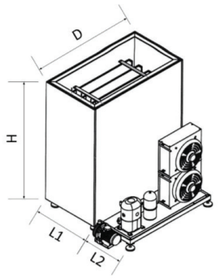
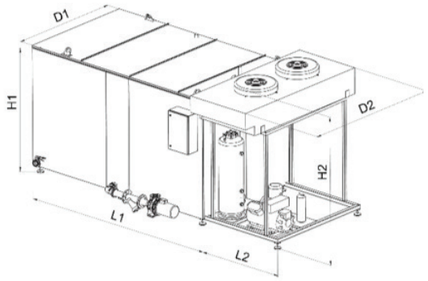
Technical details

SHL20-80



SHL100-1000



Ice bank components:

- The interior is made of W.Nr. 1.4301 stainless steel
- The exterior and the reservoir cover are made of W.Nr. 1.4301 stainless steel
- Insulation thickness:
  - 60/75 mm for SHL20-80
  - 50/75 mm for SHL100-1000
- Evaporator end plates are made of W.Nr. 1.4301 stainless steel
- Cooling unit with an air-cooled condenser
- Control panel with electronic thermostat for setting and monitoring the unit's operating parameters
- Power supply: 400V 3N 50Hz

SHL20-80

Type	Volume (l)	Capacity (kWh)	Amount of ice* (kg)	Melting capacity (0°C – 6°C) (kWh)	Cooling unit type**	Cooling capacity*** (kW)	Power supply (V / kW)	Width D (mm)	Height H (mm)	Length L1 + L2 (mm)
20	500	20	225	1,58	HGZ 22	2,3	MF/TF / 1,6	1100	1150	790 + 500
30	1030	30	375	2,63	HGZ 28	3,3	TF / 2,0	1350	1680	810 + 500
40	1030	40	500	3,5	HGZ 36	4,5	TF / 2,7	1350	1680	810 + 500
50	1530	50	625	4,38	HGZ 50	6,5	TF / 3,7	1350	1680	1120 + 600
60	1530	60	750	5,25	HGZ 50	6,5	TF / 3,7	1350	1680	1120 + 600
80	2030	80	1000	7	HGZ 64	8,2	TF / 4,8	1350	1680	1400 + 600

*When the ice thickness is 50 mm **Cooling unit types and dimensions are for information purposes only ***Full ice capacity produced in 8–10 hours

SHL100-1000

Type SHL	Volume (l)	Capacity (kWh)	Amount of ice* (kg)	Melting capacity (0°C – 6°C) (kWh)	Volume of cooling plates (l)	Cooling capacity (kW)	Power supply (kW)	Length L1 + L2 (mm)	Maximum width D (mm)	Maximum height H (mm)
100	2300	100	1035	7,2	30	8,9	3,5	920 + 800	1900	2000
120	2750	120	1242	8,7	36	11,4	4,4	1100 + 1200 (800)	1900	2000
160	3680	160	1712	11,6	48	17,8	7	1380 + 1300 (800)	1900	2100
200	4600	200	2140	14,5	60	22,8	8,8	1750 + 1000	2300	2400
280	6450	280	2996	21,8	84	27,4	10,8	2400 + 1250	2400	2400
400	9200	400	4230	29	120	45,6	17,6	3320 + 1400	2420	2450
500	12400	500	5382	37,8	150	54,8	21,6	4200 + 1400	3500	3600
600	15180	600	6420	46,5	180	54,8	21,6	4950 + 1400	3500	3600
800	17950	800	8560	55,2	240	93	35,2	6600 + 1400	4000	3800
1000	24000	1000	10764	75,5	288	110	44,7	7850 + 1400	4800	3800

As part of our continuous improvement process, we reserve the right to make technical and design changes without prior notice.

PLEVNIK

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Together, we have created more than 5,000 successful cheese-making stories.

Creating joyful countryside stories.



ICE BANK
SHL20-80
SHL100-1000

PLEVNIK
Let's add value to milk

Ice banks

SHL 20 – 1000 Ice banks
They are used for cooling kettles and pasteurisers during thermal processing of product, cooling cold rooms, maintaining the temperature in cooling tanks and salting vats, and for other industrial applications where intensive heat exchange is required within a short period of time (e.g. air conditioning in meeting rooms, cinemas, theatres...).

SHL ice banks are thermal energy storage systems with a maximum storage capacity ranging from 20 to 1,000 kWh. They utilise the significant thermal energy released when water changes from liquid to ice, corresponding to the latent heat of fusion of 335 kJ/kg

Low energy costs
The SHL operates at night when electricity is cheaper (making use of surplus electricity in the grid); the cooling energy generated at night is used throughout the day, thereby reducing the load on the electricity system during the day. Night-time operation also helps reduce peak electricity demand, avoiding additional peak demand charges.

Energy storage
Thanks to the uniform surface of the ice, the cooling water temperature remains constant until the end of the melting process. The amount of stored energy can be selected from 20% to 100% of the ice bank's capacity.

A smaller cooling unit – greater efficiency
Compared to conventional refrigeration systems, the SHL requires a smaller cooling unit for ice production, as it operates at a constant power output over a predetermined period of time. This results in reduced electricity consumption and ensures the unit operates evenly, thereby extending its service life.



Energy recovery
The waste energy generated during the cooling process can be used to heat domestic or heating water. Energy recovery enables energy savings and has a positive impact on the environment.

Stainless steel version
The use of stainless steel ensures a longer service life of the ice bank.

