

Created  
for making  
extraordinary  
dairy products



# CHEESE KETTLES

## SKH50-1500



Add value to milk.

# Cheese kettles

## SKH50-1500

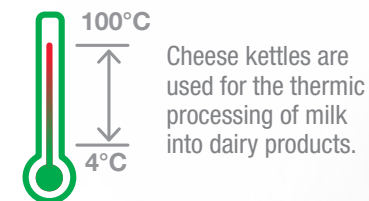
State-of-the-art cheese kettles.

**PLEVNIK**

Add value to milk.



Plevnik devices for modern cheese-making and successful cheese-making stories.



Cheese kettles are used for the thermic processing of milk into dairy products.

### BENEFITS

- 1 Energy efficiency
- 2 Good and efficient processing of cheese mass
- 3 Automated processing
- 4 Easy control and cleaning
- 5 Extending the functionality of the device

Plevnik products - in the service of the user



All Plevnik devices are user and environment friendly as well as energy-saving. They are designed and manufactured for long-term use.

## Benefits for cheese-makers

Add value to milk.

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### 1 ENERGY EFFICIENCY

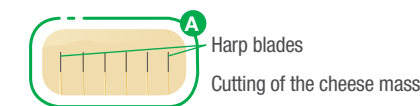
Between 10% and 30% lesser energy consumption thanks to an efficient energy exchange, which is made possible by **I** a well-insulated vessel (with three coats), **II** **III** laser-welded exchange surfaces and carefully chosen materials. • **P** The water pump facilitates a better heat exchange, which speeds up the heating and cooling processes and thus **saves energy and money**.



### 2 GOOD AND EFFICIENT PROCESSING OF CHEESE MASS

The Plevnik harps are specially designed, sharpened and polished to facilitate smooth cutting. Substituting harps for other stirrers is simple – in a single move.

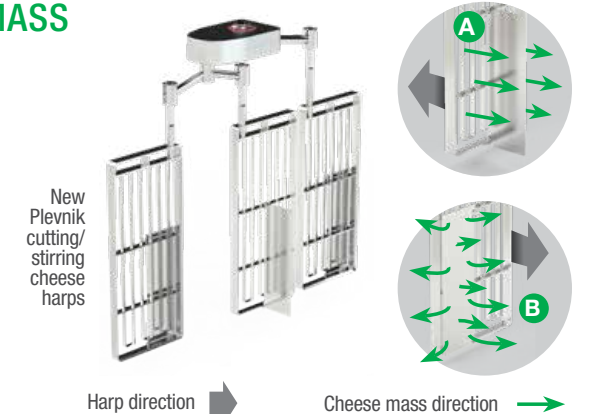
**A Cutting:** Automated harps with sharp and thin blades ensure a precise cut, which improves the quality and quantity of the final product (less cheese dust and more cheese). **Stirring B** (other direction of harp spinning): Stirring shovels are automatically activated when the stirring direction changes, and build the required stirring speed for **more efficient stirring** and drying of the cheese grains.



Cheese mass

Harp direction

Cheese mass direction

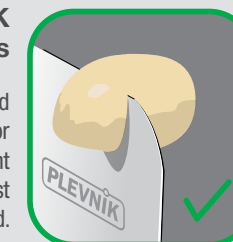


### Quality cutting – more cheese mass

The desired goal of cheese making is more cheese mass and less cheese dust. Precise and gentle cutting results in more cheese mass at the end of the process.

### PLEVNIK cheese harps

Sharp and polished harps are designed for a precise and efficient cut, and for the highest cheese mass yield.



### Cheese harps

Wire harps – cutting with a wire as shown: The round blade form causes tearing and more cheese dust – more small cheese mass particles which are lost with whey.



### 3 AUTOMATED PROCESSING PROCEDURES

Convenient and easy management using **smart controllers** that control processes and make the working day more efficient and organized. • Save time and money **with start and shutdown delay** of processes. Set them in such a way that in the morning, thermally treated milk is ready for cheese-making. • Possibility to record and document all active process parameters (temperature, stirring, etc.). • Possibility of remote access.



TIME-MONEY SAVING

More about the state-of-the-art controllers on page 7.

