

AIRSEP®

A CAIRE INC. COMPANY



N2WAVE™

N2WAVE Twin Tower Series
PSA Nitrogen Gas Generators
Efficiency, Reliability and Performance

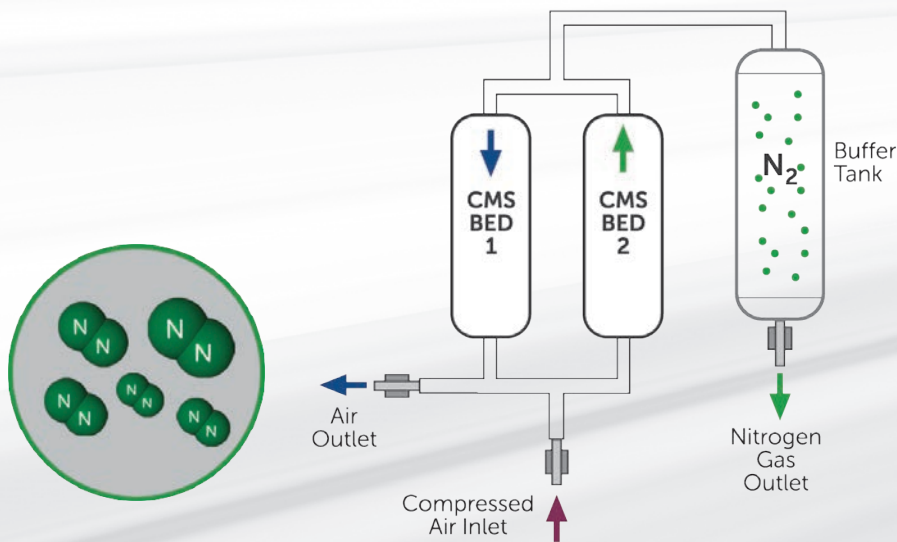
N2WAVE™ Twin Tower Series PSA Nitrogen Gas Generators

Pressure Swing Adsorption (PSA) Nitrogen Gas Generators use a carbon molecular sieve (CMS) to separate nitrogen from compressed air.

CMS adsorbs oxygen molecules under pressure and allows nitrogen to pass through as a product gas.

Two-Bed Adsorber System

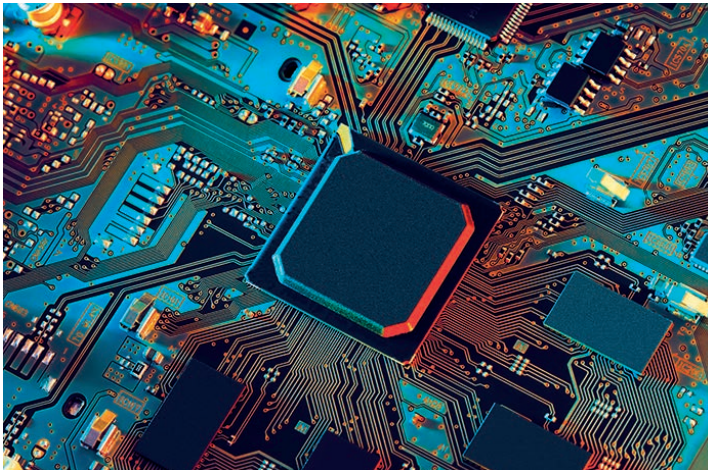
AirSep PSA Nitrogen Gas Generators use two vessels filled with CMS as adsorbers. As compressed air passes through one of the adsorbers, the molecular sieve adsorbs the oxygen. This allows the remaining nitrogen to pass through and exit the adsorber as a product gas. Before the adsorber becomes saturated with oxygen, the inlet air flow switches to the next adsorber. The first adsorber is now regenerated by desorbing the oxygen through depressurization back to the atmosphere, assisted by a nitrogen purge step. The complete cycle then repeats. Under normal operating conditions and with proper system maintenance, the molecular sieve is designed to be regenerative.



N2WAVE™ Twin Tower Series PSA Nitrogen Gas Generators

Applications

- Electronic Industry
- Metal Industry
- Chemical Industry
- Cleaning Process
- Plastic Industry
- Food and Beverage
- Production Process and Storage of Food



FEATURES

Standard

- Silencer
- 7" HMI Touch Screen
- Tank Manometers
- Pressure Transmitter
- ECO Mode
- Mist Eliminator/Carbon Filter
- Piston Valves
- Valve Control Regulator
- 3 Way By-Pass Valve Kit
- Flowmeter Kit
- Post/Dust Filter
- Oxygen Analyzer Kit

Optional

- Receiver
- Dew Point Sensor Kit
- Pressure Regulator (Nitrogen Outlet)
- Oil Indicator

