

FrymaKoruma
> technology in motion

FrymaKoruma MaxxD
Vacuum processing unit for the food industry



Vacuum processing unit

The FrymaKoruma MaxxD vacuum processing unit is the ideal solution and the system of choice for the production of mayonnaise, sauces, dressings, ketchup, spreads and desserts. The MaxxD unites extraordinarily efficient homogenizing technology with very high reproducibility, short batch cycles and low costs of ownership – plus extremely simple operation.

With their extensive experience at the leading edge of vacuum processing, FrymaKoruma has developed a system that addresses all the fundamental requirements of the market: flexible process parameter settings, a rugged design for demanding production conditions and easy upgrading to reflect the latest processing trends and specifications.

The MaxxD impresses with a relatively small minimum batch size and, owing to its modular construction, can be adapted to each user's individual needs without any problems. The conical vessel bottom and proven geometry assure an optimal product flow. This ingenious combination of a vessel and an agitator offers the highest possible productivity, quality and yield. The fact that all surfaces are simple to clean is a further advantage.

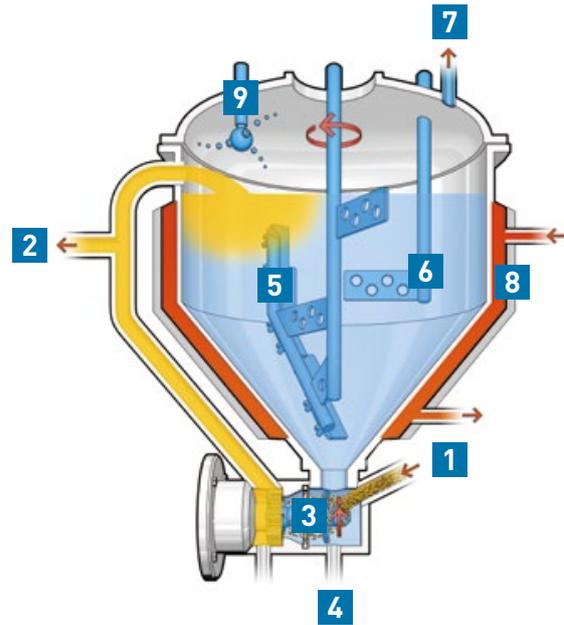
The plant can be operated alone or embedded in a higher-level system. Thanks to a comprehensive range of options, the MaxxD can be used even more flexibly if necessary. Each available option is fully integrated in the system's user interface and meets all relevant safety standards.

The heart of the MaxxD is the homogenizer mounted underneath the vessel, which introduces shear energy into the product, drives the product flow and discharges the completed batch:

- ✓ Toothed rotor-stator system
- ✓ Aseptic design
- ✓ Easy to dismantle for maintenance or retooling
- ✓ No additional pump required to discharge the product or clean the system

The scraper agitator supports the top-down material flow produced by the recirculation line (macro-mixing). It also guarantees optimal thermal transfer and a uniform temperature distribution during heating and cooling. The integrated, controllable vacuum system creates conditions that are perfectly adjusted to each processing step and allows both liquid and powdery ingredients to be fed directly into the homogenizer. The entire system can be cleaned in an automatic cycle.

The MaxxD's intuitive user interface can incorporate recipe control to enable the machine to be set up quickly and easily. This PLC based package has preprogrammed settings (adapted to the application requirements) and permits flexible configuration.



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

Key benefits

- ✓ Significantly shorter production cycles because emulsions are created faster
- ✓ Programmable process parameters guarantee reproducibility
- ✓ Efficient homogenizer concept delivers excellent value for money
- ✓ Rapid feeding of large quantities of dry materials
- ✓ Short cleaning times
- ✓ Easy maintenance because all wearing parts are readily accessible



Standard version

- /// Vessel with agitator
- /// Homogenizing system
- /// Recirculation line
- /// Vacuum system
- /// User friendly interface

