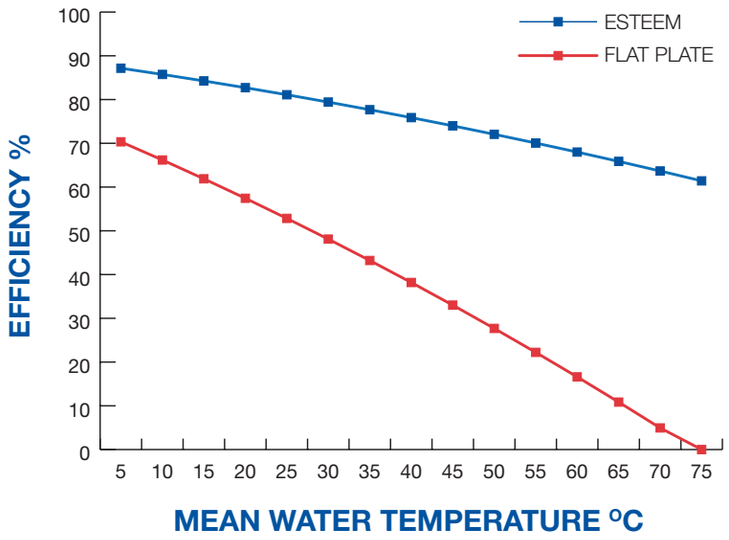
Sydney, New South Wales Collector Efficiencies

These charts demonstrate efficiencies of collectors when heating water from ambient temperature to 75°C

Winter

Efficiency Chart of an ESTEEM™ Evacuated Tube Collector Vs a Typical Flat Plate Collector. Based upon Solar Insolation of 426W/m2 and an Ambient Temperature of 13.1°C in Sydney.

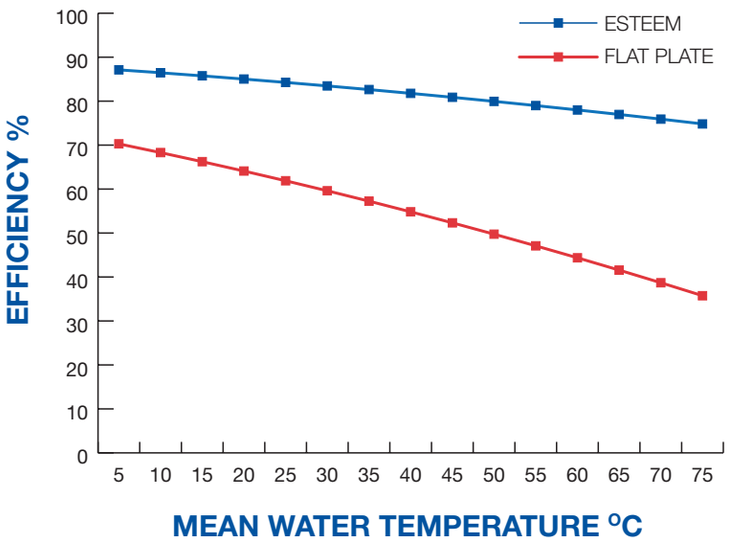
The ESTEEM™ Solar Collector is on Average 104% more efficient per m² of aperture than the Flat Plate Solar Collector.



Summer

Efficiency Chart of an ESTEEM™ Evacuated Tube Collector Vs a Typical Flat Plate Collector. Based upon Solar Insolation of 840W/m2 and an Ambient Temperature of 21.3°C in Sydney.

The ESTEEM™ Solar Collector is on Average 50.5% more efficient per m² of aperture than the Flat Plate Solar Collector.



Radiation Data - Australian Solar Radiation Handbook edition 4 April 2006.
Temperatures - Bureau of Meteorology Climactic Averages.
Efficiency Calculation Formula - AS2535.1:2007 Annex B.
Flat Plate Collector Input Data A1=0.655 A2=3.681 A3=0.0124 IAM=0.97. Tests performed at National Solar Test Facility Canada.
Flat Plate Collector Absorber Material: Copper, Absorber Thickness: 0.005", Absorber Coating: PVD.
Data Represents the Suns angle 60 Degrees either side of Midday with 90% of the daily Insolation totals incident during this period.
Collector efficiency is based on its ability to convert solar insolation to thermal energy.
Note: Radiation given is average Solar Radiation incident upon an inclined plane at an angle of 20 Degrees, facing true (not Magnetic) North.

