

## Neviro – Fuel dryer combined with micro-dust filter

### Product overview

electro-precipitator:



up to 50 kW  
OekoTube



up to 300 kW  
OekoRona  
FilterBox



up to 3 MW  
OekoRona M

Wood chip dryer with  
electrostatic precipitator



up to 10 MW  
**Neviro**

**The Neviro combines fuel drying with fine particle reduction within one system.**

**The Neviro is suitable for any heating system which is using wet wood chips and reduces the fuel consumption by up to 15% at the same time.**

**The saturated exhaust gases get cleaned after the drying process in the integrated wet electrostatic precipitator.**

### Neviro facts

- Fuel dryer combined with a micro-dust filter
- Permanent fuel savings between 6 – 15%
- Compliant with the emission limiting values for both a partial and a full load
- Availability is independent of the exhaust gas temperature at the inlet
- Heat recovery even with a partial load operation
- Smell of fresh wood instead of exhaust gases
- Operational optimisation by remote maintenance

**Pre-drying of wet fuel.** Exhaust gases usually leave boiler units at a temperature range between 140°C and 200°C. The Neviro uses the heat energy contained in the exhaust gas to pre-dry the wet fuel.

First, the wet fuel is going to be spread with help from an auger system evenly on a belt dryer. The exhaust gas is flowing through the fuel layer in the dryer and takes water out from the fuel up to saturation point. The saturated exhaust gas is then cleaned by the downstream, wet electrostatic precipitator.

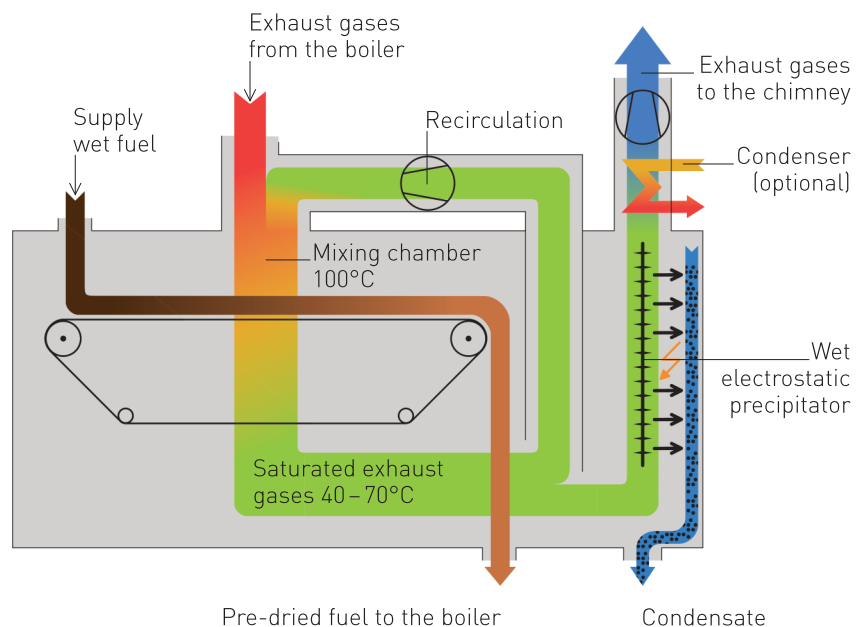
The pre-drying of the wet fuel is automatically carried out accordingly to the fuel demand of the furnace. The speed of the dryer belt is determined by the fuel demand. The drying performance of the Neviro depends on the temperature and the humidity of the exhaust gas. Fuel with 55% water content as an example can be dried with a 180°C exhaust gas temperature to a fuel with 35% water content. This leads to a vast improvement in the combustion efficiency for both a partial or a full load.

**Reduction of emissions .** Coarse dust in the exhaust gas gets firstly separated by the flow through the fuel on the dryer belt.

Afterwards, the saturated flue gas is cleaned by the integrated wet electrostatic precipitator, prescribed below, so, it will comply with the legal particulate matter limiting values.

Furthermore, the odour of the exhaust changes to a smell of fresh wood.

## Functional diagram



## Fuel flow and exhaust gas path

