

## Mini pump

### Features and Strengths

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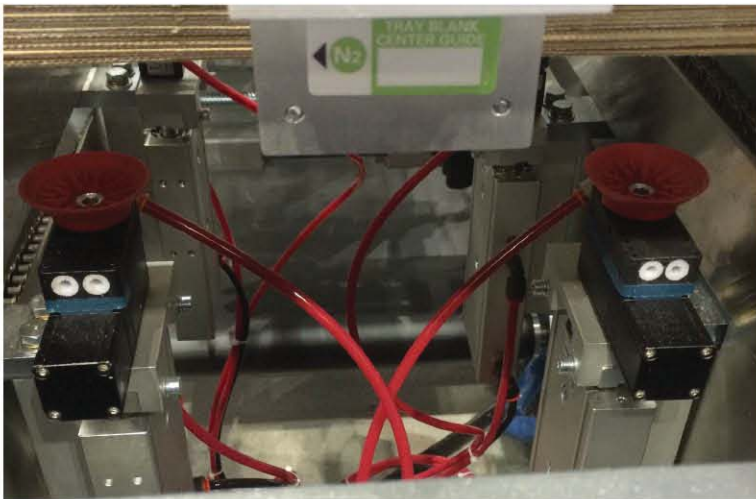
Multi stage ejector Various port size options  
Very compact size and light weight  
Large vacuum flow with high level of vacuum

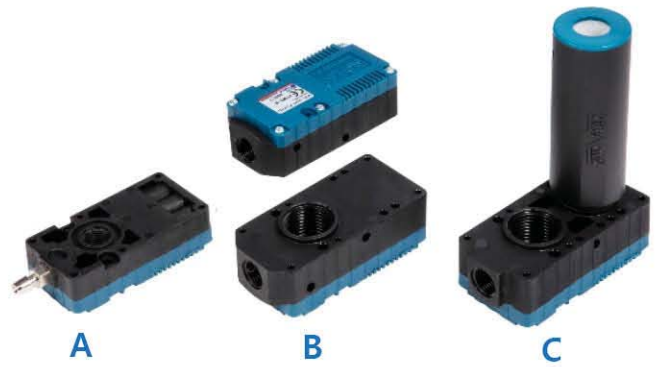
### Advantages

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Available to be located directly onto the back of suction cups – Fast response time  
High vacuum flow in efficient air consumption due to multi stage structure  
Compact size and light weight

### | Application





### Overall of specification

Model	Max. Vacuum level (- kPa)	Max. Feed Pressure (bar)	Max. Vacuum Flow (NI/m)	Air Consumption (NI/m)
VTM5	85	7	37	15 ~ 21
VTM10	85	7	74	30 ~ 42
VTM20	85	7	149	60 ~ 84
VTM30	85	7	220	90 ~ 126
VTX5	92	7	32	21.6 ~ 24
VTX10	92	7	62	43.2 ~ 48
VTX20	92	7	124	86.4 ~ 96
VTX30	92	7	185	129.6 ~ 144

# VACUUM PUMPS / Mini pumps

## Mini pump

**VMECA Mini pump** is multi stage vacuum ejector with compact design to be installed on limited space and at the near position from suction point. Mini pump has quick release option which can be possible for quick release function without additional vacuum release control valve.



### Key advantages

- Multi-stage vacuum pump
- Compact size & light weight
- Quick release module – Available quick release without additional vacuum release valve





# VACUUM PUMPS / Mini pumps

## VTM5 / VTX5

### Features and Strengths

- Multi-stage ejector
- Compact size and light weight
- Aluminum and plastic body available
- Quick response time



### Specifications

Description	VTM5	VTX5
Max. Vacuum level	-85 kPa	-92 kPa
Open Vacuum flow	37 NI/min	32 NI/min
Max. Feed pressure	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	50 ~ 65 dbA	50 ~ 65 dbA
Weight	31.4 g	31.4 g

### Vacuum Flow

Model	Max. vacuum (-kPa)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
		0	10	20	30	40	50	60	70	80	90
VTM5	85	37	26	16	14	10	8	6	2.4	0.66	-
VTX5	92	32	18	9	8	7	6	5	3	1.2	0.45

### Evacuation Time

Model	Air Consumption (NI/min)	Evacuation time in sec / liter to reach different vacuum levels (-kPa)								
		10	20	30	40	50	60	70	80	90
VTM5	15 ~ 21	0.218	0.556	1.00	1.576	2.356	3.44	5.27	10.216	-
VTX5	21.6 ~ 24	0.258	0.796	1.156	2.40	3.56	4.91	6.896	10.16	19.19