### 4 EASY CONTROL AND CLEANING

Easily and quickly control the Plevnik cheese kettle. Due to a well-conceived design of Plevnik devices, including controllers and stirrers, their handling is easy, and the work becomes faster and more efficient. You can start all processes (cutting, stirring, thermal treatment etc.) simply by pressing a button. **C Cleaning is faster and easier** due to the special surface treatment – 2R polish (prevents sticking to the vessel walls).



### 5 EXTEND THE FUNCTIONALITY OF THE DEVICE

Possibility to extend the functionality of the device: For a wider range of final milk products (cheese, yogurt, curd, ricotta etc.) and the most modern, easiest, most efficient and more ergonomic work etc.



More about upgrade possibilities on page 6.



Versions

BASIC  
SKH50-650l

≤ 85°C

Energy efficiency  
 Automation



A cheese kettle with a simple three-coat construction (water bath), electric heating (EL), connections for cooling with water from the distribution network and a propeller stirrer.

Simple regulation of the set temperature.

BASIC+  
SKH50-650l

≤ 90°C

Energy efficiency  
 Automation



Advanced automatic regulation MC 500 and monitoring of the set temperature.

ADVANCED  
SKH100-1500l

≤ 85-100°C

Energy efficiency  
 Automation



Advanced, extremely energy efficient (circular pump) cheese kettle with a simple, energy efficient three-coat construction which automatically cuts the cheese mass (automated harps). Position on a stable support with a tilting mechanism. Inox cover for motor protection.

Easy regulation of the pre-set temperature. Designs with different heating (HW, EL, EW) and cooling options.

ADVANCED+  
SKH100-1500l

Recommended!

≤ 90°C

Energy efficiency  
 Automation



Automated cutting, heating (EL) and cooling processes. Advanced automatic regulation MC 500 and monitoring of the set temperature.

PROFESSIONAL  
SKH100-1500l

Recommended!

≤ 100°C

Energy efficiency  
 Automation



A professional, autonomous and efficient cheese kettle for advanced users. Enables faster heating – has a closed pressure system (higher temperatures) and indirect cooling. Automatically cuts the cheese mass (automated harps). Position on a stable support with a tilting mechanism. Inox cover for motor protection.

Advanced automatic regulation MC 500 and monitoring of the set temperature.

PREMIUM  
SKH100-1500l

≤ 100°C

Energy efficiency  
 Automation



Advanced automatic regulation with monitoring and recording of the temperature with the MC 500 R. 2R polished interior. Electric heater power selection module. Central Z-mixer, stirring shovels and curd strip. Inox power cabinet and inox protection of the kettle bottom.

Equipment overview

Add value to milk.

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SKH cheese kettles	BASIC	BASIC+	ADVANCED	ADVANCED+	PROFESSIONAL	PREMIUM
POWER SOURCE:	EL	EL	EL / HW / EW	EL	EL / HW / EW	EL / HW / EW
HEATING UP TO:	85°C	90°C	85 / 100 / 100°C	90°C	100°C	100°C
VESSEL						
Durable and reliable material - stainless steel	AISI 304	AISI 304	AISI 304/316	AISI 304/316	AISI 304/316	AISI 304/316
Energy saving construction - laser welded	/	/	●	●	●	●
Faster, easier discharge - bigger outlet	○	○	○	○	○	○
More efficient heat exchange - indirect cooling (plate heat exchanger)	/	/	/EL ● HW ● EW	/	●	●
Lower energy consumption - water pump	/	/	●	●	●	●
Energy efficient cooling - Double-cooling	/	/	/	○	○	○
Less cleaning, time saving - 2R polished vessel interior	/	/	○	○	○	●***
STIRRERS						
Propeller stirrer – 23 rpm, two-part cover	●	●	/	/	/	/
Automated cutting of the cheese mass - a three-part automated harp, two-part cover	○	○	●	●	●	●
For mixing above 60 °C - a central Z-stirrer	○	○	○	○	○	●
For drying cheese grains - stirring shovels	○	○	○	○	○	●
CONTROLLING						
Simple temperature regulation Eliwell	●	/	●	/	/	/
Advanced automatic temperature regulation MC 500	/	●	/	●	●	/
Advanced automatic temperature regulation with a recorder - MC 500 R	/	/	/	○	○	●
Most advanced controller for highest level of automation - MC700i	/	/	/	○	○	○
Process recording - temperature recorder (different options)	○	○	○	○	○	○
Stirrer/harp speed and stirring direction regulation	○	○	●	●	●	●
Energy saving with small batches - electric heater power selection module	○	○	○	○	○	●
In case of overvoltage (lightning strike) - a module for operation without a controller	/	○	/	○	○	○
OTHER EQUIPMENT						
For easier handling and discharging - a stable support with a tilting mechanism *	○	○	●	●	●	●
For easier moving - a support on wheels	○	○	○	○	○	○
For easier access and ergonomic work - a working platform	○	○	○	○	○	○
For easier access and ergonomic work - an elevating device	/	/	○	○	○	○
Protection around the support to protect the water system (up to including 300 l)	/	/	○	○	○	●
Stirrer motor protection – a stainless steel cover	/	/	●	●	●	●
Greater durability - a stainless steel control panel (always with the MC 500)	○	○	○	○	●	●
Greater durability - a stainless steel power cabinet	○	○	○	○	○	●
A solution for facilities with the narrow door - adaptation for door	○	○	○	○	○	○
Local requirements - a rounded two-part cover	○	○	○	○	○	○
Draining the curd - curd strip **	○	○	○	○	○	●
Local requirements - a cover and valve position sensor	○	○	○	○	○	○
Additional safety - sensor protection against the harps	○	○	○	○	○	○
Additional safety - a protective net in front of harps	○	○	○	○	○	○
...						

