

WATER INJECTION SYSTEMS  
FOR CLINKER COOLER



## ELEX – Excellent industrial gas cleaning since 1934

ELEX is the globally recognised leader for the cleaning of industrial gases and recovery of reusable materials. Since 1934, more than 7,000 units have been installed worldwide; each designed to focus on specific customer needs. Depending on stated requirements, units are either completely manufactured by ELEX or, within the parameters of project-related cooperation agreements, as new units or extensions to existing plants.

World-renowned ELEX engineering has always been committed to highly innovative technology and to the reliability and longevity of its products. This balance guarantees outstanding cleaning of industrial gases across many decades.

Unrivalled in quality, ELEX remains innovative, at the very least, for the next 7,000 units.

## To us, quality means our customers can forget about us

Quality to us means not only perfect technology and reliable and durable products, but also the best possible service in all phases.

During the planning stage, we listen carefully and ask pertinent questions to present the customer with the best possible solution in the shortest time-frame and with the least effort on the customer's part. Our Swiss reliability ensures that everything will be carried out to your utmost satisfaction. Deadlines and costs will be adhered to, while the effects on your operations until handover of the plant will remain minimal.

Once a plant has been installed and the technical staff instructed by our engineers, our customers rarely need our support. You will have the same experience.

However, should you need our help, for instance, for longer maintenance, upgrading with new components, or advice on plant modernisation, we will of course be at your service.

## ELEX Water injection for clinker cooler

High outlet temperatures from the clinker cooler can be critical for the following components. In order to protect the precipitator or bag house against damage caused by high exhaust gas temperatures, a water injection is installed in the clinker cooler. The water distribution and the purge air are installed in a compact unit. The accompanying water tank is provided for supplying adequate amount of water for cooling whenever required. We have 2 different solutions for dosing the required amounts of water:

- 2-stage control
- Cascade control

The ELEX custom-designed and manufactured water injection systems reflect decades of experience and continuous research to achieve the best possible outcome.



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## The 2-stage control

Two line sections are used in the 2-stage control. Each line section has its own pump. The first pump is switched on when a preset temperature limit is exceeded. As soon as the temperature has returned to its normal range, the pump will be switched off.

If the temperature still continues to rise, the second pump will also be switched on and the maximum water quantity will be injected.

To avoid soiling and overheating of the nozzles, a ventilation system is used. It switches on automatically for every line section at standstill of the according pump.



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## The cascade control

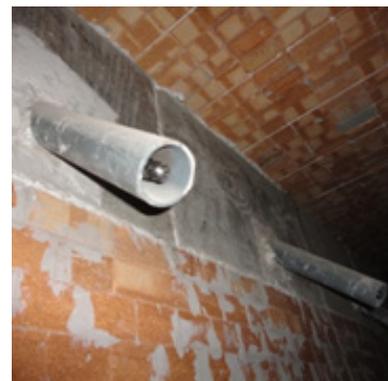
The cascade-control consists of three line sections with different injection performance. The injected water quantity can be varied in steps of 1/7. The temperature measurement after the clinker cooler serves as a reference value for the cascade control. Depending on amount of water needed, the required line sections will be activated.

If the maximum temperature is exceeded for some time, all line sections are switched on to protect the downstream filter from overheating by injecting the maximum water quantity. If the temperature falls below the limit value, the temperature controller takes over the lead again.

To avoid soiling and overheating of the nozzles, a ventilation system is used. It switches on automatically for every line section which is not in operation.

## Our engineers look forward to the challenge

Our water injection systems are designed for clinker coolers of all types in the cement industry. In a preliminary discussion with us we can identify the best solution for your circumstances. We will gladly provide you with references that correspond to your future project.



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Produktgruppe aus vorbildlich  
bewirtschafteten Wäldern,  
kontrollierten Herkünften und  
Recyclingholz oder -fasern

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