

Mobile Essential Oil Distillation Unit

Conventionally, essential oils are being distilled at commercial scale in a stationary-type distillation units installed at a centralized facility away from the fields where the aromatic crops were cultivated. The raw material has to be transported to the site for processing each batch, which adds up to production cost. Under CSIR Rural Development Program IHBT has developed an innovative design of mobile essential oil distillation unit having 2 quintal per batch capacity which contains built-in water head tanks, distillate/coolant transfer pumps, furnace, vertical condenser and oil receiver-separator, DG set etc., which can be used for training and demonstration to the small land holding farmers in the remote areas. The distillation unit is mounted on truck in such away that it could be removed as and when required, so that the truck can be freed and used for other purposes during essential oil production. The unit has been successfully demonstrated and being used for the distillation of aromatic crops in different remote areas of Himachal Pradesh. The project has been funded by



Key Design Features:

- 2 qtl/batch capacity
- Mounted on TATA 1109EX model
- Fitted with imported hydraulic system for loading/unloading the unit

- Direct fired
- Optionally fitted with steam sparger
- Light weight
- No fire bricks used
- Compact design
- Self sufficient system consisting of Water circulating tanks with platform & tullu pumps, distillate collecting tank, DG set, removable chimney, ladders
- All contact parts are made up of Stainless Steel-304
- Methods of distillation: Water distillation, Water-Steam distillation and Steam distillation

Applications:

- Can be operated at remote areas where raw material, water, and fuel wood/steam are available
- Can be used for creating awareness among farmers and students
- Can distil most of the aromatic crops, efficiently.