\* mechanical, from 500 liters inclusive, the slope is pneumatic \*\* up to and including 650l, \*\*\* up to 1000l
 ● included ○ option / unavailable

Heating options:

EL ... heating using electrical heaters  
 HW ... heating using hot water from a boiler using solar energy, heat pump etc...  
 EW ... combined heating (hot water and electrical heaters)  
 ST ... heating with an indirect steam on request

Required heating power for heating 100 l

ΔT – temperature change	ΔT=30°C	ΔT=60°C	ΔT=90°C
Required energy	3,7 kWh	7 kWh	10,5 kWh

## Additional equipment

PLEVNIK SKH50-1500



### Stirring shovels

For the steady and efficient stirring of the cheese mass during drying. The stirring shovels ensure the homogeneity of cheese grain and whey.



### Z-stirrer

Enables the thermal treatment of milk above 65 °C. Together with the two-part cover, it enables the production of yogurt, ricotta etc.



### Double-cooling

Save ice water (energy), because water from the water supply network is used for cooling from higher temperatures (100–40 °C). Ice water is used for cooling down (40–4 °C).



### Protective net in front of harps

Physically prevents unauthorized reaching into the vessel during operation – for better safety at work.



### Working platform

Easier access, higher outlet and easy decantation of the cheese mass to the draining table. Safe, efficient and ergonomic process control.



### Elevating device

Enables setting the ergonomic working height and therefore makes work easier. Ideal solution for facilities with a low ceiling.



### Protection around the support

Protects the kettle pipes against dirt and makes cleaning the entire kettle easier. Ensures a long lifespan due to the water system protection.



### Stainless steel control panel

The INOX control panel is very durable and makes cleaning easier (the picture is symbolic).

## ERGONOMY AT WORK

### HEALTH FIRST

Using the Plevnik **working platform** or **elevating device**, you can adapt the working height to **your best working zone**.

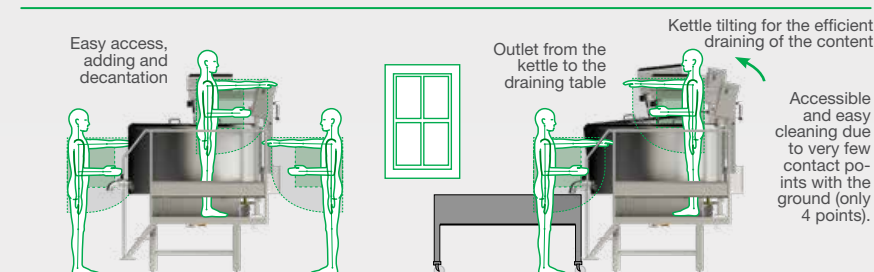
Long-term working in an unsuitable working environment can result in poor posture, which in turn results in numerous health issues, such as back pain, neck pain, headaches and others. Each person's body dimensions are unique.

