

DPF - Dual Porosity Filtration

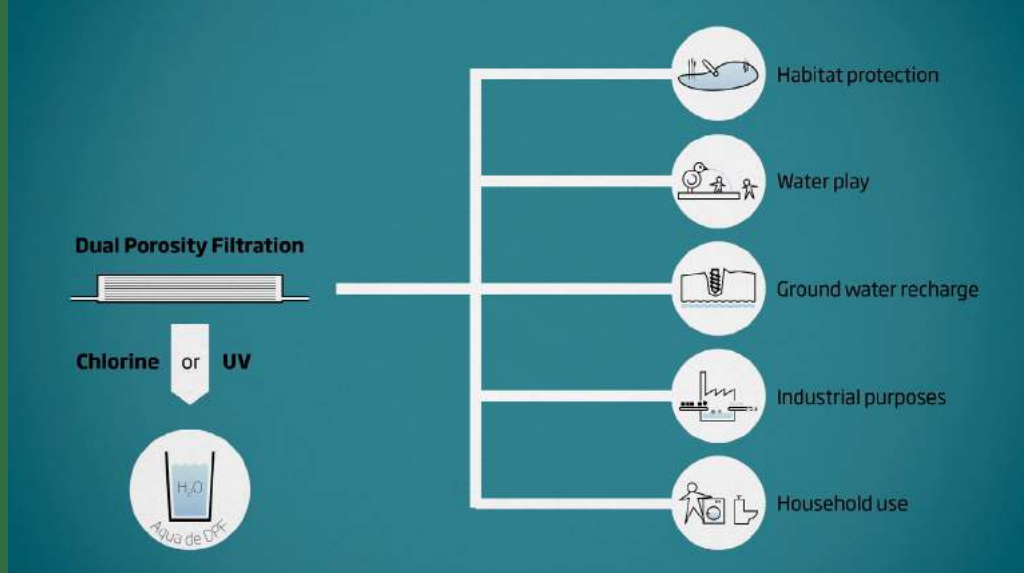
A unique purification method which imitates nature's own processes

- Sedimentation of harmful particles in the trapping layers of the DPF plates
- Sorption of dissolved pollutants with iron-coated limestone
- Biological degradation
- Capacity from 3 L/sec to 100 L/sec

