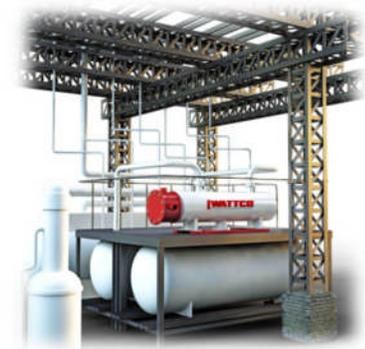


How Waste Oil Heaters Works

One of the interesting development in disposing of industrial waste oil is the emergence of the waste oil heater by WATTCO™. Disposing of waste oil used to be an expensive process and an environmental concern as well. The waste oil products vary widely from automotive engine oils produced by our everyday driving of cars to various industrial waste oils after use for machineries. They also are produced from processing food such as vegetable oils.



environmental concern.

The conventional wisdom on the waste oil was: they were the synthetic products that need be disposed of properly. Such disposing process could be expensive and environmentally hazardous. Efforts are given to recycle these excessive oil wastes through the refining process. The first step of refining process is to burn off the waste oil using heat. The waste oil heater is very useful and functional in this process because it burns off the waste oil cleanly and without causing the

In constructing waste oil heaters, the flanged immersion heater is often used. One of the advantages for waste oil heater is that the equipment is relatively inexpensive. The types of heaters used are either circulation/inline heaters or immersion heaters depending on the application. The immersion heaters are used in a smaller scale by operating inside the container vessel. It is recommended that these storage tanks be stationary for safety purpose. In a larger scale, the use of circulation heaters is recommended for production industries. The advantages of using circulation heaters are that they can increase the temperature and thus the viscosity. These heaters are typically used to control the flow by keeping the inlet temperature cooler than the temperature of the outlet, creating the smooth flow rate through the tubular chamber of the heater.

The circulation heaters are designed in a cylindrical shaped chamber with inlet on one end and outlet on the other to and fro the heating chamber. The flanged immersion heater is then installed inside of the chamber through a threaded nozzle. The heater works in the same way that the liquid medium that entered the cylinder is heated before existing the chamber. The cylindrical chamber is insulated in order to prevent the heat loss and to ensure the continuous flow of the liquid medium. As is the case with all circulation heaters, the immersion heater is sheathed in a heating element tube made

out of a highly exotic alloy. WATTCO™ recommends to use Incoloy® for the heating element tube In order to achieve the extremely high temperature necessary for waste oil burning.

The waste oil heaters are a great way to reduce waste recycle process at the same time preserve the environment for cleaner burning. By burning off the waste oil, the disposal expense is greatly reduced. The burning of waste oil also opens up the recycle process and reuse much of the oil product by refining them into engine oil, lubricant, or furnace oil. In the process, the environmentally hazardous wastes are cleanly burned off contributing to eco-friendly process of which WATTCO™ is very conscious and concerned. More information about waste oil heaters can be found at <http://www.wattco.com/screwplug-heaters.html>