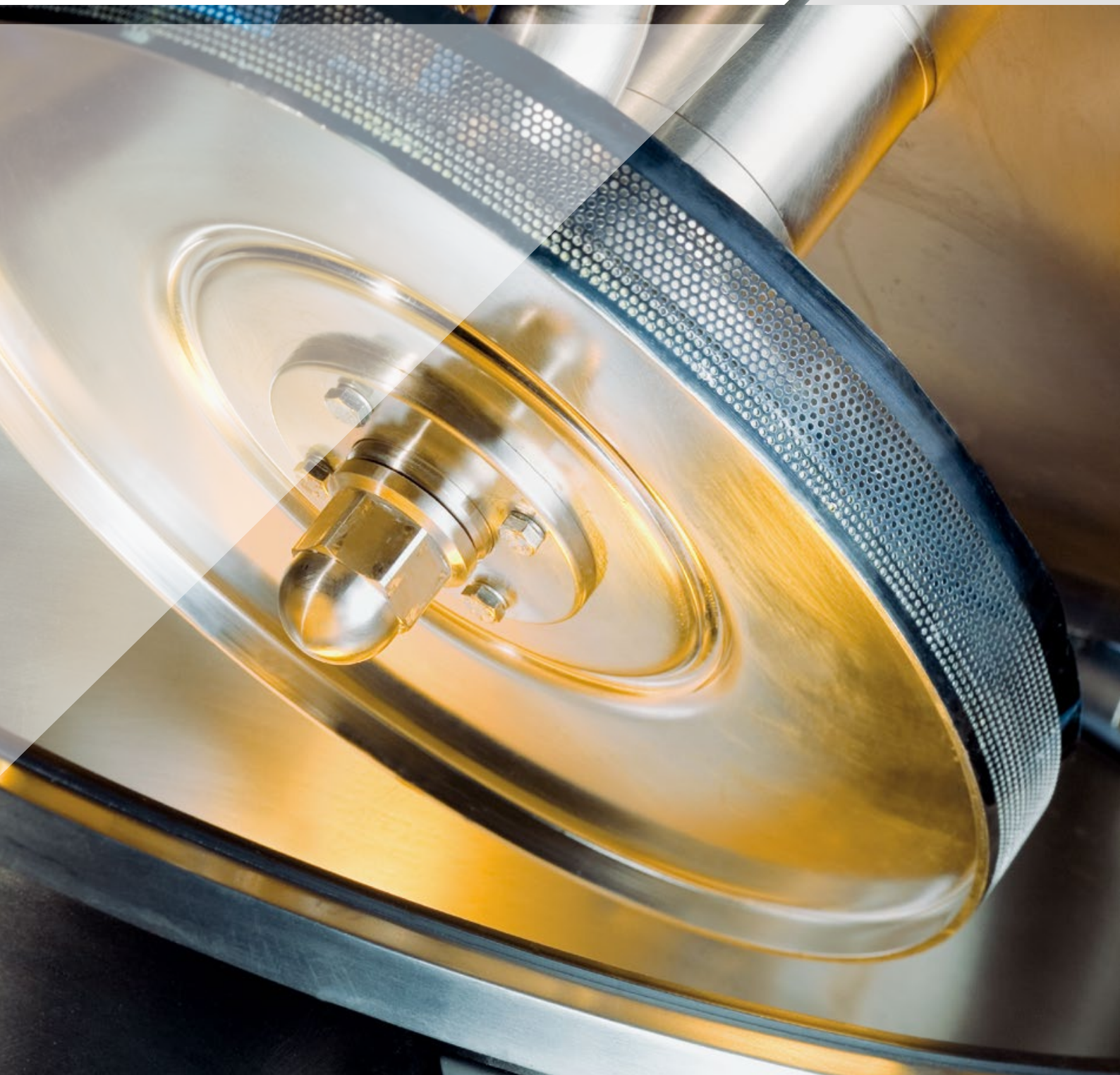


FrymaKoruma
› technology in motion

FrymaKoruma Vacuum Deaerator
Continuous high performance deaeration



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 FrymaKoruma 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.

