

## VD pump

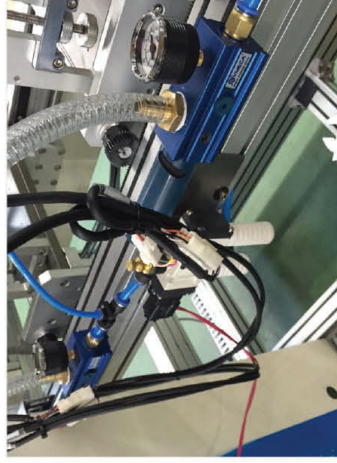
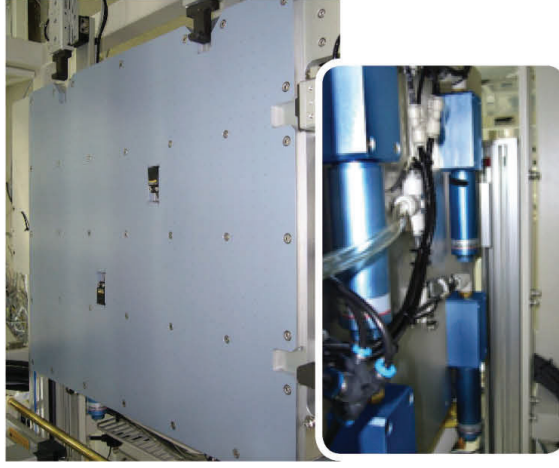
### Features and Strengths

Highly operational reliability despite fluctuating or low compressed-air pressure  
 Easy to install on plate with H22 - Vacuum port option for holding plate

### Advantages

Excellent performance in most of every automation application  
 Reliable and stable operation - High vacuum level and vacuum flow in efficient air consumption  
 Optional Air-saving kit (AS-KIT) to minimize energy consumption

### Application

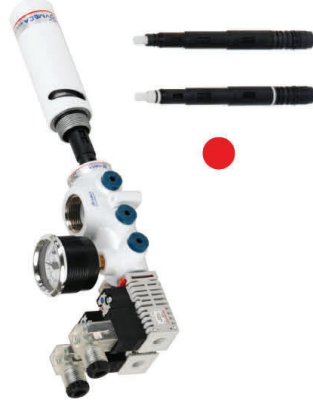


### Overall of specification

Model	Max. Vacuum level (- kPa)	Max. Feed Pressure (bar)	Max. Vacuum Flow (NI/m)	Air Consumption (NI/m)
VD303	93	7	341	152
VD302	93	7	171	152
VDL303	75	7	362	104
VDL302	75	7	200	104

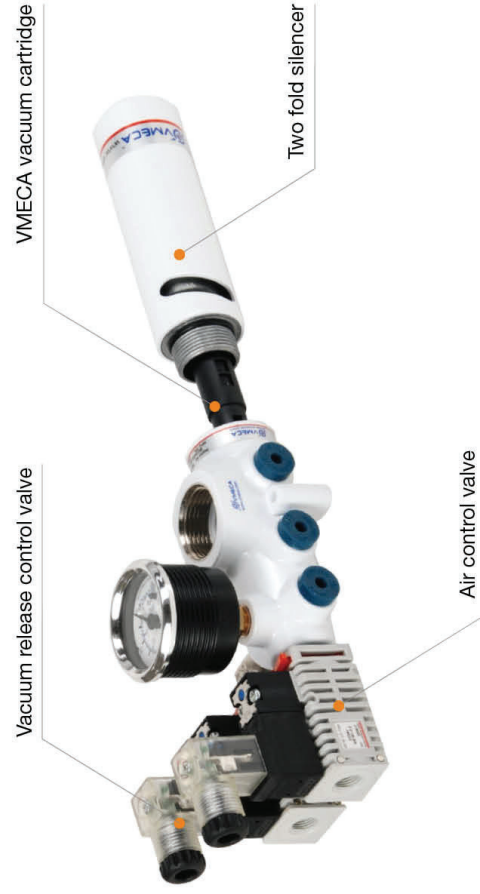
## VD pump

**VMECA VD pump** can be combined with the optional Vacuum On/Off control valve, vacuum release valve and vacuum switch to create an optimal vacuum solution for many applications. VMECA VD pump and optional components, due to the compact design and size, can be mounted close to the point of use reducing system volume and maintenance while improving cycle time.



