International Filter Products

Revolutionary systems for your industry

Features:

- Elliptical or Flat Bottom
- Explosion Proof Mixers Available
- Insulation Options
- Heat or Cooling Exchanger Units Available
- Removable Cover with Access Lid
- Pressurized Tanks with Port Options
- Irradiated 3D Custom Tank Liners

Benefits:

- Easy Clean Up
- Efficient Process Cooling and/or Heating
- Constant Temperature Control, ± 0.2 °C
- Volumes Available (25L to 5,000L)
- Internal Surfaces < 16 RA

Applications:

- Biologicals
- Pharmaceuticals
- CBD & Hemp
- Food & Beverage
- Fine Chemicals
- Lab Experiments

Jacketed Tanks are available in a wide variety of configurations and sizes.
Our high-quality SS Jacketed Tanks are used to keep a consistent temperature control of your process fluids. The Biological, Pharmaceutical, Food & Beverage, and Fine Chemical industries use our tanks. The tank material is 316L Stainless Steel as ASME BPE standards. The SS tanks have a double-wall construction to accommodate the heat transfer jacket. The baffles are helically wound seven times around the process vessel to increase the heat transfer from the cooling/heating fluid that circulates to process vessel. Insulation is wrapped around the outer jacket, and then a stainless-steel shell is placed over the insulation and polished. The highly corrosive resistant material is ideal because of its superior strength and chemical compatibility. IFP's jacketed tank provides the end-user with a temperature-controlled tank that is low in cost and easy to use. The jacket & baffles forces the heat transfer fluid to circulate the inner shell. The design allows a uniform transfer of energy between the outer vessel and the inner tank. This design ensures that the process liquid inside of the inner shell can be either cooled, heated, or held at a constant temperature for sustained periods. The tank can be connected to an external chiller/heater, thus eliminating the need to process fluids in a cold room, which saves production time. This tank is especially ideal for sanitary processes since the inter-tank can be steam-sterilized at 258 ºF (126 ºC) for 30 minutes. Tanks come equipped with a drain port and removable cover to allow for easy cleaning. For pressurized tanks, covers also come equipped with an access lid to keep all fluid contained within the container along with allowing instrument insertion and removal of fluid using a peristaltic or gear pump.

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- Options and Styles

- Offer jacketed tanks in two configurations, with the process tank open to atmosphere or pressurized. Photo 1 illustrates the open atmosphere style with a slot in the top cover to accept a mixer shaft. Photo 2 shows a pressurized process design, illustrating many sanitary connections on the top cover. Both styles, open atmosphere, and pressurized process tank have an elliptical bottom. The tank bottom jacket except for a small portion in the center where the drain connection exits the tank circulates heating medium, see photo 3. The open atmosphere style is also available with a flat bottom, which is not jacketed, see photo 4.

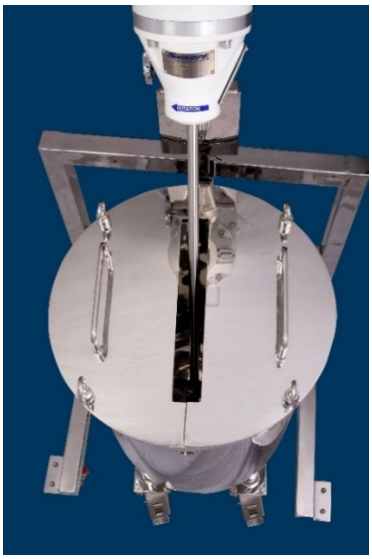

Photo 1 – Top Cover Open Atmosphere Style with slot for Mixer Shaft

Photo 2- Top Cover Pressurized Style illustrating various TC's

Photo 3 – Bottom of Elliptical Design Showing the jacket coverage

Photo 4 – Side view of open Atmosphere with flat bottom

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Major Design Features of Jacketed Tanks

