

FOR BEST CONDITIONS.
SINCE 1900.

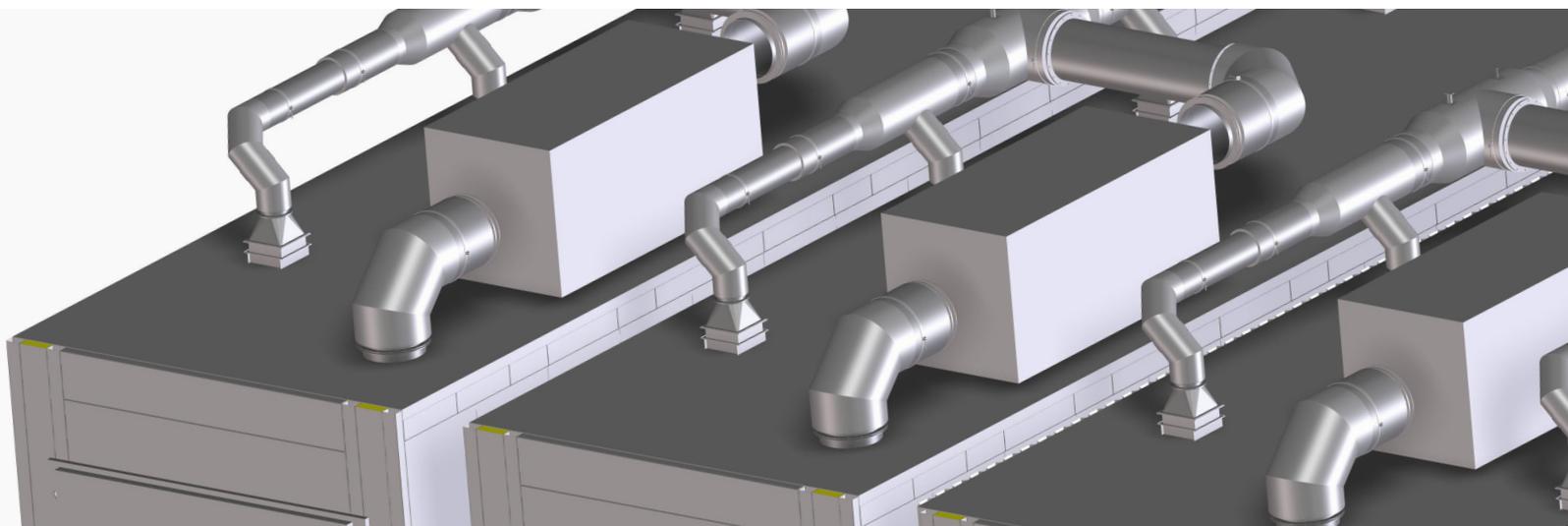
ROTHO[®]

ProCarbonCure

**For best
CO₂ conditions**



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ROTHO

ProCarbonCure

On the way to greenhouse gas neutrality, it is not only necessary to reduce CO₂ emissions, but also to sequester CO₂, i.e., to capture, use, or store it from thermal processes. In order to contribute to protecting our climate, ROTHO has developed the process engineering plant ProCarbonCure to permanently store large quantities of CO₂ in concrete. The ProCarbonCure technology has already been implemented on an industrial scale and has been nominated for the BAUMA Innovation Award 2025. To implement the process, the specialist disciplines of curing and drying had to be combined. The result is a closed process that gives the CO₂ time to penetrate deep into the concrete without a significant proportion being emitted back into the atmosphere. The ProCarbonCure technology is suitable for all binders that react with CO₂, such as various types of cement and steel slag.

Features

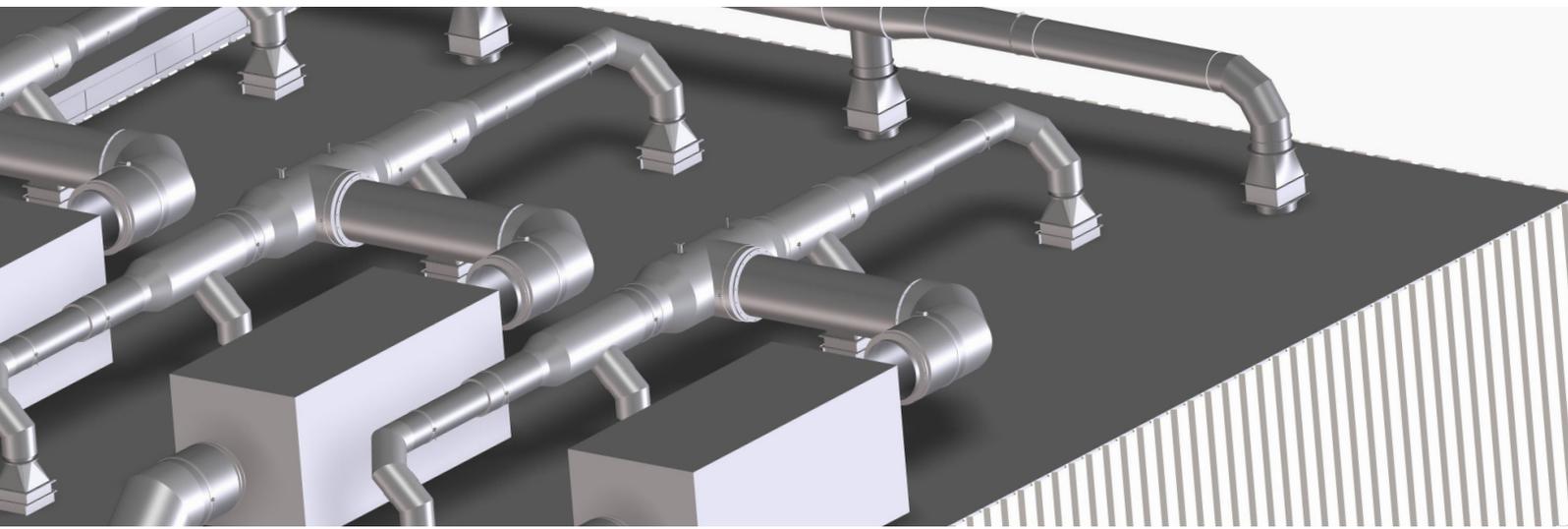
CO₂ atmosphere of almost 100%:

In order to be able to store large quantities of CO₂, an atmosphere with a high CO₂ concentration must be created to provide sufficient carbon dioxide.

Stable carbonation process:

Adding too much or too little CO₂ results in strong pressure fluctuations, which in turn can trigger safety chains and lead to a process that is difficult to control. ROTHO has achieved a controlled CO₂ supply through an intelligent method of adding CO₂.





Safety and tightness:

The issues of safety and tightness are closely linked. This is because CO₂ in high concentrations is harmful to the human organism. With the QUATRO structure developed in-house, ROTHO can implement the process in a structure that meets the highest tightness criteria. In addition, safety equipment has been developed that makes the protection of personnel a top priority.

Ventilation technology / Product quality:

In order to achieve the promised concrete properties and a uniform and good product quality, it is necessary for all products to store largely the same amount of CO₂. In order to achieve this, aeration technology was developed that can be optimally integrated into the QUATRO building structure and applies CO₂ evenly to all products.

Keywords:

- Proven technology on an industrial scale
- CO₂ atmosphere of up to 100%
- Stable carbonization process
- High level of safety
- High tightness of building and process equipment
- Uniform products thanks to optimal ventilation technology
- Lowest CO₂ losses



green CO₂ concept



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