

Nitrogen Tire Inflation Systems

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



ENGINEERING **YOUR** SUCCESS



Reduce Operating Costs



Eliminate TPMS Alarms



Extend Tire Life

Features and Benefits

- Produces high purity (95-98%) nitrogen from compressed air
- Most complete product line in the industry, offering tank mount units (stationary & portable), wall mount units, stand alone units for high capacity operation and mobile units for service trucks
- Most complete prefiltration package in the industry, offering maximum reliability and long operating life
- Autoinflator offered to purge & fill complete set of tires automatically
- Auto shutdown = less wear on your compressor, lower energy usage
- Broadest operating temperature range in the industry, from 33°F to 110°F
- Membrane is shipped fully aged, does not degrade over time, and provides consistent high performance throughout the life of the membrane
- No moving parts
- Easy installation. Pipe in compressed air, pipe out nitrogen
- Complete line of accessories available to help customize your nitrogen offering



Why Use Nitrogen?

- **Maintain proper inflation pressure longer:**
Tires inflated with compressed air lose 2 psi/month. It takes up to 6 months or more for the same loss with nitrogen
- **Improve fuel efficiency:**
Properly inflated tires provide a 3.3% increase in miles/gallon
- **Eliminate chemical aging of the tire:**
As oxygen permeates through the side wall, it degrades the rubber, causing the tire to deteriorate. Nitrogen is inert, and prolongs tire quality.
- **Longer tire life:**
By maintaining proper inflation pressure and minimizing tire aging, tire life improves by up to 25%
- **Nitrogen is very dry (-50°F dewpoint):**
Nitrogen eliminates condensation and rim corrosion, and will allow tires to run cooler and provide a safer ride.
- **Prevent autoignition of the tire:**
Tires running cooler will minimize autoignition, providing a safer ride.
- **Increase retreadability:**
As nitrogen minimizes the oxidation of the rubber, the tire retains its original quality longer, providing more retreads.
- **Nitrogen filled tires will last longer, provide increased safety, better fuel efficiency and reduced operating costs**

Model	N2 Flow @ 145 PSIG 68°F (SCFM)		N2 Flow @ 10
	95%	97%	68°F (SCFM) 95%
TS021	2.1	1.39	1.51
TS051	5.1	3.28	3.62
TS076	7.6	4.90	5.43
TS123	12.3	7.89	8.77
TS20F	19.9	12.74	14.13
TS34F	34	21.76	24.14
MTS06	6	3.84	NA
MTS12	12	7.68	NA





Prevent Under Inflation



Improve Fuel Efficiency



Enhance Safety

What Industry Leaders Say:

Michelin supports the use of nitrogen based on its ability to better retain pressure over a period of time.

- **Michelin Technical Bulletin, November 2003**

Goodyear says 15% under-inflation = 8% less tread mileage and 2.5% decrease in fuel economy.

- **Goodyear Radial Truck Tire and Retread Service Manual, Pg. 40**

Pirelli says 20% under-inflation = 15% shorter tire life.

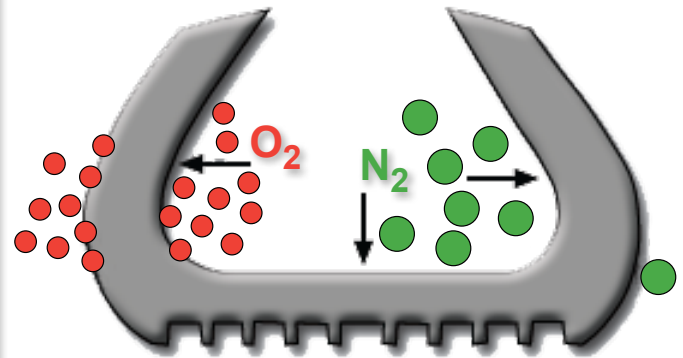
United States Department of Energy says the United States loses over 2 million gallons of fuel each day due to under-inflation.

TMC (Technology & Maintenance Council of the American Trucking Association) says that about 90% of tire failures causing tire road debris is caused by under-inflation.

