KELLER
Standard for clean air

Dry Separator PCF-1

Non-contaminating dry separator for handling hazardous pollutants and ensuring maximum safety of employees and products.



Standard for clean air

The compact, versatile (H)EPA dry separator

Enhanced user safety and production quality through dedusting

Dedusting is crucial in the processing of pulverized materials, such as those used in the pharmaceutical, chemical as well as food industries (PCF-1).

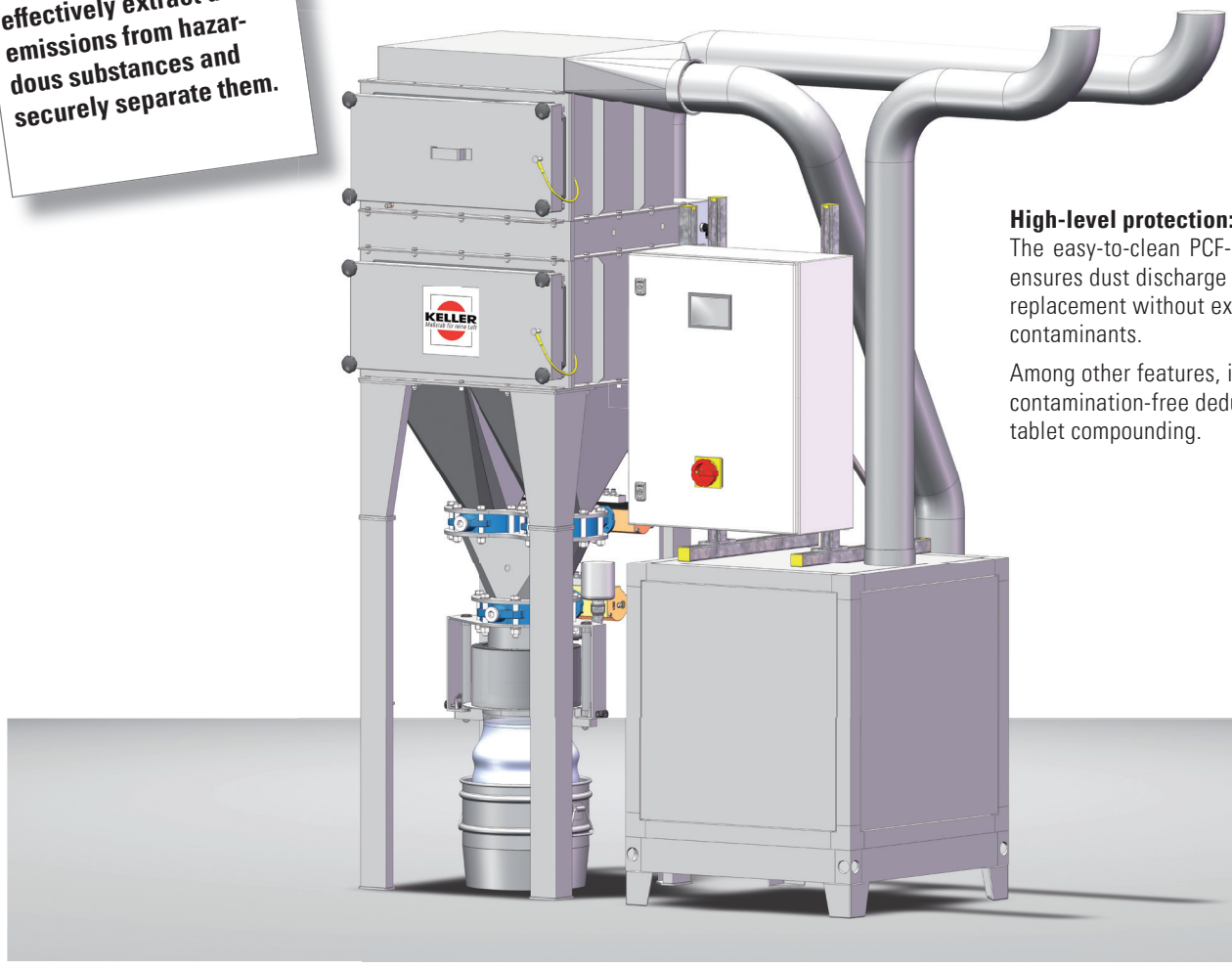


The new Keller PCF-1 provides the perfect solution for your requirements!

