

Nitrogen Tire Inflation System for Fleet Service

UltraFill™ 99+
High-Purity Nitrogen Tire Inflation



Why Use Nitrogen?

Underinflated tires cause reduced fuel efficiency, shorter tire life and greater risk of accident. The more vehicles your organization operates, the greater the costs associated with these problems.

While compressed air is suitable for tires, nitrogen is a better alternative for many vehicle operators. Air is a mixture of mostly nitrogen (78%) and oxygen (21%). Oxygen passes through tire rubber 3 to 4 times faster than nitrogen. Replacing oxygen with nitrogen maintains pressure longer maintaining both fuel economy and a proper wear pattern.

Nitrogen is completely safe and is used for extreme tire applications such as aircraft, military vehicles and auto racing.

Using nitrogen instead of air also eliminates much of the oxidation that can break down tire rubber compounds and corrode wheels. Perhaps most important, nitrogen helps ensure proper pressure for proper road handling, steering and braking.

Nitrogen Benefits for Fleets:

Better safety and performance

Correct tire inflation offers better traction, steering and braking control. It also reduces the possibility of blow outs, which are commonly caused by under-filling. The American Trucking Association's Technology & Maintenance Council says that about 90% of tire failures causing tire road debris are the result under-inflation. *(from a TMC Tire Air Pressure Study, May 2002).*

Better Fuel Economy

Proper inflation maximizes fuel economy by reducing rolling resistance. The United States Department of Energy estimates over 2 million gallons of fuel are wasted each day due to under-inflation. Fleet vehicles suffer a heavy proportion of these losses.

Extended Tire Life

Properly inflated tires last longer, lower-

ing both purchase and disposal costs. Replacing oxygen with nitrogen slows or even eliminates oxidation which can prematurely breakdown tire rubber and damage metal rims.

Convenience

Tires filled with nitrogen maintain pressure longer and will need fewer services.

Better Performance of TPMS

Tire Pressure Monitoring Systems are more accurate with nitrogen. Compressed nitrogen has virtually none of the moisture and contaminants of compressed air. It is also more thermally stable and less likely to cause false readings.

Environmental Benefits

Help your business or organization meet their carbon reduction goals by both reducing fuel usage and extending tire life.

Superior Performance with UltraFill 99+

The UltraFill 99+ nitrogen generator produces purities above 99%. Others claim similar purities but cannot meet UltraFill 99+ purity levels and UltraFill 99+ flow rates. They must drastically reduce capacity to reach comparable purity levels.

In-tire nitrogen purity is always less than what the generator makes because the nitrogen is mixed with residual air in the tire. For this reason, the AutoFill Cart is designed to automatically purge and fill tires to remove residual air from the tire to ensure higher levels of in-tire nitrogen purity.



Nitrogen filled tires help ensure optimal handling and safety in poor driving conditions

UltraFill™ 99+

High-Purity Nitrogen Tire Inflation

The Best In-Tire Purity

Used together, the UltraFill 99+ nitrogen generator and AutoFill Cart achieve an industry leading 95+% in-tire nitrogen purity.



1 UltraFill 99+ Nitrogen Generator

The UltraFill system produces the highest purity nitrogen commercially available for tire inflation. It offers twice the continuous operating capacity of other systems its size. A single unit produces 4 scfm and supports multiple service bays and enables you to fill multiple tires at once. UltraFill 99+ uses the industrial pressure swing adsorption process to separate nitrogen from air, and it is far more efficient than membrane separation systems, which need more electricity and more compressed air.

2 Simple Operation - Low Maintenance

The UltraFill 99+ system comes complete with hoses and electric cord and is easy to install (usually in under an hour). Incoming compressed air can be hard-piped in, or use a hose with standard quick release connection for added flexibility. The Generator plugs into a standard 120VAC @ 60 Hz outlet.

Maintenance could not be simpler. Periodically check the filter maintenance indicator and replace the filters annually. The ease of maintenance combined with the industrial design enables us to offer a five year limited warranty standard.

3 Automatic Tire Inflation Cart

The AutoFill Cart automatically purges air and refills tires with 99+% pure nitrogen to reach an in-tire purity of 95%. It can also be used to top off tires with nitrogen.

To operate, simply select desired pressure on the digital LCD panel using +/- keys. Visual and audible alarms let you know when tires are filled to the pressure specified. The controls are powered by a built-in rechargeable battery.

Six hose ports let you fill multiple tires at once. Comes with four hoses with 1/4" locking chucks.

4 Mobility is Flexibility

Unlike other systems, both our nitrogen generating unit and the fill cart are on wheels. This makes tire filling and top-offs much easier and faster around your shop. The AutoFill Cart can be filled with nitrogen then disconnected from the Generator if desired. It will operate on its rechargeable battery for up to 10 hours.

5 Nitrogen Analyzer takes out the guess work

Just press one button and our hand-held nitrogen analyzer quickly confirms the purity of newly filled tires or checks the nitrogen level of tires in for service. This self-calibrating device reads from 0 to 100% purity with +/-0.5% accuracy. It features long sensor and battery life, and turns off automatically.



Specifications	Nitrogen Generator		AutoFill Cart
Nitrogen Purity	99.5%	95.0%	delivers 95+% in tire purity
Nitrogen Flow	4 scfm	8.5 scfm	--
Air Consumption	12 scfm	17 scfm	--
Nitrogen Output	4-8.5 scfm		as needed
Tire Filling Capacity	Up to 60 per hour*		Up to 6 at a time*
Nitrogen Dew Point	-50°F		-50°F
Ambient Air Temperature	40-100°F (75°F is optimal)		50-90°F (70°F is optimal)
Inlet Air Pressure	110-160 psig (150 is optimal)		--
Inlet Nitrogen Pressure	--		105-155 psig
Power Supply	115V, 1 phase, 60 Hz		Battery operated, charger incl.
Tank Capacity (gal.)	150 (surge capacity equivalent)		26
Weight (lbs.)	400		100
Dimensions (in.)	32 x 17 x 59		24 x 24 x 52
Inlet/Outlet Connections	3/8" NPT		3/8" Quick-connect Female
Noise Level	70 dB(A)		--
Filters	5 micron, 0.01 micron, Carbon		--

*Based on 225/60R16

Specifications are subject to change without notice.

A Great Start to Your System

- A Kaeser AirCenter is an ideal source of compressed air for your UltraFill 99+
- It is compact and low noise and will fit easily in most shops
- The integrated dryer, filter and autodrain prepare the compressed air perfectly for the Nitrogen Generator
- AirCenters are available in many sizes to handle not only tire filling but all your compressed air needs



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With over 85 years of experience, Kaeser is the air systems specialist. Our extensive 100,000 square foot facility allows us to provide unequalled product availability. With service centers nationwide and our 24-hour emergency parts guarantee, Kaeser customers can rely on the best after-sales support in the industry. Kaeser stands committed to providing the highest quality air system for your specific compressed air needs.