

# High-pressure nitrogen skid

## PPNG 1-12 skid HE



Meet Pneumatech's all-in-one high-pressure nitrogen solution. The PPNG skid HE is the complete on-site nitrogen generation system that frees you from dependency on external suppliers. The PPNG skid HE comes in two versions: 40-bar for peak and on-demand nitrogen and 300-bar with bottle storage. Each comes in different sizes to meet your specific needs. Supremely easy to install and operate, the PPNG skid HE ensures an always dependable nitrogen supply while significantly lowering your operational costs.

### An all-in-one N<sub>2</sub> solution

The PPNG skid HE combines all components of a nitrogen generation system on one sturdy base frame: a VSD compressor, a high-pressure booster, a PSA nitrogen generator, and all necessary air and nitrogen storage and treatment. No need to specify, integrate, and commission all these separate components. Instead, you get a complete plug-and-play system with just one power supply and one nitrogen connection to manage.

### Features and benefits:

- All-in-one solution with all components built-in and piped together
- Single power supply for the complete skid
- 30% more efficient than other high-pressure N<sub>2</sub> packages
- All components are built and tested to work together optimally
- 40-bar and 300-bar version in different sizes and with a wide range of options
- VSD compressor delivers double-digit energy savings and emissions reductions
- 40 or 300-bar booster sized to minimize power use
- High-efficiency PSA generator with purity selection up to 99.999%
- Additional filtration is built in as standard to protect critical N<sub>2</sub> applications
- Optimal control, monitoring and connectivity thanks to Purelogic™ Controller
- Forklift slots for easy lifting and moving

### General Specifications

- Purity range: 99.95% to 99.999%\*
- Outlet pressures available: 40 barg and 300 barg\*\*
- Ambient temperature range: 5-50°C/41-122°F\*\*\*
- Power supply: 400/3/50 (460/3/60 available upon request)

\* Lower purities available upon request

\*\* Different pressures available upon request

\*\*\* Above 35°C applications an oversized refrigerant dryer should be selected

# A complete nitrogen system



**PPNG HE nitrogen generator:** Efficient performance and guaranteed nitrogen purity up to 99.999%.

**Purelogic™ controller:** Optimal control and easy local and remote monitoring.

**4-stage inlet filtration:** Guaranteed air quality safeguards the N<sub>2</sub> generator and user applications.

**Variable speed drive compressor with integrated refrigerant dryer:** Guaranteed stable supply of pressure with double-digit reductions in energy use and emissions.

**40 barg receiver or 300 barg cylinder nitrogen storage:** Bottle rack with up to 16 high-pressure cylinders or a 40 barg receiver help manage peak demands by providing stored N<sub>2</sub>.