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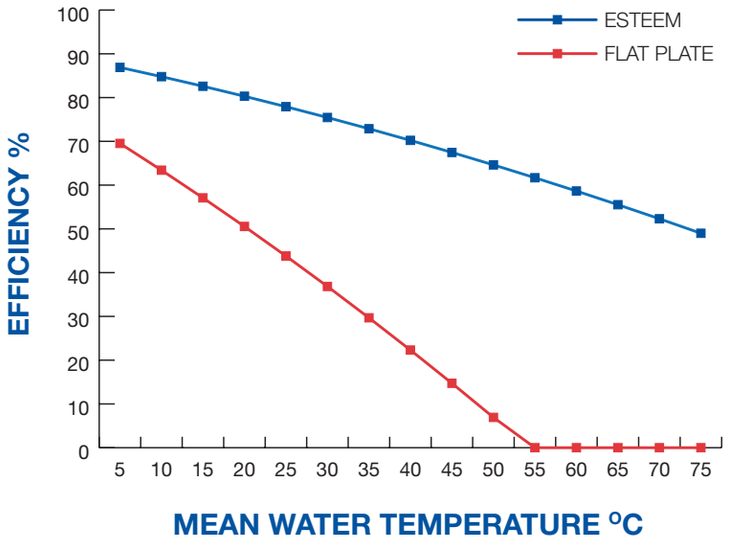
Melbourne, Victoria Collector Efficiencies

These charts demonstrate efficiencies of collectors when heating water from ambient temperature to 75°C

Winter

Efficiency Chart of an ESTEEM™ Evacuated Tube Collector Vs a Typical Flat Plate Collector. Based upon Solar Insolation of 296W/m2 and an Ambient Temperature of 9.9°C in Melbourne.

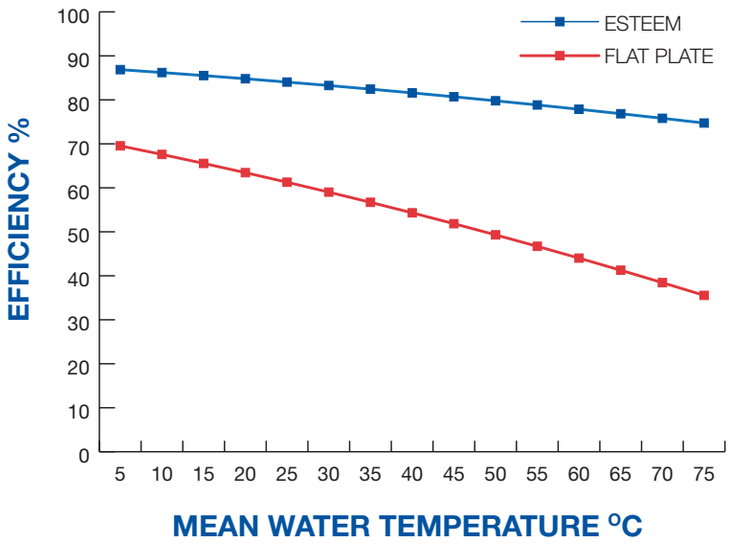
The ESTEEM™ Solar Collector is on Average 163.5% more efficient per m² of aperture than the Flat Plate Solar Collector.



Summer

Efficiency Chart of an ESTEEM™ Evacuated Tube Collector Vs a Typical Flat Plate Collector. Based upon Solar Insolation of 861W/m2 and an Ambient Temperature of 19.8°C in Melbourne.

The ESTEEM™ Solar Collector is on Average 51.5% more efficient per m² of aperture than the Flat Plate Solar Collector.



Radiation Data - Australian Solar Radiation Handbook edition 4 April 2006.
Temperatures - Bureau of Meteorology Climactic Averages.
Efficiency Calculation Formula - AS2535.1:2007 Annex B.
Flat Plate Collector Input Data A1=0.655 A2=3.681 A3=0.0124 IAM=0.97. Tests performed at National Solar Test Facility Canada.
Flat Plate Collector Absorber Material: Copper, Absorber Thickness: 0.005", Absorber Coating: PVD.
Data Represents the Suns angle 60 Degrees either side of Midday with 90% of the daily Insolation totals incident during this period.
Collector efficiency is based on its ability to convert solar insolation to thermal energy.
Note: Radiation given is average Solar Radiation incident upon an inclined plane at an angle of 20 Degrees, facing true (not Magnetic) North.