- **TMC Tire Air Pressure Study, May 2002**

Bridgestone says air inflated tires lost an average of 2.7 psi per month and nitrogen inflated tires lost an average of 0.7 psi per month.

- **Guy Walenga, Clemson Tire Conference, March, 2004**



Cross section view of a tire

System Specifications

97%	Max. Pressure (PSIG)	Inlet/Outlet (NPT)	Tank/Floor Mount Dimensions
98	145	1/2"	56"H x 26"W x 34"D
2.30	189	1/2"	56"H x 26"W x 34"D
3.43	189	1/2"	56"H x 26"W x 34"D
5.50	189	1/2"	56"H x 26"W x 34"D
8.79	189	3/4"-1/2"	69"H x 24"W x 20"D
15.01	189	3/4"1/2"	69"H x 24"W x 20"D
NA	175	1/2"	42.5"H x 28.7"W x 11.5"D
NA	175	1/2"	42.5"H x 28.7"W x 11.5"D

Return On Investment

Retail:

A typical passenger car will travel 15,000 miles/yr, cost \$100 to replace a tire, and get 20 mpg. This yields a fuel cost of \$2,250 annually. A 3.3% improvement will save \$75 annually.

Increasing tire life by 25% will save \$100 or \$25/year over the life of the tire. This yields a total savings of \$100 per year, or \$400 over the life of the tires.

This savings coupled with the fact that approximately 60 deaths/year and 10,000 accidents are attributed to underinflated tires, should make an easy sell.

Fleet Operations:

A typical truck tire with two retreads costs \$480 and lasts approximately 270,000 miles. Inflating tires with nitrogen has been shown to increase tire life up to 25%. Increasing tire life to 337,500 miles would save \$120/tire. A typical tractor trailer get 6 mpg, and over the 337,500 mile life of the tire, would use 56,250 gallons of fuel or \$168,750 (\$3/gal). A 3.3% improvement would save \$5,569 over the life of the tire. This yields a total savings of \$7,729 over the life of the tire. A fleet with 50 trucks and 900 wheel positions would save \$386,000 over the life of the tires.

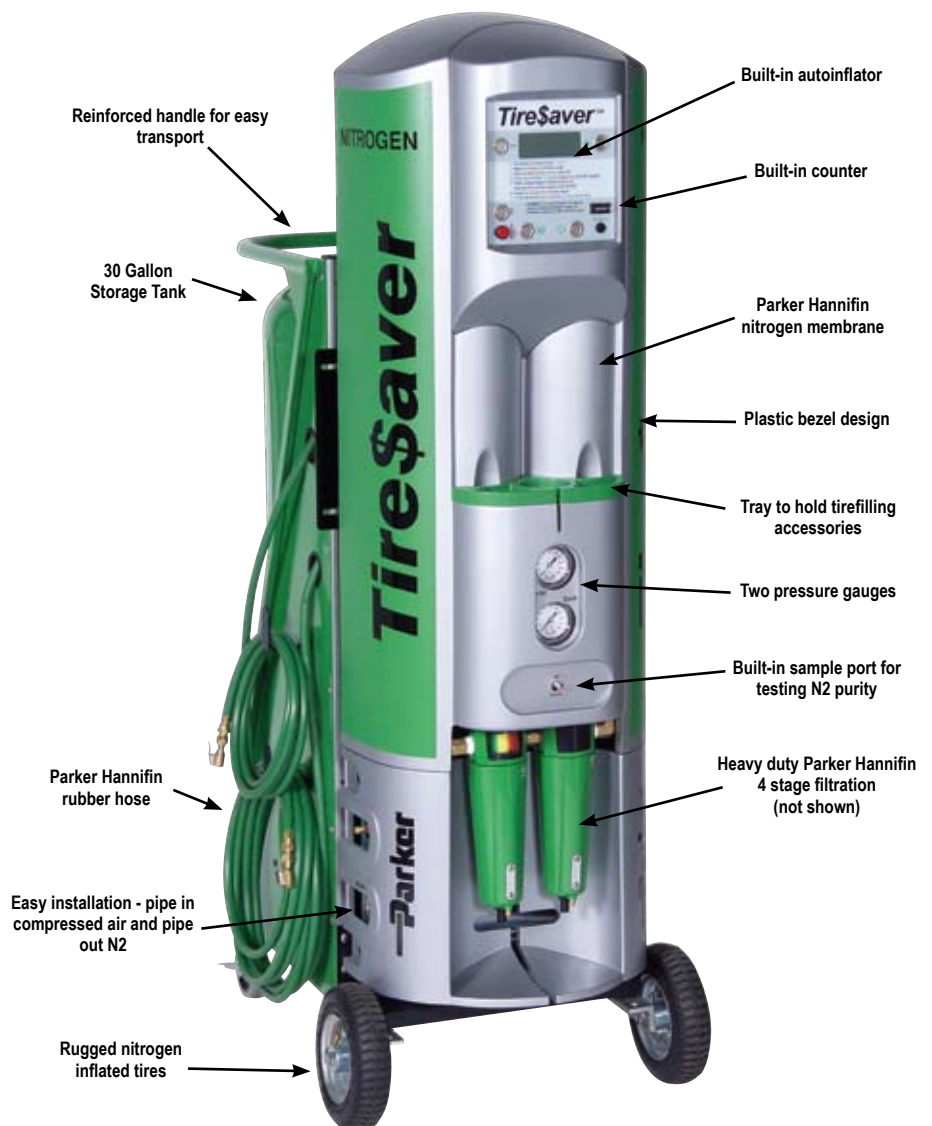
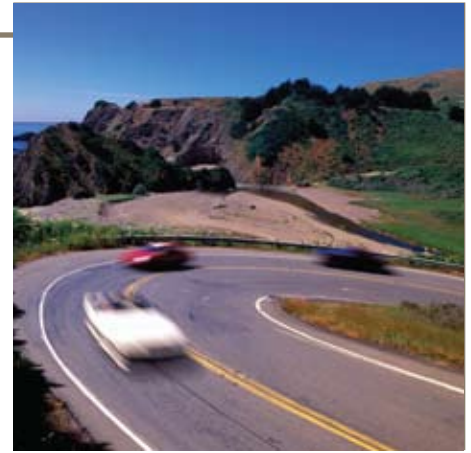


