

N₂Cel Nitrogen Generators

Multi-Tire Inflation Modules & Accessories

Aircel Nitrogen (N₂Cel) Generators, Multi-Tire Inflation Modules, and Accessories are designed to improve your bottom line by reducing downtime, tire and fuel costs.

Nitrogen (N₂Cel) Generators for Tire Inflation

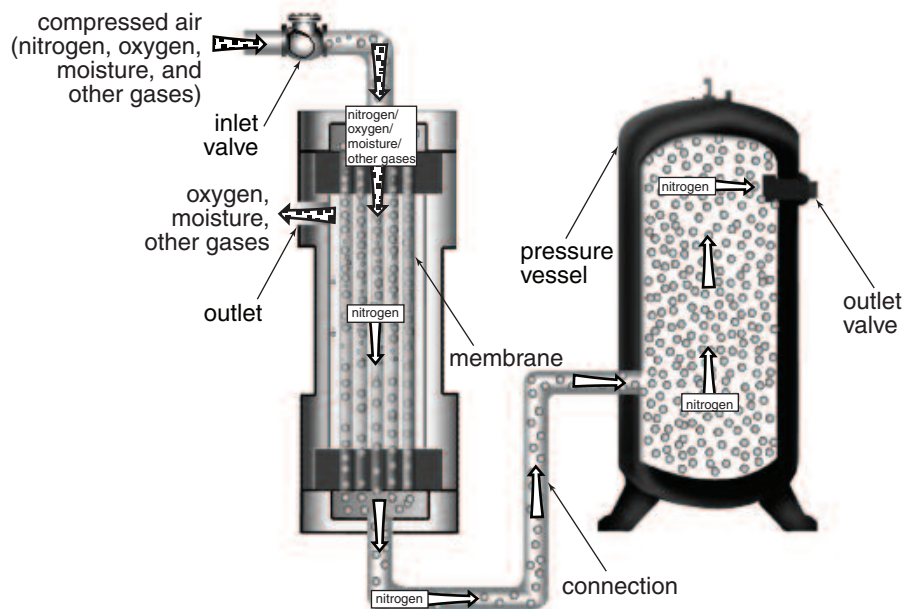
Filling tires with nitrogen instead of compressed air offers numerous benefits including safety, improved fuel economy, and longer tire life.* Aircel manufactures stationary and portable N₂Cel Nitrogen Generators and accessories to meet your specific tire filling requirements. The stationary models include the N₂Cel Nitrogen Generator mounted on a skid with cabinet, receiver, and high-efficiency coalescing and activated carbon prefilters.



N2G-600

How the N₂Cel Nitrogen Generators Work

Aircel nitrogen hollow fiber membranes work based upon the differential pressure across the membrane and the selective permeability of the competing gases. The pore size of the membrane is such that the smaller oxygen molecules will migrate across the barrier much faster than the larger nitrogen molecules.



* See N₂Cel Nitrogen for Tires tri-fold brochure for more details.

N₂Cel Nitrogen Generators

Multi-Tire Inflation Modules have the ability to dispense nitrogen to inflate 1 to 4 tires simultaneously and allow for tire top-off from the module without manually attaching a dedicated top-off hose. Wall-mount, portable cart with battery, and portable nitrogen generator versions are designed for use with the N₂Cel Nitrogen Generator. Typical fill time for four average passenger car tires at 120 psig operating pressure including removing tire valve stem caps, connecting the four hoses, initial purging and filling, final purging and filling, topping off tires, removing hoses, and replacing tire valve stem caps is 10 minutes.

Features

- Inflate 1 to 4 tires simultaneously
- Top off done without separate top-off line
- 4 independent outlets controlled by 4 ball valves
- Rated for operation up to 200 psig
- Upper end display range of 150 psig
- Includes 4 hoses with normally closed valve chucks
- Includes 2 hose brackets (portable versions)
- Optional 6-tire control on cart and wall mount

Wall-Mount Multi-Tire Inflation Module



Model N2G-PCW-700

Portable Nitrogen Multi-Tire Inflation Cart



Model N2G-PC-600

N₂Cel Nitrogen Generators

Sizing Information

Aircel nitrogen membranes can perform over a very large range of conditions. The flow rate of product gas is a function of temperature, pressure, and the required product purity. The following tables list compressed air in, output gas flow, and tires filled performance for both 95% and 98% purity at a temperature of 77°F for different tire sizes and system pressures.

