DOUBLE PIPE HEAT EXCHANGER

The **Double Pipe Heat Exchanger Model KHT-118** is designed to demonstrate the principles of heat transfer between two fluids under concurrent and countercurrent flow conditions.

Cold water flows through the exchanger in a single pass, while hot water is circulated from and back to a heated reservoir. Both fluid flow rates, flow direction (concurrent or countercurrent), and the inlet hot water temperature are monitored. In addition, all inlet and outlet temperatures are measured, enabling accurate determination of the rate of heat transfer.

Heat exchangers of this type are widely applied in chemical and energy-generation processes. In such cases, the exchanger becomes an integral part of the reaction system and may function, for example, as a nuclear reactor, catalytic reactor, or polymerizer.

Here's your Double Pipe Heat Exchanger Apparatus content polished into a catalog-ready **format** with bold headers and clean bullets, consistent with your other equipment entries:

Features

- Mobile, compact, and sturdy design
- Fully instrumented for experimentation on a double pipe heat exchanger
- Direct reading of temperature, voltage, and current measurements

System Components

- Double pipe heat exchangers: ¼ inch tube inside 1 inch tube, made of copper and stainless steel
- Steam–water blending system
- Electronic flow meters
- Thermocouples with digital temperature display

Note: Specifications and Photos can be altered without prior notice in our constant efforts for improvement.

Experimental Set-Up

- Device designed to transfer heat between fluids separated by a barrier
- Allows study of simultaneous heat transfer and, where applicable, mass transfer
- Capable of demonstrating phase change phenomena (e.g., condensation of steam to water)
- Suitable for liquid-to-liquid, gas-to-liquid, or gas-to-gas heat exchange applications
- Can also use liquid metals or fused salts as heat transfer media for advanced studies

List of Experiments

- Determination of heat transfer coefficients for sensible heat transfer