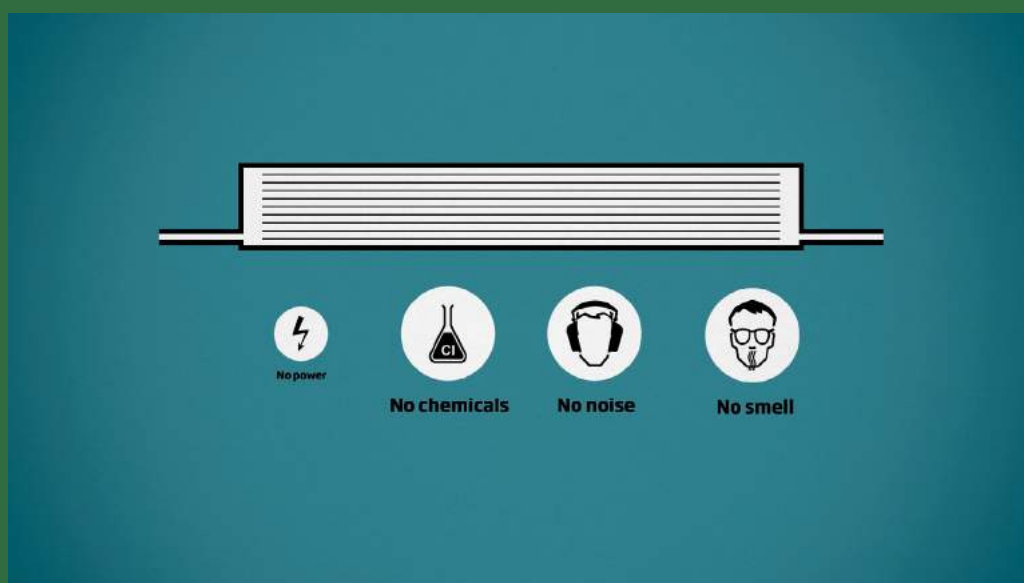


waterCare 
F I L T R A T I O N

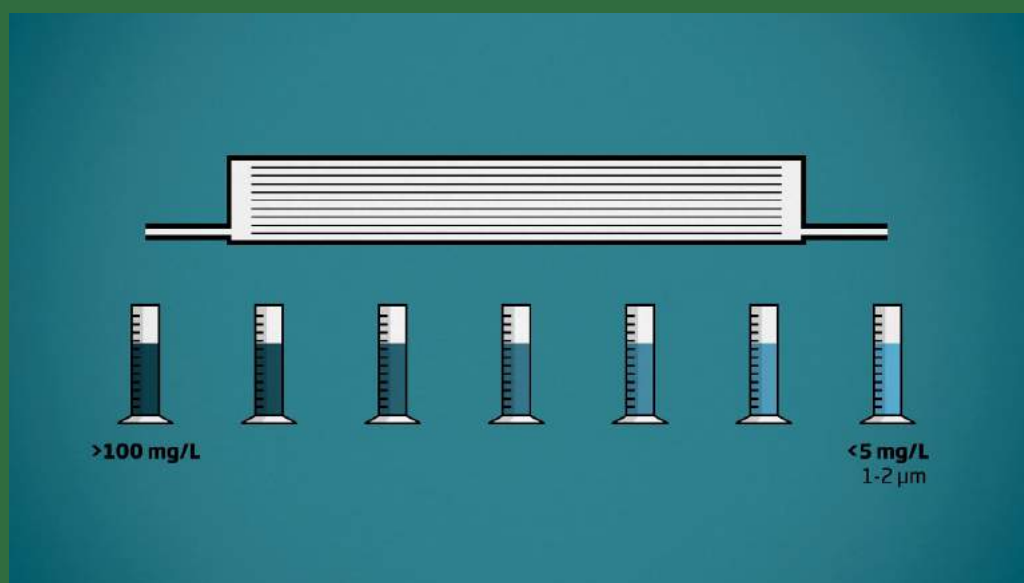
Maintenance ■ 1/3 of the filter is flushed 1-2 times every year ■ 2/3 of the filter are flushed and limestone is replaced every 15-20 years



