

MAJA has the bakery ice!

Machines and accessories for your ice requirements in dough production

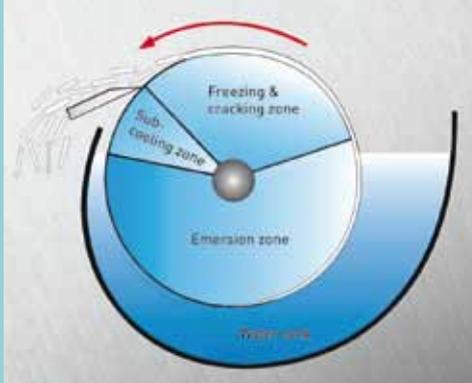
FLAKE ICE

NUGGET ICE



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A deep-frozen metal cylinder, rotating in a water reservoir, guarantees constant ice quality. With each rotation, water freezes on the evaporation drum and then flakes off, leaving the machine as dry-frozen ice. This system of ice production was developed by MAJA and has proven its reliability for almost six decades. It is efficient, cost-saving and does not require special maintenance.



MAJA has the BAKERY ICE:

Flake ice for the production of first class cough



Better dough with MAJA Flake Ice:

Intensive kneading process leads to higher dough temperature. The result: The dough must be cooled down to avoid faulty products of poor quality.

For this reason - MAJA Flake Ice

- Optimum development of the gluten network
- Good gas retention
- Attractive product volume

Efficient refrigeration - ice temperature approx. -7°C

- Excellent efficiency, even at high ambient temperatures, where other types of refrigeration are soon exhausted.

Dry-frozen ice flakes

- Loose and light, easy flowing
- Easy ice handling
- Precise dosage
- Thus accurate adjustment of dough temperature.

Thin ice flakes (1 - 2 mm)

- Good mixing behaviour for quick dissipation and consistent absorption by the dough.
- Little mechanical resistance, thus no damage to dough hooks.

Reduced production costs

- The production of **1 kg of MAJA Flake Ice** costs **approx. 0,02 €** (depending on type of machine and regionally varying energy costs)

High reliability - low maintenance

- Reduced operating and maintenance costs
- No additional efforts for water treatment, such as softening, filtration etc.

Application

- Depending on the recipe, 10 - 40 % of the water to add to the dough can be replaced by MAJA Flake Ice.
- Suitable for all types of dough.



HY-GEN Flake Ice Machines from MAJA are designed to allow the production of flake ice under excellent sanitary conditions. The core piece is the water tank in plastic material, which can easily be removed for cleaning.

The HY-GEN sanitation principle by MAJA: Ideal conditions for efficient cleaning. By hand and fully automatically.

The MAJA Label „HY-GEN Protected“ stands for:

- Evaporator can be opened without the use of tools for cleaning purposes and is accessible from all sides.
- Easily removable hygiene water tank in plastic material (insulation and no corrosion).
- Round-shaped, cleaning-friendly water tank; if necessary it is even replaceable.
- Water tank free of built-in parts without angles and edges, for easy and efficient cleaning.
- Automatic water pipe rinsing when the machine was out of operation for more than 24 hours.
- Special hygiene advantages in conformity with the current German drinking water regulations issued by the DVGW (German association for water & gaz), for example: water supply with back-flow protection, special drinking water hoses for protection from biofilm.



Option MAJA-SCS:

MAJA Flake Ice Machines can also be cleaned fully automatically. Thanks to the patented evaporator self-cleaning system MAJA-SCS, the ice producing unit can be regularly cleaned without investing additional working time or labor.

The cleaning cycle is started manually by ON/OFF push-buttons or fully automatically by programmable control panel (option).

A mixture of water and special cleaning agent flows around all machine parts that contact water, thus cleaning, delimiting and reduction of germs in one and the same operation.

The self-cleaning system does not only allow the production of pure flake ice for food processing: Routine cleaning is also important for care and value retention of your MAJA Flake Ice Machine!