Parker TireSaver™ Nitrogen Tire Inflation Systems

2.1 to 12.3 SCFM Models

Generate Nitrogen On Demand

- Robust plastic bezel design eliminates any potential for damage from accidental contact with vehicle. Minimizes weight for easy portability
- Heavy duty Parker Hannifin (4) stage filtration provides contaminant-free compressed air. Includes carbon adsorption filter, a must have in any generator installation
- Built-in sample port for testing the purity of your nitrogen. Generators are set for 95% purity in tires, but produce purities up to 99%
- Built-in auto inflator purges and fills up to 6 tires simultaneously. Operator simply puts chucks on tires and sets pressure, then is free to do other work
- Includes nitrogen membrane produced by Cleveland, OH based Parker Hannifin, with expertise from over 10,000 nitrogen generator installations worldwide
- Includes 30 gallon storage tank with every portable generator
- Built-in counter to keep track of your nitrogen business
- Easy installation. Simply pipe in compressed air and pipe out nitrogen
- Rugged nitrogen inflated tires provide effortless portability in garage environments
- Parker Hannifin rubber hose, the highest quality available, for long lasting operation. Includes tire chucks and extra hose for spare tires
- Includes new long life battery to provide days of uninterrupted service on a single charge.
- Tray included to hold all tire filling accessories, including green valve caps, core removal tool and windshield labels



Model TS051-0ABCBR



ENGINEERING YOUR SUCCESS.

