

VERDERFLEX®

Peristaltic Cased Tube Pump

Appendix A, B & C

Vantage 5000

Pump Specification, Tubing and Rotor Replacement,
Spare Parts List

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Appendix A

1 Pump Specifications

1.1 Specification ratings

Size	Value
Operating temperature	+5 °C to +40 °C (41°F to 104 °F)
Storage temperature	-40 °C to +70 °C (-40°F to 158 °F)
Humidity (non-condensing)	long-term ≤ 80 %
Maximum altitude	Setup height above sea level ≤ 2000 m (6560 ft)
Power consumption	<230 W
Supply voltage	100-240 VAC 50/60 Hz <230 W
Maximum voltage fluctuation	+/-10% of nominal voltage. A well regulated electrical mains supply is required along with cable connections conforming to the best practice of noise immunity
Installation category (overvoltage category)	II
Pollution degree	2
IP	IP66 to BS EN 60529. Equivalent to NEMA 4X as per NEMA 250 *(indoor use - protect from prolonged UV exposure)
dB rating	<70dB(A) @ 1.0m*
Control ratio	4000:1
Maximum speed	400 rpm

Table 1 Specification ratings

* Sound pressure level is measured by the responsible body at both operators position in normal use and at whatever point 1.0m from the enclosure of the equipment that has the highest sound pressure rating.


1.2 Rotor options

Rotor Options	Tube Bore (mm)	Tube Type
LP 1.6WT Tube, Lower Pressure	1.6	Continuous Tubing; Tube Assemblies
	3.2	
	4.0	
	4.8	
	6.4	
LP 2.4WT Tube, Lower Pressure	8.0	Continuous Tubing; Tube Assemblies
	3.2	
	4.8	
	6.4	
MP 2.4WT Tube, 4 BAR Pressure	8.0	Tube Assemblies
	9.6	
HP 3.2WT Tube, 7 BAR Pressure**	3.2	Tube Assemblies

Table 2 Rotor options

** Before using a new tube assembly, make sure the pump is run in the counter-clockwise direction for 1 minute.

1.3 Tube options


 For safety reasons we do not recommend pumping liquids greater than 80°C (176°F). The following criteria are important when selecting a tube:

- Chemical resistance
- Food grade quality
- Tube life
- Physical compatibility

Type	Feature
Verderprene	General purpose tubing
Silicone	High sterility tubing
Other	Others

Table 3 Verderflex Tube Variants

1.4 UL Classification Remark (applicable for USA and Canadian Market Only)

 These pumps are UL classified exclusively for public water treatment facilities. Products installed at public water treatment facilities are considered to be used in high flow applications only.

Appendix B

2 Tubing and Rotor Replacement

DANGER

- ▶ Isolate the pump from the main power supply before opening the pump door or performing any positioning, removal or maintenance operation.

Note

Disconnect the pump from pipework and close the supply side valves to prevent spillage.

Switch the pump off before attempting to change the tube or the rotor cannot be rotated.

2.1 Continuous Tube Replacement

1. Open the pump door.
2. Release the bottom tube clamp first by pressing up.
3. Remove the tube then release tube clamp.
4. Rotate the rotor assembly in a clockwise direction by hand, using the vertical guide rollers if necessary.
5. Release the top tube clamp to unlock the tube.
6. Remove the tube and release the tube clamp.