### ECONOMICAL ERGONOMY

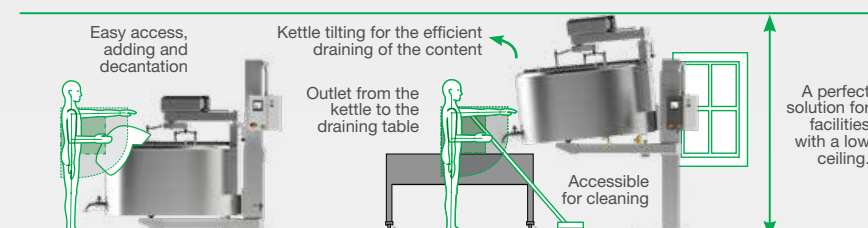
The listed solutions enable you to work faster and easier. Create good working conditions to ensure your employees remain healthy and satisfied.

### PLEVNIK SOLUTIONS:

#### 1 Working platform a static solution with a fixed height



#### 2 Elevating device for adjusting the height



## Controllers

Add value to milk.

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Modern and easy control of cheese and dairy processes

### MC500



A state-of-the-art controller for **process automation**. Set your unique processes and ensure the **stable quality** of your products.

### MC500R



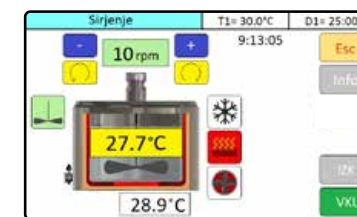
Recommended!

The MC 500 R with an integrated recorder enables the **digital recording** of all parameters of active processes (temperature, stirring, etc.).

### MC700i



A state-of-the-art controller for the highest level of **process automation**. **Automated processes** for the **highest quality** and **repeatability** of dairy products.



### Easy, user-friendly operation.

A large 5" color touchscreen with an excellent overview offers an excellent user experience in 7 languages.



### Outstanding flexibility and clear overview.

It is possible to choose from **12 programs**, which can be adjusted to suit your technological procedures.

Program 1		Edit		ESC	
Temp. (°C)	Duration (min)	Stirrer speed (rpm)	Temp. (°C)	Duration (min)	Stirrer speed (rpm)
85.0	10	ON1	10	10	10
40.0	10	ON1	10	10	10
35.0	10	ON1	10	10	10
70.0	10	OFF	10	10	10
30.0	1500	ON2	10	10	10

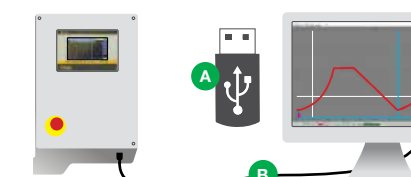
### Advanced professional programs

Adaptable programs support up to 15 steps. Support the basic settings, such as temperature, time, stirring speed and direction, as well as turning on the "gentle", stage-controlled, temperature retention mode.



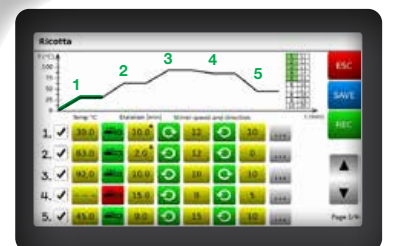
### Complete documenting – recording of temperature and other processes

The MC 500 R controller has a built-in recorder, which **automatically records all active processes**, in turn making it easier to control them as well as offering an **overview of completed processes**. Records can be easily transferred via USB (A) flash drive or (B) cable) to the computer, where you can view and save them with the dedicated software.



### Remote access (Wi-Fi) and additional program settings

Via remote access using a mobile phone, tablet or laptop, cheese-makers can manage and control milk processing even when they are not present in the dairy.



### MAJOR BENEFITS

- Process recording • pH sensor
- Automatic dosage option
- Quantity sensor • Stirring control
- Managing vessel content inlets and outlets • Precise heating regulation • Holding and maintaining temperature • Remote access • WiFi assistance • The MC700i can be incorporated into main control centres

The MC700i enables in the mobile application all functionalities the controller has.





Special versions

Cheese kettle with cooling/heating unit  
SKH-H200-650

BENEFITS

1 The SKH-H is an SKH cheese kettle with a standalone 2 cooling/heating unit. 3 Possibility of heating with a heat pump (up to 45 °C, where energy consumption is reduced by 70%). 4 Extremely efficient air cooling up to 40 °C (COP 35). 5 Cooling down to 4 °C when needed. The only thing required is a power outlet. 6 Versions: air-air, air-water, water-water; 7 On request: Cooling/heating unit with an upgrade for connecting up to 3 consumers\* (devices).



