

## 6 TPH LPG Recovery Unit for Sale

**Capacity:** 6 TPH

**Raw Materials:** Crude Oil off-gas,  
LPG, Sour Fuel Gas

**Process Information:** The LPG Recovery Unit is designed to process Crude Oil Unit off gas and recover the higher value products, LPG and naphtha. The design maximum gas feed rate is 6 TPH, producing about 3.1 TPH of LPG. Any sour water (hydrogen sulfide) produced is separated in the LPG Column Feed Drum and returned from the vessel to the Desalting water system in the refinery's crude unit.

### Major Equipment

- Compressor Suction Drum
- LPG Column Feed Drum
- Distillation Column
- Re-boiler
- Pasteuriser Condenser
- Pasteuriser
- Reflux Drum



### BRIEF PLANT DESCRIPTION

Crude Oil Unit off gas is compressed to 80 psig by the LPG compressor, any liquid being knocked out into the compressor Suction Drum. Gas at 80 psig from the delivery of the LPG compressor is condensed in a cooling water heat exchanger and the resulting liquid collected in the LPG Column Feed Drum. The LPG is pumped from LPG Column Feed Drum into the distillation column, which operates at 250 psig, first being pre-heated against the column bottoms. The column is re-boiled using 200 psig steam in the LPG Reboiler. The column bottoms, essentially naphtha, are recycled back reflux accumulator in the refinery crude unit. The overheads from the distillation column are partially condensed in cool water heat exchanger to produce LPG and fuel gas. Further fractionation takes place in the LPG Pasteuriser, which operates on total reflux from the LPG Pasteuriser Condenser. LPG product, collected in the Reflux Drum, is refluxed to the distillation column and exported. The product export is trim cooled with any free water being removed in the Clarification Drum. Fuel gas from the LPG Column Feed Drum and the LPG Pasteuriser is routed to be burnt on the furnace.

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