

Magic pump

Features and Strengths

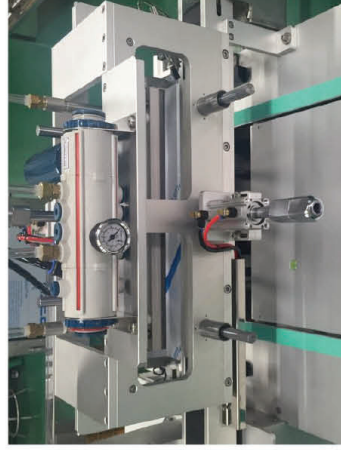
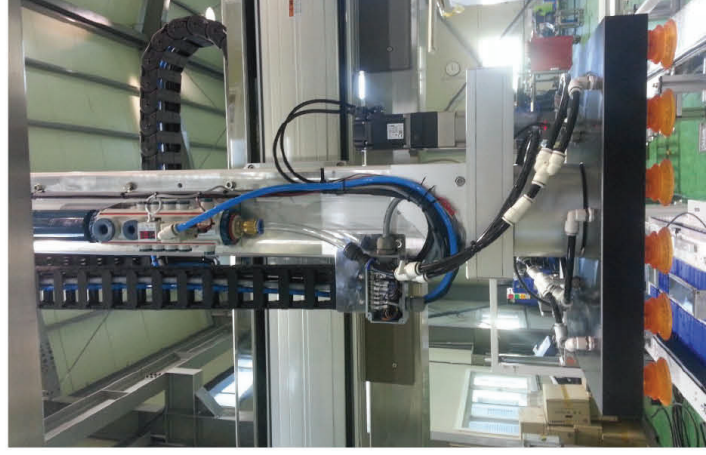
Highly operational reliability despite fluctuating or low compressed-air pressure
 Available to select various port options and port position / direction
 Integrated pleated filter with high dirt capacity & Auto-cleaning system

Advantages

Flexible structure to fit various application such as limited space, vacuum distribution, etc.
 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)
M3122	92	7	342	304
M3123	92	7	513	456
M3124	92	7	684	608
ML3122	75	7	362	208
ML3123	75	7	600	312
ML3124	75	7	800	416
M3132	92	7	682	304
M3133	92	7	1023	456
M3134	92	7	1364	608
ML3132	75	7	724	208
ML3133	75	7	1086	312
ML3134	75	7	1448	416

Magic pump

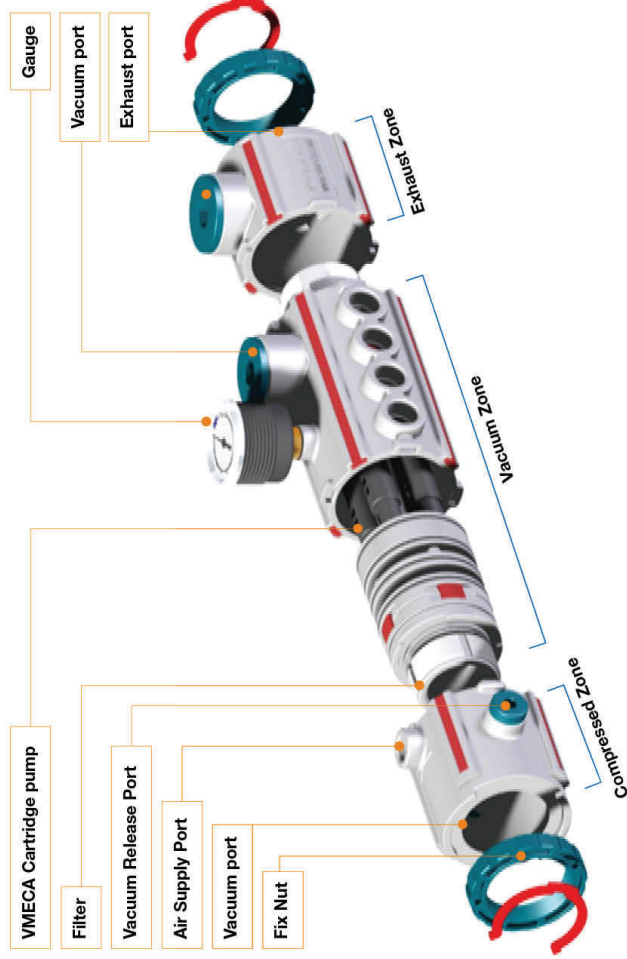
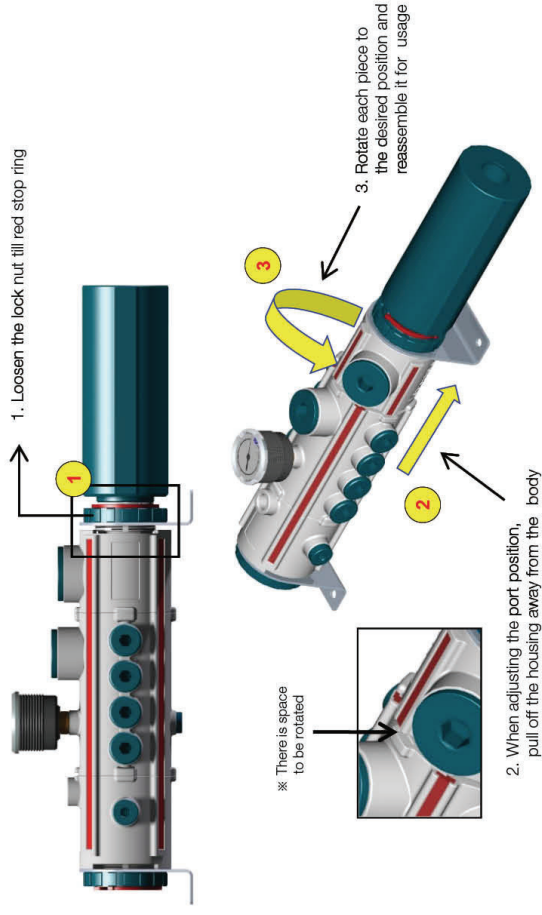


VMECA Magic pump with integral vacuum filter and rotatable structure can be combined with the optional vacuum On/Off control valve, vacuum release valve and vacuum switch to create an optimal vacuum solution for various applications. VMECA Magic pump and optional components, due to flexible structure, can be suitable for the case that is in limited space and needs distribution.

