

NITROMAX™

High-Pressure, High-Flow Engine Driven
Nitrogen Systems For Offshore & Onshore
Oil & Gas Applications





APPLICATIONS

High purity nitrogen for coil tubing, gas lifting, well stimulation, pipeline pigging and inerting.



DESIGNED FOR OFFSHORE

Packaged in a heavy duty DNV Container weighing less than 14 tons for FPSO deployment.



SUITABLE FOR ONSHORE

Can be trailered and transported by truck to jobsite.

VERSATILE SOLUTION FOR A VARIETY OF APPLICATIONS

Nitrogen is a dry, inert gas which is used in a variety of oil & gas applications such as vessel and pipeline inerting, pipeline pigging & drying, turnarounds, coil tubing, gas lifting, well stimulation and any other application which requires a high-purity inert gas. The Bauer NitroMax™ system provides a highly reliable mobile, on-demand nitrogen generation solution as an alternative to expensive cryogenic Nitrogen without all of the logistics and supply chain hassles associated with cryogenic Nitrogen.

The Bauer NitroMax™ system is a heavy-duty engine-driven, high-volume, high pressure mobile nitrogen generation system which is specifically designed to produce high-purity nitrogen (95% - 99.5%) in tropical, high-ambient temperature and humidity conditions (120°F/50°C at 90% humidity). NitroMax™ is suited for both offshore applications (DNV 2.7.1 certified) and onshore use.

BENEFITS

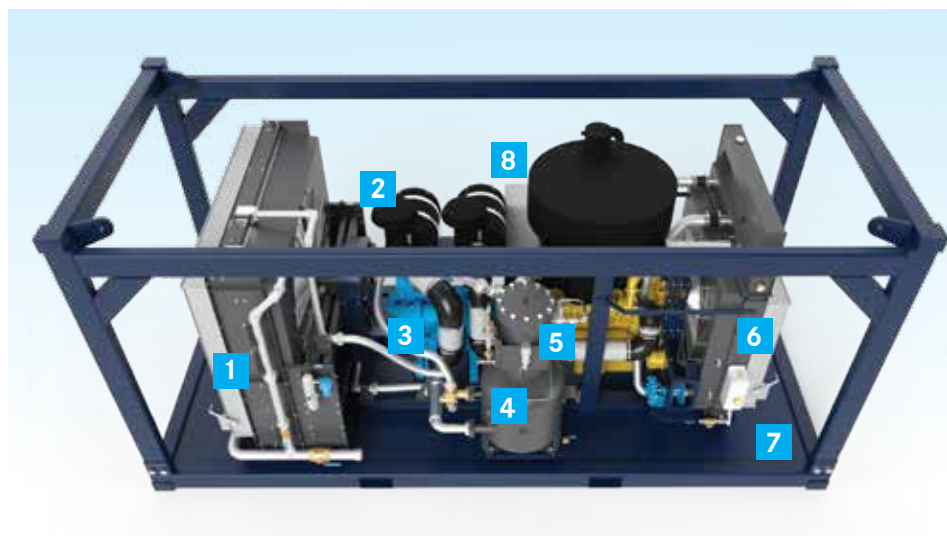
› **Reduced Risk Of Nitrogen Supply Interruption** – Point-of-use nitrogen generation provides a reliable alternative to cryogenic merchant gas because logistics and supply chain hassles as well as risks of supply interruption due to unforeseen circumstances such as weather related delays, carrier breakdowns, infrastructure issues are avoided.

› **Lower Overall Costs** – The cost advantage of point-of-use nitrogen generation systems increases as the point-of-use distance from the cryogenic nitrogen source increases. Remote offshore locations or inland location with sub-par infrastructure are prime candidates for large cost savings because there are no shipping and logistics costs associated with point-of-use nitrogen.

› **Superior Reliability** – The Bauer Nitromax™ system incorporates unique features to maximize field reliability based on actual operational experience in the World's most demanding applications. All components are selected based on best-in-class performance, reliability and lifecycle support.

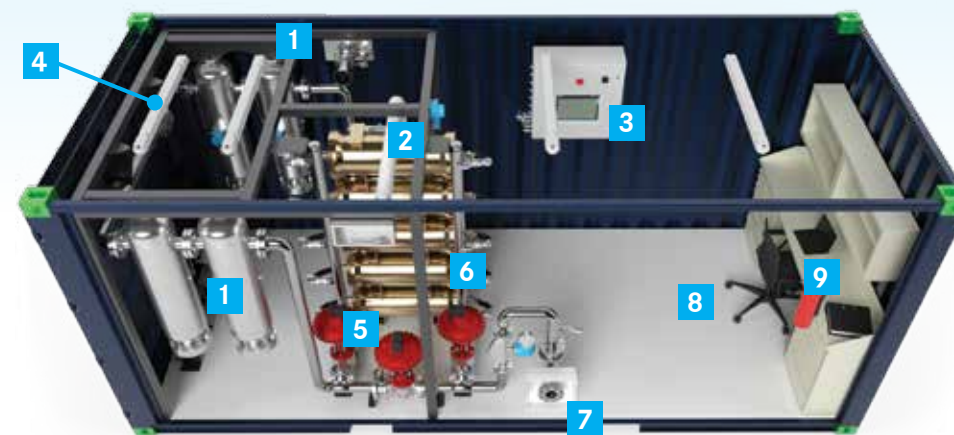
› **Bauer World-Class Local Support** – Through its global service and support network, Bauer provides world-class local technical and service support, no matter where the units are located. This includes local spare parts and service personnel support.