Parker TireSaver™

Nitrogen Tire Inflation Systems

Principal Specifications

Model	TS021	TS051	TS076	TS123
N2 Flow @ 97% purity, 145 psig, scfm	1.39	3.28	4.9	7.89
N2 Flow @ 95% purity, 145 psig, scfm	2.1	5.1	7.6	12.3
N2 Flow @ 97% purity, 101.5 psig, scfm	0.98	2.3	3.43	5.5
N2 Flow @ 95% purity, 101.5 psig, scfm	1.51	3.62	5.43	8.77
Compressed air pressure requirement, psig	100 - 145	100 - 189	100 - 189	100 - 189
Maximum compressed air pressure, psig	145	189	189	189
Compressed air temperature range	50°F - 104°F	50°F - 104°F	50°F - 104°F	50°F - 104°F
Ambient temperature	68°F	68°F	68°F	68°F
Nitrogen dew point	-50°F	-50°F	-50°F	-50°F
Ambient operating temperature	33°F - 110°F	33°F - 110°F	33°F - 110°F	33°F - 110°F
Max compressed air requirement, scfm	5.5	13	20	31
Compressed air prefiltration	2 stage including carbon adsorption	4 stage including carbon adsorption	4 stage including carbon adsorption	4 stage including carbon adsorption
Wall mount dimensions and weight	54"H x 18"W x 11"D, 140 lbs.	54"H x 18"W x 11"D, 140 lbs.	54"H x 18"W x 11"D, 140 lbs.	54"H x 18"W x 11"D, 140 lbs.
Tank (floor) mount dimensions	56"H x 26"W x 34"D, 300 lbs.	56"H x 26"W x 34"D, 300 lbs.	56"H x 26"W x 34"D, 300 lbs.	56"H x 26"W x 34"D, 300 lbs.
Portable dimensions	60"H x 20"W x 34"D, 250 lbs.	60"H x 20"W x 34"D, 250 lbs.	60"H x 20"W x 34"D, 250 lbs.	60"H x 20"W x 34"D, 250 lbs.
Inlet/Outlet connection	1/2" NPT / 1/2" NPT	1/2" NPT / 1/2" NPT	1/2" NPT / 1/2" NPT	1/2" NPT / 1/2" NPT
Noise level	<45 dba	<45 dba	<45 dba	<45 dba
Required annual maintenance	Filters	Filters and Carbon	Filters and Carbon	Filters and Carbon
Application	Motorcycles & Mini Cars	Cars & Light Trucks	Cars & Trucks	Full Vehicle Service
Annual Maintenance Kit	MKTS021	MKTS123	MKTS123	MKTS123

TireSaver Product Variations

Parker Part Number	N2 Analyzer	Auto-Inflator	Counter	Setup	Tank Size	Starter
TS021 - 0 A* B 0 A R**	Yes	Yes	Yes	Tank Mount	60 Gallon	Retail
TS021 - 0 A* 0 0 A R**	Yes	No	No	Tank Mount	60 Gallon	Retail
TS021 - 0 A* B C B R**	Yes	Yes	Yes	Portable	30 Gallon	Retail
TS021 - 0 A* 0 0 0 R**	Yes	No	No	Wall Mount	None	Retail
TS021 - 0 A* 0 0 B R**	Yes	No	No	Wall Mount	30 Gallon	Retail
TS051 - 0 A* B 0 A R**	Yes	Yes	Yes	Tank Mount	60 Gallon	Retail
TS051 - 0 A* 0 0 A R**	Yes	No	No	Tank Mount	60 Gallon	Retail
TS051 - 0 A* B C B R**	Yes	Yes	Yes	Portable	30 Gallon	Retail
TS051 - 0 A* 0 0 0 R**	Yes	No	No	Wall Mount	None	Retail
TS051 - 0 A* 0 0 B R**	Yes	No	No	Wall Mount	30 Gallon	Retail
TS076 - 0 A* B 0 A R**	Yes	Yes	Yes	Tank Mount	60 Gallon	Retail
TS076 - 0 A* 0 0 A R**	Yes	No	No	Tank Mount	60 Gallon	Retail
TS076 - 0 A* B C B R**	Yes	Yes	Yes	Portable	30 Gallon	Retail
TS076 - 0 A* 0 0 0 R**	Yes	No	No	Wall Mount	None	Retail
TS076 - 0 A* 0 0 B R**	Yes	No	No	Wall Mount	30 Gallon	Retail
TS123 - 0 A* B 0 A R**	Yes	Yes	Yes	Tank Mount	60 Gallon	Retail
TS123 - 0 A* 0 0 A R**	Yes	No	No	Tank Mount	60 Gallon	Retail
TS123 - 0 A* B C B R**	Yes	Yes	Yes	Portable	30 Gallon	Retail
TS123 - 0 A* 0 0 0 R**	Yes	No	No	Wall Mount	None	Retail
TS123 - 0 A* 0 0 B R**	Yes	No	No	Wall Mount	30 Gallon	Retail