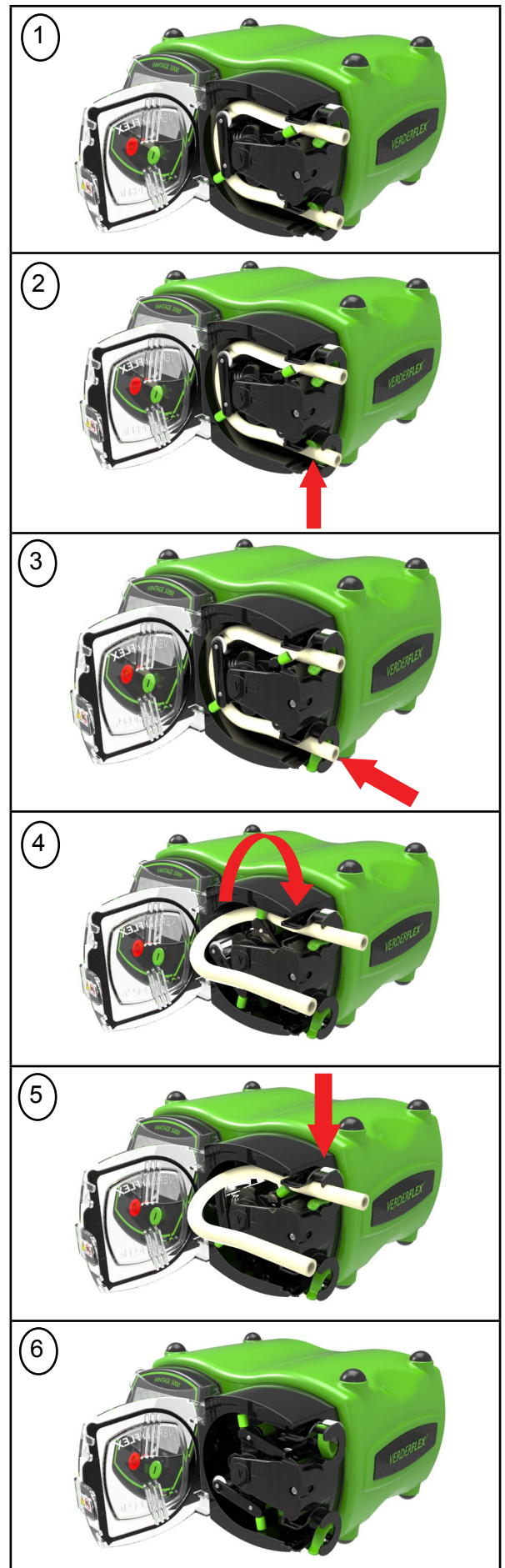


Figure 1 Continuous Tube Replacement

2.2 Tube Element Replacement

DANGER

- ▶ Isolate the pump from the main power supply before opening the pump door or performing any positioning, removal or maintenance operation.

Note

Disconnect the pump from pipework and close the supply side valves to prevent spillage.

Switch the pump off before attempting to change the tube or the rotor cannot be rotated.

1. Open the pump door.
2. Slide the lower tube element housing out of the pump head.
3. Rotate the rotor assembly in a clockwise direction by hand, using the vertical guide rollers if necessary.
4. Gently pull the tube out while rotating.
5. Continue to turn the rotor assembly in clockwise direction.
6. Slide the tube element housing out of the pump head.

Note

If this is difficult a flat bladed screwdriver can be used. Remove the bearing strut plug and insert the screwdriver through into the groove in the rotor body.

