

## nitrogen gas generators for edible oils



During the production of edible oils, product is stored in tanks awaiting packaging and/or further processing. The introduction of oxygen to the process would be detrimental to the oils resulting in spoilage of the product. As a result, oxygen must be kept to approved levels via “tank blanketing” where an inert gas, the most economical being nitrogen, is introduced to a storage tank to counter the negative effects of oxygen. Low-pressure nitrogen gas at a purity of 98% to 99.5% depending upon the product fills the vapor space above the edible oil creating a barrier to deter the material from coming into contact with the oxygen.

Recognizing the importance of having a safe, reliable and cost effective supply of high purity nitrogen for edible oil production, nano designed and developed this complete range of nitrogen gas generators for the application.

The ECOGEN<sub>2</sub> and GEN<sub>2</sub> range offers a unique design and energy saving function and a number of significant advantages over delivered gas options as well as traditional generator designs.

### features and benefits

#### easy to install

- the compact design allows installation in spaces too small for twin tower generator systems

#### guaranteed performance

- reliable performance based on decades of experience of pressure swing adsorption technology
- 100% function and performance tested at our factory
- 2 year warranty

#### safe & reliable

- eliminates the safety hazards of transporting and storing pressurized gas cylinders or liquid nitrogen



#### environmentally friendly

- lower air consumption and refined controls provide greater energy efficiency
- reduces carbon footprint by eliminating gas delivery to your facility

#### return on investment

- significant cost savings over cylinder or liquid supply provides a typical return on investment of less than 24 months

#### applications include:

flushing

MAP

transferring

bottling

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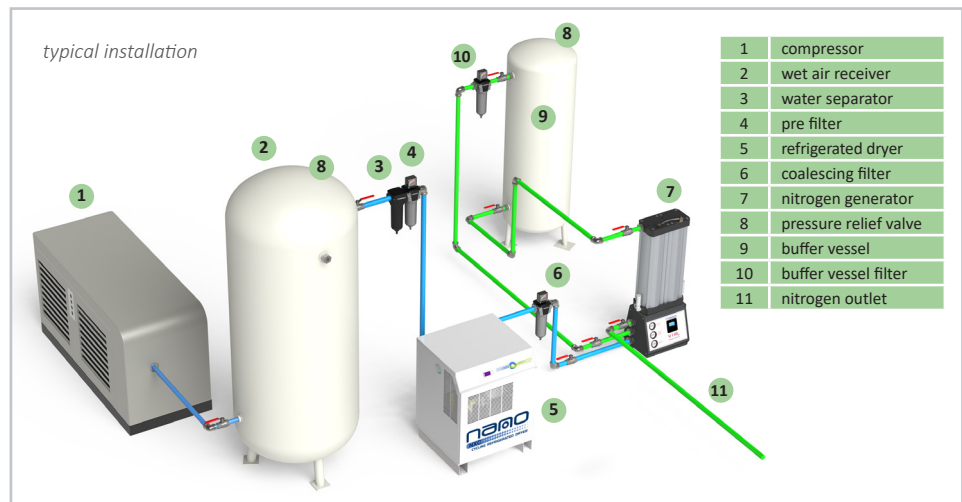
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# technical specification

generator model	rated outlet flow <sup>(1)</sup>	nitrogen purity at the outlet (maximum oxygen content) <sup>(2)</sup>											
		99.999% (10 ppm)	99.995% (50 ppm)	99.99% (100 ppm)	99.975% (250 ppm)	99.95% (500 ppm)	99.9% (0.10%)	99.5% (0.50%)	99% (1%)	98% (2%)	97% (3%)	96% (4%)	95% (5%)
ECOGEN2 090	scfh	-	-	-	-	-	49	78	95	131	163	187	208
ECOGEN2 110	scfh	-	-	-	-	-	85	120	152	205	254	297	332
ECOGEN2 130	scfh	-	-	-	-	-	141	198	251	339	424	491	547
GEN2 1110	scfh	49	71	81	95	109	127	184	205	258	293	335	364
GEN2 2110	scfh	99	141	162	191	219	254	367	410	516	586	671	727
GEN2 3110	scfh	148	212	244	286	328	381	551	614	773	879	1006	1091
GEN2 2130	scfh	180	254	297	353	403	466	667	742	932	1070	1218	1324
GEN2 3130	scfh	270	381	445	529	604	699	1001	1112	1398	1605	1828	1986
GEN2 4130	scfh	360	509	593	706	805	932	1335	1483	1865	2140	2437	2649
GEN2 6130	scfh	540	763	890	1058	1208	1398	2002	2225	2797	3210	3655	3973
GEN2 8130	scfh	720	1017	1187	1411	1610	1865	2670	2966	3729	4280	4873	5297
GEN2 10130	scfh	828	1170	1365	1623	1852	2144	3070	3411	4289	4922	5604	6092
GEN2 12130	scfh	962	1358	1584	1884	2150	2489	3564	3960	4979	5714	6506	7072



### specifications

design operating pressure range	87 - 145 psig <sup>(3)</sup>
design operating temperature range	41 - 122°F
maximum inlet particulate	0.1 micron
maximum inlet oil content	0.01 ppm <sup>(5)</sup>
minimum recommended inlet dew point	40°F PDP <sup>(4)</sup>
supply voltage	120 - 240 VAC (50 or 60Hz) or 24VDC

(1) at 100 psig inlet pressure and 68 - 77°F inlet temperature. For outlet flow at all other conditions contact support@n-psi.com

(2) without integrated dryer system

(3) pressures shown for ECOGEN2 range. 87 - 174 psig as standard for GEN2 range. 232 psig is available upon request for models GEN2 1110 - GEN2 12130. Consult factory

(4) requires an upstream dryer. Contact nano for assistance selecting the optimum dryer for your application

(5) including oil vapor

(6) contact nano for sizing assistance. All applications should be confirmed by nano