Key advantages

- VMECA vacuum cartridge integrated
- Vacuum filter self cleaning system
- Flexibly rotatable structure

Rotatable structure



Applications



M3134 / ML3134

Features and Strengths

- Highly operational reliability despite fluctuating or low compressed-air pressure
- Integrated pleated filter with high dirt capacity & Auto-cleaning system
- Flexible structure
- Available to select various port options and port position / direction
- Easy to assemble and disassemble without any tools
- Quick response time
- Patented design



Specifications

Description	M3134	ML3134
Max. Vacuum level	-92 kPa	-75 kPa
Open Vacuum flow	1,364 NI/min	1,448 NI/min
Max. Feed pressure	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	55 ~ 62 dbA	50 ~ 60 dbA
Weight	883 g	882 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					
M3134	92	3.0	1352	608	424	256	132	128	88	66	26	7.5					
	92	4.0	1364	616	510	376	276	172	93	69	28	8.5					
	70	5.0	1376	784	520	328	200	150	92	45	-	-					
	75	6.0	1448	828	616	400	208	152	128	88	-	-					

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						
M3134	3.0	472	0.004	0.018	0.02	0.07	0.09	0.16	0.2	0.3	0.95						
	4.0	608	0.003	0.01	0.01	0.02	0.05	0.1	0.15	0.25	0.85						
	5.0	340	0.0057	0.018	0.03	0.063	0.075	0.1	0.2	-	-						
	6.0	416	0.0053	0.015	0.029	0.052	0.071	0.09	0.15	-	-						

M3133 / ML3133

Features and Strengths

- Highly operational reliability despite fluctuating or low compressed-air pressure
- Integrated pleated filter with high dirt capacity & Auto-cleaning system
- Flexible structure
- Available to select various port options and port position / direction
- Easy to assemble and disassemble without any tools
- Quick response time
- Patented design



Specifications

Description	M3133	ML3133
Max. Vacuum level	-92 kPa	-75 kPa
Open Vacuum flow	1,023 NI/min	1,086 NI/min
Max. Feed pressure	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	55 ~ 62 dbA	50 ~ 60 dbA
Weight	887 g	887 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					
M3133	92	3.0	1014	456	318	192	99	96	66	50	19	6					
	92	4.0	1023	462	383	282	207	129	70	52	21	6.1					
	70	5.0	1032	588	390	246	150	112.5	69	34	-	-					
	75	6.0	1086	621	462	300	156	114	96	66	-	-					

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						
M3133	3.0	354	0.005	0.02	0.03	0.09	0.12	0.21	0.24	0.4	1.27						
	4.0	456	0.004	0.01	0.02	0.03	0.06	0.14	0.2	0.33	1.13						
	5.0	255	0.0085	0.028	0.05	0.08	0.1	0.13	0.26	-	-						
	6.0	312	0.0079	0.02	0.04	0.06	0.09	0.12	0.2	-	-						

M3132 / ML3132

Features and Strengths

- Highly operational reliability despite fluctuating or low compressed-air pressure
- Integrated pleated filter with high dirt capacity & Auto-cleaning system
- Flexible structure
- Available to select various port options and port position / direction
- Easy to assemble and disassemble without any tools
- Quick response time
- Patented design



Specifications

Description	M3132	ML3132
Max. Vacuum level	-92 kPa	-75 kPa
Open Vacuum flow	682 NI/min	724 NI/min
Max. Feed pressure	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	55 ~ 62 dbA	50 ~ 60 dbA
Weight	891 g	890 g

Vacuum Flow

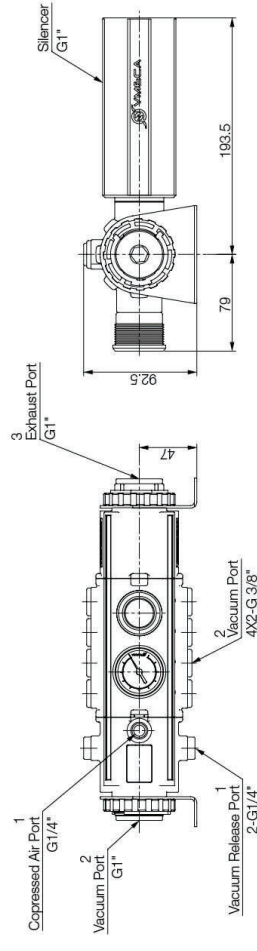
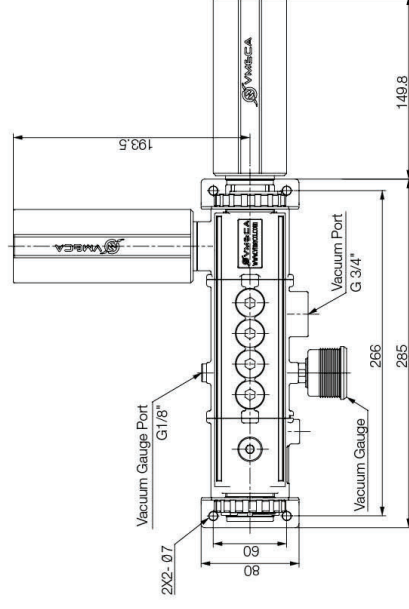
Model	Max. vacuum (-kPa)	Feed Pressure (bar)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
			0	10	20	30	40	50	60	70	80	90
M3132	92	3.0	676	304	212	128	66	64	44	33	12.5	3.5
	92	4.0	682	308	255	188	138	86	46	34	13.5	4
ML3132	70	5.0	688	392	260	164	100	75	46	23.8	-	-
	75	6.0	724	415	308	200	104	76	64	44	-	-

