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**Comparison of heat pump dryer and mechanical steam compression dryer**

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**Abstract**

The energy efficiency of domestic dryers is a stake for both manufacturers and regulatory bodies. High efficiency dryers exist by using a heat pump systems. Mechanical steam compression is not used for now but is a promising option. Comparisons of environmental impact and energy efficiency of both systems are performed for standardized conditions. A detailed description of the mechanical steam compression system developed by the laboratory is presented. Simulations and test results show the energy efficiency that can be reached and also the drying time.

Energy consumption is divided by 2 compared to the actual base line of European dryers and the drying time is also nearly divided by 2.