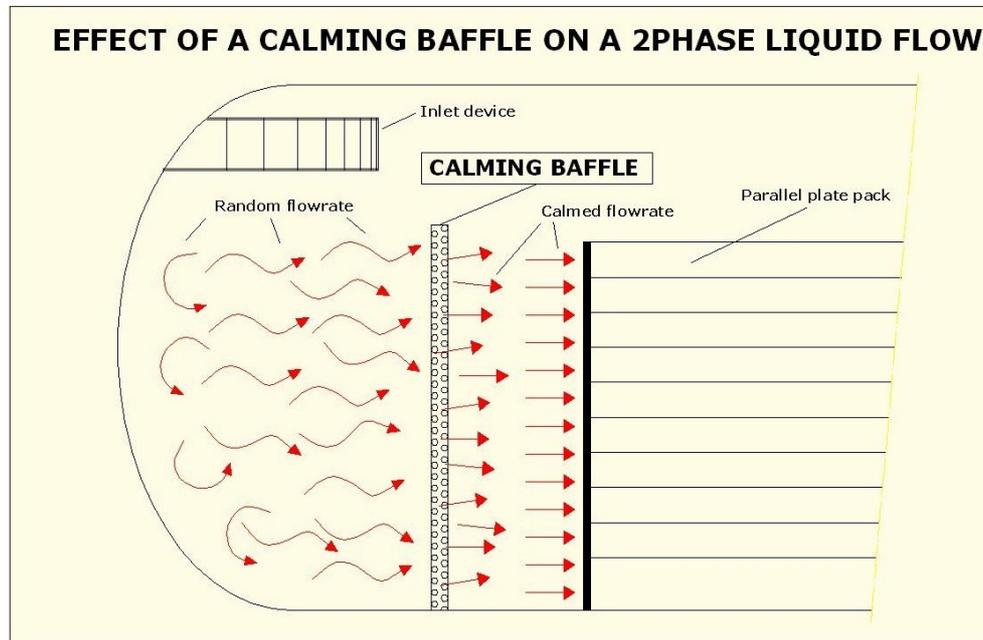


- CALMING BAFFLE -

Calming baffle is a particular kind of perforated plate commonly used to prevent and eliminate flow turbulences inside the treatment plants and to introduce the two phases liquid flow into the settling compartment with laminar flow regime as in the picture above.



The calming process of the flow rate is very useful because it allows to obtain the best performances from the parallel plate pack located after the calming baffle because, when the liquid flow enters with regular distribution and velocity, the separation process can start from immediately.

Without the use of a calming baffle the liquid distribution can be very chaotic and the performance of the plate pack decrease a lot

- DOUBLE CALMING BAFFLE -

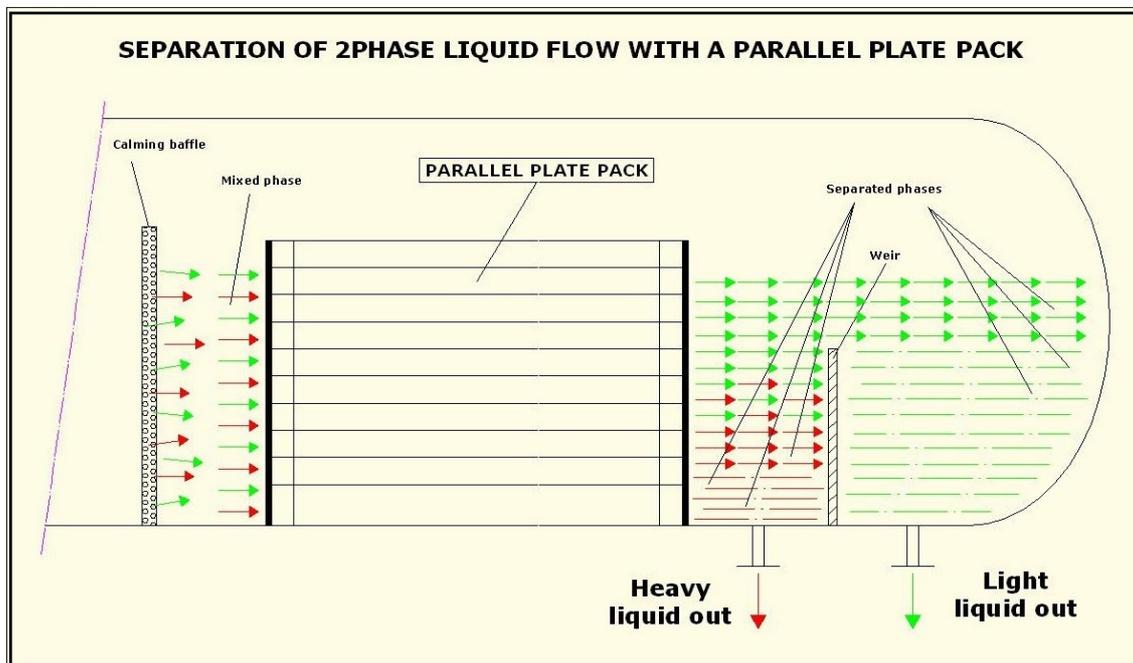
In some particular case it is possible to use a Double Calming Baffle usually made by two different calming baffles in serie.

This configuration allows to increase a lot the calming effect on the flow rate but, on the other side, requires more space and it's more expensive.



- PARALLEL PLATE PACK -

This kind of internal is commonly used to separate a liquid-liquid mix exploiting the different densities of the two liquids. They are often used in many three-phase separators where the flow is composed by gaseous phase, heavy liquid phase (ex. water) and light liquid phase (ex.: oil).



The plate pack coalescer is composed by canals between long parallel plates at a fixed angle. Passing through this canals with correct velocity is possible to obtain the separation of the light phase (for ex. oil) and the heavy phase (for example water). At the exit of the pack the light liquid is placed above the heavy phase and can be separated using a weir (see the scheme).

- ADVANTAGIES -

Comparing with a common gravity separator the main advantagies are:

- smaller separated droplets with higher efficiency of separation process
- reduction of the dimensions of the vessel because with this coalescer is possible to obtain the same separation in a shorter space
- decreasing of residence time in the vessel with an important increasing of the production.

