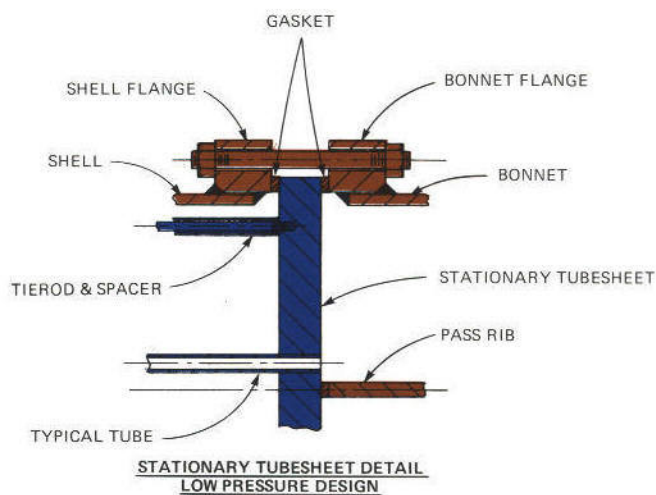
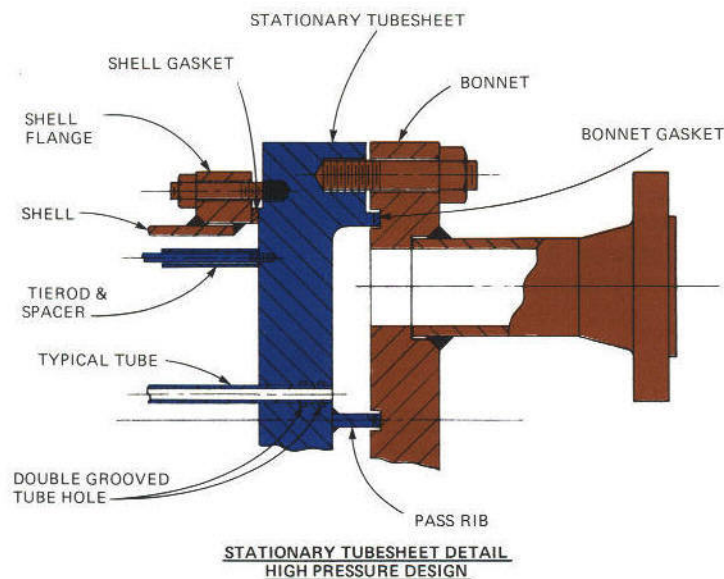
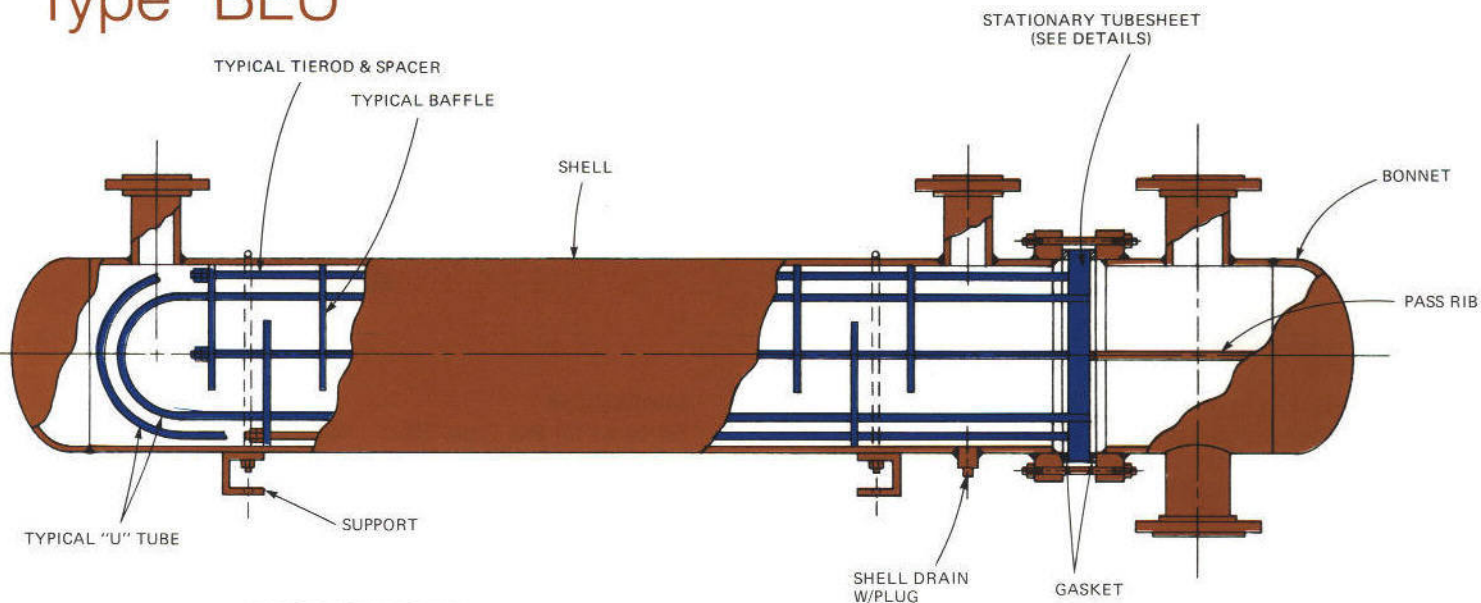


Type "BEU"



Construction

Removable bundle, U-tube, full floating bundle, ASME and TEMA "B", "C" or "R" construction.

Application

Recommended for gas and liquid services where potential packing leakage might occur, such as for hydrogen and hydrocarbon gases. For oil and other viscous fluid heaters with steam on the tube side.

Advantages

- No packed joints to leak and contaminate one of the fluids.
- Gasketed joints are minimized.
- Heat transfer surface per given shell size is high and shell side thermal efficiency is good, since the OTL is close to the shell ID.
- Provides multi-pass tube side design.
- U-bends allow for differential thermal expansion between the shell and the tubes and are capable of withstanding thermal shock.
- Less costly than packed floating head or floating head design, especially for higher tube side pressures, since there is only one tubesheet, shell flange, and head.

Limitations

1. Should be avoided where the tube side fluid is dirty or fouling, since tubes can only be cleaned by chemical means.
2. The inner rows of tubes cannot be replaced without removing the outer rows, thus high maintenance costs.
3. True counter-current cannot be obtained, since single pass on the tube side is not possible. Thus, where temperature crossing occurs, this design cannot be used without going to multiple shells.

General Specifications

Shell side: Sizes from 6" to 30" dia.

Materials: Carbon steel is standard, alloys are available.

Pressures: 150 PSIG standard, up to 1200 PSIG available.

Temperatures: 300° F standard, up to 600°F available.

Tube side: Tube sizes 3/8" OD to 1" OD.

Materials: Admiralty and copper alloys, carbon steel, stainless steel, monel and others.

Pressures: 150 PSIG to 3000 PSIG.

Temperatures: 300°F standard, up to 600°F available.