Plastic Jacketed Heating/Cooling Tank

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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.

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

Benefits
Easy Clean Up
Efficient Cooling and Heating
Constant Temperature Control

Applications
Biological Fluids
Pharmaceutical Fluids
Food and Beverages

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 1. 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 1. 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.

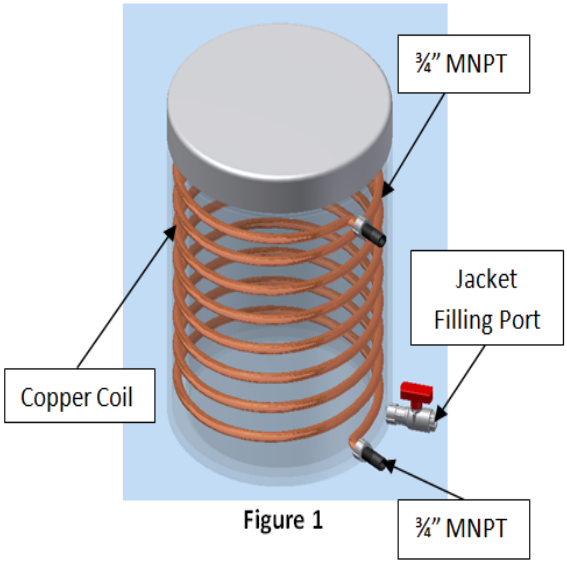

Figure 1

Figure 1: It shows the copper coil wrapped around inner tank with the ¾" MNPT inlet and outlet connections. This allows for constant temperature control throughout the entire tank.

Photo 1

Photo 1: 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:** 104 F (40 C) HDPE; 160 F (72 C) PP	
	Minimum operating conditions: 35 F (2 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 NIMBER	DESCRIPTION
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

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 NIMBER	DESCRIPTION
FSF00001.01	50L Cooling Tank
FSF00001.02	100L Cooling Tank
FSF00001.03	200L Cooling Tank

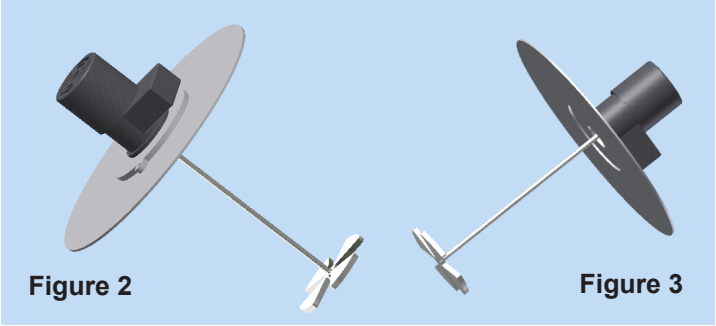

Figure 2

Figure 3

Custom Mixer Option

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.

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