

Heat Exchanger | Dissipator

Brazed Plate Heat Exchanger

Model WSE-12HE

Solar water heating systems use heat exchangers to transfer solar energy absorbed in solar collectors to the liquid or air used to heat water or a space.

Heat exchangers can be made of steel, copper, bronze, stainless steel, aluminum, or cast iron. Solar heating systems usually use copper, because it is a good thermal conductor and has greater resistance to corrosion.

This heat exchanger uses a heat-transfer fluid that circulates through the solar collector, absorbs heat, and then flows through a heat exchanger to transfer its heat to water in a storage tank. Heat-transfer fluids, such as antifreeze, protect the solar collector from freezing in cold weather. Liquid-to-liquid heat exchangers have either one or two barriers (single wall or double wall) between the heat-transfer fluid and the domestic water supply.

A single-wall heat exchanger is a pipe or tube surrounded by a fluid. Either the fluid passing through the tubing or the fluid surrounding the tubing can be the heat-transfer fluid, while the other fluid is the potable water.



Single Plate Heat Exchanger Area	19 in ² (0.012M ²)
Maximum Flow	1000 gallons/hr (4M ³ /Hr)
Material	SUS304/SUS316L
Brazing Material	99.99% copper or nickle
Plate Thickness	0.3mm
Liquid Volume	0.018L /Single Channel
Design Pressure	435psi (3.0MPa)
Temperature Range	-195 °C +220 °C
Connection Sizes	Ø1/4"-Ø3/4" NPT
Heat Transfer Capacity	1-5KW
Size	2.87" x 8.19" x 1.25"

Solar Dissipator

The WSE Solar Dissipator and Solar Heater is installed on the return line of the solar collector(s). When the temperature in the storage tank exceeds the pre-set limit (say 80 degrees C), the controller switches the WSE-4000 Series Motorized Valve which directs the solar return flow through the solar dissipator before returning it back into the standard flow line.

As the hot water passes through the WSE solar dissipator, heat is dissipated via the aluminum fins to surrounding air, the vertical fin arrangement promoting a passive air current.

The WSE Solar Dissipator and Solar Heater can dissipate the excessive heat produced during summer periods, or periods of non-use. This protects systems from overheating and/or excessive hot water dumping.

It also operates as a great heater for homes, garages, warehouses or where ever you need heat from the sun.

Features

Designed to dissipate up to 10,000 btu's of excess heat per hour water or glycol/water systems.

aluminum fins

Silver brazed copper piping with 1/2" M BSP inlet and outlet.

Easy mounting

Stainless Steel decorative cover

Connect in series for greater heat dissipation capacity.

Minimal pressure drop.

Used as a simple hydronic space heating panel.