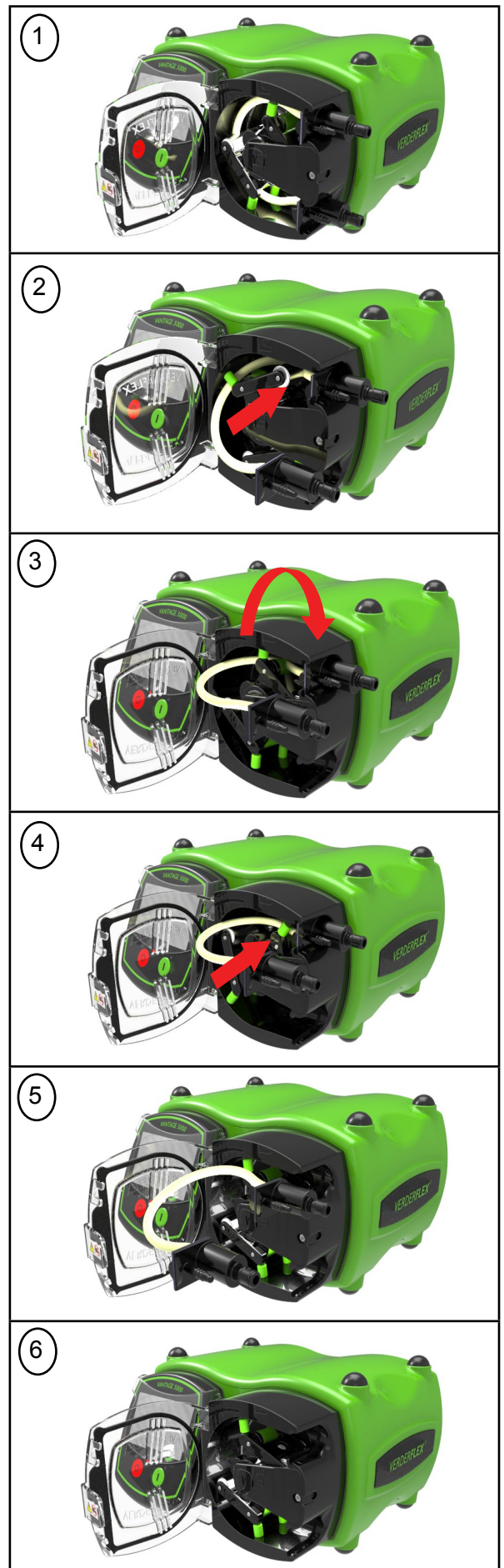


Figure 2 Tube Element Replacement

2.3 Rotor Assembly Replacement

DANGER

- Isolate the pump from the main power supply before opening the pump door or performing any positioning, removal or maintenance operation.

Note

Before removing the rotor assembly, make sure the tube has been correctly removed. (→ 2.1 Continuous Tube), (→ 2.2 Tube Element)

1. Unscrew the M4 bearing strut retaining screw using a screwdriver. (No.2 posidrive)
2. Remove the bearing strut.
3. Remove the rotor assembly by hand.

Note

This may take some effort due to assembly fit.

4. Bearing strut and rotor assembly have been removed.
5. Push replacement rotor into rear pump head bearing.

Note

Ensure the rotor assembly is fully pressed in.

6. Replace the bearing strut and tighten the retaining screw.

Note

The tightening torque value for the retaining is 1.5 Nm.