**Removable
water tank**



For SAH 85 - 500 and RVH 250:
water tank removal at the side



For SAH 800 - 3000 and RVH 400 - 12000:
water tank removal at the top

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Big machine variety:

Individually configurable flake ice solutions



SAH 85 L / SAH 170 L



SAH 250 L / SAH 500 L on silo EN1



SAH 800 L - SAH 3000 L



RVH L / RVH LT



RVH

MAJA Flake Ice Machines

- **Compact machines type SAH** with integrated air-cooled condensing unit.
For small ice quantities: **SAH 85 L / SAH 170 L**
Capacities 85 and 170 kg / 24 h, incl. of mobile ice storage system

For small and medium processors: **SAH 250 L / SAH 500 L**
Capacities 250 and 500 kg / 24 h, to be combined with subframe for ice storage cart EVA 75 or installed on ice storage silo EN1

For big ice requirements: **SAH 800 L - SAH 3000 L**
Capacities 800 - 3.000 kg / 24 h, for installation on consoles, subframes, ice storage silos.
- **Flake ice machines for split-installation of ice producing unit and condensing unit type RVH-L / RVH-LT**
Capacities 250 - 12.000 kg / 24 h, condensing unit in solid outdoor protection housing.
- **Flake ice machines without condensing unit type RVH**
For connection to an external (multicompressor) refrigeration system.
Compact, space-saving structure.
Capacities 250 - 12000 kg
- **Flake ice machines for operation with natural refrigerants,**
e.g. RVH-CO₂, RVH-NH₃, RVH-F...



Useful accessories & options

- **Big choice of control units:**
Starting from the simple ON/OFF Control Panel until the Control Panel Timer with touch display and timer function for free programmable production and cleaning cycles.
- **Sanitation options:**
Patented self-cleaning system MAJA-SCS for regular automatic cleaning of the ice producing unit.
External UV-disinfection system in the water supply for making sure that only drinking water of impeccable quality is used for ice production.

Installation possibilities and equipment

■ Wall consoles:

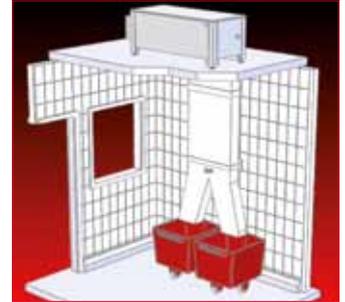
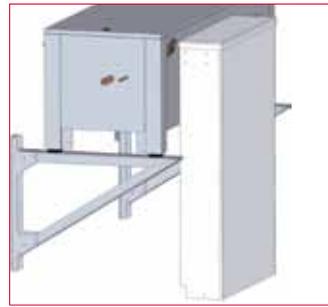
Special consoles allow the wall mounting of ice machines and condensing units. Different chute systems lead the ice into bins, transport carts or for example directly into the kneading bins.

■ Subframes:

Different types of subframes for individual installation of the ice machines, suitable for the use of one or two ice transport carts.

■ Different types of chutes:

Modular chute systems for individualized installation possibilities, starting from simple prolongation chutes until Y-chutes with two extraction points.



For the baking industry: Portion control dosage of ice batches - highly reliable and extremely precise!

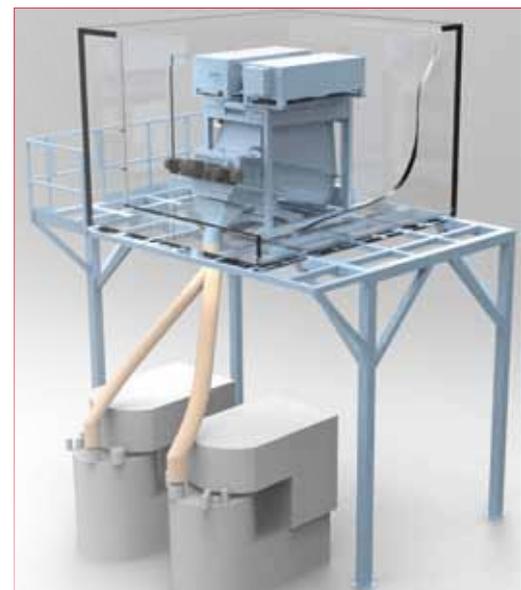
Intelligent ice management for more sanitation and efficiency in the production process:

The MAJA weighing system type VS allows the sanitary storage and dosage of ice.

Advantage for the baking industry: complete process automation, starting with the ice production until the portion control dosage of the ice batches.