Cleanliness is vital in these highly sensitive and strictly controlled industries in order to ensure product quality, productivity and occupational safety.

Powdered substances are often highly reactive and risky, especially in the **chemical and pharmaceutical sectors**. Effective dedusting technology that meets the applicable standards is therefore essential.

Keller offers customized all-in-one systems to effectively extract dust emissions from hazardous substances and securely separate them.



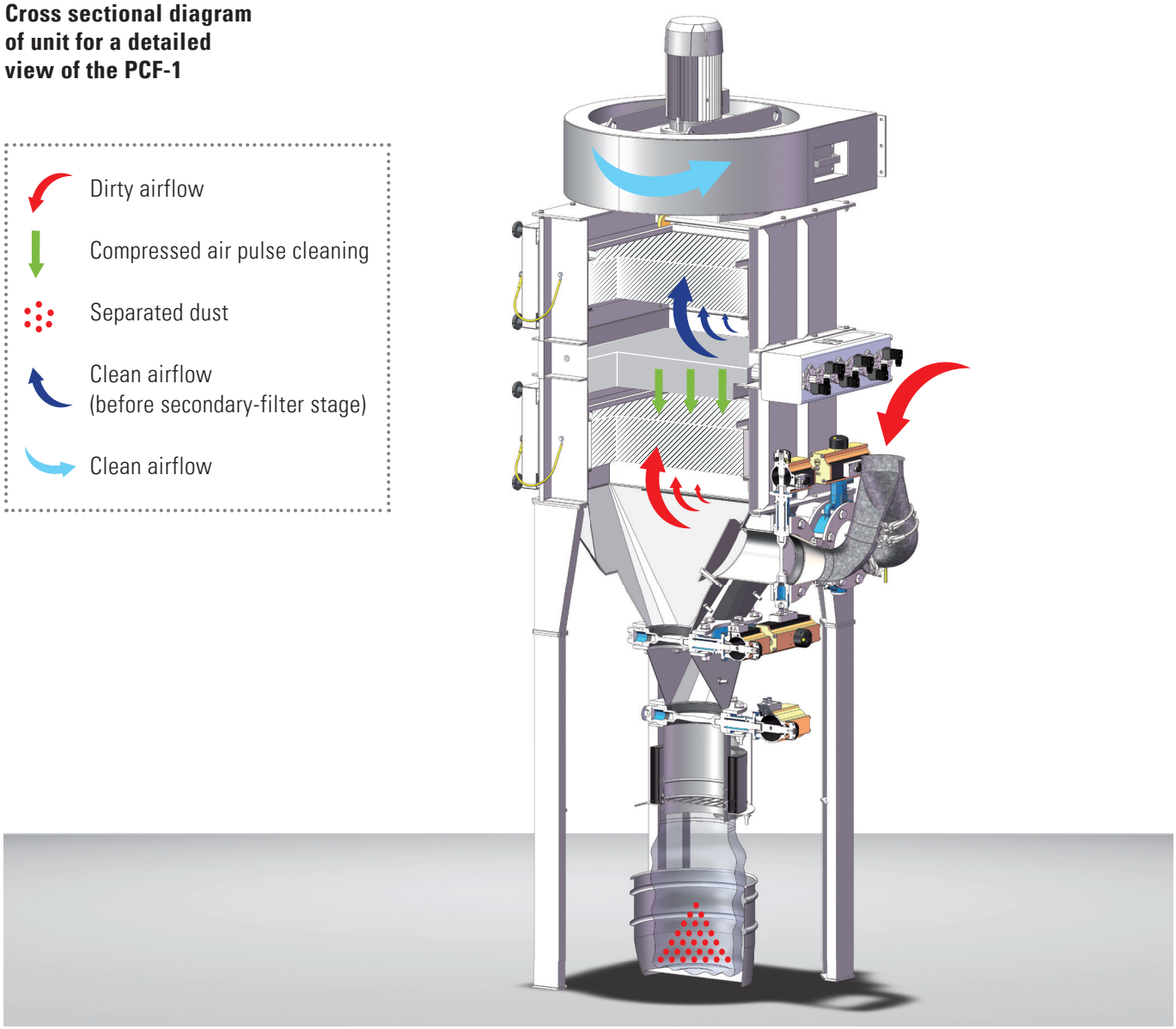
High-level protection:
The easy-to-clean PCF-1 dry separator ensures dust discharge and filter replacement without exposure to contaminants.

