

CALCULATION OF ENERGY SAVINGS AT REDUCED DEGREASING TEMPERATURES

BASIS OF CALCULATION

- 💧 SIZE OF WATER TANK: 1000 liters
- 💧 SURFACE AREA: 6 m²
- 💧 AMBIENT ROOM TEMPERATURE: 20 °C
- 💧 HEAT LOSS AT 70 °C: 590 W/m²
(Source: www.rockwoolfonden.dk)
- 💧 HEAT LOSS AT 45 °C: 185 W/m²
(Source: www.rockwoolfonden.dk)
- 💧 TIME OF OPERATION:
5 days/week of 24 hours
- 💧 ELECTRICITY PRICE:
DKK 0.80/kWh for process energy
- 💧 **ENERGY SAVINGS:**
 $(590-185) \text{ W/m}^2 \times 6 \text{ m}^2 \times (5 \times 24 \times 52) \text{ h/year} \times \text{DKK } 0,80/\text{kWh} = 1.613,- \text{ €/year}$

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BASED ON THE STATISTICS OF THE ESTABLISHED DANISH ROCKWOOL FOUNDATION RESEARCH UNIT, TRE-FOR/Energi Danmark has prepared a calculation showing the factual savings in energy costs at reduced degreasing temperatures.

The basis is the power consumption of a 1000 litre washing plant, measured on standby time. The difference between washing at 70 °C (traditional degreasing) and at 45 °C (DST-DEGREEZ®) is calculated.