

# NITROGEN SYSTEMS CATALOG

Low to High-Pressure Systems for Industrial Applications



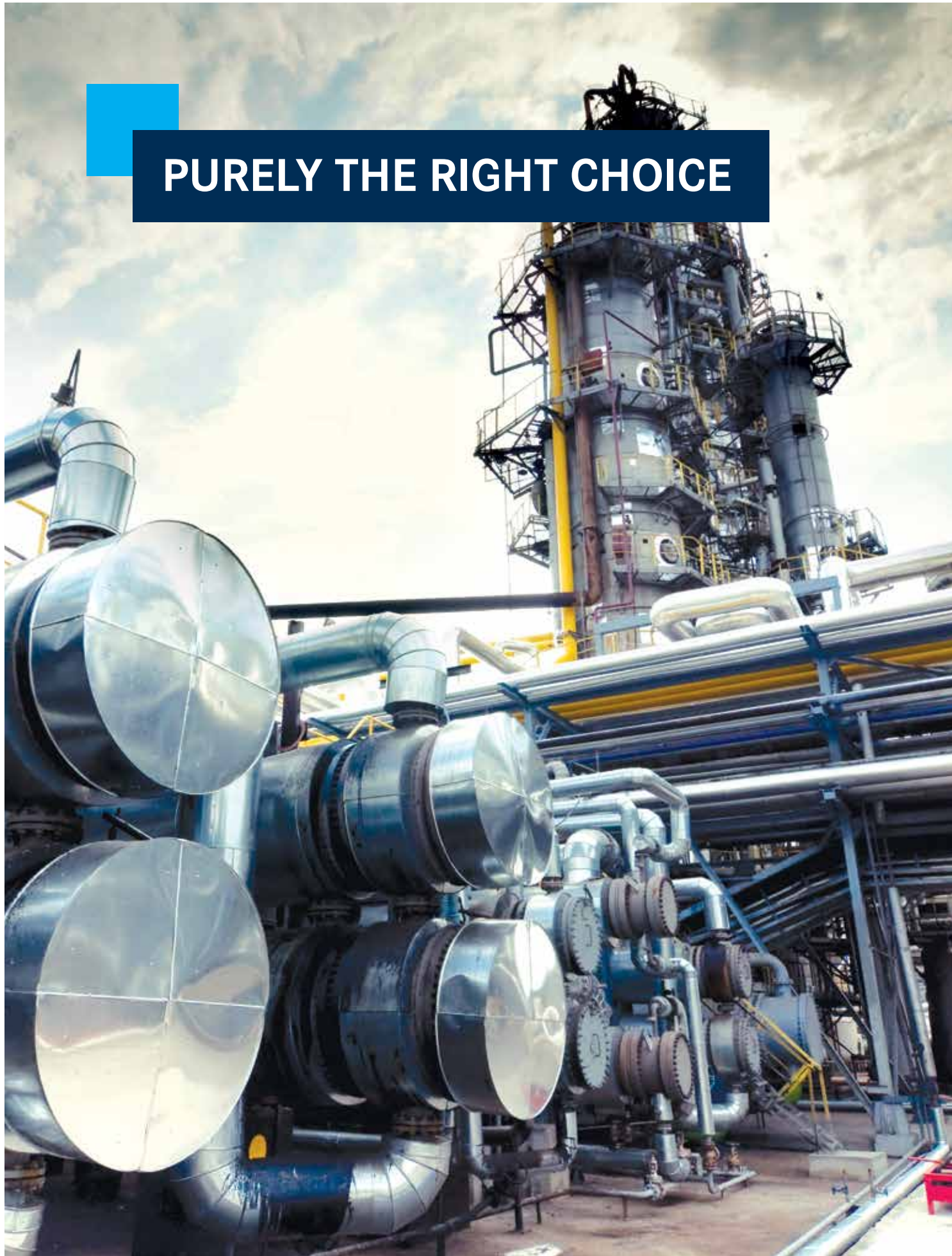
WORLDWIDE

QUALITY

INNOVATION

RELIABILITY





**PURELY THE RIGHT CHOICE**

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## PROPERTIES OF NITROGEN

- › Nitrogen is an inert gas that is abundant in nature. The air we breathe consists of 78% nitrogen.
- › Two of the great properties of nitrogen are that it is inert and typically dry.
- › What makes nitrogen practically inert is the triple atomic bond of the N<sub>2</sub> diatom, which is one of the strongest atomic bonds observed in nature. Significant energies are needed in order to break this bond.
- › Nitrogen is extremely dry with a gaseous dew point of -70°F (-57°C).

## USES OF NITROGEN

Because of its inert nature as well as extremely dry characteristics, nitrogen is used extensively in various industrial, oil & gas, aerospace and military applications.

### SOME OF THE MOST COMMON USES OF NITROGEN:

-  › Drying of vessels and pipes.
-  › Fire and explosion prevention: When oxygen-rich air is replaced with nitrogen in vessels and critical spaces, ignition is suppressed. This prevents the possibility of fires and explosions.
-  › Corrosion protection: Since Nitrogen is non-reactive, oxidation and other forms of corrosion can be minimized. Prevention of chemical reactions: Because nitrogen is non-reactive, undesired chemical reactions in critical processes can be prevented.

## GENERATING NITROGEN: PSA & MEMBRANE METHODS

Most of the nitrogen used in industrial applications is generated by separating the nitrogen from the oxygen present in ambient air. The two most common separation technologies for nitrogen are membrane and pressure swing adsorption (PSA). The benefit of these technologies is that nitrogen can be produced anywhere at any time.

### › PSA METHOD OF NITROGEN GENERATION

Pressure swing adsorption (PSA) is a technology used to separate some gas species from a mixture of gases under pressure according to the species' molecular characteristics and affinity for an adsorbent material. It operates at near-ambient temperatures and differs significantly from cryogenic distillation techniques of gas separation. Specific adsorbent materials are used as a trap, preferentially adsorbing the target gas species at high pressure. The process then swings to low pressure to desorb the adsorbed material.

### › MEMBRANE METHOD OF NITROGEN GENERATION

Incoming air is separated inside the membrane using tens of thousands of hollow fibers, each of which is sized to capture N<sub>2</sub> molecules. The remaining components (mostly water vapor and oxygen) that make up ambient air are vented away from the membrane inlet before the nitrogen is delivered to the membrane outlet.

Membranes have a size advantage over PSA nitrogen generation systems. They are therefore highly suitable for fully integrated nitrogen generation systems such as the NGM® and mobile systems.

	PSA	MEMBRANE
Reliability	High cyclical rate (every 60 - 90 seconds) switching valves contribute to much higher maintenance costs and increased system downtime.	Very few moving parts provides a high level of reliability.
Purity	Most economical at purities >99.5% N <sub>2</sub> .	Most economical at purities <99.5% N <sub>2</sub> .
Flow	Changing flow patterns will vary product purity requiring buffer tank to blend product. Overdrawing buffer tank will cause system production lapses. Systems operate best under steady flow conditions.	System is not adversely affected by flow swings or overdrawn. Easy to vary flowrate.
Noise	Pressure releases occur every 60 to 90 seconds from the adsorber beds and can be very loud.	Membranes are much quieter. No pressure releases or cycling.
Flexibility	PSA has a fixed product rate.	System capacity can be changed readily through the addition or removal of membrane bundles. Nitrogen purity can be adjusted by adjusting flow and temperature valves.
Air Feed Stock	Requires cleaner & dryer compressed air to avoid contamination of carbon molecular sieve	Membranes only need simple prefiltration. No dryer needed if inlet filtration is maintained properly.
Economics	At lower purities the unit cost of nitrogen is higher than for membranes. At low flow rates (<1000 scfm) unit cost is much higher. Higher capital costs.	More economical than PSA especially at lower purities.
Operation	On-off requirements effect PSA's more drastically than membranes. Cyclical operation works the air compressor much harder as the system loads and unloads the adsorption beds. Sensitivity to moisture requires a separate inlet air dryer or activated alumina adsorbant.	Membranes can cycle off and on more easily. Steady state flow is easier on the compressor and allows it to 'turndown' during reduced flow requirements for energy savings.

## TYPES OF NITROGEN AND LOGISTICS

The two common forms of industrial nitrogen are nitrogen gas and liquid nitrogen. Liquid nitrogen can be vaporized to convert it into gaseous state. For industrial applications there are three ways in which nitrogen gas is supplied:



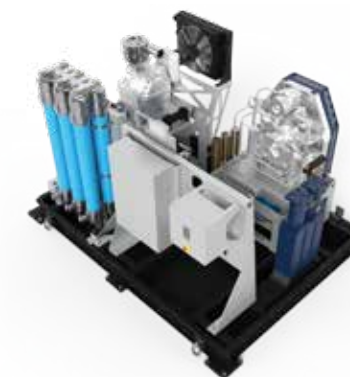
### › LIQUID NITROGEN

Nitrogen in liquid form purchased from a merchant gas supplier. The advantage of nitrogen in liquid form is that large volumes of nitrogen can be shipped and stored onsite. The disadvantage is that the end-user is dependent on a vulnerable supply chain. Furthermore, liquid nitrogen is stored in cryogenic vessels which are expensive, bulky and subject to leaks, thus creating waste. Cryogenic nitrogen suppliers typically require a long term contract at a locked-in rate which means that it is more expensive than other forms of nitrogen.



### › COMPRESSED NITROGEN GAS CYLINDERS:

Nitrogen can be purchased in compressed gas form. This requires the use of heavy, high-pressure cylinders which can be hazardous. The use of high-pressure nitrogen cylinders is limited to small applications because of the limited storage capacity of the bottles. Furthermore, not the entire volume of the bottles can be used thus the end-user pays for gas which is not being used. Users of nitrogen cylinders are subject to the same supply chain interruption risks as users of cryogenic nitrogen.



### › LOCALLY ON-DEMAND GENERATED NITROGEN:

Generating nitrogen onsite. This is the preferred method for end-users who are in remote locations or who cannot afford any interruption in their nitrogen supply. Generating nitrogen onsite, on-demand is simple and is explained in the following sections.

# OVERVIEW OF BAUER NITROGEN SYSTEMS

## 35 Years Of Nitrogen Generation Experience

### WHY BUY NITROGEN WHEN YOU CAN MAKE YOUR OWN?

The BAUER Nitrogen Generators are self-contained, fully integrated, modular systems that eliminate the hazards involved with the handling of high-pressure cylinders, as well as the burden of the merchant, supplied nitrogen gas. BAUER nitrogen generator systems are designed for the on-demand supply of nitrogen gas at purities up to 99.5%.