Among other features, it enables contamination-free dedusting during tablet compounding.

The versatile (H)EPA compact dry separator

Cross sectional diagram of unit for a detailed view of the PCF-1

- Dirty airflow
- Compressed air pulse cleaning
- Separated dust
- Clean airflow (before secondary-filter stage)
- Clean airflow



Technical data Keller PCF-1

Dimensions at floor	1.250 mm x 1.180 mm
Height	Approx. 2.500 mm (floor mounted fan) Approx. 3.000 mm (top-mounted fan)
Air Flow	200 – 1.000 m³/h*
Filter stages (1st/2nd filter)	HEPA filter (F9 - H13/H13)
Max. admissible vacuum for filter housing	200 mbar
Electrical Controls	400 V, 50 Hz | Siemens-control | optional VFD-operation

* Greater air flows can be achieved through modulation (see variants on page 8)

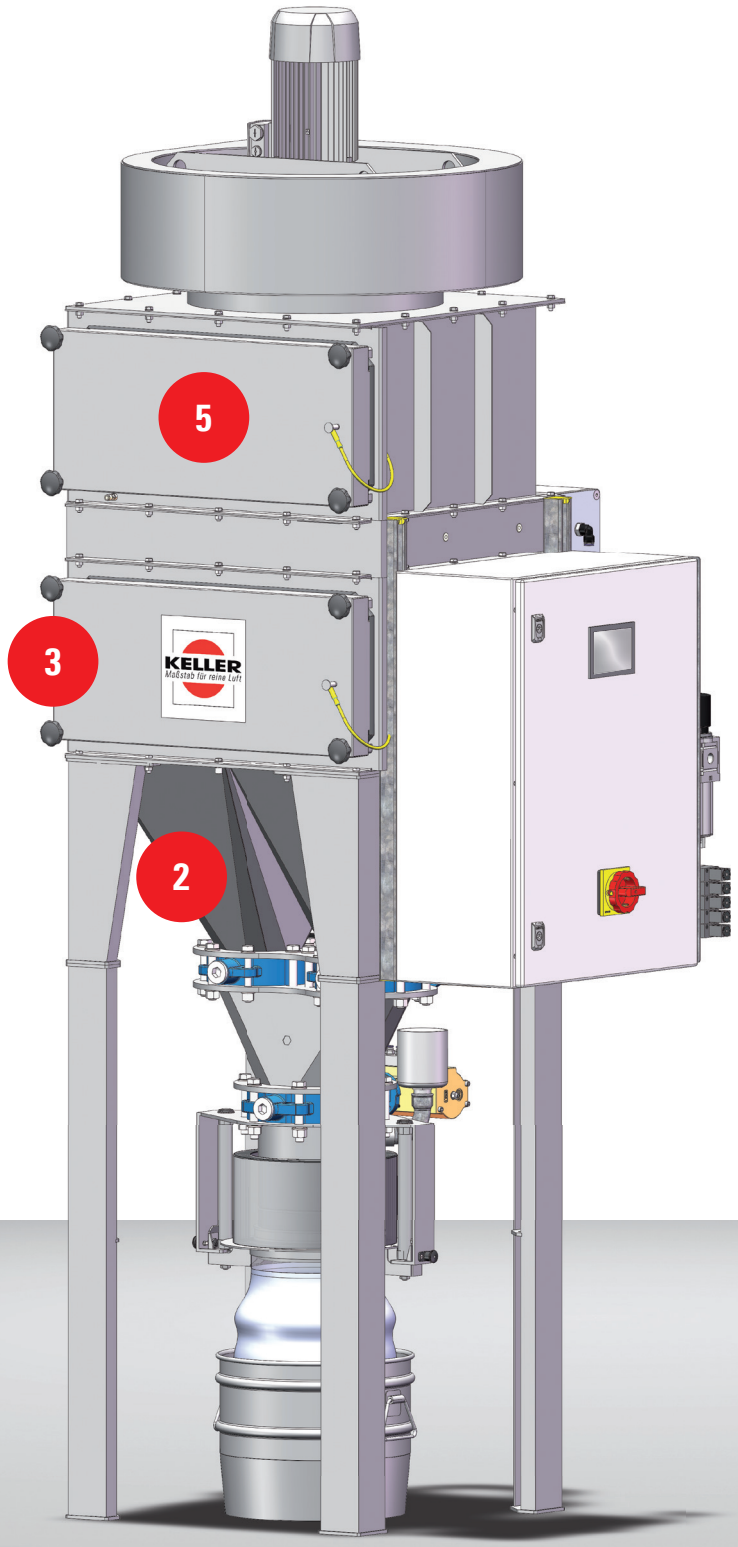
Features & Operation

The polluted air (dirty air) flows through the **dirty air inlet (1)** towards the **hopper (2)** where larger particles are pre-separated and captured in an intermediate disposal hopper.