## VTM10 / VTX10

### Features and Strengths

- Multi-stage ejector
- Compact size and light weight
- Aluminum and plastic body available
- Quick response time



### Specifications

Description	VTM10	VTX10
Max. Vacuum level	-85 kPa	-92 kPa
Open Vacuum flow	74 NI/min	62 NI/min
Max. Feed pressure	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	55 ~ 68 dbA	55 ~ 68 dbA
Weight	31.9 g	31.9 g

### Vacuum Flow

Model	Max. vacuum (-kPa)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
		0	10	20	30	40	50	60	70	80	90
VTM10	85	74	52	31	28	20	16	12	4.8	1.32	-
VTX10	92	62	36	18	16	14	11	9	6	2.4	0.9

### Evacuation Time

Model	Air Consumption (NI/min)	Evacuation time in sec / liter to reach different vacuum levels (-kPa)								
		10	20	30	40	50	60	70	80	90
VTM10	30 ~ 42	0.109	0.278	0.5	0.788	1.178	1.72	2.635	5.158	-
VTX10	43.2 ~ 48	0.129	0.398	0.758	1.2	1.78	2.455	3.445	5.08	9.594



# VACUUM PUMPS / Mini pumps

## VTM20 / VTX20

### Features and Strengths

- Multi-stage ejector
- Compact size and light weight
- Aluminum and plastic body available
- Quick response time



### Specifications

Description	VTM20	VTX20
Max. Vacuum level	-85 kPa	-92 kPa
Open Vacuum flow	149 NI/min	124 NI/min
Max. Feed pressure	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	60 ~ 68 dbA	63 ~ 68 dbA
Weight	42.6 g	42.6 g

### Vacuum Flow

Model	Max. vacuum (-kPa)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
		0	10	20	30	40	50	60	70	80	90
VTM20	85	149	99	62	54	40	32	22	10.5	2.7	-
VTX20	92	124	72	35	32	27	22	18	12	4.8	1.8

### Evacuation Time

Model	Air Consumption (NI/min)	Evacuation time in sec / liter to reach different vacuum levels (-kPa)								
		10	20	30	40	50	60	70	80	90
VTM20	60 ~ 84	0.054	0.139	0.25	0.394	0.589	0.86	1.317	2.579	-
VTX20	86.4 ~ 96	0.064	0.199	0.379	0.6	0.89	1.227	1.722	2.54	4.797

## VTM30 / VTX30

### Features and Strengths

- Multi-stage ejector
- Compact size and light weight
- Aluminum and plastic body available
- Quick response time



### Specifications

Description	VTM30	VTX30
Max. Vacuum level	-85 kPa	-92 kPa
Open Vacuum flow	220 NI/min	185 NI/min
Max. Feed pressure	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	60 ~ 68 dbA	60 ~ 68 dbA
Weight	53.3 g	53.3 g

### Vacuum Flow

Model	Max. vacuum (-kPa)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
		0	10	20	30	40	50	60	70	80	90
VTM30	85	220	147	92	73	60	47	32	16	4.1	-
VTX30	92	185	108	52	47	41	33	26	18	7.2	2.7

### Evacuation Time

Model	Air Consumption (NI/min)	Evacuation time in sec / liter to reach different vacuum levels (-kPa)								
		10	20	30	40	50	60	70	80	90
VTM30	90~126	0.041	0.104	0.186	0.295	0.441	0.647	0.898	1.935	-
VTX30	129.6~144	0.048	0.149	0.284	0.44	0.673	0.917	1.287	1.906	3.595