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	
M3132	3.0	236	0.01	0.032	0.045	0.15	0.22	0.33	0.48	0.78	1.98	
	4.0	304	0.01	0.026	0.037	0.047	0.12	0.23	0.35	0.7	1.72	
ML3132	5.0	170	0.014	0.032	0.06	0.128	0.16	0.25	0.43	-	-	
	6.0	208	0.012	0.03	0.047	0.098	0.15	0.2	0.32	-	-	

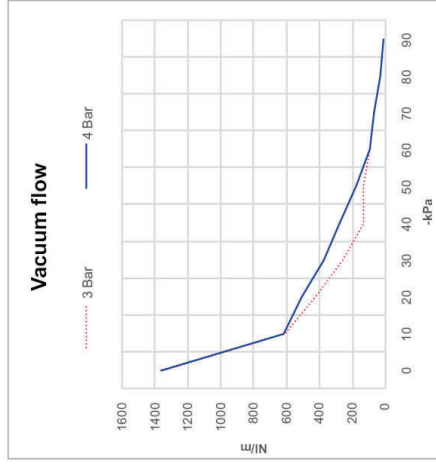
Dimensions – Basic Pump

[Unit : mm]

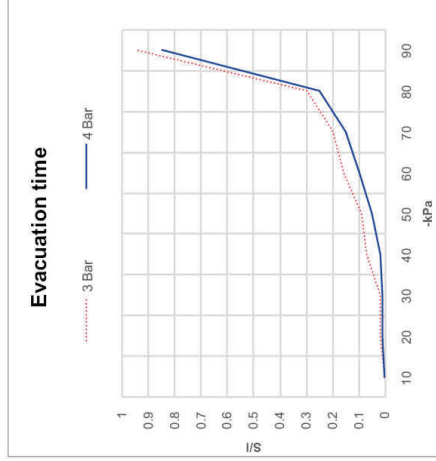


Performance data

M3134

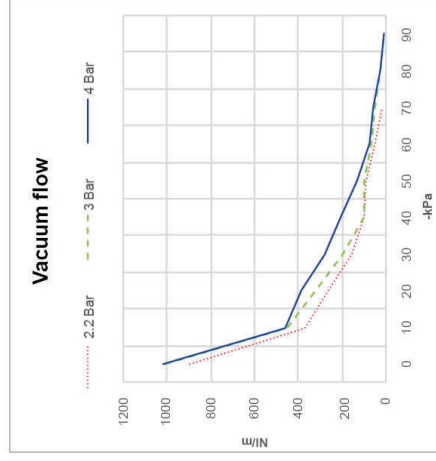


※ Vacuum flow at different vacuum level

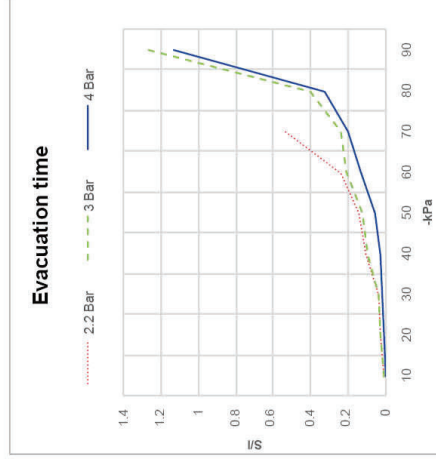


※ Time to evacuate a volume at different vacuum level

M3133

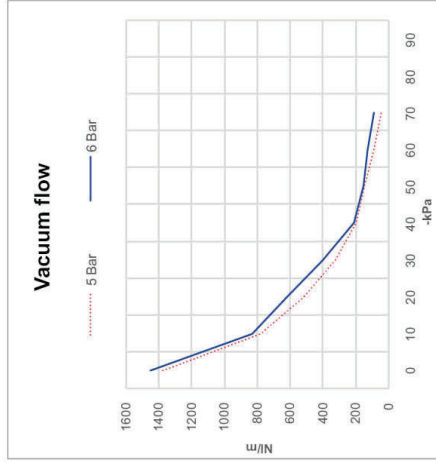


※ Vacuum flow at different vacuum level

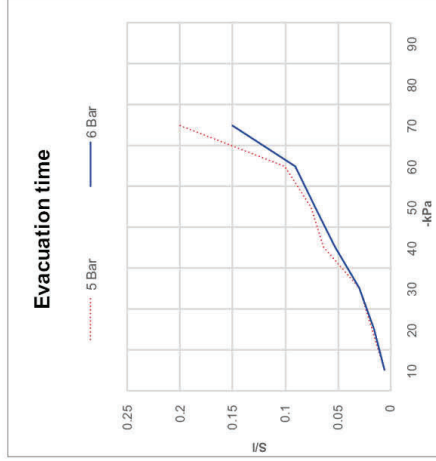


※ Time to evacuate a volume at different vacuum level

ML3134

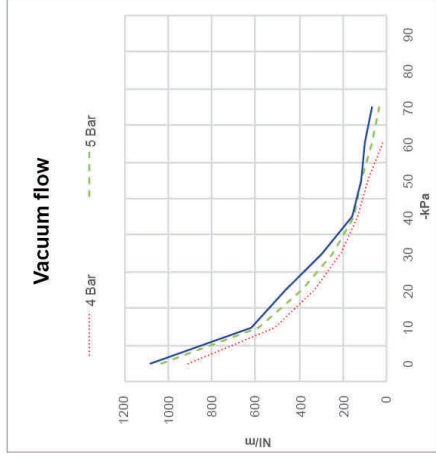


※ Vacuum flow at different vacuum level

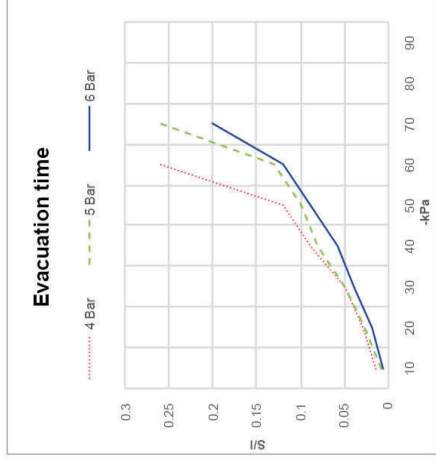


※ Time to evacuate a volume at different vacuum level

ML3133



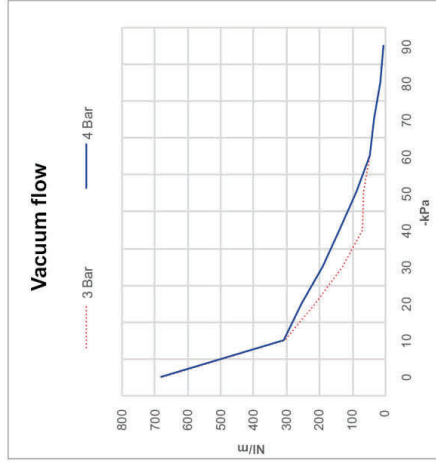
※ Vacuum flow at different vacuum level



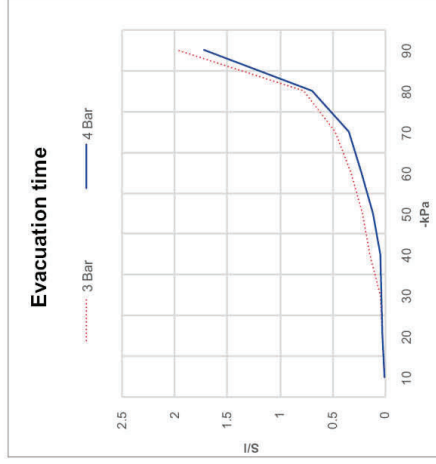
※ Time to evacuate a volume at different vacuum level