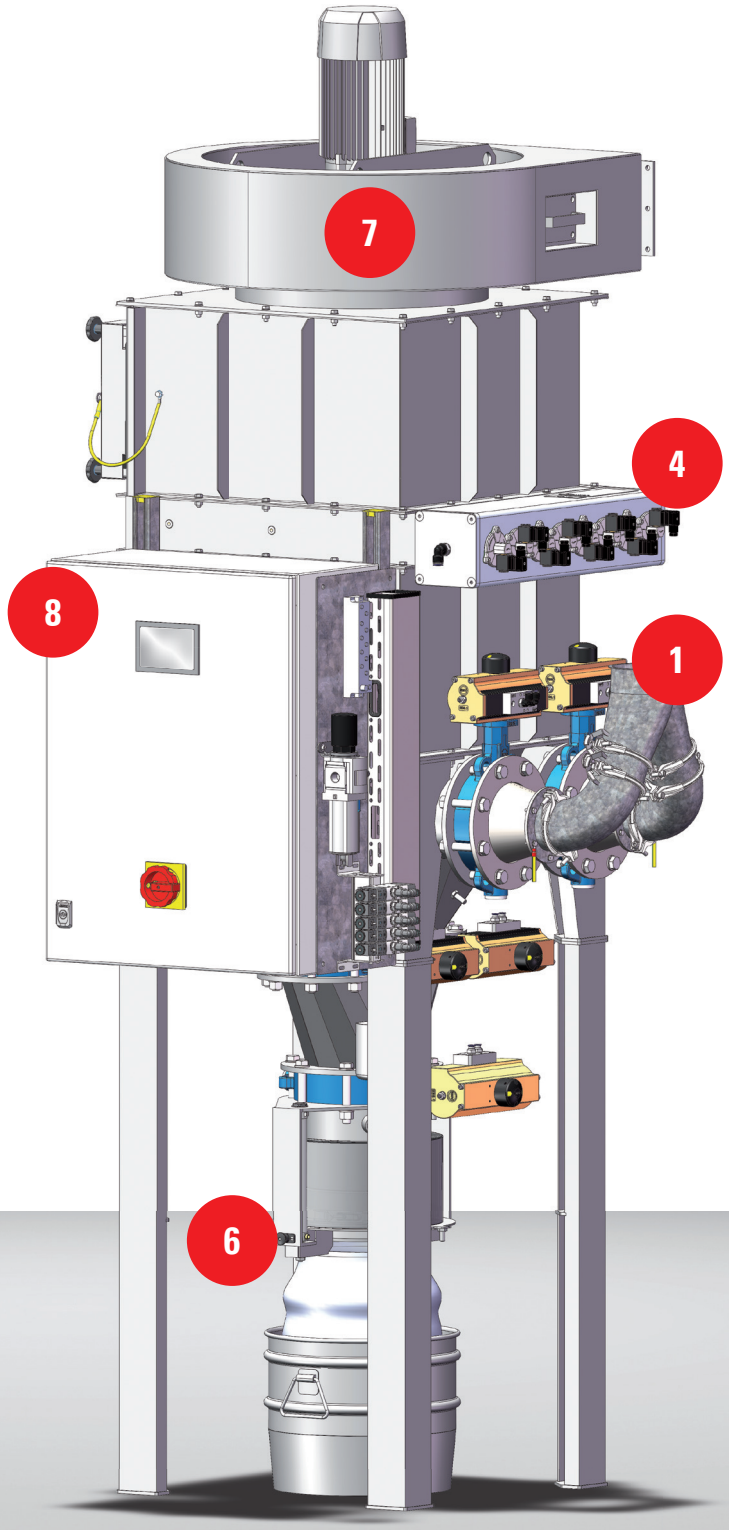
The remaining particles are directed by the airflow to the first **(H)EPA filter stage (3)**. Depending on the configuration of the filter element (e.g., H13), up to ≥ 99.95 % efficiency will be reached.