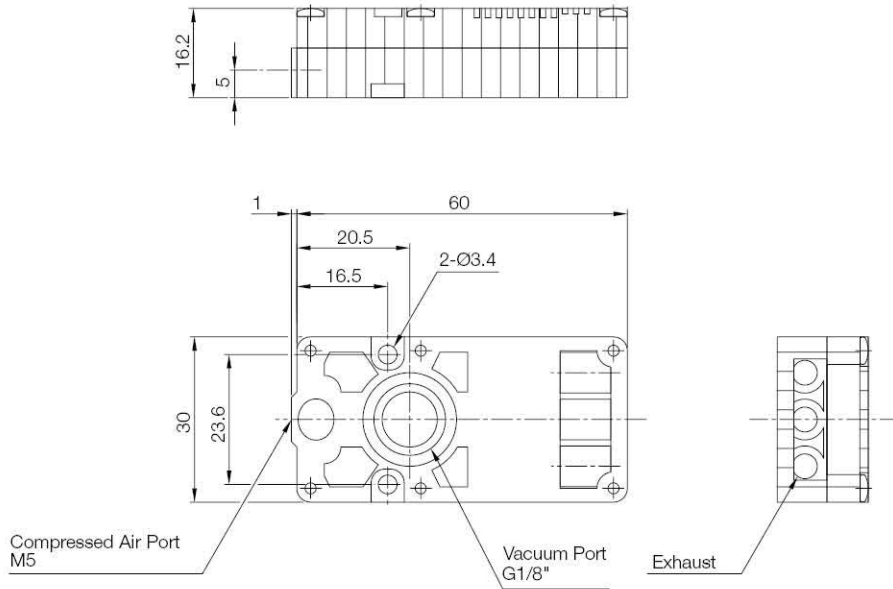


# VACUUM PUMPS / Mini pumps

## I Dimension – Basic Pump

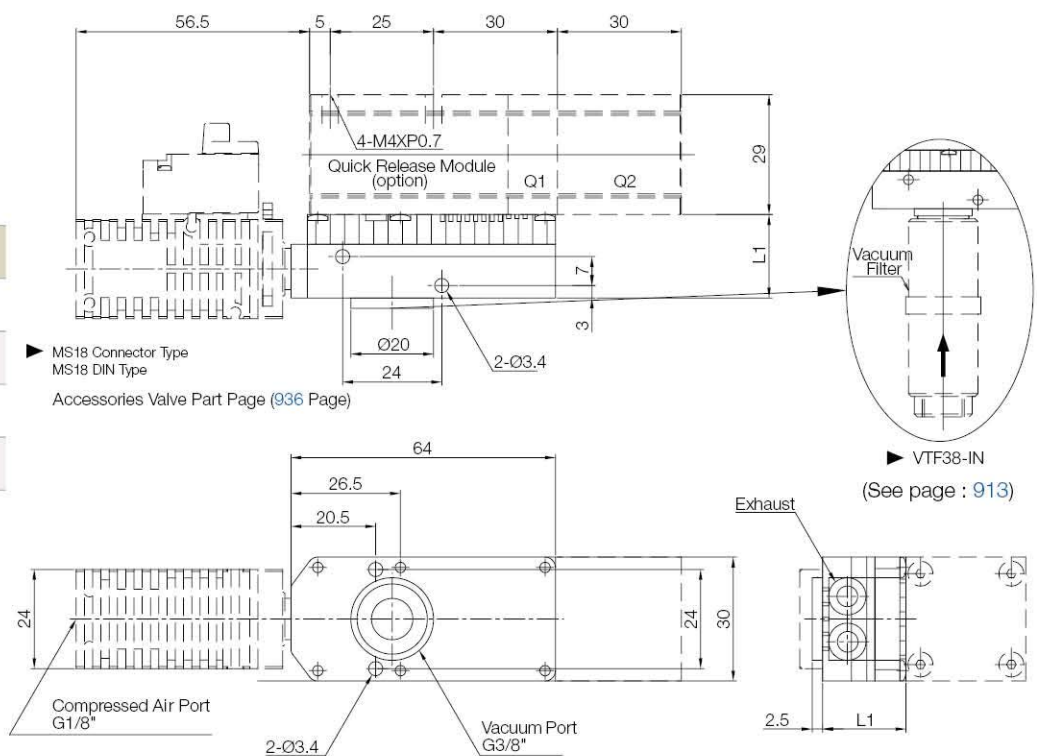
[ Unit : mm ]

VTM(5)  
VTX(10) - A



VTM(5)  
VTX(10)  
VTX(20)  
VTX(30) - B(BA, NB)

