VACUUM PUMPS / Turtle pumps – Midi series

VTC3031 / VTCL3031

Features and Strengths

- Highly operational reliability despite fluctuating or low compressed-air pressure
- Integrated pleated filter with high dirt capacity & Auto-cleaning system
- Optional Air-Saving Kit available to minimize energy consumption
- Quick response time
- Patented design

Specifications

Description	VTC3031	VTCL3031
Max. Vacuum level	-92 kPa	-75 kPa
Open Vacuum flow	341 Nl/min	362 Nl/min
Max. Feed pressure	7 bar	7 bar
Temperature	-20 ~ 80 °C	-20 ~ 80 °C
Noise level	50 ~ 60 dbA	50 ~ 60 dbA
Weight	412 g	411 g

Vacuum Flow

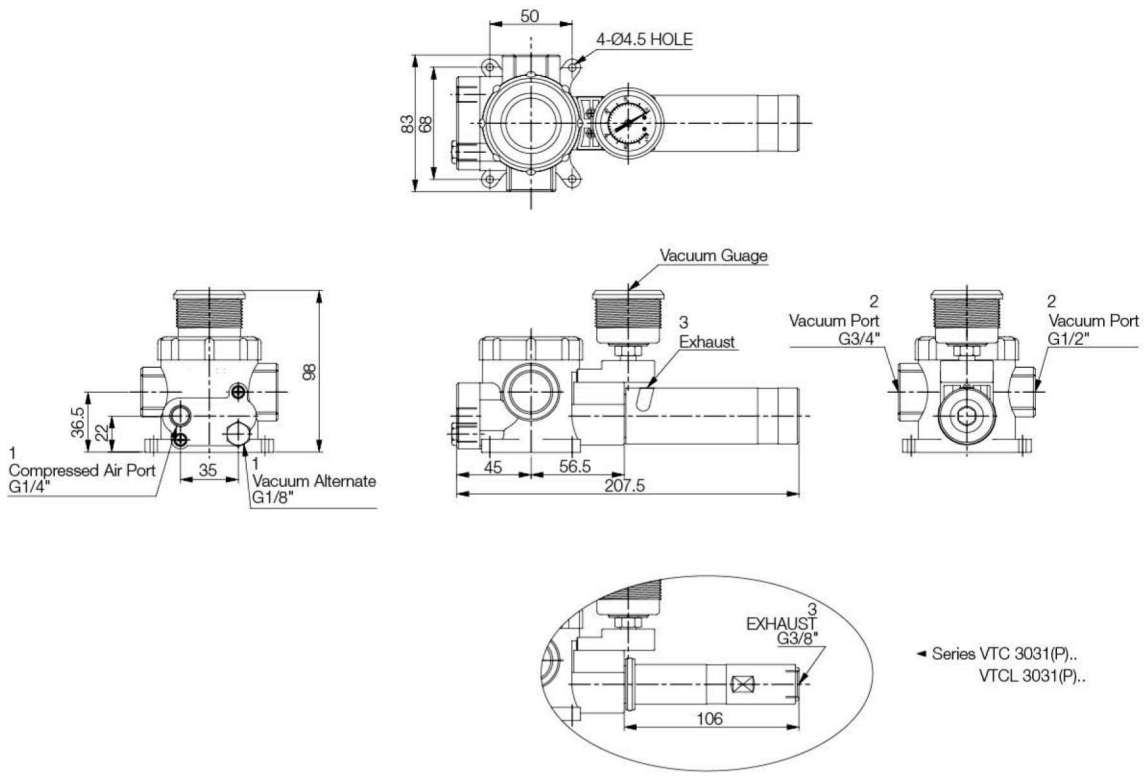
Model	Max. vacuum (-kPa)	Feed Pressure (bar)	Vacuum flow (Nl/min) at different vacuum levels (-kPa)									
			0	10	20	30	40	50	60	70	80	90
VTC3031	75	2.2	302	123	88	53	31	29	17	5	-	-
	92	3.0	338	152	106	64	33	32	22	17	6	2
	92	4.0	341	154	128	94	69	43	23	17	7	2
VTCL3031	60	4.0	302	176	110	70	46	28	7	-	-	-
	70	5.0	344	200	130	82	50	38	23	11	-	-
	75	6.0	362	194	154	100	52	38	32	22	-	-

