Model 611 Deck Style Liquid Collector

- All diameters
- For total or partial liquid draw-off
- Suitable to feed a liquid distributor or trayed section below

The Model 611 deck collector is versatile in design and construction depending on the application requirements. With tall vapor risers, large holdup volumes can be retained on the deck. One or more sumps, downcomers or downpipes can be provided.

Construction Details
Joint construction details are variable depending upon the degree of leakage allowable. Both gasketed and seal welded construction are available for deck sections as well as for attachment inside the column.

If the deck sections exceed the height permitting manway access, due to tall vapor riser height, the vapor risers are supplied as separate pieces. These can be supplied as flanged, bolted and gasketed construction or to be field seal welded to the decks during installation.

Model 621 Trough Style Liquid Collector

- Diameters greater than 40 in. [1000 mm]
- Permits thermal expansion
- Minimizes field welding
- Total or partial liquid draw
- 25 - 40% open area

The Model 621 trough collector is a good choice where thermal expansion is a concern. The trough arrangement rests on a support ring permitting free expansion while minimizing the amount of welding to the vessel wall. A wall wiper above the troughs collects and directs liquid to the troughs. Liquid flows from the troughs into a center sump.

The center sump must be partially welded to a seat. The wall wiper is welded to the vessel as the standard. Vapor riser covers are bolted above the riser area and drain into the center sump.

If the sump size required for process conditions exceeds the size of manway access, these pieces are supplied in sections, to be field welded.
The collector vanes are supported by channels bolted to an annular sump. The annular sump is seal welded to the vessel and is supplied by others. For small diameter columns with body flanges, the ring of the annular sump may be supplied as sandwiched between body flanges.

As there are no joints to seal, no gaskets are needed for the collector itself. Gaskets may be required for flanged connections of downpipes as required.

The Model 633 chevron-type vane collector can be used as a collector for liquid draw-off or as part of a liquid collector/redistribution system between packed beds.

When used as a collector between packed beds, it is chosen because it has low vapor phase pressure drop.

In addition to collection and mixing between beds, a liquid-only feed entering the column can be introduced with a simple inlet into the collector annulus. This enables the feed to be totally mixed with the bulk column liquid while eliminating the need for a separate feed pipe for the inlet stream.

Due to the wide range of applications for this type collector, the construction details are quite variable.

All equipment is designed to pass through vessel manways for installation.

**Construction Details**

- Vane shape and size
- Supply of annular sump
- Mount between vessel body flanges

**Design Options**

- Vane shape and size
- Supply of annular sump
- Mount between vessel body flanges