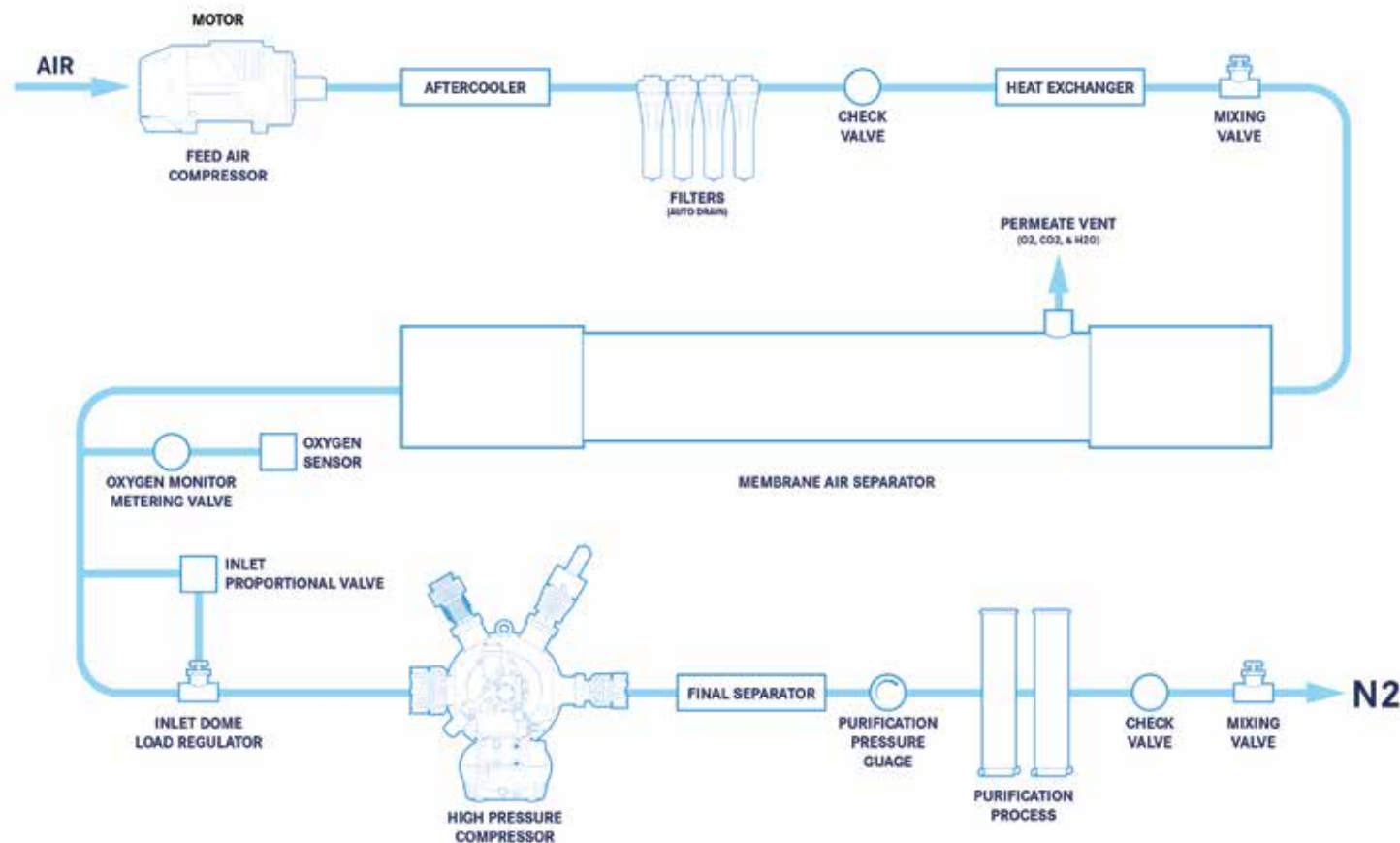
Generating nitrogen to meet customer required purity and quality is a critical process. Nitrogen generation membranes require exact control of feed-air-flow, pressure, temperature, and quality (oil content, moisture content and particulate content), which BAUER provides in its turnkey systems.

All BAUER nitrogen systems are engineered to provide years of reliable performance. Critical performance values such as pressure, temperature and O<sub>2</sub> content are electronically monitored after each critical process step in order to assure optimal long-term total system performance. BAUER NGM<sup>®</sup> and SNG<sup>®</sup> nitrogen systems adapt automatically to changing environmental conditions as well as changes in membranes as they age.

### BAUER GUARANTEES SYSTEM PERFORMANCE OVER TIME

- › Process performance monitoring after each critical step to assure nitrogen quality and purity
- › Adaptive system that automatically adjusts to various ambient conditions as well as membrane aging
- › Remote telemetry to provide real-time feedback of system performance

### MEMBRANE NITROGEN GENERATION PROCESS



## BAUER MEMBRANE BASED NITROGEN SYSTEMS FOR A WIDE VARIETY OF APPLICATIONS

BAUER produces a complete product line of membrane-based nitrogen systems suitable for a wide variety of applications including:

- › Industry (Plastic Injection Molding, Inerting)
- › Oil & Gas (Upstream, Midstream, Downstream, Offshore)
- › Energy and Alternative Energy (Transformer, Wind, Hydro)
- › Aerospace
- › Military

For these applications, BAUER provides a variety of specific nitrogen systems including:

- › Low-Pressure Stationary Electric Drive Systems
- › High-Pressure Stationary Electric Drive Systems
- › Diesel Driven High and Low-Pressure Portable Systems
- › System Size Ranges from 7.5 HP to 700 HP



› **SNG<sup>®</sup> Stationary Nitrogen Generation System**  
(For high-pressure applications)



› **NGM<sup>®</sup> Stationary Nitrogen Generation System**  
(For low to medium-pressure applications)



› **MNG II Mobile Nitrogen Generation System**  
(For various high-pressure applications)

Model Series	Drive	Use	Final Pressure		Flow Range		N <sub>2</sub> Purity Range
			PSIG	BAR	SCFM	M <sup>3</sup> /HR	
NGM™	Electric	Stationary	150	10	10-226	17-384	95-99.5%
SNG™	Electric	Stationary	5000	345	9-750	15-1274	95-99.5%
MNG™ II	Diesel	Mobile	90-5000	6-345	9-16	15-27	98-99.5%



## BAUER NGM® Membrane Based Low Pressure Nitrogen Systems

The BAUER NGM® system is an integrated stationary rugged membrane-based nitrogen generation system. Flow Range: (10 SCFM / 16 m3/hr) to (226 SCFM / 384 m3/hr). Nitrogen Purity Range: 96% to 99.5%. Final Pressure: Up to 150 PSIG (10 bar). All NGM® Nitrogen generation systems are fully integrated and designed to be “plug-and-play”. They incorporate a BAUER Rotorcomp™ feed air compressor, PLC control system with integrated BAUER CONNECT® IoT remote telemetry, inlet air filtration and reheating system, nitrogen separation membranes and a nitrogen buffer receiver.

This system has guaranteed performance in ambient conditions. By utilizing a variable speed motor drive to precisely control inlet airflow and pressure to the nitrogen separation membranes in various ambient conditions, BAUER NGM® systems are designed to always maintain consistent performance as related to output nitrogen flow and nitrogen purity.



- 1 BAUER ROTORCOMP® LOW PRESSURE FEED AIR COMPRESSOR
- 2 MEMBRANE PREFILTRATION SYSTEM (Particulate, Moisture & Hydrocarbon)
- 3 FEED AIR PREHEATER
- 4 NITROGEN GENERATION MEMBRANE MODULE
- 5 ASME NITROGEN ACCUMULATOR TANK
- 6 COMBINATION AIR/OIL AFTERCOOLER
- 7 NEMA 4 ELECTRIC CONTROL CABINET WITH INTEGRATED TOUCH SCREEN HMI
- 8 PRECISION FORMED POWDER COATED STEEL SKID WITH FORKLIFT POCKETS AND LIFTING EYES

### STANDARD SCOPE OF SUPPLY

- › Self-contained, fully-integrated turnkey nitrogen generation system for discharge pressures up to 150 PSIG
- › Engineered to operate reliably in harsh industrial settings
- › Feed air compressor; single-stage air-cooled, oil-injected, continuous-duty rotary screw compressor
- › Port for condensate drain to customer collection device or drain system
- › 3-stage membrane pre-filtration system
- › High durability membrane air separators
- › TEFC electric motors for each compressor with v-belt drive, guard and tensioning device
- › Variable frequency speed control
- › UL® labeled Control Panel with PLC controller. Includes touchscreen interface (for operation, maintenance, and troubleshooting)
- › In-line oxygen analyzer to determine nitrogen purity
- › Pressure sensors for monitoring oil and final product pressure
- › 24-month warranty, lifetime support guarantee

### BAUER NGM® SYSTEM FEATURES

- › Wide ambient operating temperature range 40° to 113°F (4.4° to 45°C)
- › Electrically powered and available in the following power configurations:
  - 460 v, 3ph, 60 hz (standard)
  - 380/400 v, 3 ph 50 hz or 60 hz (optional)
  - 575 v, 3 ph, 60 hz (optional)
- › Weatherproof enclosure
- › BAUER Connect® IoT Remote Telemetry

\*Other voltages available upon request

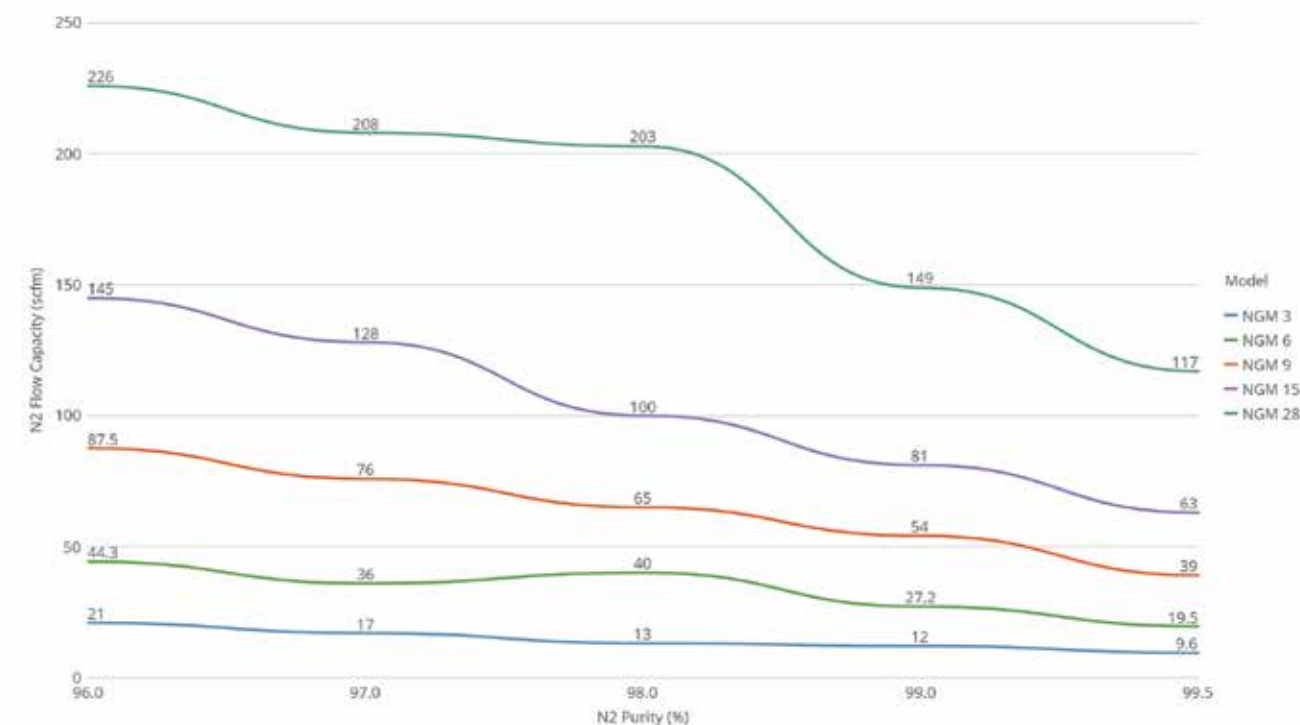
### OPTIONAL FEATURES:

- › Class 1, Div2 execution for hazardous locations
- › Sound attenuation (less than 85dBA)
- › Special Marine/Offshore Paint

### KEY FEATURES AND BENEFITS

- › **Uninterrupted N<sub>2</sub> Supply:** Point-of-use nitrogen generation provides an alternative to external sources of nitrogen by eliminating potential supply chain interruptions and the logistical hassles associated with merchant gas
- › **Cost Savings:** Point-of-use nitrogen systems are a cost-effective alternative to merchant gas that require long-term contracts and are associated with long-term locked-in rates
- › **Personnel Safety:** Point-of-use nitrogen is a safer alternative by eliminating the need for shuttling heavy merchant gas bottles back and forth between supplier and point of use
- › **Robust Design:** All BAUER on-demand nitrogen systems are designed to operate continuously in all manner of severe ambient conditions indoors or outdoors
- › **Superior Reliability:** All BAUER systems are designed and manufactured to provide BAUER’s legendary reliability and performance with the lowest overall lifecycle cost. In addition, every system is backed by BAUER’s two (2) year all-inclusive warranty and lifetime support

### BAUER NGM® FLOW/PURITY PERFORMANCE PER MODEL



Performance based on Outlet Pressure of 150 PSIG (10 BARG), Ambient Temperature of 110°F (43°C), Elevation: Sea Level, and RH of 65%. Lower discharge pressures are possible with optional integrated pressure regulation. Motor power range of 10 HP (7.5 KW) to 750 HP (560 KW).

