

STEPHAN UHT SYSTEM

Processing for the dairy industry



STEPHAN CONTINUOUS COOKING AND UHT SYSTEMS FOR THE DAIRY INDUSTRY

Designed for all kinds of processed cheese from low to high viscosity

- THE STEPHAN SYSTEMS FOR CONTINUOUS PROCESSING HAVE BEEN DESIGNED BASED ON THE DEMANDS OF THE DAIRY INDUSTRY.
- TREATMENT OF ALL KINDS OF PROCESSED CHEESE WITH PRECISE AND FULLY CONTROLLED PARAMETERS.
- EXTREMELY SHORT AND EFFICIENT PROCESSING STEPS ASSURE FINAL PRODUCTS WITH BEST QUALITY.
- FULLY FLEXIBLE DESIGN ALLOWS A DESIGN OF PLANTS SPECIFIC FOR CUSTOMERS' NEEDS.

Advantages for your production

- CONSTANT PRODUCT QUALITY
- VISCOSITY CONTROL SYSTEM
- EFFECTIVE HEATING BY DIRECT STEAM INJECTION
- INTEGRATED EMULSIFYING SYSTEM
- EASY TO ADAPT TO NEW MARKET NEEDS
- LONG RUNNING TIMES
- EASY TO OPERATE
- MAINTENANCE FRIENDLY
- CIP-CLEANABLE

APPLICATIONS AND PROCESSING STEPS

Applications:

- PROCESSED CHEESE:
 - SPREAD
 - BLOCK
 - SLICES (IWS/SOS)
- ANALOGUE CHEESE
- BABY FOOD

Processes:

- MIXING
- EMULSIFICATION
- PASTEURISATION (DIRECT STEAM)
- UHT (DIRECT STEAM)
- DEAERATION
- VACUUM COOLING
- VACUUM CREAMING



PROCESS DESCRIPTION FOR PROCESSED CHEESE PRODUCTION

Standardisation

The final product is a blend of raw cheese, various powdered ingredients, butter, fat / oil and water. The main ingredients, natural cheese and butter, require pre-processes such as quality checks, unpacking, weighing, metal detection and grinding.

The STEPHAN Cheese Blender **(1)** is used for the preparation of a standardised homogeneous cheese blend.

After a laboratory check the blend is discharged into the STEPHAN Station Vat **(2)**, which is a buffer tank, prior to processing.

Processing

The processing and heating to the required temperature (70 – 95°C) can take place in either a continuous or batch system.

In the STEPHAN Continuous Cooker **(3)** the product is heated by direct steam injection combined with a dynamic and highly efficient mixing system. The final emulsifying step is achieved by means of a rotor/stator system which ensures the best product quality.

In the STEPHAN Batch Cooking system **(3)** all necessary functions of processing such as cutting, blending, heating by direct steam injection, emulsifying and deaeration are achieved within one single module.

The STEPHAN UHT systems **(4)** are state of the art and capable of producing all modern products.

Extension of shelf life is achieved by heating up to 145 °C. For prolonged standing times the UHT can be designed in a double UHT head execution. To reduce setting, product contact parts are PTFE coated.

Prior to filling, the product has to be cooled down and deaerated **(5)** by controlled vacuum, followed by an inclined creaming tank for structure rebuilding and viscosity development under ambient pressure.

The Creaming Tank **(6)** is equipped with a high efficiency creaming element and viscosity monitoring.

The product cooling, deaeration and creaming under vacuum can also be achieved in a single combined system – the STEPHAN Flash cooling and Creaming Tank **(7)**.

Additional modules for CIP, steam filtration, product filtration and pigging systems are also available.

MACHINE RANGE AND COMPONENTS



1 STEPHAN CHEESE BLENDER (CB)

	CB 500	CB 1000	CB 2000	CB 3000
Capacity (l)	500	1000	2000	3000

2 STEPHAN STATION VAT (SV)

	SV 750	SV 1500	SV 2500	SV 4000
Capacity (l)	750	1500	2500	4000





3 STEPHAN CONTINUOUS COOKER (CC)

	CC 1000	CC 2000	CC 4000	CC 6000
Capacity (l/h)	300 – 1500	400 – 2000	800 – 4000	1200 – 6000



3 STEPHAN UNIVERSAL MACHINE (UM)

	UM 70	UM 130	UM 200
Batch size (l)	55	90	170
Capacity (l/h)	330	540	1020

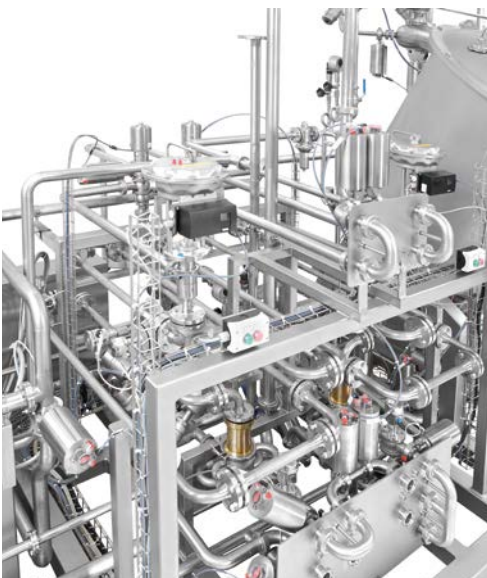


MACHINE RANGE AND COMPONENTS



3 STEPHAN COMBITHERM (CT)

	CT 800	CT 1200	CT 1600
Batch size (l)	800	1200	1600
Capacity, up to (l/h)	3200	4800	6400



4 STEPHAN UHT (UHT)

	UHT 500	UHT 1000	UHT 2000	UHT 4000	UHT 6000
Capacity (l/h)	100 – 500	200 – 1000	400 – 2000	800 – 4000	1200 – 6000

The machines shown are for illustrative purposes only. Actual machine construction may vary by specification.





5 STEPHAN FLASH COOLING TANK (FK)

	FK 500	FK 1000	FK 2000	FK 4000	FK 6000
Max. cooling capacity (l/h)	500	1500	2000	4000	6000

6 STEPHAN CREAMING TANK (CR)

	CR 180	CR 400	CR 650	CR 1400	CR 2000
Max. creaming content (l)	180	400	650	1400	2000

Creaming time approx. 20 min

**7 STEPHAN FLASH COOLING
AND CREAMING TANK (FC)**

	FC 180	FC 400	FC 650	FC 1400	FC 2000
Max. creaming content (l)	180	400	650	1400	2000

Creaming time approx. 20 min



Stephan Machinery

WORLD WIDE AT YOUR DISPOSAL

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