



FOREMOST
ENERGY EQUIPMENT

**OIL & GAS
PRODUCTION EQUIPMENT**

GAS PRODUCTION

Foremost is focused on developing smarter, easier, more cost-effective ways to manufacture oilfield equipment. A combination of extensive field experience and the ability to keep up with emerging technologies enable us to manufacture premier products.

STANDARD AND CUSTOM PACKAGING:

With expert in-house design teams, Foremost can package almost anything. From separator/tank combos to complex process packages, we are a one-stop shop for all of your packaging needs. Our energy equipment product line packages regularly include but are not limited to:

- Pressure vessels
- Structural skid
- Buildings
- HVAC equipment
- Major equipment
- Piping and instrumentation
- Ladders and platforms
- Electrical wiring

TANK/SEPARATOR COMBINATION PACKAGE, SKID-MOUNTED

Foremost offers combo packages equipped with tanks from 28 BBL to 200 BBL which includes a separator vessel, piping to skid edge, instruments including meters, valves and a fuel gas system, plus a tank to store water separated from gas and condensate. Standard and custom designs available.

OPTIONS:

- Single or double walled storage tanks
- Vessel sizes from 12"D - 48"D
- 2 and 3 phase designs
- Custom control systems
- Methanol injection systems
- Chemical injection systems

CUSTODY TRANSFER PACKAGE

Metering packages to meet custody transfer specifications.

OTHER TYPES:

- Separator
- Separators with tanks (28 to 200 BBL)
- Wet metering skids
- Accumeter
- Sweet & sour service
- CBM applications
- Sweetening
- Wellsite

WELL SITE SEPARATOR PACKAGE, SKID-MOUNTED

Foremost offers a full range of oil and gas separation equipment and packages from 8" OD to 144" ID. Foremost offers sweet or sour packages from small suitcase style packages to large horizontal packages and complete satellite packages with up to 16 well headers. Our design team can start with flow conditions and design requirements and provide completed equipment in a timely manner using the latest in CAD and instrumentation technology. Foremost stocks 16" OD - 48" OD vertical sweet service packages for quick delivery requirements.

OPTIONS:

- 2 and 3 phase designs
- Liquid metering
- Gas metering
- Methanol injection
- Chemical injection
- Custom control systems
- ESD loop

ACCUMETER PACKAGE

FEE offers a complete line of 2" - 6" compact wet metering packages for wellhead gas metering.

OPTIONS:

- Optional drip pot separation
- Methanol injection

GAS PRODUCTION

INDIRECT-FIRED LINE HEATERS

Line heaters help to prevent the formation of hydrates in gas streams. Our fully modularized designs includes skid, enclosure, instrumentation, hand valves, and electrical. Existing designs are available as well as custom design.

OPTIONS:

- 0.5MM BTU to 24MM BTU/HR
- Removable u-tube or marine style firetubes, and stack
- Removable process coils
- CSA 149.3 compliant burner trains
- Fuel gas pre-heat coil



GLYCOL DEHYDRATION PACKAGES

Remove water vapour from natural gas streams to meet typical pipeline and process specifications.

OPTIONS:

- TEG Contactors with bubble cap trays, valve trays, or structured packing available c/w integral scrubbers
- Regenerator with flame arrestor, burner management system, packed still columns, removable firetube and stack, CSA B149.3 compliant fuel gas train
- Fully modularized options with skid, building, electrical, and heat exchangers included



PRESSURE VESSELS

Foremost has been manufacturing pressure vessels for decades. Our experienced designers, engineers, and fabricators have designed and manufactured some of the largest and most complex heavy wall vessels in the industry. Our capabilities include up to 40' diameter, 300' length, 8" thick, and up to 800,000 lbs. We can custom design and manufacture vessels for any process.