### Key advantages

- VMECA vacuum cartridge integrated
- Available for quick release without vacuum release valve
- Auto filter cleaning system



## VD303 / VDL303

### Features and Strengths

- Highly operational reliability despite fluctuating or low compressed-air pressure
- Located at
- Optional Air-Saving Kit available to minimize energy consumption
- Quick response time
- VMECA TWOFOLD Silencer – Low noise levels



### Specifications

Description	MD303	MDL303
Max. Vacuum level	-93 kPa	-75 kPa
Open Vacuum flow	341 NI/min	362 NI/min
Max. Feed pressure	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	50 ~ 60 dbA	50 ~ 60 dbA
Weight	446 g	445 g

### Vacuum Flow

Model	Max. vacuum (-kPa)	Feed Pressure (bar)	Vacuum flow (NI/min) at different vacuum levels (-kPa)												
			0	10	20	30	40	50	60	70	80	90			
VD303	75	2.2	302	122.5	88	53	31.4	28.5	16.5	4.6	-	-	-	-	-
	93	3.0	338	152	106	64	33	32	22	16.5	6.4	1.9	-	-	-
	93	4.0	341	154	127.5	94	69	43	23.3	17.3	6.9	2.1	-	-	-
VDL303	60	4.0	302	176	110	70	46	28	6.8	-	-	-	-	-	-
	70	5.0	344	200	130	82	50	37.5	23	11.3	-	-	-	-	-
	75	6.0	362	194	154	100	52	38	32	22	-	-	-	-	-

### Evacuation Time

Model	Feed Pressure (bar)	Air Consumption (NI/min)	Evacuation time in sec / liter to reach different vacuum levels (-kPa)												
			10	20	30	40	50	60	70	80	90				
VD303	2.2	97	0.019	0.09	0.1	0.32	0.42	0.73	1.62	-	-	-	-	-	-
	3.0	118	0.015	0.07	0.18	0.28	0.38	0.64	0.8	1.2	3.8	-	-	-	-
	4.0	152	0.01	0.048	0.07	0.09	0.2	0.42	1.6	1	3.4	-	-	-	-
VDL303	4.0	70	0.028	0.09	0.17	0.29	0.38	0.8	-	-	-	-	-	-	-
	5.0	85	0.013	0.08	0.15	0.25	0.3	0.4	0.8	-	-	-	-	-	-
	6.0	104	0.012	0.07	0.12	0.2	0.28	0.36	0.6	-	-	-	-	-	-

## VD302 / VDL302

### Features and Strengths

- Highly operational reliability despite fluctuating or low compressed-air pressure
- Located at
- Optional Air-Saving Kit available to minimize energy consumption
- Quick response time
- VMECA TWOFOLD Silencer – Low noise levels



### Specifications

Description	MD302	MDL302
Max. Vacuum level	-93 kPa	-75 kPa
Open Vacuum flow	171 NI/min	200 NI/min
Max. Feed pressure	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	50 ~ 60 dbA	50 ~ 60 dbA
Weight	427 g	426 g

### Vacuum Flow

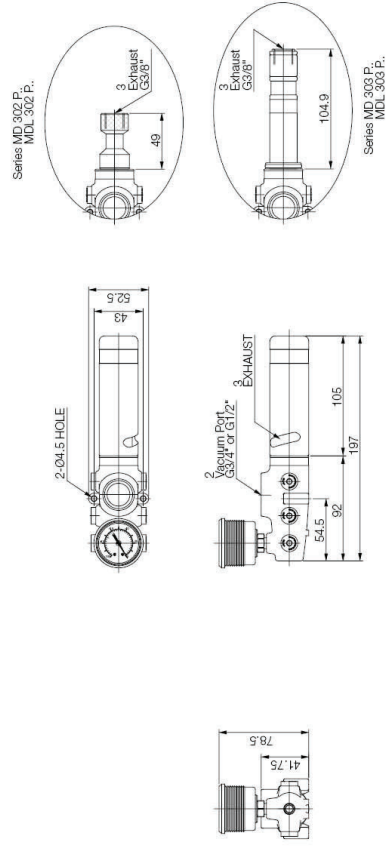
Model	Max. vacuum (-kPa)	Feed Pressure (bar)	Vacuum flow (NI/min) at different vacuum levels (-kPa)											
			0	10	20	30	40	50	60	70	80	90		
VD302	75	2.2	164	122.5	88	53	31.4	28.5	16.5	4.6	-	-	-	-
	93	3.0	170	152	106	64	33	32	22	16.5	6.4	1.9	-	-
	93	4.0	171	154	127.5	94	69	43	23.3	17.3	6.9	2.1	-	-
VDL302	60	4.0	188	158	110	70	46	28	6.8	-	-	-	-	-
	70	5.0	195	176	130	82	50	37.5	23	11.3	-	-	-	-
	75	6.0	200	183	154	100	52	38	32	22	-	-	-	-

