

TIREMAAX® PRO — ROI Calculator

Try Hendrickson's ROI Calculator to see how specifying TIREMAAX® PRO can help impact your fleet's bottom line.

For more information, visit:

www.hendrickson-intl.com/tiremaaxroi

www.hendrickson-intl.com/TIREMAAX

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TIREMAAX® PRO

INFLATION ALONE IS NOT ENOUGH

Control your tires with TIREMAAX® PRO — advanced tire pressure control system



 HENDRICKSON
The World Rides On Us®

INTRODUCTION

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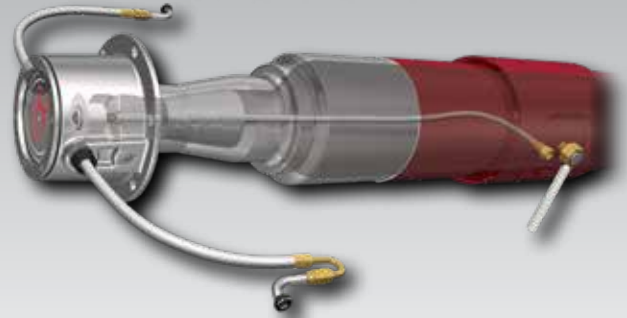
H-TIREMAAX[®] PRO

The Problem...

- The increased popularity of automatic tire inflation systems (ATIS) has alerted fleets that trailers equipped with ATIS do not always maintain the desired target pressure.
- Many tire inflation systems are incapable of controlling desired pressure which can lead to overinflated conditions, or in the case of dual tires, mismatched pressures.
- Several factors contribute to this:
 - Typical inflate-only systems are only capable of indicating when a tire's pressure is low. Tire pressures that extend beyond the target pressure often go undetected.
 - Automatic tire inflation systems fill tires with air at ambient temperatures. In cold operating conditions, these systems fill tires with cold dense air, which can alter a tire's pressure, especially when the trailer returns to warmer temperatures. The increase in temperature causes air to expand and therefore pressure to increase.
- Persistently overinflated or mismatched tires can drastically decrease tire life resulting in less than desirable tread wear and leaving tires more susceptible to road hazards.

From maintenance to downtime to overall operating costs, tires significantly impact a fleet's bottom line.

The Solution...



Hendrickson's advanced TIREMAAX[®] PRO system controls tire pressure by inflating low tires, equalizing pressure across all wheel positions and relieving pressure from overinflated tires.

Evolution of tire solutions



1 Checking



2 Monitoring



3 Inflating



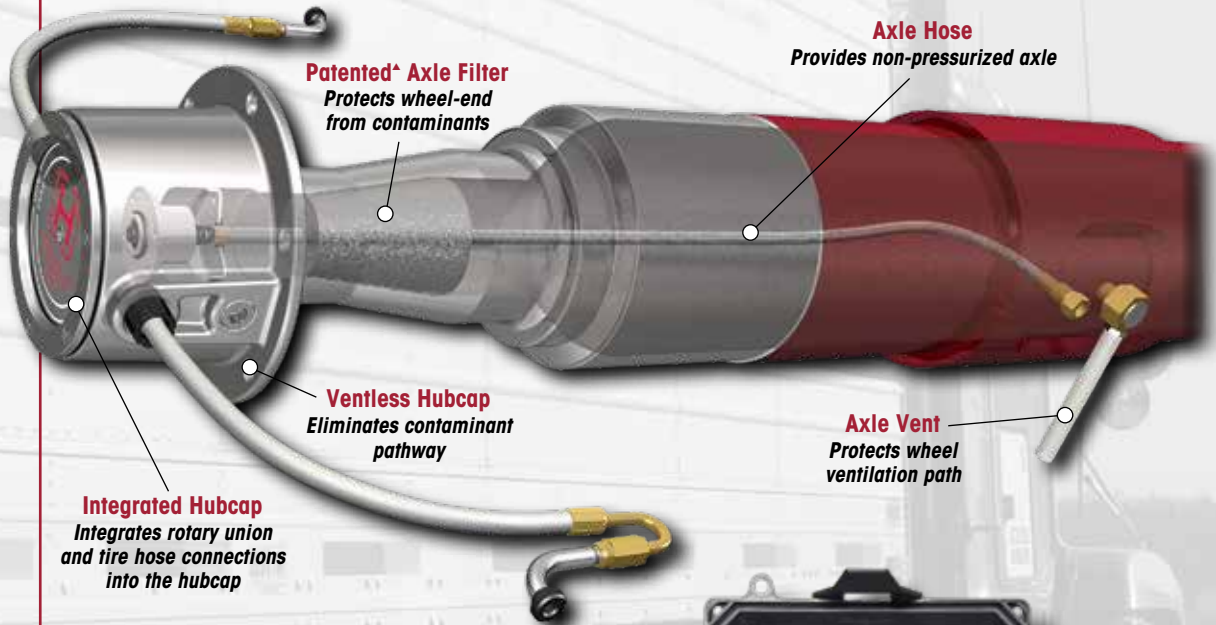
4 Controlling

SYSTEM OVERVIEW

SYSTEM OVERVIEW

An advanced tire pressure control system, TIREMAAX[®] PRO was specifically designed to allow air to flow in both directions — to and from tires.