TYPES

- Separators
- Oil treaters
- Storage bullets
- FKOD
- Surge vessels
- Slug catchers
- Gas treating towers
- Absorption towers
- Free Water Knockouts
- Scrubbers
- Filters
- Contactors
- Flash tanks

AVAILABLE IN:

- Horizontal or vertical
- Carbon steel, stainless, explosion bonded alloys or various weld overlays



STEAM GENERATION



Foremost is a pioneer in the field of enhanced oil recovery. We offer portable steam generation systems from 7.5 MMBTU/hr to 25 MMBTU/hr capable of producing up to 272 m³ of water into 80% quality of steam at pressures up to 2500 PSI. Typical operating range is 700 – 2000 PSI at a rate of 100 to 250 m³/day of steam (cold water equivalent). Our steam generation systems also come with appropriately sized sodium zeolite water softening systems, portable all-weather enclosures, and other related equipment for full turn-key operation.

We also offer the service of reconditioning existing customer steam generation equipment. Rental generators are also available.

TYPES

- Design and manufacture up to 250MM BTU/HR
 - 2500 PSI operating range
- Turn key rentals (Steam Pilots)
 - 25MM BTU/HR generators
 - Water softening systems
 - Storage tanks
 - Operations
 - Indirect-fired heating equipment
 - Site assembly & commissioning

OIL PRODUCTION

OIL TREATING PACKAGES

Conventional Horizontal Treaters and Free Water Knockouts

Foremost has over 50 years of experience designing and manufacturing crude oil treaters and free water knockouts. Foremost oil treaters have proven themselves under the harshest operating conditions and are backed by our expert engineering and service teams. In our ASME certified pressure vessel shops, treaters are fabricated up to 16 feet in diameter and over 100 feet long, with any design pressure that may be required by our customers. We have also pioneered the Reverse Flow Free Water Knock Out, and the use of the Streamflo baffle.

Foremost is committed to keeping stock in 6x20, 8x30, and 10x40 treaters and FWKO packages.

OPTIONS:

- Custom process sizing and design
- Packaging c/w skid, piping, instrumentation, hand valves, building & HVAC, electrical, heat tracing, internal & external coatings, and insulation
- Manual or automatic de-sanding systems
- Vortex inlets to reduce foaming
- High Efficiency Low Emission (HELEx®) burner system

TYPES:

- Cold & heated Free Water Knockout (FWKO) systems
- Cold & heated treaters



SKUD™ INCLINED FREE WATER KNOCKOUT

Our patented SKUD™ Inclined FWKO is the most advanced gravity-driven separator developed in over 50 years and is specifically designed for cost-effective, high-pressure remote bulk water separation.

The SKUD™ incorporates the advantages of both horizontal and vertical separation vessels. The small diameter allows for low cost, high allowable working pressure and relatively small settling distances, therefore reducing the required residence time.

THE SKUD ADVANTAGE:

- Increasing capacity of treating facilities
- Optimization of waterfloods
- Construction of low cost satellites
- Consolidation of core areas
- Dewatering production satellites
- Processing 3rd party emulsion to generate a new revenue stream

Optimize field return through installation of SKUD™ technology in the following three applications:

1. At a satellite or well pad for direct-to-injection water disposal - no tanks
2. In front of an existing conventional FWKO at a battery or CPF that is at or beyond capacity
3. As an inlet slug catcher (oil and gas applications) at a battery, CPF, or satellite

The SKUD™ technology is much more than just a separator. The application philosophy behind it, and the production and reservoir technical experience of our staff, translate into increased reserves and extended economic field life. Foremost has successfully applied the SKUD in applications from 8 - 40 API across a wide range of process temperatures and with water cuts from 50 - 90%.

FLASH TREATER® PACKAGE SYSTEM

- Polishes oil to below 0.5% BS & W
- Eliminates the need for demulsifiers and other expensive chemicals
- Ability to operate with any amount of feedstock from “shut-in” to full capacity
- High Efficiency Low Emission (HELEx®) burner system to maintain bath temperature and ensure stable operation
- Safe, simple operation

During a conventional heavy oil treating process, free water and the larger droplets of water in the emulsion are removed by application of heat, chemicals and residence time. The remaining emulsion usually contains small droplets of water (up to 10% BS & W).

