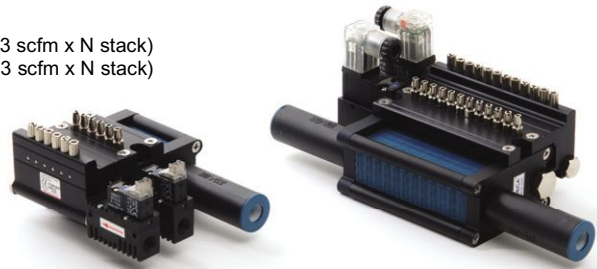


## One-Line Pump

- Max. vacuum level** : VTOX pump -92 kPa (-27.17 inHg)  
VTOM pump -85 kPa (-25.1 inHg)
- Max. flow rate** : VTOX pump 32 NI/min x N Stack (1.13 scfm x N stack)  
VTOM pump 35 NI/min x N Stack (1.23 scfm x N stack)
- Supply air pressure** : 4~6bar, max 7bar  
(58~87 psi, max 101.5psi)
- Supply air type** : Dry compressed air
- Working temperature** : -20°C ~ 80°C



**Noise level** : 50~65 dBA

This oneline model uses individual pumps to make up the complete unit, each pump is in itself a multi stage ejector unit. Each individual pump can be stacked to together thus creating a modular manifold based system. The advantages of this unit is that it can be operated using just two control valve (as to vacuum and equal vacuum release time to each vacuum pads) whilst retaining individual vacuum lines separate to one another, therefore if any leakage or surface deformation occurs and one pad loses it vacuum, it does not effect the vacuum level in the other pads. Also, it can be used vacuum port for purging work filter cleaning function. It will be achieved long life time vacuum filter & pump. Pumps can be stacked up from 4 - 16 unit depending upon requirements. The pumps can have seal material options of Viton® & EPDM for corrosive and acidic applications.

### Main Advantages

- Individual vacuum lines
- Filter cleaning function
- Efficiency and economic
- Can be adjust vacuum release flow
- Compact & long life time

### Application

- Semiconductor
- Robotic
- Packaging
- Pick & Place System
- Metal Sheet Handling
- Automotive

## Order No.

**VTOX5 x 6 - A3 R3 - CL - V**



#### ① Model-Vacuum Flow

- **VTOX5** - 24 NI/min
- VTOX10 - 32 NI/min
- VTOM5 - 29 NI/min
- VTOM10 - 35 NI/min

#### ③ Air supply control valve

- A1 - AC110V
- A2 - AC220V
- **A3** - DC24V

#### ⑤ Solenoid Terminal

- DN - DIN type without lead wire
- DL - DIN type with lamp without lead wire
- **CL\*** - Connector type with lamp & 0.3m lead wire
- 2B - DIN type with '2 in 1' BUS cable  
(Air control v/v + Vacuum release v/v)

\* Available only with DC24V

☞ About 'BUS cable' (☞ 340, 341)

#### ② Vacuum Stack

- 4 - 4 stack    11 - 11 stack
- 5 - 5 stack    12 - 12 stack
- **6 - 6 stack    13 - 13 stack**
- 7 - 7 stack    14 - 14 stack
- 8 - 8 stack    15 - 15 stack
- 9 - 9 stack    16 - 16 stack
- 10 - 10 stack

#### ④ Vacuum release control Valves

- R1 - AC110V
- R2 - AC220V
- **R3** - DC24V

#### ⑥ Sealing

- no mark - standard (NBR)
- **V** - Viton®
- E** - EPDM

※ Remark :

- VTOX10, VTOM10 maximum stack up to 12 stacks
- VTOX5, VTOM5 : above 12 stack complete with 2 silencer
- VTOX10, VTOM10 : above 6 stack complete with 2 silencer

## Characteristics

Model	max. vacuum -kPa (-inHg)	Max. vacuum flow (NI/m)/each stack	air consumption (NI/m)/each stack	noise level (dBA)	weight (g) each stack	min hose inner $\phi$ (within 2m)	
						air supply	vacuum
VTOX5	92	24	21,6~24	55~65	37	> 8~10	> 2,5
VTOX10	(27,17)	32	43,2~48	60~65	37	> 8~12	> 2,5
VTOM5	85	27	15~21	55~65	37	> 8~10	> 2,5
VTOM10	(25,1)	35	30~42	60~65	37	> 8~12	> 2,5

※ Remark : unit weight (477g + each stack weight)

