



FrymaKoruma



FrymaKoruma Vacuum Deaerator

Continuous high performance deaeration



Vacuum system



Distribution disc



Discharge pump

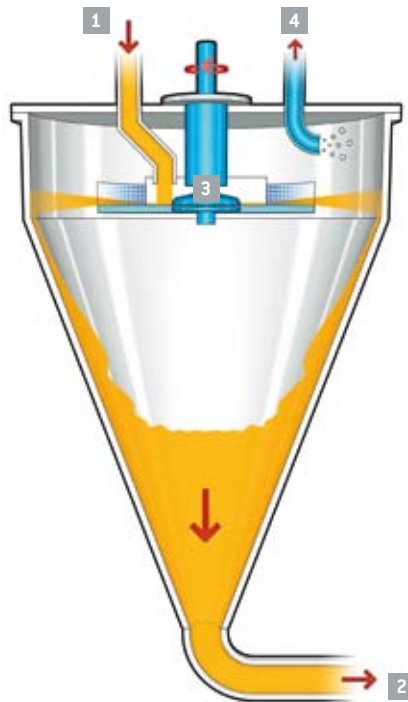
Continuous high performance deaeration

During continuous processing of liquid to high viscosity products, pockets of air or other gases can form in the product mass. This can create undesirable effects, such as oxidation – which may cause fats and oils to turn rancid, discoloration of products or changes in taste or odor. It can also cause fluctuations in specific weight. A dynamic process vacuum deaerator offers a highly efficient, cost-effective solution. This can be tailored to individual requirements, contributing both to quality assurance and process optimization.

Deaerated products have a smooth, glossy, foam-free surface, are chemically more stable and have a longer shelf life. And the benefits reach far beyond product quality: deaerated products are more dense, making precision dosage that much easier and allowing pack volumes to be reduced.



The product is fed onto a rotating disc in the vacuum vessel via a dosing valve. Centrifugal force projects the product through a crown sieve against the inner wall of the vessel. This action breaks any pockets in the product mass, allowing the release of gases which are then extracted from the vessel by means of a vacuum pump. Equally suitable for products with a robust structure and for sensitive emulsions, the Fryma-Koruma vacuum deaerator eliminates even the smallest air pockets. The unit operates continuously, and is generally the last piece of equipment in a processing installation or the first in a filling line.



- 1 Product infeed
- 2 Product outlet
- 3 Distribution system
- 4 Vacuum system

Key benefits

- Optimal ventilation through large product surface thanks to centrifugal plate technology
- Optimal product quality (oxidation prevention, extended durability, more accurate dosing)
- Exchangeable filter geometries (optimally tailored to each product being processed)
- Minimal monitoring; simple operation
- Different stages of automation
- Less than 1% residual gas
- Full CIP capability

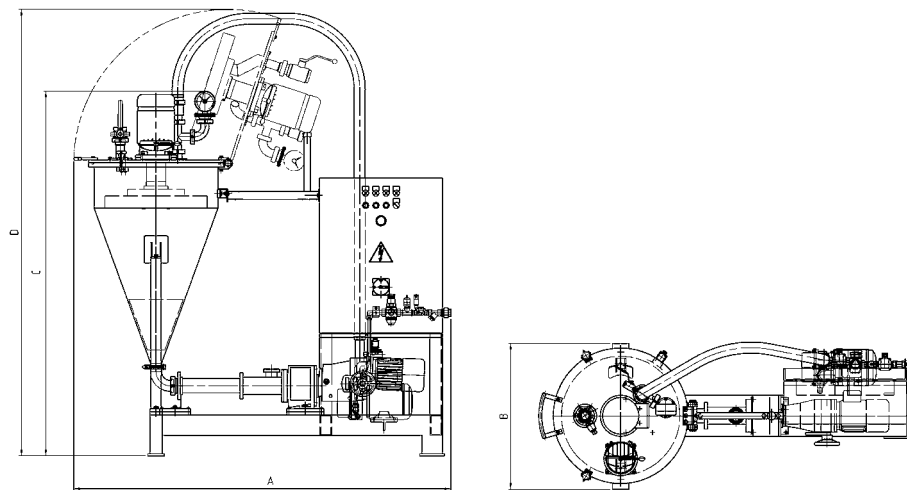
Options

- Riser pipe for high-foaming and high viscosity products
- Heating/cooling of vacuum vessel
- Pre-arrangement for CIP cleaning system
- Automatic level control
- Further options upon request

Applications

- Mustard, mayonnaise, ketchup
- Dressings, soy milk, sesame paste
- Cheese spread, tomato puree, spreads
- Jams, fruit juices, chocolate products
- Ointments, gels, lotions, creams
- Lipstick masses, shampoos
- Toothpaste, skin oils, emulsions
- Agro and household chemicals
- Adhesives
- Paper coatings
- Paints and varnishes





	Usable volume (l)	Throughput with liquid products (kg/h), approx.	Throughput with viscous products (kg/h), approx.	Throughput with highly viscous products (kg/h), approx.	Installed power (kW), approx.	Dimensions (mm)				Weight (kg), approx.
						Length A	Width B	Height C	Height * D	
VE I	25	1500	900	300	2.3	1650	540	1630	1740	475
VE II	65	4000	2500	800	4.5	1850	710	1770	2190	700
VE III	125	8000	5000	1600	6.6	2170	860	2160	2470	940
VE IV	300	15000	9000	3000	12.5	2460	1070	2580	2980	1400
VE V	550	20000	12500	4000	17	2840	1220	2860	3250	1600
VE VI	1200	30000	18000	6000	24	3460	1800	3670	4160	2200

* with open lid

For over 50 years, FrymaKoruma has been a leading international supplier of innovative process solutions for the pharmaceutical, cosmetic, food and chemical industries. Based in Germany and Switzerland, the company employs 200 people. The company's two principal areas of expertise are in one bowl vacuum processing for liquids and crèmes and in milling and grinding of materials from chemical pigments through to food ingredients. With over 23,000 installations worldwide, FrymaKoruma is undoubtedly the leader in its field, consistently setting the standards to which the market aspires. The company's enviable reputation and continuing success are based on the proven high performance and robustness of its equipment together with a desire to exceed customer expectation and build long term relationships. FrymaKoruma is a Romaco

Group company who since 2001 have been part of the NYSE listed corporation Robbins & Myers, Inc. a leading supplier of highly engineered, critical equipment and systems for global energy, chemical and industrial markets.

Customer support

FrymaKoruma understands that the scope of supply embraces much more than technology. Our team of highly skilled engineers work with you to develop a technical specification that exactly matches your requirements. From initial consultation through to installation and commissioning, FrymaKoruma offer a professional turn key solution.

At ProTec, our process technology center, customers have the opportunity to develop and optimize recipes in a modern laboratory, produce test batch-

es, carry out scale-ups or take part in detailed training courses. Our experienced team of process application technologists can guide customers through the development of everything from liquids to semi-solid products.

Our After Sales Service department, provide a comprehensive range of aftermarket products to ensure high availability and longevity for your equipment. Our team of technicians are able to offer on site maintenance and training to ensure high levels of effectiveness from your equipment. Furthermore, modifications and upgrades to plant which reflect changes in your business can be carried out on site. Our spare parts service is customer-orientated. We provide a high availability of spare parts which are promptly dispatched.

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