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**Product Name :**  
Mini Plant Large Scale Three Phase Separator

**Product Code :**  
LBNY-0005-1060009



#### **Description :**

The primary separation operation for crude oil occurs when the crude stream flows through a vessel of sufficient capacity to allow gravitational separation of the gas, liquid hydrocarbon and water phases. Gas flow passes through a secondary vertical 2-phase separator, or knock-out ports to remove any further liquids from the gas stream. Mini Plant Large Scale Three Phase Separator process trainer blends air, water and refined oil to emulate a crude oil stream. This fluid mixture then flows into a horizontal separator vessel fabricated of clear PVC. The entire trainer is controlled from a distributed control system (DCS). The separator is equipped with industry typical process instrumentation.

#### **Technical Specification :**

Flow Measurement Vortex, Swirl, Averaging Pitot, DP Orifice, Magflow, Ultrasonic and Turbine meters  
High level and pressure switches  
Centrifugal pump for water and gear pump for oil, both with variable speed drive  
On skid oil and water storage tanks  
Complete unit mounted on a steel structure skid  
Clear Acrylic PVC separator vessels and process piping where possible  
2 off 760 x 2150 mm Acrylic horizontal separator vessels  
Level Measurement Bypass Chamber Magnetic, capacitance, ultrasonic, displacer and guided wave radar  
Pressure measurement  
Variable speed roots type air blower mounted on skid  
Completely mounted on a steel structure skid  
Approximate dimensions of assembled process skid 10m long x 3m wide x 5 m high. Dimensions may be adjusted based on room size and layout.



**Laboratory Instrument India**