



# VERSATILE. POWERFUL. RELIABLE. PROXXD®



**PLUS** 

FrymaKoruma

### THE NEW BENCHMARK IN **PROCESSING TECHNOLOGY.**

More speed, more efficiency, more capacity – the ProxxD<sup>®</sup> takes the production of homogenised and dispersed food products to the next level. Based on the proven design of the successful FrymaKoruma MaxxD, the ProxxD<sup>®</sup> significantly increases your production advantages.

For more than two decades the FrymaKoruma MaxxD has been the processing industry's go-to system. It produces high-quality mayonnaise, ketchup, dressings, spreads and many other food products. At ProXES, we took the MaxxD's market success as a challenge.

#### **CO-CREATION TO MEET** CUSTOMERS' NEEDS

In close collaboration teams from ProXES brands FrymaKoruma, Stephan and Terlet joined their innovative spirit and long-standing expert knowledge. FrymaKoruma, as engineering lead, worked with close involvement and feedback from leading food producers. Our R&D team developed a future-proof processing system that lives up to the requirements of manufacturers today: the ProxxD<sup>®</sup>.

#### **NEW HOMOGENISER. HIGHER CAPACITY**

The ProxxD<sup>®</sup>'s high performance and efficiency originates from the new, improved FrymaKoruma homogeniser. With the help of the latest simulation tools and market feedback, the wellknown rotor-stator homogeniser design underwent a thorough examination. The result: a perfected flow profile while maintaining equal shear energy transfer. The oil emulsification rates in Mayonnise production have been revolutionised while all other applications benefit as well.

The new homogenizer enables a serious increase of production capacity at highest product quality. Lower environmental impact and lower production cost for achievable capacities make ProxxD<sup>®</sup> stand out.

The functional principle is an evolution of the proven MaxxD system. Mounted underneath the vacuum-rated conical bottom, it introduces controlled shear energy into the product and drives the product flow. The improved flow dynamics of the frontal ingredient inlets as well as the product outlets. coupled with the external recirculation processing principle, ensure highest production consistency of each batch.

#### **EFFICIENT VACUUM PROCESSING**

The robust ProxxD<sup>®</sup> provides superior oil dispersion at high precision, rapid outflows and effective processing of the ingredients. First, the scraper agitator supports the top-down material flow produced by the recirculation line (macro-mixing). Secondly, it reliably prevents the product mass binding to the interior wall of the vessel. The vessel temperature is controlled automatically through the doublewalled insulating jacket – the product can be heated or cooled as you require.

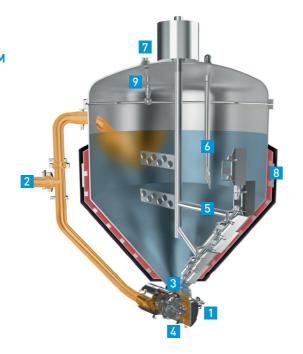
The unit's integrated vacuum system allows the adjustment of the vacuum at any time to individual operations. Thus both liquid and powdery ingredients can be fed directly into the homogenizer.

Optimised processing times, processes running simultaneously where possible, as well as low running costs (due to its energy efficiency) make the ProxxD<sup>®</sup> an outstanding choice for your production.

MAYONNAISE DRESSINGS SAUCES MARINADES **KETCHUP** DESSERTS **SPREADS CHOCOLATE FILLINGS** 

#### **FUNCTIONAL PRINCIPLE OF THE PROXX D® VACUUM PROCESSING UNIT**

- 1 Product infeed
- 2 Product discharge
- 3 Homogenizer
- 4 Residue discharge
- 5 Agitator
- 6 Vortex breaker
- 7 Vacuum system 8 Heating/cooling
- 9 CIP







### HIGHEST QUALITY MEETS HIGHEST EFFICIENCY.

Newest homogenising technology on the one hand, extremely simple operation on the other hand – that's the ProxxD<sup>®</sup>. It helps you create high quality products with guaranteed reproducibility at record time.

