



Know-how in food processing!



NOCK NSH 150 with stock container for ice NEV 100 (optional)

Scale ice makers NSH series

Production of scale ice with innovative principle

The innovative principle of the NOCK NSH scale ice makers

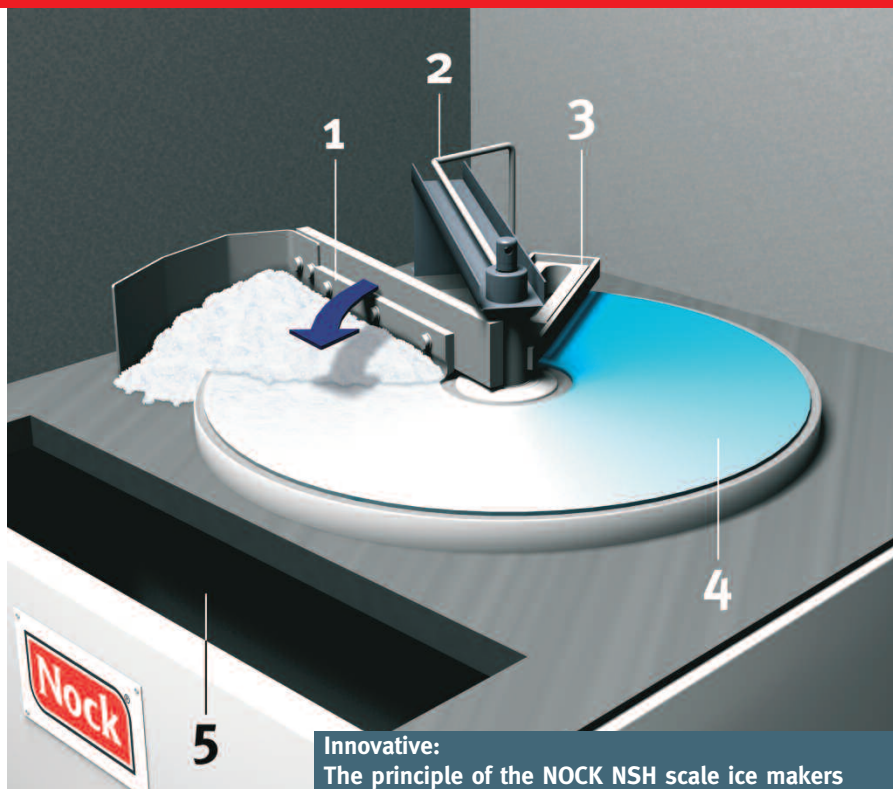
The NOCK NSH scale ice makers differ essentially in construction compared with known rotating evaporators - and therefore avoid such problems as leakage of refrigerant and ice with germs.

The NOCK NSH scale ice makers have a horizontal, **stationary freezing disc (evaporator)**. The water is directly brought onto the disc through a valve and a rotating water distributor from the fresh water supply and scraped off after the freezing process.

Unlike other constructions, in the NOCK NSH principle not the evaporator (freezing cylinder) rotates, but the scraper. **The refrigerant pipes are tightly soldered on the stationary NSH evaporator.**

The NOCK scale ice making principle **does not have a water storage tank (water bath)**. The fresh water is frozen directly and leaves the machine in less than one minute as ice.

This innovative principle has important benefits for the operator:



Innovative:

The principle of the NOCK NSH scale ice makers

- 1 rotating scraper with ice collector
- 2 fresh water supply
- 3 water distributor
- 4 stationary freezing disc (evaporator)
- 5 ice-shoot

No water storage tank in which bacteria may arise!

The non existence of a water storage tank has the following advantages:

- no arising of bacteria in the storage tank
- no mud sedimentation in the storage tank
- no regular cleaning of the storage tank necessary (which is often neglected)
- no sanitization by UV light necessary
- no problems with remaining water after disconnecting the machine

Your benefit:

- excellent hygiene and high hygienic safety
- strong reduction of cleaning activities
- less operating interruptions
- very low maintenance

Tipp: The manifold solicited and expensive cleaning and disinfection methods with UV-light or hydrogen peroxide cannot solve the problem with the sedimentation of mud in the water storage tank. Furthermore the disinfection of the fresh water is not the best solution. Besides, any problems with the fresh water supply in your production plant must generally be solved.

Perdurable tight

Because in the NOCK scale ice makers the evaporator is stationary there are no mobile parts in the refrigerant circuit. Therefore **no rotating sealings** are necessary which are very prone to wearout and critical for leaks. In consequence there is **no risk of leak of refrigerant due to rotating sealings**.

The benefits:

- the periodical refilling of refrigerant is not necessary
- no expensive change of worn out rotating sealings
- the ice cannot be contaminated by unhealthy refrigerant oil leaking from untight rotating sealings
- very high operating reliability

Approved

NOCK NSH scale ice makers are manufactured since 1996 and are sold in many countries worldwide. In comparison to conventional machines the price is a little higher, but this will amortize after purchase due to lower follow-up costs.

