



ON-SITE NITROGEN GENERATION

GN-150

Your nitrogen.
At your facility.

Complete station at 99.99% nitrogen purity.

AIR PREPARATION + PSA + STORAGE



Safe Equip PSA equipment during factory assembly

99.99%

NITROGEN PURITY

50 SCFM

CATALOG CAPACITY

Up to 100 psig

OUTLET PRESSURE

Prepared for Atlantic Advanced Manufacturing Solutions LLC

sales@s-equip.com · (727)349-5569

Complete station package

\$146,650

Budgetary proposal · Through September 8, 2026 · next step: design confirmation review

02 · EXECUTIVE SUMMARY

Your project, on one page

The selected package, its operating point and the commercial basis.

Safe Equip proposes a GN-150 PSA nitrogen system based on verified commercial catalog performance at 99.99% nitrogen purity and 50 SCFM delivered capacity.

Your requirement

General industrial
Site utilities, operating hours and the demand profile are confirmed during the design review.

Our selection

GN-150 · 50 SCFM catalog output.
Up to 100 psig outlet pressure.
Ready for shipment: 9 weeks from order

WHAT'S INCLUDED

1 x Air compressor (KRSD-100); 1 x Air dryer (Safe Equip Refrigerated Air Dryer 500 CFM); 1 x Filters (CE-500-CTAH); 1 x Air tank (Vertical Air Tank 660 US gal); 1 x Nitrogen PSA generator (GN-150); 1 x Nitrogen process tank (Vertical Air Tank 240 US gal); 1 x Nitrogen buffer tank (Vertical Air Tank 240 US gal).

Budgetary investment · tax excluded

\$146,650
Equipment payments: \$43,995 / \$58,660 / \$43,995 · Order / factory ready / before shipment

Next step - design confirmation review

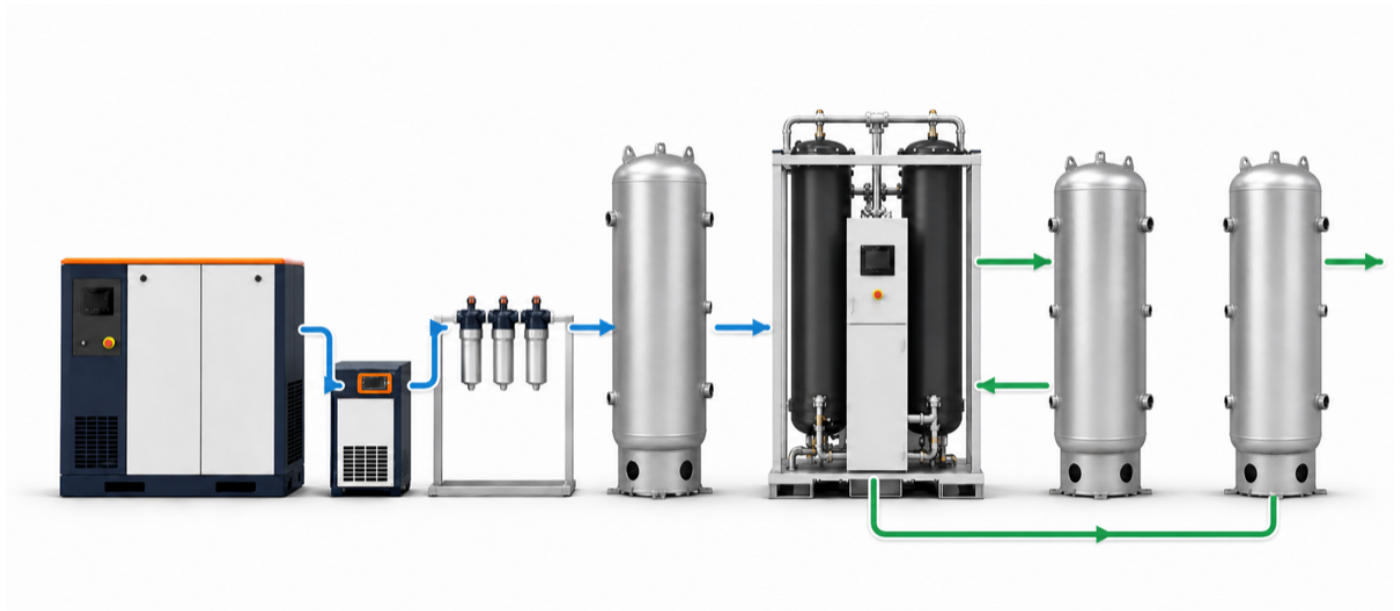
Confirm site layout, utilities, point-of-use pressure and the project schedule before the final order.