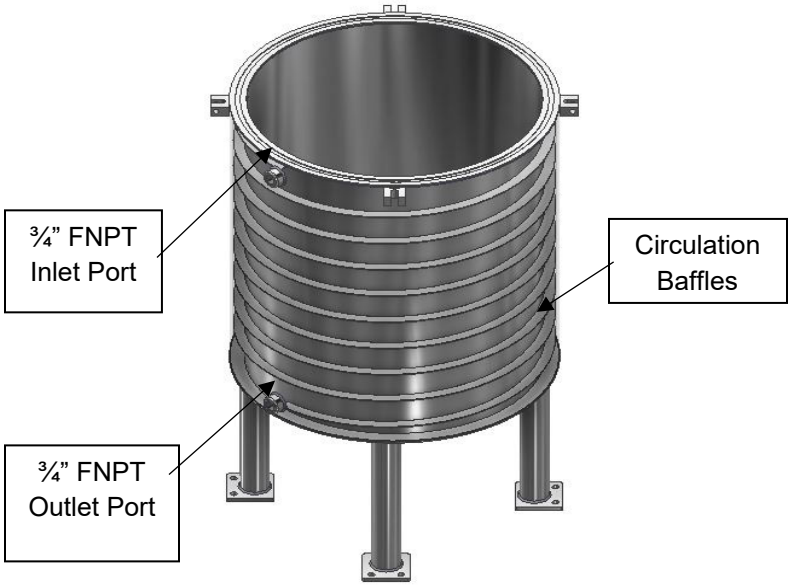

Figure 1: Shows the circulation baffles which helically wound around the tank on the inside of the tank's jacket. The ¾" FNPT inlet/outlet connections allow for heat transfer fluid to circulate around the tank allowing for constant temperature control throughout.

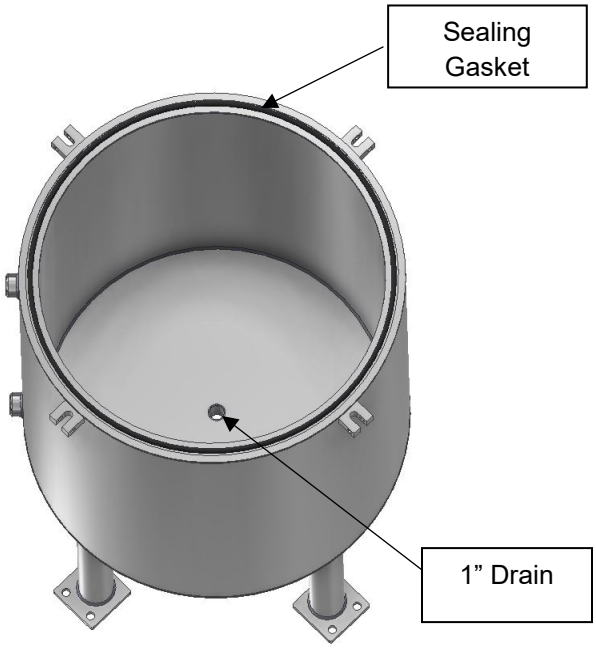

Figure 2: Shows the sealing gasket for the lid to create a proper seal between the lid and the tank. When using a tank liner this gasket acts as a sandwich to prevent the liner from falling into the tank. Sealing gaskets come in a variety of different materials depending on chemical compatibility.

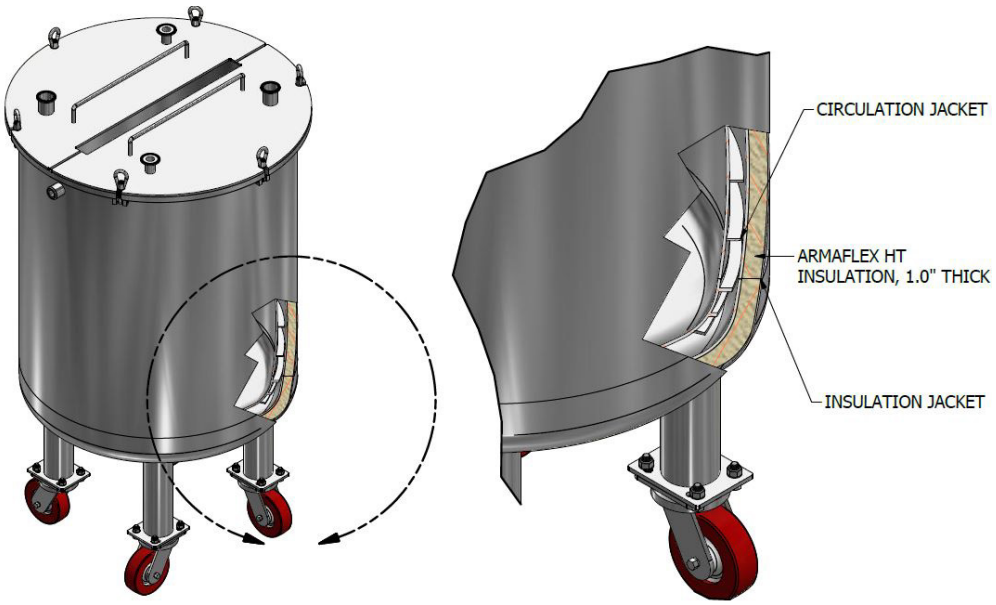

Figure 3: Internal view of insulation and cladding

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Technical Specifications:

Internal Process Tank

- Materials of Construction: 316L Stainless Steel
- Interior Finish: ≤ 16 RA
- Passivated and Electro-Polished
- Seal Available: Silicone, Viton, Buna N, PFA Encapsulated Viton, EPDM
- Drain Port: 1.0” TC, 1.5” TC or 2.0 TC” Depending on Tank Size

Open Atmosphere Tank

- Top Closure: Split Cover, slot for Mixer, Swing Away Bolts
- Design Temperature: 100 °C (212 °F)
- Design Pressure: Atmosphere

Pressurize Process Tank

- Top Closure: Flanged, 4 to 6 TC Ports on Cover Surface with Swing Away Bolts
- Design Temperature: 100 °C (212 °F)
- Design Pressure: 125 Psi (8.5 Bar)

Outer Jacket

- Materials of Construction: 304 Stainless Steel
- Maximum Operating Temp: 212 ºF (100 ºC)
- Maximum Jacket Pressure: 75 PSIG (5.1 Bar)
- Connections: ½” NPT, ¾” NPT and 1.0” NPT depending on tank size Baffle Material: 304 Stainless Steel
- Connection Ports: 304 Stainless Steel

Insulation and Outer Cladding

- Cladding Material:304 Stainless Steel
- Exterior Finish: Electro-Polished < 20 RA
- Insulation Material: Armaflex HT, 1.0” thick

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Part Number	Working volume - L	Tank Style
IFP-021-1785	25L	Open Atmosphere, Flat Bottom, Cover Slotted
IFP-021-1788	25L	Pressurized, Elliptical Bottom, Cover TC Ports & swing-away bolts
IFP-021-1805	50L	Open Atmosphere, Flat Bottom, Cover Slotted
IFP-021-1806	50L	Open Atmosphere, Conical Bottom, Cover Slotted
IFP-021-1807	50L	Open Atmosphere, Elliptical Bottom, Cover Slotted
IFP-021-1808	50L	Pressurized, Elliptical Bottom, Cover TC Ports & swing-away bolts
IFP-021-1810	100L	Open Atmosphere, Flat Bottom, Cover Slotted
IFP-021-1811	100L	Open Atmosphere, Conical Bottom, Cover Slotted
IFP-021-1812	100L	Open Atmosphere, Elliptical Bottom, Cover Slotted
IFP-021-1813	100L	Pressurized, Elliptical Bottom, Cover TC Ports & swing-away bolts
IFP-021-1820	200L	Open Atmosphere, Flat Bottom, Cover Slotted
IFP-021-1821	200L	Open Atmosphere, Conical Bottom, Cover Slotted
IFP-021-1822	200L	Open Atmosphere, Elliptical Bottom, Cover Slotted
IFP-021-1823	200L	Pressurized, Elliptical Bottom, Cover TC Ports, Lifting Davit
IFP-021-1827	250L	Open Atmosphere, Elliptical Bottom, Cover Slotted
IFP-021-1828	250L	Pressurized, Elliptical Bottom, Cover TC Ports, Lifting Davit
IFP-021-1832	300L	Open Atmosphere, Elliptical Bottom, Cover Slotted
IFP-021-1833	300L	Pressurized, Elliptical Bottom, Cover TC Ports, Lifting Davit
IFP-021-1842	400L	Open Atmosphere, Elliptical Bottom, Cover Slotted
IFP-021-1843	400L	Pressurized, Elliptical Bottom, Cover TC Ports, Lifting Davit
IFP-021-1852	500L	Open Atmosphere, Elliptical Bottom, Cover Slotted
IFP-021-1853	500L	Pressurized, Elliptical Bottom, Cover TC Ports, Lifting Davit

Note: Jacketed tanks are in available in multiple sizes up to 5,000L working volume. ASME calculation and drawings are available upon request.

Options and Support Equipment Available

Insulation and Stainless-Steel Cladding

Combination Heater and Chiller Units

Heater or Chiller Units Separate

Explosion Proof Mixers

Mixer Stand

Spare Shafts and Impellers

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