Evacuation Time

Model	Feed Pressure (bar)	Air Consumption (Nl/min)	Evacuation time in sec / liter to reach different vacuum levels (-kPa)								
			10	20	30	40	50	60	70	80	90
VTC3031	2.2	97	0.02	0.09	0.1	0.32	0.42	0.73	1.62	-	-
	3	118	0.02	0.07	0.18	0.28	0.38	0.64	0.8	1.2	3.8
	4	152	0.01	0.05	0.07	0.09	0.2	0.42	0.6	1	3.4
VTCL3031	4	70	0.03	0.09	0.17	0.29	0.38	0.8	-	-	-
	5	85	0.01	0.08	0.15	0.25	0.3	0.4	0.8	-	-
	6	104	0.01	0.07	0.12	0.2	0.28	0.36	0.6	-	-

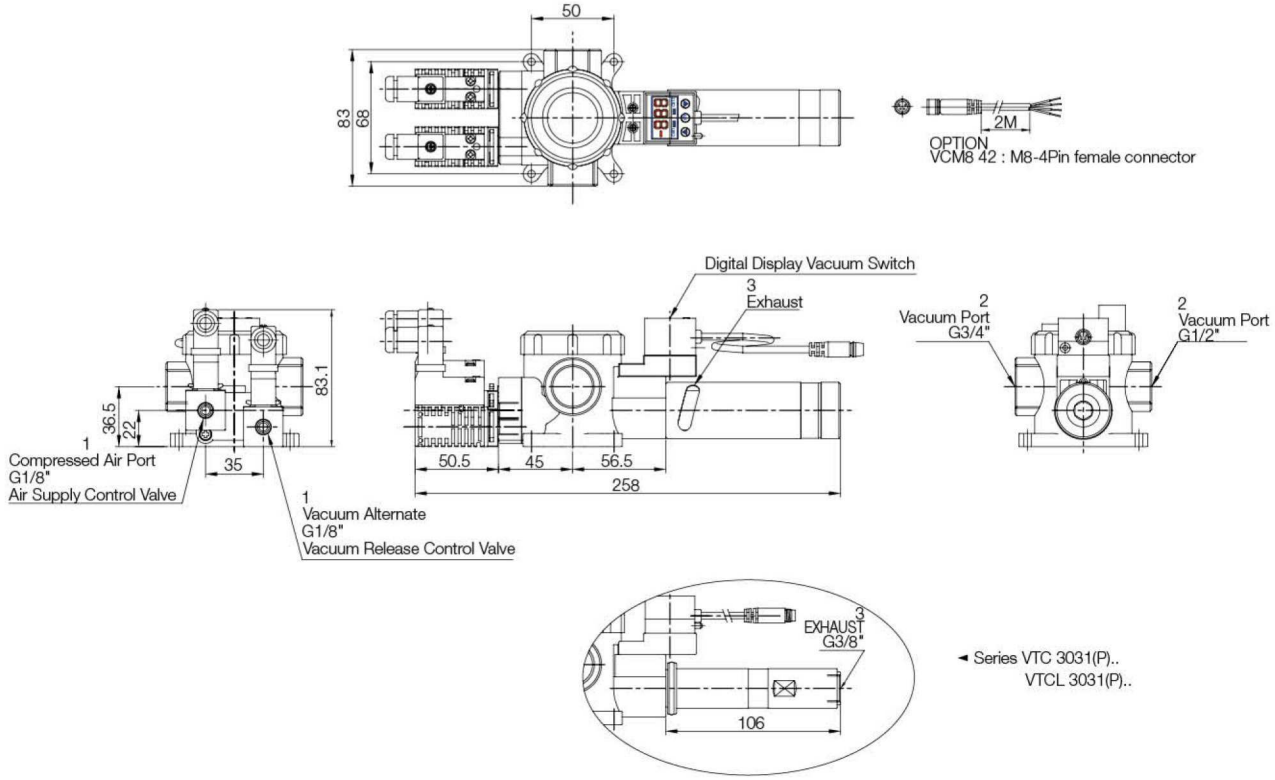
Dimension – Basic Pump

[Unit : mm]