#### SIGNIFICANT INCREASE OF PRODUCTION CAPACITY

The ProxxD® is the answer to the need for constantly increasing production volumes of products such as mayonnaise, sauces or dips. Thanks to its newest homogeniser, the ProxxD® boosts your production capacity or reduces the number of required production shifts when producing the same capacities.

#### **HIGHEST PRODUCT QUALITY**

As an experienced specialist in droplet size control and the world market leader for mayonnaise and emulsionbased food processing systems, FrymaKoruma is a guarantor for highest product quality. Our experts are happy to prove the benefits of the ProxxD® to you at our ProXES Technology Center.

#### ECOLOGY AND ECONOMY IN SYNC

In combination with the latest class of electric motors, the higher production volumes and reduced batch times contribute to higher energy efficiency of the overall system – a lower amount of energy needed to produce a kg of product. Closed cooling circuits and advanced cleaning concepts help to keep the water usage and cleaning time to a minimum.

#### FASTER RETURN ON INVESTMENT

The ProxxD<sup>®</sup> is a highly versatile system that is easily adaptable to match your exact processing needs. Engineered to last and developed to outperform, the ProxxD<sup>®</sup> is a valuable investment to secure yourself a future market position for years to come.

#### LOWER AVERAGE NOISE EMISSIONS

The improved dynamic design of the ProxxD<sup>®</sup>'s main components contributes to a reduction of the average machine noise levels compared to a MaxxD unit with the same batch volume.

#### INTUITIVE OPERATION WITH ProUI CONTROL SYSTEM

ProUI is the most advanced automation solution for processing plants on the market. Scoped and developed following the requirements and preferences of customers worldwide, this control system facilitates easy operation of a wider range of built-in control functions. Programmable process parameters guarantee reproducibility, while other helpful features like 'recipe' or 'process logging' can be added to your system any time.

#### SPACE-SAVING DESIGN

Big on the inside, small on the outside: The ProxxD<sup>®</sup> enables a higher production capacity in a shorter time without enlarging the machine footprint. The system easily finds its place in every production line.

Get in touch with us directly to find out how your production can benefit from the ProxxD<sup>®</sup> advantages. Let's talk!

#### AT A GLANCE

The new technological advance of ProxxD<sup>®</sup> enables higher production volumes by lower energy use per kg of product such as mayonnaise and other emulsified products.



**Proxx D® 700** Vacuum processing unit

Increase of production capacity





Ecology and economy in sync

Fastest oil dosing on the market











### NEW FOOD TRENDS, NEW OPPORTUNITIES.

Food trends like living vegan, clean eating or gluten-free diets are on the rise, creating both new opportunities and challenges for the food industry. ProXES helps you capitalize on changing nutrition patterns and stay ahead of the competition.

Whether for health reasons, as part of a lifestyle or out of concern for animal welfare, more and more consumers are substituting meat and dairy for plant-based proteins.

Vegans, vegetarians and flexitarians are driving market growth: The global vegan food market size is projected to expand at a rate of almost 10 % until 2025. 'Clean eating' is another booming trend. It focuses on food products with simple, natural ingredients, that are free from additives, preservatives or GMOs.

#### ADJUSTING PROCESSES AND RECIPES

While new food trends can initiate innovation and create opportunity for growth, they also confront food manufacturers with challenges. How can recipes be modified to be 'cleaner and greener' without compromising on



product quality, taste and shelf-life? Which implications does the removal of stabilizers with E-numbers have on viscosity? Can your existing machinery handle plant-based substitutes like soy, rice, or nuts?

At ProXES, we're your partner in making your business future-proof. Let's talk about how our solutions and machines can help your company benefit from the latest food trends!



#### **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 chemical 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**



For a full list of our global subsidiaries and their contact details, please visit: www.proxes.com

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