

I 90 / S 60

Cooling systems for batching plants

NEW GENERATION



Ice production output	max.	90 t / d
Ice storage capacity	>	60 t



RECORD BREAKING ENGINEERING

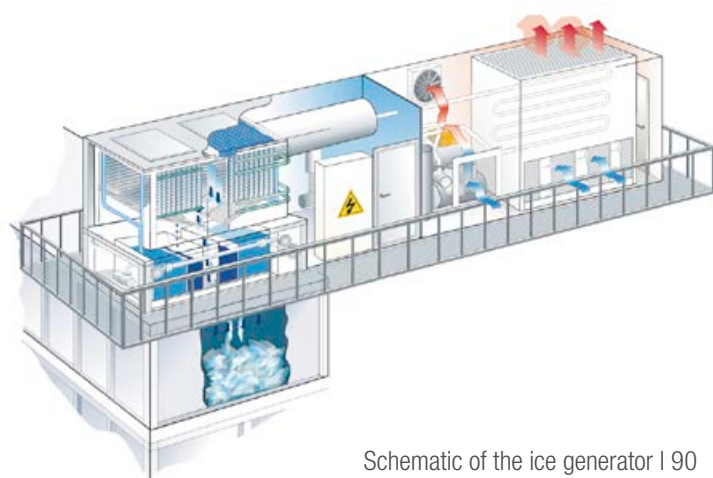
Cooling systems from Stetter

Economic production of ice and cold water for batching plants

Limitation of the fresh concrete temperature is a significant prerequisite for a high quality of the concrete. For batching plants with a medium to high concrete output per hour, the use of ice and/or cold water to control the temperature is particularly economical. Even more efficiency is provided by the cooling systems from Stetter: due to the unique technology for production of ice and cold water, its energy requirement is exceptionally low and the maintenance effort is minimal.

A Stetter cooling system for a concrete batching plant comprises of an ice generator I 90 and an ice store S 60. Both parts of the system are designed as modules: the ice generator is installed compactly in a 40 foot container, the ice store comprises of three 40 foot containers. The construction of the containers reduces the transportation costs, provides for quick installation and facilitates for utilization of the system for the next project.

The coolant NH_3 (ammonia) used in the ice generator I 90 is climate neutral, inexpensive to procure and dispose of and is available worldwide. Its high specific cooling performance and optimum evaporating temperature during operation ensures for the low energy requirement of the Stetter cooling system.



Schematic of the ice generator I 90

Advantages of the ice generator I 90

- Flake ice and cold water production in one system
- Integrated performance control prevents icing up on the heat exchanger plates, independent of the water inlet temperature, thereby, very high operating reliability
- Control of the temperature possible in the cold water tank
- Low operating costs due to high energy efficiency during generation
- Automatic defrosting function of the heat exchanger plates prevents uncontrolled icing up for minimum downtimes
- Semi-automatic cleaning process prevents contamination and calcium deposits in the plasticiser for low maintenance costs and high plant efficiency
- Simple and easy operation due to PLC control using a colour touchscreen
- Container construction for cost-effective transportation, quick installation and easy implementation of the plant

Advantages of the ice store S 60

- Professional and economic storage of flake ice minimizes the effort of defrosting, for reduced downtimes
- Option to assemble of up to four ice generators I 90 for each ice store for high system performance with more than 350 t of ice per day
- Continuous insulation with additional air chamber for optimum cooling without cost-intensive air cooling
- Rapid, process-related preparation of ice aids smooth operation of the batching plant
- FIFO process (First in – First out), thereby, utilization of the complete supply of ice possible for cooling the concrete
- Mean delivery performance of 20 t per hour
- Approx. 60 t of ice storage capacity, depending on the configuration of the system and mean storage density
- The option to supply up to two batching plants by one ice store (alternately)
- Optimum utilization of the existing, geometric fill volumes by automatic ice distribution equipment (option)
- Container construction for cost-effective transportation, quick installation and easy implementation of the plant

Technical data

Ice generator I 90

Ice production

(at 1°C water inlet temperature) kg/d 90,000

Cold water capacity

Water outlet temperature: 5°C

at 15° water inlet temperature m³/d 750

at 30° water inlet temperature m³/d 480

at 45° water inlet temperature m³/d 310

Coolant NH₃ (R717)

Fill quantity of coolant kg 450

Power consumption (approx.) kVA 270

Container type 1 x 40' HC (High Cube)

Dimensions (L x W x H) m 12.20 x 2.44 x 2.59



Ice store S 60 and two ice generators I 90 in Riad/Saudi-Arabia



Heat exchanger plates

Ice store S 60

Mean discharge capacity kg/h 20,000

Delivery outlets 2 (left/right)

Power consumption (approx.) kVA 90

Container type 3 x 40'

Dimensions (L x W x H) m 12.20 x 2.44 x 7.80



Ice store screw conveyor

Optional accessories

Water supply unit (pump, valves etc.)

■ Optimally adapted to the Stetter cooling system

■ Connection of the control for the ice generator prevents water damage caused by malfunctions in the electrical supply network

Supports, podiums, stepladders (galvanized)

SCHWING-STETTER ALWAYS CLOSE TO YOU.



Stetter Cooling Systems.
Economic ice and cold water production.



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