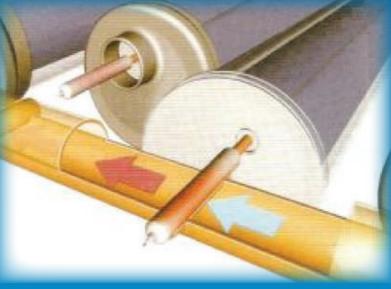
Solar District Cooling

# **Solar Collectors** SEIDO 5





**Optimal Irradiation Absorption** 

Anti Freeze

Fast Start Up

Easy Integration into buildings

High Vacuum with Long-term Stability Low Heat Loss

High Pressure Resistance

Reliable & Durable

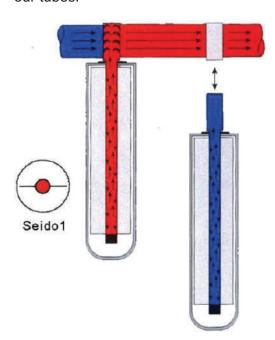
Easy Installation & Maintenance

www.sdc.my

# 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

SEIDO 5 solar collector tubes have a semi-cylindrical absorber plate. The bent shape of the absorber plate allows a 10-15% higher annual solar irradiation with different tilt angles. This design makes the SEIDO 5 collectors especially suitable for high latitude area, high heat demand and limited space installations. Despite having a larger absorber area, SEIDO 5 tubes are very similar to SEIDO 1 tubes in their configuration. They are both heat pipe evacuated tubes with plug in structure allowing for manual adjustment, easy installation and maintenance.

## 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 5 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 5-8	SEIDO 5-8AS	SEIDO 5-16	SEIDO 5-16AS
Tube construction	Heat pipe vacuum tube collector with bent absorber			
Certificate	EN 12975			
Angle of inclination	30° to 90°			
Number of collector tubes	8		16	
Absorber area	1.83 m²		3.66 m²	
Gross area	2.04 m²		4.08 m²	
Length x width x height (mm)	2126 x 960 x 175	2126 x 960 x 187	2126 x 1920 x 175	2126 x 1920 x 187
Weight	50 kg		100 kg	
Pressure drop per module	< 6 mbar (100L/h)		< 15 mbar (260L/h)	
Fluid content per module	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	Sputtering Aluminum nitride			
Absorptance	> 0.92			
Emittance	< 0.08			
Header box material	Aluminum	Aluminum Alloy	Aluminum	Aluminum Alloy
Header box colour	Brown	Silver	Brown	Silver
Header box diameter	100 mm	130 mm	100 mm	130 mm
Insulation	Polyurethane foam			
Max. operating pressure	6 bar			
Stagnation temperature, module	190°			
Stagnation temperature, pipe	247 °C			
Connection	Compression fitting 22 mm			













#### Contact:

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