# Fixed Tube Sheet Multi-Pass Model - Acrylic


## Model: 115-FSMP

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.

Although heat exchangers come in a wide variety of shapes, sizes, and designs, the most common and basic type is the shell and tube heat exchanger, which consists of a set of tubes inside a cylindrical shell. Fluids flow inside the tubes (tube-side fluids) and outside the tubes (shell-side fluids) and remain separated at the ends of the tubes by the tube sheets.

In fixed tube sheet heat exchangers, straight tubes are secured at the ends to tube sheets welded to the shell. This design ensures there’s no opportunity for fluids to intermix. That’s why fixed tube sheet heat exchangers are popular in refineries and process chemical industries that cannot tolerate even the slightest intermixing of fluids.

Shell and tube heat exchangers can also be either single-pass or multi-pass devices, which describes how many times the tube- and shell-side flows pass through the heat exchanger. In multi-pass heat exchangers, the two fluids

pass each other several times, thereby improving the overall performance of the heat exchanger.

Bayport Technical's Fixed Tube Sheet Multi-Pass Model - Acrylic (115-FSMP) showcases the operational features of a multi-pass fixed tube sheet heat exchanger. 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.

**Address**

Bayport Technical
905 S. 14th Street
La Porte, TX 77571

**Contacts**

email: bayportcontact@amatrol.com
phone: (281) 471 1229