Another benefit is the **cleaning unit (4)** for regeneration of the the primary filter stage, which can significantly increase the filter service life.

A **secondary filter stage (5)** ensures extremely low residual dust emissions. Special filter housings with a Bag-in/Bag-out-method allows contamination-free filter exchange of both filter stages.



Front view



Side view

The **continuous-feed liner disposal unit (6)** simplifies the handling of the discharged substances and provides enhanced safety in the production process due to the contamination-free discharge.

The required extraction capacity for the unit is supplied by the **fan (7)** which can be offered as a top mounted or stand-alone system.

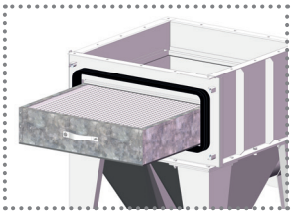
The **high performance Keller electrical control (8)** completes the PCF-1. The optional variable frequency drive (VFD) regulates the fan output as required to maintain constant airflow while providing energy efficiency and low operational cost.

product website

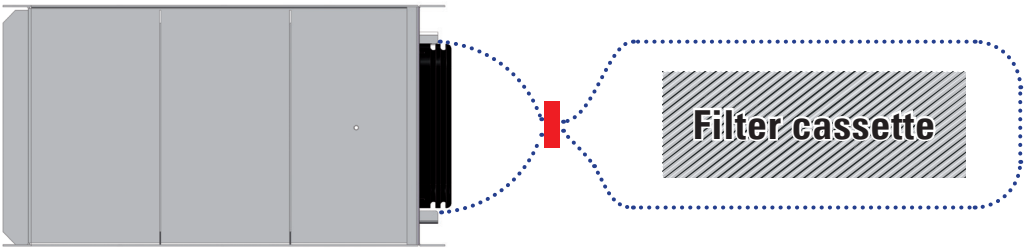
Contamination-free filter replacement

Simple and safe maintenance due to Safe-Change

Ease of maintenance is particularly important to Keller and the operator. Therefore Keller has designed the PCF-1 to allow for **safe, quick and easy** maintenance. If the filter cassettes have reached their **maximum service life**, they can be easily and **safely replaced without contamination** through the Bag-in/Bag-out-method.
Our priorities are employee safety and air quality. **The Bag-in/Bag-out-method** ensures contaminant-free replacement of the two filter cassettes. This means that potentially **hazardous particulate** remains **safely contained** during replacement, so that no airborne pollutants can leak from either the filter cassette or inside the filter system. This minimizes the release of dust or bio-hazard emissions into the operating environment.



The filter cassettes can be changed simultaneously safely and effortlessly by qualified staff.



To replace the filter cassette, just remove the lid of the housing cover. There is a **special plastic bag** behind it covering the filter cassette. The protective bag is ejected and secured using a **manual bag sealing system**, which ensures compliance with a containment level **up to OEB 5 (< 1µg/m³).**