## Vacuum flow in (NI/m) at different Vacuum level (-kPa)

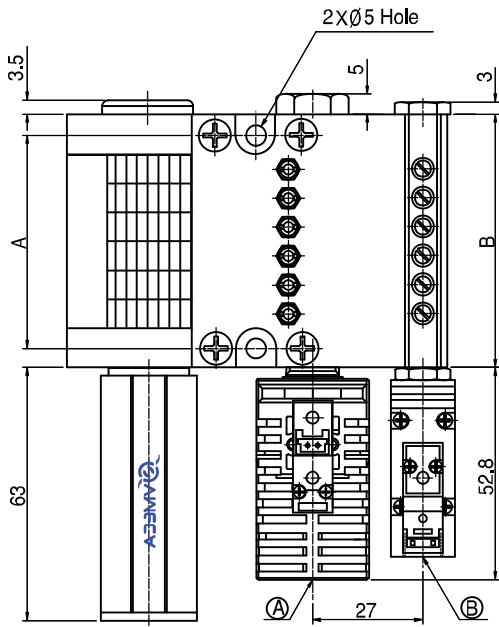
Model \ -inHg -kPa	0	2.95	5.9	8.85	11.81	14.76	17.71	20.67	23.62	26.57
	0	10	20	30	40	50	60	70	80	90
VTOX5	24	13	9	8	7	5	4	2,7	1,2	0,45
VTOX10	32	21	17	15	14	11	9	5,4	2,4	0,9
VTOM5	27	16	13	12	11	8	6	2,4	0,66	
VTOM10	35	29	25	23	19	16	12	4,8	1,32	

## Time in seconds to evacuate to vacuum level (sec/l)

Model \ -inHg -kPa	2.95	5.9	8.85	11.81	14.76	17.71	20.67	23.62	26.57
	10	20	30	40	50	60	70	80	90
VTOX5	0,258	0,796	1,516	2,4	3,38	4,91	6,896	10,16	19,19
VTOX10	0,129	0,398	0,758	1,2	1,78	2,455	3,455	5,08	9,594
VTOM5	0,218	0,556	1,00	1,576	2,356	3,44	5,27	10,216	
VTOM10	0,109	0,278	0,50	0,788	1,178	1,72	2,635	5,158	

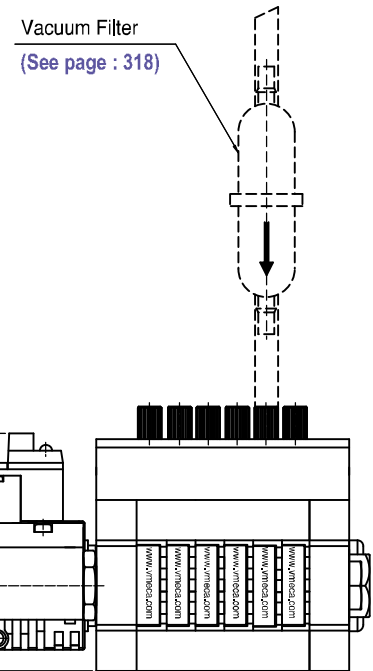
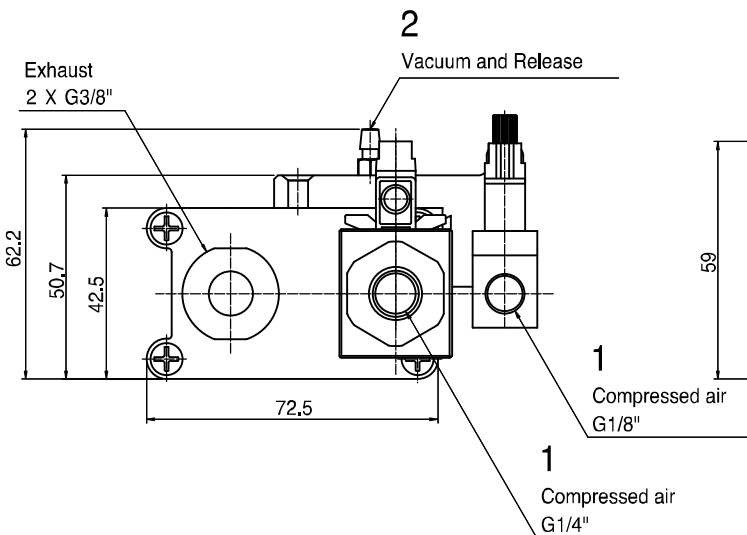
## Dimensional Information

**VTOX 5  
10**



VTOX 5,10	(mm)	
	A	B
4 stack	38.3	48.3
5 stack	45.5	55.5
6 stack	53	63
7 stack	60	70
8 stack	67.5	77.5
9 stack	74.8	84.8
10 stack	82	92
11 stack	88.5	98.5
12 stack	96	106
13 stack	103.2	113.2
14 stack	111	121
15 stack	118	128
16 stack	125.2	135.8