03 · THE COMPLETE SOLUTION

Your nitrogen system

Seven components, one coordinated supply path from compressed air to usable nitrogen.

Complete nitrogen station: all seven primary components included.



01 Air compressor	02 Air dryer	03 Filters	04 Air tank	05 PSA nitrogen generator	06 Nitrogen process tank	07 Nitrogen buffer tank
----------------------	-----------------	---------------	----------------	---------------------------------	--------------------------------	----------------------------

Air preparation

The compressor, dryer, filters and air tank prepare the compressed-air feed required by the PSA.

Generation and storage

The process tank supports analysis of generated nitrogen. The separate buffer tank stores qualified nitrogen for the customer.

04 · OPERATING POINT

A defined operating point

Catalog values are separated from contractual guarantees and tied to explicit test conditions.

Generator model	GN-150
Selected nitrogen purity	99.99%
Nitrogen capacity	50 SCFM
Requested nitrogen flow	50 SCFM
Required compressed air	224 SCFM
Outlet pressure	Up to 100 psig

Ready for shipment: 9 weeks from order

PERFORMANCE BY NITROGEN PURITY

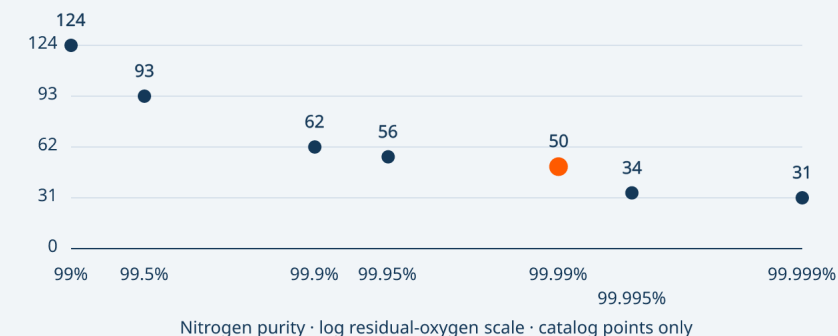
Purity	99%	99.5%	99.9%	99.95%
N2 flow, SCFM	124	93	62	56
Air feed, SCFM	274	233	193	213

Purity	99.99%	99.995%	99.999%
N2 flow, SCFM	50	34	31
Air feed, SCFM	224	163	187

Air-flow values remain in SCFM even when nitrogen capacity is displayed in SCFH.

GN-150 — catalog performance

Nitrogen flow, SCFM



GN-150 · exact catalog points from this snapshot; no interpolation or site performance guarantee.

05 • AIR BALANCE

Air capacity, from inlet to PSA

A matched air train supports the selected nitrogen operating point.



Air compressor

412 SCFM

KRSD-100



Air dryer

500 SCFM

Safe Equip Refrigerated Air
Dryer 500 CFM



Filters

500 SCFM

CE-500-CTAH



PSA feed

224 SCFM

GN-150

Generator inlet-air basis

ISO 8573-1:2010 Class 1.4.1

Confirm available air flow, pressure and air quality at the site. Catalog capacities are compared at their stated conditions; this comparison is not a system performance guarantee.

06 · AIR-SIDE EQUIPMENT

Prepared air, matched equipment

The included air equipment and its verified specifications.

INCLUDED · QTY 1

Air compressor

KRSD-100



Compressor capacity: 412 SCFM

Why this unit: Supplies the compressed-air feed for the PSA process.

INCLUDED · QTY 1

Air dryer

Safe Equip Refrigerated Air Dryer 500 CFM



Rated air flow: 500 SCFM

Why this unit: Removes moisture before the downstream filters and generator.

INCLUDED · QTY 1

Filters

CE-500-CTAH



Rated air flow: 500 SCFM

Why this unit: Treats particles, oil aerosol and other contaminants before the PSA generator.

