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Brennereitechnologie

CALIDUS Kerzenfilter

- cartridge filter for efficient filtration
of spirits, liqueurs, and oils -

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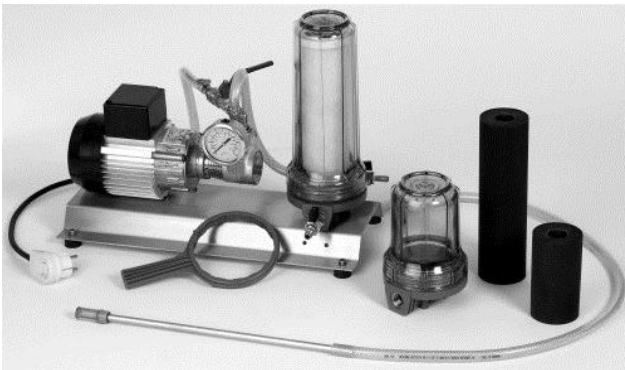
Technical informations and instructions for use

General Instructions:

When lowering high-percentage distillates on drinking strength, sedimentation almost always occurs. These are mainly oily, mostly undesirable tails ingredients. In addition, mineral precipitation may form when using non-softened blending water.

The speed of sedimentation build-up and volume are dependent on the time, the temperature and the alcohol content.

Illustration CALIDUS filter cartridge:



Scope of supply:

CALIDUS filter cartridge with
big cartridge housing (Art.-No. 6468)
or
small cartridge housing (Art.-No. 6467)

In each case including 1 filter cartridge, 1,5 m supply hose with suction lance made of stainless steel, 1,5 m drain hose, hose quick connect, Wrench key

Technical data of the rotary van pump w. engine:

voltage:	230 V
performance:	245 W
Suction height (wet pump):	2 m
Conveying capacity:	50-1000 L/h
Maximum pressure:	18 bar

General rules of sediment development and removal:

The lower the alcohol content of the diluted distillate and the cooler the temperature during storage, the faster the sediment will form. The longer the rest period of the readily diluted distillate, the more sediment is formed.

If the distillate is diluted in several steps (for example every three days by 10% volume) rather than in one step, larger particles and droplets of sediment are formed, which are more easily removed by filtration.

Many already visible turbidities dissolve again if heated, so that they can not be completely removed by a subsequent filtration. A permanent removal of the existing sediment formers by filtration is therefore only possible if diluted to drinking strength distillate

- has been standing for at least 10 days,
- was cool enough (15 ° C at the most)
- has not warmed up directly before or during filtration,
- after filtration, do not store in a cooler place than before filtration.

Failure to comply with one or more of these conditions increases the risk of after-sedimentation.

For the filtration of brandies, which are to be stored later at room temperature, it is sufficient to store the distillate diluted to drinking strength before filtration at room temperature for at least two weeks, if it is filtered through one of the patented **special filter cartridges AK or CBC** (see reverse side).

Description and operating principle of the CALIDUS filter cartridge:

The **CALIDUS filter cartridge** sucks the cloudy spirit (non-filtrate) with a self-priming centrifugal pump and pushes it from the outside in through a filter cartridge. This retains the particles and flakes present in the unfiltered material, but also sediment-causing oil droplets. The filter cartridge sits in the filter housing.

The pressure relief valve between the pump and the cartridge container is set to approx. 7 bar. It ensures that an unusually occurring higher pressure does not lead to the cracking of a possibly already damaged filter housing.

Which filter candle for what?

For fruit, grain and root brandies as well as geist, the **dark filter cartridge AK** can achieve excellent filtration results with minimal flavor loss. This cartridge consists of a special coconut shell granules with high adsorptive effect and diatomaceous earth, which were pressed together with a food-safe plastic under heat.

For the filtration of yeast brandies the externally **white, filled with charcoal cartridge CBC** is suited.

Already used, but not yet exhausted filter candles can be stored in clean alcohol and later used until fully exhausted. Exhausted cartridges can not be cleaned and should therefore be discarded.

Due to the aroma carryover brandies of different fruit species should not be filtered one after the other with the same cartridge.

Performance of the filter cartridge:

Both types of cartridges are available in lengths of 123 and 245 mm. Of course, depending on sedimentation amount and composition short cartridges have a capacity of about 350 liters, long cartridges have a capacity of about 700 liters. In Williams brandies, which form a particularly oily sedimentation, a filtration capacity of about 200 or 400 liters per cartridge can be expected.

Optional accessory:

small cartridge container:	(No. 6469)
big cartridge container:	(No. 6470)
Filter cartridge AK, 123 mm:	(No. 6473)
Filter cartridge AK, 245 mm:	(No. 6474)
Filter cartridge CBC, 123 mm:	(No. 6475)
Filter cartridge CBC, 245 mm:	(No. 6476)
for wine and liqueur:	
Precoat filter cartridge, 245 mm	(No. 6477)
Made of plastic	
Made of stainless steel	(No. 6478)

Instruction manual:

1. Insert the filter cartridge between the white sealing washers into the filter housing, then tightly close the screwed glass with the inserted black O-ring seal.
2. Attach the inlet hose to the suction nozzle of the pump, hang the suction lance into the unfiltered material. **The sieve at the end of the suction lance is to be cleaned regularly or replaced in case of irreversible contamination.** The incipient blockage of the sieve is noticeable with a changed pump noise and a reduced flow rate.
3. Fasten the drainage hose to the outlet connection.
4. Switch on self-priming centrifugal pump, **avoid prolonged dry running!**
5. Filter the filtrate in a circle until the system is free from air bubbles and the filtrate is bright. Then collect filtrate in a clean container.
6. The flow rate can be adjusted using a flat-head screwdriver on the set screw directly on the pump body or on the tap on the outlet of the filter housing. Ideal are about **100 liters per hour**. Setting the flow too high may result in poor filtration results.
7. The pressure on the unfiltered side slowly increases in the course of filtration with increasing saturation of the filter cartridge. At about **3 bar** at the latest, the cartridge is saturated with sedimentation. With further use of this cartridge already caught sedimentation can get back into the filtrate. It should therefore be replaced.
8. **It is essential to avoid dry running of the pump at the end of the filtration!**

Special indications for the filtration of wine and liqueur:

Liqueurs can be filtered with very good hourly performance in the precoat process with filtration celluloses (see info sheet "Filtration Celluloses"). A special **precoat filter cartridge** is inserted into the filter housing. Subsequently, a coarse filtration cellulose (e.g., **CS-Cell 90**) is first suspended in some liqueur and floated by pumping in circles on the precoat filter cartridge ("**backing**"). Then a "**pre-soak**" with a finer cellulose (e.g., **CS-Cell 20**), which is then added to the entire amount of liqueur to be filtered. This "**continuous dosing**" causes the constant renewal of the filter layer and thus a gentle, but effective filtration of the flowing beverage. As soon as the filter housing is full or the flow rate is too low, remove the precoat filter candle, rinse off the washed-on cellulose and start a new filtration.

All information in this publication corresponds to our current experience and knowledge.

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