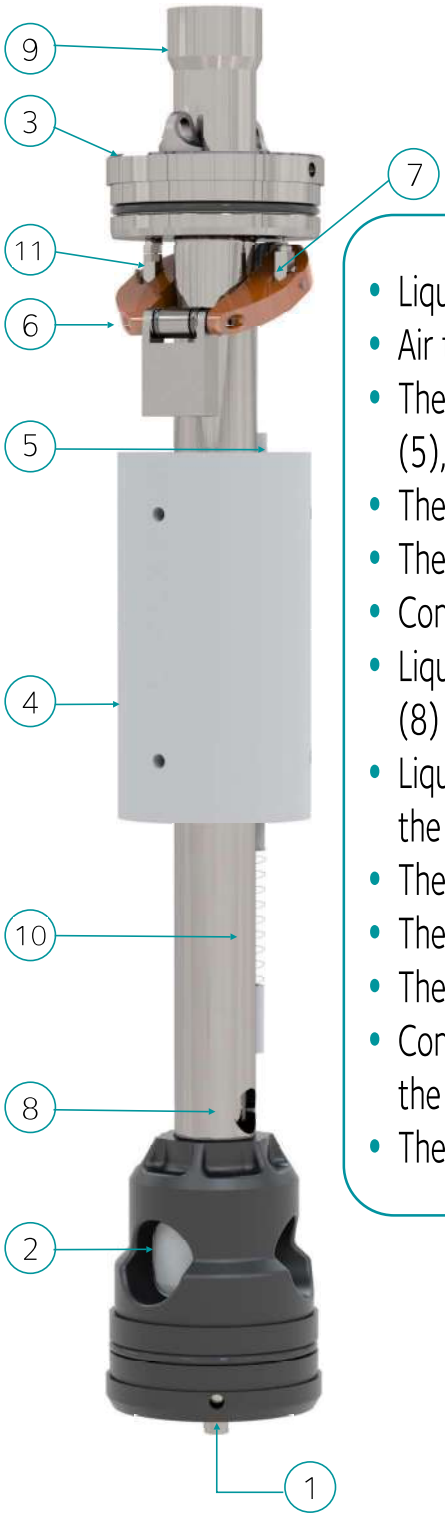
How it works

VP4 Bottom Loader LDD



- Liquid enters the pump via the strainer (1) and bottom check valve (2)
- Air trapped within the pump escapes through the air exhaust (3)
- The float (4) rises as the liquid enters and when it gets to the top of its travel (5), it trips the rocker mechanism (6)
- The air exhaust valve (11) closes
- The air inlet valve (7) opens allowing compressed air into the pump
- Compressed air closes the bottom check valve (2)
- Liquid within the pump is discharged from the pump through the discharge port (8) and up the central discharge tube
- Liquid passes through the top check valve (enclosed in head) and out through the riser (9)
- The float descends as liquid is discharged
- The float pulls the rocker mechanism back when the spring (10) is compressed
- The air inlet valve (7) closes and the air exhaust valve (11) opens
- Compressed air trapped within the pump can now escape to atmosphere via the air exhaust (3)
- The pump continues to cycle in this way

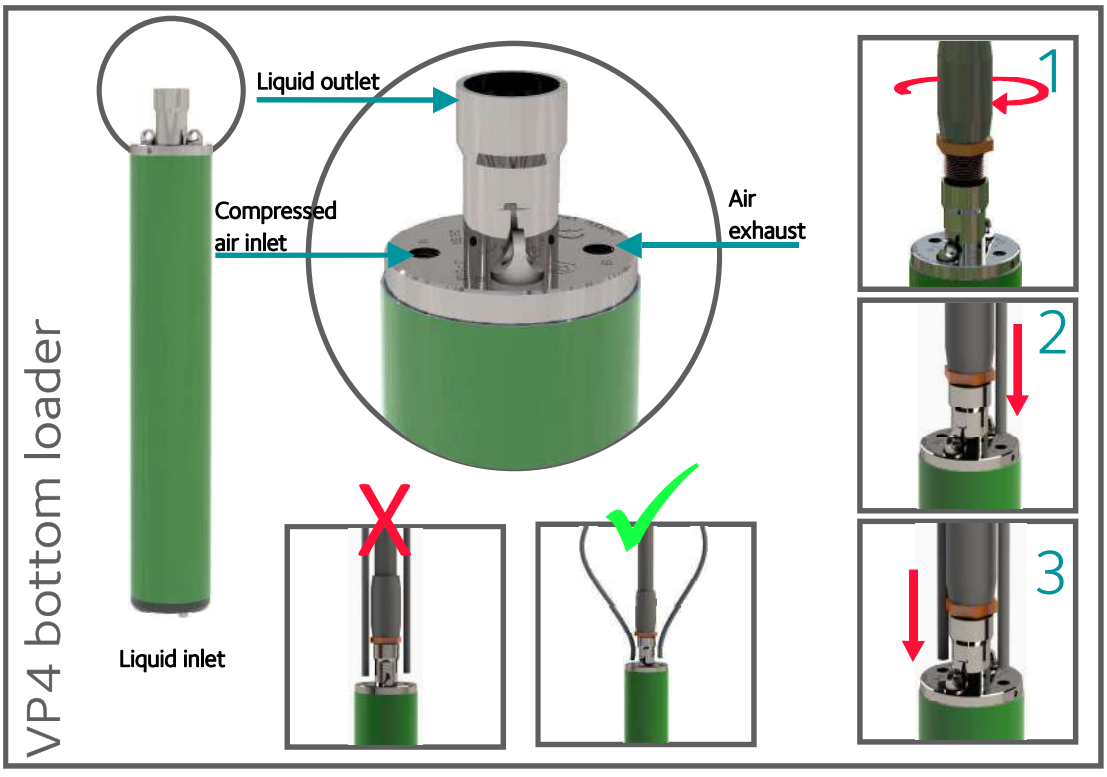
VP4 Bottom Loader LDD

Model & Type	VP4-BL LDD
Liquid Inlet Position	Bottom
Max Flow Rate Litres/hr	>1,200
Volume/Cycle: Litres	0.5
Pump Length: mm	580
Weight: Kg	5.5
Pump Diameter: mm	90
Pump Trigger Point: mm	370
Min Internal Well Dia: mm	100
Max Working Depth: m	130
Max Operating Temp:°C	100
pH Operating Range	3 -12