INCLUDED · QTY 1

Air tank

Vertical Air Tank 660 US gal



Vessel capacity: 660 US gal

Why this unit: Provides compressed-air storage between the air supply and PSA generator.

07 · NITROGEN-SIDE EQUIPMENT

The heart of your nitrogen system

The selected generator and the nitrogen tanks included in this package.

INCLUDED · QTY 1



Nitrogen PSA generator

GN-150

Dew point -60°F · Ambient 40°F to 95°F · Air in G2" · N2 out G1½"
Nitrogen capacity at 99.99%: 50 SCFM

Why this unit: Separates nitrogen from prepared air at the selected catalog operating point.

INCLUDED · QTY 1

Nitrogen process tank

Vertical Air Tank 240 US gal



Vessel capacity: 240 US gal

Why this unit: Receives generated nitrogen while the analysis instruments verify its quality.

INCLUDED · QTY 1

Nitrogen buffer tank

Vertical Air Tank 240 US gal



Vessel capacity: 240 US gal

Why this unit: Stores qualified nitrogen and smooths downstream demand.

08 · SUPPLY BOUNDARIES

What's included. Who does what.

Equipment supply and site installation each have a clear owner.

Safe Equip supplies

The equipment in the included Bill of Materials.

Delivery is excluded unless expressly included in the commercial scope.

Installation supervision and commissioning are excluded unless expressly included in the commercial scope.

The equipment documentation listed in this quote's document register.

Warranty: 12 months for supplied equipment.

Customer or local contractor

Site access and unloading.

Foundations, supports and local civil works.

Interconnecting process pipework and electrical installation.

Utilities, local permits and approvals.

Connection to the plant nitrogen distribution system.

09 • DESIGN CONFIRMATION

Turn the selection into your project

A short confirmation review prevents hidden changes to equipment, price, footprint, and schedule.

Review item	What will be confirmed	Status
Outlet pressure	Up to 100 psig	Defined in the agreed acceptance plan
Inlet-air quality	ISO 8573-1:2010 Class 1.4.1	Defined in the agreed acceptance plan

CUSTOMER INPUTS

- Confirm site utilities and available electrical service.
- Confirm the normal, peak, and future nitrogen demand profile.
- Confirm installation location, ambient conditions, and tie-in requirements.

REVIEW OUTCOME

- Confirmed design basis and equipment interfaces.
- Approved equipment schedule and project-specific submittal list.
- Formal commercial quotation with the final scope and execution terms.

Current status

Budgetary selection · engineering confirmation required before order release.

09B • ACCEPTANCE

Verify performance before handover

The draft acceptance framework converts the proposal into measurable pass criteria.



PSA equipment during factory assembly and inspection



Valve train, instruments, and controls before shipment

PROPOSED ACCEPTANCE FRAMEWORK

Acceptance item	Proposed measure	Status
Performance basis	Purity, flow, pressure, and inlet-air conditions documented against the approved design basis.	
Factory verification	Project-specific inspection and test protocol defined in the approved submittal package.	Included after order
Release record	Applicable drawings, manuals, and test evidence compiled before shipment release.	Included after order

Measured under agreed conditions

The approved acceptance plan defines purity, flow, pressure, stabilization time, inlet-air quality, test duration, instruments, and witness requirements.

10 • WORKING TOGETHER

From first review to production

The project succeeds when equipment, site work, approvals, and acceptance are owned by name.

Week 0 - order confirmed • Week 9 - ready for shipment

01

Order confirmation • Order confirmed

Agree the selected equipment package and project scope.
Equipment payment: \$43,995

02

Project submittals • Before production

Issue equipment data sheets, drawings and interfaces for review.

03

Build and factory verification • Before shipment

Complete assembly and the agreed factory checks.
Equipment payment: \$58,660

04

Shipment release • Week 9 • ready for shipment

Complete shipment documentation and coordinate delivery.
Equipment payment: \$43,995

05

Startup and handover • After installation

Commissioning and operator orientation when selected.

