

# V515 V518 V521 V525 V530

## Solar-optimised hot water cylinder



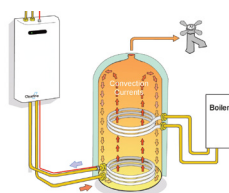
- Designed by solar experts at Viridian to ensure solar and auxiliary heat sources work in harmony
- Large solar dedicated volume and high performance environmentally friendly insulation maximise solar energy gains
- Mains pressure hot water for powerful showers and fast-filling baths
- Duplex stainless steel for long life

### Specification

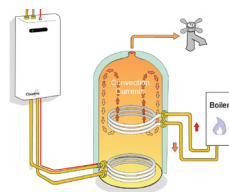
Model		V515	V518	V521	V525	V530
Size	litres	150	180	210	250	300
Dedicated Solar Volume (Vs)	litres	75	90	105	110	125
Primary Heated Volume (Vb)	litres	75	90	105	140	175
Heat Loss (whole cylinder)	kWh/24h	1.41	1.53	1.80	2.15	2.28
Heat Loss (Vb only)	kWh/24h	0.71	0.77	0.90	1.20	1.33
Heat Up Time	minutes	12.0	15.5	19.0	23.0	29.0
Weight (empty)	kg	40	45	48	53	63
Weight (full)	kg	190	225	258	303	363
Height	mm	1,102	1,290	1,478	1,782	2,041
Diameter	mm	545	545	545	545	545
Solar Coil Volume	litres	2.0	2.6	3.6	3.8	3.8
Solar Coil Surface Area	m <sup>2</sup>	0.41	0.54	0.76	0.79	0.79
Top Coil Rating	kW	16.7	15.8	14.9	14.6	17.9
Maximum Water Supply Pressure	bar	16				
Maximum Primary Pressure	bar	3				
Operating pressure	bar	3				
Expansion Valve Setting	bar	6				
T&P Valve Setting	°C/bar	90/7				
Expansion Vessel Charge	bar	3				
Immersion Heater Rating	kW	3				
Immersion Heater Length	mm	350				
Global Warming Potential	CO <sub>2</sub> equiv	1				
Ozone Depletion Potential		Zero				



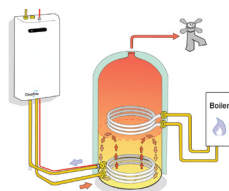
### How it Works



The cylinder is heated by convection - rising currents of warmer water from around heat exchanger coils. Solar heat input is from a coil at the base of the cylinder, so in theory it can heat the whole volume of the cylinder.



The heat input from the auxiliary heat source is located above the solar input, and heats water at the top of the cylinder. When hot water is drawn from the cylinder, it is taken from the top and cold water flows in at the bottom.



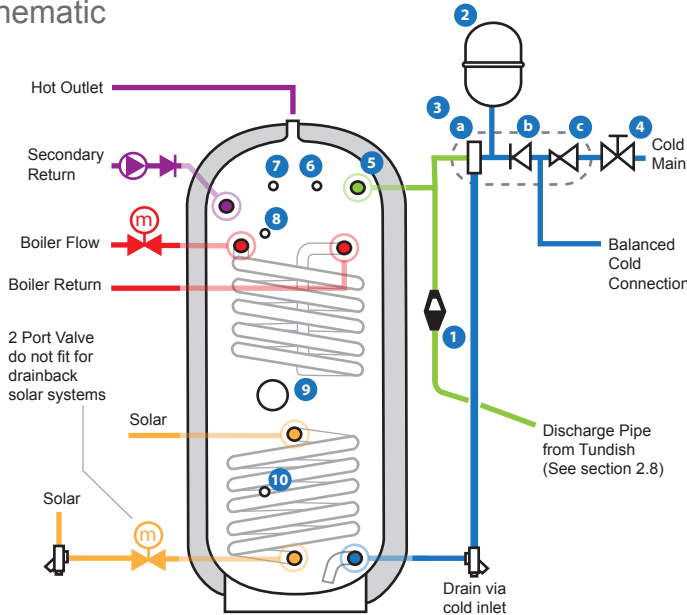
If the auxiliary heat source has already heated the top part of the cylinder, the amount of solar energy that can be stored is reduced, significantly lowering solar energy yields. Symphony cylinders have the auxiliary input higher up the cylinder to overcome this problem.

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### Schematic



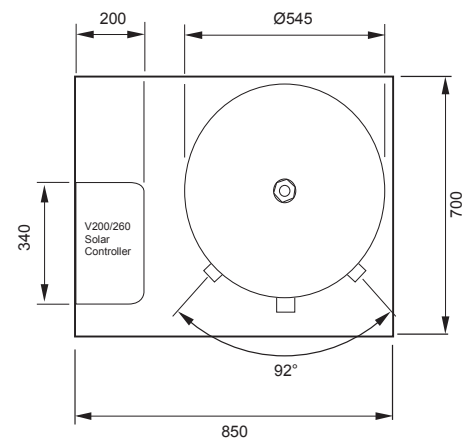
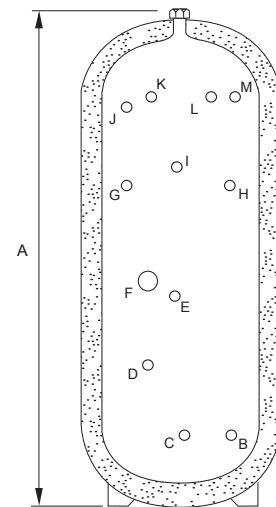
No.	Description	In Kit
1	Tundish	✓
2	Expansion Vessel	✓
3	Inlet Control Set:	✓
a	Expansion relief valve	✓
b	Check valve	✓
c	Pressure reducing valve with strainer	✓
4	Isolating valve	
5	Temperature and pressure relief valve	✓
6	Temperature Sensor Pocket	✓
7	High Limit Thermostat (for solar)	✓
8	Dual Thermostat (for boiler)	✓
9	Electrical Immersion Heater	✓
10	Sensor Pocket (solar controller)	✓

Installation Schematic. See the Symphony Installation, Maintenance and User Manual for further information

### Dimensions

		V515	V518	V521	V525	V530	Fitting
A	Height	1,102	1,290	1,478	1,782	2,041	
B	Cold Feed	192	192	192	192	192	22mm compression
C	Solar Coil	192	192	192	192	192	22mm compression
D	Sensor Pocket	317	342	432	452	452	Flared end pipe
E	Solar Coil	442	492	672	712	712	22mm compression
F	Immersion	514	590	684	715	806	1 3/4" Thread
G	Aux Coil	804	880	974	1,005	1,124	22mm compression
H	Aux Coil	804	880	974	1,005	1,124	22mm compression
I	Dual Stat Pocket	844	920	1,014	1,045	1,164	Flared end pipe
J	Secondary Return	842	998	1,249	1,409	1,609	22mm compression
K	Pocket	890	1,078	1,266	1,516	1,829	Flared end pipe
L	Pocket	890	1,078	1,266	1,516	1,829	Flared end pipe
M	T&P Relief	890	1,078	1,266	1,516	1,829	Factory fitted

Connection positions are in mm measured from the bottom of the cylinder.



Cylinder cupboard size. Viridian solar controller shown

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