Performance data

M3132

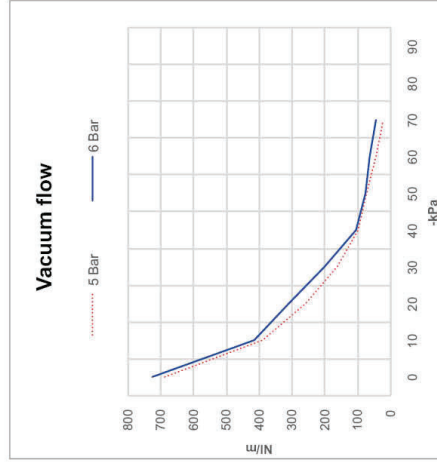


※ Vacuum flow at different vacuum level

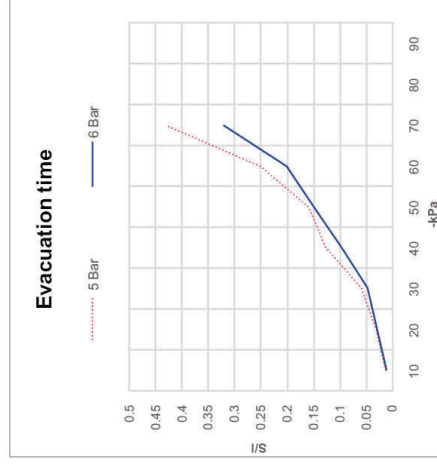


※ Time to evacuate a volume at different vacuum level

ML3132



※ Vacuum flow at different vacuum level



※ Time to evacuate a volume at different vacuum level

M3124 / ML3124

Features and Strengths

- Highly operational reliability despite fluctuating or low compressed-air pressure
- Integrated pleated filter with high dirt capacity & Auto-cleaning system
- Flexible structure
- Available to select various port options and port position / direction
- Easy to assemble and disassemble without any tools
- Quick response time
- Patented design



Specifications

Description	M3124	ML3124
Max. Vacuum level	-92 kPa	-75 kPa
Open Vacuum flow	684 NI/min	800 NI/min
Max. Feed pressure	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	55 ~ 62 dbA	50 ~ 60 dbA
Weight	788 g	788 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				
M3124	92	3.0	680	608	424	256	132	128	88	66	26	7.6				
	92	4.0	684	616	510	376	276	172	93	69	28	8.4				
	70	5.0	780	704	520	328	200	150	92	45.2	-	-				
ML3124	75	6.0	800	732	616	400	208	152	128	88	-	-				