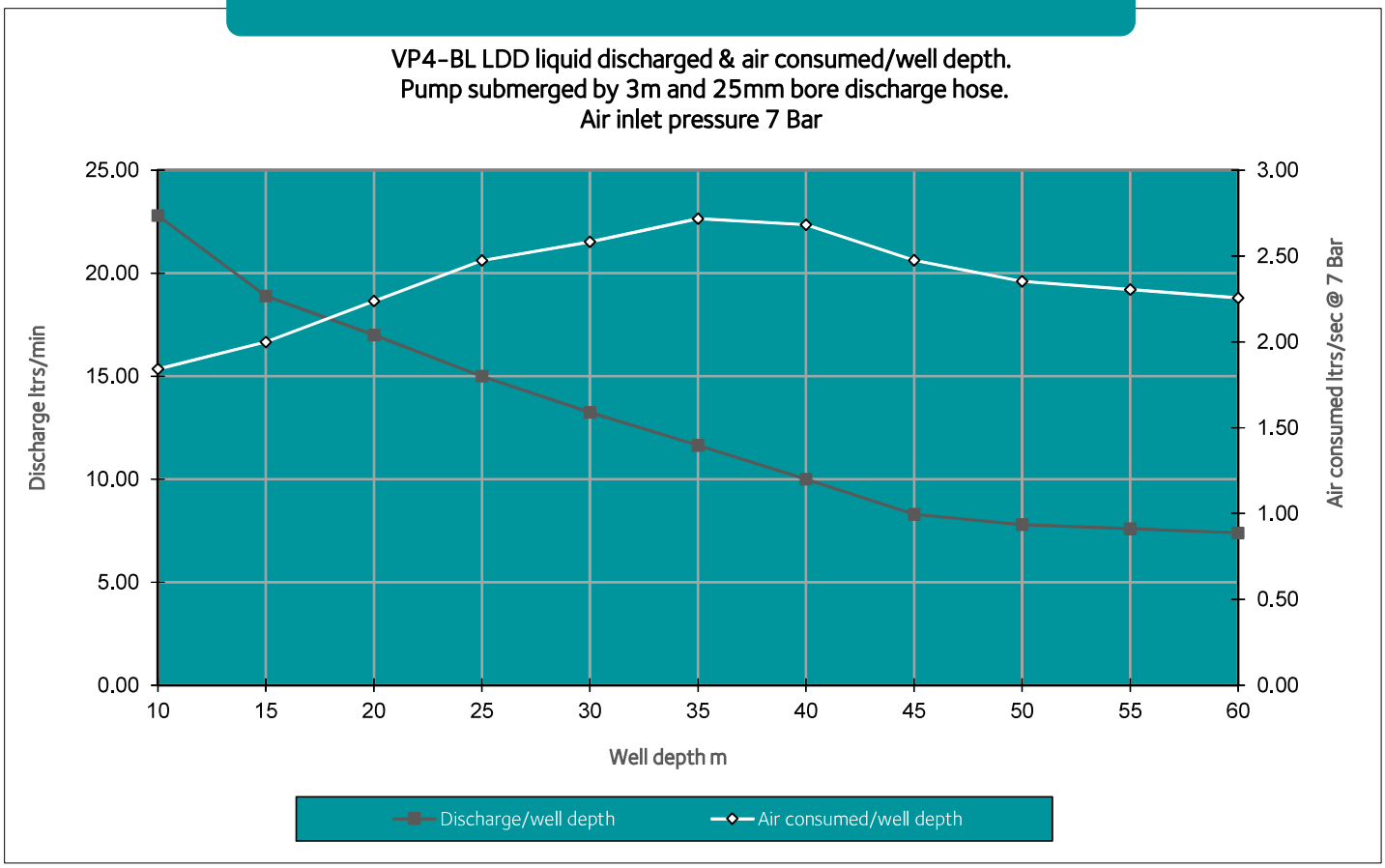
The VP4-BL LDD can be installed in wells of 4"/100 mm minimum internal diameter. They are designed to pump landfill leachate, landfill gas condensate and contaminated or clean groundwater down to a lower level than a standard VP4-BL.

Viridian pumps are designed for user serviceability and longevity, providing the lowest whole-life cost of any similar pump on the market.

Quick installation guide



VP4 BL LDD Performance Curve



DATA table

Well Depth	Discharge LPM	Total Air Requirement (L/S)	Total Air (SCFM) Requirement
10	22.80	1.84	3.91
15	18.90	2.20	4.24
20	17.00	2.24	4.74
25	15.00	2.48	5.24
30	13.25	2.58	5.47
35	11.65	2.72	5.76
40	10.00	2.68	5.69
45	8.38	2.48	5.25
50	7.80	2.35	4.99
55	7.60	2.31	4.88
60	7.40	2.26	4.78

Values for SCFM have been shown in the DATA table for ease of compressor specification.

