



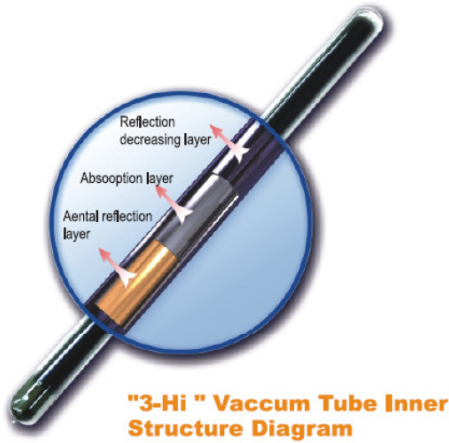
## New patents from The Sydney University exclusively licensed



### WIDEX Solar Water Heater

Master the Solar Energy Core Technology ---Patent Film Plated "3-Hi Tube"  
All glass evacuated tube Description:

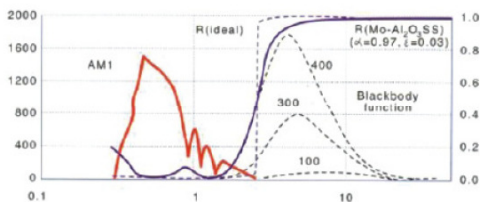
The glass evacuated tubes are the key component of solar collectors. The evacuated tube is similar to a conventional Dewar flask and consists of two borosilicate glass tubes, a glass with high chemical and thermal shock resistance. The outer side of the inner tube is coated with a sputtered solar selective surface. This coated inner tube is closed at one end and sealed at the other end to the outer tube. The annular space between the outer tube and inner tube is evacuated to virtually eliminate heat loss by conduction and convection. The evacuated collector tubes are produced according to two new patents from the Sydney University exclusively licensed.



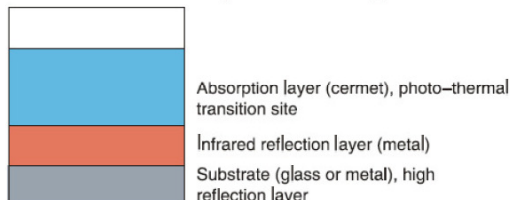
### Features:

- High solar-thermal conversion and low heat loss
- Stable advanced coating up to 380°C
- Long time warranty to 15 years
- High level vacuum ensure operation under cold weather

### All glass evacuated collector tube Data sheet and specification



### Membranous layer structure of selective absorption coating



Models	Φ47 × 150	Φ58 × 180	Φ58 × 192	Φ58 × 210
Weight	1.35 ± 0.12kg	2.29 ± 0.18kg	2.45 ± 0.20kg	2.67 ± 0.22kg
Material	borosilicate glass 3.3	borosilicate glass 3.3	borosilicate glass 3.3	borosilicate glass 3.3
Structure	All glass coaxial double-layer tubes	All glass coaxial double-layer tubes	All glass coaxial double-layer tubes	All glass coaxial double-layer tubes
Outer tube diameter	Φ47 ± 0.7mm	Φ58 ± 0.7mm	Φ58 ± 0.7mm	Φ58 ± 0.7mm
Inner tube diameter	Φ37 ± 0.7mm	Φ47 ± 0.7mm	Φ47 ± 0.7mm	Φ47 ± 0.7mm
Outer tube thickness	1.6 ± 0.15mm	1.8 ± 0.15mm	1.8 ± 0.15mm	1.8 ± 0.15mm
Inner tube thickness	1.6 ± 0.15mm	1.6 ± 0.15mm	1.6 ± 0.15mm	1.6 ± 0.15mm
Tubes length	1812 ± 4mm	1812 ± 4mm	1932 ± 4mm	2100 ± 4mm
Material of coating	AIN/AIN-SS/Cu	AIN/AIN-SS/Cu	AIN/AIN-SS/Cu	AIN/AIN-SS/Cu
Absorptance	0.94-0.96	0.94-0.96	0.94-0.96	0.94-0.96
Emittance	0.04-0.06	0.04-0.06	0.04-0.06	0.04-0.06
Vacuum	p5 x 10-3pa	p5 x 10-3pa	p5 x 10-3pa	p5 x 10-3pa
Transmittance of Outer Tube	0.91	0.91	0.91	0.91
Stagnation temperature	270-300°C	270-300°C	270-300°C	270-300°C
Heat-loss coefficient	0.6w/m <sup>2</sup> *°C	0.6w/m <sup>2</sup> *°C	0.6w/m <sup>2</sup> *°C	0.6w/m <sup>2</sup> *°C
Bearing hailstone ability	Hailstone diameter Φ25mm	Hailstone diameter Φ25mm	Hailstone diameter Φ25mm	Hailstone diameter Φ25mm
Pressure-endure ability	1MPa	1MPa	1MPa	1MPa