### Evacuation Time

Model	Feed Pressure (bar)	Air Consumption (NI/min)	Evacuation time in sec / liter to reach different vacuum levels (-kPa)											
			10	20	30	40	50	60	70	80	90			
VD302	2.2	97	0.03	0.12	0.21	0.38	0.47	0.73	1.62	-	-	-	-	-
	3.0	118	0.027	0.1	0.19	0.3	0.4	0.64	0.8	1.2	3.8	-	-	-
	4.0	152	0.028	0.058	0.09	0.1	0.25	0.5	0.69	1.05	3.5	-	-	-
VDL302	4.0	70	0.035	0.084	0.17	0.29	0.38	0.8	-	-	-	-	-	-
	5.0	85	0.027	0.08	0.15	0.25	0.3	0.4	0.8	-	-	-	-	-
	6.0	104	0.028	0.08	0.12	0.2	0.28	0.36	0.6	-	-	-	-	-

## Dimensions – Basic Pump

[ Unit : mm[in] ]

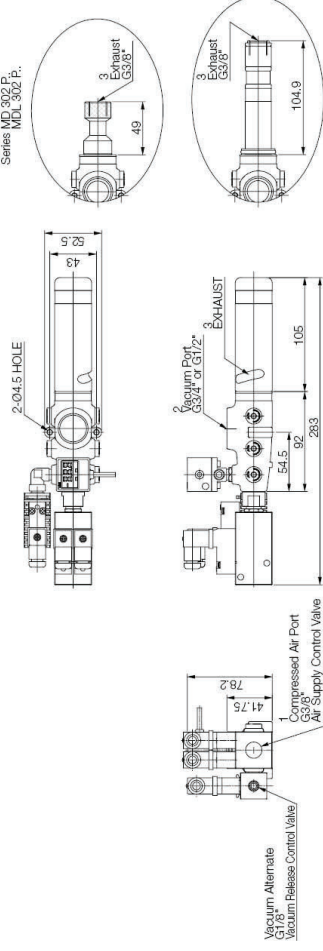


Series MD 302 P.  
MDL 302 P.

Series MD 303 P.  
MDL 303 P.

## Dimensions – With accessories

[ Unit : mm[in] ]

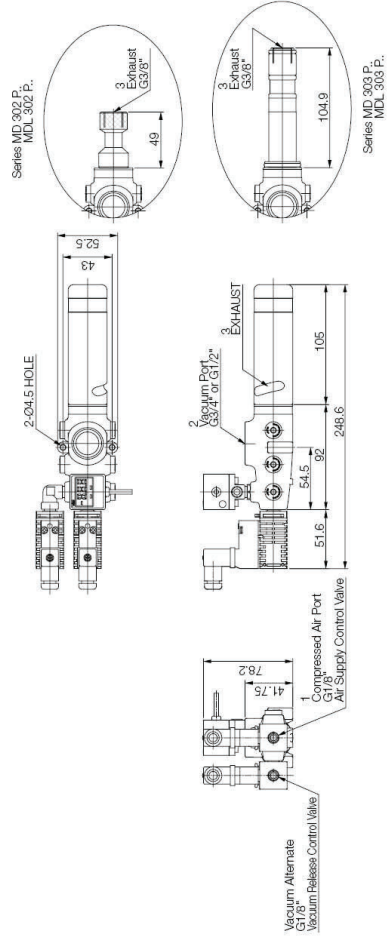


Series MD 302 P.  
MDL 302 P.

Series MD 303 P.  
MDL 303 P.

## Dimensions – With accessories

[ Unit : mm[in] ]

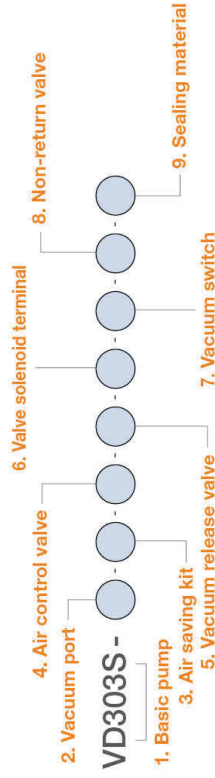


Series MD 302 P.  
MDL 302 P.

Series MD 303 P.  
MDL 303 P.