Model	L1
VTM(X)5	20.2
VTM(X)10	20.2
VTM(X)20	27.4
VTM(X)30	34.6

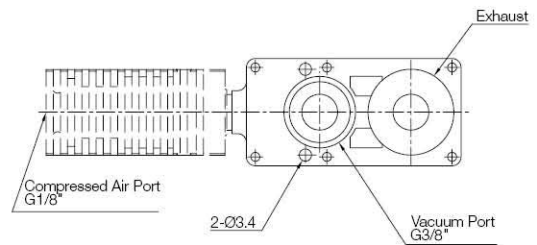
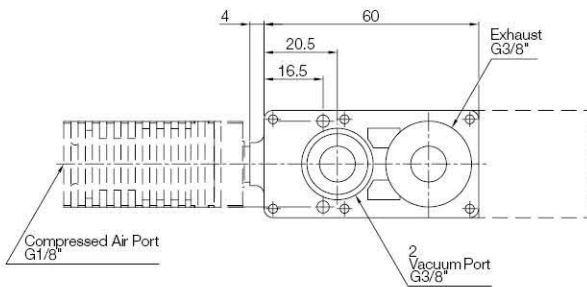
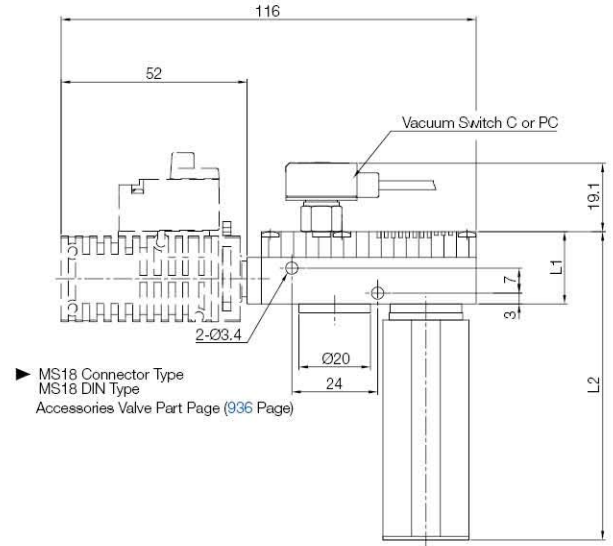
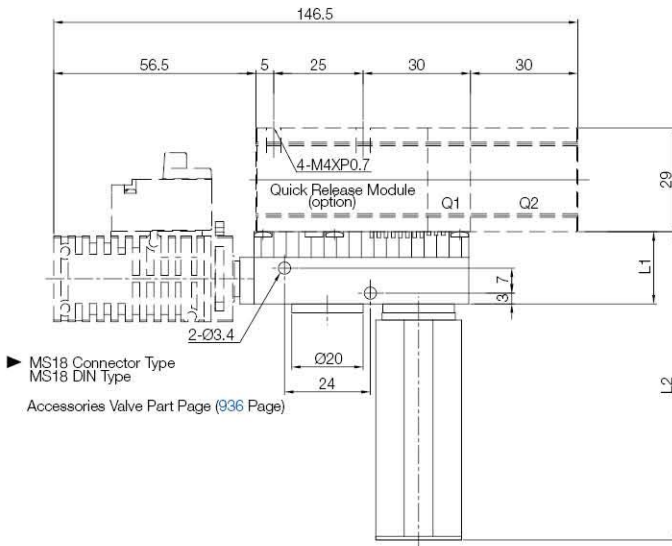


## I Dimension – Basic Pump

[ Unit : mm ]

