

Gasfilter Lambda

Intended use

The filter is suitable for eliminating hydrogen chloride (HCl) and fluorine (F₂) from the inflowing gas.

Storage

The filters must be stored in the unopened package in accordance with the relevant regulations. According to the Accident Prevention Rule »Protection from hazardous chemical substances (VGB 1a)«, unopened filters can, e.g. where the FR Germany is concerned, be stored for a period of 4 years. The filter shelf-life is printed on the package.

The general rule is:

Filters should always be stored in dry rooms and in their unopened package so that they are protected from being damaged. Irrespective of their a/m shelf life should such filters that reveal a visible damage e.g. dents, be eliminated even if the self life is not yet expired.

Usage period

The usage period of a filter depends on a number of factors (e.g. nature and concentration of the pollutant). The exhaustion of a filter used against gaseous substances is determined by traces of the pollutant behind the filter.

Disposal

The unused filter and those filters that have been used according to their envisaged application (cf. intended use), must be disposed of according to relevant regulations. For disposal, the used filter should be placed into the bag of the replacement filter. The bag must be closed by means of the clamping strap supplied.

MSDS is in the blue
MSDS folder.
11/9/95



LAMBDA PHYSIK

LASERTECHNIK

USER INSTRUCTION

Intended Use

Lambda Physik excimer lasers utilize a halogen filter to remove atomic and molecular species of hydrogen chloride (HCl) and fluorine (F₂) from laser gas mixtures exhausted from the discharge reservoir.

Storage

The filters must be stored in the unopened packaging in accordance with the relevant regulations. According to the Accident Prevention Rule 'Protection from hazardous chemical substances (VBG 1a, FR Germany)', unopened filters can be stored for a period of up to 4 years. The filter shelf-life is printed on the packaging. Filters should always be stored in dry rooms and in their unopened packaging so they are protected from being damaged. Filters with a visible damage e.g. dents must be separated irrespective of their shelf-life.

Usage period

The usage period of a filter depends on several factors (e.g. kind and concentration of the pollutant). A filter used against gaseous substances is exhausted if traces of the pollutant are detectable at the filter outlet.

