



**Standard for clean air**

## **KLR-Filter®**

**High-performance filter elements for separating a variety of process emissions**

**Increased service life with reduced energy consumption**



All characteristic elements of this new Keller design were optimized in comparison to typical models. The service life was increased up to 120.000 cleaning intervals - with simultaneous reduction in energy usage.

A beneficial result in all aspects!



# KLR-Filter® – the new standard

## **KLR-Filter® stands for Keller Long Run**

Keller Lufttechnik commands decades of experience in the separation and extraction of manufacturing emissions in diverse industries.

Keller developed a new generation of filters in various designs in order to meet increased demand, especially for prolonged filter service life.

The new specifications resulted from our comprehensive practical experience.

KLR-Filter® denotes Keller Long Run filter.

## **The pleated surface was increased**

The surface of the filter was expanded using finer pleats. The energy demand decreased by 5 % due to minimal pressure loss.

## **Flow-optimised frame construction**

The wide sidebars are composed of GFC and are streamlined to optimize the inflow of dirty air, while protecting the filter from direct particle impact and excessive wear.

## **KLR-Filter® have a service life of up to 120.000 cleaning intervals**

The original Keller KLR-Filter® set a new service life record in this filter design, with up to 120.000 cleaning intervals.

This superior quality was achieved with the choice of materials, and with our high-quality, state-of-the-art in-house manufacturing process in particular.

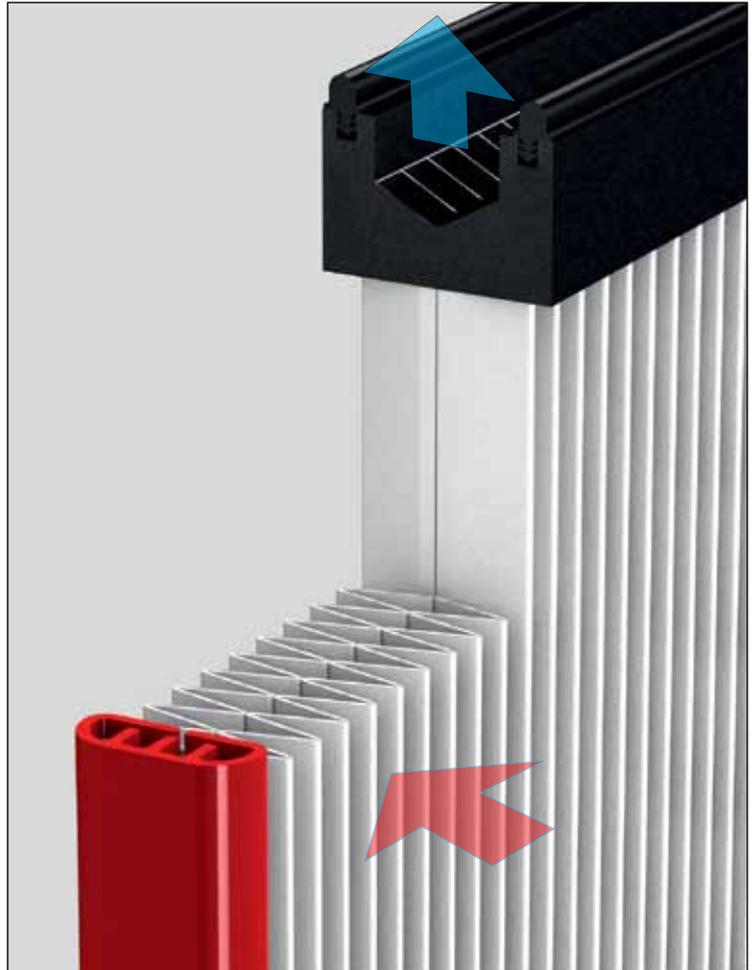
## **New design for energy conservation**

Additional features of the KLR-Filter® are very low filter resistance and optimized dirty air flow which result in reduced energy usage.

## **Versatile**

Due to their various characteristics, the new KLR-Filter® is suitable for many applications, ranging from thermal processes to grinding processes, to wet painting processes.

Operating temperature up to 110 °C.



This diagram illustrates the design of the original Keller KLR-Filter®.

The self-supporting filter plates present a larger number of pleats, thereby increasing the filter surface as compared to the customary filter design

# Filter for exhaust air and return air operation



## KLR-Filter® for exhaust air operation

KLR-Filter® without an additional membrane is suitable for numerous applications in exhaust air operation, or as an additional feature for return air operation because of its high separation efficiency.

The basic operating conditions must be clarified in advance by the operator. If required, we will be pleased to provide a consultation.



- ① KLR-Filter® in standard design
- ② KLRas in antistatic design

**Residual dust content < 0,5 mg/m<sup>3</sup>**



VARIO eco dry separator with exhaust air operation

## KLR-bran filters are suitable for thermal processes and painting processes - as well as for return air operation

≥ 99.9 % separation efficiency of KLR-bran filters (nearly H13 filter quality)

KLR-bran filters are equipped with a PTFE membrane to separate particulate. All configurations can be obtained with an **IFA-M-test certificate** for return air operation according to the **DIN EN 60335-2-69**.



The diagram shows a KLR-bran filter including separation membrane



KLR-bran filter in various designs

- ③ KLR-bran (standard, including PTFE membrane)
- ④ KLR-bran as (including membrane + antistatic)
- ⑤ KLR-bran pure as (including membrane + PWIS-free + antistatic)

**Residual dust content < 0,1 mg/m<sup>3</sup>**

Overview of the various versions	KLR	KLR as	KLR-bran	KLR-bran as	KLR-bran pure as
Residual dust content: < 0,5 mg/m <sup>3</sup>	●	●			
Residual dust content: < 0,1 mg/m <sup>3</sup>			●	●	●
Application temperature: up to 110 °C	●	●	●	●	●
Cleaning pressure: max. 4 bar	●	●	●	●	●
including additional PTFE membrane			●	●	●
in antistatic design		●		●	●
PWIS-free					●
Service life: up to 20.000 operating hours or up to 120.000 cleaning intervals; for 3 years max.*					

\* with intended use according to the instruction manual

## Two types of installation



### KLR-Filter® for installation on the dirty air side



Sealing gasket for the filter plate is above the header



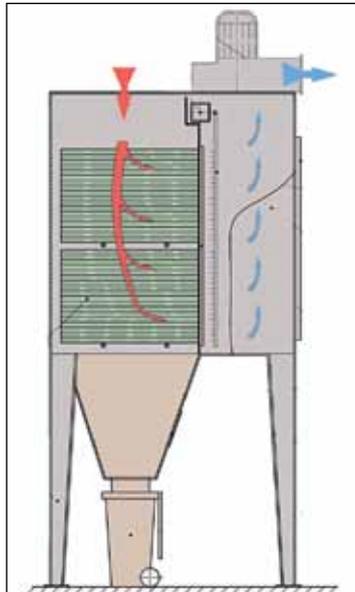
Keller VARIO eco dry separator

For VARIO eco dry separators, the KLR-Filter® exchange is made inside the dirty air zone.

### KLR-Filter® for installation on the clean air side



The sealing gasket for the filter plate is installed below the header



Keller PT dry separator

For PT dry separators, the exchange of the KLR-Filter® (horizontal installation) is performed inside the clean air zone.



With GREEN BALANCE Keller Lufttechnik GmbH + Co. KG commits to reliable, far-sighted treatment of all resources – to bring into line technological progress, operational issues and social targets in order to protect the environment.

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