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Manufactured By:

NITRO-FLATE

Nitrogen Generator F.A.Q.

Question 1:

Regular air-filled tires already contain about 78% nitrogen. Why does the extra amount of nitrogen make such a big difference in tires?

Answer:

There are three distinct factors at work here. First, the extra percentage of nitrogen (93% to 95%) makes a significant difference in maintaining consistent tire pressure simply because the nitrogen molecule is larger in size than the oxygen molecule and migrates out of semi-porous materials (rubber tires) at slower rates than do oxygen molecules. Studies have shown when a tire is inflated with a minimum of 93% nitrogen, the tire maintains its pressure three-to-four times longer than when regular air is utilized.

Second, oxygen is a corrosion initiator and supports combustion. Both of these qualities make oxygen a poor tire inflation gas. The presence of oxygen is particularly harmful in high pressure and high moisture content environments such as the interior of a tire. So the goal is to minimize the content of oxygen and moisture to prevent interior wheel corrosion which impacts a tire's ability to properly sit on the rim and provide a consistent, tight seal. This is becoming a significant issue today especially with the increase in alloy wheel popularity. Nitrogen is an inert gas so it is non-corrosive, and nitrogen does not support combustion.

Third, on-demand nitrogen generation requires a moisture-free air source. All Nitro-Flate Nitrogen Tire Inflation Systems "ultra-scrub" water moisture from the input air source. This results in generated nitrogen that is at minimum 99.9% moisture-free. The absence of water vapor in a near-nitrogen pure environment helps to stabilize interior tire pressure when the tire exterior is subjected to large temperature differentials. This is why nitrogen makes the big difference!

Question 2:

How is using nitrogen in tires good for the environment?

Answer:

Because tires stay properly inflated for a longer period of time with nitrogen inflation, cars get better gas mileage and use less fuel. Less fuel burned translates into lower emissions introduced to the environment. Additionally, tires wear much longer when consistently and properly inflated and thus longer-life tires reduce the demand for oil and other raw materials as well.

Question 3:

I've heard the payoff on nitrogen inflation equipment can be very fast. Why is that?

Answer:

Nitrogen tire inflation, with Nitro-Flate Tire Inflation Systems offers very high profit potential because it uses virtually no consumables and has a low labor factor. This is especially true with the Nitro-Flate Generator system which can fill up to six tires simultaneously while being remotely monitored by your service technicians with TVT's patented ALERT system. The price you charge your customer is very nearly pure profit to your business.

Question 4:

How much should I charge to fill tires with nitrogen?

Answer:

This depends upon your specific market area. TVT has seen wide price variations across the country in the cost of this service — anywhere from \$25 - \$50 per vehicle for initial fill and anywhere from \$5 - \$10 for tire pressure/N₂ purity check/top-off service. In short, your cost to fill a vehicle will vary widely depending upon several factors such as tire quantity, size and pressure. (Note that dually tire installations, spare tire inflation, larger size tires and higher pressure tires require more nitrogen and longer purge/fill times.) Additionally, many service shops are now bundling nitrogen tire inflation with other services.

Question 5:

Do tire manufacturers void warranty when their tires are inflated with nitrogen?

Answer:

No! Tires are still covered under a tire manufacturer's warranty when a customer uses nitrogen as the inflation gas.

Question 6:

What if my customer develops a flat or has a slow leak and nitrogen is not available in his/her area?

Answer:

Topping off a nitrogen-inflated tire with regular compressed air is acceptable in these circumstances. Naturally since your customer made the initial investment to convert to nitrogen inflation, TVT recommend the subject tire be "nitrogen-serviced" as soon as possible to resume the beneficial impact nitrogen has on the vehicle.

Question 7:

Does nitrogen inflation affect the accuracy of tire pressure monitoring systems now being installed as standard equipment on some cars?

Answer:

No! Nitrogen inflation gas has no detrimental effect on TPMS sensors because the sensor is reacting to the pressure level of the inflation gas within the tire. TVT continually receives reports that vehicles equipped with TPMS and running nitrogen tire inflation have had dramatically fewer issues with false signals from such systems because the nitrogen gas now contained inside the tire is virtually moisture-free. (Moisture contained in regular air dramatically affects pressure and temperature stability inside tires.) The TPMS low-pressure indicator light should not be illuminated if a vehicle's tires are properly inflated with nitrogen to the manufacturer's recommended specification unless the TPMS is malfunctioning.

Question 8:

Are tire inflators with sealants compatible with Nitro-Flate systems?

Answer:

No. Tire inflators with sealant are not compatible with nitrogen tire inflation generator systems regardless of manufacturer. Specifically, TVT does not recommend servicing tire(s) that were previously inflated with any tire sealer products because the sealer is harmful to the machine's filtering systems and nitrogen generation membrane. It is crucial before any service to verify that sealants are not present in the tire before connecting the machine!

Question 9:

What is the recommended procedure for top-off service with nitrogen-filled tires?

Answer:

TVT recommends users always check both nitrogen purity and pressure in each individual tire (including the spare) before any service. Testing nitrogen purity is as important as pressure because many consumers don't always remember the service history of their tires or don't realize the dilution impact of ambient air if one or more tires were unwittingly topped off by a non-nitrogen pressure source. To avoid any issues, it is always better to be fully aware of the fill condition of all tires before you start a service.

Question 10:

Are Nitro-Flate chrome valve stem caps compatible with all tire valve stems?

Answer:

Certain automobile OEMs have issued service bulletins advising against the use of specialty valve stem caps due to cap removal difficulties caused by corrosion in certain geographic areas of the country and potential signal interference with TPMS systems. Because of the wide variety of OEM vehicle makes and models and the wide variety of aftermarket wheel, tire and wheel/tire accessory manufacturers today, it is the responsibility of the installer to determine application suitability of Nitro-Flate valve stem caps.