

BOLT

On-Farm Nitrogen. Forward Thinking.

The BOLT Nitrogen System is helping farmers adapt to the rapidly evolving farming economy, transforming soil, crops, and the financial stability of farms across the globe to promote sustainable farming with the future in mind. A major part of farm income often goes straight back to the big fertilizer companies, leaving only a small slice of the pie for those who did all the work, just so the farmer can keep doing what he loves. In addition to this, that expensive fertilizer over time is not doing our soil any justice—it's giving the plant what it needs, but leaving the soil depleted and dead. Farming with the future in mind involves light being shined on every aspect of agriculture.



Healthier Crops.



Lower Input Costs.



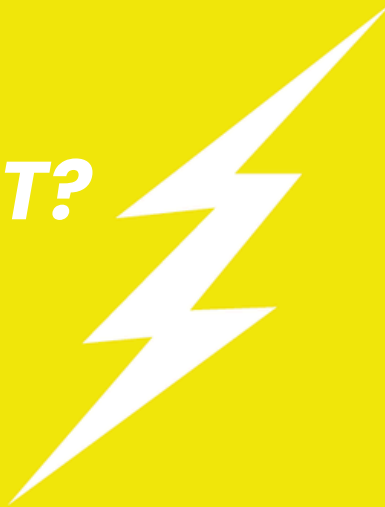
Sustainable Future

From Farmers to Farmers



We're farmer-focused, and we want you to succeed. Our on-site nitrogen systems are a one-time purchase with no hidden fees — no more big corporate companies sending you a bill for products you don't even remember buying. It's the 21st century; it's time for farmers to be profitable too.

What Is a BOLT?

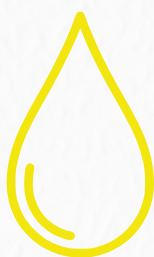


The BOLT Nitrogen System converts atmospheric nitrogen into a highly versatile nitrogen solution for crops. By emulating the energy of a lightning strike, the system breaks the strong nitrogen bond found in the air, capturing atmospheric energy and converting it into plant-available NO_3 . T

The BOLT is designed to be mounted in your shop, irrigation shed, or above your storage tank to produce a highly concentrated nitrogen product.

What's Needed to Operate a BOLT

Water- Having a quality water supply is one of the most critical factors in producing a high-quality nitrogen product. For machine longevity, product performance, and stability, the supply water should have very low mineral content, with optimal efficiency at around 10 ppm of total dissolved solids (TDS). This allows the machine to operate free of mineral buildup while delivering a cleaner product. Consistent water pressure above 40 PSI is required for optimal performance.



Best Sources of Clean Water:

Reverse Osmosis

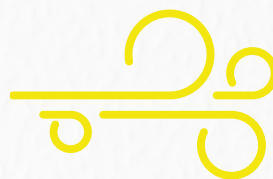
Excellent for providing a consistent supply of fresh water with very low mineral content.

Rainwater

A great source of affordable, clean water. Filtration may be needed to remove sediment before entering the machine.

Distilled Water

Very clean and effective, though less common due to availability and cost.

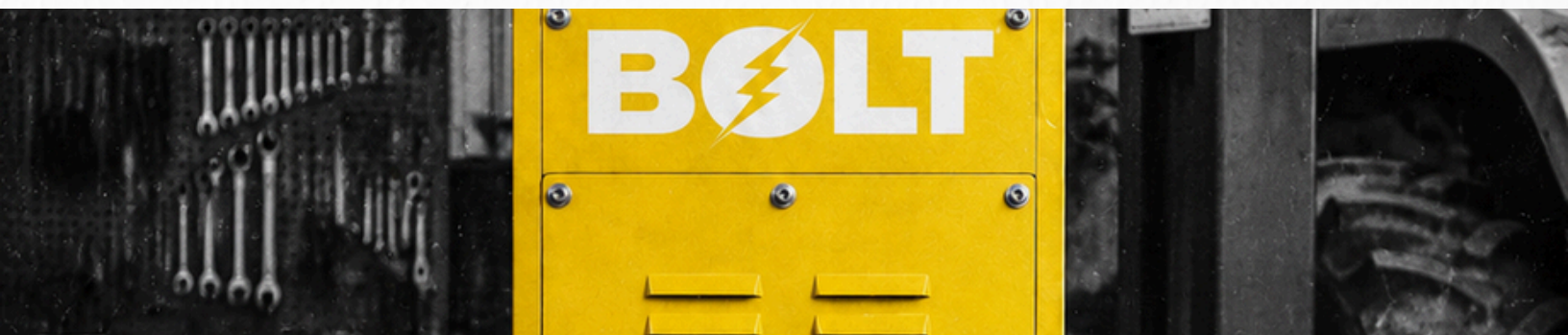


Electricity- The BOLT unit plugs directly into a standard 120V outlet on a dedicated 20-amp breaker. Power consumption varies by model and size.

