

ANDERSON SCREENING TANK AND GROUP OIL COOLING SYSTEM

The recommended method of oil cooling for a group of several Anderson Expeller® presses, and even for only one Expeller press, is to provide a special Anderson Oil Screening Tank which serves as a combination oil cooling supply tank and foots settling tank. Most of the fine foots and all of the coarse foots are settled out in this tank.

Anderson Screening Tanks are made in two sizes designated as No. 12 and No. 18. No. 18 tank has 40% greater holding capacity than the No. 12 tank. Illustrated in Figure 1 is an outline showing design and function of this equipment. Both of the tanks are rectangular in shape and are divided into sections to facilitate settling of the foots (meal particles) from the oil.

After the oil which is being produced by the Expeller presses has filled the tank to the proper level, the cooling oil for the Expeller cooling system is continuously withdrawn from the tank at the outlets indicated on the drawing. This oil is first pumped through heat exchangers, where it is cooled to the desired temperature. Then the oil is pumped over the barrels of the Expeller presses at the rate of 35 or 50 g.p.m. per Expeller (depending on the size) by means of a circulating oil pump specifically provided for this purpose. The cooling oil outlet is located in a quiescent (quiet oil) section of the tank containing oil relatively clear of foots.

The cooling oil flowing over the barrels of the Expeller presses combines with the product oil being produced by the Expeller presses and gravitates into the Expeller bed. The combined oil (yellow), together with any foots (brown)

which it may contain, then re-enters the tank at the opening shown on the drawing. The oil is then directed through the chamber sections of the tank which are formed by the placing of partitions and baffles at various locations. This partitioning of the tank reduces the currents and turbulence which may be caused by the inrush of oil, and promotes effective settling of the foots.

FLOW OF COOLING OIL
OVER VERTICAL AND
HORIZONTAL BARRELS

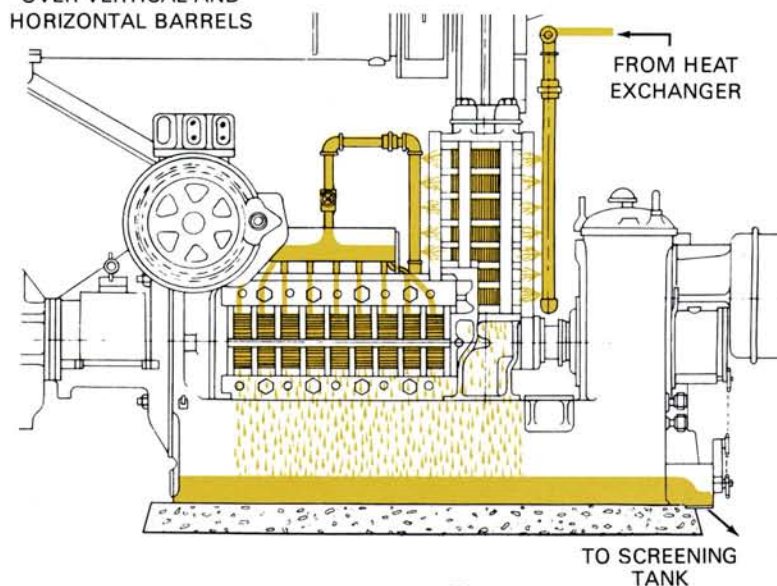


Figure 1