The Flash Treater® has been designed to break that remaining emulsion (whether it is a slop feed or the outlet of a conventional treater) which may otherwise be impossible or too expensive to treat. Recovery of this untreatable heavy oil can effectively payout the Flash Treater® quickly.

The Flash Treater® recycles hot dry oil from its outlet to the incoming stream of wet oil. This hot oil will cause the majority of the incoming water to vaporize. The recycling of hot oil, the large volume of oil in the vessel, and the baffled heating path enable the Flash Treater® to handle substantial slugs of water and emulsion without foaming and unstable operation.



HEATED HDT (HEAVY DUTY THERMOTREAT) TREATER PACKAGE

Foremost “HDT” (Heavy-Duty Thermotreat) Treaters have proven themselves under the harshest operating conditions and are backed by our expert engineering and service teams. In our ASME certified pressure vessel shops, treaters are fabricated up to 32 feet in diameter and up to 300 feet long, with any design pressure that may be required by our customers.



OPTIONS:

- Conventional firetube/burner heating systems
- High Efficiency Low Emission (HELEx®) burner system
- Internal coatings, external coatings, and insulation in accordance with industry standards
- Manual or automatic de-sanding systems
- Vortex inlets to reduce foaming

COMPRESSION

Brahma Compression, a Foremost Company specializes in casing and vapour recovery, booster compressors, and low pressure blowers. We engineer and manufacture the most complete line of low horsepower gas compression products on the market today.



TYPES

- Screw compressors – gas driven or electric (45-188 HP)
- Reciprocating compressors (99 - 220 HP)
- Low pressure gas gathering (45 - 99 HP)
- Casing Gas Recovery – hydraulic or electric (25-125 HP)
- Vapour Recovery – sweet & sour service, electric or gas driven (10-400 HP)

APPLICATIONS

- Casing Gas Recovery – CGR
- Vapour Recovery – VRU
- Booster
- Blower – XLP
- Custom

RENTALS

- Screw compressor rental units ranging from 15 – 188 HP; short and long term rentals
- Casing gas compressors – 25-125 HP; short and long term rentals

Brahma has the largest rental fleet of small horsepower compression in Western Canada with 135 rental units ranging from 15 HP to 200 HP. For more information, please visit www.brahmacompression.com.

SERVICE & PARTS

- We service and carry parts for all products manufactured by Brahma
- Field technicians and parts warehouses throughout Alberta, Saskatchewan and British Columbia



FOREMOST

ENERGY EQUIPMENT

Shop Fabricated Tanks:

- Up to 4000 BBL
- In-stock tanks up to 1000 BBL
- Skid design, custom or standard
- Custom engineered & stock designs

Field Fabricated Tanks:

- Field erected tanks up to 200,000 BBL
- Custom engineered available

Pressure Vessels:

- Custom engineered & stock designs
- 8" to 40' in diameter
- Vessel wall thickness up to 8"

Oil Production:

- Free Water Knockouts (FWKO)
- SKUD Inclined FWKO
- Flash Treater
- Heated HDT Treater
- Conventional Treaters

Gas Production:

- Separators
- Line Heaters
- Dehydrators
- Sweeteners

Compression:

- Vapour Gas Recovery
- Gas Gathering & Booster Compression
- Casing Gas compressors
- Rental units - 15 HP to 200 HP

Steam Generation:

- Steam Vessels and Piping
- Steam Generation to 250 MMBTU/hr

Stock (subject to availability):

- Storage Tanks up to 1000 BBL
- Separator Packages
- FWKO and Treater Packages
- Steam Generators
- FKOD's

Rentals:

- Steam Generators
- Gas Compressors