## BAUER NGM® 3 & 6

### Designed for Low Nitrogen Flow Requirements

- › Nitrogen Purity Range: 96% to 99.5%
- › Final Pressure: Up to 150 PSIG

### AVAILABLE OPTIONS

- › Marine / offshore special paint
- › Class I, Div II for hazardous zone classification
- › Two-stage intake filter for high-dust environments
- › CE compliance

### SYSTEM FOOTPRINT

#### DIMENSIONS L X W X H inches

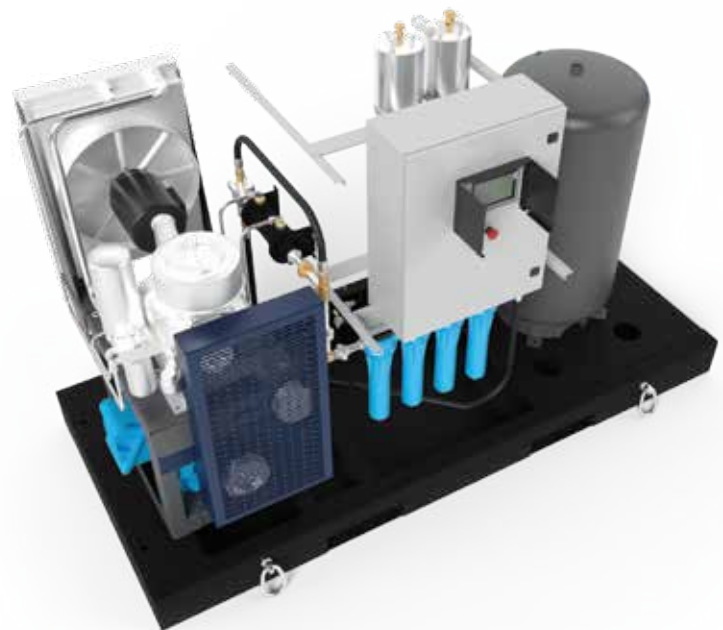
- › NGM 3&6: 108x48x80

#### WEIGHT pounds

- › NGM 3: 3250
- › NGM 6: 3500



BAUER NGM® with optional weatherproof sound attenuated enclosure.



## TECHNICAL DATA

Model	Motor Size		Nitrogen Purity	Nitrogen Flow		Discharge Pressure	
	HP	KW		SCFM	M3/HR	PSIG	BAR
<b>NGM®3</b>							
NGM 3-25	25	18	96.0%	21	36	150	10
NGM 3-25	25	18	97.0%	17	29	150	10
NGM 3-25	25	18	98.0%	13	22	150	10
NGM 3-25	25	18	99.0%	12	20	150	10
NGM 3-25	25	18	99.5%	10	16	150	10
<b>NGM®6</b>							
NGM 6-50	50	37	96.0%	44	75	150	10
NGM 6-50	50	37	97.0%	36	61	150	10
NGM 6-50	50	37	98.0%	40	68	150	10
NGM 6-50	50	37	99.0%	27	46	150	10
NGM 6-50	50	37	99.5%	20	33	150	10

Note: NGM performance data is stated at the following ambient conditions: Temperature: 110°F / 43°C, Elevation: sea level, Relative Humidity: 65%.

## BAUER NGM® 9

### Designed for Low To Medium Nitrogen Flow Requirements

- › Nitrogen Purity Range: 96% to 99.5%
- › Final Pressure: Up to 150 PSIG

### AVAILABLE OPTIONS

- › Marine / offshore special paint
- › Class I, Div II for hazardous zone classification
- › Two-stage intake filter for high-dust environments
- › CE compliance

### SYSTEM FOOTPRINT

#### DIMENSIONS L X W X H inches

- › 125 x 95 x 95

#### WEIGHT pounds

- › 6250



BAUER NGM® with optional weatherproof sound attenuated enclosure.



## TECHNICAL DATA

Model	Motor Size		Nitrogen Purity	Nitrogen Flow		Discharge Pressure	
	HP	KW		SCFM	M3/HR	PSIG	BAR
<b>NGM®9</b>							
NGM 9-75	75	55	96.0%	88	149	150	10
NGM 9-75	75	55	97.0%	76	129	150	10
NGM 9-75	75	55	98.0%	65	110	150	10
NGM 9-75	75	55	99.0%	54	92	150	10
NGM 9-75	75	55	99.5%	39	66	150	10

Note: NGM performance data is stated at the following ambient conditions: Temperature: 110°F / 43°C, Elevation: sea level, Relative Humidity: 65%.

## BAUER NGM® 15

### Designed for Medium Nitrogen Flow Requirements

- › Nitrogen Purity Range: 96% to 99.5%
- › Final Pressure: Up to 150 PSIG

### SYSTEM FOOTPRINT

#### DIMENSIONS L X W X H inches

- › NGM 15: 161 x 95 x 95

#### WEIGHT pounds

- › NGM 15: 9500

### AVAILABLE OPTIONS

- › Sound attenuated enclosure for compressor and membrane module
- › Marine/offshore special paint
- › Class I, Div II for hazardous zone classification
- › Two-stage intake filter for high-dust environments
- › CE compliance



## BAUER NGM® 28

### Designed for Medium Nitrogen Flow Requirements

- › Nitrogen Purity Range: 96% to 99.5%
- › Final Pressure: Up to 150 PSIG

### SYSTEM FOOTPRINT

#### DIMENSIONS L X W X H inches

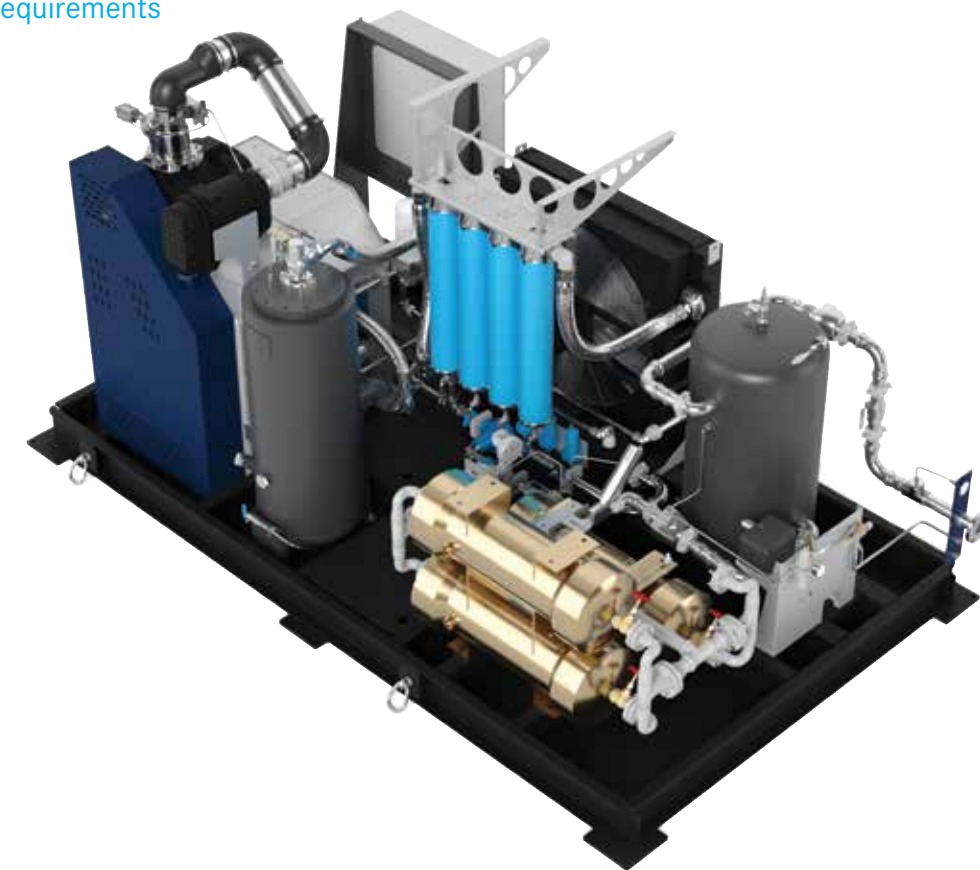
- › NGM 28: 161 x 95 x 95

#### WEIGHT pounds

- › NGM 28: 10000

### AVAILABLE OPTIONS

- › Sound attenuated enclosure for compressor and membrane module
- › Marine/offshore special paint
- › Class I, Div II for hazardous zone classification
- › Two-stage intake filter for high-dust environments
- › CE compliance



## TECHNICAL DATA

Model	Motor Size		Nitrogen Purity	Nitrogen Flow		Discharge Pressure	
	HP	KW		SCFM	M3/HR	PSIG	BAR
<b>NGM® 15</b>							
NGM 15-125	125	90	96.0%	145	246	150	10
NGM 15-125	125	90	97.0%	128	217	150	10
NGM 15-125	125	90	98.0%	100	170	150	10
NGM 15-125	125	90	99.0%	81	138	150	10
NGM 15-125	125	90	99.5%	63	107	150	10

Note: NGM performance data is stated at the following ambient conditions: Temperature: 110°F / 43°C, Elevation: sea level, Relative Humidity: 65%.

## TECHNICAL DATA

Model	Motor Size		Nitrogen Purity	Nitrogen Flow		Discharge Pressure	
	HP	KW		SCFM	M3/HR	PSIG	BAR
<b>NGM® 28</b>							
NGM 28-250	250	187	96.0%	226	384	150	10
NGM 28-250	250	187	97.0%	208	353	150	10
NGM 28-250	250	187	98.0%	203	345	150	10
NGM 28-250	250	187	99.0%	149	253	150	10
NGM 28-250	250	187	99.5%	117	199	150	10

Note: NGM performance data is stated at the following ambient conditions: Temperature: 110°F / 43°C, Elevation: sea level, Relative Humidity: 65%.



# BAUER SNG® Membrane Based High Pressure Nitrogen Systems

The BAUER SNG® product line is an extension of the BAUER NGM® membrane-based nitrogen generation system but for applications where higher pressures up to 5000 PSIG (350 bar) required. Flow Range: (10 SCFM / 16 m3/hr) to (750 SCFM / 1295 m3/hr). Nitrogen Purity Range: 96% to 99.5%. Final Pressure: Up to 5000 PSIG (350 bar).

All BAUER SNG® nitrogen generator systems are fully integrated and designed to be “plug-and-play”. They incorporate a BAUER NGM® nitrogen generation system with a matching BAUER high-pressure reciprocating booster compressor.

**Guaranteed Performance In All Ambient Conditions**—by utilizing a variable speed motor drive to precisely control air flow and pressure to the nitrogen separation membranes in various ambient conditions, BAUER SNG® systems are designed to always maintain consistent performance as related to nitrogen flow and nitrogen purity.



**BAUER NGM®**  
NITROGEN GENERATION MODULE

**BAUER HIGH-PRESSURE**  
BOOSTER COMPRESSOR

## STANDARD SCOPE OF SUPPLY

- › Self-contained, fully-integrated turnkey nitrogen generation system with integrated high- pressure booster for discharge pressures up to 6,000 PSIG
- › Engineered to operate reliably in harsh industrial setting
- › Feed air compressor: single-stage air-cooled, oil-injected, continuous-duty rotary screw compressor
- › High pressure multi-stage reciprocating booster compressor, pressure-lubricated, continuous-duty rated
- › 3-stage membrane pre-filtration system
- › High durability membrane air separators
- › TEFC electric motors for each compressor with v-belt drive, guard, and belt tensioning device
- › Port for condensate drain to customer collection device or drain system
- › UL® labeled Control Panel with PLC controller. Includes touchscreen interface (for operation, maintenance and troubleshooting)
- › In-line oxygen analyzer to determine nitrogen purity
- › Pressure sensors for oil and final product pressure
- › 24-month warranty, lifetime support guarantee

## BAUER SNG® SYSTEM FEATURES

- › Wide ambient operating temperature range 40° to 113°F (4.4° to 45°C)
  - › Electrically powered and available in the following power configurations:
    - 460 v, 3ph, 60 hz (standard)
    - 380/400 v, 3 ph 50 hz or 60 hz (optional)
    - 580 v, 3 ph, 60 hz (optional)
  - › Weatherproof enclosure
  - › BAUER CONNECT® IoT Remote Telemetry
- \*Other voltages available upon request

## OPTIONAL FEATURES:

- › Class 1, Div2 execution for hazardous locations
- › Sound attenuation (less than 85dBA)
- › Special Offshore Paint

## HIGH PRESSURE NITROGEN FROM THE HIGH PRESSURE EXPERTS

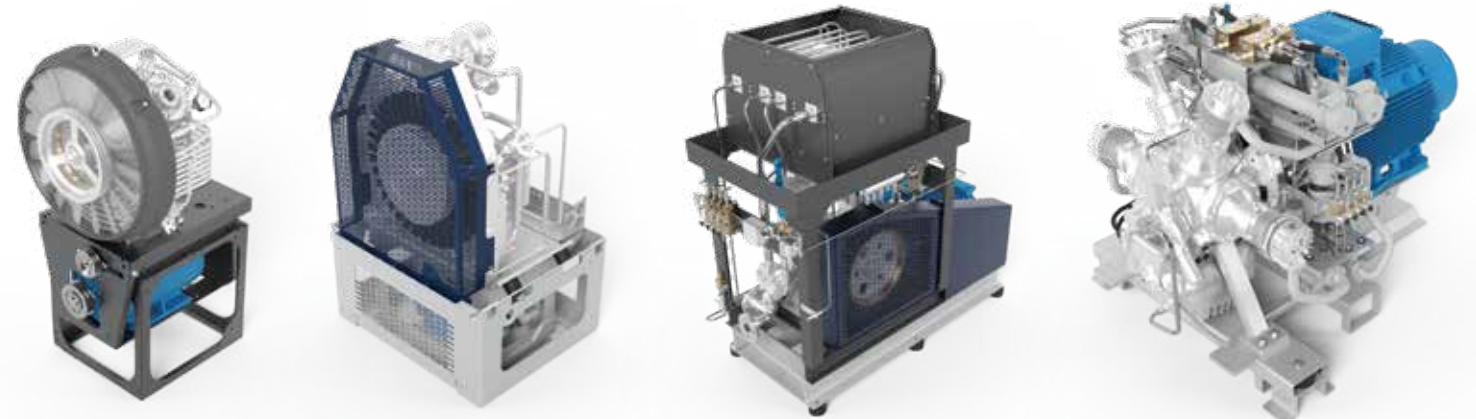
BAUER is recognized worldwide as the leader in high-pressure compressors. BAUER Compressors’ durability, reliability, and wide range are unmatched in the industry. The entire range of the BAUER NGM® nitrogen generation systems can, therefore, be covered by integrating BAUER high-pressure booster compressor when nitrogen has to be delivered at pressures up to 6000 PSIG. The table below illustrates the performance of the BAUER High-Pressure Booster range from 7.5 HP (5.5 kW) to 450 HP (315 kW).