How it works

VP4 Top Loader LDD

- Liquid enters the pump via the strainer (1) and inlet check valve (2)
- Air trapped within the pump escapes through the air exhaust (3)
- The float (4) rises as the liquid enters and when it gets to the top of its travel (5), it trips the rocker mechanism (6)
- The air exhaust valve (11) closes
- The air inlet valve (7) opens allowing compressed air into the pump
- Compressed air closes the inlet check valve (2)
- Liquid within the pump is discharged from the pump through the discharge port (8) and up the central discharge tube
- Liquid passes through the riser (9) and out through the top check valve (12)
- The float descends as liquid is discharged
- The float pulls the rocker mechanism back when the spring (10) is compressed
- The air inlet valve (7) closes and the air exhaust valve (11) opens
- Compressed air trapped within the pump can now escape to atmosphere via the air exhaust (3)
- The pump continues to cycle in this way

VP4 Top Loader LDD

Model & Type	VP4 TL LDD
Liquid Inlet Position	Top
Max Flow Rate Litres/hr	>1,200
Volume/Cycle: Litres	0.4
Pump Length: mm	750
Weight: Kg	6
Pump Diameter: mm	90
Pump Trigger Point: mm	330
Min Internal Well Dia: mm	100
Max Working Depth: m	130
Max Operating Temp:°C	100
pH Operating Range	3 -12

The VP4-TL LDD can be installed in wells of 4"/ 100 mm minimum internal diameter. They are designed to pump landfill leachate, landfill gas condensate and contaminated or clean groundwater down to a lower level than a standard VP4-TL.

The VP4-TL LDD can draw the liquid level down to a similar level to the trigger point of VP4-BL. Top-loaders can be very effective in leachate and gas wells with excessively gaseous/foamy leachate. Top-loaders are often referred to as "Total Fluids" pumps in the contaminated groundwater sector because they are widely used for pumping LNAPL (Light Non-Aqueous Phase Liquids).

