General Usage Information on Tanks:

- **How hot can the tank get?**
  - If you are using water in the water jacket then you will only be able to get to about 190°F (88°C) or so, and that is under ideal conditions. Why....because water will not go past boiling point 212°F (100°C). This means that the heat has to be transferred to the inner tank and there of course is always a loss of heat there.
  - **"But the Thermostat says 250°!"** That is just a manufacture setting. Just because a speedometer says you can go 200 mph, doesn't mean you can.
- **How can I get to higher temperatures?**
  - To efficiently get beyond 170° you should insulate your tank very well.
    - We recommend this in any case because the room is always going to be cooler than the tank so it is going to be sucking heat off the tank no matter what.
    - We suggest placing the tank on a 1" (25mm) or thicker Styrofoam pad, with a piece of plywood, masonite or OSB under the tank. This keeps the heat transfer down.
    - Insulate the tank well around the outside. We do sell an insulation jacket for our tanks but if you are trying to get high temps get two jacket thicknesses.
    - Use an element with a higher wattage. This is a quick fix but not the most efficient or best.
  - Do not keep opening and closing the lid to see how you are doing.
  - Use a Heat Transfer Liquid in place of water in the outer tank jacket.
    - PPG (Polypropylene Glycol) is an industry standard for this type of application.
    - Purchase a PPG with a corrosion inhibitor. The inhibitor keeps the solution from damaging the element.
    - PPG allows you to get above boiling point in the outer jacket making it much easier to transfer heat to the inner at higher temps. This is much safer than boiling water which will then cause steam, dripping, condensation, etc.
    - You want to use a 30-40% solution, 3 parts PPG to 7 parts water.

- **How long will it take to heat?**
  - Many factors will come into play when determining this. How cold is the material that you are putting into the tank? What temperature will you be heating it up too? What is the temperature in the room where the Oil Heater is? Is the Oil Heater going to be insulated? Will the material be in chunks or liquid? How much material is to be heated.
  - The larger the chunks, the slower it will heat. The more contact you have to the tank surface, the faster the transfer of heat. To chunk up, M&P, Shortening, Shea Butter, some Beeswax (not really hard wax), solid butters, etc; take a small E string, guitar wire and wrap around two short 3/4"-1" (19-25mm) dowels or sticks. Tape so the wire does not poke the fingers. Pull this through the block to cut it up into chunks. It is fast and saves heating energy.
- **Put your tank on a Timer.**
  - This will eliminate standing around waiting for it to heat up and make sure it is ready when you want it ready. We sell easy to install Timers on our websites or just give us a call.
- **Storing oils and wax in your tank.**
  - By all means, take advantage of this, especially if you are making soap. Fill the tank up with the correct ratio of base oils. When it gets low just add more oils based on your ratio. Use the SoapMaker software.
- **Pouring the next day?**

    - If you are pouring the next day, and have just finished using the tank, go ahead and fill it up! Take advantage of the heat that is already there. This will save lots of energy and time. Then set the timer to come on in the early morning. The oils will be partially melted and if you have an Insulation Jacket, more than likely, they will not need much heat to get up to temperature.
- **Can you set an Oil / Wax Tank at a particular set point and will it maintain that temperature?**
    - You can maintain an even temperature by just setting the dial on the thermostat to a particular set point.
    - The temperature-sensing bulb is in the water jacket. The reason is that they are very fragile so It is placed in the water jacket to protect the bulb and capillary tube from being hit by stirring or by liquids being poured in, etc. It is also surrounded by liquid making it more sensitive to changes in temperature.
    - The thermostat turns on and off with changes of + or -, 2 degrees Fahrenheit.
    - There will be a slight temperature variance between the inner tank and the water jacket but if you insulate it, the difference is very slight. No matter what type of tank you buy, single, or double jacketed, you always want to check the contents temperature and make notes on where the dial is set. This way you always know right where to set your thermostat. You can even place a mark at the setting or settings so that after a short while, you can just turn the knob to the mark.
    - Because it is a water-jacketed tank, it will maintain a very constant and even heat. The jacket goes nearly all the way to the top of the inner tank so no matter how high the contents are that you are heating, the heat will be evenly distributed
- **Mixing cold processed soap in the tank.**
    - This can be done but not recommended, remember, soap gets thick so never go past a light to medium trace or you will be scooping the contents out. See our Pot Tipper page for a proper mixing vessel.
    - If you are using fragrance oils and mixing them in the tank, make doubly sure you know if they speed up the trace or seize. Same with essential oils, Rose Geranium, Clove, and some other types can seize.
    - We suggest pouring into buckets or other vessels and then adding your scent and additives.
- **Can we attach the tank to the Easy Fill Bottler?**
    - Yes, this can be done and we have a kit with fittings and adapters to do this.
    - We suggest that the tank bottom be level with bottom of the Hopper.
    - One simple way to raise and lower the tank is to use a lift. The lift allows you to lower the tank to fill and mix, then raise to dispense. Give us a call and we can help you if something like this is needed.