

Aduro A/S

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Brabrand, April 2010

Test of the Aduro-tronic Automatic Device

In order to test the effect of the Aduro-tronic automatic control device we have tested 2 wood burning stoves. The Aduro 1 was the stove chosen for the testing period. One stove was not fitted with the Aduro-Tronic automatic device, the other with the Aduro-tronic automatic device.

We wanted to see if the Aduro-tronic automatic device has an effect on the combustion, the fire wood consumption, on the emission of particles and whether this could lead to an environmentally friendlier combustion.

The tests were done over a period of 1 month, with exactly the same conditions for both stoves. Within this period both stoves were burning 7 hours a day, 4 days a week.

Every morning a fire was lighted in both stoves according to the instructions in the user's manual. As soon as a layer of embers had been created on the bottom of the combustion chamber, new wood was placed and re-light. The Aduro-tronic device was then activated on the stove that had it fitted.

On the stove without the Aduro-tronic automatic device, the primary air supply was opened and it stayed open during the whole test. (This means that the stove was not correctly regulated, which happens a lot in most households.)

This procedure was followed during the entire test.

Conclusion

The conclusion that we reached is that a stove with the Aduro-tronic automatic device mounted burns environmentally friendlier than a stove without the automatic device.

The amount of fire wood spent during the test of the 2 stoves was calculated to show that the total amount of wood spent during a normal heating season of 5 months (multiplied by 5).

This calculation shows that the fire wood consumption in the stove without Aduro-tronic is 728 kg whereas the consumption is only 416 kg during a heating season in a stove which has the Aduro-tronic automatic device built in.

This means that the fire wood consumption in a stove with the Aduro-tronic automatic device is 40 % less per hour compared to the consumption in a stove without Aduro-tronic burning with a constantly open primary air supply.

The emission of harmful particles from the stove with Aduro-tronic is 1/6 compared to the emission from the stove without the Aduro-tronic device burning with a constantly open primary air supply.

New stoves burn clean, effective and environmentally friendly - when operated correctly. In order to achieve an optimal combustion the primary air supply needs to be regulated several times within the first few minutes of each firing. With the Aduro-tronic automatic this happens automatically, so you do not need to do this manually. This means less work and a better combustion.

The automatic works more or less like the automatic transmission in a car – the ideal combustion is automatically regulated.