

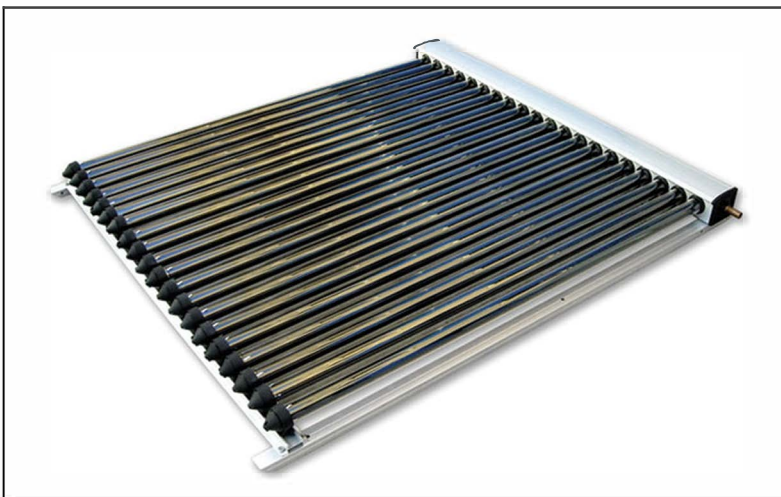
High Efficiency Double Wall Evacuated Tube Solar Collector

The SFB-AL uses the same technology as our SFB range and comes in panels with the same number of tubes. The only difference is in the profile of the manifold which is slimmer in design and curved in shape. The slimline SFB-AL Panels were designed for areas with strict planning permission where a typical SFB panel would have protruded too far from the roof. In almost all areas of the UK planning permission now covers the standard SFB panel, the SFB-AL's slim design is simply an aesthetic preference for some.

Like the SFB, an SFB-AL should be considered 'permitted development' - meaning that you do not need to apply for planning permission if you wish to fit these panels to your roof. The SFB-AL panel has a very low heat capacity, containing only 0.5 - 2litres of water inside the manifold. This allows the panel to heat up quickly when the sun starts to shine, and minimises heat losses at night. It should provide you with free hot water for at least 6 months of the year and will strongly contribute thereafter thus reducing your boiler usage.



	4710AL	4715AL	4720AL	4730AL	5810AL	5815AL	5820AL	5830AL
Panel Dimensions: LxWxH (mm)	1660x710x133	1660x110x133	1660x1425x133	1660x2012x133	1970x810x135	1970x1175x135	1970x1625x135	1970x2302x135
Weight (Kg)	25	47	59	68	37	55	75	108
Area (M2)	1.18	1.84	2.3	3.34	1.54	2.31	3.22	4.54
Aperture Area (M2)	0.63	0.94	1.25	1.88	0.95	1.42	1.89	2.83
Filling Volume (Litres)	0.55	0.8	1.1	1.7	0.65	0.98	1.35	1.9
Conversion Factor (n0)	0.651	0.601	0.601	0.601	0.64	0.64	0.64	0.654
Heat Transfer Coefficient (W/(m2K))	1.765	2.101	2.101	2.101	1.494	1.494	1.494	1.329
Transfer Depending HTC (W/(m2K))	0.012	0.009	0.009	0.009	0.012	0.012	0.012	0.012
Width of Absorber per Tube (mm)	37	37	37	37	45	45	45	45
Copper Entry/Exit Pipe diameter (mm)	22	22	22	22	22	22	22	22
Peak (W)	410	565	751	1130	608	909	1210	1851



Panel side view

- Suitable for pressurised systems
- Solar Keymarked for RHI
- High efficiency solar collector using heat pipe evacuated tubes
- Can be used in all climates
- Reliable and efficient with twin-wall glass solar tubes
- Copper heat pipes for rapid heat transfer
- Easy plug-in installation for mounting on the roof or at ground level
- Maintenance free
- Glass wool compressed moulded insulation
- Corrosion resistant silver brazed copper header
- Collectors may be connected in series to increase water heating capacity
- Tubes easily replaced if broken
- Ideal for commercial solar water heating applications
- Expected Lifetime >25years
- 'Passive Solar Tracking' - maintains heat output regardless of sun's position in the sky
- BSEN 12975 Approved