## KEY FEATURES AND BENEFITS

- › **Uninterrupted N<sub>2</sub> Supply:** Point-of-use nitrogen generation provides an alternative to external sources of nitrogen by eliminating potential supply chain interruptions and the logistical hassles associated with merchant gas
- › **Cost Savings:** Point-of-use nitrogen systems are a cost-effective alternative to merchant gas which require long-term contracts and are associated with long-term locked-in rates
- › **Personnel Safety:** Point-of-use nitrogen is a safer alternative by eliminating the need for shuttling heavy merchant gas cylinders back and forth between supplier and point of use
- › **Robust Design:** All BAUER on-demand nitrogen systems are designed to operate continuously in all manner of severe ambient conditions indoors or outdoors
- › **Superior Reliability:** All BAUER systems are designed and manufactured to provide BAUER’s legendary reliability and performance with lowest overall lifecycle cost. In addition, every system is backed by BAUER’s two (2) year all-inclusive warranty and lifetime support

Model	Power		Speed RPM	Inlet Pressure Range		Final Pressure		Min Flow (FAD)		Max Flow (FAD)	
	HP	KW		PSIG	BAR	PSIG	BAR	SCFM	M3/HR	SCFM	M3/HR
<b>HIGH PRESSURE BOOSTER</b>											
GIB 12.2	7.5	5.5	1230	75-160	5-11	5000	350	7	12	16	28
GIB 15.3	15.0	11.0	1140	100-145	7-10	5000	350	18	30.6	27	45
GIB 22.12	45.0	34.0	1180-1480	70-145	5-10	5000	350	40	68	70	119
GIB 23.12	60.0	45.0	1140	116-145	8-10	5000	350	95	162	116	198
GIB 26.12	175.0	132.0	1000-1485	87-145	6-10	5000	350	162	275	381	648
GIB 52.13	450.0	315.0	1000-1485	87-145	6-10	5000	350	324	550	766	1302

Note: SNG performance data is stated in accordance with ISO 1217 at the following ambient conditions: Temperature: 110°F / 43°C , Elevation: sea level, Relative Humidity: 65%.



› GIB 15.3 Booster

› GIB 22.12 Booster

› GIB 23.12 Booster

› GIB 26.12 Booster



## BAUER SNG® III-3, III-6 & III-6/6 Designed for Low Nitrogen Flow Requirements

Stationary On-Demand Nitrogen Generation System for High Pressure Applications up to 6000 PSIG (SNGIII-6/6) 5000 PSIG (SNGIII-3 and SNGIII-6)

### SYSTEM FOOTPRINT

**DIMENSIONS L X W X H inches**

- › SNG III 3 & III-6 : 108x48x80

**WEIGHT pounds**

- › SNGIII-3 : 3500
- › SNGIII-6: 3750
- › SNGIII-6/6: 3875

### AVAILABLE OPTIONS

- › Marine/offshore special paint
- › Class I, Div II for hazardous zone classification
- › Two-stage intake filter for high-dust environments
- › CE compliance
- › Modular high-pressure storage cylinder systems (UN ISO or ASME) with integrated high-flow pressure regulation panel



BAUER SNG® with optional weatherproof enclosure.



› SNG® III-3

### TECHNICAL DATA

Model	Feed Air Compressor		Booster Compressor		Nitrogen Flow at 98.% Purity <sup>2</sup>		Nitrogen Flow at 99.% Purity <sup>2</sup>		Nitrogen Flow at 99.5% Purity <sup>2</sup>		
	Motor		Model	Motor	SCFM <sup>1</sup>	M <sup>3</sup> /HR	SCFM <sup>1</sup>	M <sup>3</sup> /HR	SCFM <sup>1</sup>	M <sup>3</sup> /HR	
	HP	KW		HP	KW						
<b>FINAL PRESSURE 5000 PSIG (345 BAR)</b>											
SNG® III-3	30	18.6	BK12.2	10	7.5	16	27.2	12	20.3	9	15.2
SNG® III-6	50	37.3	BK15.3	15	11	27	45.38	27	45.38	19	32.2
SNG® III-6/6	50	37.3	IK18.1	20	15	-	-	-	-	19	32.2

Stated performance based on ambient Temperature of 110°F (43°C), Elevation: Sea Level, and RH of 65%.

## BAUER SNG® 9

### Designed for Low to Medium Nitrogen Flow Requirements

Stationary On-Demand Nitrogen Generation System for High Pressure Applications up to 5000 PSIG

### SYSTEM FOOTPRINT

**DIMENSIONS L X W X H inches**

- › SNG 9: 125x95x95

**WEIGHT pounds**

- › SNG 9: 7500

### AVAILABLE OPTIONS

- › Marine/offshore special paint
- › Class I, Div II for hazardous zone classification
- › Two-stage intake filter for high-dust environments
- › CE compliance
- › Modular high-pressure storage cylinder systems (UN ISO or ASME) with integrated high-flow pressure regulation panel



BAUER SNG® with optional weatherproof enclosure.



› SNG® 9

### TECHNICAL DATA

Model	Feed Air Compressor		Booster Compressor		Nitrogen Flow at 98.% Purity <sup>2</sup>		Nitrogen Flow at 99.% Purity <sup>2</sup>		Nitrogen Flow at 99.5% Purity <sup>2</sup>		
	Motor		Model	Motor	SCFM <sup>1</sup>	M <sup>3</sup> /HR	SCFM <sup>1</sup>	M <sup>3</sup> /HR	SCFM <sup>1</sup>	M <sup>3</sup> /HR	
	HP	KW		HP	KW						
<b>FINAL PRESSURE 5000 PSIG (345 BAR)</b>											
SNG® 9	75.0	56.0	GIB 22.12	45.0	34.0	65	110	54	92	39	66

Stated performance based on ambient Temperature of 110°F (43°C), Elevation: Sea Level, and RH of 65%.

# OVERVIEW OF BAUER PSA NITROGEN SYSTEMS

## 35 Years Of Nitrogen Generation Experience

### WHY BUY NITROGEN WHEN YOU CAN MAKE YOUR OWN?

The BAUER Nitrogen Generators are self-contained, fully integrated, modular systems that eliminate the hazards involved with the handling of high-pressure cylinders, as well as the burden of the merchant-supplied nitrogen gas. BAUER PSA nitrogen generator systems are designed for the on-demand supply of nitrogen gas at purities up to 99.999%.

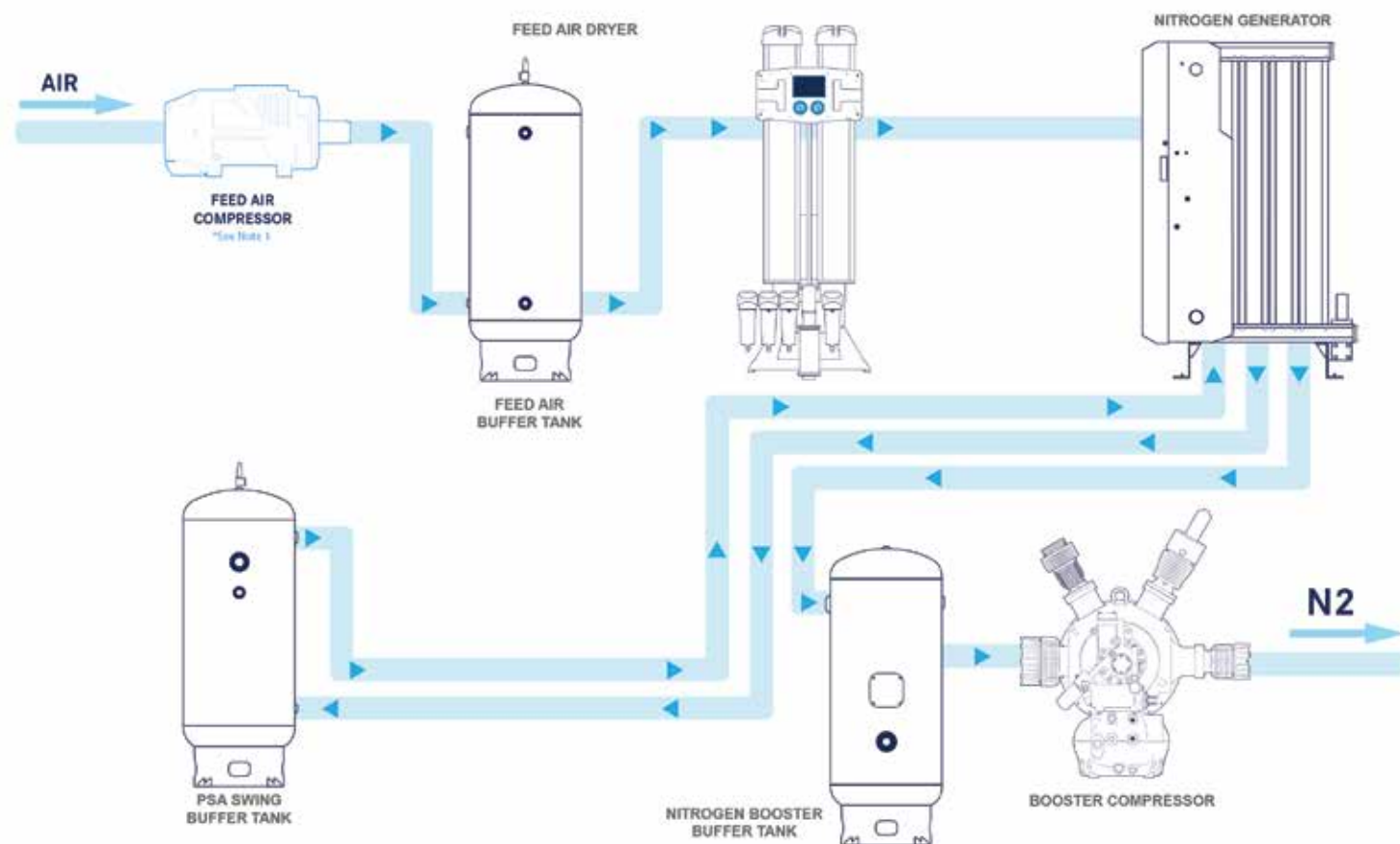
Generating nitrogen to meet customer required purity and quality is a critical process. BAUER PSA nitrogen generation systems require exact control of feed-air-flow, pressure, temperature, and quality (oil content, moisture content and particulate content), which BAUER provides in its systems.

All BAUER PSA nitrogen systems are engineered to provide years of reliable performance. Critical performance values such as pressure, temperature and O<sub>2</sub> content are electronically monitored after each critical process step in order to assure optimal long-term total system performance. BAUER NPX™ nitrogen systems adapt automatically to changing environmental conditions, as well as, changes in PSA systems as they age.