The system features a unique integrated hubcap and sophisticated controller to address the problems of overinflation and mismatched tire pressures.



Integrated Hubcap
Integrates rotary union
and tire hose connections
into the hubcap

Patented* Axle Filter
Protects wheel-end
from contaminants

Ventless Hubcap
Eliminates contaminant
pathway

Axle Hose
Provides non-pressurized axle

Axle Vent
Protects wheel
ventilation path

Patented* controller

- Controls tire pressures to maintain desired pressure level
- Relieves air from tires when target pressure is exceeded by venting excess air at the controller
- Inflates low tires to desired pressure level
- Equalizes tire pressure across all wheel positions to help reduce friction and maximize life on dual tires
- Isolates tires when trailer is parked



▲ This product is covered by at least one or more U.S. and/or foreign patents and/or pending U.S. and/or foreign patent applications. See Hendrickson for details.

H TIREMAAX PRO[®]

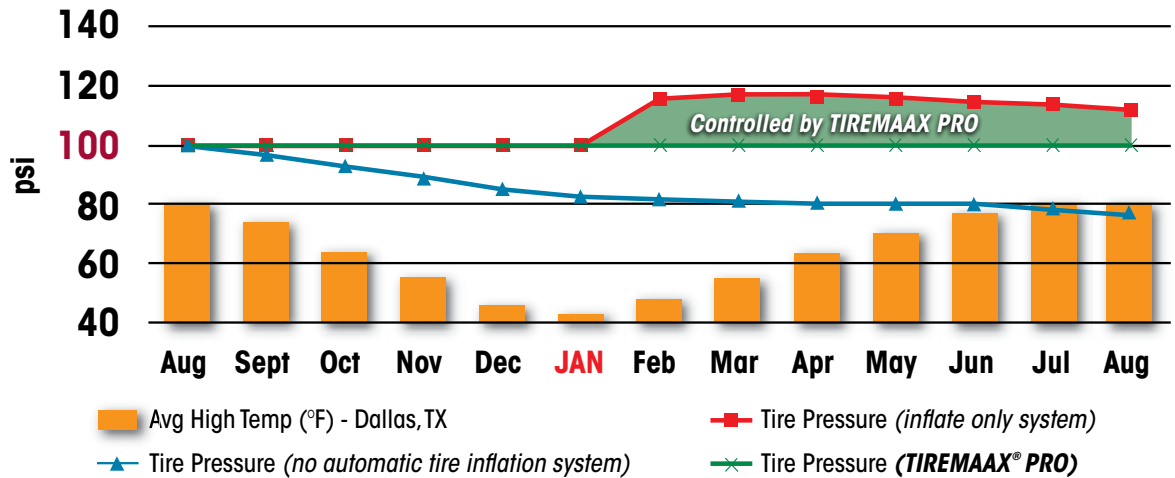
ENVIRONMENTAL IMPACT

ENVIRONMENTAL IMPACT

The graph below is an example showing the impact of one trip from Dallas, TX to Northern U.S. / Canada in January when equipped with a typical automatic tire inflation system.

Typical inflate-only systems have no way to relieve pressures above the target pressure which can result in overinflated tire conditions that may persist for many months without manual intervention.

Tire Pressure Over Time



In the above graph, a January exposure to an ambient temperature of -30 degrees Fahrenheit in Northern U.S. / Canada causes an immediate overinflated condition of more than 15 psi upon returning to Dallas, TX.

TIREMAAX PRO is capable of controlling overinflated tire conditions that result from exposure to extreme ambient temperature changes.



TIREMAAX PRO

OVERINFLATION

DID YOU KNOW...

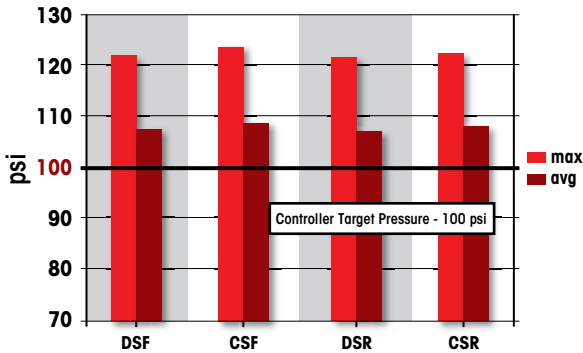
1 Overinflated tires are harder than properly inflated tires making them more susceptible to tread surface cutting, impact breaks, punctures and shock damage.