Low energy consumption, no waste water, precise temperature regulation.

Cheese kettle with a copper inside  
SKHCu300-1500

Make traditional cheese products using advanced copper cheese kettles

BENEFITS

1 Hygiene: Copper surface (traditional cheese-making material) helps suppress pathogenic organisms, which may lead to products being infected during raw milk processing.



2 Products get a special flavour and gain a certain amount of copper, which is a vital element for the health and nutrition of people. Examples of traditional cheeses from copper kettles: Parmigiano Reggiano, Trentingrana and Grana Padano etc.

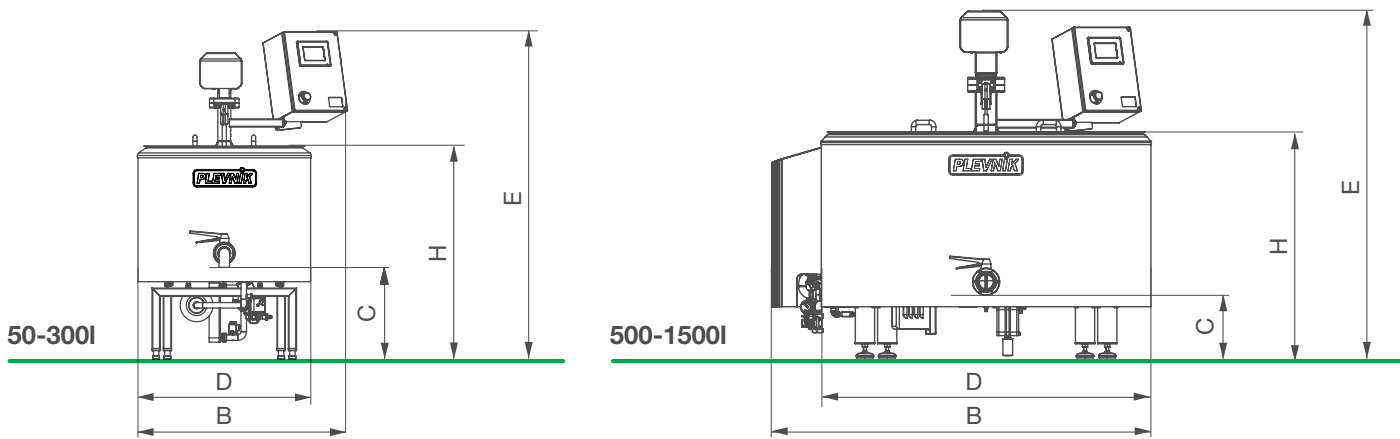
The World Health Organization estimates that at least 20% of world population suffers from medical disorders related to copper deficiency in food. Source: European Copper Institute

<https://copperalliance.eu/benefits-of-copper/health/>

PLEVNIK SKH50-1500

Technical information

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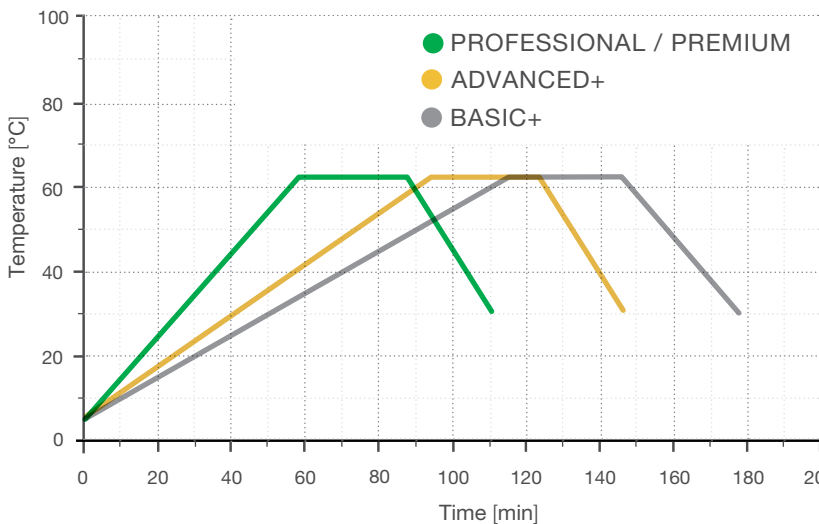