### BAUER GUARANTEES SYSTEM PERFORMANCE OVER TIME

- › Process performance monitoring after each critical step to assure nitrogen quality and purity
- › Adaptive system that automatically adjusts to various ambient conditions, as well as, PSA aging
- › Remote telemetry to provide real-time feedback of system performance

### PSA NITROGEN GENERATION PROCESS



\*Note 1 PSA Feed Air System can be provided by Customer or by BAUER.



### BAUER PSA BASED NITROGEN SYSTEMS FOR A WIDE VARIETY OF APPLICATIONS

BAUER produces a complete product line of PSA-based nitrogen systems suitable for a wide variety of applications including:

- › Chemical Plants (blanketing)
- › Electronics (wave soldering)
- › Food & Beverage (MAP)
- › Plastic Injection Molding (Gas Injection Technology)
- › Oil & Gas Refineries (blanketing)
- › Structural Foam Molding

For these applications, BAUER PSA nitrogen generating systems are configured to include:

- › Feed air system (optional)
- › Feed air buffer tanks
- › Pre-filtration, Post-filtration, and desiccant dryers
- › Nitrogen generators
- › PSA swing buffer tanks
- › BAUER N-Series boosters compressor (optional)

Model	Nitrogen Purity	Nitrogen Flow From PSA*		Discharge Pressure From PSA		Required Feed Air Pressure		Required Feed Air Flow	
		SCFM	M3/HR	PSIG	BARG	PSIG	BARG	SCFM	M3/HR
<b>BAUER NPX NITROGEN SYSTEMS</b>									
SYSTEM 1	99.5-99.999%	4.5 -19.6	7.6 -33.3	71-74	4.9-5.1	100	6.9	55.3-78.2	93.6-132.9
SYSTEM 2	99.5-99.999%	6.8-29.9	11.6-50.8	71-74	4.9-5.1	100	6.9	86.2-121	146.4-205.6
SYSTEM 3	99.5-99.999%	10.8-47.2	18.3-80.2	71-74	4.9-5.1	100	6.9	138.5-193.3	235.3-328.4
SYSTEM 4	99.5-99.999%	24.8-108.6	42.1-184.5	71-74	4.9-5.1	100	6.9	345.5-478	587-812.1

\*Nitrogen flow is dependent on desired nitrogen purity.





System 1 Shown:  
NPX100-S1-99.5/99999 with optional  
BAUER N-Series 1 booster compressor



System 2 Shown:  
NPX100S2-99.5/99999 with optional  
BAUER N-Series 1 booster compressor

## BAUER NPX™ SYSTEM 1

Designed for High-Purity Nitrogen Flow

Stationary On-Demand Nitrogen Generation System

4.5-19.6 SCFM @99.5 - 99.999% N<sub>2</sub>

### SYSTEM FOOTPRINT

DIMENSIONS L X W X H inches

System 1: 136" x 90" x 96" (3454 mm x 2286 mm x 2438 mm). Approximate.

- 1 Feed Air Buffer Tank
- 2 Water Separator
- 3 Pre filtration
- 4 Dryer
- 5 Post filtration
- 6 Nitrogen Generator
- 7 PSA Swing Buffer Tank
- 8 BAUER N-Series Booster (optional)

Model	Nitrogen Purity	Nitrogen Flow From PSA		Discharge Pressure From PSA		Required Feed Air Pressure		Required Feed Air Flow	
		SCFM	M3/HR	PSIG	BARG	PSIG	BARG	SCFM	M3/HR
<b>SYSTEM 1</b>									
NPX100S1-995	99.5%	19.6	33.3	71	4.9	100	6.9	78.2	132.9
NPX100S1-999	99.9%	13.7	23.3	72	4.9	100	6.9	69.1	117.4
NPX100S1-9999	99.99%	8.6	14.6	74	5.1	100	6.9	62.5	106.2
NPX100S1-99999	99.999%	4.5	7.6	74	5.1	100	6.9	55.3	93.6

Performance based on the following: 95°F Ambient & 104°F Feed Air Temperatures  
Designed to meet ISO 8573 Cl. 1.2.1 quality Nitrogen; Particle: < 10 Particle/m<sup>3</sup> of 1-5 micron, Pressure Dew Point: ≤ -40°C, Oil: < 0.01 mg/m<sup>3</sup>

## BAUER NPX™ SYSTEM 2

Designed for High-Purity Nitrogen Flow

Stationary On-Demand Nitrogen Generation System

6.8-29.9 SCFM @99.5 - 99.999% N<sub>2</sub>

### SYSTEM FOOTPRINT

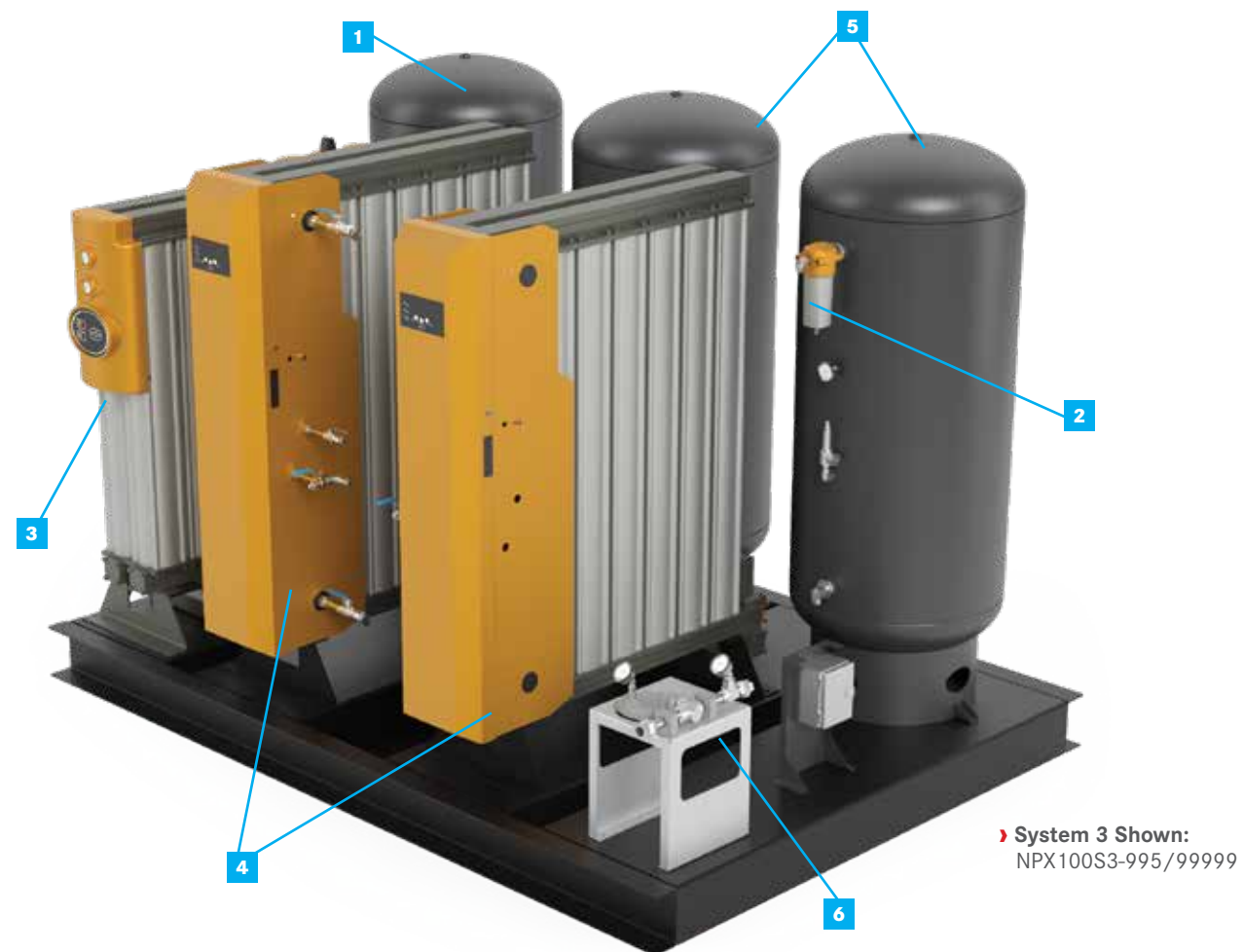
DIMENSIONS L X W X H inches

System 2: 136" x 90" x 96" (3454 mm x 2286 mm x 2438 mm). Approximate.

- 1 Feed Air Buffer Tank
- 2 Pre filtration
- 3 Dryer
- 4 Post filtration
- 5 Nitrogen Generator
- 6 PSA Swing Buffer Tank
- 7 BAUER N-Series Booster (optional)

Model	Nitrogen Purity	Nitrogen Flow From PSA		Discharge Pressure From PSA		Required Feed Air Pressure		Required Feed Air Flow	
		SCFM	M3/HR	PSIG	BARG	PSIG	BARG	SCFM	M3/HR
<b>SYSTEM 2</b>									
NPX100S2-995	99.5%	29.9	50.8	71	4.9	100	6.9	121	205.6
NPX100S2-999	99.9%	20.9	35.5	72	4.9	100	6.9	106.4	180.8
NPX100S2-9999	99.99%	13	22.1	74	5.1	100	6.9	98.6	167.5
NPX100S2-99999	99.999%	6.8	11.6	74	5.1	100	6.9	86.2	146.4

Performance based on the following: 95°F Ambient & 104°F Feed Air Temperatures  
Designed to meet ISO 8573 Cl. 1.2.1 quality Nitrogen; Particle: < 10 Particle/m<sup>3</sup> of 1-5 micron, Pressure Dew Point: ≤ -40°C, Oil: < 0.01 mg/m<sup>3</sup>



System 3 Shown:  
NPX100S3-995/99999

### BAUER NPX™ SYSTEM 3

Designed for High-Purity Nitrogen Flow

Stationary On-Demand Nitrogen Generation System

10.8-47.2 SCFM @99.5 - 99.99% N<sub>2</sub>

#### SYSTEM FOOTPRINT

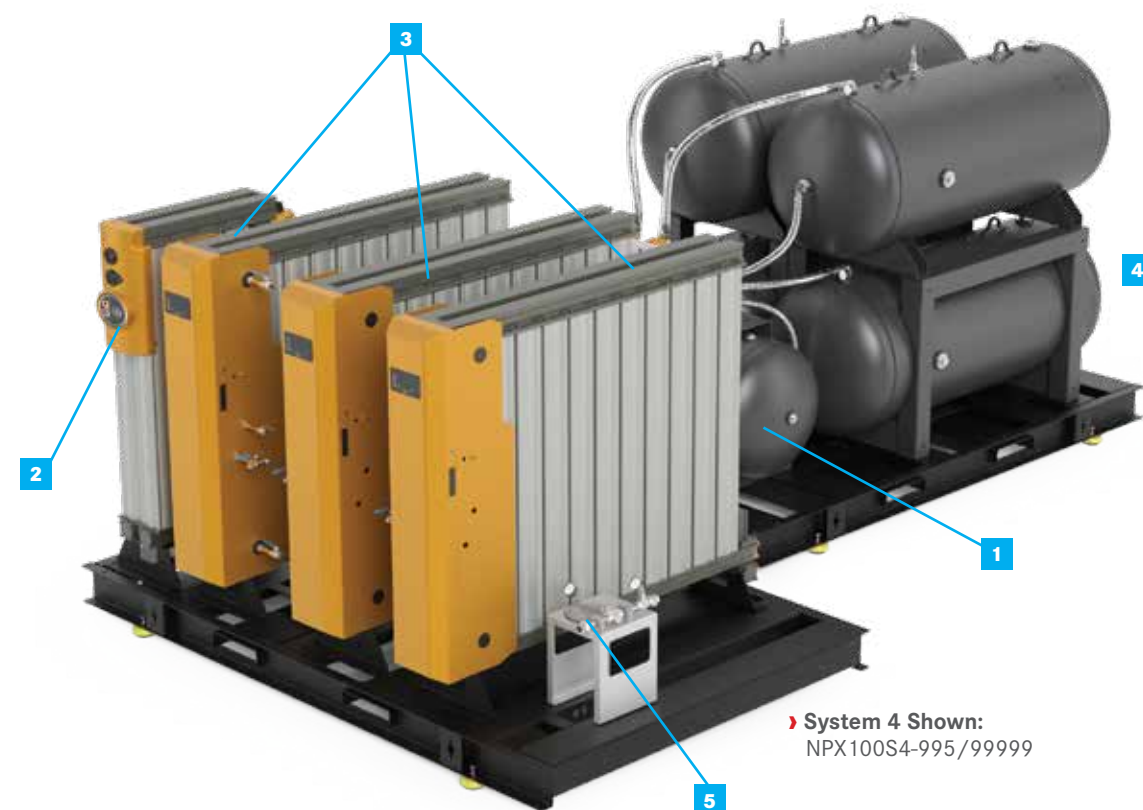
DIMENSIONS L X W X H inches

System 3: 126 x 90 x 96 (3200 mm x 2286 mm x 2438 mm). Approximate.

