

Single Effect Evaporator



Product Categories: [Engineering Equipment](#), [Heat Transfer Lab](#)

Product Page: <https://www.labappara.com/product/single-effect-evaporator/>

Product Description

Single Effect Evaporator

Technical Description:

Evaporation Deals With The Concentration Of A Non-Volatile Solute From A Solution By The Removal Of Required Amount Of Volatile Solvent. Usually The Solvent Is Water. By Vaporizing A Part Of The Solvent, Useful Product I.E. The Concentrated Solution Or Thick Is Produced And The Vapour Is Discarded. Long Tube Evaporators Are Usually Used For The Concentration Of Foamy Liquids. The Set-Up Consists Of Stainless Steel Tubes Surrounded By A Stainless Steel Jacket And Fitted With Accumulator. Dilute Solution Is Feed To Tubes. Steam From A Steam Generator Is Supplied To Shell To Concentrate The Dilute Feed Solution To A Desired Level. The Jacket Is Fitted With A Steam Trap And The Condensate Is Collected At The End Of Trap. The Vapours Of Volatile Solvent Are Condensed In A Shell Tube Type Condenser And The Balance Non-Volatile Solute Collected In The Accumulator Is Recycled Through The Evaporator.

Technical Specifications:

Evaporator : Material Stainless Steel

Shell Dia - 75 mm, Length - 750 mm

Tubes Dia - 12 mm, Length - 750 mm

Feed Circulation : By Gravity Feed

Feed Tank: Material Stainless Steel, Capacity 25 Ltrs

Flow Measurement: Rota-meters (One Each For Feed Cold Water)

Steam Generator: Made Of Stainless Steel Provided With Pressure Gauge Level Indicator, Safety Valve And Drain Etc Insulated With Ceramic Wool And Cladding With Aluminium Foil

Piping: Stainless Steel And Pvc, Size ¼"

Condenser: Shell Tube Type Made Of Stainless Steel

Bottom Product Tank: Made Of Stainless Steel, Capacity 10 Ltrs

Water Supply Tank: Made Of Stainless Steel, Capacity 50 Ltrs For Condenser Pump : Fhp Capacity

Heaters: Ni-chrome Wire Heater

The whole set-up is ingeniously designed and schematically arranged on a powder-coated rigid structure