



Wood Stove Filter Electrostatic Precipitator (ESP)

- particle filter for removing flue gas particles from wood stoves

exodraft

ESP Particle Filter

for Wood Stoves

- Highly efficient electrostatic precipitator (ESP)
- 95% reduction in number of particles
- 70-75% reduction of total particle mass
- Automatic cleaning function (self-cleaning)
- Integrated chimney fan

CHIMNEY FAN?

The ESP particle filter comes with an integrated chimney fan in its top portion. A chimney fan is a ventilator that ensures a constant updraught in the chimney, making it easier to light the fireplace as well as helping to prevent the backflow of smoke into the room. Without this reliable mechanical draught, you are at the mercy of the chimney's natural draught which can vary depending on outside temperature, wind and air pressure.



The **exodraft** ESP particle filter is designed to filter out hazardous and ultrafine particles from the flue gas of your wood-burning stove or fireplace.

The particle filter reduces the number of particles by 95% (fine and ultrafine particles) as well as reducing the total particle mass by 70%-75%. Measurements were carried out according to the Norwegian standard NS3058 which corresponds to outside air conditions.

The electrostatic particle filter is installed on top of the chimney, where it is coldest, and uses a high-voltage electrode to charge the particles in the flue gas, causing them to collect inside the filter.

The **exodraft** ESP particle filter comes with a self-cleaning feature (see below).

95%

Reduction in number of particles

70%

Reduction in total particle mass



- 1 Flue gas side
- 2 Technical side
- 3 Integrated chimney fan
- 4 Cooling gap
- 5 Self-cleaning device
- 6 Electronics compartment

Particle build-up after 75 minutes (1½ kg firewood)



Lab test A



Lab test B



PARTICLE FILTER OFF



PARTICLE FILTER ON

SELF-CLEANING FUNCTION

The particles are collected inside the filter by electrostatically charging the particles and trapping them inside the filter, where the self-cleaning function of the ESP will cause some of the particles to combust. The remaining particles are released into the chimney to be burnt off, thus eliminating the need for manual cleaning of the filter.

A cleaning hatch can be supplied for installation between the chimney and the filter, if national law requires chimney sweep access from the top of the chimney.



Cleaning hatch* (boxed or round)

* Prototype currently

Who is exodraft?

exodraft is a Danish company that manufactures and develops particle reduction, chimney draught and heat recovery systems for various industries and private users worldwide.

A clear mission:

We want to develop and market particle filters, chimney fans and heat recovery systems of the highest possible quality for the sake of improving both human lives and the environment.

Comprehensive knowledge:

Our solutions are built on more than 60 years of experience within chimney draught technology as well as extensive knowledge about the relationship between combustion and the draught in the chimney.

ISO certified quality:

At **exodraft**, we constantly optimise and develop our products further. Quality and documentation are two of the cornerstones in the development of our products. We are ISO9001 certified which is why we can document our high quality.



Visit our website for more information:

www.exodraft.com
www.woodstovefilter.co.uk

DK: exodraft a/s

Industrivej 10
DK-5550 Langeskov
Tel: +45 7010 2234
Fax: +45 7010 2235
info@exodraft.dk
www.exodraft.dk

NO: exodraft a/s

Storgaten 88
N-3060 Svelvik
Tel: +47 3329 7062
info@exodraft.no
www.exodraft.no

DE: exodraft a/s

Niederlassung Deutschland
Soonwaldstr. 6
DE-55569 Monzingen
Tel: +49 (0)6751 855 599-0
Fax: +49 (0)6751 855 599-9
info@exodraft.de
www.exodraft.de

SE: exodraft a/s

Kalendevägen 2
SE-302 39 Halmstad
Tlf: +46 (0)8-5000 1520
info@exodraft.se
www.exodraft.se

UK: exodraft Ltd.

24 Janes Meadow, Tarleton
GB-Preston PR4 6ND
Tel: +44 (0)1494 465 166
Fax: +44 (0)1494 465 163
info@exodraft.co.uk
www.exodraft.co.uk

FR: exodraft sas

78, rue Paul Jozon
F-77300 Fontainebleau
Tel: +33 (0)6 3852 3860
info@exodraft.fr
www.exodraft.fr