- 1 Feed Air Buffer Tank
- 2 Water Separator
- 3 Dryer
- 4 Nitrogen Generator
- 5 PSA Swing Buffer Tank
- 6 N-Series Booster Inlet Regulation System

Model	Nitrogen Purity	Nitrogen Flow From PSA		Discharge Pressure From PSA		Required Feed Air Pressure		Required Feed Air Flow	
		SCFM	M3/HR	PSIG	BARG	PSIG	BARG	SCFM	M3/HR
<b>SYSTEM 3</b>									
NPX100S3-995	99.5%	47.2	80.2	71	4.9	100	6.9	193.3	328.4
NPX100S3-999	99.9%	33	56.1	72	4.9	100	6.9	171.6	291.5
NPX100S3-9999	99.99%	20.6	35	74	5.1	100	6.9	155.8	264.7
NPX100S3-99999	99.999%	10.8	18.3	74	5.1	100	6.9	138.5	235.3

Performance based on the following: 95°F Ambient & 104°F Feed Air Temperatures  
Designed to meet ISO 8573 Cl. 1.2.1 quality Nitrogen; Particle: < 10 Particle/m<sup>3</sup> of 1-5 micron, Pressure Dew Point: ≤ -40°C, Oil: < 0.01 mg/m<sup>3</sup>



System 4 Shown:  
NPX100S4-995/99999

### BAUER NPX™ SYSTEM 4

Designed for High-Purity Nitrogen Flow

Stationary On-Demand Nitrogen Generation System

24.8-108.6 SCFM @99.5 - 99.999% N<sub>2</sub>

#### SYSTEM FOOTPRINT

DIMENSIONS L X W X H inches

System 4 (PSA): 126 x 90 x 85 (3200 mm x 2286 mm x 2159 mm). Approximate.

System 4 (Tank): 126 x 90 x 97 (3200 mm x 2286 mm x 2464 mm). Approximate.

- 1 Feed Air Buffer Tank
- 2 Dryer
- 3 Nitrogen Generator
- 4 PSA Swing Buffer Tanks
- 5 N-Series Booster Inlet Regulation System

Model	Nitrogen Purity	Nitrogen Flow From PSA		Discharge Pressure From PSA		Required Feed Air Pressure		Required Feed Air Flow	
		SCFM	M3/HR	PSIG	BARG	PSIG	BARG	SCFM	M3/HR
<b>SYSTEM 4</b>									
NPX100S4-995	99.5%	108.6	184.5	71	4.9	100	6.9	478	812.1
NPX100S4-999	99.9%	76	129.1	72	4.9	100	6.9	429.4	729.5
NPX100S4-9999	99.99%	47.4	80.5	74	5.1	100	6.9	390	662.6
NPX100S4-99999	99.999%	24.8	42.1	74	5.1	100	6.9	345.5	587

Performance based on the following: 95°F Ambient & 104°F Feed Air Temperatures  
Designed to meet ISO 8573 Cl. 1.2.1 quality Nitrogen; Particle: < 10 Particle/m<sup>3</sup> of 1-5 micron, Pressure Dew Point: ≤ -40°C, Oil: < 0.01 mg/m<sup>3</sup>



# NITROGEN COMPRESSORS

Fully utilize your purchased nitrogen bottles and maximize your supply-gas investment. Our nitrogen solutions are available in a wide variety of capacities and pressures. This highly engineered product range will fully deplete your purchased nitrogen supply, allowing for more reliable and extended process operations.

- › No more pressure equalization in your supply gas = no more wasted gas = full value for your investment.
- › Our nitrogen compressors are optimized for nearly any application.
- › Complete sound attenuation for indoor environments
- › Automatic start/stop operation
- › Robust filtration to ensure peak gas quality
- › Inlet regulation system (as required)

## BAUER N-SERIES 1

Compact Design for Low-Flow Applications  
Air-Cooled – 3-, 4-, and 5-Stage Compressors  
SYSTEM FOOTPRINT

### DIMENSIONS L x W x H inches (mm)

#### Enclosed Design

- › 55" x 35" x 70" (1397 mm x 889 mm x 1778 mm)

#### Open Design

- › 54" x 34" x 56" (1372.6 mm x 863.6 mm x 1422.4 mm)

### WEIGHT pounds (kg)

#### Enclosed Design

- › 800-1400 lbs (363-635 kg)

#### Open Design

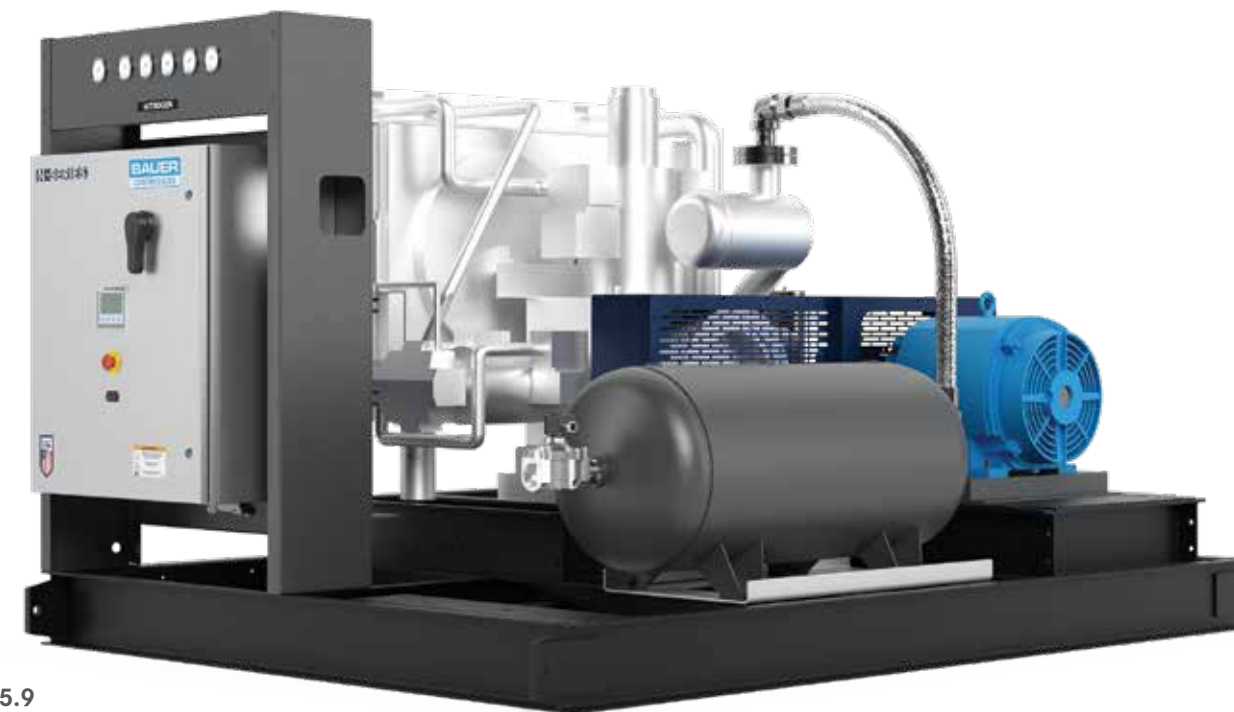
- › 800 - 900 lbs (363 - 408.2 kg)



## TECHNICAL DATA

Model	Max Inlet Pressure		Capacity FGD <sup>1</sup>		RPM	Number of Stages	Motor		Drive
	PSIG	mBAR	SCFM	M <sup>3</sup> /HR			HP	KW	
<b>UP TO 5000 PSIG OPERATING PRESSURE (LOW INLET PRESSURE)</b>									
V*CN100	1.5	100	5	8.5	1470	3	5	3.7	E1 / E3
V*CN120	1.5	100	7.6	12.9	1470	3	7.5	5.5	E1 / E3
V*CN150	1.5	100	18	30.5	1230	4	15	11	E3
V*CN180	1.5	100	21	35.6	1320	4	20	15	E3
<b>UP TO 7000 PSIG OPERATING PRESSURE (LOW INLET PRESSURE)</b>									
V*CN15.11	< 1	50	15	25.4	1320	4	15	11	E1/E3
V*CN18.1	< 1	50	18	30.5	1490	5	20	15	E3
<b>UP TO 5000 PSIG OPERATING PRESSURE (ELEVATED INLET PRESSURE)</b>									
V*CN12.2	75 - 160	5 - 11	7 - 16.7	12 - 28.5	1230	2	7.5	5.5	E1/E3
V*CN15.3	101 - 145	7 - 10	18 - 26.5	30.6 - 45	1140	2	15	11	E3
V*CN15.41	29 - 58	2 - 4	15.2 - 26.5	25.8 - 45	1350	2	20	15	E3

\* E = Open Design, A = Enclosed Design <sup>1</sup> Volume flow rate according to ISO 1217. Valid for Air and Nitrogen. Capacities for low inlet pressure models referenced to atmospheric inlet pressure. Capacities for elevated inlet pressure models referenced to min. / max. inlet pressure. Motor power valid for max. inlet and final pressure. Actual performance values may vary depending upon site conditions.



› GI25.9  
Frame redesign in progress image is only representative.

## BAUER N-SERIES 2

Air-Cooled Design for Low to Medium Flow Applications

### SYSTEM FOOTPRINT

#### DIMENSIONS L x W x H inches (mm) approx.\*

- › 97" x 58" x 85" (2464 mm x 1473 mm x 2159 mm)

#### WEIGHT pounds (kg) approx.

- › 3200-4000 lbs (1066-1814 kg)

Depending upon model and options

## TECHNICAL DATA

Model	Max Inlet Pressure		Capacity FGD <sup>1</sup>		RPM	Number of Stages	Motor		Drive
	PSIG	mBAR	SCFM	M <sup>3</sup> /HR			HP	KW	
<b>UP TO 5000 PSIG OPERATING PRESSURE (LOW INLET PRESSURE)</b>									
GI250	1.5	100	67	114	1180	4	60	45	E3
GI280	1.5	100	88	150	830	4	75	55	E3
GI280	1.5	100	115	195	1180	4	100	75	E3
<b>UP TO 7000 PSIG OPERATING PRESSURE (LOW INLET PRESSURE)</b>									
GI25.9	< 1	50	67	114	1180	5	60	45	E3
GI25.18	< 1	50	81	138	1100	5	75	55	E3

<sup>1</sup> Volume flow rate according to ISO 1217. Valid for Air and Nitrogen. Capacities for low inlet pressure models referenced to atmospheric inlet pressure. Capacities for elevated inlet pressure models referenced to min. / max. inlet pressure. Motor power valid for max. inlet and final pressure. Actual performance values may vary depending upon site conditions.

### BAUER N-SERIES 3

Air-Cooled Design for Low to Medium Flow Applications

#### SYSTEM FOOTPRINT

**DIMENSIONS L x W x H inches (mm) approx.**

**Enclosed Design**

- › 42" x 60" x 74" (1067 mm x 1524 mm x 1905 mm)

**Open Design**

- › 97" x 58" x 85" (2464mm x 1473mm x 2159mm)

**WEIGHT pounds (kg) approx.**

**Enclosed Design**

- › 2300 lbs (1043 kg)

**Open Design**

- › 3200-4000 lb (1066-1814 kg)



› Enclosed Design

› Open Design

### TECHNICAL DATA

Model	Max Inlet Pressure		Capacity FGD <sup>1</sup>		RPM	Number of Stages	Motor		Drive
	PSIG	mBAR	SCFM	M <sup>3</sup> /HR			HP	KW	
<b>UP TO 5000 PSIG OPERATING PRESSURE (LOW INLET PRESSURE)</b>									
VGI220	< 1	50	30	56	1140	4	30	22	E3
VGI23.1	1.5	100	40	68	1280	4	40	30	E3

\*1 Volume flow rate according to ISO 1217. Valid for Air and Nitrogen. Capacities for low inlet pressure models referenced to atmospheric inlet pressure. Capacities for elevated inlet pressure models referenced to min. / max. inlet pressure. Motor power valid for max. inlet and final pressure. Actual performance values may vary depending upon site conditions.