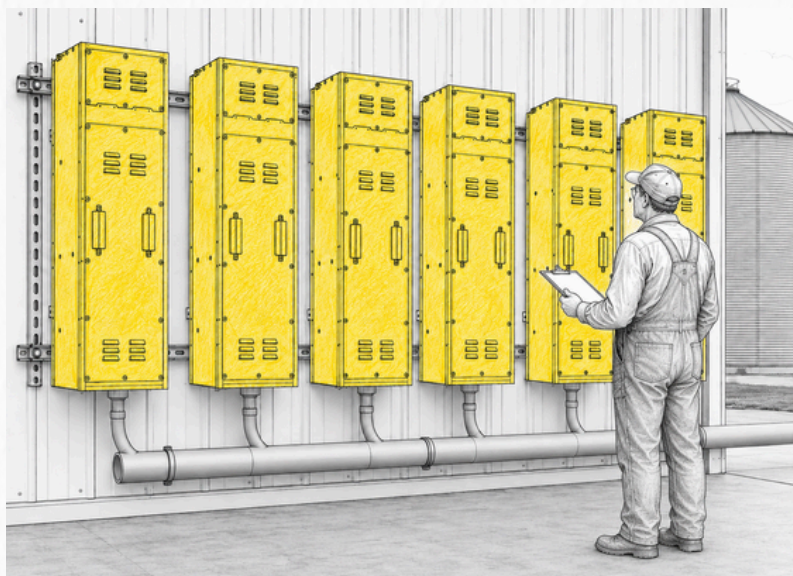
Temperature- The machine should be operated in a controlled environment with temperatures between 32°F and 85°F to avoid possible malfunctions.

Air- The unit requires a consistent supply of fresh air to produce quality product. The internal air compressor runs continuously to deliver proper airflow through the system's plasma chambers.

Surface- The machine must be mounted to a vertical wall or placed on a flat, level surface to function properly.



What's Needed to Operate a BOLT



Best Places on the Farm for a BOLT

- Shop
- Garage
- Tractor Shed
- Barn
- Pump House
- Utility Shed

Product Storage

The BOLT system is designed to run year-round, so proper storage is especially important for growers with short application seasons. The product is sensitive to direct sunlight, prone to freezing, and must be stored in a sealed container.

Best Practices for Product Storage

- Keep Away From Direct Sunlight

Darker-colored tanks help block sunlight and protect the nitrogen product.

- Use a Sealed Container

Helps prevent contamination and reduces volatilization.

- Consider Freezing Conditions

The product contains no added salt and will freeze at 32°F, similar to water. Freezing does not negatively affect product quality, though agitation or larger storage tanks can help reduce ice expansion.

- Do Not Mix With Chemicals

Avoid mixing the product with fertilizers or chemicals during storage unless recommended by BOLT.

- Avoid Steel Tanks

Steel tanks may negatively affect product stability. Fiberglass or plastic tanks are recommended for optimal longevity.



Proper Product Application

Proper application is key to achieving the best results in the field. Whether your goal is maximizing yield potential or reducing high fertilizer costs, these strategies can help you get the most out of your product. Corn is commonly used as a reference crop for application rates.

BOLT product consistently performs best during two key growth stages: seed germination and reproductive growth.

Seed Germination

For corn, applying 5–8 gallons in-furrow or through a 2×2×2 application near planting can help improve germination, encourage early root development, and give the crop a strong start.

Vegetative Growth

BOLT product performs best during later vegetative stages when soil temperatures are warmer and microbial activity is greater. While many growers use slow-release nitrogen during early vegetative growth, spoon-feeding BOLT product can still provide strong benefits during this stage.

Reproductive Growth

This is often the most effective stage for BOLT application, as the plant typically requires increased nitrogen demand. Applications between V10–R1 in field corn may significantly improve yield potential.

Proper Product Application

Apply the Proper Amount

Due to the product's lower pH and higher oxygen content, excessive application can harm crops. Avoid applying more than 20 gallons undiluted at one time or more than 30 gallons per week through fertigation.

Use the Right Method

Foliar application is often the most effective method, allowing the product to penetrate leaf tissue and deliver nitrogen quickly. Soil applications may be less efficient because BOLT product is primarily nitrate (NO_3), which is not a slow-release form of nitrogen.

Mindful Mixing

Always jar test before mixing with chemicals or other products. The plasma activation process may increase the effectiveness of products mixed with BOLT nitrogen. Adding 1 quart of molasses per 10 gallons of product may improve leaf adhesion and nitrogen efficiency.

Apply Frequently

BOLT product is primarily nitrate, a fast-release form of nitrogen that generally remains in the soil for 10–14 days depending on soil type and weather conditions. Spoon-feeding the product is often the most effective strategy when relying on the BOLT system as a primary nitrogen source.

Thank You Farmers.

visit boltfarming.com for more info