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					
M3124	3.0	472	0.007	0.025	0.048	0.08	0.1	0.16	0.2	0.3	0.95					
	4.0	608	0.006	0.015	0.02	0.025	0.06	0.12	0.17	0.26	0.87					
	5.0	340	0.0067	0.02	0.037	0.065	0.075	0.1	0.2	-	-					
ML3124	6.0	416	0.006	0.02	0.03	0.055	0.073	0.09	0.15	-	-					

M3123 / ML3123

Features and Strengths

- Highly operational reliability despite fluctuating or low compressed-air pressure
- Integrated pleated filter with high dirt capacity & Auto-cleaning system
- Flexible structure
- Available to select various port options and port position / direction
- Easy to assemble and disassemble without any tools
- Quick response time
- Patented design



Specifications

Description	M3123	ML3123
Max. Vacuum level	-92 kPa	-75 kPa
Open Vacuum flow	513 NI/min	600 NI/min
Max. Feed pressure	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	55 ~ 62 dbA	50 ~ 60 dbA
Weight	788 g	788 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				
M3123	92	3.0	510	456	318	192	99	66	50	19	6					
	92	4.0	513	462	383	282	207	129	70	52	21	6.3				
	70	5.0	585	528	390	246	150	112.5	69	33.9	-	-				
ML3123	75	6.0	600	549	462	300	156	114	96	66	-	-				

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					
M3123	3.0	354	0.009	0.03	0.06	0.1	0.13	0.21	0.26	0.4	1.27					
	4.0	456	0.008	0.019	0.03	0.033	0.08	0.16	0.23	0.35	1.17					
	5.0	255	0.009	0.028	0.05	0.083	0.1	0.13	0.26	-	-					
ML3123	6.0	312	0.009	0.027	0.04	0.06	0.09	0.12	0.2	-	-					

M3122 / ML3122

Features and Strengths

- Highly operational reliability despite fluctuating or low compressed-air pressure
- Integrated pleated filter with high dirt capacity & Auto-cleaning system
- Flexible structure
- Available to select various port options and port position / direction
- Easy to assemble and disassemble without any tools
- Quick response time
- Patented design



Specifications

Description	M3122	ML3122
Max. Vacuum level	-92 kPa	-75 kPa
Open Vacuum flow	342 NI/min	400 NI/min
Max. Feed pressure	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	55 ~ 62 dbA	50 ~ 60 dbA
Weight	787 g	787 g

Vacuum Flow

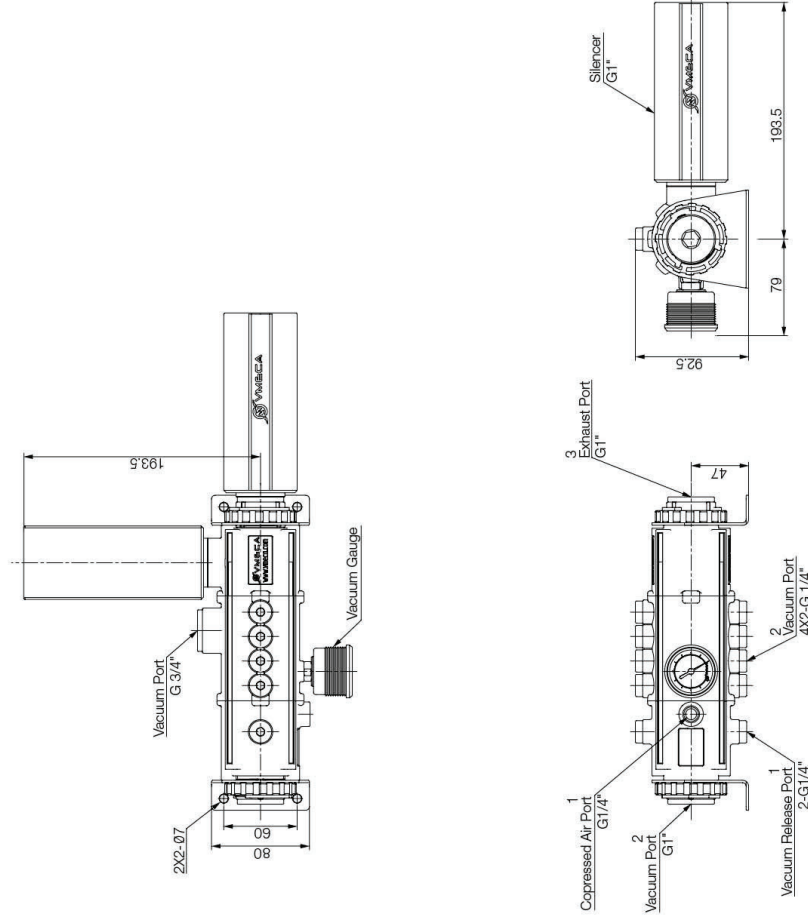
Model	Max. vacuum (-kPa)	Feed Pressure (bar)	Air Consumption (NI/min)	Vacuum flow (NI/min) at different vacuum levels (-kPa)										
				0	10	20	30	40	50	60	70	80	90	
M3122	92	3.0	236	340	304	212	128	66	64	44	33	12.8	3.8	
	92	4.0	304	342	308	255	188	138	86	46.6	34.6	13.8	4.2	
	60	4.0	170	376	316	220	140	92	56	13.6				
ML3122	75	6.0	208	400	366	308	200	104	76	64	44			

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		
M3122	3.0	236	0.016	0.05	0.07	0.16	0.23	0.34	0.5	0.795	2.01		
	4.0	304	0.014	0.029	0.043	0.05	0.13	0.25	0.355	0.71	1.75		
	5.0	170	0.014	0.036	0.075	0.125	0.15	0.2	0.4	-	-		
ML3122	6.0	208	0.013	0.032	0.06	0.1	0.155	0.18	0.35	-	-		

