



Photo 1:



Photo 2:

Plastic Jacketed Heating/Cooling Tank

Features:

- Copper Cooling Coils
- FNPT Connections
- Coolant Drain Plug/Valve
- Removable Lid
- Irradiated 3-D Custom Tank Liners
- Water Chillers Available

Benefits:

- Easy Clean Up
- Efficient Cooling and Heating
- Constant Temperature Control

Applications:

- Biological Fluids
- Pharmaceutical Fluids
- Food and Beverages





Plastic Jacketed Heating/Cooling Tank

The high-quality Plastic Jacketed Heating/Cooling Tank is designed to keep a constant heating or cooling temperature. These tanks are commonly used in the Biological, Pharmaceutical, Food, and Beverage industries. The tank material is HDPE and meets UPS Class VI Biological Test for Plastics. The HDPE plastic tanks have a double wall construction for the coolant jacket and copper coil for constant heating/cooling for the fluid being stored. The highly corrosive-resistant material is ideal because of its superior strength and chemical compatibility. Polypropylene tanks are also available upon request.

The housings are available in 50 L, 100 L, and 200 Liter sizes.

Design Features – The objective of our Engineers was to design a temperature-controlled tank that is low in cost and convenient to use. The inner tank has a copper coil that is wrapped around the outer diameter seven times to maximize the heating or cooling efficiency, see **Figure 1** and **Photo 3**. The jacket containing the copper coils is filled with heat transfer liquid, which is filled through the jacket filling port to transfer BTU's from the heating/cooling coils to the inner tank efficiently, see **Figure 1** and **Photo 3**. This design ensures that the liquid in the tank can be heated or cooled while keeping the inner tank at a constant temperature for long abstained periods. Since it is connected to a heating or refrigeration system, the tank does not have to be moved in or out of cold room or incubators, which saves production time. The size of the Plastic Jacketed Heating/Cooling tank is about the same size of normal storage tanks so standard storage tank dolly is useful.

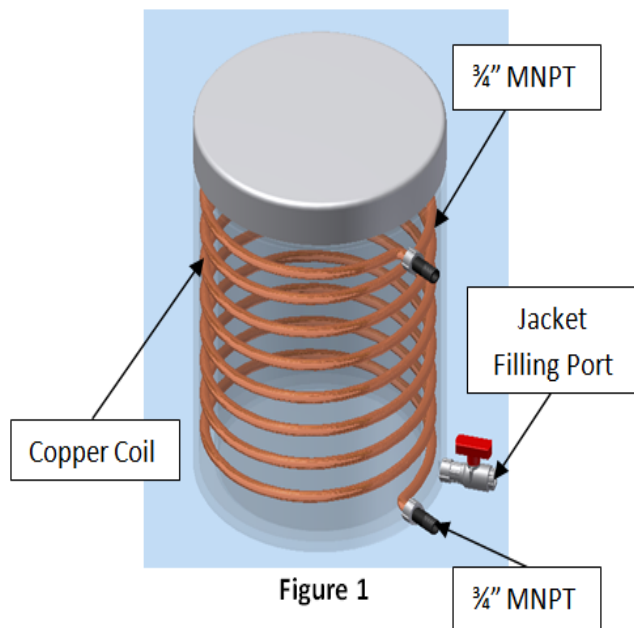


Figure 1: It shows the copper coil wrapped around inner tank with the 3/4" MNPT inlet and outlet connections. This allows for constant temperature control throughout the entire tank.



Photo 3

Photo 3: It shows the copper coil wrapped tightly around the inter tank 7 times to ensure efficient cooling across the entire inside surface.

Specifications	
Materials of Construction	Tank Material: HDPE or Polypropylene
	Coil Material: Copper
	Connection Material: PVC
Nominal Dimensions	50L Diameter: 19 inches, Height: 17 inches
	100L Diameter: 24 inches, Height: 36 inches
	200L Diameter: 31 inches, Height: 30 inches
Operating Conditions	Maximum operating conditions: 100 F (37.7 C) HDPE; 160 F (72 C)
	Maximum coil pressure: 75 PSIG
	Inside Jacket Fluid Type: Glycol Mixture
Regulatory Compliance	The jacketed tanks are constructed of HDPE or Polypropylene plastic in compliance to UPS Class VI Biological Test for Plastics.

Part Number	Description
FSF00001.01	50L Cooling Tank
FSF00001.02	100L Cooling Tank
FSF00001.03	200L Cooling Tank



3-D Custom Tank Liners

Our 3-D tank liners were especially designed for this line of Jacketed Tanks and creates a sanitary environment making it a snap for tank clean-up. The 3-D Tank liners are available in irradiate and non-irradiated condition. They are designed with a flat bottom to ensure complete mixing eliminating wrinkles and folds where the tank liner and tank are interface.

Part Number	3-D Tank Liner Size
FSA00491.01	50 Liter Non-Irradiated
FSA00491.02	100 Liter Non-Irradiated
FSA00491.03	200 Liter Non-Irradiated
FSA00343.01	50 Liter Irradiated
FSA00343.02	100 Liter Irradiated
FSA00343.03	200 Liter Irradiated

Custom Mixer Option.

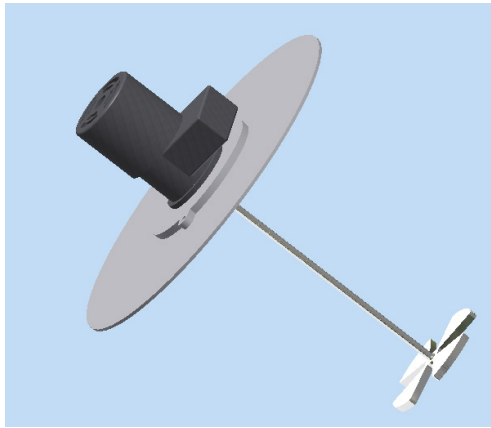


Figure 2:

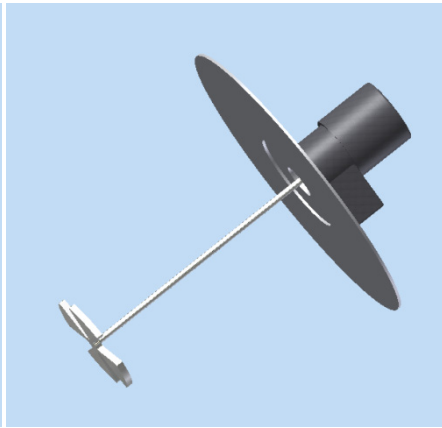


Figure 3:

We have sanitary mixers that mount on the select tank. The recommended mixer depends on the application, fluid volume in the tank and the size. The most common use for these mixers is to agitate and mix the fluid in the tank. We have engineers on staff to assist, so please call for more information.

Chiller Option

We have a variety of chillers to fit your application depending on the volume and tank size. The most common use for these chillers is to keep the fluid in the tank at a constant temperature or reducing the fluid temperature from room temperature down to 39 F (4 C). We have engineers on staff to assist if needed.