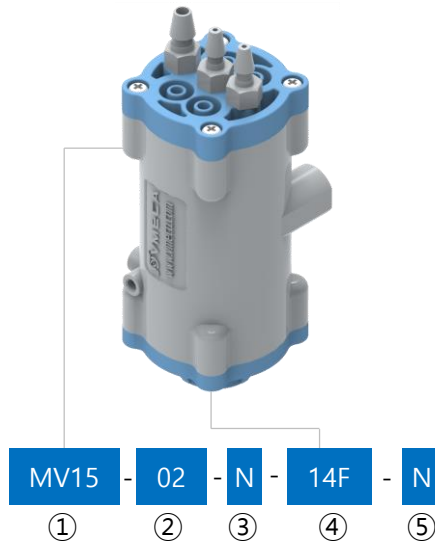
⑥ Suction lip

Symbol	Description
	Refer to Magic cup catalog

⑦ Non-return valve

Symbol	Description
Blank	No non-return valve
N	Non-return valve

Build an Ordering No. (Fitting type)



① Base pump	
Symbol	Description
MV10	Micro cartridge 2-stage (VC102)
MV15	Micro premium cartridge 2-stage (VC152)

④ Vacuum port	
Symbol	Description
14F	Vacuum port 1/4" female
38F	Vacuum port 3/8" female

② Body type	
Symbol	Description
02	Vacuum cartridge x 2EA
03	Vacuum cartridge x 3EA
04	Vacuum cartridge x 4EA

⑤ Non-return valve	
Symbol	Description
Blank	No non-return valve
N	Non-return valve

③ Sealing	
Symbol	Description
N	NBR
E	EPDM
V	Viton