Workstream	Safe Equip	Customer / others
Design basis	Prepare the equipment selection and project submittal.	Confirm duty, utilities, site conditions, and interfaces.
Site readiness	Provide equipment interface information after order.	Prepare foundations, utilities, piping, access, and permits.
Startup support	Provide supervision and operator orientation when selected.	Provide safe access, utilities, operators, and site support.

SELECTED PROJECT SERVICES

- Delivery and installation supervision / commissioning are optional unless expressly included.

11 · SUPPORT AND REFERENCES

Support beyond delivery

Documentation, service boundaries, and spares are defined instead of being implied.

DOCUMENT REGISTER

Document	Status
Approved equipment data sheets	Included after order
General arrangement and connection information	Included after order
Operation and maintenance manuals	Included after order
Project-specific test record	Defined in the agreed acceptance plan

SUPPORT OPTIONS

Preventive-maintenance plan · Optional

Recommended service intervals and consumables can be supplied for the approved package.

Recommended spare parts · Optional

A project-specific startup and operating-spares package can be added.

Operator orientation · Optional

Operating and routine-care training can be included with startup support.

11B • EVIDENCE

Visible equipment. Verifiable references.

No unverified savings or uptime claims are used in this proposal.

APPROVED REFERENCE SYSTEMS

Genista	Laboratory and industrial use · 19 SCFM
MacroCap Labs	Controlled-atmosphere production · 155 SCFM
Beta Diagnostic Labs	Laboratory nitrogen supply



Safe Equip PSA equipment during factory assembly

12 · OPERATING COST

Your operating cost, made clear

A customer-specific comparison after the operating inputs are confirmed.

CUSTOMER-SPECIFIC OPERATING-COST REVIEW

Safe Equip can compare onsite nitrogen generation with the customer's delivered-gas baseline after the operating and utility inputs are confirmed.

Inputs required	Review deliverables
Electricity rate Annual operating hours Delivered-gas price and fees Peak and average nitrogen demand	Estimated annual electricity use Onsite-generation cost basis Delivered-gas comparison Simple payback range after inputs are confirmed

Status · Optional · prepared after customer inputs are confirmed

12B · YOUR MODEL - QUESTIONS ANSWERED

Useful details, ready for your team

Specifications for the selected generator.

When is the equipment ready to ship?

Ready for shipment: 9 weeks from order. 60 days ex-works.

What are the generator connections?

Air in G2" · N2 out G1½"

What is the nitrogen dew point?

-60°F

What ambient temperature range applies?

40°F to 95°F

What is the generator connected load?

0.2 kW

13 · INVESTMENT AND TERMS

Everything in your package

The formal order-ready proposal is issued after the Design Confirmation Review.

Commercial scope	Qty	Line total
 Air compressor · KRSD-100	1	\$36,800
 Air dryer · Safe Equip Refrigerated Air Dryer 500 CFM	1	\$8,750
 Filters · CE-500-CTAH	1	\$3,400
 Air tank · Vertical Air Tank 660 US gal	1	\$11,900
 Nitrogen PSA generator · GN-150	1	\$79,000
 Nitrogen process tank · Vertical Air Tank 240 US gal	1	\$3,400
 Nitrogen buffer tank · Vertical Air Tank 240 US gal	1	\$3,400
Budgetary total (tax excluded)		\$146,650

COMMERCIAL TERMS

Payment	Equipment: 30% deposit due upon receipt of order; 40% due upon notification that the equipment is ready at the factory; final 30% due prior to shipment. Startup, commissioning, and training: Net 30 (payment due within 30 days of the invoice date).
Lead time	60 days ex-works
Warranty	12 months for supplied equipment
Offer validity	Through September 8, 2026
Currency / tax	USD; sales and use taxes are excluded
Commissioning	Quoted separately unless expressly included in the commercial scope

Your package: \$146,650 · Through September 8, 2026

1. Review the equipment package · 2. Confirm site and delivery details · 3. Approve the final order

Final equipment selection requires Safe Equip engineering confirmation before purchase.

