

## Gas filtration for laser cutting

# PPNG LX



Contamination of your assist gas can damage your laser system, degrade cutting quality, and bring production to a halt. The Pneumatech PPNG LX filtration panel prevents those risks from happening. Built specifically for high-pressure laser cutting, it removes harmful particles, oil aerosols, and vapors from nitrogen, oxygen, air, or mixed gases to ensure only reliable, clean gas reaches your laser set-up.

### Features and benefits

- Ensures top gas quality
- Protects laser optics, nozzle and cutting head from contamination
- Reduces unplanned downtime and costly repairs
- Maintains consistent cutting quality over time
- Compact, pre-assembled filtration panel
- Suitable for nitrogen, oxygen, air, and mixed gases
- Standard nitrogen and oxygen filtration; optional additional configuration for air and mixed gas filtration
- Based on Pneumatech's proven filter technology

### General specifications

- Operating pressures: 50 barg/725 psig
- Operating temperature range:
  - » 0-120°C/32-248°F (for grades G, C and D)
  - » 0-35°C/32-95°F (for grade V)
- Available grades:
  - » G: general oil coalescing filtration (max. oil carry-over: 0.08 mg/m<sup>3</sup>)
  - » C: fine oil coalescing filtration (max. oil carry-over: 0.007 mg/m<sup>3</sup>)
  - » D: fine dust filtration (99.98% at MPPS)
  - » V: oil vapor filtration (max. oil carry-over: 0.003 mg/m<sup>3</sup>)
- Inlet and outlet connections: threaded
- Housing material: Aluminum

## Protect your operation

The laser head is one of the most valuable and most sensitive components in your laser cutting system. Even trace levels of oil, water vapor, or dust in your assist gas can lead to expensive damage or inconsistent performance. Using advanced multi-stage filtration, the PPNG LX removes oil aerosols, vapors, and particulates before they can reach your laser. It's pre-configured for nitrogen and oxygen, with an optional filter line for air or mixed gas.

## What's inside?

- O<sub>2</sub>: High-efficiency dust filtration
- N<sub>2</sub> and (optional) air or mixed gases: High-efficiency coalescing filtration of aerosols, dust and oil vapors

### 5 reasons why the PPNG LX is essential

1. Meet the highest gas quality standards.
2. Minimize the risk of laser head damage.
3. Extend the life of your laser nozzle and optics.
4. Protect your operation against unplanned downtime and production loss.
5. Ensure peak cutting performance.



## Performance specifications for PPNG LX

|                                             | O <sub>2</sub> filtration                                       | N <sub>2</sub> filtration / Mixed gas filtration |         |                                       |
|---------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------|---------|---------------------------------------|
|                                             | HP PF D                                                         | HP PF G                                          | HP PF C | HP PF V                               |
| Contaminant                                 | Dry dust                                                        | Oil aerosol/wet dust                             |         | Oil vapor                             |
| Test method                                 | ISO 8573-4:2019<br>ISO 12500-3:2009                             | ISO 8573-2:2018<br>ISO 12500-1:2007              |         | ISO 8573-5:2001                       |
| Maximum oil carry-over (mg/m <sup>3</sup> ) | -                                                               | 0.3                                              | 0.01    | 0.003                                 |
| Particle removal micron                     | 0.01                                                            | N/A                                              | N/A     | N/A                                   |
| ISO class 8573-1                            | 1:-:-                                                           | 2:-:3                                            | 1:-:2   | 3:-:1                                 |
| Dry pressure drop (mbar)                    | 85                                                              | 85                                               | 100     | 140                                   |
| Wet pressure drop (mbar)                    | N/A                                                             | 180                                              | 215     | N/A                                   |
| Element service                             | After 8,000 operating hours or 1 year or 350 mBar pressure drop | After 4,000 operating hours or 1 year            |         | After 1,000 operating hours or 1 year |

## Technical specifications for PPNG LX

| Measurement | N <sub>2</sub> filtration capacity (@ 30 barg) | O <sub>2</sub> filtration capacity (@ 30 barg) | Air/Mixed gas (option) capacity | Max pressure | Inlet/outlet connections | Dimensions (L x W x H)* | Mass**  |
|-------------|------------------------------------------------|------------------------------------------------|---------------------------------|--------------|--------------------------|-------------------------|---------|
| Metric      | 315 Nm <sup>3</sup> /h                         | 112 Nm <sup>3</sup> /h                         | 315 Nm <sup>3</sup> /h          | 50 Barg      | 1/2" BSPP female         | 0.6x0.6x1.035m          | 51 kg   |
| Imperial    | 185 Scfm                                       | 66 Scfm                                        | 185 Scfm                        | 725 psig     | 1/2" BSPP female         | 23.6x23.6x40.7"         | 112 lbs |

\*Incl option: 1525mm height

\*\*Incl option: 79kg

**Reference conditions:** 20°C/68°F and 30 Barg

## Options

- Air or mixed gas filter panel