

## Cheese Production and Packaging

**Focus:**

A company specializing in producing and packaging cheese products in the Northeastern United States started with humble beginnings but has since grown tremendously and tripled the size of their cheese processing plant.

**Challenge:**

The existing supplier that provided premixed carbon dioxide and nitrogen dewers to condition and package the product has been inconsistent with their purity and blends despite the high cost.

**Solution:**

A Parker DB-10 Nitrogen Generator was installed to generate a continuous flow of N<sub>2</sub> on site with purities up to 99.99%.

**Impact:**

The facility is now able to optimize their use of N<sub>2</sub> gas with the installation of the DB-10 Nitrogen Generator. Monthly costs and energy usage have reduced significantly.



**Project Name:** Cheese Production and Packaging

**Location:** Northeastern United States

**Summary**

A cheese processing and packaging facility that uses carbon dioxide and nitrogen gas in its daily operations needed an efficient and reliable source of nitrogen. Its current gas supplier has high costs and does not provide consistent purities or blends. Because of trust in the Parker brand as well as the relationship with RJM sales, an energy efficient and cost-effective DB-10 Nitrogen Generator was installed.

**Challenge**

The company was growing rapidly and needed to capitalize on the efficiency and cost of their production. The existing method of using a dewer supplier for their nitrogen gas needs was becoming impractical. Nitrogen dewers have unpredictable purity levels and blends negatively affect production and is cost prohibitive. A solution was needed to

maximize the growth of their business. Because the company was a past sterile air filtration customer, adopting a nitrogen generator was discussed 3-4 years prior. This led to the ultimate decision to install a DB-10 Nitrogen Generator in 2022.

**Solution**

Working with a Parker distributor, the nitrogen generator that best fit the company's needs was specified and installed at the facility. The customer selected the DB-10 Nitrogen Generator. When creating nitrogen on-site, purity is analyzed directly and can easily be adjusted between 95%-99.999% with the generator's flow control valve. Not only did the integration of the on-site nitrogen generator provide consistency, but it also brought forth substantial savings with an ROI of under 3 years. Now that the company has reliable nitrogen gas sources, they can continue to grow their business without setbacks.

# DB Series Dual-Bed Nitrogen Gas Generators

A range of comprehensive industrial PSA nitrogen generators that utilize 2 sets of carbon molecular sieve beds to produce up to 99.999% pure, compressed nitrogen from a standard compressed air supply at dewpoints down to -58°F (-50°C). These full-feature generators are the ideal choice for applications that require medium to high nitrogen purities at medium flow rates. Features include:

### Wide range of nitrogen purities

- Produce nitrogen purities from 95 to 99.999% (5% to 10 ppm O<sub>2</sub>)
- Flow control valve allows for field adjustment of nitrogen purity

### High flow capacity\*

- Cabinet DB deliver N<sub>2</sub> flow up to 2048 scfh @ 99.5%
- Twin tower DB deliver N<sub>2</sub> flows up to 5445 scfh @ 99.5%

### Portable and Expandable

- Cabinet DB units come fitted with casters for portability
- DB-5 through DB-10 can be purchased with expanded cabinet designs that allow for future expansion up to a DB-20

### Integrated filtration

- High efficiency pre-filtration removes inlet air particles down to 0.1µm
- SS sterile air final filter provides outlet filtration efficiency of 99.9999+% at 0.01µm and has full compliance with FDA and USDA requirements

### Standard instrumentation

- Operating pressure gauges
- Nitrogen flow meter
- Percent O<sub>2</sub> analyzer (95-99.95%)
- Parts per million (PPM) O<sub>2</sub> analyzer (99.99-99.999%)
- Outlet pressure regulator

\*Flow rates based on inlet of 110 psi g (7.6 bar g) and 77°F (25°C).



DB-5

Ideal for medium to high nitrogen purity applications where 1% to 10ppm remaining oxygen content is permissible. Such as:

- Heat treatment
- Pharmaceutical
- Food & beverage packaging
- Blanketing of ingredients
- Laser cutting
- Electronics manufacturing