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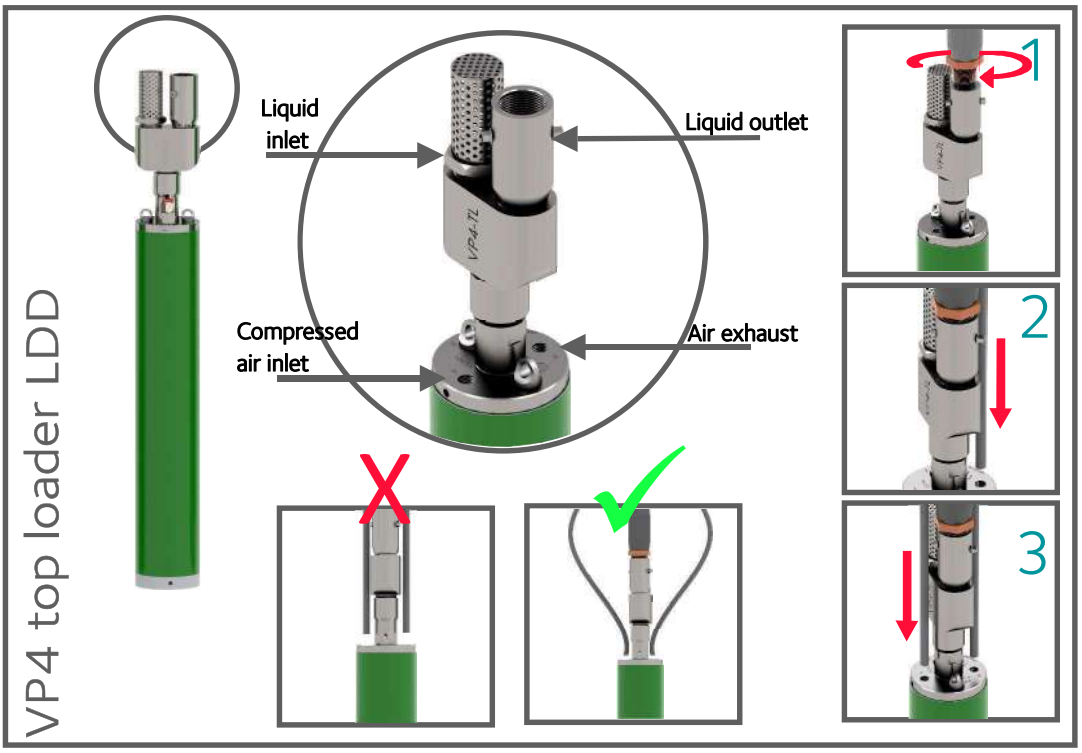
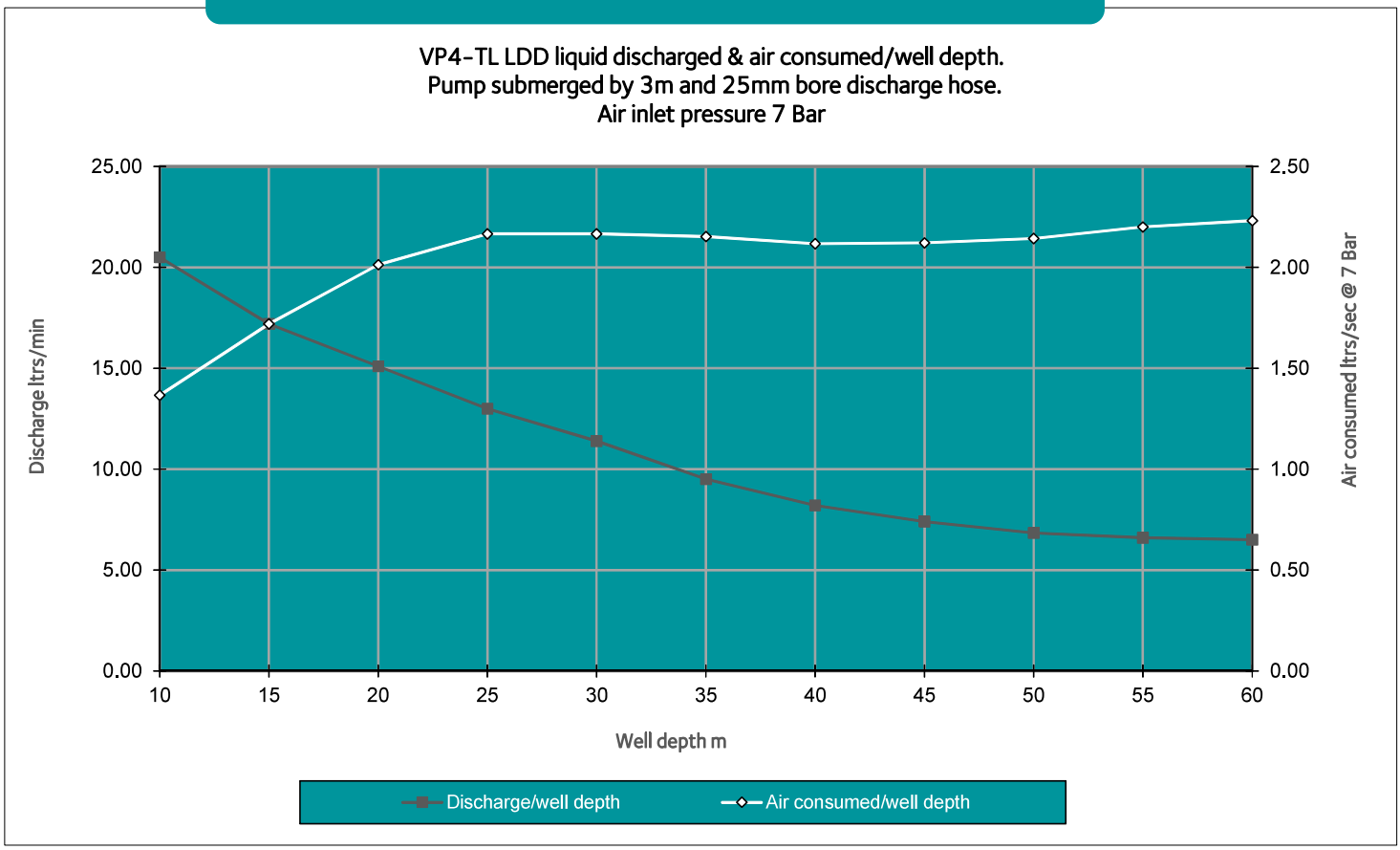
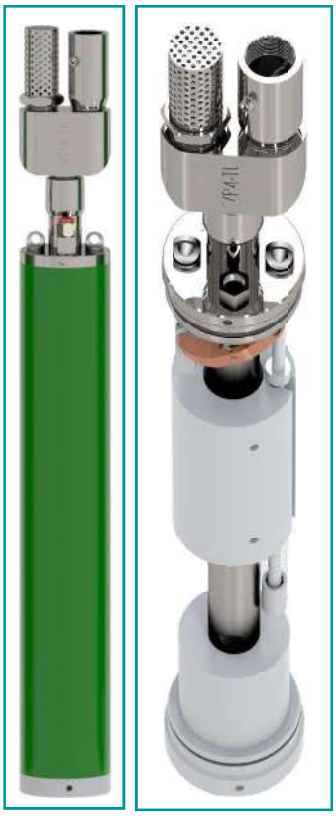
Quick installation guide



VP4 TL LDD Performance Curve





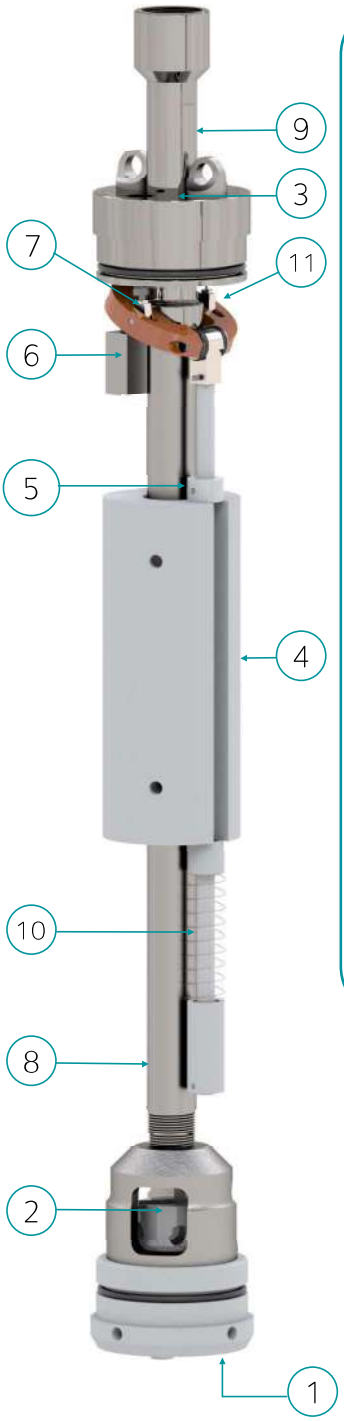
DATA table

Well Depth	Discharge LPM	Total Air Requirement (L/S)	Total Air (SCFM) Requirement
10	20.50	1.37	2.90
15	17.20	1.72	3.64
20	15.10	2.01	4.27
25	13.00	2.17	4.59
30	11.40	2.17	4.59
35	9.50	2.15	4.56
40	8.20	2.12	4.49
45	7.40	2.12	4.49
50	6.84	2.14	4.54
55	6.60	2.20	4.66
60	6.50	2.23	4.73

Values for SCFM have been shown in the DATA table for ease of compressor specification.