Equipment & features

- Storage capacity approx. 300 kg of MAJA Flake Ice at an ambient temperature of max. +15°C
- Portioning through two stainless steel spiral conveyors
- Flexible adaptation of batch sizes and quantity, depending on the capacity of the installed MAJA Flake Ice Machine/s
- Short weighing process per batch, for example: approx. 25 sec. for 10 kg, approx. 40 sec. for 20 kg
- High weight accuracy: +/- 250 g (depending on local conditions). Thus excellent dough tempering and consistent dough properties.
- Operation by touch display for manual entry of the target weight. Option: connection to an existing recipe control system for full process automation.
- High process safety and traceability
- Time savings by automation - no manual ice shovelling!



Example of MAJA Ice Weighing installation VS5 with 2 MAJA RVH 3000

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Ice is important for the refrigeration, the presentation and the production of food-stuff, also for baking products. If you prefer either the fine, mat-white flake ice or the granular nugget ice - at MAJA it's up to you which ice will suit you best for your individual requirements!



MAJA has the BAKERY ICE:

Nugget ice for the production of first class dough.



MAJA Nugget Ice - the alternative ice type for dough refrigeration

Dough production:

- For tempering of doughs requiring intensive kneading.
- High efficiency, quick melting and dissipation for the production of excellent baking products.

In the sales area, for catering and party service:

- MAJA Nugget Ice cannot only be used for dough production, but also in the sales, for example for refrigeration and attractive presentation of cold drinks, catering buffets, etc.

Machine types and installations

- **NA-L:** Compact machines ready for plug and play, with integrated air-cooled condensing unit. Ice capacities 175 - 970 kg / 24 h
NA 175 / 300 L with eco-friendly refrigerant R290 (propane)
- **NA:** Nugget ice machines without condensing unit, for connection to an existing refrigeration circuit. Ice capacities 300 - 970 kg / 24 h
- **NA-CO2:** Nugget ice machines for very ecological ice production, for connection to an existing R744 / CO2 refrigeration circuit. Ice capacities 440 - 1420 kg / 24 h



NA 300 / 530 L on subframe for mobile ice transport system EV 50



NA 300 L / 530 L on silo ES 150



NA 970 L on silo ES 300



An evaporator screw rotates in an evaporation drum, which is filled with water and refrigerated from outside. The water freezes on the inner drum surface to small ice particles, which are scraped off by the rotating evaporator screw and conveyed upwards. The ice passes through an extrusion die and gets like that its characteristic nugget shape.

MAJA Nugget Ice offers a lot of advantages: Long freshness, attractive appearance and easy handling!

Interesting characteristics of MAJA Nugget Ice:

- **Ice temperature**
Approx. $-0,5^{\circ}\text{C}$, thus ideal cooling for versatile application fields
- **Characteristics**
Shiny, unregularly shaped nuggets, granular ice structure, attractive appearance.
- **Easy handling**
MAJA Nugget Ice can be stocked in insulated storage bins.
Good storage conditions for several days in a cold-room at low temperatures above 0°C . It remains loose and easy to dose.



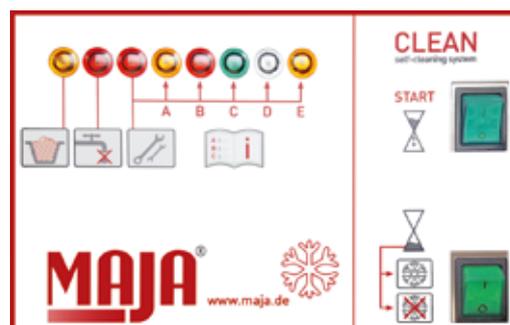
Sanitation accessories for food safety and time savings:

- **Optional water filter system**
MAJA recommends using a water filter system to protect the machine from sediment and limescale deposit for better sanitation. Suitable systems are available from MAJA. They filter out floating particles and reduce the risk of limescale deposit, which has positive effects on the machine's life cycle and state of hygiene.
- **Optional self-cleaning system**
MAJA Nugget Ice Machines are available with self-cleaning system to allow ideal conditions for the production of ice used for the production or refrigeration of foodstuff. Thanks to the patented evaporator self-cleaning system MAJA-SCS, the ice producing unit can be regularly cleaned without investing additional working time or labour.



MAJA-SCS is not only a guarantee for ideal sanitation conditions for the production of ice:

The efficient routine cleaning helps to maintain the value of your MAJA Nugget Ice Machine.



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www.the-bakery-ice.com



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