

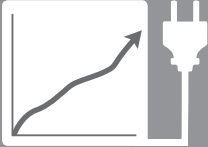
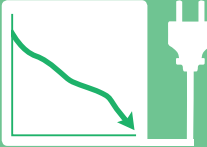


Cooling Systems in Barns

Comparison of Costs for Investment and Energy

Project: New free stall barn for 250 dairy cows

	Tunnel ventilation	Tube ventilation system
Investment costs:	<p>24 EC axial fans</p>  <p>High number of units, low unit price incl. delivery costs, excl. assembly</p>	<p>8 ventilation tubes a 50 m</p>  <p>Custom-made system, project-specific calculation incl. delivery costs, excl. assembly</p>
Total:	\$ 22,980	\$ 52,493

Running energy costs per year:	<p>24 fans à max. 1.5 kW → max. 36 kW</p> <p>900 hours at 100 % 1500 hours at 90 % 2200 hours at 75 % 1500 hours at 60 % 2660 hours OFF</p>  <p>172,800 kWh</p>	<p>8 fans à max. 1.1 kW → max. 8.8 kW</p> <p>900 hours at 100 % 1500 hours at 90 % 2200 hours at 75 % 1500 hours at 60 % 2660 hours OFF</p>  <p>42,240 kWh</p>
Total:	\$ 20,736*	\$ 5,069*

*Electricity price: \$ 0,12/kWh (may vary by region)

✓ Result: Costs per year

Depreciation 10 years + running costs per year:	 <p>\$ 23,034</p>	 <p>\$ 10,318</p>
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