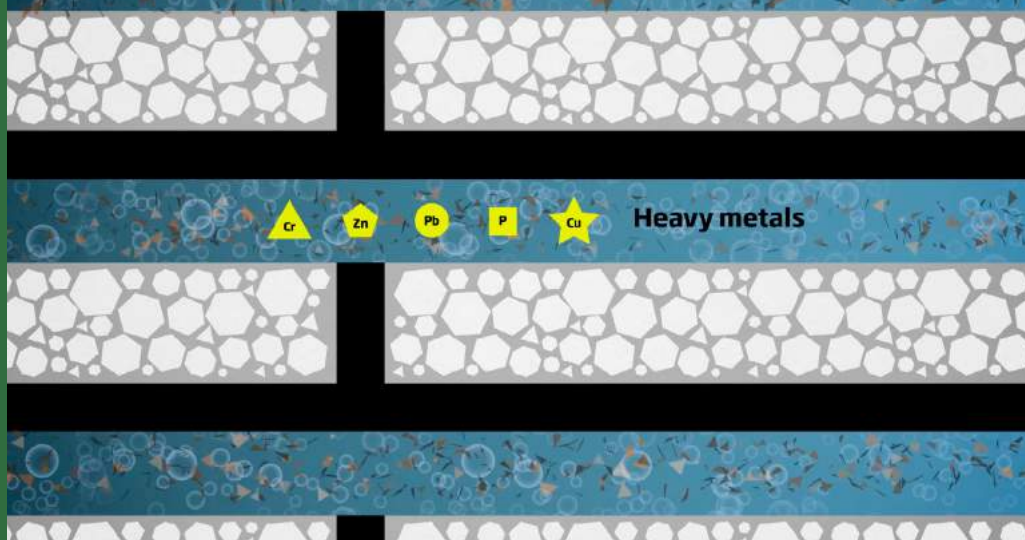
Applications



Unique operation

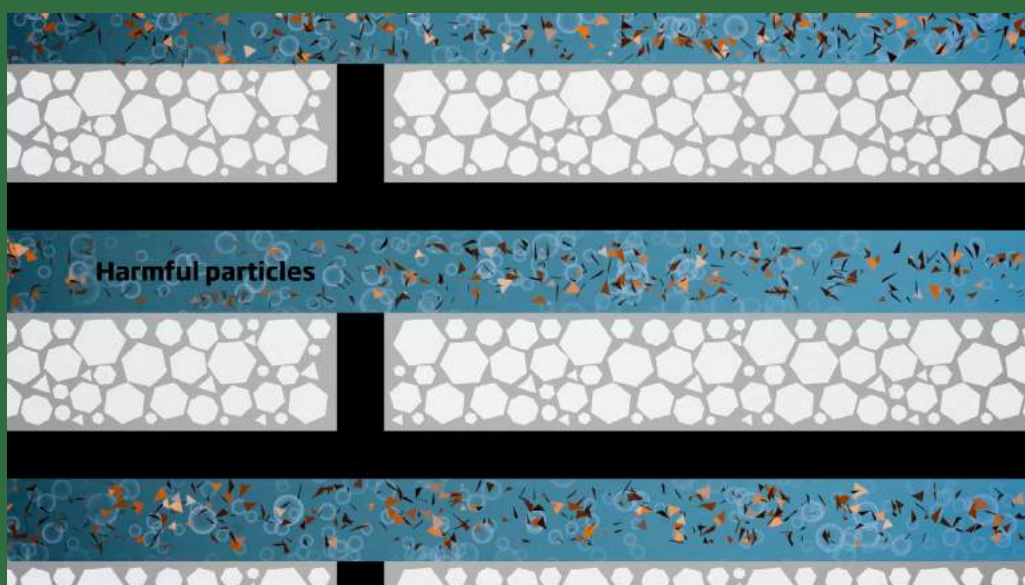


DPF removes suspended solids to below 5 mg/L

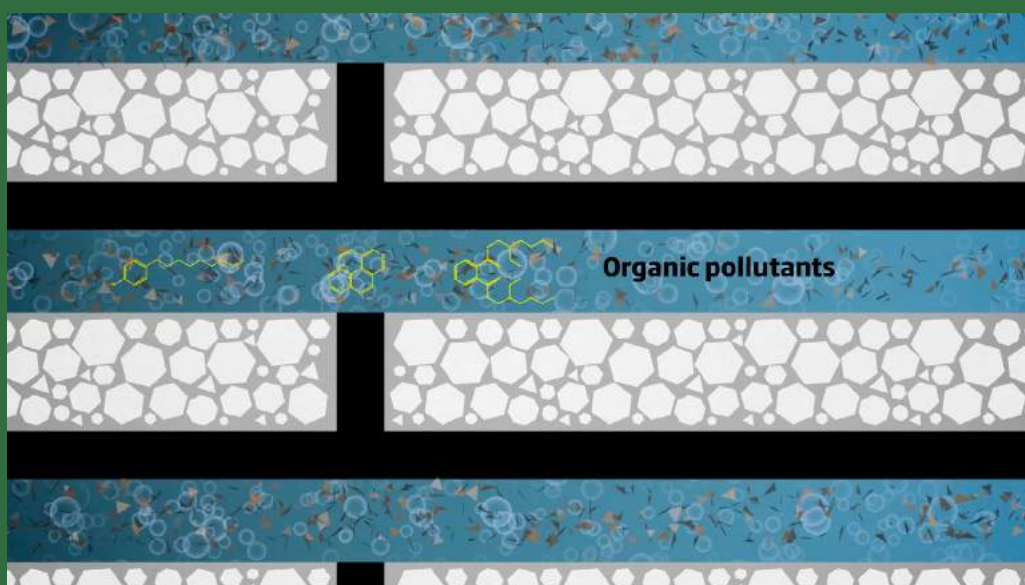


DPF removes heavy metals (copper, zinc, lead and chrome) and phosphorus

Copper: 3.65 µg/L (total), zinc: 7.83 µg/L (dissolved), lead: 0.80 µg/L (dissolved), chrome: 0.80 µg/L (total), phosphorus: 0.04 mg/L (total)