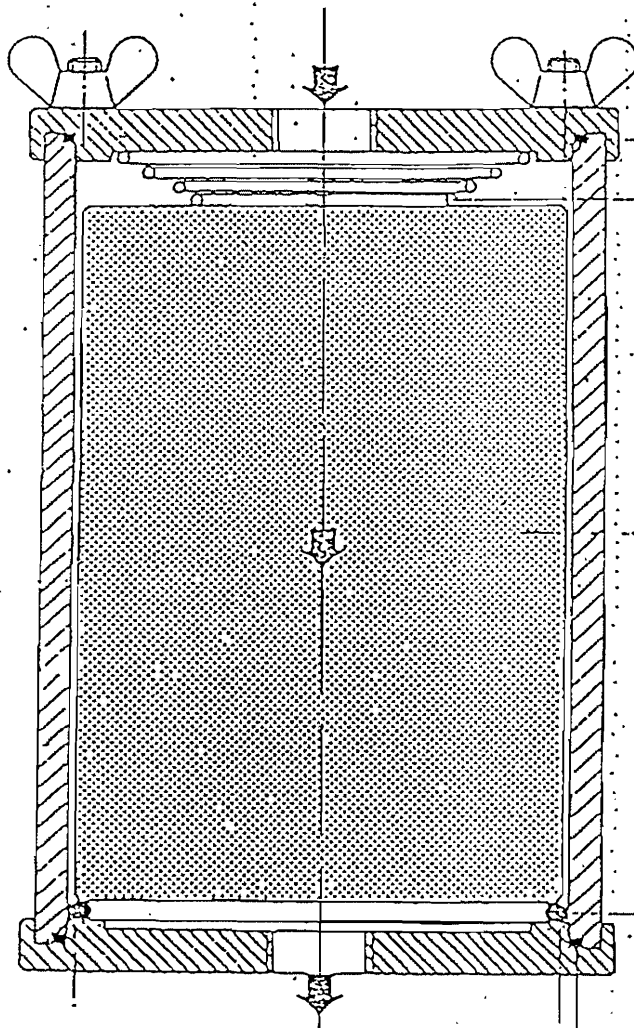
Disposal

Unused filter and those filters that have been used according to their intended application (cf. intended use), must be disposed of according to relevant regulations. A used filter can warm up if it gets into contact with atmospheric humidity. Therefore, it is highly recommended to deactivate the filter by approximately 10 l of water after it has been removed from the filter housing. For final disposal, the used filter should be placed into the bag of the replacement filter. The bag should be closed by means of the supplied tie-rip. The water used for deactivation contains hydrochloric or hydrofluoric acid (HCl, HF) as well as potassium carbonate (K₂CO₃). The water should be neutralized with calciumhydroxide. Then it can be disposed according to the relevant regulations.

Except of MSDS section 2

SECTION 2 – HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Component(s) (chemical & Common name(s))	OSHA PEL	ACGIH TLV	Other Exposure Limits	CAS NO.
Carbon	N/A	N/A	N/A	7440-44-0
Potassium carbonate				



O-Ring ϕ 88,57 x 2,62
900879

Kegelfeder / Spring
904516

Filterpatrone /
Cartridge
904166

O-Ring ϕ 85 x 4
900411

O-Ring ϕ 88,57 x 2,62

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Corp. Source: RICE UNIV, DEPT CHEM, POB 1892, HOUSTON, TX, 77251
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Article Title: A SIMPLE AND EFFICIENT EXTERNAL GAS FILTRATION AND TRAPPING
SYSTEM FOR EXCIMER LASERS

Journal Source: REVIEW OF SCIENTIFIC

INSTRUMENTS, Volume: 65, Issue: 8, Issue

Date: AUG, Publication Year: 1994, Pages: 2464-2469

Language: EN: ENGLISH.

Document Type: 3: ARTICLE.

Abstract: Excimer lasers are excellent sources of coherent light in the ultraviolet range of the spectrum. However, they have the drawback of requiring significant maintenance due to the corrosive gases, generation of dust, and contamination of the laser chamber optics which occur during normal operation. Improvements which are generally applicable to any excimer laser system are specifically described in terms of the two Questek (Lambda Physik, Acton, MA) model 2860 lasers in our lab. The same basic procedures are currently being implemented in two Lambda lasers in other research groups at our university. A novel gas triple filtration system, a simple cold trap with a counter-flow heat exchanger, and a careful selection of valves have been added to minimize dust contamination of the optics, to decrease contamination and leakage of the gas fill, to provide safe and easy dust removal, and to reduce maintenance downtime.

Product Code: S

T

Subject Cat.: UB: PHYSICS, APPLIED. OA: INSTRUMENTS & INSTRUMENTATION.

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Number of References: 14

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Genuine Article Number: PC319

**DESCRIPTION
AND PROPERTIES**

Now safely remove hazardous halogens from your excimer laser's waste gas stream. Through extensive development and in-field testing Alphagaz has developed a safe scrubber to remove fluorine or hydrogen chloride from excimer laser waste gas streams.

NO HAZARDOUS BY-PRODUCTS

The scrubbing medium reacts with the dangerous halogens to transform them into safe compounds. There are no hazardous by-products. To guarantee against by-pass a site indicator is located down stream of the scrubber. The indicator will change color upon contact with low levels of halogens, informing you that the unit is ready to be recharged. The chance release of dangerous halogens into the atmosphere is substantially reduced.

YOUR HALOGEN HANDLING PROBLEMS SOLVED

The one liter scrubber has the capacity to remove 17 liters of pure fluorine or 20 liters of pure hydrogen chloride (specify) from excimer waste gas streams. Scrubbers are sized to meet your requirements.

Alphagaz offers complete service for halogen disposal. We provide for recharging spent units, including approved handling of the spent medium.

Call 1-(800)-248-1427 for further information.

Halogen Scrubber for Excimer Lasers

