

EVAPORATIVE 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. Each of the more than 7'000 plants installed worldwide since 1934 focuses on specific customer needs. Depending on stated requirements, the plants are either completely manufactured by ELEX or within the parameters of project-related cooperation agreements, as new units or extensions to existing plants.

We are dedicated not only to cutting-edge technology but also to the utmost reliability and durability of our products. This commitment lies at the heart of our product design, making our name synonymous with the flawless purification of industrial gases. Our expertise in crafting integrated solutions assures our customers that they can trust us both now and in the future. ELEX stands unrivaled in quality and our innovative spirit will undoubtedly continue to shape the next 7'000 units and beyond.



HIGH QUALITY ASSURANCE - YOUR WORRY FREE SOLUTION

When we talk about quality, we mean much more than just flawless technology, customer-oriented solutions and products that are reliable and durable. Our passion for quality runs like a red thread through every aspect of our collaboration – be it before, during or after the production and installation of your plants.

Our business philosophy is shaped by years of experience, highly skilled and flexible employees and our comprehensive expertise, which allows us to optimize your plant to meet your specific requirements throughout its entire lifecycle. Our goal is to always provide you with tailored solutions that meet your needs.

MINIMUM EFFORT DURING THE EVALUATION PHASE

Lightening your work load begins as early as the project-planning stage. We place great emphasis on listening to you and asking the right questions to provide you with the best possible solution in the shortest time and with the least effort on your part.



UNINTERRUPTED OPERATION DURING THE IMPLEMENTATION PHASE

With Swiss reliability and thoroughness, we meticulously conduct our preliminary clarifications and holistic project planning to ensure that the installation of your plant leaves you entirely satisfied. We prioritize punctuality and cost adherence, while minimizing any impact on your operations until the handover of the facility.

MAXIMUM RUNNING TIMES DURING THE OPERATING PHASE

After our highly qualified engineers have installed the plants with their expertise and carefully trained your technical staff, it is extremely rare that further support from our side is needed. You will also experience this level of reliability. Our plants are known for their remarkable dependability and enduring performance. However, should you ever require our assistance, whether for comprehensive maintenance, integrating new components or consulting on modernizing the plant, we will be readily available to help.



Cement works, Italy
Preheater kiln



Cement works, Vietnam
Preheater kiln

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In certain gas-cleaning procedures, it becomes necessary to lower the temperature of the gases prior to commencing the cleaning operation or to modify the gases to their most favorable physical state. The meticulous design of the evaporative cooler and its tailored alignment with the specific installation requirements serve as crucial factors in attaining the highest degree of operational efficiency and ensuring the long-term durability of the entire plant. The profound expertise of our engineers ensures the accurate technological remedies to establish the requisite optimal physical conditions.

SCOPE OF APPLICATION

Within the realm of the cement industry, the strategic application of evaporative coolers has garnered notable success. Our dedicated purpose is to collaborate with you in identifying the most fitting resolution tailored to your precise requirements. Drawing upon our wealth of comprehensive expertise and unwavering commitment to research, we present meticulously customized installations that reliably yield the attainable zenith of performance for your operational endeavors.

SUCCESS FIGURES

246 EVAPORATIVE
COOLERS

10 m MAX.
DIAMETER

70 m MAX.
HEIGHT

EASY INTEGRATION INTO A WIDE RANGE OF PLANT CONCEPTS

ELEX evaporative cooling towers are based on a modular system.

A feed-forward regulating system is available in case a highly constant outlet temperature is required in combination with quickly changing inlet conditions. The system captures diverse operating parameters to ensure optimal operating control.

The operating principle of an evaporative cooling tower system is simple. By injecting water in very fine droplet sizes which are subsequently evaporated, the temperature of the waste gas is lowered to the necessary level, and its volume and the specific resistance of the dust in the gas is reduced. However, only optimal dimensioning of the individual components of the installation will provide top efficiency.

General operating data for evaporative cooling towers:

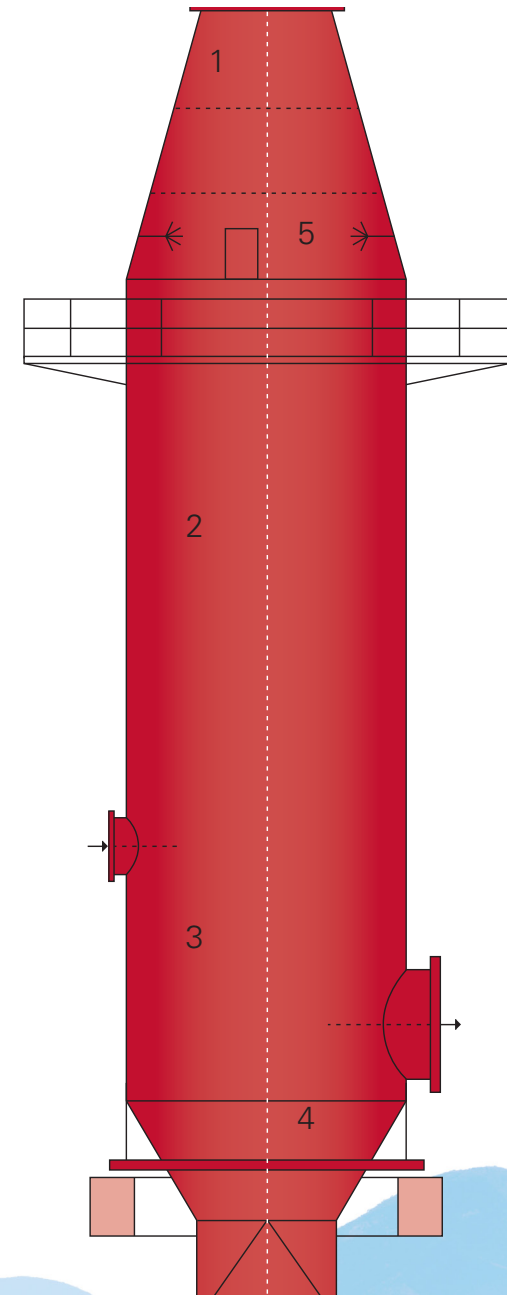
- Temperature range inlet: 250 - 1'000 °C
- Temperature range outlet: 120 - 300 °C

THE SIMPLE YET EFFECTIVE DESIGN OF AN ELEX EVAPORATIVE COOLING TOWER

- 1 Gas inlet cone with gas distribution device
- 2 Cooling tower casing in which the exhaust gases are cooled and conditioned by evaporation of water
- 3 Integrated mixing zone in the cooler which, in special cases, is attached to the evaporative section
- 4 Dust collection hopper
- 5 High-pressure water spray system with spill-back nozzles, or alternatively, low-pressure system with air atomising spray

THE TOTAL IS MORE THAN THE SUM OF THE INDIVIDUAL PARTS

You can be confident that we are committed to finding the perfect plant solution from our diverse range of components. Through personalized preliminary discussions, we will carefully craft a solution that aligns precisely with your distinct requirements. Furthermore, we are pleased to offer references that reflect the scale of your upcoming project, providing valuable insights into our track record of successful endeavors. You can trust us with your plants, as our extensive expertise is ready to enhance your operations and achieve exceptional performance milestones.



A scenic view of a mountain range with snow-capped peaks and a dense forest in the foreground. The mountains are rugged and layered, with patches of snow. The foreground is filled with a dense forest of evergreen trees. The sky is a clear, bright blue.

WE WILL NOT SETTLE FOR LESS THAN THE BEST WORLDWIDE

For a list of references and for more information, please visit our website at www.elex.ch.



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