

PLUS
ECO
SUPPORT



CHOPPING.
HEATING.
EMULSIFYING.
DEAERATING.
COMBITHERM



**SUSPENDING
STIRRING
MIXING
COOKING
COOLING
HOMOGENISING**

THE CRÈME DE LA CRÈME OF BATCH PROCESSING.

Whether you're producing creamy processed cheeses, savoury spreads, spicy dressings or vegetable and fruit purees – the Stephan Combitherm is your versatile solution for efficient processing.

BUILT FOR MAXIMUM EFFICIENCY

In developing the Combitherm, our aim was to maximise efficiency for every process step. This starts with design and geometry. For example, the compact vacuum-processing machine features a fixed, inclined, cylindrical vessel with a dished base – and an optional double jacket.

READY IN A FLASH

The vessel is equipped with an automatically-operated, full-diameter lid. Thanks to the free-standing lifting/tilting device, chunky raw ingredients can be added quickly and cleanly. Liquid or powdery ingredients with the help of the vacuum system and corresponding feed hoppers directly into the working area of the dispersing and cutting tool at the bottom of the container. Alternatively, large-volume liquid components can be added to the vessel from the top.

INTUITIVE OPERATION

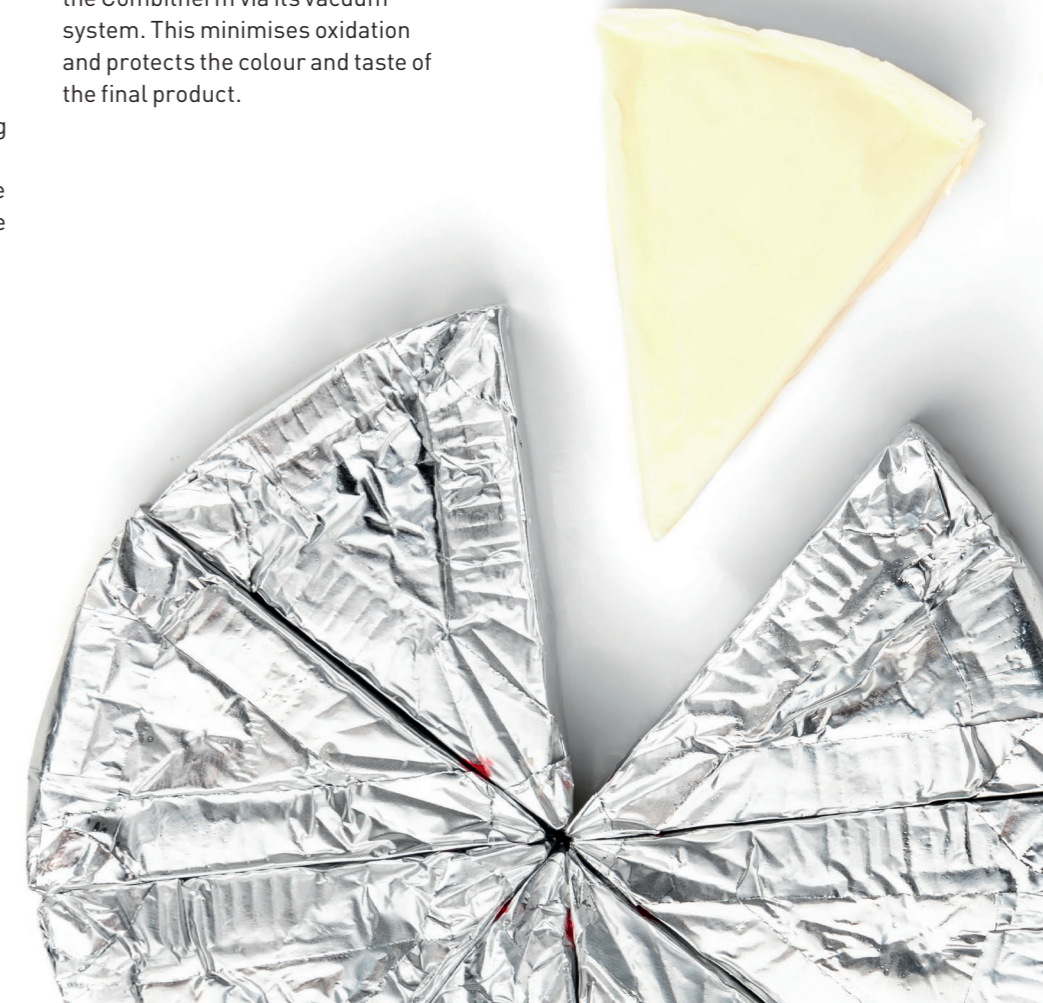
Built into the vessel base, the agitator with contour-following scrapers can be conveniently controlled via the ProUI user interface. Thanks to integrated SPRO automatic recipe management, even complex recipes need just a few clicks.

