



30% LESS ENERGY CONSUMPTION AND ANNUAL SAVINGS OF € 94,500 THANKS TO MORE EFFICIENT GAS COOLING WITH LECHLER RS II-4 NOZZLE LANCES

Industry: Zement
Country: Egypt
Application: Gas cooling in the evaporative cooler



PROJECT GOAL

A cement plant with five production lines currently uses 16 lances each in its evaporative coolers, which are equipped with RS 3 cluster heads. The required injection volume of 670 l/min is sprayed with a pump capacity of 64.4 m³/h at 35 bar. Although the cooling system works, there is potential for a more efficient solution.



CHALLENGE

Maintenance of the cluster head nozzle lances, each with five or six nozzles, is complex and time-consuming. The lances are also relatively heavy, which makes handling more difficult. Due to operation at 35 bar, the pump output and therefore the energy consumption is relatively high.



SOLUTION

The use of new nozzle technology could significantly increase the efficiency of the system. Replacing the cluster head nozzle lances with more powerful RS II-4 single lances would offer the following advantages:

- **Finer atomization** for optimized cooling
- **Energy savings** (reduction in pump pressure)
- **Less maintenance**
- **Easier handling** due to lower weight

RS 3 cluster head nozzle lances

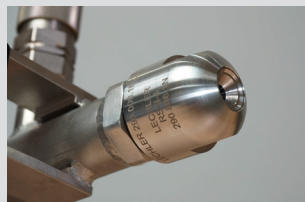


Cluster heads with 5 or 6 nozzles
Operating at 35 bar

26 kg/Lance



New RS II-4 nozzle lances



Single nozzle lances
Operating at 25 bar

12 kg/Lance



30% LESS ENERGY CONSUMPTION
94.500 € LESS ELECTRICITY COSTS

To calculate your specific future savings, please contact us at aqcs@lechler.de



CUSTOMER BENEFITS

The use of RS II-4 single lances reduces maintenance costs, lowers energy consumption and makes handling easier – for more efficient and economical gas cooling.



Spillback RS II-4 nozzle lances

- New generation of return nozzles
- Fine droplet spectrum without compressed air
- Spray angle of 90° for good coverage of the cross-section
- Lance design can be adapted to customer requirements

We are committed to responsibility and sustainability. Our products support you on your way to achieve your own sustainability goals.