95% Purity†	Compressed Air In [scfm]			Product Gas Flow [scfm]			Tires Filled Per Hour		
	Passenger @ 32 psig* ex: P235/70r16								
	120 [psig]			145 [psig]			175 [psig]		
N2G-250	2.9	1.7	11	4.1	2.2	16	4.9	2.7	20
N2G-600	14.2	6.8	57	18.0	8.8	74	21.2	10.4	88
N2G-1200	28.3	13.6	115	35.9	17.6	149	42.4	20.8	176
N2G-1800	42.5	20.4	172	53.9	26.4	223	63.7	31.2	264
N2G-2400	56.7	27.2	230	71.8	35.2	298	84.9	41.6	352

95% Purity†	Compressed Air In [scfm]			Product Gas Flow [scfm]			Tires Filled Per Hour		
	Large SUV/Truck @ 44 psig* ex: P255/85r16								
	120 [psig]			145 [psig]			175 [psig]		
N2G-250	2.9	1.7	5	4.1	2.2	7	4.9	2.7	8
N2G-600	14.2	6.8	25	18.0	8.8	32	21.2	10.4	38
N2G-1200	28.3	13.6	50	35.9	17.6	64	42.4	20.8	76
N2G-1800	42.5	20.4	75	53.9	26.4	97	63.7	31.2	114
N2G-2400	56.7	27.2	100	71.8	35.2	129	84.9	41.6	152

95% Purity†	Compressed Air In [scfm]			Product Gas Flow [scfm]			Tires Filled Per Hour		
	OTR Tire @ 110 psig** ex: P275/80r22								
	120 [psig]			145 [psig]			175 [psig]		
N2G-250	2.9	1.4	1	4.1	2.0	1	4.9	2.4	3
N2G-600	14.2	6.8	5	18.0	8.8	8	21.2	10.4	12
N2G-1200	28.3	13.6	10	35.9	17.6	15	42.4	20.8	25
N2G-1800	42.5	20.4	15	53.9	26.4	23	63.7	31.2	38
N2G-2400	56.7	27.2	20	71.8	35.2	31	84.9	41.6	50

*** Calculations based upon:**

- 77°F gas temperature.
- 32 psig tires per hour calculated using 1 filling from 3 psig to 32 psig plus 1 filling from 16 psig to 32 psig.
- 44 psig tires per hour calculated using 1 filling from 3 psig to 44 psig plus 1 filling from 22 psig to 44 psig.
- Deflation time not considered in calculations.

**** Calculations based upon:**

- 77°F gas temperature.
- A single filling from atmospheric pressure to 110 psig.
- Deflation time not considered in calculations.

† Recovery calculated based upon 95% N₂.

Compressed Air In is calculated based upon a recovery rate which is specific to each membrane and is a function of temperature, pressure and purity. For conditions other than that specified in the table, the recovery rate goes down as the temperature goes up. That is, at higher temperatures, the required **Compressed Air In** to get the same product flow is increased. However, the recovery rate goes up as the pressure goes up, so more pure nitrogen can be produced from the same amount of **Compressed Air In**.

N₂Cel Nitrogen Generators

Sizing Information

98% Purity†	Compressed Air In [scfm]			Output Gas Flow [scfm]			Tires Filled Per Hour		
	Passenger @ 32psig* ex: P235/70r16								
	120 [psig]			145 [psig]			175 [psig]		
N2G-250	2.6	0.88	7	3.2	1.2	9	3.9	1.4	11
N2G-600	10.3	3.5	29	12.5	4.5	38	15.6	5.6	47
N2G-1200	20.6	7.0	59	25.0	9.0	76	31.1	11.2	94
N2G-1800	30.9	10.5	88	37.5	13.5	114	46.7	16.8	142
N2G-2400	41.2	14.0	118	50.0	18.0	152	62.2	22.4	189

98% Purity†	Compressed Air In [scfm]			Output Gas Flow [scfm]			Tires Filled Per Hour		
	Large SUV/Truck @ 44 psig* ex: P255/85r16								
	120 [psig]			145 [psig]			175 [psig]		
N2G-250	2.6	0.88	3	3.2	1.2	4	3.9	1.4	5
N2G-600	10.3	3.5	12	12.5	4.5	16	15.6	5.6	20
N2G-1200	20.6	7.0	25	25.0	9.0	33	31.1	11.2	41
N2G-1800	30.9	10.5	38	37.5	13.5	49	46.7	16.8	61
N2G-2400	41.2	14.0	51	50.0	18.0	66	62.2	22.4	82

98% Purity†	Compressed Air In [scfm]			Output Gas Flow [scfm]			Tires Filled Per Hour		
	OTR Tire @ 110 psig** ex: P275/80r22								
	120 [psig]			145 [psig]			175 [psig]		
N2G-250	2.6	0.9	1	3.2	1.2	1	3.9	1.4	2
N2G-600	10.3	3.5	3	12.5	4.5	4	15.6	5.6	7
N2G-1200	20.6	7.0	5	25.0	9.0	8	31.1	11.2	14
N2G-1800	30.9	10.5	9	37.5	13.5	13	46.7	16.8	22
N2G-2400	41.2	14.0	11	50.0	18.0	17	62.2	22.4	29

- * Calculations based upon:
- 77°F gas temperature.
 - 32 psig tires per hour calculated using 1 filling from 3 psig to 32 psig plus 1 filling from 16 psig to 32 psig.
 - 44 psig tires per hour calculated using 1 filling from 3 psig to 44 psig plus 1 filling from 22 psig to 44 psig.
 - Deflation time not considered in calculations.
- ** Calculations based upon:
- 77°F gas temperature.
 - A single filling from atmospheric pressure to 110 psig.
 - Deflation time not considered in calculations.