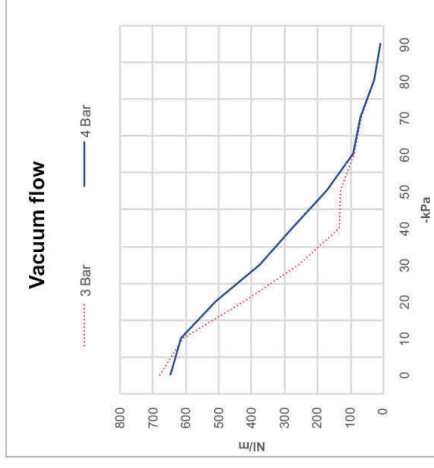
Dimensions – Basic Pump

[Unit : mm]

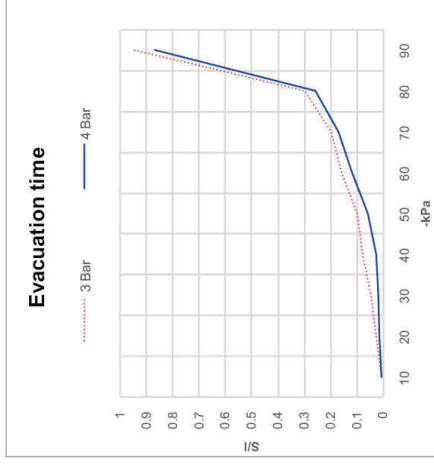


Performance data

M3124

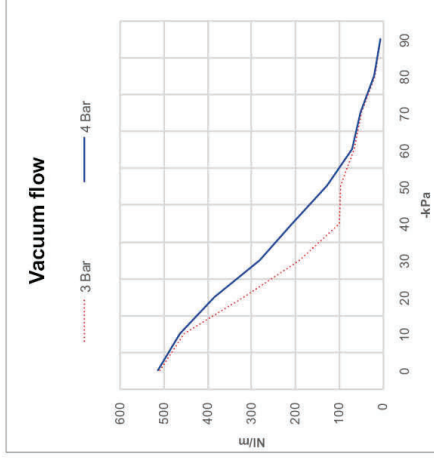


* Vacuum flow at different vacuum level

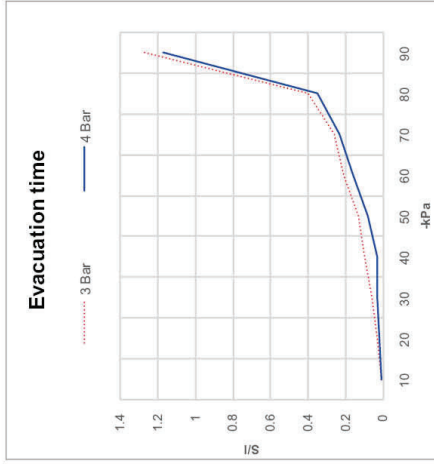


* Time to evacuate a volume at different vacuum level

M3123

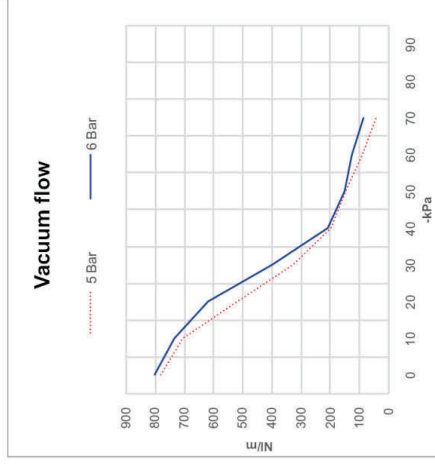


* Vacuum flow at different vacuum level

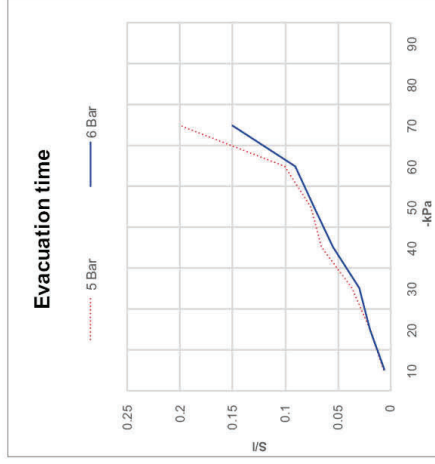


* Time to evacuate a volume at different vacuum level

ML3124

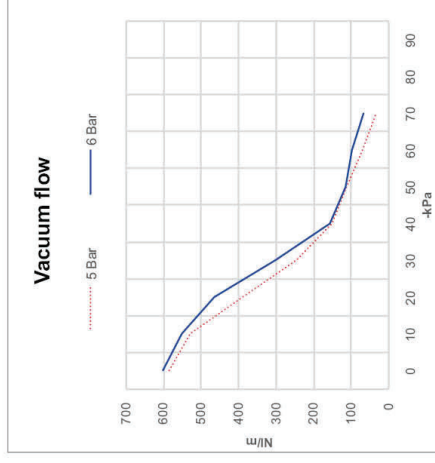


* Vacuum flow at different vacuum level

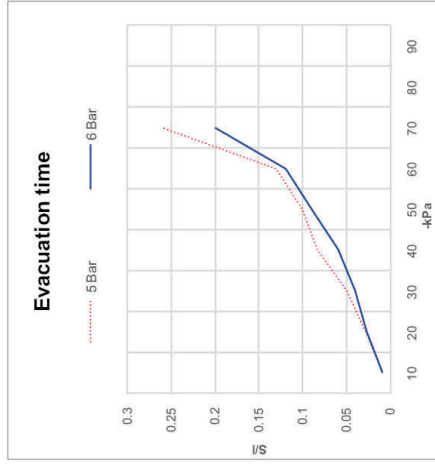


* Time to evacuate a volume at different vacuum level

ML3123



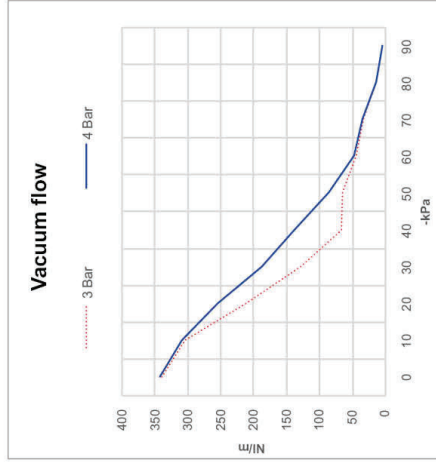
* Vacuum flow at different vacuum level



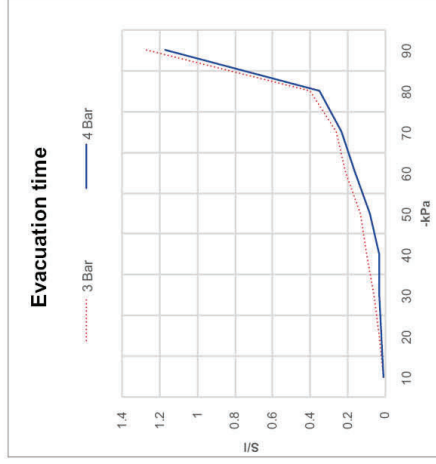
* Time to evacuate a volume at different vacuum level

Performance data

M3122

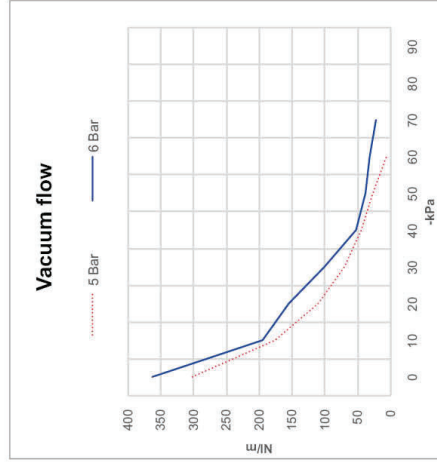


※ Vacuum flow at different vacuum level

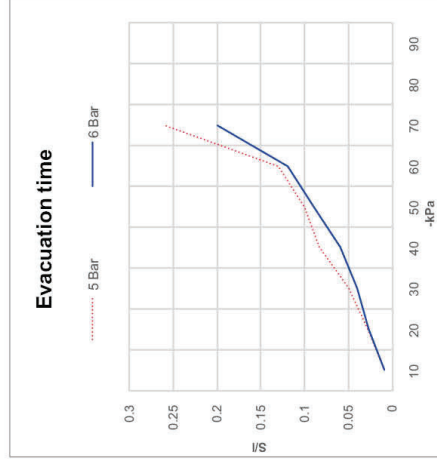


※ Time to evacuate a volume at different vacuum level

ML3122

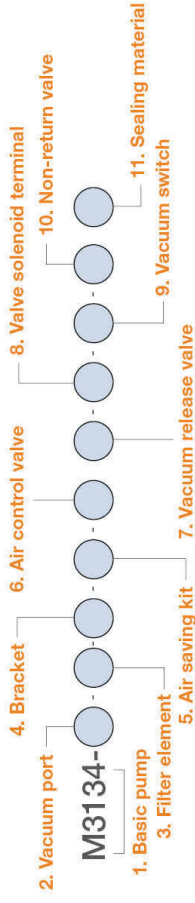


※ Vacuum flow at different vacuum level



※ Time to evacuate a volume at different vacuum level

Build an Ordering No.



1. Basic pump	Description	Symbol
	Magic pump, 2-Stage, 2-vacuum cartridge	M3122