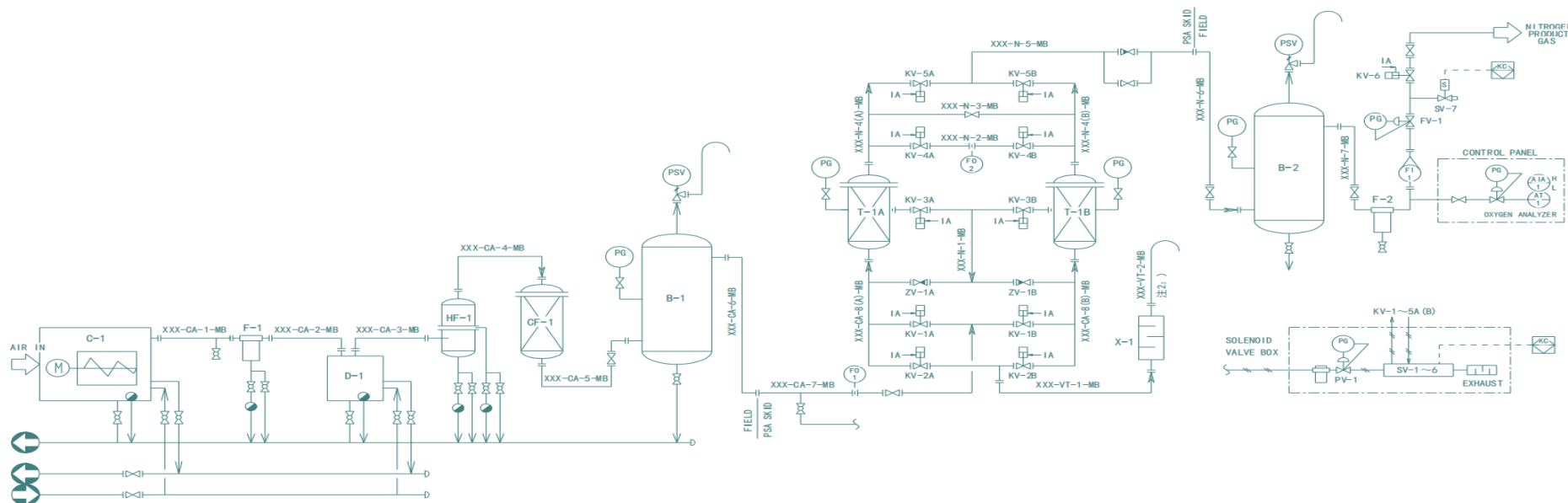
sales@s-equip.com · (727)349-5569



A1 · NITROGEN GENERATION

How your nitrogen system works

Compressed air is dried and filtered before the PSA generator separates nitrogen. The diagram shows the gas path and the instruments that monitor its quality before delivery to your process.



Concept diagram only. Exact model and revision drawings are not confirmed. Approved project drawings govern fabrication and installation.

1 · AIR PREPARATION

Compressor, dryer and filters condition the feed.

2 · SEPARATION AND CONTROL

PSA vessels, valves and instruments govern generation.

3 · PRODUCT AND MONITORING

The process tank and analyzer support product monitoring.

Why the two nitrogen tanks matter: Generated nitrogen first enters a dedicated process tank. Gas is then routed through the generator analysis section for continuous measurement by the gas analyzer, flowmeter, and electronic pressure instrumentation before entering the separate nitrogen buffer tank and the customer distribution system. The separate buffer tank stores qualified nitrogen and helps smooth pressure and flow as your demand changes.

A2 · GLOSSARY

The technical terms, in plain English

A short guide for purchasing, engineering and operations.

SCFM / SCFH

Standard cubic feet per minute / per hour. Nitrogen can be displayed in either unit; compressed-air values remain in SCFM. One SCFM equals 60 SCFH.

PSA

Pressure Swing Adsorption: the generator separates nitrogen from compressed air using alternating adsorption vessels.

PDP

Pressure dew point: the temperature at which moisture condenses at the stated gas pressure. A value is shown only when confirmed for the selected model.

ISO 8573-1 air quality

The three class numbers describe particles, water and oil in that order. The specified inlet-air quality is part of the design basis.

Purity and flow

The generator catalog lists a nitrogen flow and an air-feed requirement for each purity. These discrete points do not guarantee intermediate or site-specific performance.

Process tank / buffer tank

The nitrogen process tank receives gas during analysis. The separate buffer tank stores qualified nitrogen for the customer distribution system.