FLARECATCHER 4000

Specifications Sheet

- **4,000 MCF / day capacity (~1,315 BTU gas input)**
- **3.6 gal of NGL / MCF processed (~1,315 BTU gas input)**
- **High quality methane output (MN 70+)**
- **Rapidly deployed & redeployed**
- **Scalable via paralleled units**
- **Turndown to 1,600 MCF / day**
- **Ethane is removed (tunable down to as low as 2% in NGLs)**
- **Built into 4x standard 40' shipping containers**

Description

The **Flarecatcher 4000** is a mobile gas processing plant that processes liquid-rich associated gas at the oil well, producing Y-Grade Natural Gas Liquids (NGLs) and high quality lean methane. The Flarecatcher reduces or eliminates flaring, enabling montization of associated gas & reducing environmental footprint.

Raw associated gas is first **compressed** then **dehydrated** through use of a molecular sieve. A two stage mechanical refridgerator cools the gas to **between -45C and -65C**, liquefying C3+ components. A sophisticated seperation system then dissociatates the gas into 3 streams: **ethane** (used onboard), **Y-Grade NGLs** (to be transported to market) and **lean methane** (fuel for onsite loads, or can be converted to CNG or LNG).

Flarecatcher 4000 Characteristics

COMPRESSION	Compressor: open-drive screw-compressor (30-psig inlet pressure) Drive: 500-HP totally enclosed fan cooled, explosion-proof Gas Coolers: air-cooled with pneumatically controlled dampers Liquid traps, with auto-drains, at compressor inlet and oil-separator at discharge
DEHYDRATION	304SS vessels Molecular Sieve 4A (dries gas to -100C dewpoint) 304SS gas-to-gas heat-exchanger Metal-seated control valves
REFRIDGERATION	Open-drive screw compressors Oil-separators, filter-driers, suction-accumulators used to improve reliability and performance Plate-heat-exchangers 304SS (copper-braized in refridgeration, nickel-brazed where associated gas contacts) Air-cooled condensing units with floating-coils and TEFC motors
SEPARATION	304SS construction Cyclonic-separator: Outputs lean gas (CNG quality) and feeds condensed liquid to stripping column Stripping column: Random-fill design to maximize C3+ capture in NGL Reboiler: gas-fired design; used to control ethane content in NGL Transfer Pump: Mag-coupled rotary-vane
FILTRATION	Demisting pads used in inlet slug-catcher vessel as well as cyclonic-separator and stripping column Coalescing gas filters pre-and-post dehydration vessels
CONTROLS	Wireless cellular communications protocol used with satellite back-up Siemens controls and commuication platform All control valves pneumatically actuated Control valves equipped with limit-switches to report valve position Instrumented to measure temperatures, pressures, and flow in all critical areas
DIMENSIONS	One MAGS 4000 Unit is built into four standard 40 foot "high cube" shipping containers, connected together onsite Each container is 40-ft long x 8-ft wide x 9ft 6in tall Each container est. weight: 55,000 lbs
POWER	1150-kWe input power required, 480-VAC, 3-phase, 60Hz (400-VAC, 3-phase, 50Hz optional)
SAFETY	Electrical wiring Class-1, Division-2, Group C, D Pressure relief valves and rupture-disks used Pressure relief devices plumbed to manifold to direct any flows to utility flare Automatic blow-down system to quickly and safely empty system of all liquid hydrocarbons Redundant instrumentation used in critical areas

Pioneer Energy, Inc.
11111 W. 8th Ave, Unit B
Lakewood, CO 80215

www.PioneerEnergy.com
Sales Inquiries: +1-720-484-3131
Made in the USA