* - Change to 0 if handheld N2 Analyzer not required
 ** - Change to 0 if Retail Starter kit is not required

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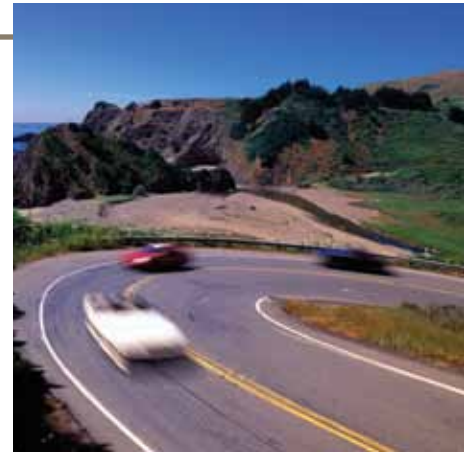
Bulletin TSBEZEL Printed in U.S.A. August 2007
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Parker TireSaver™ Nitrogen Tire Inflation Systems



Accessory Items



Plastic Caps (2000)
B04-0190



Chrome Caps (500)
TS-CHVC-B



Plastic Cap/Sticker Pack
TS-N2001G



Chrome Cap/Sticker Pack
TS-N2001C



Separators
C02-2367 (1/4")
F602-12EJQ/MY (3/4")



Wall Mount Autoinflator
TS89XDB-G



Trolley Autoinflator
TS89TRL-4



Hanging Kits
TS-4001G (Plastic Caps)
TS-4001 C (Chrome Caps)



Rubber Hoses
B04-0400 (12')
B04-0401 (24')
B04-0407 (35')



Digital Nitrogen Analyzer
TS-02A



Nitrogen Storage Tank
TS-30G (30 gal)
TS-60G (60 gal)
TS-120G (120 gal)
TS-240G (240 gal)



Replacement Chucks (4)
B04-0357



Point of Purchase Materials



Trifolds (500)
CPack-Tricar



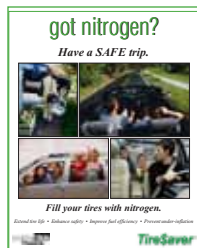
Trifold Display
TS-Displaycar



Window Decal (25)
TS-Carlabel



TireSaver Banner
TS-UB8



Tiresaver Poster
TS-Poster



Buttons (25)
TS-Buttoncar-25



Save Fuel Cards/Holder
(200)
TS-04-0073



Save Fuel Cards (1000)
TS-81-0106



Retail Kit
TS-SRTD

Bulletin TSAccessories Printed in U.S.A. September 2007
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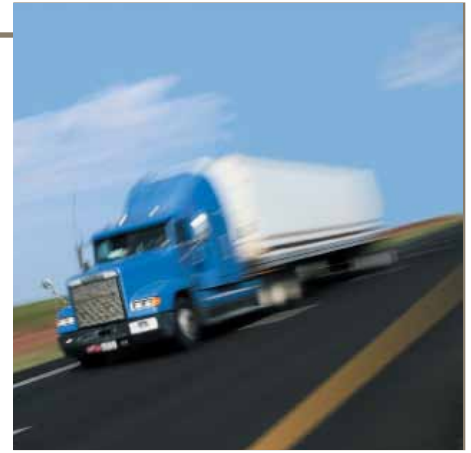


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ENGINEERING YOUR SUCCESS

Parker TireSaver™ Nitrogen Tire Inflation Systems

Commercial Truck and Fleet Models



Model TS34

Generate Nitrogen On Demand

- Widest flow range available in marketplace to service even the largest commercial truck fleets.
- Heavy duty Parker Hannifin (4) stage filtration provides contaminant-free compressed air. Includes carbon adsorption filter, a must have in any generator installation
- Includes nitrogen membrane produced by Cleveland, OH based Parker Hannifin, with expertise from over 20,000 nitrogen generator installations worldwide
- Includes 60 gallon nitrogen storage tank
- Mobile units available for service truck installations. The Parker Mobile unit is the only unit that can operate in extreme environments without a membrane heater
- Wide variety of options available including auto inflators, valve caps and sleeves, separators, etc.
- Easy installation. Simply pipe in compressed air and pipe out nitrogen

