

1. When exceeding the maximum acceptable pressure difference. Normally the pressure difference is monitored by the clogging indicator, which is individually customized to its different places of installation.

⊗ Low pressure systems: $\Delta p = 1,2 \dots 2,5$ bar

⊗ High pressure systems: $\Delta p = 5,0 \dots 6,0$ bar

2. Filter elements should be replaced generally after certain amounts of time, irrespective of the current clogging indication:

	Suggestion:	General:
⊗ Fibreglass fleeces „VG“	every 6 months	every 12 months
⊗ Paper fleeces „P“	every 6 months	every 12 months
⊗ Metal mesh „G“	every 12 months	every 24 months

Substantiation:

- A. Non-observance or eventual malfunction of the clogging indicator caused by cable break or the like. Also as a protective measure for systems without any indicator.
- B. Chemical reactions, corrosion, oxidation or other aging affects destroying the operating fluid, as well as algae-, bacteria- or fungal decay.
- C. High thermal load caused by malfunctions of the cooling system ($> 100^{\circ}\text{C}$), damages of the filtration material, the adhesive joints or the sealing materials.
- D. Embrittlement of the stainless steel meshes caused by hydrogen diffusion.
- E. Permanent load and material fatigue caused by pulsation strain and strain caused by a frequent variation of flow directions.
- F. Danger of bursting or collapsing due to increasing contamination if an indicator is missing or not working.