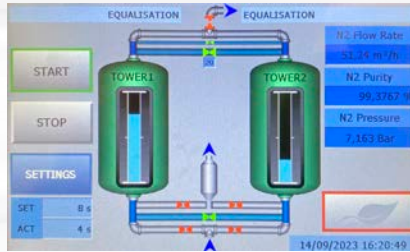
N2WAVE™ Twin Tower Series PSA Nitrogen Gas Generators

Advantages

- Produces nitrogen with purity levels up to 99.999%
- Ensures a long service life and minimal maintenance cost
- Simple structure, compact design, fully automated operation
- Replaces cylinder manifold usage (see pic. 1)
- Touch Screen PLC for controlling the complete system (see pic. 2)
- PLC Screen for monitoring and visualizing the progress
- Rapid start-up and safety system
- Innovative silencer design gives low noise levels during depressurization and purge
- Durable piston valves for long-life operation (see pic. 5)
- On-demand production with low costs
- High performance
 - *The purity and capacity of nitrogen gas is designed to meet customer requirements (Nitrogen Purity 95%~99.999% is available)
- Lower air-to-nitrogen (A/N) ratios and energy consumption
- Advanced air distribution for high-quality nitrogen gas production



Replaces Manifold Usage - pic. 1



Touch Screen PLC - pic. 2



Optional Dew Point Sensor - pic. 3



Air Filter - pic. 4



Long Life Piston Valve - pic. 5

N2WAVE™ Twin Tower Series PSA Nitrogen Gas Generators

Technical Specifications

AirSep Model	Free Nitrogen Delivery @ the Following Purity Levels (SCFM)*									
	95%	97%	98%	99%	99.5%	99.9%	99.95%	99.99%	99.995%	99.999%
N2AS310	19.0	15.8	14.5	10.0	8.1	6.3	5.7	3.1	2.4	1.8
N2AS312	25.3	21.1	19.4	13.3	10.9	8.4	7.6	4.1	3.2	2.4
N2AS314	31.0	25.9	23.8	16.3	13.3	10.2	9.3	5.1	3.9	3.0
N2AS316	49.3	41.1	37.8	25.9	21.1	16.3	14.9	8.0	6.3	4.7
N2AS318	65.3	54.4	50.0	34.3	28.0	21.6	19.7	10.6	8.3	6.3
N2AS320	88.3	73.6	67.6	46.4	37.8	29.1	26.6	14.4	11.2	8.5
N2AS322	101.1	84.3	77.5	53.1	43.3	33.4	30.4	16.5	12.8	9.7
N2AS324	112.3	93.6	86.0	59.0	48.1	37.1	33.8	18.3	14.3	10.8
N2AS326	147.0	122.5	112.6	77.2	62.9	48.5	44.2	23.9	18.7	14.1
N2AS328	179.8	149.9	112.6	94.5	77.0	59.3	54.1	29.3	22.8	17.3
N2AS330	218.6	182.2	167.4	114.9	93.6	72.1	65.8	35.6	27.8	21.0
N2AS332	241.1	201.0	184.7	126.7	103.3	79.6	72.6	39.3	30.6	23.1
N2AS334	267.2	222.7	204.7	140.4	114.4	88.2	80.4	43.5	34.0	25.6
N2AS336	361.2	301.1	276.7	189.8	154.7	119.2	108.7	58.9	45.9	34.7
N2AS338	421.3	351.2	322.7	221.4	180.4	139.0	126.8	68.7	53.6	40.5
N2AS340	505.0	421.0	386.9	265.4	216.3	166.7	152.0	82.3	64.2	48.5
N2AS342	622.9	519.3	477.2	327.4	266.8	205.6	187.5	101.5	79.2	59.8
N2AS344	730.0	608.6	559.2	383.7	312.7	240.9	219.7	118.9	92.8	70.1
N2AS346	841.8	701.8	644.9	442.4	360.5	277.8	253.3	137.2	107.0	80.8
N2AS348	1013.3	844.8	776.3	532.6	434.0	334.4	305.0	165.1	128.8	97.3
N2AS350	1250.8	1042.7	958.2	657.4	535.7	412.8	376.4	203.8	159.0	120.1
N2AS352	1488.0	1240.5	1139.9	782.0	637.3	491.1	447.8	242.4	189.1	142.8
N2AS354	1671.4	1393.3	1280.3	878.4	715.8	551.5	503.0	272.3	212.4	160.4
N2AS356	2041.2	1701.7	1564.1	1072.8	874.3	673.7	614.3	332.6	259.4	196.0

*Free Nitrogen Delivery based on: 110 psig inlet / 77°F max ambient / ≤ 37°F inlet dew point. Prior to final selection, consult factory for sizing confirmation.

