



## OekoTube - the fine dust filter for your woody biomass heater up to 170,000 BTU (50 kW)

The OekoTube is an electrostatic precipitator (ESP), which considerably reduces the fine dust particulate matter emissions of woody biomass heaters.

The ESP is designed for woody biomass heat sources of up to 170,000 BTU (50kW) and is mounted either behind the furnace or at the end of the smoke stack.

The device demonstrates a high fine dust removal rate and can be easily cleaned by a chimney sweep. The compact dimensions of the OekoTube-Inside allow it to be installed in new heaters or to be retrofitted on existing stoves.

### OekoTube Facts

- Suited for automatic or manual wood feed
- Certified fine dust removal
- Improvement of the ambient air quality
- Simple manual cleaning by a chimney sweep
- Optional automatic scrubbing of device

### Technical parameters

- High voltage 15 to 30 kV
- Max. power rating: 30 W
- Standby mode: 0.7 W

### Fine Dust Particulate Matter (PM)

Particles with a diameter below 10 microns are hazardous to your health. The particles enter the blood vessels via the lungs. The use of an OekoTube actively improves the ambient air quality.

### Installation of the OekoTube

The OekoTube is mounted between the wood stove and the smoke stack, either immediately behind the wood stove or at the end of the stack on the roof.

### Operation

The updraft of the combustion gasses is not affected by the operation of the ESP. An electric outlet (110V / 60Hz) is needed near the place of installation of the OekoTube. The ESP is automatically activated by a temperature probe. The particulate matter adheres to the inside of the stack where it forms much larger clumps which no longer pose a risk to our health.

### Simple cleaning

During the regular inspection and maintenance, the OekoTube also is cleaned. The accumulated dust can easily be removed by a conventional soft chimney brush. The flexible electrode is deflected and does not need to be removed for cleaning purposes.

For further information please visit our website: <https://oekosolve.com>

### Automatic cleaning

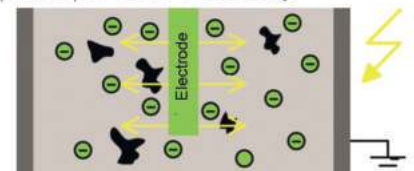
Depending on the hours of operation and quantity of dust accumulated the OekoTube needs to be cleaned manually. For this reason, the OekoTube is also available with an automatic cleaning mechanism. With this system the ESP may be conveniently and comfortably cleaned.

### Operation principle

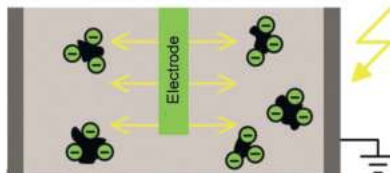
The underlying operating scientific operation of the fine dust filter is based on the electrostatic principle. The following drawings illustrate the working principle schematically.



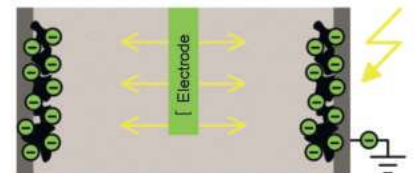
**01** Fine PM streams through the smoke stack with the hot exhaust gas.



**02** A high-voltage (HV)-electrode releases electrons.



**03** The electrons are drawn to the walls of the smoke stack. Fine dust PM is electrically charged and is also attracted to the smokestack walls.



**04** The fine dust particles collect on the inside walls of the smoke stack and form larger flakes. These deposits are removed during the regular cleaning of the smoke stack.

### Product Overview:

The ESPs are available for different power ratings:

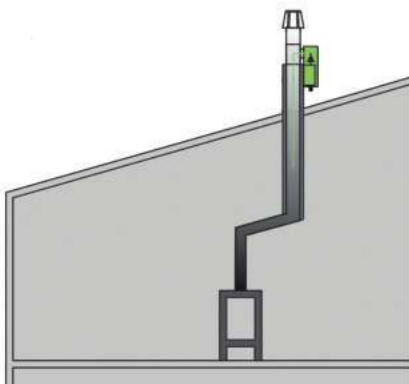
**OekoTube:** Up to 170,000 BTU (50kW)

**OekoRona:** Up to 1 MMBTU (300kW)

**OekoRona M:** Up to 10 MMBTU (3 MW)

**Neviro:** Woodchip dryer with integrated ESP up to 35 MMBTU (10 MW)

OekoTube



OekoTube-Inside