VTM  $\begin{pmatrix} 5 \\ 10 \\ 20 \\ 30 \end{pmatrix}$ -C  
VTX

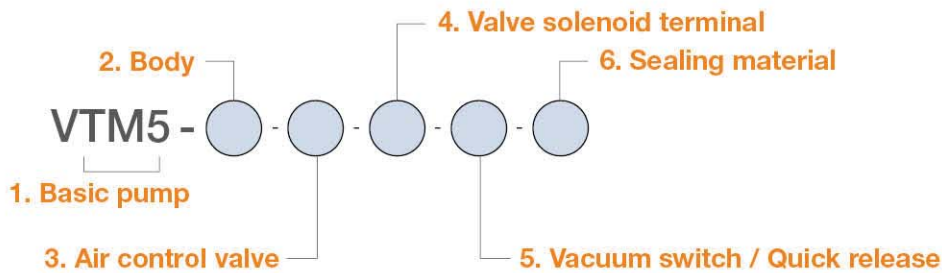
With switch S1



Model	L1	L2
VTM(X)5	20.2	86.2
VTM(X)10	20.2	86.2
VTM(X)20	27.4	93.4
VTM(X)30	34.6	100.6

# VACUUM PUMPS / Mini pumps

## I Build an Ordering No.



1. Basic pump	Description	Symbol
	Mini pump – M type	VTM5
	Mini pump – M type	VTM10
	Mini pump – M type	VTM20
	Mini pump – M type	VTM30
	Mini pump – X type	VTX5
	Mini pump – X type	VTX10
	Mini pump – X type	VTX20
	Mini pump – X type	VTX30
2. Body	Description	Symbol
	Air port M5, Vacuum port G1/8", Internal silencer: Not available with VTM20, VTX20, VTM30 & VTX30	A
	Air port G1/8", Vacuum port G3/8", Internal silencer	B
	Air port G1/8", Vacuum port G3/8", Internal silencer, Aluminum body	BA
	Air port G1/8", Vacuum port G3/8", External silencer	C
3. Air control valve	Description	Symbol
	No air control valve	Blank
	Air control valve, AC110V	A1
	Air control valve, AC220V	A2
	Air control valve, DC24V	A3
	Air control valve is not available with "A" body type	
4. Valve terminal	Description	Symbol
	Solenoid Terminal, DIN, No LW	DN
	Solenoid Terminal, DIN, Lamp, No LW	DL
	Solenoid Terminal, Conn, Lamp & 0.3m LW: <i>Only available with DC24V</i>	CL
5. Vacuum switch / Quick release	Description	Symbol
	LED Vacuum switch, No analog supply, M8-3pins, NPN	C
	LED Vacuum switch, No analog supply, M8-3pins, PNP	PC
	Quick Release Module : 12cm <sup>3</sup>	Q1
	Quick Release Module : 30cm <sup>3</sup>	Q2
6. Sealing material	Description	Symbol
	NBR	Blank
	VITON	V
	EPDM	E

## I Spare Parts – Basic pumps

Part No.	Description	Weight (g)
VTM5-A	Mini pump – M type, Air port M5, Vacuum port G1/8", Internal silencer	27.3
VTM5-B	Mini pump – M type, Air port G1/8", Vacuum port G3/8", Internal silencer	31.4
VTM5-BA	Mini pump – M type, Air port G1/8", Vacuum port G3/8", Internal silencer, Aluminum body	59.4
VTM5-C	Mini pump – M type, Air port G1/8", Vacuum port G3/8", External silencer	32.9
VTM10-A	Mini pump – M type, Air port M5, Vacuum port G1/8", Internal silencer	27.7
VTM10-B	Mini pump – M type, Air port G1/8", Vacuum port G3/8", Internal silencer	31.9
VTM10-BA	Mini pump – M type, Air port G1/8", Vacuum port G3/8", Internal silencer, Aluminum body	59.8
VTM10-C	Mini pump – M type, Air port G1/8", Vacuum port G3/8", External silencer	33.1
VTM20-B	Mini pump – M type, Air port G1/8", Vacuum port G3/8", Internal silencer	42.6
VTM20-BA	Mini pump – M type, Air port G1/8", Vacuum port G3/8", Internal silencer, Aluminum body	69.3
VTM20-C	Mini pump – M type, Air port G1/8", Vacuum port G3/8", External silencer	44.1
VTM30-B	Mini pump – M type, Air port G1/8", Vacuum port G3/8", Internal silencer	53.3
VTM30-BA	Mini pump – M type, Air port G1/8", Vacuum port G3/8", Internal silencer, Aluminum body	78.6
VTM30-C	Mini pump – M type, Air port G1/8", Vacuum port G3/8", External silencer	54.8
VTX5-A	Mini pump – X type, Air port M5, Vacuum port G1/8", Internal silencer	27.3
VTX5-B	Mini pump – X type, Air port G1/8", Vacuum port G3/8", Internal silencer	31.4
VTX5-BA	Mini pump – X type, Air port G1/8", Vacuum port G3/8", Internal silencer, Aluminum body	59.4
VTX5-C	Mini pump – X type, Air port G1/8", Vacuum port G3/8", External silencer	23.9
VTX10-A	Mini pump – X type, Air port M5, Vacuum port G1/8", Internal silencer	27.7
VTX10-B	Mini pump – X type, Air port G1/8", Vacuum port G3/8", Internal silencer	31.9
VTX10-BA	Mini pump – X type, Air port G1/8", Vacuum port G3/8", Internal silencer, Aluminum body	59.8
VTX10-C	Mini pump – X type, Air port G1/8", Vacuum port G3/8", External silencer	33.1
VTX20-B	Mini pump – X type, Air port G1/8", Vacuum port G3/8", Internal silencer	42.6
VTX20-BA	Mini pump – X type, Air port G1/8", Vacuum port G3/8", Internal silencer, Aluminum body	69.3
VTX20-C	Mini pump – X type, Air port G1/8", Vacuum port G3/8", External silencer	44.1
VTX30-B	Mini pump – X type, Air port G1/8", Vacuum port G3/8", Internal silencer	53.3
VTX30-BA	Mini pump – X type, Air port G1/8", Vacuum port G3/8", Internal silencer, Aluminum body	78.6
VTX30-C	Mini pump – X type, Air port G1/8", Vacuum port G3/8", External silencer	54.8

## I Spare Parts – Silencer

Part No.	Description	Weight (g)
VTS-38	Free Flow Silencer, G3/8"	13.23