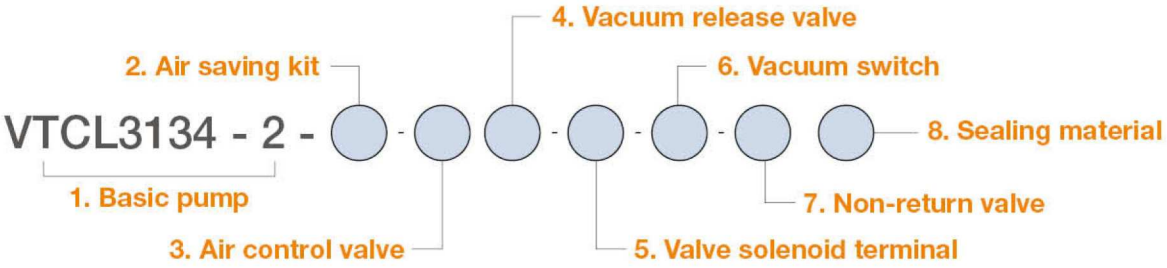


Dimensions – with Accessories

[Unit : mm]



Build an Ordering No.



1. Basic pump	Description	Ordering No.
	VTC Midi pump, 3-stage, 1-cartridge, Vacuum filter, Two-fold silencer	VTC3031-2
	VTC Midi pump, 2-stage, 1-cartridge, Vacuum filter	VTC3021-2
	VTC Midi Pump, 3-stage, 2-cartridge, Vacuum filter, Two-fold silencer	VTC3032-2
	VTC Midi pump, 2-stage, 2-cartridge, Vacuum filter	VTC3022-2
	VTCL Midi pump, 3-stage "L" cartridge, 1-cartridge, Vacuum filter, Two-fold silencer	VTCL3031-2
	VTCL Midi pump, 2-stage "L" cartridge, 1-cartridge, Vacuum filter	VTCL3021-2
	VTCL Midi Pump, 3-stage "L" cartridge, 2-cartridge, Vacuum filter, , Two-fold silencer	VTCL3032-2
	VTCL Midi pump, 2-stage "L" cartridge, 2-cartridge, Vacuum filter	VTCL3022-2
	VTC Midi pump, 3-stage, 1-cartridge, Vacuum filter, Plug	VTC3031P-2
	VTC Midi pump, 3-stage, 2-cartridge, Vacuum filter, Plug	VTC3032P-2
	VTCL Midi pump, 3-stage "L" cartridge, 1-cartridge, Vacuum filter, Plug	VTCL3031P-2
	VTCL Midi pump, 3-stage "L" cartridge, 2-cartridge, Vacuum filter, Plug	VTCL3032P-2
	VTC Mega pump, 3-stage, 4-cartridge, Vacuum filter, Silencer	VTC3134-2
	VTC Mega pump, 3-stage, 3-cartridge, Vacuum filter, Silencer	VTC3133-2
	VTC Mega pump, 3-stage, 2-cartridge, Vacuum filter, Silencer	VTC3132-2
	VTC Mega pump, 2-stage, 4-cartridge, Vacuum filter, Silencer	VTC3124-2
	VTC Mega pump, 2-stage, 3-cartridge, Vacuum filter, Silencer	VTC3123-2
	VTC Mega pump, 2-stage, 2-cartridge, Vacuum filter, Silencer	VTC3122-2
	VTCL Mega pump, 3-stage "L" cartridge, 4-cartridge, Vacuum filter, Silencer	VTCL3134-2
	VTCL Mega pump, 3-stage "L" cartridge, 3-cartridge, Vacuum filter, Silencer	VTCL3133-2
	VTCL Mega pump, 3-stage "L" cartridge, 2-cartridge, Vacuum filter, Silencer	VTCL3132-2
	VTCL Mega pump, 2-stage "L" cartridge, 4-cartridge, Vacuum filter, Silencer	VTCL3124-2
	VTCL Mega pump, 2-stage "L" cartridge, 3-cartridge, Vacuum filter, Silencer	VTCL3123-2
	VTCL Mega pump, 2-stage "L" cartridge, 2-cartridge, Vacuum filter, Silencer	VTCL3122-2

2. 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

3. Air control valve	Description	Ordering No.
	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

4. Vacuum release valve	Description	Ordering No.
	No vacuum release valve	Blank
	Vacuum release valve, AC110V	R1
	Vacuum release valve, AC220V	R2
	Vacuum release valve, DC24V	R3

5. 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	

Build an Ordering No.