**40 barg or 300 barg nitrogen booster:** Sized to minimize power consumption and number of start/stops.

**Additional filtration:** Removes contaminants for sensitive applications.

**Local control panel and distribution board:** One panel to power and control the complete system.

## Technical specifications for PPNG skid HE

| Pneumatech variant                           | PPNG Skid 1 HE        | PPNG Skid 2 HE        | PPNG Skid 3 HE        | PPNG Skid 4 HE        | PPNG Skid 5 HE        | PPNG Skid 6 HE        | PPNG Skid 7 HE      | PPNG Skid 8 HE      | PPNG Skid 9 HE      | PPNG Skid 10 HE     | PPNG Skid 11 HE     | PPNG Skid 12 HE     |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| N <sub>2</sub> pressure - Nominal            | 40                    | 40                    | 40                    | 40                    | 40                    | 40                    | 300                 | 300                 | 300                 | 300                 | 300                 | 300                 |
| N <sub>2</sub> capacity - 99.95%             | 8.9                   | 14.0                  | 21.6                  | 31.5                  | 36.9                  | 73.8                  | 9.9                 | 14.9                | 24.0                | 36.0                | 38.0                | 80.4                |
| N <sub>2</sub> capacity - 99.99%             | 6.6                   | 10.4                  | 20.6                  | 30.3                  | 36.9                  | 73.8                  | 7.3                 | 11.1                | 22.9                | 32.9                | 38.0                | 80.4                |
| N <sub>2</sub> capacity - 99.999%            | 4.1                   | 6.3                   | 13.6                  | 20.4                  | 27.2                  | 49.7                  | 4.5                 | 6.9                 | 15.1                | 22.4                | 29.0                | 55.2                |
| Compressor model                             | 8 kw                  | 11 kw                 | 15 kw                 | 22 kw                 | 31 kw                 | 45 kw                 | 8 kw                | 8 kw                | 15 kw               | 19 kw               | 22 kw               | 45 kw               |
| Inlet filtration                             | PMH G - C - VT - D    | PMH G - C - VT - D    | PMH G - C - VT - D    | PMH G - C - VT - D    | PMH G - C - VT - D    | PMH G - C - VT - D    | PMH G - C - VT - D  | PMH G - C - VT - D  | PMH G - C - VT - D  | PMH G - C - VT - D  | PMH G - C - VT - D  | PMH G - C - VT - D  |
| Air / N <sub>2</sub> buffer vessels (Litres) | 500                   | 500                   | 1000                  | 1000                  | 1500                  | 2000                  | 500                 | 500                 | 1000                | 1000                | 1500                | 2000                |
| Nitrogen generator                           | PPNG12 HE             | PPNG18 HE             | PPNG37 HE             | PPNG50 HE             | PPNG68 HE             | PPNG100 HE            | PPNG12 HE           | PPNG18 HE           | PPNG37 HE           | PPNG50 HE           | PPNG68 HE           | PPNG100 HE          |
| Nitrogen LP storage                          | 1000                  | 1000                  | 1000                  | 1500                  | 1000                  | 2000                  | 1000                | 1000                | 1000                | 1000                | 1000                | 1000                |
| Nitrogen booster                             | 7.5 kw                | 7.5 kw                | 7.5 kw                | 7.5 kw                | 7.5 kw                | 7.5 kw                | 5.5 kw              | 5.5 kw              | 5.5 kw              | 11 kw               | 11 kw               | 2x11 kw             |
| HP filtration                                | 50 Barg G - C - V - D | 50 Barg G - C - V - D | 50 Barg G - C - V - D | 50 Barg G - C - V - D | 50 Barg G - C - V - D | 50 Barg G - C - V - D | HP V filter         | HP V filter         | HP V filter         | HP V filter         | HP V filter         | HP V filter         |
| HP storage                                   | 45 Barg 500L          | 45 Barg 500L          | 45 Barg 1000L         | 45 Barg 1000L         | 45 Barg 1000L         | 45 Barg 1000L         | 12 x 50L X 300 Barg | 12 x 50L X 300 Barg | 12 x 50L X 300 Barg | 16 x 50L x 300 Barg | 16 x 50L x 300 Barg | 16 x 50L x 300 Barg |

(1) Flow specified is at the outlet of the PPNG HE generator measured at reference conditions: 1 bara and 20°C  
 (2) For the capacity at higher ambient temperatures please refer to our skid sizing calculator.  
 (3) 300 Barg skids will be set as standard to 290 Barg off-load pressure.

## Options

### Pressure regulators

Regulate the stored nitrogen pressure to the required application pressure.

### Gas mixers

Allow mixing of nitrogen and oxygen for mixed gas applications.

### External room oxygen monitor

Measures the oxygen level in a room to ensure safety.

### Additional storage

K6 – 6 x 50L cylinders up to 300 Barg, maximum 90 Nm<sup>3</sup> volume  
 K12 – 12 x 50L cylinders up to 300 Barg, maximum 180 Nm<sup>3</sup> volume

K16 – 16 x 50L cylinders up to 300 Barg, maximum 240 Nm<sup>3</sup> volume

### High ambient temperature version

The unit comes as standard with a connection for an optional oversized refrigerant dryer to be easily connected to allow for reliable operation in temperatures higher than 35°C/95°C.