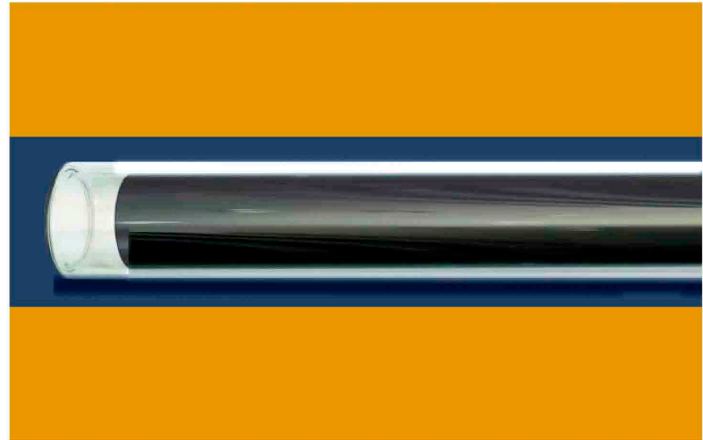


## All-Glass Evacuated Tube MPi47-1500-AG

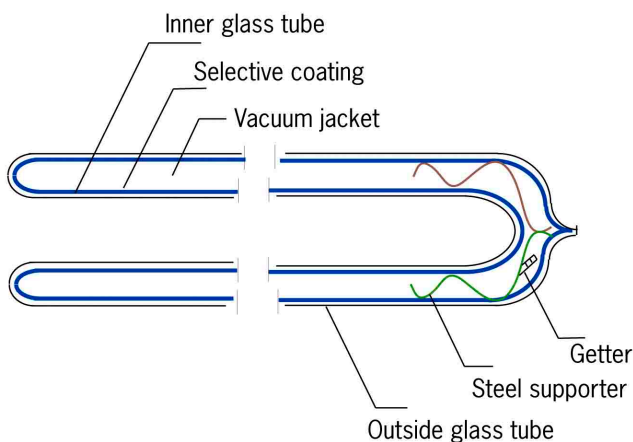
The all-glass evacuated tube MPi47-1500-AG with M-AIN advanced sputtering coating and double cermet film structure is a very high-performance product. Therefore, the collector's evacuated tubes mean heat transfer to the solar loop is extremely efficient.

### Features MPi47-1500-AG

- High solar-thermo conversion and low heat loss
- High output due to vacuum insulation
- High output due to advanced solar selective coatings:
  - double cermet film structure with the highest photothermal efficiency
  - metal-Aluminum nitride cermet (M-AIN) materials deposited by a novel DC magnetron sputtering technology
- No glass to metal seal
- Borosilicate glass : high chemical and thermal shock resistance
- High output even at lower outside temperature
- Very simple assembly process - low assembly costs



### Typical section diagram of MPi47-1500-AG



### Specifications MPi47-1500-AG

Model	MPi47-1500-AG
Tube type	evacuated glass tube
Tube structure	all glass coaxial double-layer tubes
Outer tube diameter	$\Phi 47 \pm 0.7\text{mm}$
Inner tube diameter	$\Phi 37 \pm 0.7\text{mm}$
Outer tube thickness	$1.5 \pm 0.15\text{mm}$
Inner tube thickness	$1.5 \pm 0.15\text{mm}$
Tube length	$1500 \pm 4\text{mm}$
Weight	$1.30 \pm 0.12\text{kg}$
Material of tube coating	Graded Al/N/Al or highly-selective vacuum coating
Absorptance ( $\alpha$ )	0.94 ~ 0.96
Emissance ( $\epsilon$ )	0.04 ~ 0.06
Tube material	borosilicate glass 3.3
Thermal expansion	$3.3 \times 10^{-6}/^\circ\text{C}$
Max. operating pressure	$\leq 5 \times 10^{-3}\text{ Pa}$
Start-up temperature	$\leq 25^\circ\text{C}$
Stagnation temperature	$> 230^\circ\text{C}$
Heat-loss coefficient	$\leq 0.8\text{ W/m}^2\text{ }^\circ\text{C}$
Bearing hailstone ability	hail stone diameter $\Phi 25\text{mm}$
Freezing resistance	$-35^\circ\text{C}$
Wind endurance	30mps
Pressure endurance	0.8MPa