DPF removes dirt, soot particles and other harmful particles larger than 1-2 µm



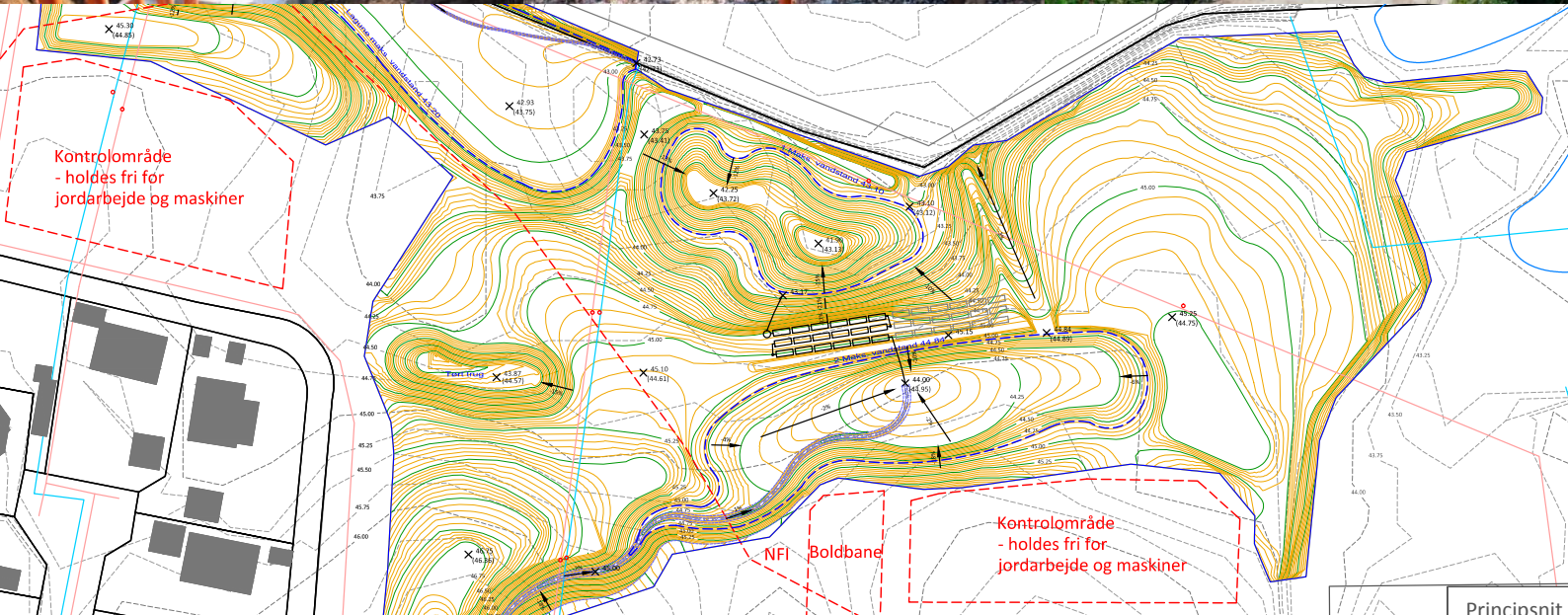
DPF removes pesticides, polycyclic aromatic hydrocarbons (PAHs) and plasticizers

*based upon measurements of 10 rain events performed by The University of Copenhagen 2014. All values are average values

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Allerød Municipality establishes DPF in Lynge Nord

Lynge Nord becomes climate-proof and gains better biodiversity by means of DPF



The DPF plant at Lynge Nord consists of 18 DPF units, 6 units without limestone and 12 units with limestone (see plant location near the centre of the drawing). The plant has a capacity of 3 L/sec stormwater runoff and has been prepared for 6 L/sec (the greyish boxes/units show future DPF plants). The clear water from the DPF plant outlet is carried to a new lake and further on Lynge Å (Lynge stream).

Watercare Filtration

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Fact box

DPF unit measurements (l x w x h): 3.4 m x 1.2 m x 0.6 m

Inlet and outlet: Ø110 mm standard drainage pipes

Flush pipes/purification pipes: Ø110 mm pipes which are led to the surface

Weight DPF unit without limestone: approx. 200 kg

Weight DPF unit with limestone: approx. 1200 kg

Manufactured in PE and PP

Capacity: 18 units = 3 L/sec surface water

US patent No. US 10519025

European patent No. EP 1 519 779