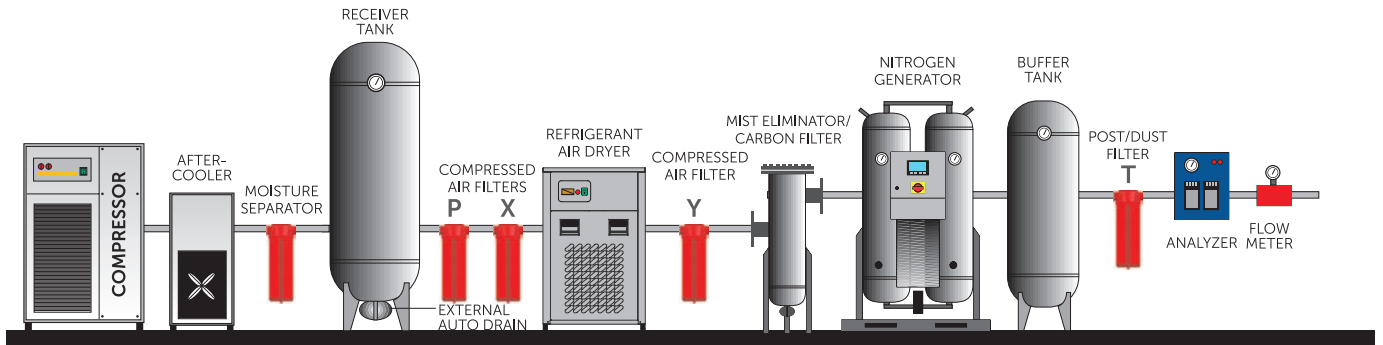
N2WAVE™ Twin Tower Series PSA Nitrogen Gas Generators

Technical Specifications

AirSep Model	RECOMMENDED BUFFER TANK VOLUMES (GALLON)									
	95%	97%	98%	99%	99.5%	99.9%	99.95%	99.99%	99.995%	99.999%
N2AS310	16	13	12	8	7	5	5	3	2	2
N2AS312	21	18	16	11	9	7	6	3	3	2
N2AS314	26	21	20	14	11	9	8	4	3	3
N2AS316	41	34	31	21	18	14	12	7	5	4
N2AS318	54	45	41	28	23	18	16	9	7	5
N2AS320	73	61	56	38	31	24	22	12	9	7
N2AS322	84	70	64	44	36	28	25	14	11	8
N2AS324	93	77	71	49	40	31	28	15	12	9
N2AS326	122	101	93	64	52	40	37	20	15	12
N2AS328	149	124	114	78	64	49	45	24	19	14
N2AS330	181	151	138	95	77	60	54	29	23	17
N2AS332	199	166	153	105	85	66	60	33	25	19
N2AS334	221	184	169	116	95	73	67	36	28	21
N2AS336	299	249	229	157	128	99	90	49	38	29
N2AS338	348	290	267	183	149	115	105	57	44	33
N2AS340	418	348	320	219	179	138	126	68	53	40
N2AS342	515	429	395	271	221	170	155	84	65	49
N2AS344	604	503	462	317	259	199	182	98	77	58
N2AS346	696	580	533	366	298	230	209	113	88	67
N2AS348	838	698	642	440	359	277	252	137	107	81
N2AS350	1034	862	792	544	443	341	311	169	131	99
N2AS352	1230	1026	942	647	527	406	370	200	156	118
N2AS354	1382	1152	1058	726	592	456	416	225	176	133
N2AS356	1688	1407	1293	887	723	557	508	275	215	162

N2WAVE™ Twin Tower Series PSA Nitrogen Gas Generators

AIR LINE DESIGN



AirSep reserves the right to change the design and/or dimensions and/or weight of its products at any time without any notice or liability.





COMPANY OVERVIEW

Leader in On-Site Gas Generation

Founded in 1987 in Buffalo, NY, AirSep Corporation offers innovative, cost-effective, non-cryogenic gas supply solutions as an alternative to cylinder or liquid systems. A division of CAIRE Inc., AirSep has earned a strong brand reputation over the past three decades as a manufacturer of high-quality, built-to-last oxygen systems accompanied by robust PSA nitrogen generators and unparalleled service and support to ensure your systems operate at peak performance with little to no downtime.

The benefits of a broad portfolio offering customizable equipment to meet your needs:

- Extensive selection of PSA Nitrogen Systems that serve a diverse range of applications and industries
- Lowered costs and increased business efficiencies through elimination of dependence on gas companies, long-term gas contracts and price increases
- Reliably produce unlimited highly concentrated nitrogen 24/7
- 2-year warranty on workmanship for all nitrogen systems

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