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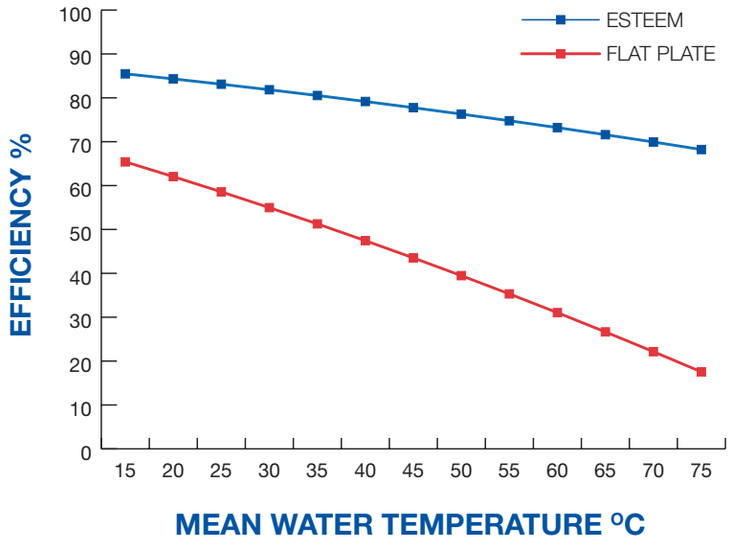
Brisbane, Queensland Collector Efficiencies

These charts demonstrate efficiencies of collectors when heating water from ambient temperature to 75°C

Winter

Efficiency Chart of an ESTEEM™ Evacuated Tube Collector Vs a Typical Flat Plate Collector. Based upon Solar Insolation of 546W/m2 and an Ambient Temperature of 17.8°C in Brisbane.

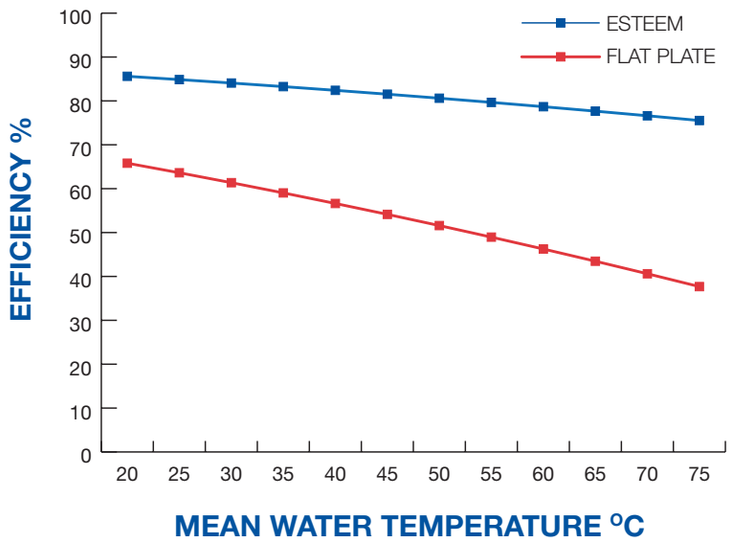
The ESTEEM™ Solar Collector is on Average 81% more efficient per m² of aperture than the Flat Plate Solar Collector.



Summer

Efficiency Chart of an ESTEEM™ Evacuated Tube Collector Vs a Typical Flat Plate Collector. Based upon Solar Insolation of 828W/m2 and an Ambient Temperature of 25.2°C in Brisbane.

The ESTEEM™ Solar Collector is on Average 54% more efficient per m² of aperture than the Flat Plate Solar Collector.



Radiation Data - Australian Solar Radiation Handbook edition 4 April 2006.
Temperatures - Bureau of Meteorology Climactic Averages.
Efficiency Calculation Formula - AS2535.1:2007 Annex B.
Flat Plate Collector Input Data A1=0.655 A2=3.681 A3=0.0124 IAM=0.97. Tests performed at National Solar Test Facility Canada.
Flat Plate Collector Absorber Material: Copper, Absorber Thickness: 0.005", Absorber Coating: PVD.
Data Represents the Suns angle 60 Degrees either side of Midday with 90% of the daily Insolation totals incident during this period.
Collector efficiency is based on its ability to convert solar insolation to thermal energy.
Note: Radiation given is average Solar Radiation incident upon an inclined plane at an angle of 20 Degrees, facing true (not Magnetic) North.