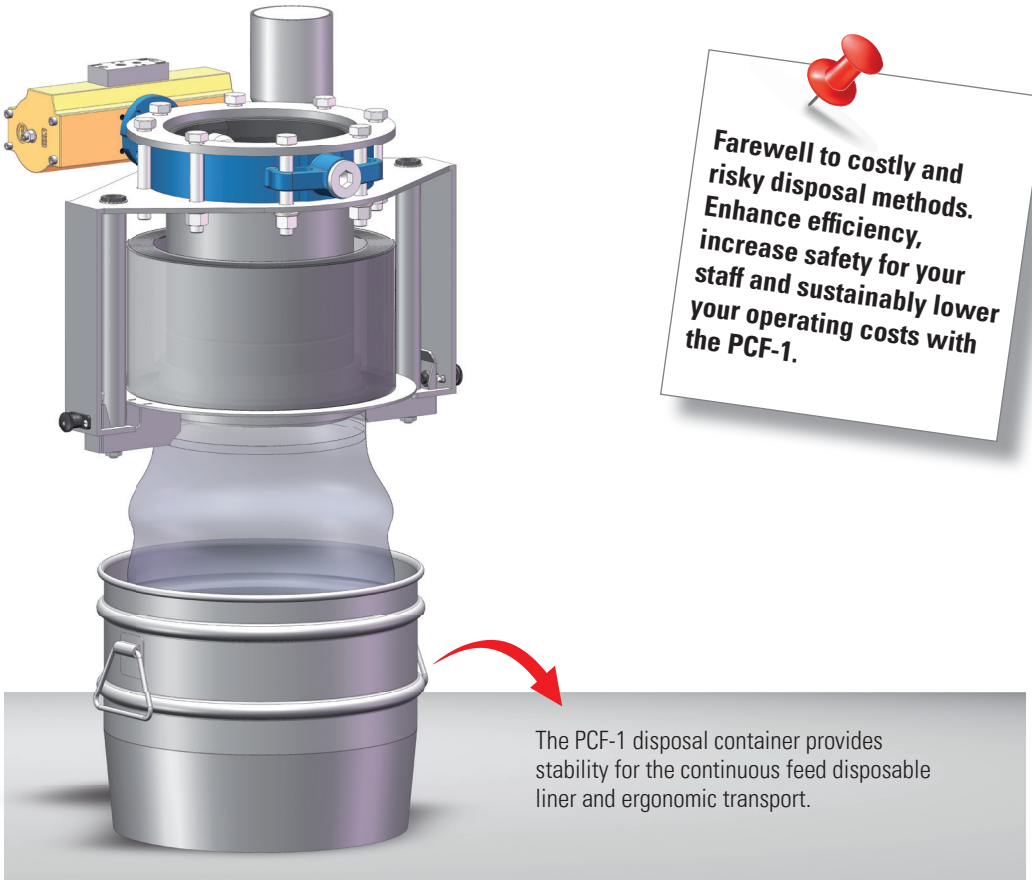
Benefits overview

- ☑ **Occupational safety** – minimizing health risks using the Bag-in/Bag-out-method
- ☑ **Efficiency and continuous operation** – fast changeover process reduces downtime
- ☑ **Air quality and environmental safety** – Air pollution prevention and no environmental impact
- ☑ **Ease of operation** – Error free user-friendly design for easy handling
- ☑ **Reduced operating costs** – reduced downtime, plus increased productivity
- ☑ **The latest safety and environmental standards met** by contamination-free filter exchange

Contaminant-free disposal

Dust discharge free of contamination by use of a continuous liner feeding system

Searching for a solution for the contaminant-free and cost-efficient disposal of hazardous substances?
Our continuous liner disposal unit offers the solution for your needs!



Farewell to costly and risky disposal methods. Enhance efficiency, increase safety for your staff and sustainably lower your operating costs with the PCF-1.

The PCF-1 disposal container provides stability for the continuous feed disposable liner and ergonomic transport.

Maximum ease of operation:

The user-friendly design ensures **quick and easy handling** when disposing of separated matter, even while the system is operating. Only as much liner is dispensed as the volume of material separated. The continuous liner comes with a special folding mechanism, which minimizes the frequency of changing liner containers.

Highest safety standards:

Safety is our first priority. Our closed system minimizes the risk of environmental and product cross-contamination using **special film liners**, along with multiple O-ring technology. A containment level of **up to OEB 5** is possible. No special protective gear is required for the disposal and continuous-feed liner changes.

Focus on cost efficiency:

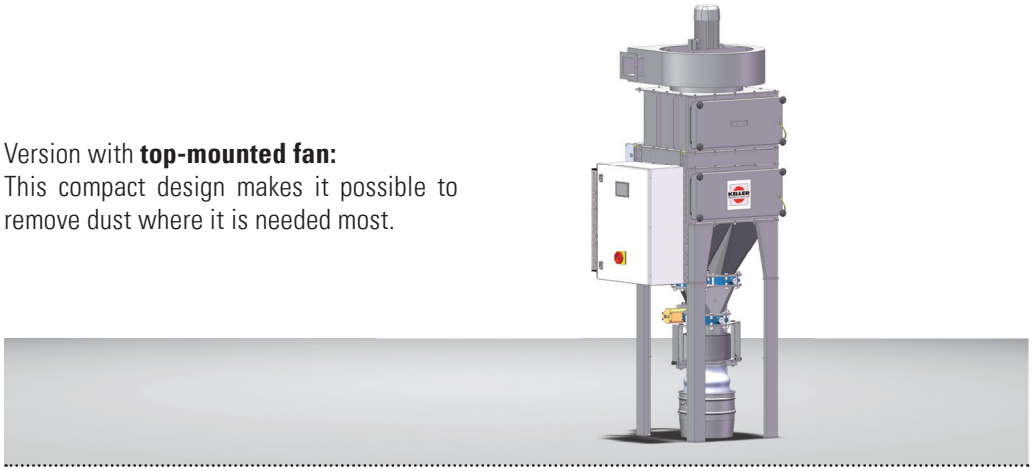
Operating efficiency is an important aspect of business management. Our disposal unit optimizes the material flow and minimizes waste with a manual sealing system, as the liners can be cut to length individually to match the volume of fill. Compared to the Bag-in/Bag-out-method, this results in **substantial cost savings**.

