

## **MODERN BOILERS FOR SMALL SCALE BIOMASS HEATING**

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**Abstract:** The European wood resources will not be able to meet the increased demand for biomass, which must be supplemented with new and alternative fuels from biomass covering low quality (with high ash content) such as agricultural and forest residues, wood materials, energy crops, industrial by-products. Most of the traditional biomass boilers are designed for specific fuel types and thus limiting the possibility of using other types of biomass fuels available on the market. Enlarging the feedstock means that biomass fuels can replace fossil fuels to a larger extent with lower costs and reduced impact on the environment. Therefore, new combustion technologies of biomass fuels with high fuel efficiency, low emissions, automatic operation and high operation and fire safety standards need to be developed. This paper gives an overview of significant improvements in the technology of small-scale biomass combustion.