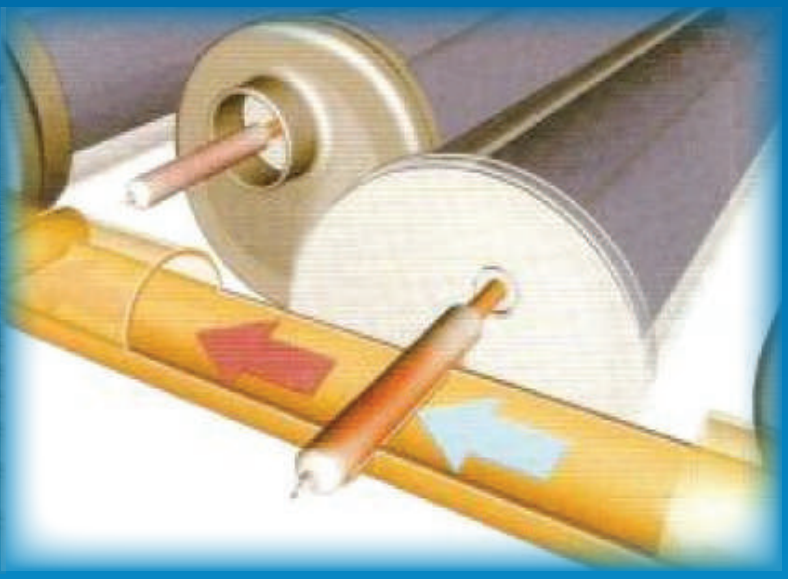
SDC

Solar District Cooling

Solar Collectors

SEIDO 1



- High Efficiency
- Anti Freeze
- High Vacuum with Long term stability
- Easy Installation & Maintenance
- Fast Start-up
- High Pressure Resistance
- Easy Integration into buildings
- Reliable & Durable
- Low Heat Loss

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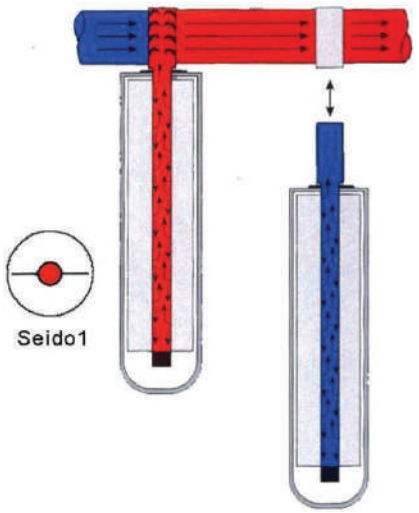
High Technology creating high efficiency

The heat transfer from the absorber to the heat circulation is performed by the heat pipe which is mounted in the absorber. The heat pipe had originally been developed for the thermal control in satellites. Inside the pipe, the heat is conducted with high efficiency to its upper end. From there it is released to the heat circulation. Although the heat transport medium of the heat pipe is water the heat pipe is a closed system. The pipe is charged with a small amount of water and carefully evacuated before sealing. All our collector tubes are evacuated and sealed with our patented thermo-compression sealing technology to prevent heat losses and to provide protection from corrosion. The aluminum nitride selective coating on the absorber plate ensures the exceptionally high solar absorption and low thermal emission of our tubes.

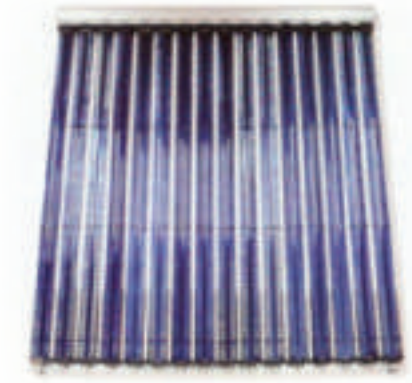


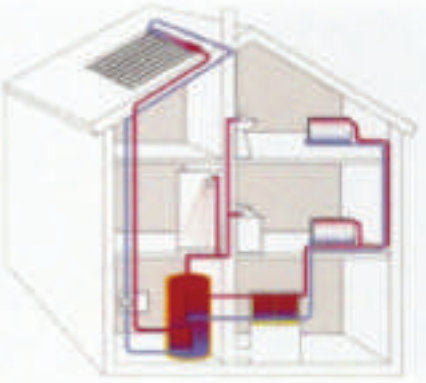
Customisation & convenience

SDC collector modules consist of an array of SEIDO evacuated tubes, insulated manifold header, support frame and standard frame package for single roof installation. Manifold headers have capabilities of 8, 16 tubes. The collector manifold casing and end cap are made of powder coated aluminum profile. The copper inlet and outlet pipe nipples come standard in Ø22m, making plumbing connections quick and easy using readily available metric compression fittings. The heat transfer liquid of the heat circuit does not flow through the collector itself. The condensers of the collector tubes have a plug-in structure to the tubes removable. The plug-in structure guarantees an easy installation since all parts are installed separately. Due to the dry connection design, single tubes can conveniently be replaced without shutting the system down.

Top Performance and Versatility

The heat pipe vacuum tube collects heat from sun working high efficiency and absorbing up to 92% of the incoming irradiation. Thereafter, the condenser of the heat pipe will transfer the heat to the manifold where the water is heated. The heated water will circulate in the system until the required temperature is attained. With their excellent efficiency, SEIDO 1 solar collectors can be applied in domestic water heating for household and even larger systems for commercial or public use, space heating and also air-conditioning.





At SDC, we are continuously striving to improve our products, technology and service provided to our customers. Our products are complying with the highest performance and reliability standards. We are holding various certificates to give proof of their premium quality.

