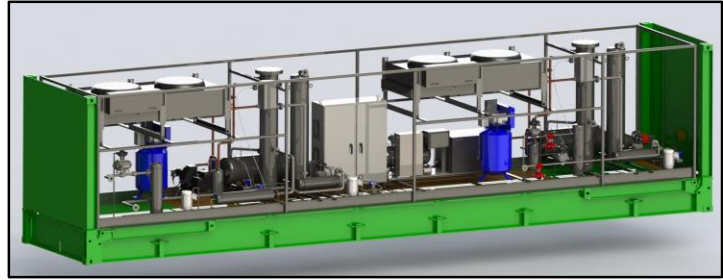




- 10,000 US gallons / day capacity (~ 3% Ethane in the NGLs)
- 5,200 US gallons / day LPG (~VP of 750 kPa at 37.8 C, ~2% pentane)
- 2,600 US gallons / day Condensates (~VP of 98 kPa at 100 F,)
- Rapidly deployed & redeployed (48 hrs, typical)
- Scalable via paralleled units
- Turndown to 2,500 US gallons / day of NGLs
- Built onto a single 38' flatrack trailer



Description

The **Flarecatcher Distillation 2000** is a mobile distillation plant that separates **NGLs** to **LPG** and **condensates** at the oil well and completely eliminates the need for shipping and additional NGL processing.

NGLs are first depropanized in the initial full reflux distillation column, then fed to the second total reflux distillation column for on spec **LPG** and **condensate** production. Both columns utilize high efficiency overhead condensing units and electrically driven reboiler systems for optimal performance. The rejected stream can contain up to **90% propane** and can be utilized as fuel for on site **power generation**.

Flarecatcher Distillation Characteristics

| | |
|-----------------------------------|--|
| DEPROPANIZER COLUMN UNIT | Fully welded 304SS construction vessels and pipe fitting Column: Random-fill design to maximize C4+ capture in NGL Air-cooled condensing units with floating-coils and TEFC motors Condensing Unit: Variable Frequency Drive (VFD) control for turndown Reboiler System: Used to control propane rejection State of the art liquid distribution system for height optimization Liquid Transfer Pump: Mag-coupled rotary-vane Plate heat exchangers 304SS that are Nickel brazed |
| LPG/CONDENSATE COLUMN UNIT | Fully welded 304SS construction vessels and pipe fitting Column: Random-fill design to minimize pentane in the LPG Air-cooled condensing units with floating-coils and TEFC motors Condensing Unit: Variable Frequency Drive (VFD) control for turndown Reboiler System: Used to control butane rejection State of the art liquid distribution system for height optimization Liquid Transfer Pump: Mag-coupled rotary-vane Plate heat exchangers 304SS that are Nickel brazed |
| FILTRATION | Demisting pads used in inlet vessel as well as in the separators. Coalescing Liquid filters pre-and-post columns Front-end strainer hardware |
| CONTROLS | Cellular communications routed through redundant secure data center Programmable automation controllers, Advanced VPN security appliance Pneumatically actuated solenoid equipped with limit-switches to report valve position Instrumented to measure temperatures, pressures, and flow in all critical areas |
| MOBILITY | Flatrack 38' shipping container for convenient shipping |
| POWER | 250-kWe input power required, 480VAC, 3-phase, 60Hz (400-VAC, 3-phase, 50 Hz optional) |
| SAFETY | Electrical wiring Class-1, Division-2, Group C, D Pressure relief valves and rupture-disks used Automatic blow-down system to quickly and safely empty system of all liquid hydrocarbons Redundant instrumentation used in critical areas |
| SERVICE | Trained operators interface with the unit from a secure remote control room Trained field technicians provide on-location service and maintenance Complete turn-key operation |



Flarecatcher Distillation 2000 Performance

| Properties | On Spec Products | NGLs | LPG | Condensate | |
|---|------------------|------------|--------|------------|------------|
| | Flow Rate | 10,000 | 5,200 | 2,600 | 2,600 |
| VP at 37.8 C | 750 | 750 | 750 | 99.8 | kPa |
| Composition | Methane | 0.00% | 0.00% | 0.00% | |
| | Ethane | 3.06% | 0.06% | 0.00% | |
| | Propane | 38.87% | 40.86% | 0.01% | |
| | n-Butane | 20.76% | 35.90% | 5.91% | |
| | i-Butane | 12.56% | 22.24% | 0.63% | |
| | n-Pentane | 9.61% | 0.51% | 35.98% | |
| | i-Pentane | 4.04% | 0.44% | 14.66% | |
| Hexane + | 11.10% | 0.00% | 42.81% | | |
| Power Requirement | | 250 | | | kWe |
| Waste Stream Power Generation Capacity | | 800 | | | kWe |

Flarecatcher Side Renderings & Unit Operations

