

The Get Nitrogen Institute is a nonprofit organization located in Denver. The institute was formed in 2005 to provide consumers, over-the-road truckers, fleet managers and others about the benefits of using nitrogen in tires.

Nitrogen Inflation 101

Using nitrogen in your tires is a simple way to reduce costs and increase safety



Q: What are the benefits of nitrogen for fleets?

A: By inflating with nitrogen instead of air, truckers can expect to see significant savings on their fuel bills and tire costs for the reasons listed below.

Better Maintenance of Tire Pressure

Due to nitrogen's larger molecular size, it migrates through a tire three to four times slower than oxygen. Whether a truck tire is parked on a trailer or running down the road, if it's filled with "plain old air" it will lose approximately 1.4 to 1.7 psi every week.

According to a 2007 Clemson University study, nitrogen reduces this loss by 69 percent or greater.

Cooler Running Tires

By replacing the dirt and moisture inherent in so many compressed air sources, nitrogen filled tires run 18-20 percent cooler and with fewer pressure variations (1997 Amalgamated Bulk study in South Africa).

With nitrogen you'll see more consistent running temperatures while driving, and the difference can be especially noticeable on long hauls and in higher temperatures.

Better for the Environment

Improving fuel efficiency, reducing toxic emissions and extending tire life benefits the environment by reducing the amount of CO2 entering the atmosphere and number of tires entering landfills.

Nitrogen provides more consistent tire pressure which maximizes:

Fuel Economy

Proper tire pressure lessens rolling resistance and can also increase fuel efficiency by up to 6.1 percent for those using no driver maintenance program (Drexan Corp, Canada, 2007).

Handling

Proper tire inflation ensures the "contact patch" of your tire is on the road.

Safety and Reliability

According to a 1998 Tire Retread & Repair Information Bureau (TRIB) study, under-inflated tires cause almost 90 percent of blowouts. Nitrogen provides more reliable pressure for reduced blowout potential.

Tire Life

Under-inflated tires wear quickly on the shoulders, and over-inflated tires wear in the center. In addition, removing oxygen eliminates oxidation and condensation that can damage inner liners, steel belts and rims.

According to a variety of road test studies conducted in recent years, nitrogen increased tire life by: 40-50 percent (University of Bologna, Italy, 2000), 51 percent (Clemson University, SC, 2007), and 86 percent (Drexan Corp, Canada, 2007).

Q: Has nitrogen been tested to be effective for fleets?

A: Almost 400 million miles of independent tests have been completed world-wide in recent years, including those performed at Clemson University, Probe Forensic and Testing Laboratory, Drexan Corp of Canada and

by independent South African and Australian fleets.

These tests prove the benefits of nitrogen for tire inflation—specifically for fleets, where every percentage of savings counts.

For years, NASA, the U.S. military, Boeing, all commercial aircraft, and Indy and NASCAR race teams have all used nitrogen in their tires. Today, more and more fleets are converting to nitrogen all the time. Here are just a few:

- City of Milwaukee, WI
- Fairfax County Police Dept, Fairfax, VA
- PJAX Freight System, Gibsonia, PA
- Pete Larsen Trucking, Greenville, MI.

Q: My techs check air pressure every month—doesn't this accomplish the same result?

A: No. Recent results from a large double-blind study (Drexan Corp, Canada, 2007) showed that fuel economy still increased 2.8 percent when using nitrogen inflation versus monthly air inflation checks.

Although it would seem to make sense that maintaining a strict pressure checking schedule would provide all the fuel economy and tire life benefits of nitrogen inflation, the reality is that the added benefits of nitrogen cannot be duplicated simply with regular pressure checks.

To learn more about nitrogen inflation and how it can benefit your fleet, visit www.getnitrogen.org/savebillions/fleet and go to the Scientific Proof page.

To locate fleet-friendly nitrogen dealers in your area, visit www.GetNitrogen.org/fleetonly



See us online at www.getnitrogen.com