

Deaerators

Enhancing product quality and storage stability with more cost-efficient production and improved process control

The presence of undesired air and gases in liquid food products frequently leads to deterioration in product quality in physical, chemical and sensory terms.

All product processing, which for example includes pumping and various mixing processes, will automatically disperse or/and incorporate air into the mixture. In addition, some raw materials contain gases, most of which are not desirable.

The main objectives for air elimination, deaeration and deodorizing of food products are: improved product quality, increased shelf life and storage stability, reduction of overall production costs, and improved process control

With the APV brand, SPX Flow Technology has produced air eliminators, deaerators and deodorizing equipment for the liquid food industry for more than 45 years, and installed over a thousand plants world-wide.

Deaerator - VFJ/VFN

Efficient deaeration of liquid food products



Specifications

Field of application	Milk, juices, desserts, pulp, purée, fruit fillings and preserves, baby food, dairy products, ketchup, sauces	
Description	The deaerators VFJ and VFN include a number of adaptations, including an improved aroma recovery system, designed to meet the demands of both new and existing customers. This modern, optimised processing technique with integrated aroma recovery provides improved retention of colours and volatile flavour components	
Standard size/ Capacity	250 - 3,999 l/h 4,000 - 9,999 l/h 10,000 - 22,000 l/h 22,001 - 39,999 l/h 40,000 - 55,999 l/h	(65 - 1,059 U.S. g/h) (1,060 - 2,639 U.S. g/h) (2,640 - 5,809 U.S. g/h) (5,810 - 10,569 U.S. g/h) (10,570 - 14,800 U.S. g/h)
Temperature area	From -10 up to 110°C (14 - 200°F)	
Pressure	-1 barg/0.5 barg (0 - 22 PSI)	

Advantages

- New, superior aroma-recovery system
- Automatic parasol regulating valve
- Improved hygiene
- Reduced commissioning costs
- Operator-friendly
- Preassembled and factory-tested

VFN E-VAP concentrator

Increasing total solids level in liquid food products



Specifications

Field of application	Milk, desserts, dairy products
Description	The VFN E-VAP is designed to increase total solids by a few per cent by re-circulating the product across the VFN E-VAP unit several times. The VFN E-VAP Concentrator is a stand-alone unit with PLC, enabling the operator to load a recipe with a target set point for the total solids level
Standard size/ Capacity	Size A: Max 180 kg vapour/h (400 lb vapour/h) Size B: Max 410 kg vapour/h (900 lb vapour/h) Size C: Max 730 kg vapour/h (1,600 lb vapour/h) Size D: Max 1,650 kg vapour/h (3,640 lb vapour/h) Size E: Max 2,930 kg vapour/h (6,490 lb vapour/h) Size F: Max 4,592 kg vapour/h (10,120 lb vapour/h) Size G: Max 6,620 kg vapour/h (15,600 lb vapour/h)
Temperature area	From -10 up to 95°C (14 - 200°F)
Pressure	-1 barg/0.5 barg (0 22 PSI)

Advantages

- Fresh taste and odour
- Increased viscosity in milk applications
- Smooth and creamy texture in fermented products
- Increased serum stability
- Operator-friendly
- Preassembled and factory-tested

Cold water deaeration - Derox

Improve your beer and juice quality with the Derox deaerator



Specifications

Field of application	Beverage and brewery industry
Description	Deaeration can be performed by two different systems - cold (Derox) or hot (Derox+) deaeration. Derox cold deaeration achieves low oxygen levels with low capital outlay and running costs
Capacity	30 - 1,500 hl/h (8,000 - 40,000 U.S. g/h)

Advantages

- Constantly low oxygen content of 50 ppb at 12°C (54°F)(below 30 ppb at >20°C (68°F), measured as a standard deviation)
- Continuous monitoring for required specification
- Low running costs
- Easy integration with existing lines
- Space-saving design (high capacity/m²)
- Variable capacity and high turn down
- Independent of water inlet temperature (optional)
- Variable deaeration levels
- No rings and plates inside vacuum tanks
- Fully CIP-cleanable

Hot water deaeration - Derox+

Improve your beer and juice quality with the Derox deaerator



Specifications

Field of application	Beverage and brewery industry
Description	Deaeration can be performed by two different systems - hot (Derox+) or cold (Derox) deaeration. The Derox+ hot deaeration system heats the water to a high temperature, which reduces the risk of infection and helps remove contaminants
Capacity	50 - 400 hl/h (1,300 - 10,600 U.S. g/h)

Advantages

- Constantly very low oxygen content (below 20 ppb, measured as a standard deviation)
- Continuous monitoring for required specification
- Continuous removal of undesirable THF gases
- Low running costs
- Easy integration with existing lines
- Space-saving design (high capacity/m²)
- High turn down ratio (down to 25% of nominal capacity)
- Independent of water inlet temperature
- No rings and plates inside vacuum tanks
- Deaerated water is pasteurised
- Fully CIP-cleanable