How it works

VP3 Bottom Loader LDD



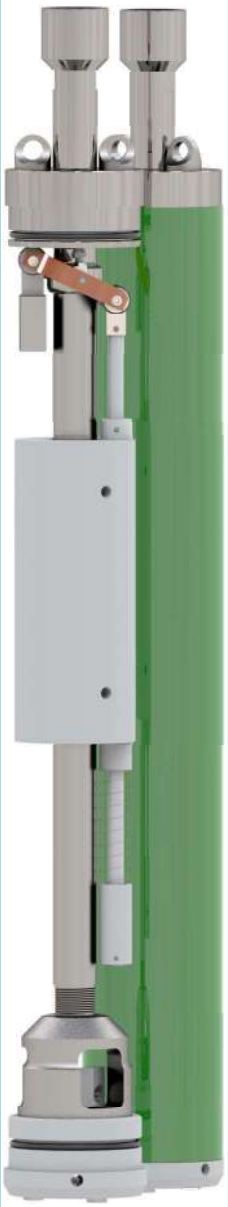
- Liquid enters the pump via the strainer (1) and bottom check valve (2)
- Air trapped within the pump escapes through the air exhaust (3)
- The float (4) rises as the liquid enters and when it gets to the top of its travel (5), it trips the rocker mechanism (6)
- The air exhaust valve (11) closes
- The air inlet valve (7) opens allowing compressed air into the pump
- Compressed air closes the bottom check valve (2)
- Liquid within the pump is discharged from the pump through the discharge port (8) and up the central discharge tube
- Liquid passes through the top check valve (enclosed in head) and out through the riser (9)
- The float descends as liquid is discharged
- The float pulls the rocker mechanism back when the spring (10) is compressed
- The air inlet valve (7) closes and the air exhaust valve (11) opens
- Compressed air trapped within the pump can now escape to atmosphere via the air exhaust (3)
- The pump continues to cycle in this way

VP3 Bottom Loader LDD

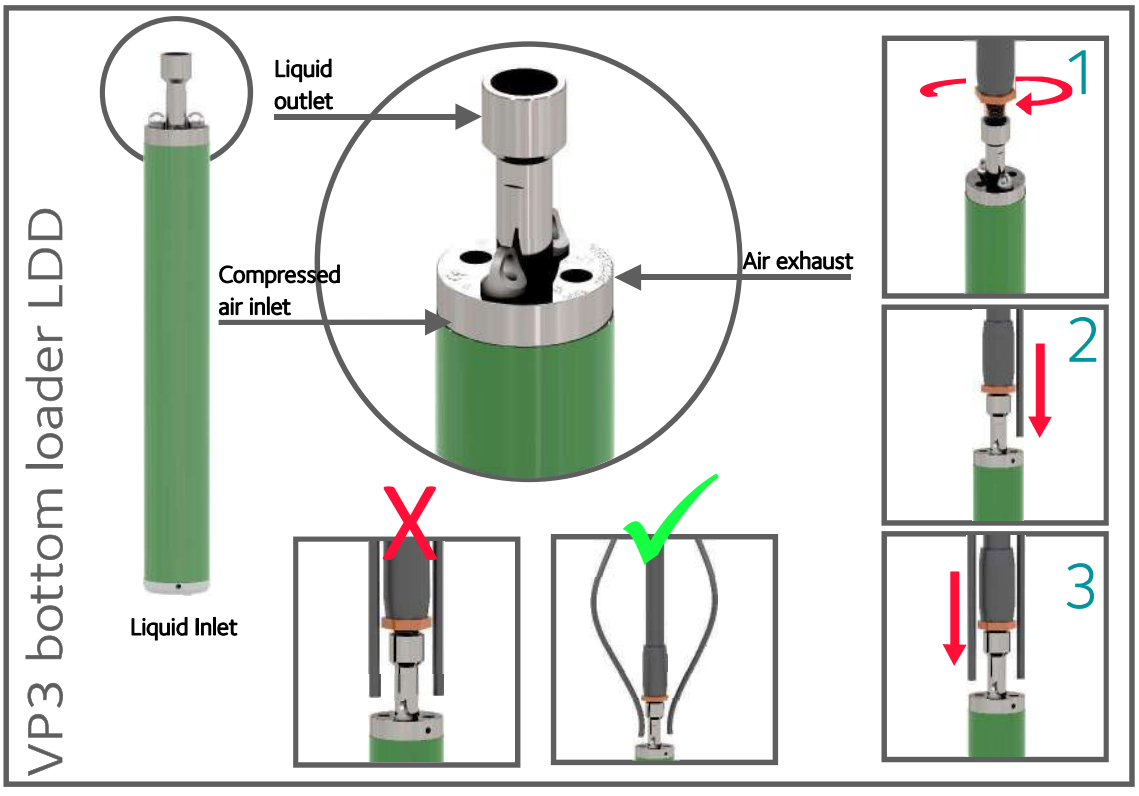
Model & Type	VP3-BL LDD
Liquid Inlet Position	Bottom
Max Flow Rate Litres/hr	>1,200
Volume/Cycle: Litres	0.6
Pump Length: mm	1,120
Weight: Kg	5
Pump Diameter: mm	70
Pump Trigger Point: mm	715
Min Internal Well Dia: mm	80
Max Working Depth: m	130
Max Operating Temp: °C	100
pH Operating Range	3 -12

The VP3-BL LDD can be installed in wells of 3"/80 mm minimum internal diameter. They are designed to pump landfill leachate, landfill gas condensate and contaminated or clean groundwater down to a lower level than a standard VP3-BL.

