

## Special Cleaning Procedure for Depth Filter Cartridges BECO PROTECT® FS and BECO PROTECT PG

### Depth Filter Cartridges

#### The Special Cleaning Procedure is Used in the Following Cases

- Products that are difficult to filter have placed a heavy strain on the BECO PROTECT FS and PG depth filter cartridges (differential pressure up to 11.6 psi, 80 kPa, 0.8 bar).
- Increased differential pressure during rinsing of the BECO PROTECT FS and PG depth filter cartridges.
- BECO PROTECT FS and PG depth filter cartridges can no longer be regenerated with steam or hot water. (The initial differential pressure is no longer reached, some residual blocking remains).

Eaton is unable to offer a guarantee for the success of the special cleaning procedure or for any damage to the BECO PROTECT FS and PG depth filter cartridges!

#### Dosage

- 1 – 2% caustic soda (Example: Using a cleaning concentrate with 45% NaOH, for 52.8 gal, 200 l of cleaning solution with a caustic concentration of 0.75% mix 51.96 gal, 196.7 l of water with 0.87 gal, 3.3 l of caustic soda)
- Up to 0.5% hydrogen peroxide
- 0.5 – 1.0% citric acid (commercial grade)

#### Note

Caustic soda, hydrogen peroxide, and citric acid must be added separately to the dosing tank.

See chemical cleaning procedure.

Please refer to the manufacturer's Material Safety Data Sheet for information regarding proper handling of hazardous substances.

#### Chemical Cleaning Procedure

1. The pump, the tubes and the dosing tank must be installed such that operation in circulation mode is ensured.
2. First rinse the BECO PROTECT FS and PG depth filter cartridge with cold water and then with warm water 122 °F (50 °C) against the filtration direction, followed by chemical cleaning against the filtration direction.
3. This is followed by a caustic rinse with NaOH at a temperature of 122 °F (50 °C). In cases with strong contamination, during the caustic rinse Eaton recommends discarding the first few liters that are discharged from the filter housing come, since they usually contain a large amount of impurities.
4. Continue the cleaning process in circulation mode for about 5 – 10 minutes at an intake pressure of approx. 14.5 psi, 100 kPa, 1.0 bar.
5. Then carefully add H<sub>2</sub>O<sub>2</sub> and continue to circulate for a further 30 minutes.
6. Any exposure time that may be required must not exceed four hours.
7. After the cleaning process rinse with cold water until no more caustic solution is present (test using ph strip).
8. For neutralization of the BECO PROTECT FS and PG depth filter cartridge, circulate 0.5 – 1.0% citric acid for 5 minutes at a water temperature of approx. 86 °F (30 °C).

Then rinse again with water until the pH is neutral.

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