› **System Monitoring Through Bauer Connect™ Telemetry** – Bauer Connect™ is an app-based IOT solution which allows customers to remotely monitor critical parameters of their system and control their system through any wireless mobile device or computer at any time from anywhere.



FEED AIR MODULE

- 1 DEDICATED COMPRESSOR COOLER
- 2 HEAVY DUTY AIR INTAKE FILTERS
- 3 TWO (2) STAGE ROTARY SCREW COMPRESSOR FOR FEED AIR TO MEMBRANES (1,500 SCFM EACH 50 PSIG) AIR/OIL SEPARATOR
- 4 700 HP CATERPILLAR C18 DIESEL ENGINE
- 5 ENGINE COOLER
- 6 DNV 2.7.1 CERTIFIED CRASH-FRAME AND SKID
- 5 50 GAL ON-BOARD FUEL TANK*



NITROGEN MEMBRANE MODULE

- 1 FOUR STAGE MEMBRANE FEED AIR PRE-FILTRATION SYSTEM (ACTIVATED CARBON AND (1-0.01) MICRON COALESING)
- 2 NITROGEN GENERATION MEMBRANE MODULES (CAPACITY UP TO 10 MEMBRANES)
- 3 HMI PANEL AND PLC CONTROL SYSTEM
- 4 SHELL AND TUBE GLYCOL PRE-HEATERS FOR FEED AIR
- 5 ELECTRIC ACTIVATED CONTROL VALVES
- 6 CORIOLIS FLOW METER
- 7 NITROGEN OUTLET FLANGE
- 8 STORAGE AND WORK AREA
- 9 WORK BENCH



BOOSTER MODULE

- 1 DEDICATED COMPRESSOR COOLER
- 2 PULSATION DAMPENING VESSELS
- 3 FOUR-STAGE NITROGEN BOOSTER COMPRESSOR (1500 SCFM 5,000 PSIG)
- 4 540 HR CATERPILLAR C15 DIESEL ENGINE
- 5 50 GAL ON-BOARD FUEL TANK*
- 6 ENGINE COOLER
- 7 DNV 2.7.1 CERTIFIED CRASH-FRAME AND SKID

*External fuel supply required for extended operating conditions

TECHNICAL DATA

Standard Conditions (Sea Level, 68°F (20°C), 60% RH)

N2 Purity (%)	N2 Flow	# of N2 Membrane Modules	Final Pressure without Booster		Final Pressure with Booster	
			PSIG	BAR	PSIG	BAR
95	1,575 / (2,675 m ³ /hr)	6	305	21	5000	345
96	1,375 / (2,336 m ³ /hr)	6	305	21	5000	345
97	1,315 / (2,234 m ³ /hr)	7	305	21	5000	345
98	1,164 / (1,977 m ³ /hr)	8	305	21	5000	345
99	900 / (1,529 m ³ /hr)	9	305	21	5000	345
99.5	721 / (1,224 m ³ /hr)	10	305	21	5000	345

Tropical Operating Conditions (Sea Level, 122°F (50 °C), 90%RH)

N2 Purity (%)	N2 Flow	# of N2 Membrane Modules	Final Pressure without Booster		Final Pressure with Booster	
			PSIG	BAR	PSIG	BAR
95	1,240 / (2,106 m ³ /hr)	4	305	21	5000	345
96	1,090 / (1,851 m ³ /hr)	4	305	21	5000	345
97	1,025 / (1,741 m ³ /hr)	5	305	21	5000	345
98	850 / (1,444 m ³ /hr)	5	305	21	5000	345
99	690 / (1,172 m ³ /hr)	6	305	21	5000	345
99.5	570 / (968 m ³ /hr)	9	305	21	5000	345



LEARN MORE AT: www.BauerOilandGas.com

BAUER COMPRESSORS, INC.

1328 Azalea Garden Road
Norfolk, VA 23502
Tel. +1 (757) 855-6006
Fax +1 (757) 857-1041

www.BauerComp.com
www.BauerOilandGas.com



1013.10.19

Subject to technical changes