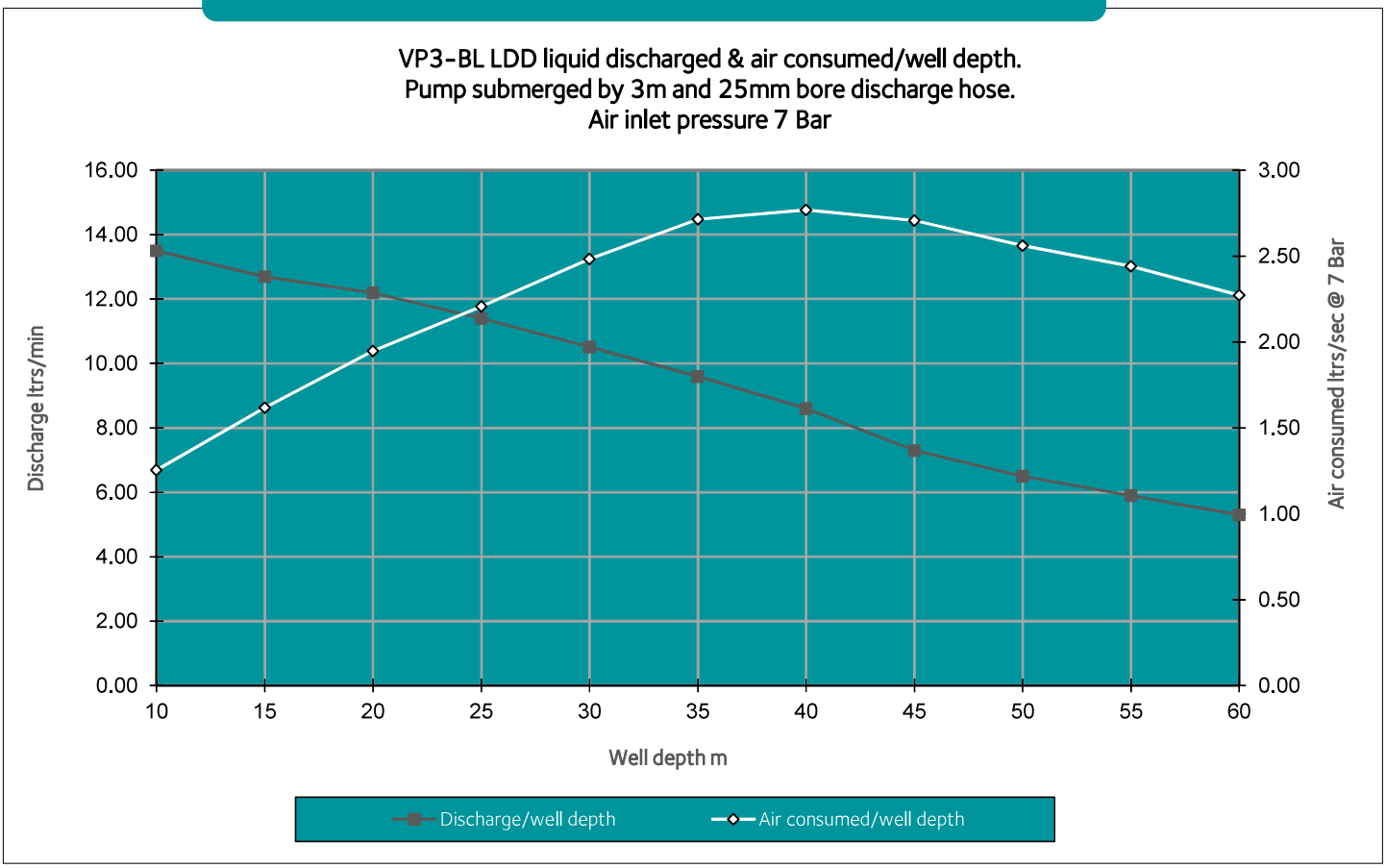
Viridian pumps are designed for user serviceability and longevity, providing the lowest whole-life cost of any similar pump on the market.