	Magic pump, 2-Stage, 3-vacuum cartridge	M3123
	Magic pump, 2-Stage, 4-vacuum cartridge	M3124
	Magic pump, 2-Stage "L" cartridge, 2-vacuum cartridge	ML3122
	Magic pump, 2-Stage "L" cartridge, 3-vacuum cartridge	ML3123
	Magic pump, 2-Stage "L" cartridge, 4-vacuum cartridge	ML3124
	Magic pump, 3-Stage, 2-vacuum cartridge	M3132
	Magic pump, 3-Stage, 3-vacuum cartridge	M3133
	Magic pump, 3-Stage, 4-vacuum cartridge	M3134
	Magic pump, 3-Stage "L" cartridge, 2-vacuum cartridge	ML3132
	Magic pump, 3-Stage "L" cartridge, 3-vacuum cartridge	ML3133
	Magic pump, 3-Stage "L" cartridge, 4-vacuum cartridge	ML3134
2. Vacuum port	Description	Symbol
	Vacuum port G3/4"	34
	Vacuum port G1"	01
3. Filter element	Description	Symbol
	No filter	Blank
	Polyester Filter Element	2
4. Bracket	Description	Symbol
	No bracket	Blank
	2point L-type	B
5. Air saving kit	Description	Symbol
	No air saving kit	Blank
	Air saving kit without air control valve	AS
	Air saving kit integrated with air control valve	ASV
6. 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
	Double solenoid valve, AC110V	D1
	Double solenoid valve, AC220V	D2
	Double solenoid valve, DC24V	D3
7. Vacuum release valve	Description	Symbol
	No vacuum release valve	Blank
	Vacuum release valve, AC110V	R1
	Vacuum release valve, AC220V	R2
	Vacuum release valve, DC24V	R3

Build an Ordering No.