### BAUER N-SERIES 4

Air-Cooled Designed for High-Flow Applications

#### SYSTEM FOOTPRINT

**DIMENSIONS L x W x H inches (mm)**

**Enclosed Design**

- › 133" x 104" x 115" (3378 mm x 2642 mm x 2921 mm)

**Open Design**

- › 138" x 56" x 84" (3505 mm x 1422 mm x 2134 mm)

**WEIGHT pounds (kg) approx.**

**Enclosed Design**

- › 10000 lbs (4535 kg)

**Open Design**

- › 4500 lbs (2041 kg)



› Enclosed Design



› Open Design

### TECHNICAL DATA

Model	Max Inlet Pressure		Capacity FGD <sup>1</sup>		RPM	Number of Stages	Motor		Drive
	PSIG	BAR	SCFM	M <sup>3</sup> /HR			HP	KW	
<b>UP TO 5000 PSIG OPERATING PRESSURE (ELEVATED INLET PRESSURE)<sup>2</sup></b>									
GIB23.10	29 - 65	2 - 4.5	47 - 86	80 - 146	1140	4	50 - 60	37 - 45	E3
GIB23.12	65 - 145	4.5 - 10	60 - 116	102 - 198	1140	4	50 - 60	37 - 45	E3
GIB23.13	116 - 203	8 - 14	74 - 124	126 - 210	1140	4	50	37	E3

<sup>1</sup> Volume flow rate according to ISO 1217. Valid for Air and Nitrogen. Motor power is dependent upon inlet pressure. Contact BAUER for motor power for specific applications. Actual performance values may vary depending on site conditions. <sup>2</sup> Lower inlet pressure can result in lower operating pressure. Contact BAUER for min. / max. operating pressure relative to inlet pressure.





**BAUER N-SERIES 5**  
Water-Cooled Designed for High-Flow Applications

**SYSTEM FOOTPRINT**

**DIMENSIONS L x W x H inches (mm)**

- ▶ 216"-297.6 L x 87.6-99.6" W x 117" H  
(5486.4-7543.8 mm x 2225.04-2529.84 mm x 2971.8 mm)

**WEIGHT pounds (kg) approx.**

- ▶ 18000 -22700 lbs (8165 -10297 kg)

**TECHNICAL DATA**

Model	Max Inlet Pressure		Capacity FGD <sup>1</sup>		RPM	Number of Stages	Motor		Drive
	PSIG	BAR	SCFM	M <sup>3</sup> /HR			HP	KW	
<b>UP TO 5000 PSIG OPERATING PRESSURE (ELEVATED INLET PRESSURE)<sup>2</sup></b>									
GIB26.10	29 - 65	2 - 4.5	184 - 339	312 - 576	1485	4	177 - 215	132 - 160	E3
GIB26.12	65 - 145	4.5 - 10	191 - 381	324 - 648	1485	4	177	132	E3
GIB26.13	145 - 217	10 - 15	275 - 403	468 - 684	1485	4	177	132	E3
GIB52.10	29 - 65	2 - 4.5	371 - 678	630 - 1152	1485	4	422	315	E3
GIB52.12	65 - 145	4.5 - 10	381 - 766	648 - 1302	1485	4	335 - 422	250 - 315	E3
GIB52.13	145 - 217	10 - 15	551 - 805	936 - 1368	1485	4	335 - 442	250 - 315	E3

<sup>1</sup> Volume flow rate according to ISO 1217. Valid for Air and Nitrogen. Motor power dependent upon inlet pressure. Contact BAUER for motor power for specific application. Actual performance values may vary depending upon site conditions. <sup>2</sup> Lower inlet pressure can result in lower operating pressure. Contact BAUER for min./max. operating pressure relative to inlet pressure.

<sup>2</sup> Lower inlet pressure can result in lower operating pressure. Contact BAUER for min. / max. operating pressure relative to inlet pressure.

**NITROGEN STORAGE SYSTEMS**

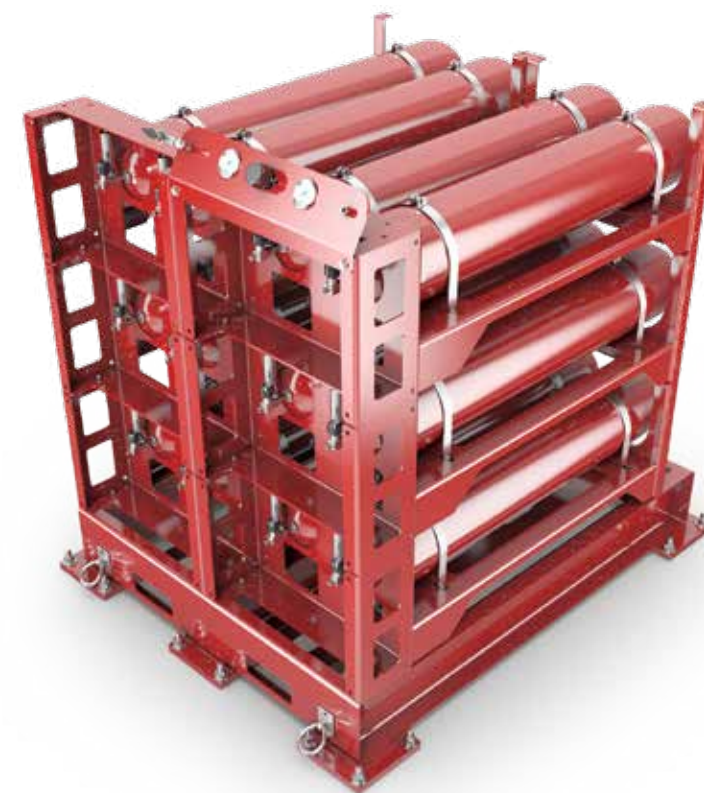
**STORAGE**

For standard storage assemblies, BAUER utilizes a universal welded steel rack (RCK-0037) of our design that safely and securely accommodates two storage cylinders whether of the ASME or the UN variety. For storage system requirements of greater capacity, multiple rack assemblies can be bolted and tubed together. These storage rack assemblies are available in either vertical or horizontal configurations.

All storage rack assemblies up to 2 modules deep and 2 modules wide can be shipped completely interpiped, bolted together, and placed horizontally on a single shipping pallet. For larger orders, a tubing and hardware kit for connecting the modules will be shipped loose for on-site assembly.

In addition to the standard storage rack assemblies as described above, we are capable of providing engineered solutions to accommodate customer specified storage and racking requirements.

- ▶ Storage assemblies can be configured in bulk or bank systems depending on the gas distribution system required
- ▶ BAUER can provide custom regulation/distribution panels for remote installation



- ▶ Shown with optional SKID for shipboard installation. Optional nitrogen storage assembly configured for up to twelve (12) high pressure UN/ISO or ASME storage vessels with integrated high-flow pressure regulator.

**TECHNICAL DATA**

Storage Pressure	Nitrogen Volume of 2 cylinder configuration	
<b>5000 PSIG</b>	ASME	843 SCF
	UN/ISO	911 SCF
<b>6000 PSIG</b>	ASME	950 SCF
	UN/ISO	988 SCF

**TECHNICAL DATA**

Storage Pressure	Nitrogen Volume of 12 cylinder configuration	
<b>5000 PSIG</b>	ASME	5057 SCF
	UN/ISO	5470 SCF
<b>6000 PSIG</b>	ASME	5694 SCF
	UN/ISO	5926 SCF

**TECHNICAL DATA**

Storage Pressure	80L UN/ISO	
<b>4350 PSIG</b>	80L-2	80L 300 Bar-2
	80L-4	80L 300 Bar-4
	810L-6	80L 300 Bar-6
	80L-8	80L 300 Bar-8
	80L-10	80L 300 Bar-10
	80L-12	80L 300 Bar-12
	80L-16	80L 300 Bar-16

# SPECIALTY NITROGEN SYSTEMS

## BAUER MNG II

Mobile on-site Nitrogen Generation System  
90-5000 PSIG (6-350 BAR)

### SYSTEM FOOTPRINT

**DIMENSIONS L X W X H inches (mm)**

- › 199" L x 90" W x 84" H

**WEIGHT pounds (kg)**

- › 11,000 lbs



### STANDARD SCOPE OF SUPPLY

- › Self-contained, fully-integrated turnkey mobile nitrogen generation system with high-pressure booster for discharge pressures up to 5,000 PSIG
- › Feed air compressor: BAUER Rotocomp®, EVO 3 single-stage air-cooled, oil-injected, continuous-duty rotary screw compressor
- › 3-stage membrane pre-filtration system
- › High durability membrane air separators
- › High-Pressure Booster: BAUER BK 12.2 series air-cooled, oil-lubricated high-pressure reciprocating compressor
- › Automatic condensate drain port for connection to the customer collection system
- › **UL®** Labeled Control Panel with PLC controller. Includes touchscreen interface (for operation, maintenance and troubleshooting)
- › In-line percent oxygen analyzer to monitor nitrogen purity
- › Pressure sensors for oil and final product pressure
- › Wide ambient operating temperature range 40° to 113°F (4.4° to 45°C)
- › Integrated heavy-duty 50 HP diesel engine drives both compressors (drives both compressors)
- › Two high-pressure fill hose reels (100ft. each) for remote filling
- › Heavy Duty, weatherproof enclosure
- › Integrated high-pressure storage (6x 5000 PSIG) UN/ISO bottles provides 2700 cubic foot storage
- › Integrated pressure regulator panel (90-5000 PSIG)
- › Remote diagnostics is capable through Bauer Connect™
- › 24-month warranty, lifetime support guarantee

### TECHNICAL DATA

Model	Diesel Engine		Nitrogen Flow at 98% Purity <sup>2</sup>		Nitrogen Flow at 99% Purity <sup>2</sup>		Nitrogen Flow at 99.5% Purity <sup>2</sup>	
	hp	kW	SCFM <sup>1</sup>	M <sup>3</sup> /HR	SCFM <sup>1</sup>	M <sup>3</sup> /HR	SCFM <sup>1</sup>	M <sup>3</sup> /HR
<b>90-5000 PSIG (6-350 BAR) OUTLET PRESSURE</b>								
MNG™ II	50	37.3	16	27.2	12	20.3	9	15.2

1) Capacity (FGD) is referenced to standard conditions. Tolerance +/- 5%. 2) Purity reflects content of O2-free gas produced.

## BAUER SNG® 4S

Stationary Nitrogen Generation System

### FEATURES

- › All aluminum frame and enclosure
- › 316 stainless steel tubing and fittings
- › Stainless steel hardware
- › Lifting rings and forklift slots for mobility
- › Inlet air filtration
- › Electric membrane pre-heater

### FEED AIR REQUIREMENTS

- › Minimum -40°F (-40°C) Dewpoint
- › Less than 10 Microns
- › Zero Hydrocarbons (PPM)

### SYSTEM FOOTPRINT

**DIMENSIONS L X W X H inches (mm)**

- › 65.75" x 43" x 46.31" (1670 x 1092.2 x 1176.3)

**WEIGHT pounds (kg)**

- › 950 (431)

### BENEFITS

- › **Enhanced Safety:** On-site generation of nitrogen eliminates the danger in transporting bulk or cryogenic tanks
- › **Guaranteed Performance:** Engineered for reliable operations in all offshore environments
- › **Innovative Design:** Compact footprint provides superior flexibility by minimizing deck space requirements
- › **Exceptional Reliability and Best-in-class:** Quality creates the lowest cost of ownership

### TECHNICAL DATA

Model	Nitrogen Flow at 98% Purity <sup>2</sup>		Feed Air Pressure Required		Feed Air Capacity Required at 125 PSIG		Motor	
	SCFM <sup>1</sup>	M <sup>3</sup> /HR	PSIG	BAR	SCFM <sup>1</sup>	M <sup>3</sup> /HR	HP	KW
<b>5000 PSIG (345 BAR)</b>								
SNG-4S	9	15.3	125	9	35	60	5	3.8

1) Capacity is referenced to maximum inlet pressure and standard conditions. Tolerance +/- 5%.

2) Purity reflects content of O2-free gas produced.

Dimensions and weight are approximate.





