

50% energy savings when using FreezeTec Spacers compared to wooden spacers

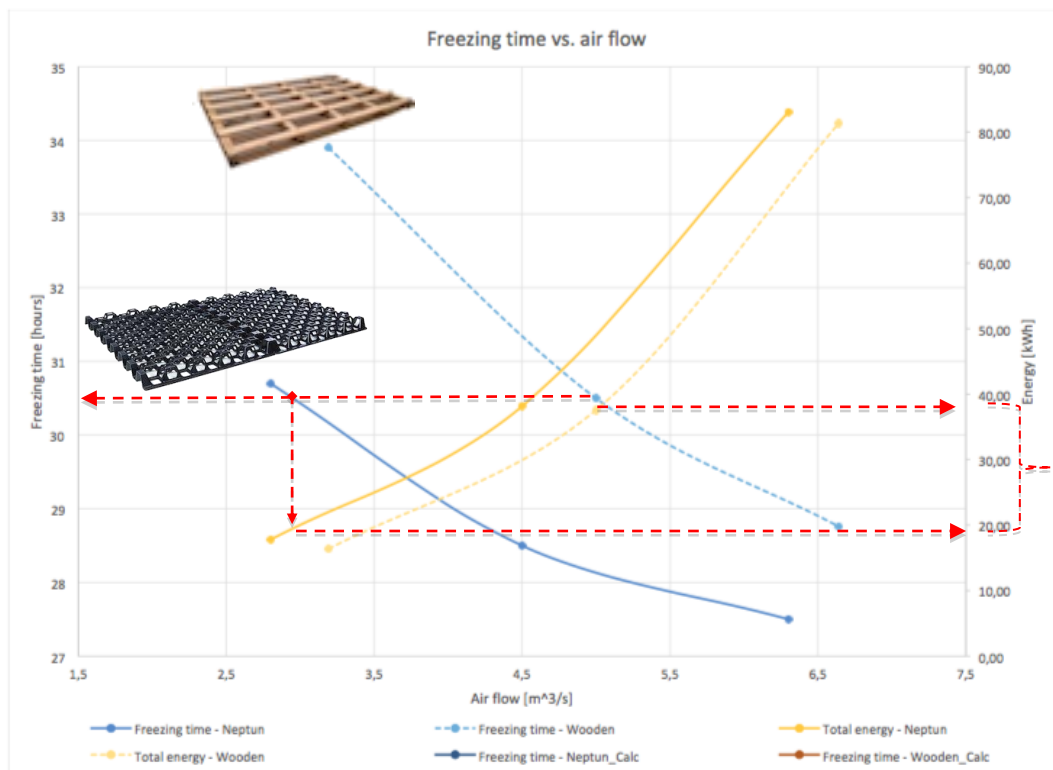
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As documented in previous tests the energy-consumption in blast freezers increases exponentially as air-flow is increased in order to reduce the freezing time.

This helps us understand the importance of an optimal air-flow in the blast-freezer in respect to the overall freezing efficiency.

In a test recently carried out by the Danish Technological Institute, the relationship in-between freezing-time, air-flow and energy-consumption with a 62 mm high wooden spacers was compared with a 50 mm high FreezeTec NFS-II HDPE spacers.

The graph below illustrates how the energy-consumption (yellow graphs, indicated on the right axis) is exponentially increasing as air-flow (bottom-axis) is increased in order to shorten freezing time (indicated on the left axis)



Under identical conditions – in this test based on a freezing time of 30,5 hours, the wooden spacer required an airflow of 4,75 m³/s resulting in an energy-consumption of 39 Kwh. When using the NFS-II spacer the air-flow could be reduced to 2,8 m³/s whereby energy consumption reduced to 19 kwh = **+50% savings**

Figures will of course vary in-between various blast freezer set-ups - but the tendency is clear