60% INCLINE, 100% QUALITY

The Combitherm works at an incline, thus ensuring effective, homogeneous mixing of all recipe ingredients – ingenuity that's typical for Stephan. And the proven direct-steam injection heats quickly yet gently.

HOT, COLD, UNDER VACUUM

The scrapers in the agitator not only prevent build-up, they also support optimum heat transfer from the double jacket, depending on the operating mode selected. During processing, the product can be deaerated within the Combitherm via its vacuum system. This minimises oxidation and protects the colour and taste of the final product.



COMBITHERM – READY FOR MORE.

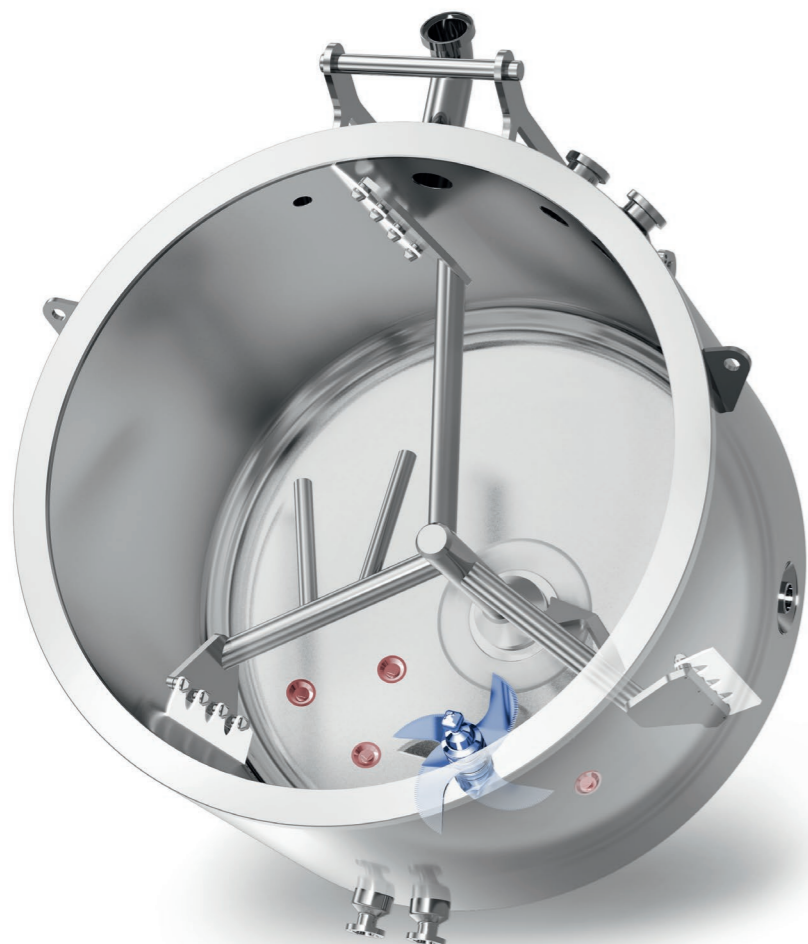
EXPANDS TO MEET NEW CHALLENGES

For ultra-fine chopping and homogenisation, a Stephan Microcut® can be retrofitted. This external rotor/stator homogeniser processes solid ingredients quickly and evenly. A displacement pump fitted at the vessel's lowest point feeds the product evenly to the individually-configurable tool set of the Stephan Microcut® – and via a circulation line back into the vessel. In addition to providing circulation, the product pump also serves as a discharge pump.

