

- 400 MCF / day processing capacity
- Proprietary Deep Refrigeration™- Cools Gas to -65°C
- High quality methane output (Cummins MN 70+)
- Rapidly deployed & redeployed
- Scalable via paralleled units
- Turndown to 160 MCF / day
- Ethane is removed (tunable down to as low as 2%)
- Fully autonomous with 24/7/365 remote monitoring

Description

The Flarecatcher 400-65 is a mobile gas processing plant that processes liquid-rich associated gas at the wellsite, producing Y-Grade Natural Gas Liquids (NGLs) and high-quality lean methane. The Flarecatcher reduces or eliminates flaring, enabling monetization of associated gas & reducing environmental footprint.

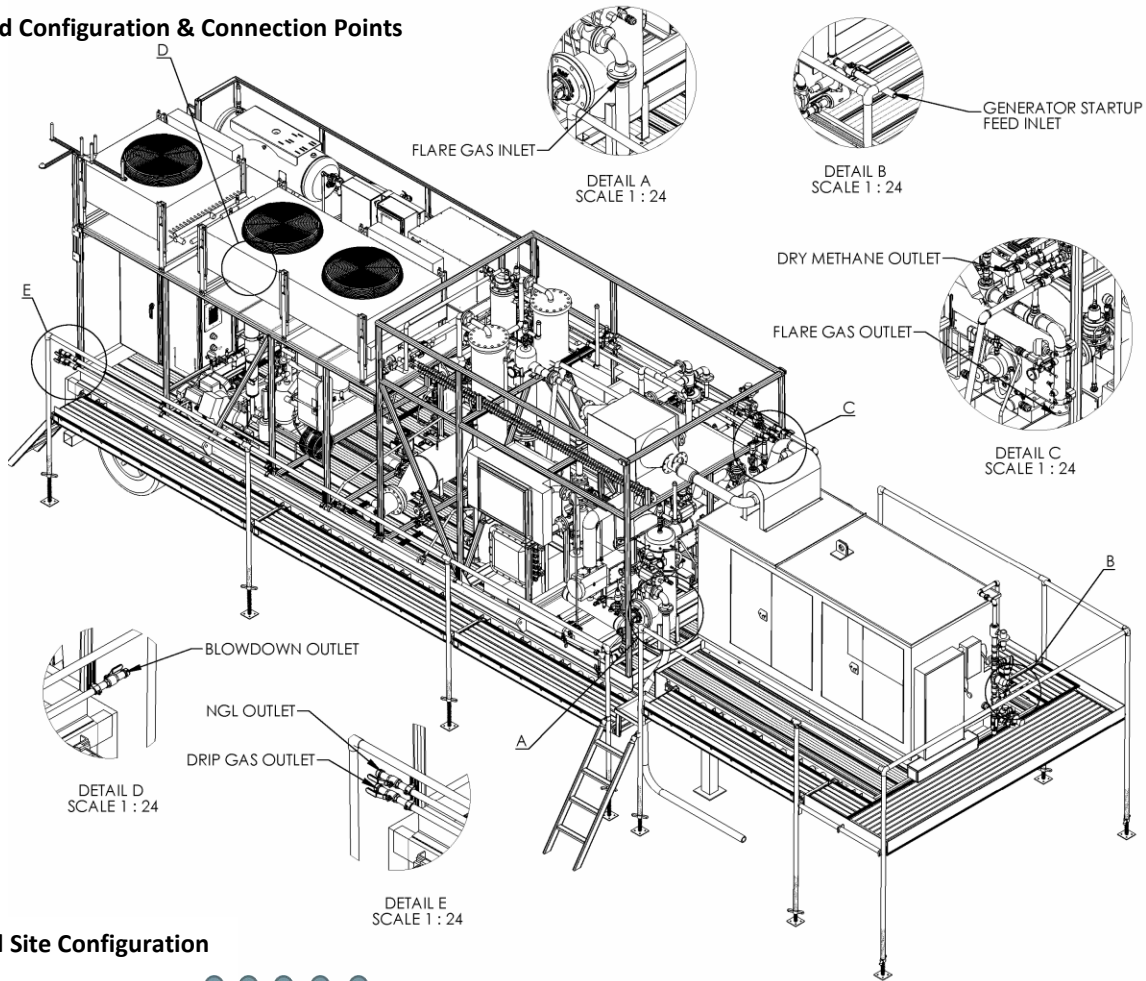
Raw associated gas is first compressed then dehydrated through use of a molecular sieve. A hybrid cascade / auto-cascade mechanical refrigerator cools the gas to -65°C, liquefying C3+ components. A sophisticated separation system then dissociates the gas into three streams: Y-Grade NGLs (to be transported to market), lean methane (pipeline quality), and low-value rejected ethane (consumed onboard).



Flarecatcher 400-65 Characteristics

COMPRESSION	Compressor: Knox Western TP-245 Drive: 50-HP totally enclosed fan cooled, explosion-proof Gas Coolers: Harsco 24VV air-cooled with pneumatically controlled dampers Liquid traps, with auto-drains, at compressor inlet and after each compression stage
DEHYDRATION	304SS vessels Molecular Sieve 4A (dries gas to -100°C dewpoint) 304SS gas-to-gas heat-exchanger Metal-seated control valves
REFRIGERATION	Semi-hermetic reciprocating compressors Oil-separators, filter-driers, suction-accumulators used to improve reliability and performance Plate-heat-exchangers 304SS (copper-braised in refrigeration, nickel-braised where associated gas contacts) Air-cooled condensing units with floating-coils and TEFC motors
SEPARATION	304SS construction Cyclonic-separator: Outputs lean gas (pipeline quality) and feeds condensed liquid to stripping column Stripping column: Random-fill design to maximize C3+ capture in NGL Reboiler: Electric immersion heaters 30-kWe 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 Opto22 controllers, mGuard security firewall 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	41.5-ft long x 8.5-ft wide x 13.5-ft tall (during transport), 43-ft long x 11.5-ft wide x 13.5-ft tall (when deployed) Est. Weight: 33,000 lbs.
POWER REQUIREMENTS	~175 kWe, 480V 3phase 60Hz Power must be provided by use of a natural gas genset to provide heat integration with the exhaust gas
SAFETY	UL 508 Electrical 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 Compliant with EPA OOOO/VVa

Deployed Configuration & Connection Points



Typical Site Configuration