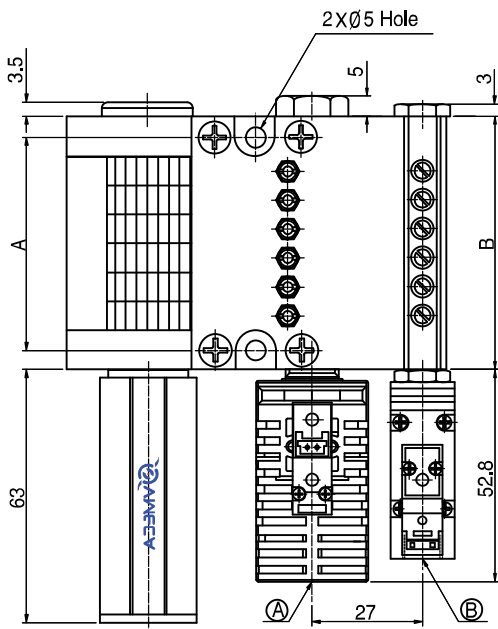
Remark : (A) - Air supply (vacuum) control valve  
(B) - Vacuum release control valve



[ Measure unit : inch ]

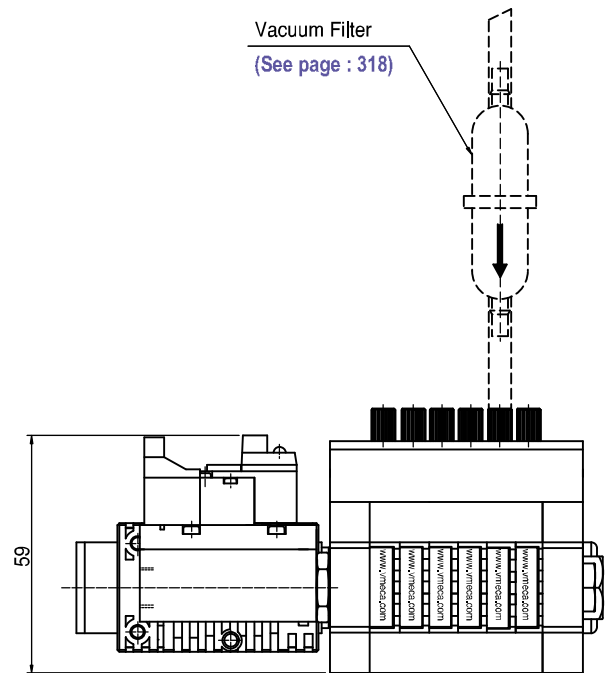
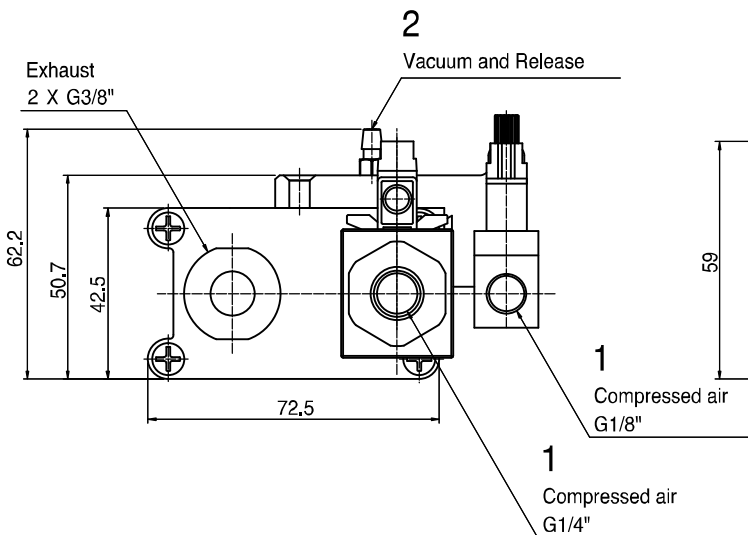
## Dimensional Information

**VTOM 5  
10**



	(mm)	
VTOM 5,10	A	B
4 stack	38.3	48.3
5 stack	45.5	55.5
6 stack	53	63
7 stack	60	70
8 stack	67.5	77.5
9 stack	74.8	84.8
10 stack	82	92
11 stack	88.5	98.5
12 stack	96	106
13 stack	103.2	113.2
14 stack	111	121
15 stack	118	128
16 stack	125.2	135.8

Remark : (A) - Air supply (vacuum) control valve  
(B) - Vacuum release control valve



[ Measure unit : inch ]

VACUUM PUMPS