A SPRINTER WHO LOVES MARATHONS

To ensure outstanding product quality as well as high machine availability, the Combitherm is designed for automated cleaning (cleaning-in-place, or CIP). Downtimes are thus reduced to a minimum and productivity is increased – without the need for more space.

In short, the Combitherm is your ideal compact solution for manufacturing a variety of highly-processed foods. Its precise production and cleaning processes ensure top-class, reliable quality and efficiency when preparing large batches.



PROCESSED CHEESE SAVOURY SPREADS HUMMUS DRESSINGS MAYONNAISE FRUIT / VEGETABLE PUREES



BENEFITS FOR YOUR PRODUCTION



Compact, all-in-one processing system



Stable emulsions



Optimum dispersion of solids



Intuitive ProUI user interface



Flexible SPRO recipe management



Effective, homogenous mixing



Efficient and gentle direct-steam heating



Minimised air inclusions
Avoids oxidation



Automated cleaning (CIP)



Adaptable and expandable

TYPE		CT 801	CT 1201
Batch size max.	l	800	1200
Capacity (depending on product) up to	l/h	2,400	3,600
Working temperature max.	°C	95	95
OPTION I A: Working temperature, max.	°C	105	105
OPTION I B: Working temperature, max.	°C	110	110
Required electrical power*	kW	70	100
OPTION II A: Microcut®, single head		MCH 150	MCH 150
OPTION II B: Microcut®, double head		MCH-D 150	MCH-D 150

* reference configuration RC1 at 400 V AC / 50 Hz

LET'S GROW SUSTAINABLY!

Increasingly consumers are basing their purchase decisions on the products' environmental impact. A challenge for the industry? Yes. But: At ProXES we know that sustainability and profit increase are not contradictions. Let's talk!

The ProXES experts support your company in finding new ways to optimise your production sustainability, e.g. for processes or engine technology.

An optimised life-cycle assessment reduces the consumption of resources and operating costs. There is no need to re-organise your whole operation: Your proven process systems can also be retrofitted. This way, you can sustainably extend their service life, save energy, and generate additional potential. Some examples:

ANALYSING AND REDUCING MEDIA CONSUMPTION

Today, many production processes still use a lot of resources. Cleaning in particular consumes large quantities of water and energy. ProXES offers your company the know-how and the tools to measure and analyse your media consumption. Based on the results of this analysis we help you implement measures to produce more sustainably.

REDUCED PROCESS TIMES

Our on-site ProXES technicians will explain how to minimize batch or cleaning times and help you optimize your resource consumption.

SUPPLY CHAIN SUSTAINABILITY

Integrating environmentally sound choices into logistics is a critical aspect of supply-chain management. At ProXES, we focus on the resource-friendly use of materials, short and optimized transport routes, and promote the employment of reusable and recyclable packaging.

GET FUTURE-READY WITH PROXES

We are happy to support your company with innovative concepts to guarantee high-quality standards. Our in-line product and quality controls provide direct feedback with regard to quality deviations and help you avoid rejects and production waste.

Ask our ProXES experts about how to synchronise ecology with economy!



ProXES

your processing partner



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EXCELLENCE IS A TEAM EFFORT

With three leading brands FrymaKoruma, Stephan and Terlet under one roof, ProXES combines long-standing expertise with a challenger mindset. As an agile partner, we support our customers from first product concept to the implementation of a successful production process.

At ProXES, we believe in the power of co-creation: We're here to listen, learn and advise. In close collaboration with our customers, we merge their ideas and our technologies into innovative processes and tailor-made solutions that help them align the quality, energy efficiency and profit of their production.

With standalone machines, modern process lines, advanced automation and service concepts, ProXES drives the business of customers in the food, pharmaceutical, cosmetics and advanced materials industries. What about you? Let's create value together – sustainably!

FROM INSPIRATION TO FEASIBILITY

Our process technology and training centre is a space to try out new ideas. Here you can develop or improve formulas in a professionally equipped laboratory, test any kind of machine, perform scale-ups and produce test batches. You will receive expert advice and support on all the capabilities of the technical equipment and modifications.

GET IN TOUCH WITH OUR EXPERTS



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