MIXER, DECANTER, LIQUID-LIQUID EXTRACTION

REFERENCE : MP1032

Non contractual photo

SERVICE : 230 V / 50 HZ / MONOPHASE

DIMENSIONS : 1400 X 700 X 1000 MM (POSABLE SUR TABLE, NON FOURNIE)
WEIGHT : 60KG

A typical mixer-settler consists of a continuously operating mixing zone and a continuously operating settling zone, separated by a weir to prevent reflux mixing.

Educational Objectives :

Studies of experimental parameters:

- Influence of the flow rates of the heavy and light solution on the system
- Influence of agitation

Calculation:

- Material balance.
- Search for operating conditions
- Determination of column efficiency

Technical specifications :

Mixer and stabilizer can be more or less designed separately. The mixing processes for heavy phase 1 and light phase 2 are adjustable by selecting the agitator, its speed and flow rate.

- 1a Heavy phase entry - very often aqueous feed
- 1b Heavy phase output - very often aqueous raffinate
- 2a Light phase entry - very often organic solvent
- 2b Light phase release - very often organic extract

In a multiple counter-current process, several mixer-settlers are installed with mixing and settling chambers located at alternate ends for each stage (since the outlet of the settling sections feeds the inlets of the mixing sections of the adjacent floor).

- Support frame in 304L stainless steel tubes and aluminum nuts.
- 2 10L PE carboys for feeding the heavy and light phase.
- 2 10L PE carboys for the recovery of refined heavy and light phases.
- 3 peristaltic pumps with variable flow 0-9L / h.
- 2 variable speed agitation motors with turbine.
- 2 horizontal decanters in borosilicate glass, removable with:
  - A stirring area with overflow
  - A settling zone with sampling for the heavy and light phase
- 2 Pt100 temperature probes in the stirring zone with display. & nbsp; & nbsp; & nbsp; & nbsp; & nbsp; & nbsp; & nbsp; & nbsp; & nbsp; & nbsp; & nbsp;
- Electrical box with emergency stop.

Flexible piping