Options

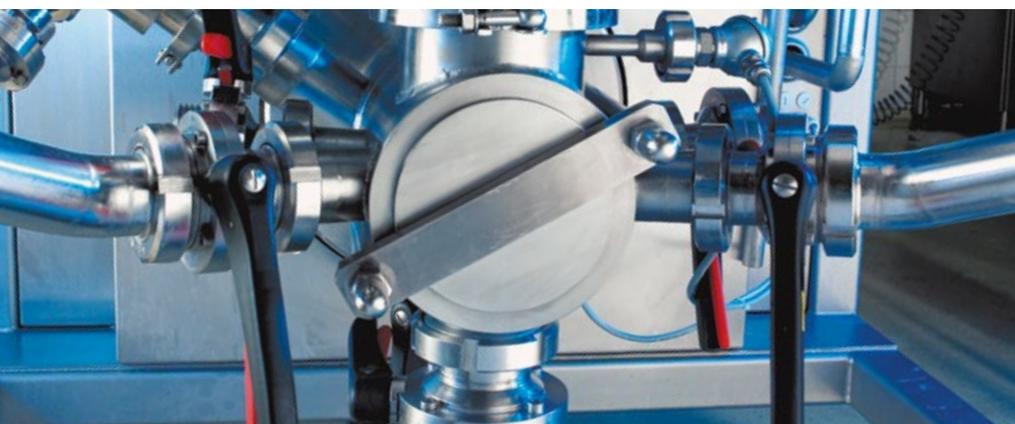
- /// Double jacket for heating and cooling with insulating jacket
- /// Cleaning in Place (CIP)
- /// Direct steam injection for accelerated product heating
- /// Automatic valves
- /// Product feed via a flow meter, load cells or dosing station
- /// Variable speed control of the homogenizer
- /// Positive displacement pump for mixing particulates (e.g. herbs and spices)
- /// Other options on request

Applications

- /// Mayonnaise and dressings
- /// Ketchup and sauces
- /// Chocolate fillings
- /// Dessert toppings

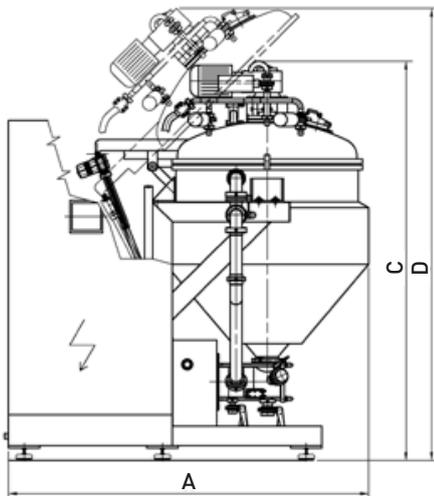
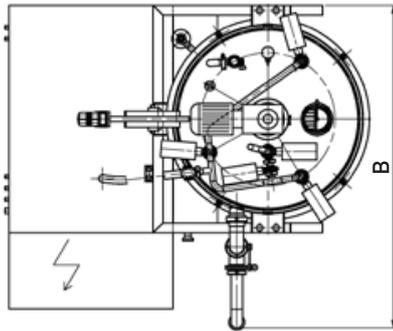


Homogenizer



Lid with agitator





	Usable volume (l) min. / max.	Installed power (kW), approx.	Length A	Width B	Dimensions (cm)		Weight (kg), approx.
					Height C	Height* D	
MaxxD Lab	3–12	9	134	88	159	160	450
MaxxD 200	30–160	26	190	150	214	220	1200
MaxxD 400	60–300	26	205	170	232	250	1400
MaxxD 700	80–500	26	225	190	270	290	1950
MaxxD 1300	200–1100	45	300	210	310		2900
MaxxD 1800	250–1500	53	300	210	340		3800
MaxxD 2400	250–2000	53	300	210	365		4500

* with open lid

For over 65 years, FrymaKoruma has been a leading international supplier of processing machinery and equipment for the pharmaceutical, cosmetics, food and chemical industries. Based in Germany and Switzerland, the company employs about 150 people. Our goal is not simply to meet all our customers' expectations without any ifs and buts; we also attach great importance to the development of long-term partnerships. Our pursuit of this objective is altogether successful – over 23000 installations are currently in use in more than 180 different countries.

Customer support

FrymaKoruma is more than just a supplier of machines and plant. As a customer focused partner for plant engineering, we take an idea and turn it into a high-tech solution that matches your requirements exactly – with installation, documentation and commissioning from one source. If you need to be further

convinced before you commit yourself, ProTec – our process technology and training centre – lets you do just that. Profit from our specialists' vast know-how and years of experience in the development of liquid and semi-solid products. In our well-equipped, modern laboratory, you can develop or optimize recipes, test machine models, scale up processes and produce test batches for pharmaceutical, cosmetics, food or chemical applications.

Our Customer Service, which is available worldwide, makes sure you continue to keep abreast of a constantly evolving market long after the development and manufacture of your plant has finished. It includes much more than simply maintenance, modifications and upgrading. We also advise and support you in all matters relating to your equipment, provide on-site training and stock a range of spare parts which can be shipped to you promptly.