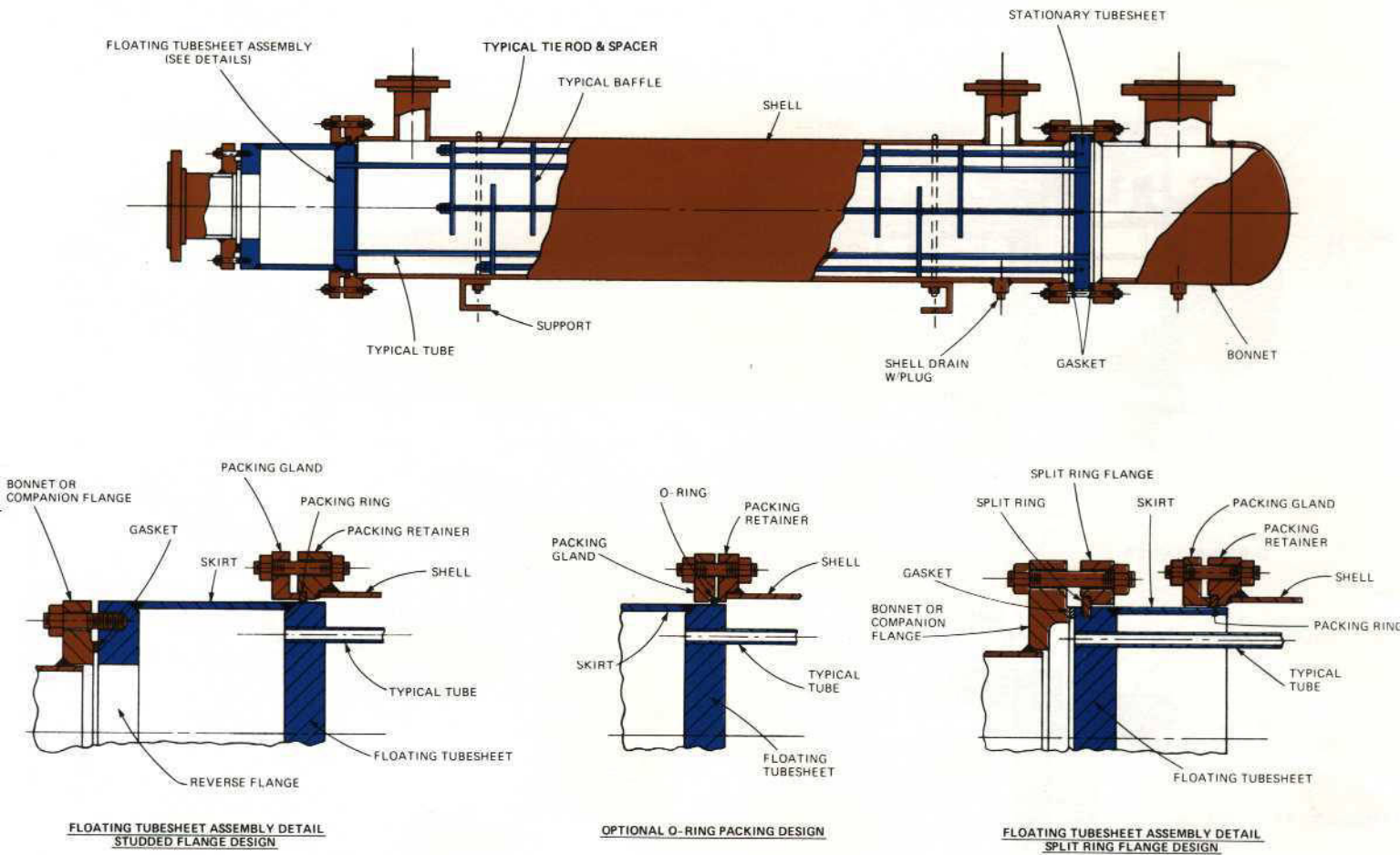


# Type "BEP"



## Construction

Removable bundle, straight tube, full floating head with outside packed skirted floated tubesheet, ASME and TEMA "B", "C" or "R" construction.

## Application

Recommended for hydrogen, oxygen, methane, ammonia and all other hydrocarbon gases. Also for gases with low molecular weights.

## Advantages

- Floating end allows for differential thermal expansion between the shell side and tube side.
- Well suited to higher pressure, gas in the tube units, as well as low M.W. gas units, since the floating tubesheet is packed only against the shell side fluid.
- Intermixing of shell and tube fluids is eliminated since shell side only is packed, unless a tube splits or a tube joint leaks which, of course, is possible with any design.
- Because of the skirt, the OTL is much greater than other full floating head designs with similar advantages, thus, providing maximum heat transfer surface and high thermal efficiency.
- Provides multi-pass tube side designs.
- Straight tubes can be easily cleaned by rodding.
- Tube bundle can be easily removed for cleaning shell side, repairing or replacing.

## Limitations

1. Maximum shell side design pressures are generally limited to 150 PSIG, since additional packing rings would be required, making the stuffing box deeper and more costly.
2. Gases, except for low pressure air and nitrogen, should be kept on the tube side to prevent possible leaking at the packed joint.

## General Specifications

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

**Materials:** Carbon steel is standard, alloys are available.

**Pressures:** 150 PSIG standard.

**Temperatures:** 250° F standard, up to 375°F available.

**Tube side:** Tube sizes  $\frac{3}{8}$ " 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.