

SunSpeed

A 'Clear Skies' Low Carbon Buildings Accredited Product

SunSpeed domestic hot water cylinders are designed for use with solar panels. The heat exchangers are purpose designed for this application because:-

- The primary flow temperature from this source will normally be significantly lower than from conventional heat sources such as gas boilers. Therefore heat exchangers with large surface areas will be necessary to transfer the heat at low temperature differences.
- A second heat exchanger for conventional heat sources like gas boilers will often be required. In this case the solar panel heat exchanger must be of a compact design and capable of being fitted very low down in the cylinder.
- It is important to match the chosen SunSpeed model (dedicated volume) with the property type to achieve compliance with clear skies and building regulations.



Cylinders for use with a solar heat source

Heat exchanger specification

The heat exchanger in a SunSpeed cylinder designed for SOLAR is manufactured from 'Integron' integrally finned copper tube and is only suitable for pumped circuits. It is designed to heat the cylinder water content from 10°C to 49°C in one hour with a constant primary flow temperature of 55°C.

In a SunSpeed 2, the heat exchanger, which is a coil for use with a conventional heat source, is manufactured in either 22mm or 28mm plain copper tube to meet the requirements of BS1566 and Part L of the Building Regulations.

It is rated to give the recovery time under 30 minutes as specified in BS1566.



The code of practice for the installation, commissioning and servicing of central heating systems



To protect our environment, we use copper a totally recyclable metal, which never becomes waste.



FM 2057
SunSpeed is produced under an ISO 9001:2000 Quality System accepted by BSI



Gledhill
BUILDING PRODUCTS

SunSpeed

A 'Clear Skies' Low Carbon Buildings Accredited Product

15 UK factories to serve the merchant faster

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Due to a programme of continuous improvement Gledhill Building Products reserve the right to modify products without prior notice.

It is advisable to check the product technical detail by using the latest design and installation manuals available from our technical support team or on our website. Spec. No. 66. 1K. 07

Cylinders for use with a solar heat source

Gledhill cylinders are manufactured under an ISO 9001:2000 quality management system which is independently audited and accepted by BSI. All our products meet or exceed industry standards and comply with Water Regulations and Building Regulations. All products are also independently approved for compliance with the Water Supply (Water Fittings) Regulations 1999.

Specification

Model	Heat Exchanger Output KW	Circular Pattern Nominal Capacity Litres	Dedicated Solar Volume Litres	Primary Centres mm	Coil Resistance m bar	Primary Flow Rate Litres/min	Min Heat Source KW	Min Cylinder 'Dia' mm	Surface Area m ²	Heat loss (kWhrs/24hrs) 60mm
Sun21	6.15	136	41	288	120	11.36	8	350	0.77	2.6
Sun28	8.2	182	55	288	165	15.14	11	350	0.96	2.9
Sun35	10.25	227	68	343	210	18.91	13	350	1.16	3.4
Sun42	12.3	272	82	400	240	22.73	16	350	1.36	3.7
Sun52	15.38	341	102	343	195	28.41	20	400	1.75	4.5
Sun70	20.5	454	136	343	195	37.87	27	400	2.33	N/A
Sun87	25.6	568	170	400	255	47.32	33	400	2.73	N/A
Sun105	30.76	682	204	400	240	56.32	40	450	3.41	N/A
Sun140	41	909	272	400	225	75.46	53	500	4.43	N/A

Dimensions in the table above are subject to normal manufacturing tolerances.

Note: Rectangular pattern units are available up to a maximum capacity of 210 litres. Sizes available on request.

- In a 'SunSpeed 1' or 'SunSpeed 2' the SunSpeed Coil is designed to heat the full contents of the cylinder, whilst the conventional fuel coil in a 'SunSpeed 2' is positioned and rated to heat 60% of the contents, unless otherwise specified. Example: A 'SunSpeed 70' would raise 450 litres of water from 10°C to 49°C, with a primary flow temperature of 55°C in one hour, with a minimum heat source output of 27kW.
- To raise the secondary contents closer to the primary flow temperature in one hour would require significantly larger heat exchange surfaces. That means to raise 450 litres from 10°C to 54°C with a primary flow temperature of 58°C would require approximately twice the heat exchange surface, i.e. a 41kW unit.
- The capacities shown above can be supplied in all the usual size variations.
- For circular cylinders up to 280 litres nominal capacity add 90mm to the diameter to account for the Flexi Jacket insulation.

Insulation

Gledhill Building Products has developed a range of factory fitted insulations which have high performance characteristics and long life.

Flexilag insulation uses non combustible Rockwool mineral wool as the insulation material. It is easy to clean, with a flat top, and an attractive appearance, which is tailored to suit any 'tapping' positions required.

The benefits of Flexilag insulation include:

- High performance - retains heat loss properties indefinitely, unlike urethane foam
- Non-combustible eliminating the risk of toxic smoke
- Meet the requirements of BS 3198 and BS 1566 Part 1:2002.
- Totally CFC-free

We are committed to minimising the environmental impact of our operations and work hard to comply with all relevant environmental legislation. We are pro-active in the recycling of old copper cylinders and can offer incentives to customers in order to help reduce the impact of waste on the environment. SunSpeed has an Ozone Depletion Potential (ODP) of zero and a Global Warming Potential (GWP) of zero.



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