Reaction from the Commercial Truck and Tire Market

"Tires last at least 30% longer"

- Maurice Sanchez
Brothers Auto Transport
Fort Lauderdale, FL

"Every blowout costs \$500.00. Eight months in have not had nitrogen tire failure"

- Paul Mincy
Adams Motor Express
Carnsville, GA

"1/10th mile per gallon improvements over air...retreadability increased dramatically (approximately a 2% improvement)"

- Jim Keiser
Wood County Bandag
Bowling Green, OH

"120,000 miles...loss of 2/32 of treadwear depth."

- Paul Hamm
Winnipeg Motor Express
Winnipeg, Manitoba



Parker TireSaver™

Nitrogen Tire Inflation Systems

Principal Specifications

Model	TS20F	TS34F	MTS06	MTS12
N2 Flow @ 97% purity, 145 psig, scfm	12.5	21.4	3.8	7.6
N2 Flow @ 95% purity, 145 psig, scfm	19.9	34	6	12
Maximum air requirement, scfm	46	88	16	32
Compressed air pressure requirement, psig	145 - 189	145 - 189	145 - 175	145 - 175
Maximum compressed air pressure, psig	189	189	175	175
Compressed air temperature range	50°F - 104°F	50°F - 104°F	40°F - 250°F	40°F - 250°F
Ambient temperature	68°F	68°F	68°F	68°F
Nitrogen dew point	-50°F	-50°F	< 40°F pressure dew point	< 40°F pressure dew point
Ambient operating temperature	33°F - 110°F	33°F - 110°F	-30°F - 120°F*	-30°F - 120°F*
Compressed air prefiltration	4 stage including carbon adsorption	4 stage including carbon adsorption	4 stage including carbon adsorption	4 stage including carbon adsorption
Floor mount dimensions	69"H x 24"W x 20"D, 400 lbs.	69"H x 24"W x 20"D, 422 lbs.	42.5"H x 28.7"W x 11.5"D, 200 lbs.	42.5"H x 28.7"W x 11.5"D, 300 lbs.
Inlet/Outlet connection	3/4" NPT / 1/2" NPT	3/4" NPT / 1/2" NPT	1/2" NPT / 1/2" NPT	1/2" NPT / 1/2" NPT
Noise level	<45 dba	<45 dba	<45 dba	<45 dba
Required annual maintenance	Filters and Carbon	Filters and Carbon	Filters and Carbon	Filters and Carbon
Application	Truck Tires	Truck Tires	Truck Tires	Truck Tires
Annual maintenance kit	MK-TS20F	MK-TS24F	MK-MTS	MK-MTS

* 120°F maximum temperature for intermittent use only. 110°F maximum temperature for continuous use.



TS20/TS34F



MTS06/MTS12



MTS06 Installed on a Service Truck

Bulletin TSTRCKFLT Printed in U.S.A. August 2007
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www.parkertiresaver.com

ENGINEERING YOUR SUCCESS

Parker® Nitrogen Tire Inflator TireSaver® TS018-Wand

Manual Nitrogen Tire Inflator



Revolutionary Design

A revolutionary design and engineering project has led to a truly unique nitrogen tire inflation tool. This tool can be used to inflate the tires of cars, vans, trailers and motorcycles. Parker has developed the innovative TireSaver TS018-Wand; a robust, lightweight, mobile, nitrogen tire inflator for the automotive industry, with low investment costs and an undeniably high sales potential and profit margin.

Click, fill, earn money!

This workshop tool can be connected to a compressor and automatically generates nitrogen from compressed air: simple and, above all, inexpensive. This means that your investment will pay for itself in no time at all. The Tire-Saver is fitted with an exchangeable membrane cartridge that will serve for thousands of tire inflations.