Separate cooling unit*
The ice bank can be adapted to the available space. If installation space is limited due to the required length or width, a version with a separate cooling unit is available. The cooling unit can be installed in another room or even outdoors.

* Available upon enquiry.

ENERGY EFFICIENCY

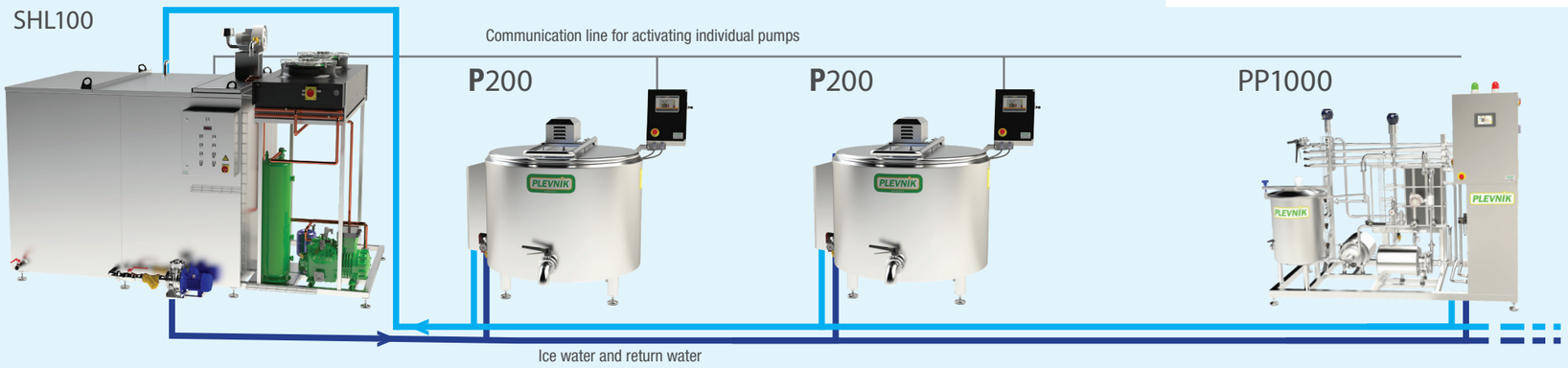
RELIABLE QUALITY

HIGH EFFICIENCY

Multiple device connection

Several devices can be connected to a single cooling unit. Thanks to the integrated cooling valves and pumps in Plevnik devices, cooling with the SHL Ice bank is simple and efficient. Each device autonomously sends a cooling request and starts pumping cold water from the SHL.

When a device requests cooling, the cooling pump starts and circulates ice water from the SHL Ice bank to the device. The water then returns to the SHL Ice bank, where it melts the ice again and provides a constant cooling capacity. In this way, the SHL Ice bank continuously supplies chilled water to the system via its circulation pump.



Cooling temperature profiles:

pasteurised milk: 63°C – 10°C;
required cooling capacity: 14 kW

yoghurt: 92°C – 16°C;
required cooling capacity: 20 kW

pasteurised milk (2,000 litres): 20°C – 5°C;
required cooling capacity: 40 kW

SHL20-80

An excellent solution for smaller requirements
The SHL20-80 is a compact ice bank with a cooling capacity of 20 to 80 kW, designed to cool several smaller kettles simultaneously.

It takes up very little space and can be placed against a wall, as it is operated and serviced from one side only.

A version with a separate cooling unit and an ice-water tank is also available, offering even greater flexibility in space planning.



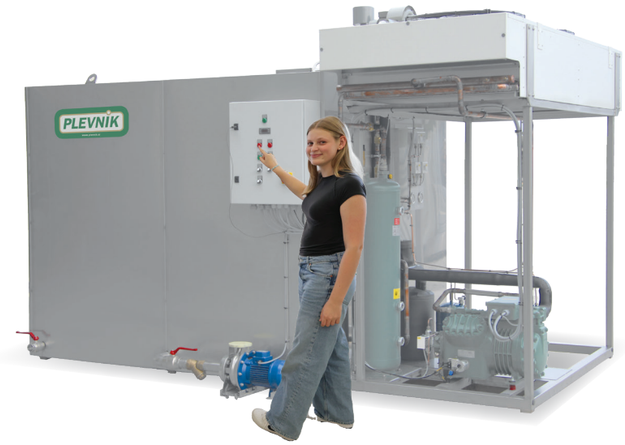
SHL100-1000

A professional solution for more demanding requirements
The SHL100–1000 is designed for ice-water cooling applications with capacities ranging from 100 to 1,000 kW, making it suitable even for the most demanding rapid cooling applications.

With additional air injection, the ice melts more evenly, reducing energy consumption.

We recommend installing a heat recovery system so that the waste heat generated during the cooling process can be used to heat domestic hot water. This ensures energy savings and has a positive impact on the environment.

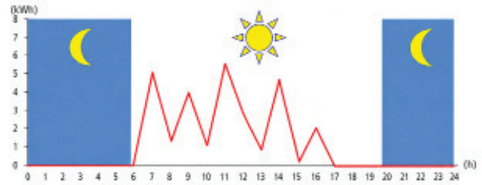
Options and accessories:
- Energy recovery
- Screw compressor
- Air blower – for more uniform ice consumption



RUNS AT NIGHT, COOLS DURING THE DAY

The SHL Ice Bank operates during the night, when electricity rates are lower, reducing peak daytime electricity demand and helping reduce electricity costs (depending on the electricity tariff in each country).

Energy consumption in a conventional cooling system (simulation)



Energy consumption with an Ica bank system (simulation)