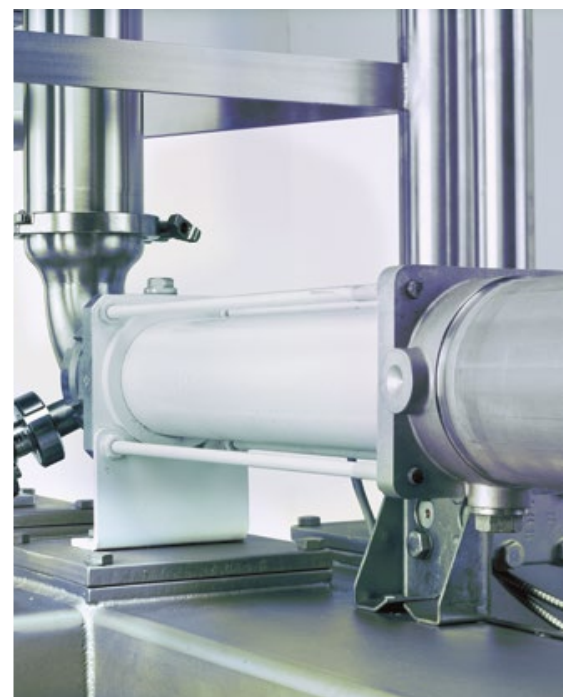
Vacuum system

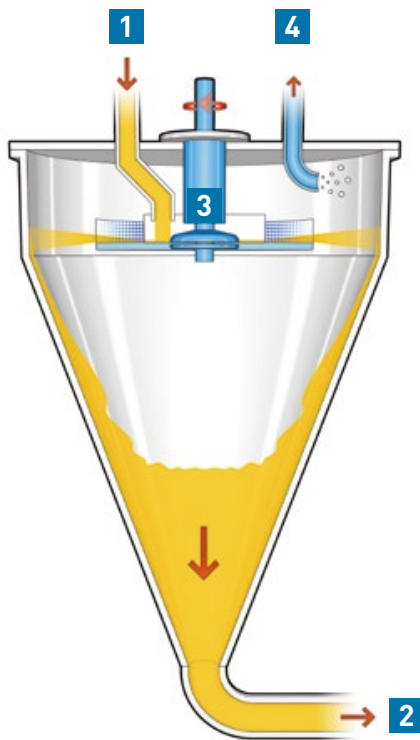


Distribution disc



Discharge pump





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

Key benefits

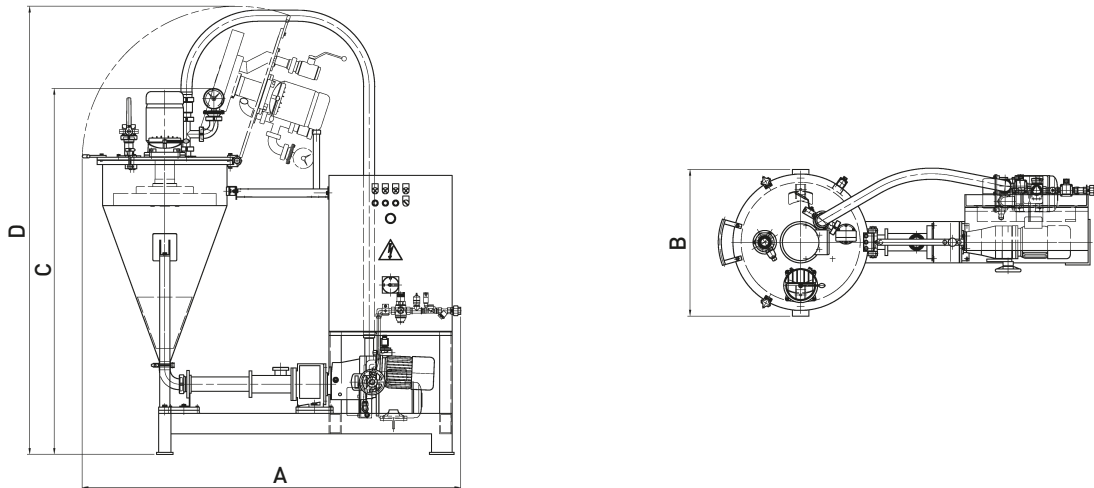
- /// Optimal ventilation through large product surface thanks to centrifugal plate technology
- /// Optimal product quality (oxidation prevention, extended durability, more accurate dosing)
- /// Exchangeable filter geometries (optimally tailored to each product being processed)
- /// Minimal monitoring; 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.	Length A	Width B	Dimensions (mm)		Weight (kg), approx.
								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 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.

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