Dry separator PCF-1

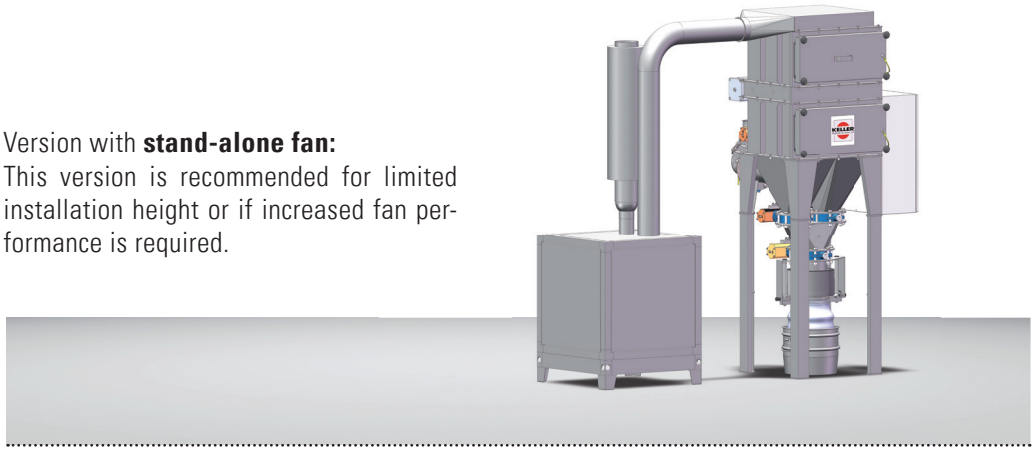
The Keller PCF-1 is designed to meet customer needs

In developing the PCF-1, great importance was placed on maximum flexibility and efficiency. The PCF-1 is available in various materials and external variants and designs:

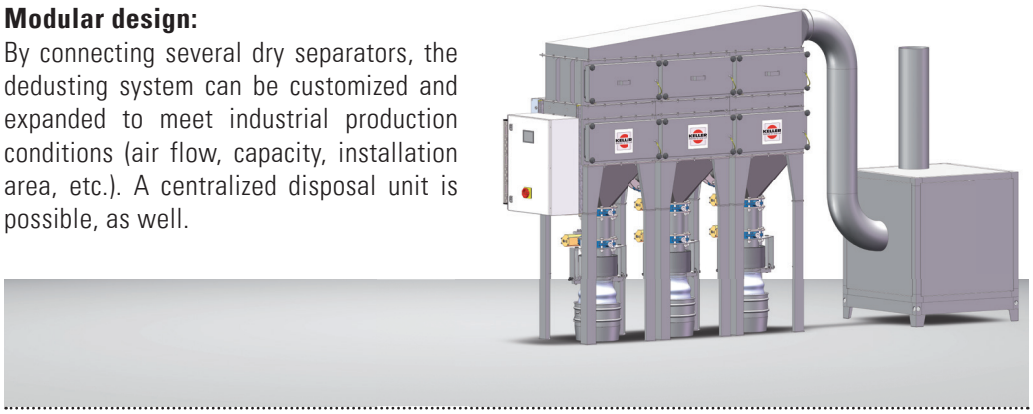
Version with **top-mounted fan:**
This compact design makes it possible to remove dust where it is needed most.



Version with **stand-alone fan:**
This version is recommended for limited installation height or if increased fan performance is required.



Modular design:
By connecting several dry separators, the dedusting system can be customized and expanded to meet industrial production conditions (air flow, capacity, installation area, etc.). A centralized disposal unit is possible, as well.



Keller Lufttechnik GmbH + Co. KG
Neue Weilheimer Str. 30
73230 Kirchheim unter Teck
Fon +49 7021 574-0
keller-lufttechnik.de

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