

Instructions for Regenerating Filter Cartridges

BECO MEMBRAN PFplus 

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Regeneration

The BECO MEMBRAN PFplus should always be flushed out as follows after each filtration:

- ▶ Drain the cartridge housing.
- ▶ Flush out with cold water **in the direction of filtration** for at least 2 minutes. If possible, the **flow rate** should be **one and a half times** the **previous filtration output**. Set the counterpressure to 0.5 bars.
- ▶ Flush out with hot water (80 °C) **in the direction of filtration** for at least 5 minutes. The **flow rate** should be **one and a half times** the **previous filtration output** in this case as well. Then circulate for 15 to 30 minutes. Set the counterpressure to 0.5 bars. Let the hot water stand in the housing overnight and flush out again with hot water for approx. 2 minutes the next morning.
- ▶ In order to increase the service life, we always recommend this kind of cleaning when the effectiveness of the daily regeneration diminishes. For this reason, watch the initial pressure every day at the beginning of the filtration process.

Note

Best regeneration results are achieved when the filter cartridge is flushed out **regularly** after each filtration. If possible, the **flow rate** should be **one and a half times** the **filtration output**. The effectiveness can be increased further by letting the filter cartridge stand **filled with hot water overnight** after flushing out as indicated above and flushing the cartridge again with hot water for approx. 2 minutes the following day. Ensure that the water used for flushing is free of rust, lime, and other impurities.

BEGEROW recommends filtering the water used for flushing as a precautionary measure. Match the fineness of the filter to the filter to be flushed out.

Also filter any steam used to sterilize the filter cartridges. Metal filter cartridges with a clarifying strength of 10 µm are suitable for this purpose.

Special cleaning if hot water flushing is no longer sufficient due to a differential pressure of > 0.5 bars

Application of special cleaning in the following cases:

- ▶ The cartridges can no longer be regenerated with steam or hot water.
- ▶ The cartridges are burdened heavily when used to filter difficult to filter products.
- ▶ Soaking the cartridges in water increased the differential pressure.

We will assume no guarantee for the success of special cleaning or that the filter cartridges will not be damaged.

Processing Sequence for Special Cleaning with Caustic and H₂O₂

1. BECO MEMBRAN PFplus must be rinsed in the direction of the flow. Install pump, hoses and dosing tanks such that recirculation is ensured.
2. First rinse the filter cartridges with cold water and subsequently with hot water (50 °C), like for normal rinsing.
3. This should be followed by a caustic rinse with < 0.5 % NaOH (pH < 12!) at a temperature of 50 °C. Please check the pH value! (pH > 12 would damage the cartridges.)
4. In case of strong contamination, we recommend discarding the first few liters of liquid discharged from the filter housing, since they often contain large quantities of impurities. Rinsing (with recirculation) should continue for about 5 - 10 minutes at an inlet pressure of approx. 1.0 bar.
5. Then carefully add 0.5 % H₂O₂ and circulate for a further 30 minutes.
6. After the cleaning process continue rinsing with cold water until all caustic solution has been removed (test with pH strip!).
7. For neutralization, circulate 0.5 – 1% citric acid solution for 5 minutes at approx. 30 °C.
8. Then rinse once again with hot water until the pH value is neutral.

We will be glad to answer any further questions you might have. You can call either the area sales manager in your area or contact the application technology department at BEGEROW directly at: +49 6704 204-0.

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