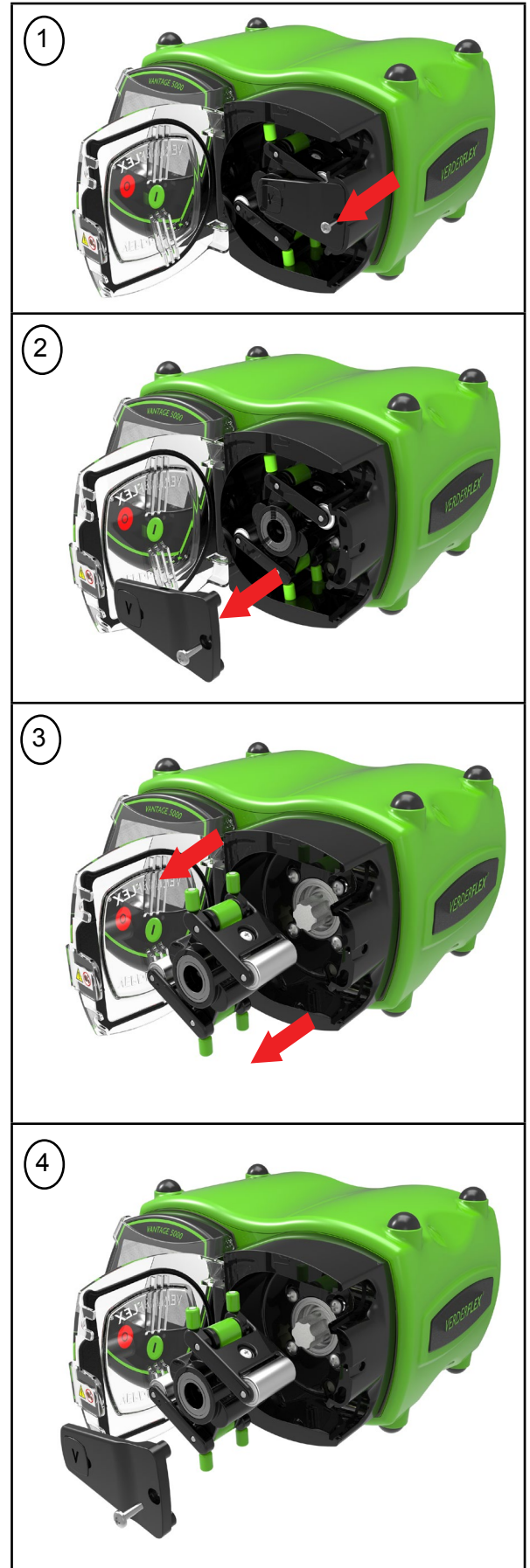


Figure 3 Rotor Assembly Replacement

Appendix C

3 Spare Parts List



Figure 1 Vantage 5000 Spare Parts List

- | | | | | | |
|---|--------------------|---|----------------|----|------------------|
| 1 | Screen Protector | 4 | Rotor Assembly | 7 | Breakout Box |
| 2 | Pump Door | 5 | Tube Clamp* | 8 | Continuous Tube |
| 3 | Standard Feet Pack | 6 | USB Cover | 9 | Tube Element |
| | | | | 10 | WiFi (if fitted) |

* Only required loose tubing

3.1 Vantage 5000 Spare Parts List

Ref	Item	Part No	QTY	Image	
1.	Screen Protector	159.5019	1		
2.	Pump Door (Assembly)	159.5022	1		
3.	Standard Feet Pack	159.5020	8		
3.1	Stacking Feet Pack	Optional Stacking Feet for Landscape Orientation	159.5018	4	
4.	Rotor Assembly	1.6WT TUBE, Lower Pressure, BLUE code	159.5000	1	
		2.4WT TUBE, Lower Pressure, GREEN code	159.5001	1	
		2.4WT TUBE, Medium Pressure, YELLOW code	159.5002	1	
		3.2WT TUBE, High Pressure, ORANGE code	159.5003	1	
5.	Tube Clamp	159.5004	1		
6.	USB Cover	159.5021	1		
7.	Breakout Box	24 VDC	159.5023	1	
		115 VAC	159.5024	1	

Table 1 - Spare Parts List

3.2 Vantage 5000 Continuous Tube Options





Material	Wall Thickness (WT) (mm) *	Tube Bore (ID) (mm)	Part No	QTY	Image			
Verderprene	1.6 Lower Pressure	1.6	150.0603.1	1m Length				
			150.0603.15	15m Pack				
		3.2	150.0620.1	1m Length				
			150.0620.15	15m Pack				
		4.0	150.0643.1	1m Length				
			150.0620.15	15m Pack				
		4.8	150.0604.1	1m Length				
			150.0604.15	15m Pack				
		6.4	150.0605.1	1m Length				
			150.0605.15	15m Pack				
		8.0	150.0606.1	1m Length				
			150.0606.15	15m Pack				
		Silicone	1.6 Lower Pressure	1.6		460.0006.1	1m Length	
						460.0006.15	15m Pack	
3.2	460.0007.1			1m Length				
	460.0007.15			15m Pack				
4.0	460.0051.1			1m Length				
	460.0051.15			15m Pack				
4.8	460.0008.1			1m Length				
	460.0008.15			15m Pack				
6.4	460.0009.1			1m Length				
	460.0009.15			15m Pack				
8.0	460.0010.1			1m Length				
	460.0010.15			15m Pack				
Tygon E1000	1.6 Lower Pressure			1.6	150.0810.1	1m Length		
				3.2	150.0812.1			
		4.0	150.0814.1					
		4.8	150.0816.1					
Viton	1.6 Lower Pressure	1.6	150.0830.1	1m Length				
		3.2	150.0832.1					
		4.0	150.0834.1					
		4.8	150.0836.1					

Table 2 - 1.6mm WT Lower Pressure Continuous Tube

* The tube wall thickness should be matched to the rotor for optimum tube life and performance.