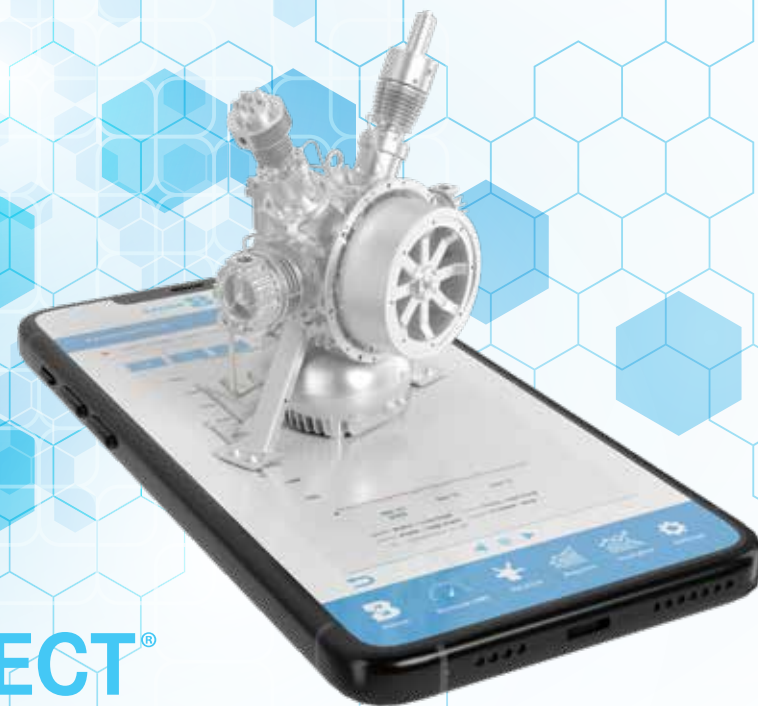
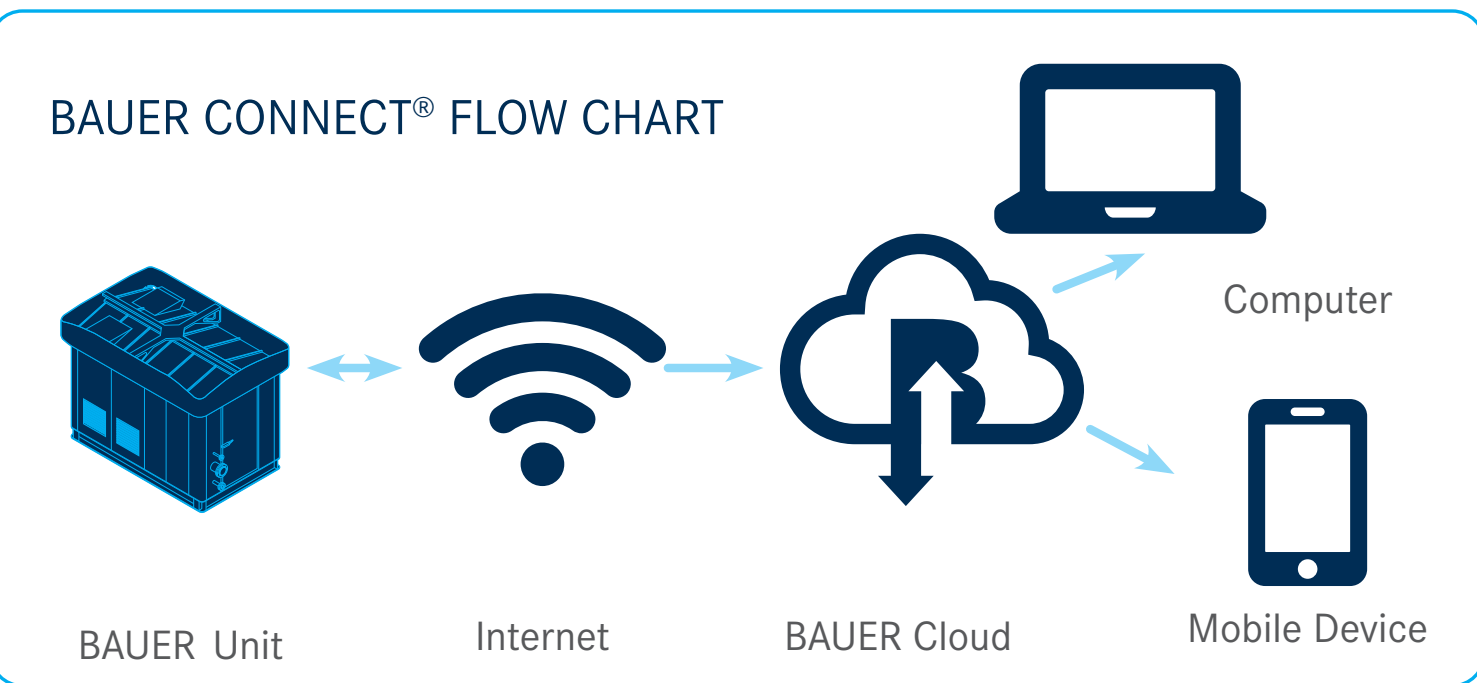
# BAUER **B** CONNECT®

## IOT REMOTE TELEMETRY AND CONTROL

BAUER CONNECT® is an app and internet-based IoT solution which allows BAUER customers to remotely monitor - and control - the performance of the entire BAUER system through any wireless mobile device or computer; anytime, anywhere.

**Key Features:** allow customers to increase efficiency and productivity, save time, do more with fewer resources, enjoy lower operational costs, and have total flexibility with a solution tailored specifically for the end-user.

BAUER CONNECT® - Connection that matters.



### BAUER REMOTE HMI

The BAUER Remote HMI function allows factory-trained technical personnel to remotely control the BAUER system via the BAUER CONNECT® App with the same functionality as if one were standing in front of the actual unit.



### BAUER REPORTS

The BAUER Reports feature is a function that generates custom reports tailored to the specific needs of the customer. Customers can have access to historical data via a multitude of standard and customized reports.



### MOBILE DASHBOARDS

BAUER CONNECT® App will also display a real-time graphical display of the entire system (SCADA view). The Mobile Dashboard feature provides information such as compressor system status, error log, critical pressures and temperatures, and volume of air dispensed in storage information, etc.



### BAUER PREDICTIVE ANALYTICS

This feature of BAUER CONNECT® provides a new pro-active dimension to perpetually maintaining customers' compressor systems at peak conditions with minimum downtime. BAUER's predictive analytics algorithm uses artificial intelligence to analyze the collected system information on the BAUER Cloud to predict upcoming maintenance requirements and preventative actions to avoid unplanned shutdowns.



### NOTIFICATIONS

The BAUER CONNECT® Mobile App will send push notifications if certain critical parameters of the BAUER system fall outside of normal operating range or if triggered by a system alert. This assures that essential personnel is notified immediately, thus allowing for pro-active intervention in a situation that could potentially be detrimental to the BAUER system as well as the customer's operation.

TO LEARN MORE VISIT

[bauer-connect.com](http://bauer-connect.com)

## PARTS



### QUALITY AND RELIABILITY

Our factory-original replacement parts assures you that when maintenance or repair is performed, you are restoring the unit to its original specifications and performance.

1. Purification
2. Gaskets and Seals
3. Lubricants
4. Fill Hose and Assemblies
5. Valves
6. Air Intake Filters
7. All 10,000+ Parts



7 **PLUS, OVER 10,000 OEM PARTS**

### COMPATIBILITY

We configure our designs with interchangeability and our end user in mind. You can count on parts being available for all BAUER models.

[PartsSales@BauerComp.com](mailto:PartsSales@BauerComp.com) or 1-(844)-500-5822

## GLOBAL SERVICE



- B** BAUER Germany & BAUER Norfolk
- BAUER Branches
- BAUER Service Centers/Distributors



### SERVICE AND SUPPORT

Our compressors are designed with you in mind. Easy to use manuals guide you through clear, mechanically accessible repairs. Our worldwide distribution network was developed to assist in after-sales support, along with product and maintenance parts assistance.

### FROM THE SOURCE

BAUER Compressors Inc., is certified with ISO 9001:2015 quality processes providing you with confidence that cannot be duplicated by sub-standard after-market parts and service.



## TRAINING



BAUER Compressors Inc. offers a variety of on site & off site Training Schools. Our on site classes are held at our BAUER Training Facility and are taught by the same people that help manufacture, test and service our products. From electrical systems to hands-on break downs, we cover all areas of compressor operation.

### TRAINING TOPICS

Basic mechanical theory, control system theory (electric and pneumatic) along with troubleshooting for all BAUER systems.

Class schedule and course registration at:

[www.BauerCustomerTraining.com](http://www.BauerCustomerTraining.com)



## BAUER HELPDESK



### MECHANICAL & ELECTRICAL

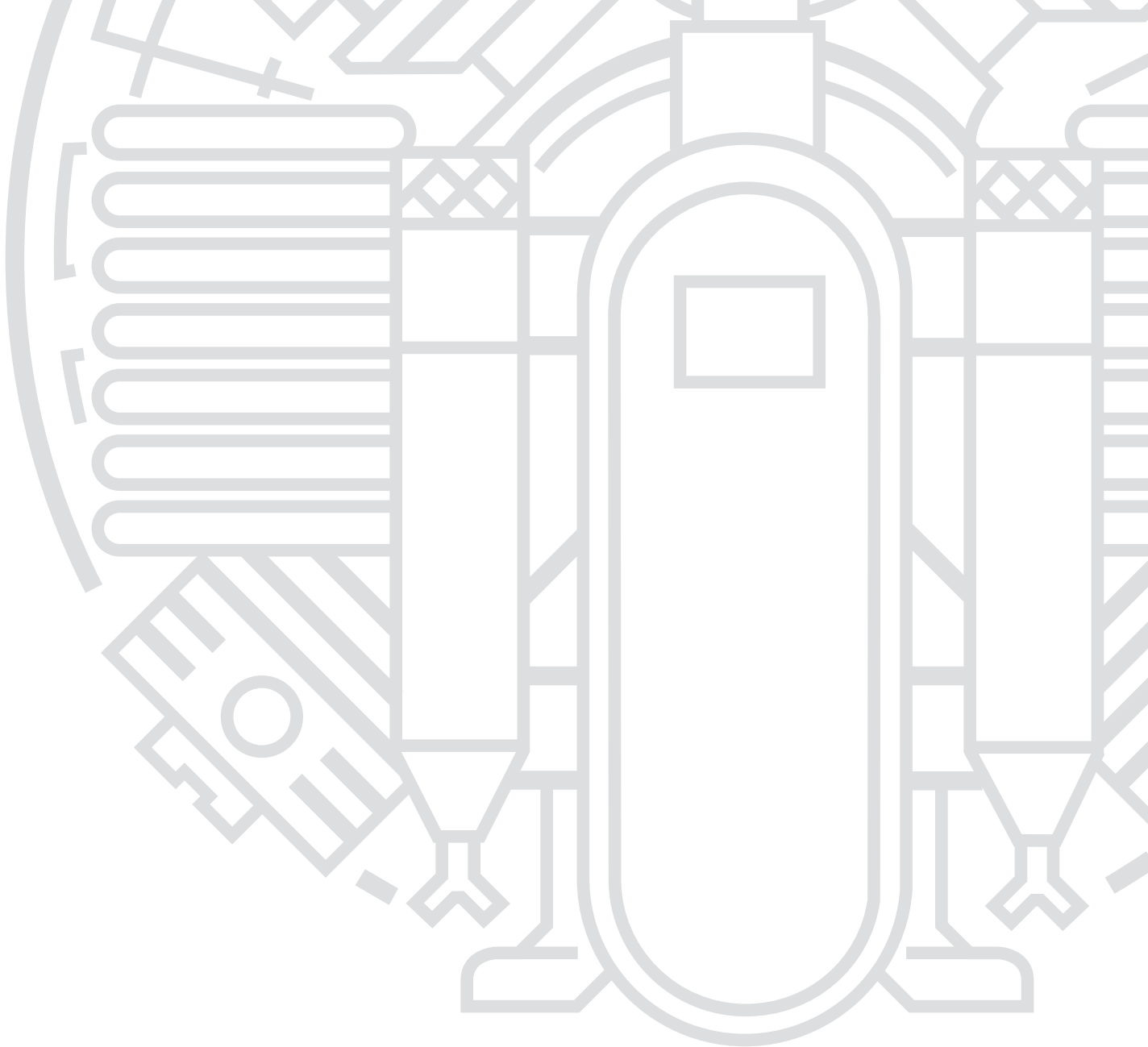
Total customer satisfaction is our top priority. BAUER provides 24-7 phone tech and **troubleshooting** support at our BAUER Helpdesk. Our support continues throughout our warranty period and beyond.

»»» For BAUER Helpdesk please email:  
[CustomerService@BauerComp.com](mailto:CustomerService@BauerComp.com)  
or call at:

**1-(844)-500-5822**







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