Kettle Type Reboiler Floating Head with Removable Tube Bundle



Model: 115-KRFH

A common characteristic of most mechanical and chemical systems is the need to transfer heat from one fluid (liquid or gas) to another, and most systems use heat exchangers to accomplish this task. In a heat exchanger, the two fluids do not make direct contact. Instead, heat passes from the hotter fluid to the metal isolating the fluids and then to the cooler fluid.

Common applications of heat exchangers include heating, ventilation, and air conditioning (HVAC) systems; preheaters or coolers in fluid systems; radiators on internal combustion engines; and boilers, evaporators, and condensers used with fluids like oils, wastewater, hydrocarbons, biogases, etc. in industries such as oil and gas refining and power generation.

One specialty type of heat exchanger is the reboiler, which provides the heat needed for a distillation column to operate effectively. Reboilers convert liquid from the bottom tray of a distillation column into vapor, using heat from a source such as a shell and tube heat exchanger filled with steam or oil.

The kettle type reboiler is one of the most simple and common types of reboilers used in the distillation process. Its design allows a heating fluid to pass through tubes that are surrounded by the liquid to be distilled. As the liquid boils, it gets separated in the space above the tube bundle. Vapor passes upward to be collected in the distillation

column while the liquid byproduct settles to the bottom of the kettle and returns to the tubes.

Kettle type reboilers are especially popular in the petroleum and chemical industries. They are quite reliable and efficient even at very low or high pressures. However, due to low circulation rates, they are susceptible to fouling of the tube bundle over time.

Bayport Technical's Kettle Type Reboiler Floating Head with Removable Tube Bundle (115-KRFH) showcases the operational features of a kettle type reboiler with a floating head and removable tube bundle. This sturdy, transparent acrylic training model allows learner to dismantle the training aid, examine the component parts, and understand how the unit is assembled, including gasket positioning. Instructors can then let learners reassemble the unit for training purposes.

SPECIFICATIONS

Allows for dismantling and reassembling

PRODUCT DIMENSIONS

• For overall dimensions, please contact Bayport Technical.

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