NSH 150



NSH 150 with stock container for ice NEV 100 (optional)

Features

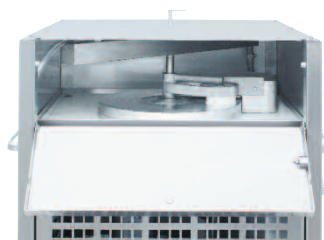
- scale ice maker with a daily output of **approx. 130 kg scale ice in 24 hours**
- complete machine with evaporator and refrigeration unit
- ice temperature approx. minus 8 °C
- thickness of scales approx. 2 mm

Standard equipment

- complete machine with integrated, air cooled refrigeration aggregate
- NOCK NSH principle with a stationary freezing disc (evaporator disc)
- refrigerant R449A
- automatic deactivation when stock container is full
- stainless steel casing with convenient front lid and lateral handles

Options

- **stock container for ice NEV 100**, capacity approx. 100 kg, stainless steel, insulated, big lid for taking out the ice, tightly welded bottom with 3/4" external thread output
- time-controlled switching on and off



front lid open

NSH 400



NSH 400 with stock container for ice NEV 210 (optional)

Features

- scale ice maker with a daily output of **approx. 400 kg scale ice in 24 hours**
- complete machine with evaporator and refrigeration aggregate
- ice temperature approx. minus 8 °C
- thickness of scales approx. 2 mm

Standard equipment

- complete machine with integrated, air cooled refrigeration aggregate
- NOCK NSH principle with stationary freezing disc (evaporator disc)
- refrigerant R449A
- automatic deactivation when stock container is full
- stainless steel casin



NSH 400 without stock container for ice

Options

- **stock container for ice NEV 210**, capacity approx. 210 kg, stainless steel, insulated, big lid for taking out the ice, tightly welded bottom with 3/4" external thread output connection
- time-controlled switching on and off

Characteristics and benefits of the NOCK scale ice

- dry, through and through frozen, thin scales of ice, with a bright attractive appearance
- temperature approx. minus 8 °C and thickness approx. 2 mm for excellent cooling and storage characteristics of the ice
- by the big surface of the ice scales a very quick cooling action is achieved. This facilitates very much the control of the temperature during the working process
- NOCK scale ice accomplishes highest hygiene requirements: The fresh water does not go through a water storage tank due to our principle of ice production, and therefore cannot be contaminated either by arising of bacteria or by unhealthy refrigerant oil leaking from untight rotating sealings
- NOCK scale ice is floaty, easy to shovel and to distribute; if well insulated pourable for a long time
- quick and equally apportion of the ice in mixing equipment and cutters
- gentle to quick rotating blades of cutters
- constant ice quality



Huge spectrum of applications

The high and quick cooling action, the attractive appearance and the high hygienic security make the NOCK scale ice a premium product in huge operational fields, some of them mentioned below:

- sausage producing industry: use in bowl cutters
- fish processing, transportation and trade: cooling during transport, storage and sales
- gastronomy and catering: cooling and presentation of buffets and beverage; fresh-keeping and storage of fresh meat
- delicatessen and fish shops: cooling and presentation of fish and delicacies
- supermarkets and retail shops: fresh-keeping and presentation of fresh fish and delicacies
- bakery: cooling of pastry
- laboratories, chemical and pharmaceutical industry: cooling, control of temperature during the working process
- hospitals, medical practices, wellness industry: cooling during therapeutical procedures

Technical data NSH Scale ice makers

| | NSH 150 | NSH 400 |
|--|---|---|
| ice output | approx. 130 kg scale ice / 24 hours (at +20°C ambient temperature and +15°C water temperature) | approx. 400 kg scale ice / 24 hours (at +20°C ambient temperature and +15°C water temperature) |
| refrigerant | R449A | R449A |
| permissible ambient temperature | +5°C < t < +25°C | +5°C < t < +25°C |
| water temperature | +5°C < tw < +20°C | |
| water pressure | ≥ 0,5 bar | |
| overall dimension W x H x D without stock container for ice with stock container for ice | 530 x 800 x 550 mm 530 x 1800 x 850 mm (NEV 100) | 730 x 980 x 750 mm 730 x 2000 x 1050 mm (NEV 210) |
| weight without stock container for ice with stock container for ice | 90 kg 160 kg (NEV 100) | 170 kg 250 kg (NEV 210) |
| water connection | 3/4" external thread | 3/4" external thread |
| electric connections | 230 V - 1 phase - 50(60) Hz | 400 V - 3 phases - 50(60) Hz |
| electric connection performance | 0.6 kW | 1.5 kW |



NOCK Maschinenbau GmbH
Industriestrasse 14
77948 Friesenheim
GERMANY

Tel: +49 (0) 7821-99 78 16
Fax: +49 (0) 7821-99 78 18
E-mail: info@nock-gmbh.com
www.nock-gmbh.com