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## PIPING

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### HOT OIL PIPING

#### Coils

Hot oil must be fed to the new asphalt storage tank through the hot oil connections. These connections are labeled on the tank as HOT OIL IN and HOT OIL OUT. Two (2) 2" manifolds with block valves should be connected to the tank, one hot oil feed and one hot oil return. These lines will feed heat transfer oil to the heated storage tank keeping the asphalt/liquid at the desired set temperature.



#### Hairpin Coil

Pre-piped on your Meeker vertical asphalt tank is a "Hairpin" coil. The exterior connections to this coil are labeled HAIRPIN IN and HAIRPIN OUT. The coil runs from the bottom of the tank to the top of the tank and back down. Hot oil flow to the hairpin coil is controlled by two manual valves on the hot oil feed and return lines. It is **IMPORTANT** to open these valves at start up if the liquid asphalt in the tank is cold or solid. Allowing hot oil flow through the hairpin coil will melt the asphalt surrounding the coil creating an expansion path for the existing asphalt in the tank to rise to the top of the tank as the asphalt is being heated by the tank coils in the bottom of the tank. ***If these valves are not opened, the bottom of the asphalt storage tank can rupture.*** All of the hot oil feed and return lines should be insulated.

#### Hot Oil Control

The indicating thermostat controls the temperature of the asphalt/liquid. This thermostat controls the hot oil actuated 2-way or 3-way valve, which will open and close allowing heat transfer oil into the heating coil at the desired set point. Assuming that there is an adequate flow of heat transfer to the hot oil coil, there will be no problem holding the asphalt at the desired temperature. Actuated 3-way hot oil control valves are to be located at the "hot oil in" fitting and 2-way hot oil control valves are to be located at the "hot oil out" fitting.

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## ASPHALT PIPING

The asphalt piping will be installed to the connections labeled “product supply” line and “product return” line. Jacketed Plug valves are recommended to be installed at the asphalt tank for each of these lines. These valves should be of adequate size and style depending on the type of plant and size. If this tank is an addition to existing tanks, the lines can be tied into the existing asphalt system. If this is a new installation, piping must be run to the mixing source and returned to the asphalt tank. The jacketed asphalt piping should be adequately insulated.

## FILL LINE

The tank is supplied with a fill line. The fill line can be piped either to a fill pump or coupled to a tanker truck with an on board pump. In either case, the fill pump is used to add asphalt to the storage tank via the fill line. The fill line has an internal pipe that runs to the top of the tank. Asphalt can be added to the tank at initial start up when there is cold asphalt in the bottom of the tank.



### IMPORTANT!

Prior to filling an empty tank, make sure the tank heating system, is turned off and cold. Once this is confirmed, then you can fill the tank. After the heat system is 100% submerged or covered in liquid, then you can turn the heat system back on to maintain product temperature.

## RE-CIRCULATION LINE (OPTIONAL FITTING)

The re-circulation line, if so equipped, is used in conjunction with a plant mounted fill pump. This line is can be used for transferring liquid from one tank to another or keeping polymer modified asphalt in suspension within the tank.

When polymer modified asphalts are being stored in the tank, it is important that a consistent temperature is maintained throughout the entire tank. A three-way valve is required at the suction side of the unloading pump. This valve is turned into the position for the fill pump to suck the liquid asphalt from the tank through the re-circulating line and discharge the material back to the asphalt tank via the fill line. With this method a constant temperature is held within the asphalt tank and the polymer modified asphalt remains in suspension.