Material	Wall Thickness (WT) (mm) *	Tube Bore (ID) (mm)	Part No	QTY	Image			
Verderprene	2.4 Lower Pressure	3.2	150.0644.1	1m Length				
			150.0644.15	15m Pack				
		4.8	150.0625.1	1m Length				
			150.0625.15	15m Pack				
		6.4	150.0623.1	1m Length				
			150.0623.15	15m Pack				
		8.0	150.0626.1	1m Length				
			150.0626.15	15m Pack				
		9.6	150.0627.1	1m Length				
			150.0627.15	15m Pack				
		Silicone	2.4 Lower Pressure	3.2		460.0052.1	1m Length	
						460.0052.15	15m Pack	
4.8	460.0053.1			1m Length				
	460.0053.15			15m Pack				
6.4	460.1032.1			1m Length				
	460.1032.15			15m Pack				
8.0	460.0705.1			1m Length				
	460.0705.15			15m Pack				
9.6	460.1034.1			1m Length				
	460.1034.15			15m Pack				
Viton	2.4 Lower Pressure			6.4	150.0840.1	1m Length		
				8.0	150.0842.1			

Table 3 - 2.4mm WT Lower Pressure Continuous Tube

* The tube wall thickness should be matched to the rotor for optimum tube life and performance.

3.3 Vantage 5000 Tube Element

1.6 mm WT Lower Pressure Tube Element - Rotor Colour Code = Blue



Material		Wall Thickness (WT) (mm) *	Tube Bore (ID) (mm)	Part No	QTY	Image
Verderprene	Quick Release Connector (QR)	1.6 Lower Pressure	1.6	159.5005	1	
			3.2	159.5006	1	
			4.0	159.5007	1	
			4.8	159.5008	1	
			6.4	159.5009	1	
			8.0	159.5010	1	
	3/4" Mini Tri-clamp Connector (TR)	1.6 Lower Pressure	1.6	159.5025	1	
			3.2	159.5026	1	
			4.0	159.5027	1	
			4.8	159.5028	1	
			6.4	159.5029	1	
			8.0	159.5030	1	

Table 4 - 1.6 mm WT Lower Pressure Tube Element

2.4 mm WT Lower Pressure Tube Element - Rotor Colour Code = Green



Material		Wall Thickness (WT) (mm) *	Tube Bore (ID) (mm)	Part No	QTY	Image
Verderprene	Quick Release Connector (QR)	2.4 Lower Pressure	3.2	159.5011	1	
			4.8	159.5014	1	
			6.4	159.5015	1	
			8.0	159.5016	1	
			9.6	159.5017	1	
	3/4" Mini Triclamp Connector (TR)	2.4 Lower Pressure	3.2	159.5031	1	
			4.8	159.5034	1	
			6.4	159.5035	1	
			8.0	159.5036	1	
			9.6	159.5037	1	

Table 5 - 2.4 mm WT Lower Pressure Tube Element

* The tube wall thickness should be matched to the rotor for optimum tube life and performance.

2.4 mm WT Medium Pressure Tube Element - Rotor Colour Code = Yellow



Material		Wall Thickness (WT) (mm) *	Tube Bore (ID) (mm)	Part No	QTY	Image
Verderprene	Quick Release Connector (QR)	2.4 Medium Pressure 4 bar (60 PSI)	3.2	159.5012	1	
	3/4" Mini Triclamp Connector (TR)	2.4 Medium Pressure 4 bar (60 PSI)	3.2	159.5032	1	

Table 6 - 2.4 mm WT Medium Pressure Tube Element

3.2 mm WT High Pressure Tube Element - Rotor Colour Code = Orange



Material		Wall Thickness (WT) (mm) *	Tube Bore (ID) (mm)	Part No	QTY	Image
Verderprene	Quick Release Connector	3.2 High Pressure 7 bar (105 PSI)	3.2	159.5013	1	
	3/4" Mini Triclamp Connector	3.2 High Pressure 7 bar (105 PSI)	3.2	159.5033	1	

Table 7 - 3.2 mm WT High Pressure Tube Element

* The tube wall thickness should be matched to the rotor for optimum tube life and performance.

3.4 Vantage 5000 Optional Accessories

Ref	Item	Part No	QTY	Image
1.	25 WAY Remote I/O Connector Lead (5 m)	159.5040	1	
2.	IP 44 Non-Latching Footswitch	159.5041	1	
3.	IP 44 Latching Footswitch	159.5042	1	
4.	IP 65 Non-Latching Footswitch	159.5043	1	
5.	IP 65 Latching Footswitch	159.5044	1	

Table 8 - Vantage 5000 Optional Accessories