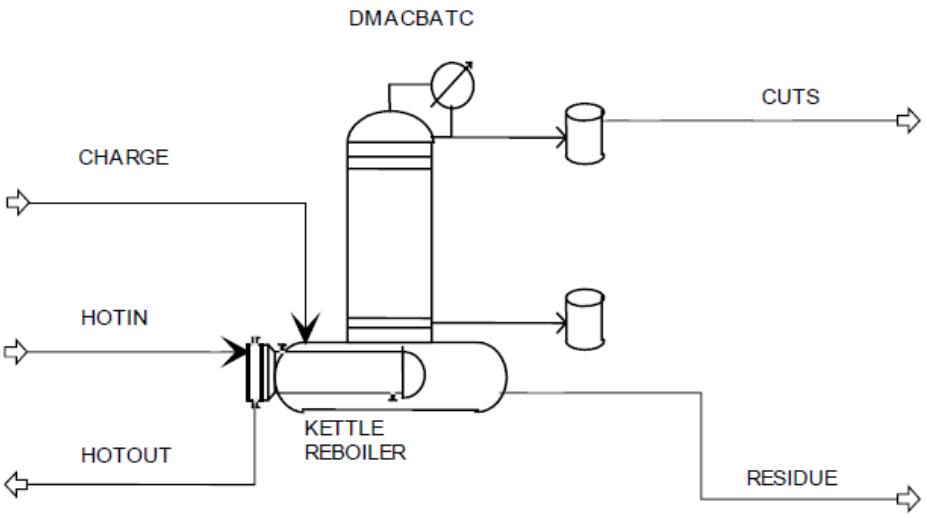
Description -

Ethyl Acetate (EA)-Water-Dimethylacetamide (DMAc) Batch Column

Process Flow Diagram



Process Description

A mixture of ethyl acetate (EA)-water-dimethylacetamide (DMAc) is charged in the batch distillation column. In batch column, various cuts are removed to get pure DMAc. In pharmaceutical operations, DMAc are used as solvents. The objective of this process is to get DMAc > 99.5% (wt) pure which is recycled. The typical feed composition is

Water	**70-55 % (wt.)**
Ethyl Acetate	**10-15 % (wt.)**
Dimethylacetamide	**15-20% (wt.)**

Design basis: 99.5 % DMAc purity

Operating Conditions

In this batch column, Finepac's 3.5 L structured packing is used and column is operated at various pressure conditions listed below,

Cut No.	Description	Pressure
1	Water- Ethyl acetate azeotropic cut	1 atm.
2	Water cut	1 atm.
3	Water-DMAc mix cut	100 mm-Hg
4	Water-DMAc mix cut	60 mm-Hg
5	DMAc cut	60 mm-Hg

Experience

Finepac® Structures Pvt. Ltd. has designed and supplied separating systems involving azeotropic and batch distillation.