† Recovery calculated based upon 98% N₂.

Tires Filled Per Hour is included in the tables since it is the basic use of the nitrogen generators. It is based upon the volume of a few standard tires, with no downtime in between tires. For passenger cars and truck tires, the standard cycle is deflate (to ~3 psi), fill, deflate again, and the fill to final pressure; this is necessary to attain a final purity over 95%. For over-the-road (OTR) tires with any volume over ~85 psi, a single filling would be sufficient to achieve the minimum purity.

N₂Cel Nitrogen Generators

Portable Nitrogen Generator

The Portable Nitrogen Generation System is equipped with N₂Cel Nitrogen Generator, wheels, hoses, valve chucks and a multi-tire inflation control module allowing up to four vehicle tires to be quickly filled with nitrogen at the same time.

Portable Nitrogen Generator



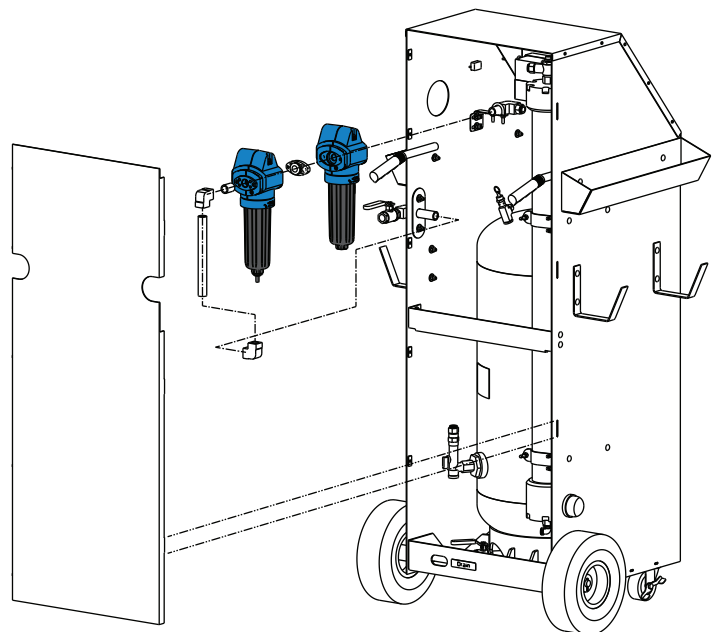
Model N2G-600S-P

Model	Receiver (gallon)	Outlet Connection (FNPT)	Dimensions (inches)			Weight (lbs)
			Height	Width	Depth	
Stationary Units						
N2G-250	30	1/2-in	64	44.5	24	200
N2G-600	60	1/2-in	64	44.5	24	325
N2G-1200	80	1/2-in	64	50.5	26.1	375
N2G-1800	80	1/2-in	64	50.5	26.1	480
N2G-2400	120	3/4-in	64	54.4	32	660
Portable Unit (Same nitrogen flow delivery at full flow as the N2G-600)						
N2G-600S-P	20	*	59	30	30	200
Inflation Modules						
N2G-PC-600	N/A	*	55	20	20	80
N2G-PCW-700	N/A	*	27	15	5	12

* Schrader Valve Open Chuck (x4)

Protecting Your Investment

Aircel membranes have an extremely high surface area, and as a result require up to 30% less compressed gas at the inlet to yield a given output of nitrogen than competitor units. For optimum performance, Aircel high-efficiency coalescing and activated carbon prefilters are provided standard with stationary and portable nitrogen generators. All membranes must be protected from moisture and oil residue. If moisture is allowed to reach the membrane, a thin film will deposit on the inside surface of the fiber. The water molecules will preferentially migrate through the



membrane, at the expense of oxygen transfer. This results in poor nitrogen purity in the short term and fiber cracking long term. If moisture does hit the system, though, it can be removed. This is not the case with oil residue, which will permanently obstruct the pores.

N₂Cel Nitrogen Generators

Nitrogen Generator (N₂Cel) Accessories

Nitrogen Analyzer Kit

- Excellent for checking nitrogen purity in tires
- One-button calibration
- Auto-off
- 3-digit display
- Durable construction



Nitrogen Analyzer

Valve Stem Caps for Tires

- Heavy duty o-ring rubber seal



Plastic Valve Caps
Bag of 1000



Aluminum Valve Caps
Bag of 500



Chrome Valve Caps
Bag of 500

N₂Cel Dealer Pack

When you purchase a Aircel N₂Cel Nitrogen Generator, you will receive an N₂Cel dealer pack. The dealer pack includes the following items:

Quantity	Description
1	50-ft. green hose
1 bag (1000)	Green valve stem caps
250	Tri-Fold brochures
1	Open Chuck
1	Closed Chuck
2	N ₂ Cel posters

To order additional N₂Cel accessories and promotional materials visit: buyn2cel.com



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