8. Valve solenoid terminal	Description	Symbol
	Solenoid Terminal, DIN, No LW	DN
	Solenoid Terminal, DIN, Lamp, No LW	DL
	Solenoid Terminal, Conn. Lamp & 0.3m LW: Only available with DC24V	CL
	Solenoid Terminal, DIN, 2 in 1 BUS cable: Not available with Double Solenoid Valve	2B
	Solenoid Terminal, DIN, 3 in 1 BUS cable: Not available with Double Solenoid Valve	3B
	Solenoid Terminal, DIN, 4 in 1 BUS cable: available with Double Solenoid Valve	4B
	- 3B and 4B are available only with DC24V and S2 or S2P vacuum switch	
9. Vacuum switch	Description	Symbol
	No vacuum switch	Blank
	Digital switch, No analog supply, M8-4pins, NPN	S2
	Digital switch, No analog supply, M8-4pins, PNP	S2P
	Digital switch, No analog supply, Grommet, NPN	SG2
	Digital switch, No analog supply, Grommet, PNP	SG2P
	Digital switch, Analog supply, Grommet, NPN	SG3
	Digital switch, Analog supply, Grommet, PNP	SG3P
10. Non-return valve	Description	Symbol
	No non-return valve	Blank
	Non-return valve: No need with Air saving kit	N
11. Sealing material	Description	Symbol
	NBR	Blank
	VITON	V
	EPDM	E

Spare Parts – Basic pumps

Part No.	Description	Weight (g)
M3122-34-2	Magic pump, 2-Stage, 2-vacuum cartridge, G3/4" vacuum port, Silencer	791
M3123-34-2	Magic pump, 2-Stage, 3-vacuum cartridge, G3/4" vacuum port, Silencer	788
M3124-34-2	Magic pump, 2-Stage, 4-vacuum cartridge, G3/4" vacuum port, Silencer	784
M3122-01-2	Magic pump, 2-Stage, 2-vacuum cartridge, G1" vacuum port, Silencer	787
M3123-01-2	Magic pump, 2-Stage, 3-vacuum cartridge, G1" vacuum port, Silencer	784
M3124-01-2	Magic pump, 2-Stage, 4-vacuum cartridge, G1" vacuum port, Silencer	780
ML3122-34-2	Magic pump, 2-Stage "L" cartridge, 2-vacuum cartridge, G3/4" vacuum port, Silencer	790
ML3123-34-2	Magic pump, 2-Stage "L" cartridge, 3-vacuum cartridge, G3/4" vacuum port, Silencer	788
ML3124-34-2	Magic pump, 2-Stage "L" cartridge, 4-vacuum cartridge, G3/4" vacuum port, Silencer	784
ML3122-01-2	Magic pump, 2-Stage "L" cartridge, 2-vacuum cartridge, G1" vacuum port, Silencer	787
ML3123-01-2	Magic pump, 2-Stage "L" cartridge, 3-vacuum cartridge, G1" vacuum port, Silencer	783
ML3124-01-2	Magic pump, 2-Stage "L" cartridge, 4-vacuum cartridge, G1" vacuum port, Silencer	778
M3132-34-2	Magic pump, 3-Stage, 2-vacuum cartridge, G3/4" vacuum port, Silencer	891
M3133-34-2	Magic pump, 3-Stage, 3-vacuum cartridge, G3/4" vacuum port, Silencer	887
M3134-34-2	Magic pump, 3-Stage, 4-vacuum cartridge, G3/4" vacuum port, Silencer	884
M3132-01-2	Magic pump, 3-Stage, 2-vacuum cartridge, G1" vacuum port, Silencer	890
M3133-01-2	Magic pump, 3-Stage, 3-vacuum cartridge, G1" vacuum port, Silencer	883
M3134-01-2	Magic pump, 3-Stage, 4-vacuum cartridge, G1" vacuum port, Silencer	880
ML3132-34-2	Magic pump, 3-Stage "L" cartridge, 2-vacuum cartridge, G3/4" vacuum port, Silencer	890
ML3133-34-2	Magic pump, 3-Stage "L" cartridge, 3-vacuum cartridge, G3/4" vacuum port, Silencer	887
ML3134-34-2	Magic pump, 3-Stage "L" cartridge, 4-vacuum cartridge, G3/4" vacuum port, Silencer	883
ML3132-01-2	Magic pump, 3-Stage "L" cartridge, 2-vacuum cartridge, G1" vacuum port, Silencer	888
ML3133-01-2	Magic pump, 3-Stage "L" cartridge, 3-vacuum cartridge, G1" vacuum port, Silencer	882
ML3134-01-2	Magic pump, 3-Stage "L" cartridge, 4-vacuum cartridge, G1" vacuum port, Silencer	878

Spare Parts – Cartridges

Part No.	Description	Available model
VC302	Midi Vacuum Cartridge, 2-Stage	M3122, M3123, M3124
VC303	Midi Vacuum Cartridge, 3-Stage	M3132, M3133, M3134
VCL302	Midi Vacuum Cartridge, "L" Series, 2-Stage	ML3122, ML3123, ML3124
VCL303	Midi Vacuum Cartridge, "L" Series, 3-Stage	ML3132, ML3133, ML3134

Spare Parts – Filter elements

Part No.	Description
VTFE342	Filter element, Polyester, 5 Micron

Spare Parts – Silencers

Part No.	Description	Weight (g)
VTS-10-A	Free flow silencer, Low noise, G1"	116.24