Product Benefits:

- High profit margin
- Low investment
- Quick return on investment
- No use, No cost
- Increased customer loyalty
- Can be connected to standard air line
- Mobile and lightweight

Applications/Target Groups:

- Cars / Light Trucks
- Trailers
- Motorcycles
- Powersports
- Oil / Lube

Product Features:



ENGINEERING YOUR SUCCESS.

Parker Nitrogen Tire Inflation TS018-Wand

Specifications, Ordering, Flow Rates

Principal Specifications

Part Number	TS018-Wand
Life-time grip*	50,000 tire fills
Capacity N ₂	1.6 SCFM @145 psig , 68°F (3100 NL/Hr)
Purity	95% N ₂ Average
Inlet air quality	ISO 8573-1: 2001 Class 3.-.3 Do not feed liquid/aerosol/condensate, water or oil into the TireSaver TS018-Wand
Inlet pressure	72-160 psig
Max tire pressure**	50% of the inlet pressure
Temperature	-20 to +50°C / -4 to +122°F
Weight	2.6 lbs
Dimensions	9.1" h x 3.5" w x 25.2" d
Certification	CE conforming (EMC and PED art.3.3)
Warranty grip	1 year or 50,000 tire fills (whichever occurs first)



TS-SRTD Marketing Kit available
(Must be ordered separately)

TireSaver TS018-Wand Box Contents

Grip, Cartridge, Wallmount, Manual, Hose (12")
Parker Tire valve caps (500 pcs), Water Separator

TireSaver TS018-Wand Cartridge Specifications

Part Number	159.00519
Life-time cartridge*	10,000 tire fills
Weight	< 1.3 lbs
Dimensions	17.7" h x 3.5" dia.
Warranty cartridge	1 year or 10,000 tire fills (whichever occurs first)



TS018-Wand Replacement Parts

159.004980: Replacement Hose
TS-CHVC: 1,000 chrome coated plastic ABS caps
159.004974: 500 plastic green caps

* Tire 205/55R16

** Fill tires up to max. 80 psig

*** Patent Pending

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Accessories

Part Number	Description
B04-0190	Green plastic valve caps (qty 2000)
TS-CHVC-B	TPMS compatible high grade chrome valve caps (qty 500)
TS-N2001C	Chrome cap 4-pack/sticker kit
TS-N2001G	Rubberized plastic green cap 4 pack/sticker kit
C02-2367	1/2" air separator
F602-12EJQ/M4	3/4" air separator
TS89XDB-G	High volume wall mount autoinflator, w/(4) inflation hoses and manifold
TS89TRL-4	High volume portable (trolley) autoinflator, w/(4) inflation hoses and manifold
B04-0400	12' rubber Parker hose w/chuck and coupler
B04-0401	24' rubber Parker hose w/chuck and coupler
B04-0407	35' rubber Parker hose w/chuck and coupler
B04-0357	Tire chucks (qty 4)
B04-0408	Dual foot chuck
B04-0409	Digital air pressure gauge
TS-02A	Digital nitrogen analyzer
B04-0410	Core removal tool
TS-30G	30 gallon storage tank
TS-60G	60 gallon storage tank
TS-120G	120 gallon storage tank
TS-240G	240 gallon storage tank

Point of Purchase Materials

Part Number	Description
TS-Carlabel	Window decal (qty 250)
TS-UB8	Retail Tiresaver banner
Cpack-Tricar	Trifold brochures (qty 500)
TS-Displaycar	Counter trifold display
TS-Poster	Tiresaver poster (24 x 30)
TS-Buttoncar-25	Tiresaver button (qty 25)
TS-04-0073	Save fuel cards (qty 200) and holder
TS-81-0106	Save fuel cards refill pack (qty 1000)
TS-Tirecover	Tiresaver tirestack cover
TS-4001G	Standard hanging kit: includes plastic valve caps, informational booklet, stickers
TS-4001C	Premium hanging kit: includes chrome valve caps, informational booklet, stickers
TS-SRTD	Retail starter kit: includes (200) trifolds w/countertop display, (400) green plastic valve caps, retail banner, (250) window decals, (5) buttons, poster, (200) save fuel cards w/countertop display, TPMS compatible cap kit.

For additional information on nitrogen tire inflation, go to:
www.getnitrogen.org