Available in x10, x15, x20 or x30 tube panels

Please Note: The 5810AL is not yet SolarKeymarked (09/2013)



Keymark No: 011-751333 R
& 011-751283 R



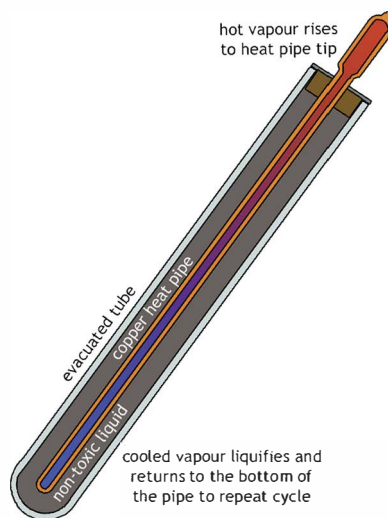
High Efficiency 58mm Ø double wall Evacuated tube Solar Collector

The HCA uses the same technology as our SFB range. The panel is considered to be one of the most cost-effective on the market, and performs extremely well in the UK climate. Its black slimline design suits UK architecture, and in most cases, it should be considered 'permitted development' - meaning that you do not need to apply for planning permission if you wish to fit these panels to your roof. The HCA panel has a very low heat capacity, containing only 1 - 2litres of water inside the manifold. This allows the panel to heat up quickly when the sun starts to shine, and minimises heat losses at night. It is also much lighter than the integrated tank designs (Navitron SFA and SFD panels) and flat plates, making it much more suitable for load-bearing roof timbers. It should provide you with free hot water for at least 6 months of the year and will strongly contribute thereafter thus reducing your boiler usage.



	HCA-58-20	HCA-58-30
Panel Dimensions: LxWxH (mm)	1400x2000x125	2000x2000x125
Weight (Kg)	58.6	88
Area (M2)	2.8	4
Aperture Area (M2)	1.89	2.834
Filling Volume (Litres)	1.35	1.9
Conversion Factor (n0)	0.654	0.656
Heat Transfer Coefficient (W/(m2K))	1.82	1.4
Transfer Depending HTC (W/(m2K))	0.0066	0.0123
Peak (W)	1236	1858
Width of Absorber per Tube (mm)	45	45
Copper Entry/Exit Pipe Diameter (inches)	3/4" Threaded BSP	3/4" Threaded BSP
Maximum Operating Pressure (bar/psi)	10/145	10/145

Length	1800mm
Outer tube diameter	58mm
Inner tube diameter	45mm
Weight	2.2kg
Glass thickness	1.6mm
Material	Borosilicate Glass 3.3
Absorptive coating	Graded Al/N/Al
Vacuum degree	$P < 5 \times 10^{-2}$ Pa
Thermal expansion	3.3×10^{-6} /°C
Insulation Temperature	>200°C
Absorptance	>93%
Emissivity	<8%
Heat loss	<0.8W/(m ² ·C)
Maximum pressure	0.8Mpa
Resist cold	-35 °C
Resist hailstone	Ø 25mm
Resist wind	30m/s
Start-up temperature	≤25°C



- Suitable for pressurised systems
- Solar Keymarked for RHI
- High efficiency solar collector using heat pipe evacuated tubes
- Can be used in all climates
- Reliable and efficient with twin-wall glass solar tubes
- Copper heat pipes for rapid heat transfer
- Easy plug-in installation for mounting on the roof or at ground level
- Maintenance free
- 40mm Glass wool compressed moulded insulation
- Corrosion resistant silver brazed copper header
- Collectors may be connected in series to increase water heating capacity
- Tubes easily replaced if broken
- Ideal for commercial solar water heating applications
- Expected Lifetime >25years
- 'Passive Solar Tracking' - maintains heat output regardless of sun's position in the sky
- BSEN 12975 Approved

Available in x20 or x30 tube panels



Keymark No: 011-75589R