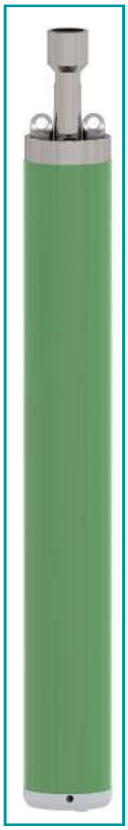


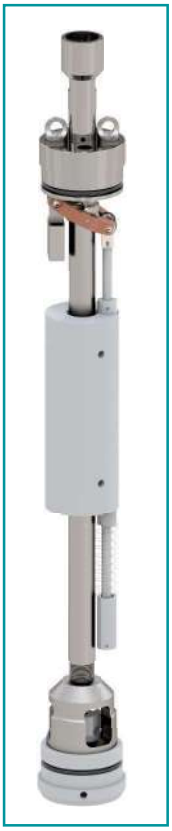
Quick installation guide



VP3 BL LDD Performance Curve







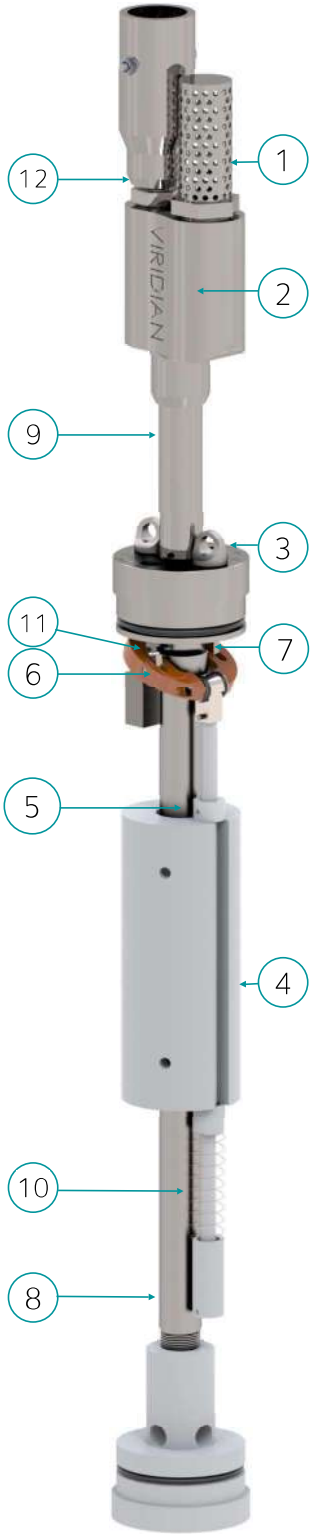
DATA table

Well Depth	Discharge LPM	Total Air Requirement (L/S)	Total Air (SCFM) Requirement
10	13.50	1.25	2.66
15	12.70	1.62	3.43
20	12.20	1.95	4.13
25	11.40	2.21	4.68
30	10.51	2.48	5.27
35	9.60	2.72	5.75
40	8.60	2.77	5.87
45	7.30	2.71	5.74
50	6.50	2.56	5.43
55	5.90	2.44	5.17
60	5.30	2.27	4.82

Values for SCFM have been shown in the DATA table for ease of compressor specification.

How it works

VP3 Top Loader LDD



- Liquid enters the pump via the strainer (1) and inlet check valve (2)
- Air trapped within the pump escapes through the air exhaust (3)
- The float (4) rises as the liquid enters and when it gets to the top of its travel (5), it trips the rocker mechanism (6)
- The air exhaust valve (11) closes
- The air inlet valve (7) opens allowing compressed air into the pump
- Compressed air closes the inlet check valve (2)
- Liquid within the pump is discharged from the pump through the discharge port (8) and up the central discharge tube
- Liquid passes through the riser (9) and out through the top check valve (12)
- The float descends as liquid is discharged
- The float pulls the rocker mechanism back when the spring (10) is compressed
- The air inlet valve (7) closes and the air exhaust valve (11) opens
- Compressed air trapped within the pump can now escape to atmosphere via the air exhaust (3)
- The pump continues to cycle in this way

VP3 Top Loader LDD

Model & Type	VP3-TL LDD
Liquid Inlet Position	Top
Max Flow Rate Litres/hr	>1,000
Volume/Cycle: Litres	0.6
Pump Length: mm	1,190
Weight: Kg	5.5
Pump Diameter: mm	70
Pump Trigger Point: mm	630
Min Internal Well Dia: mm	80
Max Working Depth: m	130
Max Operating Temp:°C	100
pH Operating Range	3 -12

The VP3-TL LDD can be installed in wells of 3"/80 mm minimum internal diameter. They are designed to pump landfill leachate, landfill gas condensate and contaminated or clean groundwater down to a lower level than a standard VP3-BL.

