

NITROGEN FILLING STATIONS



Nitrogen generators can be easily upgraded to nitrogen cylinder filling stations if you need to fill cylinders with nitrogen. This will give you the ability to fill your own cylinders for fraction of the cost as you can get from the gas companies. If medium pressure is required units are equipped with a booster and storage tank.

Nitrogen purity:	95% - 99.999%
End pressure:	Medium - up to 40barG High – up to 500barG
Capacity range:	From 1.6 to 210Nm3/h
Nitrogen dew point:	-50°C
Operating conditions:	5°C - 50°C

Each cylinder filling station model can be equipped with required type of filing ramp. One ramp is used as a standard but if you need large backup more ramps can be incorporated easily.

Filling ramp

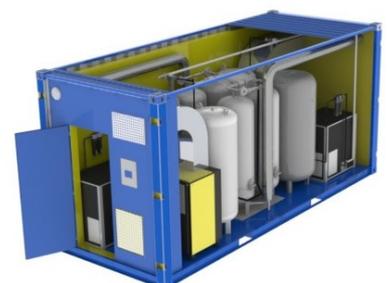
Model	Nr. of filling outlets	Connector standard
FR4	4	G 3/4"
FR6	6	G 3/4"
FR10	10	G 3/4"



Some models can be delivered as compact version. The compact version is built on the skid or frame with one central electric socket enabling quick start up. All components are already connected in the factory, so no extensive installation is required.



Mobile nitrogen production/filling plant is preferred compact solution design for outdoors, can be placed on the roof of the building or in the remote area. These units are used in many applications e.g. as inert gas in coal mining or petrochemical industry or cutting gas in laser cutting.



If you have specific requirements, do not hesitate to contact us and we will design you a solution to meet your requirements.

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A full installation comprises an air compressor, refrigeration dryer, filters, air tank, nitrogen generator, nitrogen buffer tank, booster or high pressure compressor and filling ramp.



Scope of supply:

1. Air compressor
2. Cyclone filter with automatic drain
3. Refrigeration dryer
4. Prefilter & particle filter
5. Air tank
6. Nitrogen generator
7. Buffer tank
8. Pressure regulator with dust filter
9. Medical sterile filter
10. Booster or high pressure compressor
11. Filling ramp

The process

Nitrogen Generator consist of two columns filled with molecular sieve (CMS). Pre-treated compressed air enters the active column and follows up through the CMS. Oxygen is being adsorbed while nitrogen passes through. The active column is pressurized. When pressure is released, column becomes inactive and completely regenerate. In order to secure steady flow two columns are used, one is active while the other is inactive. At the end of cycle they switch roles.

Nitrogen from nitrogen generator enters nitrogen buffer. From there regulated nitrogen is led into the high pressure compressor or a booster where the nitrogen is boosted to required pressure and feeds the filling ramp or a buffer tank.

Technical Data

Ambient temperature range:		5°C - 50°C
Nitrogen outlet pressure:		5barG
Nitrogen dew point:		-50°C
Air inlet pressure:		7.5barG
Inlet air quality:	Dew point:	3°C
	ISO:	8573.1:2001.2.4.1
	Filtration grade:	0.01 micron
Power supply:	Generator:	240-110 V / 50-60 Hz
	Compressor:	400-440 V / 50-60 Hz