6. Vacuum switch	Description	Ordering No.
	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

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

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

Spare Parts – Basic pumps

Model	Description	Weight (g)
VTC3031-2	VTC Midi pump, 3-stage, 1-cartridge, Vacuum filter, Two-fold silencer	412
VTC3021-2	VTC Midi pump, 2-stage, 1-cartridge, Vacuum filter	317
VTC3032-2	VTC Midi Pump, 3-stage, 2-cartridge, Vacuum filter, Two-fold silencer	671
VTC3022-2	VTC Midi pump, 2-stage, 2-cartridge, Vacuum filter	555
VTCL3031-2	VTCL Midi pump, 3-stage, 1- "L" cartridge, Vacuum filter, Two-fold silencer	411
VTCL3021-2	VTCL Midi pump, 2-stage, 1- "L" cartridge, Vacuum filter	316
VTCL3032-2	VTCL Midi Pump, 3-stage, 2- "L" cartridge, Vacuum filter, , Two-fold silencer	670
VTCL3022-2	VTCL Midi pump, 2-stage, 2- "L" cartridge, Vacuum filter	555
VTC3031P-2	VTC Midi pump, 3-stage, 1-cartridge, Vacuum filter, Plug	392
VTC3032P-2	VTC Midi pump, 3-stage, 2-cartridge, Vacuum filter, Plug	631
VTCL3031P-2	VTCL Midi pump, 3-stage, 1-"L" cartridge, Vacuum filter, Plug	392
VTCL3032P-2	VTCL Midi pump, 3-stage, 2-"L" cartridge, Vacuum filter, Plug	630
VTC3134-2	VTC Mega pump, 3-stage, 4-cartridge, Vacuum filter, Silencer	1,113
VTC3133-2	VTC Mega pump, 3-stage, 3-cartridge, Vacuum filter, Silencer	1,117
VTC3132-2	VTC Mega pump, 3-stage, 2-cartridge, Vacuum filter, Silencer	1,121
VTC3124-2	VTC Mega pump, 2-stage, 4-cartridge, Vacuum filter, Silencer	957
VTC3123-2	VTC Mega pump, 2-stage, 3-, Vacuum filter, Silencer	946
VTC3122-2	VTC Mega pump, 2-stage, 2-, Vacuum filter, Silencer	933
VTCL3134-2	VTCL Mega pump, 3-stage, 4-"L" cartridge, Vacuum filter, Silencer	1,111
VTCL3133-2	VTCL Mega pump, 3-stage, 3-"L" cartridge, Vacuum filter, Silencer	1,115
VTCL3132-2	VTCL Mega pump, 3-stage, 2-"L" cartridge, Vacuum filter, Silencer	1,120
VTCL3124-2	VTCL Mega pump, 2-stage, 4-"L" cartridge, Vacuum filter, Silencer	956
VTCL3123-2	VTCL Mega pump, 2-stage, 3-"L" cartridge, Vacuum filter, Silencer	945
VTCL3122-2	VTCL Mega pump, 2-stage, 2-"L" cartridge, Vacuum filter, Silencer	933

Spare Parts – Cartridges

Model	Description	Available model
VC302	Midi Vacuum Cartridge, 2-Stage	VTC3021, VTC3022, VTC3122, VTC3123, VTC3124
VC303	Midi Vacuum Cartridge, 3-Stage	VTC3031, VTC3032, VTC3132, VTC3133, VTC3134
VCL302	Midi Vacuum Cartridge, "L" Series, 2-Stage	VTCL3021, VTCL3022, VTCL3122, VTCL3123, VTCL3124
VCL303	Midi Vacuum Cartridge, "L" Series, 3-Stage	VTCL3031, VTCL3032, VTCL3132, VTCL3133, VTCL3123

Spare Parts – Filter elements

Model	Description
VTFE342	Filter element, Polyester, 5 Micron for 1 cartridge Turtle pump
VTFE502	Filter element, Polyester, 5 Micron for 2~4 cartridges Turtle pump

Spare Parts – Plugs & Silencers

Model	Description	Weight (g)
VCP-M25-302	Holding plug for 2 stage Midi VTC / VTCL vacuum pumps	31.04
VCP-M25-303	Holding plug for 2 stage Midi VTC / VTCL vacuum pumps	59.32
VTTS-M25	Two-Fold Silencer for Midi VTC / VTCL vacuum pumps	78.34
VTS-10	Free flow silencer, G1" for Mega VTC / VTCL vacuum pumps	48.33
VTS-10-A	Free flow silencer, Low noise, G1" for Mega VTC / VTCL vacuum pumps	116.24