



ready to plug,  
ready to use units

# Refrigeration Units

## for BUCO-Ice Banks



### Application fields

#### Industrial chilling of food

- fish, meet, poultry
- fruit, vegetables
- milk, milk products
- softdrink production
- production of baked goods

#### Chilling in the production of

- chemicals
- pharmaceuticals
- concrete

# Efficiency

## Low electricity consumption:

Our refrigeration units are connected to the evaporators by shortest pipes. This avoids unnecessary pressure drops and ensures the oil return to the compressor. Though the electricity consumption is lower due to favourable suction pressure. In addition electricity is saved by frequency regulated fans at the condenser, and the required starting current is lower (Danfoss).

## Extra feature for ice water chiller:

An additional suction gas superheater / condensate supercooler ensures a reliable long life operation, with more efficiency of the refrigeration cycle due to lower refrigerant mass flow.

## Specifications

- Ready to plug cooling units 3 kW up to ca. 20 kW cooling power.
- Ready to use on one base frame together with the evaporator system.
- Aircooled quality refrigeration units, individually designed to application requirements.
- Danfoss \* (hermetics), up to ca. 17 kW \*\*.
- Bitzer \* (halfhermetics), on request.
- Very low noise level (Danfoss) due to frequency regulated fans at the condenser \*\*\*.
- Switch cabinet, IP 54, with potential free contact for remote control.
- Danfoss: Cover with shelter against weather, for inside or outside operation.
- Bitzer: For inside or outside operation under a roof.

\* or comparable types as required or available.

\*\* at t-evaporation = -10°C, t-ambient max. 32°C

\*\*\* warm air from condenser has to be diverted to the ambient.

## Additional standard for ice banks

- Automatic operation by an electronic limiter for ice thickness.
- Air agitation demand-actuated automatically for ice building and cooling operation.

## General options

- Water pump according to application.
- Works certificate or certificate of TÜV with CE-Label.

# Design

As a compact unit, evaporator, refrigeration unit and condenser are positioned on a common base frame, which can be erected easily. Warm air of the condenser has to be diverted to the ambient. The units are manufactured ready to plug, are tested and therefore can be set into operation without refrigeration specialist on site.

## Examples of application



**top left:** Ice bank BIC 120 kWh with 6 kW Danfoss-refrigeration unit

**top right:** Ice bank with cold water pumps, for chilling of cooking kettles

**below:** Static Ice Bank or water chiller in tank with air agitation

## Advantages

- Ready to plug units.
- Manufactured ready to use, inclusive test, for immediate operation.
- No separate condensing unit to be connected.
- No refrigeration engineer necessary on site to put into operation.
- Easy access and easy cleaning BUCO-plate heat exchangers.
- Nearly no loss in performance by pollution of the evaporator.
- Reliability.
- Long lifetime due to quality components.
- Design according to application criteria or precept.

## Application and Benefit

- Ice bank as storage of refrigeration capacity up to ca. 500 kWh.
- Cooling of liquids, stable even at peaks of flow and temperature.

**“BUCO refrigeration systems with BUCOplates for more than 30 years.”**

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