## Build an Ordering No.



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8. Non-return valve	Description	Ordering No.
	No non-return valve	Blank
	Non-return valve: No need with Air saving kit	N

9. Sealing material	Description	Ordering No.
	NBR	Blank
	VITON	V
	EPDM	E

## Spare Parts – Basic pumps

Model	Description	Weight (g)
VD302P-34	VD pump, 2-Stage Cartridge, Plug, Vacuum port : G3/4"	
VD302P-12	VD pump, 2-Stage Cartridge, Plug, Vacuum port : G1/2"	
VD303P-34	VD pump, 3-Stage Cartridge, Plug, Vacuum port : G3/4"	
VD303P-12	VD pump, 3-Stage Cartridge, Plug, Vacuum port : G1/2"	
VD303S-34	VD pump, 3-Stage Cartridge, Two-fold silencer, Vacuum port : G3/4"	
VD303S-12	VD pump, 3-Stage Cartridge, Two-fold silencer, Vacuum port : G1/2"	
VDL302P-34	VD pump, 2-Stage "L" Cartridge, Plug, Vacuum port : G3/4"	
VDL302P-12	VD pump, 2-Stage "L" Cartridge, Plug, Vacuum port : G1/2"	
VDL303P-34	VD pump, 3-Stage "L" Cartridge, Plug, Vacuum port : G3/4"	
VDL303P-12	VD pump, 3-Stage "L" Cartridge, Plug, Vacuum port : G1/2"	
VDL303S-34	VD pump, 3-Stage "L" Cartridge, Two-fold silencer, Vacuum port : G3/4"	
VDL303S-12	VD pump, 3-Stage "L" Cartridge, Two-fold silencer, Vacuum port : G1/2"	

## Spare Parts – Plug & Silencer

Model	Description	Weight (g)
VCP-M25-302	Holding plug for MD302 / MDL302 vacuum pumps	31.04
VCP-M25-303	Holding plug for MD303 / MDL303 vacuum pumps	59.32
VTTS-M25	Two-Fold Silencer for MD303 / MDL303 vacuum pumps	78.34

<b>1. Basic pump</b>	<b>Description</b> VD pump, 3-Stage Cartridge, Two-fold silencer VD pump, 3-Stage Cartridge, Plug VD303P VD302P VDL303S VDL303P VDL302P	<b>Ordering No.</b> VD303S VD303P VD302P VDL303S VDL303P VDL302P
<b>2. Vacuum port</b>	<b>Description</b> Vacuum port G3/4" Vacuum port G1/2"	<b>Ordering No.</b> 34 12
<b>3. Air saving kit</b>	<b>Description</b> No air saving kit Air saving kit without air control valve Air saving kit integrated with air control valve	<b>Ordering No.</b> Blank AS ASV
<b>4. Air control valve</b>	<b>Description</b> No air control valve Air control valve, AC110V Air control valve, AC220V Air control valve, DC24V Double air control valve, AC110V Double air control valve, AC220V Double air control valve, DC24V	<b>Ordering No.</b> Blank A1 A2 A3 D1 D2 D3
<b>5. Vacuum release valve</b>	<b>Description</b> No vacuum release valve Vacuum release valve, AC110V Vacuum release valve, AC220V Vacuum release valve, DC24V	<b>Ordering No.</b> Blank R1 R2 R3
<b>6. Valve solenoid terminal</b>	<b>Description</b> Solenoid Terminal, DIN, No LW Solenoid Terminal, DIN, Lamp, No LW Solenoid Terminal, Conn. Lamp & 0.3m LW: Only available with DC24V Solenoid Terminal, DIN, 2 in 1 BUS cable: Not available with Double Solenoid Valve Solenoid Terminal, DIN, 3 in 1 BUS cable: Not available with Double Solenoid Valve Solenoid Terminal, DIN, 4 in 1 BUS cable: available with Double Solenoid Valve -3B and 4B are available only with DC24V and S2 or S2P vacuum switch	<b>Ordering No.</b> DN DL CL 2B 3B 4B
<b>7. Vacuum switch</b>	<b>Description</b> No vacuum switch Digital switch, No analog supply, M8-4pins, NPN Digital switch, No analog supply, M8-4pins, PNP Digital switch, No analog supply, Grommet, NPN Digital switch, No analog supply, Grommet, PNP Digital switch, Analog supply, Grommet, NPN Digital switch, Analog supply, Grommet, PNP	<b>Ordering No.</b> Blank S2 S2P SG2 SG2P SG3 SG3P