## Gas Purifiers

## Helium and Nitrogen Purifiers

Carrier gas purity is essential in any application requiring extreme sensitivity. Impurities limit detector sensitivity and can even destroy capillary columns. The Valco HP2 provides"point-of-use" purification of helium or other noble gases, such as $\mathrm{Ar}, \mathrm{Ne}, \mathrm{Kr}$, and Xe , to sub-ppm levels of reactive gaseous impurities. The NP2 is similar, purifying nitrogen to sub-ppm levels of gaseous impurities.

The purification substrate in Valco gas purifiers is a non-evaporable gettering alloy. This stable alloy is contained in a welded assembly, so the purifiers can be used safely in industrial applications with minimal precautions. The getter is activated by heating, which eliminates the oxide film on the particle surface and allows helium to diffuse into the bulk of the getter particles. The HP2 and NP2 feature a self-regulating design which eliminates the possibility of thermal runaway and maintains the getter material at the optimum temperature.

## Standard helium and nitrogen purifiers

Includes universal power supply.

Helium purifier
Description
110 VAC
230 VAC

Prod No
HP2
HP2-220

Nitrogen purifier
Prod No
NP2
NP2-220


## Replacement getter assembly

Helium I-23572HP2
Nitrogen I-23572NP2

HELIUM PURIFIER

- CE certified

■ Gases purified $\mathrm{He}, \mathrm{Ne}, \mathrm{Ar}, \mathrm{Kr}, \mathrm{Xe}, \mathrm{Rn}$

- Maximum operating pressure 1000 psig
- Impurities removed Outlet impurities less than 10 ppb $\mathrm{H}_{2} \mathrm{O}, \mathrm{H}_{2^{\prime}} \mathrm{O}_{2^{\prime}}, \mathrm{N}_{2^{\prime}}, \mathrm{NO}, \mathrm{NH}_{3^{\prime}} \mathrm{CO}^{\prime}, \mathrm{CO}_{2^{\prime}}$, and $\mathrm{CH}_{4^{\prime}}$ based on 10ppm total inlet impurities. Other impurities removed include $\mathrm{CF}_{4^{\prime}} \mathrm{CCl}_{4^{4}} \mathrm{SiH}_{4}$ and light hydrocarbons.
- Impurities not removed
$\mathrm{He}, \mathrm{Ne}, \mathrm{Ar}, \mathrm{Kr}, \mathrm{Xe}, \mathrm{Rn}$

| NITROGEN PURIFIER <br> CE certified |  |
| :---: | :---: |
| - Gases purified | $\mathrm{N}_{2}$ only |
| - Impurities removed | Outlet impurities less than 10ppb $\mathrm{H}_{2} \mathrm{O}, \mathrm{H}_{2^{\prime}} \mathrm{O}_{2^{\prime}}, \mathrm{NO}, \mathrm{NH}_{3^{\prime}} \mathrm{CO}^{\prime}, \mathrm{CO}_{2^{\prime}}$, and $\mathrm{CH}_{4^{\prime}}$ based on 10ppm total inlet impurities. Other impurities removed include $\mathrm{CF}_{4^{\prime}} \mathrm{CCl}_{4^{4}} \mathrm{SiH}_{4}$ and light hydrocarbons. |
| - Impurities not removed | $\mathrm{He}, \mathrm{Ne}, \mathrm{Ar}, \mathrm{Kr}, \mathrm{Xe}, \mathrm{Rn}, \mathrm{N}_{2}$ |

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## Miniature Gas Purifiers

The Valco Miniature Helium Purifier (HPM) and Miniature Nitrogen Purifier (NPM) are designed to be installed in a gas chromatograph's flow path immediately upstream of the injector.

The HPM/NPM will remove any contaminants introduced by flow controllers, elastomeric tube seals, pressure regulators, crude traps, or other system components that are not completely clean and leak-tight.

## Mini helium and nitrogen purifiers

| Includes universal power supply. <br> Helium purifier | Nitrogen purifier <br> Description | Prod No |
| :--- | :--- | :--- |
| 110 VAC | HPM | NPM |
| 230 VAC | HPM-220 | NPM-220 |