Technical Data

Module type	SEIDO 1-8	SEIDO 1-16	SEIDO 1-8AS	SEIDO 1-16AS
Tube construction	SEIDO 1 – Heat pipe vacuum tube with flat absorber			
Certificate	EN 12975			
Angle of inclination	15° to 90°			
Number of collector tubes	8	16	8	16
Absorber area	1.40 m^2	2.80 m^2	1.40 m^2	2.80 m^2
Aperture area	1.51 m^2	3.01 m^2	1.51 m^2	3.01 m^2
Gross area	2.04 m^2	4.08 m^2	2.04 m^2	4.08 m^2
Length x width x height (mm)	2126 x 960 x 175	2126 x 1920 x 175	2126 x 960 x 175	2126 x 1920 x 175
Weight	50 kg	100 kg	50 kg	100 kg
Pressure drop per module	< 5 mbar (100L/h)	< 12 mbar (200L/h)	< 5 mbar (100L/h)	< 12 mbar (200L/h)
Fluid content per module	0.48 L	0.96 L	0.48 L	0.96 L
Glass material	Borosilicate glass			
Glass tube diameter	100			
Wall thickness	2.5 mm			
Transmittance	> 0.90			
High vacuum, long term stability	< 10 - 5 mbar			
Absorber material	Aluminum			
Selective coating	Aluminum nitride			
Absorptance	> 0.92			
Emittance	< 0.08			
Header box material	Aluminum	Aluminum Alloy	Aluminum	Aluminum Alloy
Header box diameter	100 mm		130 mm	
Insulation	Polyurethane foam			
Max. operating pressure	6 bar			
Stagnation temperature, module	190°C			
Stagnation temperature, pipe	247 °C			
Assembling components	Stainless steel vertical supports and bottom supports, aluminum / aluminum alloy header box, 30 mm thickness polyurethane insulation			
Connection	Compression fitting 22 mm			

Contact:

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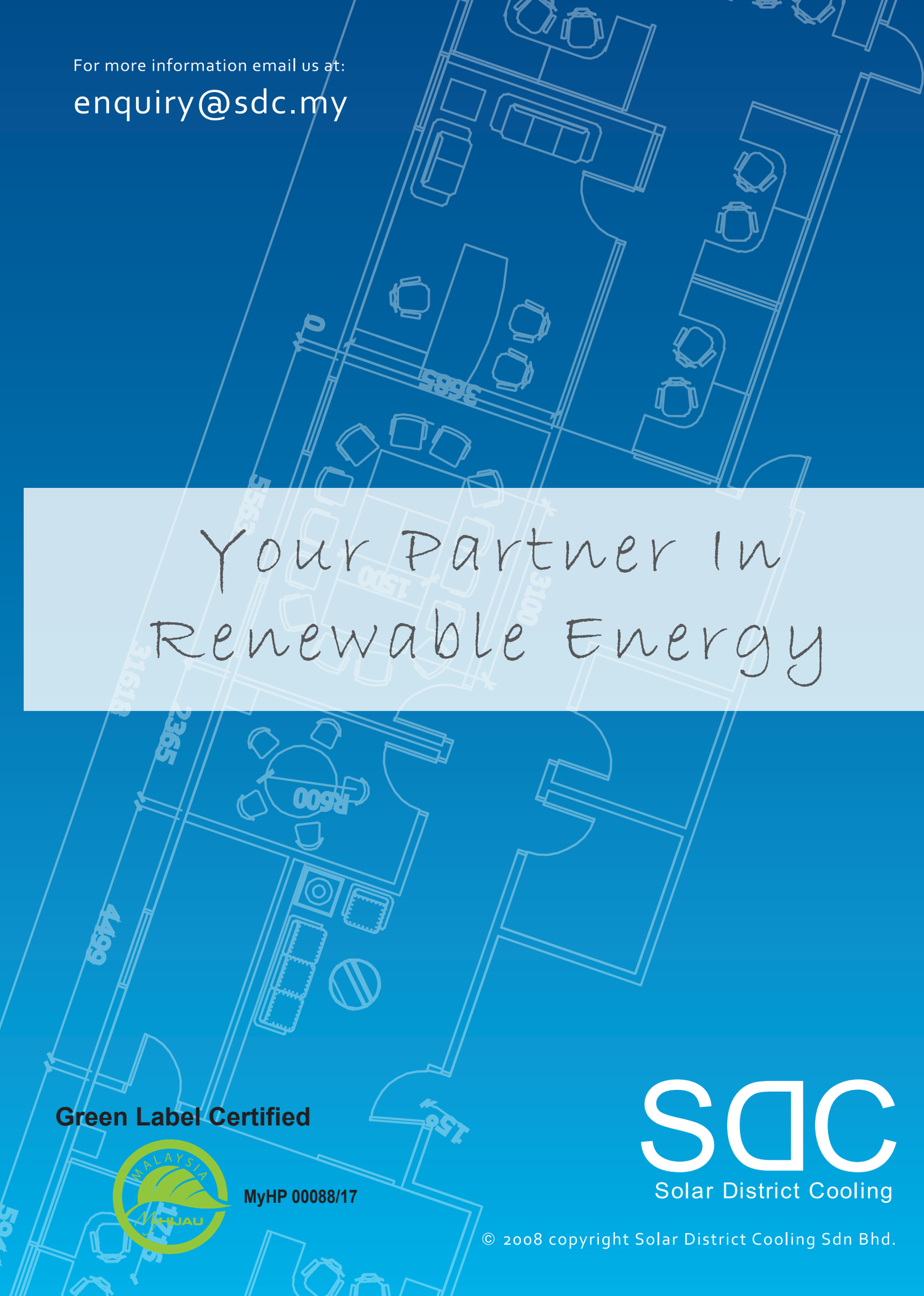

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Green Label Certified

MyHP 00088/17

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