2 Overinflated tires change a tire's footprint which can affect tire traction and lead to irregular wear patterns.

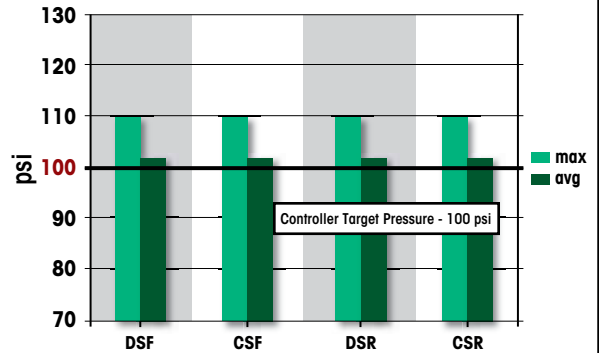
3 A 2003 Federal Motor Carrier Safety Administration study found that 16 percent of all trailer tires are overinflated by more than 5 psi and 5 percent of tires by more than 10 psi.

4 Overinflated tires can experience accelerated tread wear costing from 7 to 15 percent of life.

Inflate-Only System*



TIREMAAX® PRO*



TIRE POSITION KEY

DSF - DRIVER SIDE FRONT **CSF** - CURB SIDE FRONT

DSR - DRIVER SIDE REAR **CSR** - CURB SIDE REAR

*Based on actual field data collected by Hendrickson over a 3-month period

TIREMAAX® PRO is a proven solution for addressing overinflated tires, maximizing tread wear, reducing instances of damage and achieving maximum tire life.

Hendrickson's field data shows that a typical inflate-only system does not address overinflated tire conditions.

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EQUALIZATION

EQUALIZATION

DID YOU KNOW...

1 Mismatched tire pressures on dual tires can be problematic to tread wear, tire life and fuel economy.

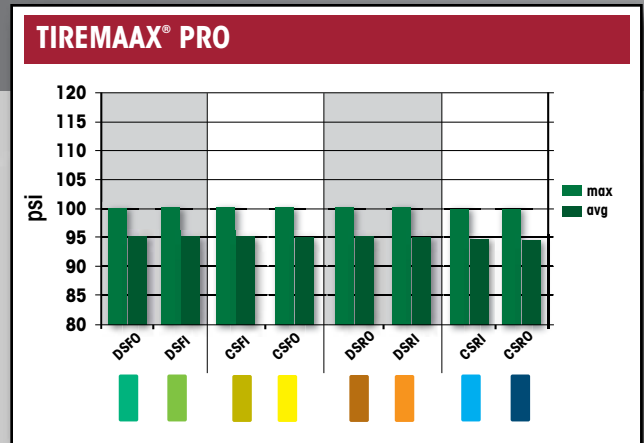
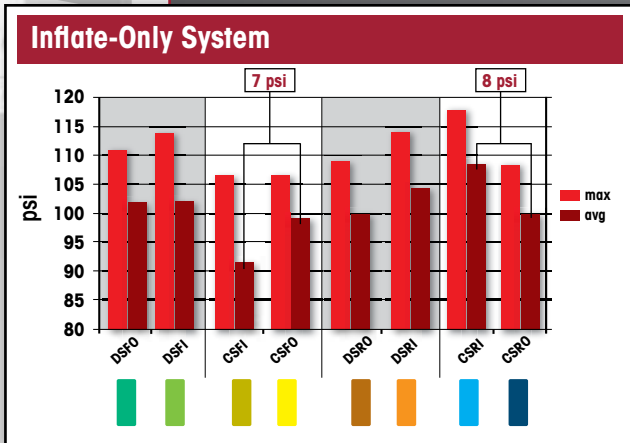
2 Within a matter of weeks, mismatched pressures can cause permanent irregular wear patterns, which can lead to early tire removal.

3 Almost 25 percent of trailer dual assemblies have mismatched air pressures greater than 5 psi, and testing has shown that a 5 psi difference between duals can create a 5/16-inch difference in tire circumference.

4 Since dual tires are bolted together and must rotate at the same speed, any differences in tire diameter can cause the smaller tire to be scuffed and dragged against the road.

5 The tire with the larger diameter carries a disproportionate amount of the trailer's load which can result in abnormal tread wear.

6 Ultimately, failure to properly equalize dual tire pressures can lead to unequal tread wear for both tires.



*Based on actual field data collected by Hendrickson over a 3-month period

WHEEL POSITION GUIDE



In general, a tire makes about 500 revolutions per mile. In 100,000 miles, that's 50 million of those 5/16-inch drags and that works out to 246 miles. So it's as though you spun the smaller tire against the pavement at highway speed for 246 miles!

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