Type	Heating power (kW)					Dimensions (mm)					Cooling water connections	Hot water connections	Weight (kg)	Outlet (DN)
	Basic Basic+	Advanced	Advanced+	Professional / Premium										
	Electric heaters* for: EL	Electric heaters* for: EL / EW	Electric heaters* for: EL	Electric heaters* for: EL / EW	Recommended power of the hot water stove: HW / EW	D	H	C	B	E				
SKH 50	4/4	-/-	-	-/-	-	Ø 545	910	525	930	1470	1/2"	3/4"	90	DN50
SKH 100	6/6	6/6	6	9/6	35	Ø 745	910	525	1020	1470	1/2"	3/4"	125	DN50
SKH 200	10/12	10/10	12	18/12	35	Ø 845	1025	475	1025	1595	1/2"	1"	170	DN50
SKH 300	12/15	12/12	15	20(24)/15	35	Ø 1000	1025	475	1105	1600	3/4"	1"	230	DN65
SKH 500	12/20	18/18	20	30(36)/24	35 / 65	Ø 1125	1035	330	1375	1600	3/4"	5/4"	310	DN65
SKH 650	15/24	20/20	24	36(45)/30	65	Ø 1280	1035	330	1520	1610	1"	5/4"	360	DN65
SKH 800	-/-	24/20	30	45/30	65 / 95	Ø 1400	1030	320	1925	1590	1"	5/4"	395	DN65
SKH 1000	-/-	24/20	30	45(60)/45	65 / 95	Ø 1525	1045	315	1755	1600	1"	5/4"	465	DN80
SKH 1250	-/-	24/20	30	45(60)/45	65 / 95	Ø 1525	1205	315	1525	1795	1"	6/4"	525	DN80
SKH 1500	-/-	30/30	30	60/45	95	Ø 1521	1386	340	1521	1955	1"	6/4"	670	DN80

Connection power  
400V 3N 50Hz / EL: 4-60 kW and HW 230V 1N 50Hz. Final rated power of the device (HEATING POWER + 0,5kW).  
It is possible to adapt to other power parameters (60 Hz etc.) - on request

Pasteurization speed in the SKH 300 EL kettle  
design comparison (heating with electric heaters)

- PROFESSIONAL / PREMIUM  
Energy saving construction – lower energy consumption  
Faster heating – more powerful electrical heaters • Closed (pressure) heating system (heating up to 100 °C) • Indirect cooling via a heat exchanger (longer heater lifespan)
- ADVANCED+  
Energy saving construction – lower energy consumption  
• Faster energy decantation (water pump) • Automatic temperature regulation
- BASIC+  
Simple construction  
• Automatic temperature regulation





### PLEVNIK CHEESE KETTLES

Includes components of recognized European manufacturers to ensure **long-lasting, stable and reliable quality.**

**SIEMENS**  
Reliable electric motors, Germany

**SCHRACK TECHNIK**  
Electric components for electric installations, Austria

**Castel**  
Italian technology  
Reliable valves for a long equipment lifespan, Italy

**GRUNDFOS**  
A state-of-the-art pump for better efficiency, Germany (≥ 300 l)

**SVEP**  
An efficient heat exchanger, Sweden

**aperam outokumpu**  
Inox steel sheets, Sweden, Finland

**vyrobené v EU**

**RELIABLE QUALITY**



Cheese making in the past.

Superior heating, cooling and milk processing performance in all process phases is what I can say about the Plevnik cheese kettles. The best cheese, yoghurt and curd are the logical result.

Ecological Farm Kukenberger,  
Toni Kukenberger  
Innovative Young Farmer 2016

**\*\*TRUSTED\*\* BY THE BEST.**







# Complete dairy solutions



SKH EN 11 01 2023

## Plevnik products - in the service of the user

All Plevnik devices are user and environment friendly as well as energy-saving. They are designed and manufactured for long-term use.



Consulting



Visit



Planning



Production



Assembly and start up

More information

In the process of constant improvements, we reserve the right to make technical and design modifications without prior notice.



**The milk processing specialists.**  
Together we have created more than 4.000 successful cheese-making stories.

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