CONCRETE CURING SOLUTIONS
Go for quality

CureTec develops plans and produces systems for the accelerated curing of concrete products. We are an international company, leading the way of technology in this sector. We provide the right climate for high-quality concrete products; always.

Our business activities:
- Steam systems
- Moisture systems
- Air circulation systems
- Hot water heating systems
- Hot water boiler plants
- Aggregate heating systems

SYSTEM OVERVIEW

Their advantages at a glance:
- higher product quality
- reduction of efflorescence on the concrete surface
- quicker and higher early strengths
- constant product quality and color
- less consumption of expensive additives and pigments
- cement savings of up to 10% possible
- individual temperature and humidity control
- curing area free of corrosion and condensation
- perfect air circulation and avoidance of lamination
- double or triple shift production possible
- secondary „In Line“ processes are possible
- reduction of the concrete mold usage time
- reduction of pallet and rack space
- reduction of storage capacities in the outside yard
- low maintenance costs
- user friendly operation
**NDG Steam Generators**

The CureTec NDG Steam Generators are direct fired systems which deliver steam within seconds. Steam is produced directly in the combustion chamber. The process water is used for cooling of the components prior to being fed into the combustion chamber. It then combines with the hot combustion gases generating steam immediately. The steam temperature can be controlled by the amount of water added to the process. Due to the direct fired system an energy efficiency of 98% is achieved.

Our NDG Steam Generators come with all necessary security devices and the suitable certificates for secure and legal operation.

**There is a wide application field for the NDG’s:**

Paving stones, segment walls, semi dry concrete paving slabs, wet cast concrete paving slabs, pre-stressed concrete products, roof tiles, precast products, concrete pipe and shaft products.

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**Advantages of the NDG Steam Generators**

- Steam within seconds
- 98% efficiency
- Variable steam temperatures between 100°C (212°F) and 400°C (752°F)
- CO₂ rich steam
- Power ratings between 90 kW/h and 2,400 kW/h available
- Easy installation and low maintenance cost
- Low emission values
- Small space requirement
- No official certification and checks needed

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**Advantages of the ConCure Hot Air Heating Systems**

- Power ratings between 32 kW/h to 1,200 kW/h
- Ability to meet special customer needs (ducting requirements / material)
- The air distribution ducting can be provided from different materials, such as insulated ducting, insulated GRP pipes, ducting from stainless or galvanized steel
- All ConCure systems stand out of their long lifetime, low maintenance expenses and the economical investment

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**ConCure Hot Air Heating Systems**

ConCure warms up the chamber air and provides uniform temperatures within the chamber by continual air circulation. The chamber air intake is placed in the lower part of the chamber; the air is warmed up by the hot air unit and blown back at different levels of the chamber evenly.

ConCure Hot Air Heating Systems can make use of a wide variety of energy sources such as natural gas, propane, fuel oil, hot water, steam or electricity.

These systems are used for the production of concrete precast products as roof elements and wall elements in particular.
RadCure Concrete Curing Systems

RadCure systems use thermal radiation to heat concrete products. Hot water circulates in a closed loop system below the concrete product and transfers the thermal energy to the product. After the water has transferred the warmth to the concrete product it is led back to the heating unit and gets re-heated.

RadCure is used with pre-stressed concrete products for example.

Advantages of the RadCure Concrete Curing Systems

- steady heat distribution to the concrete product
- the heating loops are located below the concrete moulds and do not influence the production area
- highest possible efficiency; energy that was not used, is led back to the heating unit
- low heat loss due to insulation of the system

Advantages of the CureFog Moistening Systems

- no condensation due to fog in the chamber
- significant lower water consumption in comparison with other systems
- low energy usage by controlled humidity regulation
- low weight of equipment
- use for other applications possible (dust bonding, cooling, etc.)

For the concrete industry, we have made advantage of the fog’s positive characteristics to deliver missing humidity to the concrete products. Water is atomized by special nozzles to provide the humidity that concrete products need.

Using high performance ventilators, an efficient air circulation creates a stable climate within the curing chambers. The CureFog system was designed as a modular system and can be adapted to each and every customer and product need.
With the AggTherm Aggregate Heating Systems for sand and gravel silos, our customers have the ability to produce their concrete products at sub-zero temperatures. Hot-dry air (120°C / 248°F) is used as a heating medium, meaning that the water cement factor in the concrete mixture is not influenced.

Silo heating systems working with saturated steam, cannot offer these advantages. With an additional option to this system the mixing water can also be preheated and therefore the temperature of the whole mixture can be increased.

**Advantages of the AggTherm Aggregate Heating Systems**

- production in the winter period is possible
- shorter curing times by preheated raw materials
- stable water cement factor
- low energy consumption by the use of high-performance burners and the newest technology

The system comprises the following important concrete curing components:

- autonomous control of chamber temperature as well as chamber humidity
- hot air units with power ratings between 20 kW/h and 920 kW/h
- can be operated with gas, fuel oil, steam or hot water
- the required humidity in the system is either generated by a NDG steam generator or by our CureFog system
- ventilators with performances ranging from 1,000 m³/h (35.315 cu ft) up to 100,000 m³/h (3.531.467 cu ft) provide a permanent air circulation, preventing lamination
- air distribution ducts are made from corrosion resistant material or insulated GRP pipes
- fully automated process control
- all curing and system parameters are controlled by a Siemens control. The operation and control of the system is done via a user friendly touchscreen.
- other control systems can be also used.

The AllCure curing system combines all important elements of concrete curing. The symbiosis of warmth, humidity and air circulation can be used for big chamber systems as well as individual single atmosphere chambers.
In our workshop we make all kinds of control arrangements for energy distribution and control of machines. We accommodate the high demands of the concrete and feed industry.

We deliver:
- Control cabinets for system controls
- Energy distributions
- Clip boxes with decentralized assemblies
- Frequency Converter and power converter
- Process Visualization
- Burner Control

We offer the highest quality by long-standing experience, our certified employees and in-house quality management.

CureFlow Air Circulation Systems

Many manufacturers of concrete products face problems with different product colors or condensation build up within the curing chambers. We recommend the installation of a well-designed air circulation system which moves the air in these cases.

Due to circulation the humidity which is contained in the air has no chance to condensate on cold surfaces. Water drops within the chamber are prevented this way.

Color differences in the products are often caused by an irregular temperature distribution within the chamber (lamination). CureFlow mixes the chamber air steadily so that lamination cannot take place.

CureTec designs customized air circulation systems with top performance ventilators for high performance and durability. The components of the ventilators, like sealed engines and special materials, are adapted to the specific process. All air circulation systems are adjusted especially to the needs of our customers to guarantee the highest economic efficiency possible.

Automation Engineering

Our customers have a wide variety of demands; we offer you a wide variety of services.

The special purpose machinery engineering in particular always brings up interesting challenges. We have the tailor-made solution for you.

Our programming and service team can help you with all questions about our products. In urgent cases you can contact our service hotline 24/7. We can also help you with commissioning, programming, service or maintenance for plants of other suppliers.

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Additional Service and Systems:

- Installation and Customer Service
- Curing Racks
- Curing Chambers
- Tent Solutions
- Special Solutions