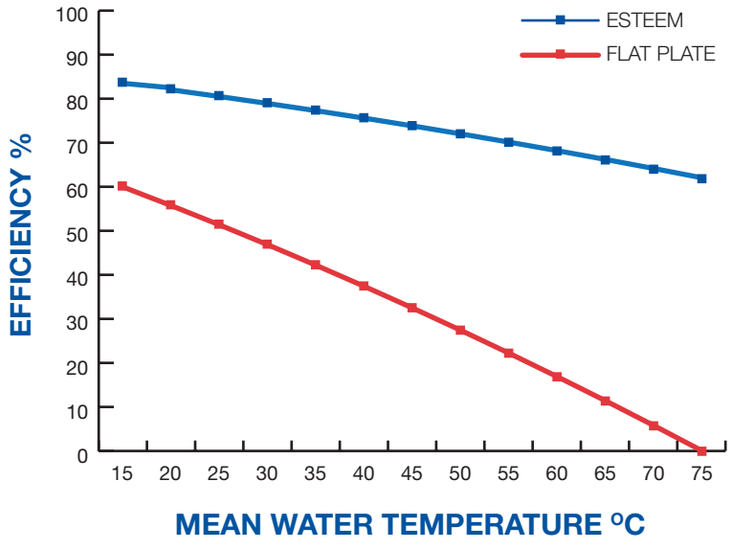
Adelaide, South Australia Collector Efficiencies

These charts demonstrate efficiencies of collectors when heating water from ambient temperature to 75°C

Winter

Efficiency Chart of an ESTEEM™ Evacuated Tube Collector Vs a Typical Flat Plate Collector. Based upon Solar Insolation of 452W/m2 and an Ambient Temperature of 10.9°C in Adelaide.

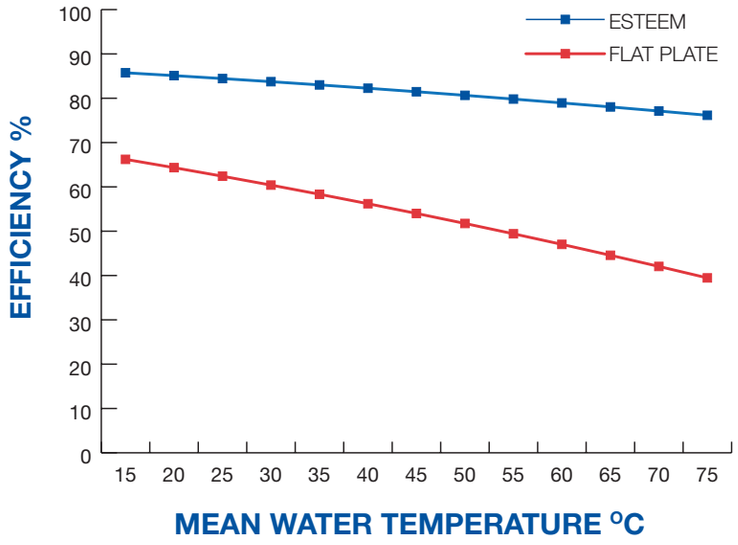
The ESTEEM™ Solar Collector is on Average 132% more efficient per m² of aperture than the Flat Plate Solar Collector.



Summer

Efficiency Chart of an ESTEEM™ Evacuated Tube Collector Vs a Typical Flat Plate Collector. Based upon Solar Insolation of 953W/m2 and an Ambient Temperature of 22.1°C in Adelaide.

The ESTEEM™ Solar Collector is on Average 52% more efficient per m² of aperture than the Flat Plate Solar Collector.



Radiation Data - Australian Solar Radiation Handbook edition 4 April 2006.
Temperatures - Bureau of Meteorology Climactic Averages.
Efficiency Calculation Formula - AS2535.1:2007 Annex B.
Flat Plate Collector Input Data A1=0.655 A2=3.681 A3=0.0124 IAM=0.97. Tests performed at National Solar Test Facility Canada.
Flat Plate Collector Absorber Material: Copper, Absorber Thickness: 0.005", Absorber Coating: PVD.
Data Represents the Suns angle 60 Degrees either side of Midday with 90% of the daily Insolation totals incident during this period.
Collector efficiency is based on its ability to convert solar insolation to thermal energy.
Note: Radiation given is average Solar Radiation incident upon an inclined plane at an angle of 20 Degrees, facing true (not Magnetic) North.

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