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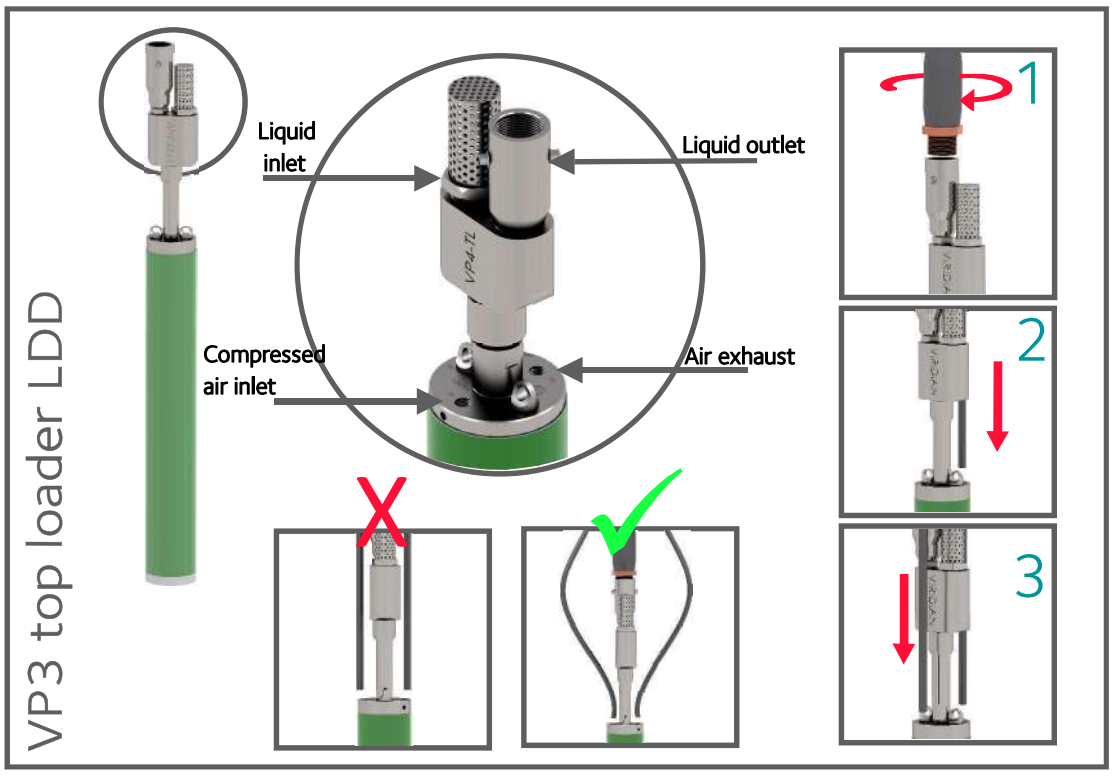
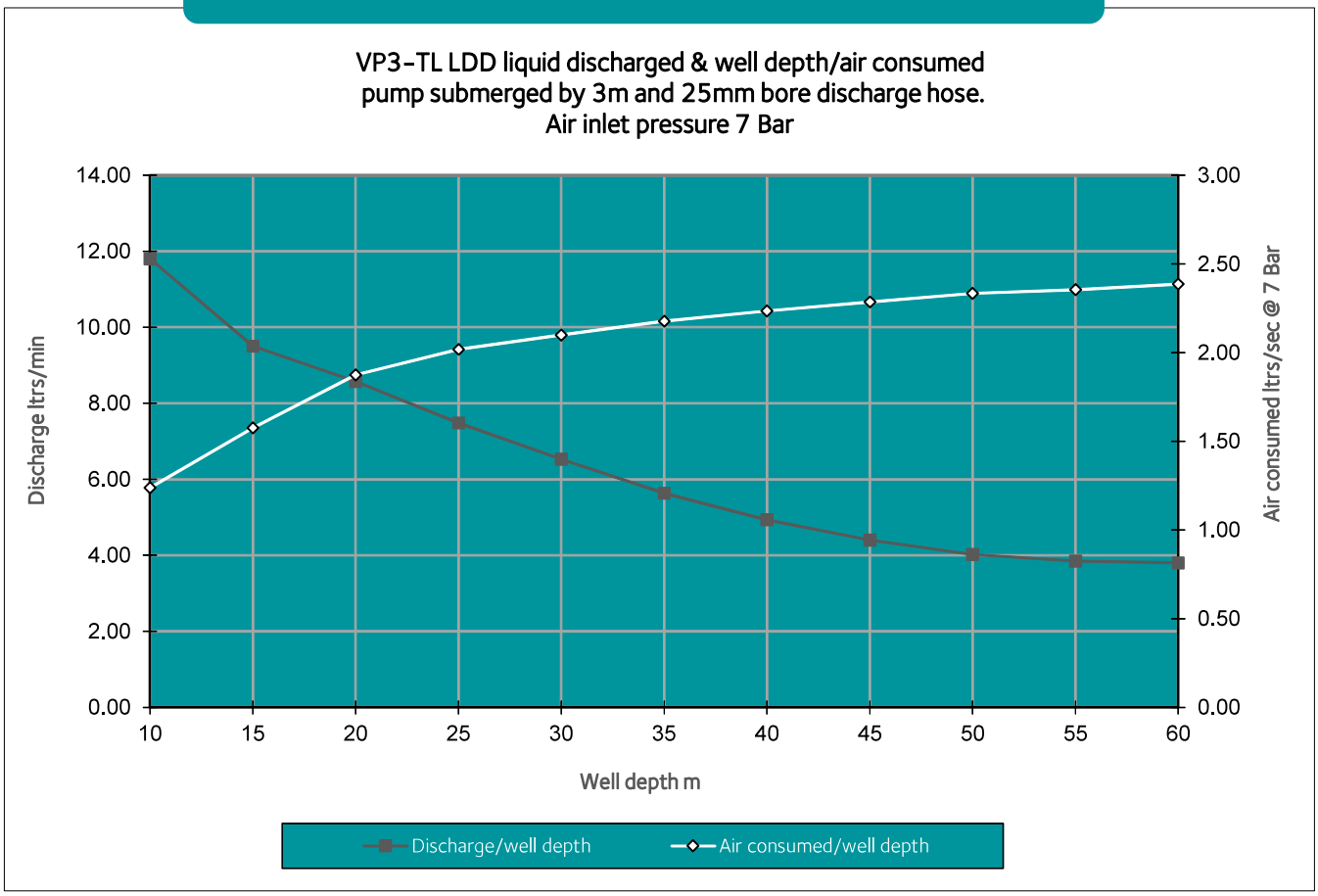
Quick installation guide



VP3 TL LDD Performance Curve



DATA table

Well Depth	Discharge LPM	Total Air Requirement (L/S)	Total Air (SCFM) Requirement
10	11.80	1.24	2.63
15	9.50	1.58	3.34
20	8.57	1.87	3.97
25	7.48	2.02	4.28
30	6.53	2.10	4.45
35	5.63	2.18	4.61
40	4.93	2.24	4.74
45	4.40	2.29	4.84
50	4.02	2.33	4.95
55	3.85	2.36	4.99
60	3.80	2.39	5.06

Values for SCFM have been shown in the DATA table for ease of compressor specification.