

**Bactofuge™ units  
for sound performance**

Tetra Centri® AirTight™



# AirTight design for high profitability

We deliver reliable separation solutions that enable you to meet your customers' demands for high food quality and safety.

Our range of flexible separators combines high performance with cost efficiency and low environmental impact.

We call it sound performance.



## The Tetra Centri range of Bactofuge units delivers excellent product quality, superior separation efficiency and unmatched production flexibility.

Bactofuge units are typically used for cheese milk, to remove anaerobic spores affecting the texture, aroma and taste of the cheese; for pasteurized and UHT milk, to reduce the number of heat-resistant microorganisms; and for milk powder. Our Tetra Centri Bactofuge units thus help improve the quality and shelf life of products by reducing spores and total bacteria count.

### Excellent product quality

Thanks to AirTight design, Tetra Centri Bactofuge units treat your products very gently. The hermetic seals prevent intake of destructive air. This, combined with a smooth acceleration in the rotating hollow spindle, ensures maintained size of the fat globules and particles, resulting in high spore reduction. With AirTight design you will, therefore, get a cleaner dairy product with fewer impurities and no increase of free fat and free fatty acid. In short, gentle treatment resulting in excellent product quality.

### Superior separation efficiency

When it comes to efficiency, no centrifugal separator achieves better bacteria removal than the Tetra Centri Bactofuge. In an AirTight Bactofuge, the high efficiency in spore removal (up to 99 %) and impurities is outstanding, compared to other designs on the market. This is a result of the gentle product treatment and the fact that the product is extracted from the centre of the bowl. For installations with high demand on efficiency two or more Bactofuge units can be installed in series.

The AirTight design is also a real energy saver – the separator itself consumes up to 40 %\* less than conventional paring disc separators. That reduces the energy consumption of your overall separation system by up to 20 %\*. The maintained size of fat globules and particles means that a lower rpm can be used to achieve the desired efficiency. In addition, the centred outlets enables a higher recovery of rotational energy. You get maximum separation with minimum energy consumption.

### Unmatched production flexibility

Each AirTight Bactofuge unit handles a wide range of capacities without mechanical modification. Your benefit is that one unit can efficiently handle many capacities and recipes. The fact that the Bactofuge units are AirTight means it is easy to regulate the outlet flow without recirculation. The key to this unmatched production flexibility is the use of efficient product discharge pumps, a completely filled bowl and variable rpm control.

### Environmental advantages

Tetra Centri AirTight Bactofuge units not only save you money, they also reduce environmental load. The design reduces energy and water consumption, while minimizing food product loss.

- Power consumption is reduced by up to 20 %\* in your overall separation system.
- There is no make-up water consumption – cooling water is reused as seal water.
- The accurate discharge results in the lowest possible losses.
- The noise level is very low, approximately 78 dB(A)\*, measured according to ISO 3744.

### Reliable operation

Tetra Centri AirTight Bactofuge delivers sound performance year after year thanks to easy operation and service. Our skilled service engineers are available whenever you need them, wherever you are.

\* Data for Tetra Centri AirTight Eco is presented in a separate brochure

# Built for performance

Our continuous research and development, both in machinery and in processing, enables you to meet your toughest demands for quality, efficiency and flexibility. Here's the hardware that gets the job done.

The separator is hermetically sealed, both at the inlet and the outlet. This prevents intake of destructive air. From the inlet, the product is gently fed into the separator bowl through the hollow spindle. As the spindle rotates with the bowl, the product enters the bowl smoothly. This assures that the sizes of fat globules and particles are consistently maintained.

In the bowl, the clean milk is led all the way to the centre of the bowl, while the phase with spores and bacteria leaves the bowl over the top disc and/or are collected in the sediment space at the periphery of the bowl. The sediment space is emptied accurately and hydraulically at preset intervals. At the outlets, co-rotating pumps efficiently discharge the separated products from the centre.

All in all, the AirTight design enables gentle and efficient spore and bacteria removal.

**Hermetic outlet seals**  
No air entrainment

**Corrosion resistant stainless steel bowl**

Longer lifetime

**Water-filled double jacket**

Noise reduction,  
less heat emission

**Motor for variable frequency drive (VFD)**

Proven standard motor used

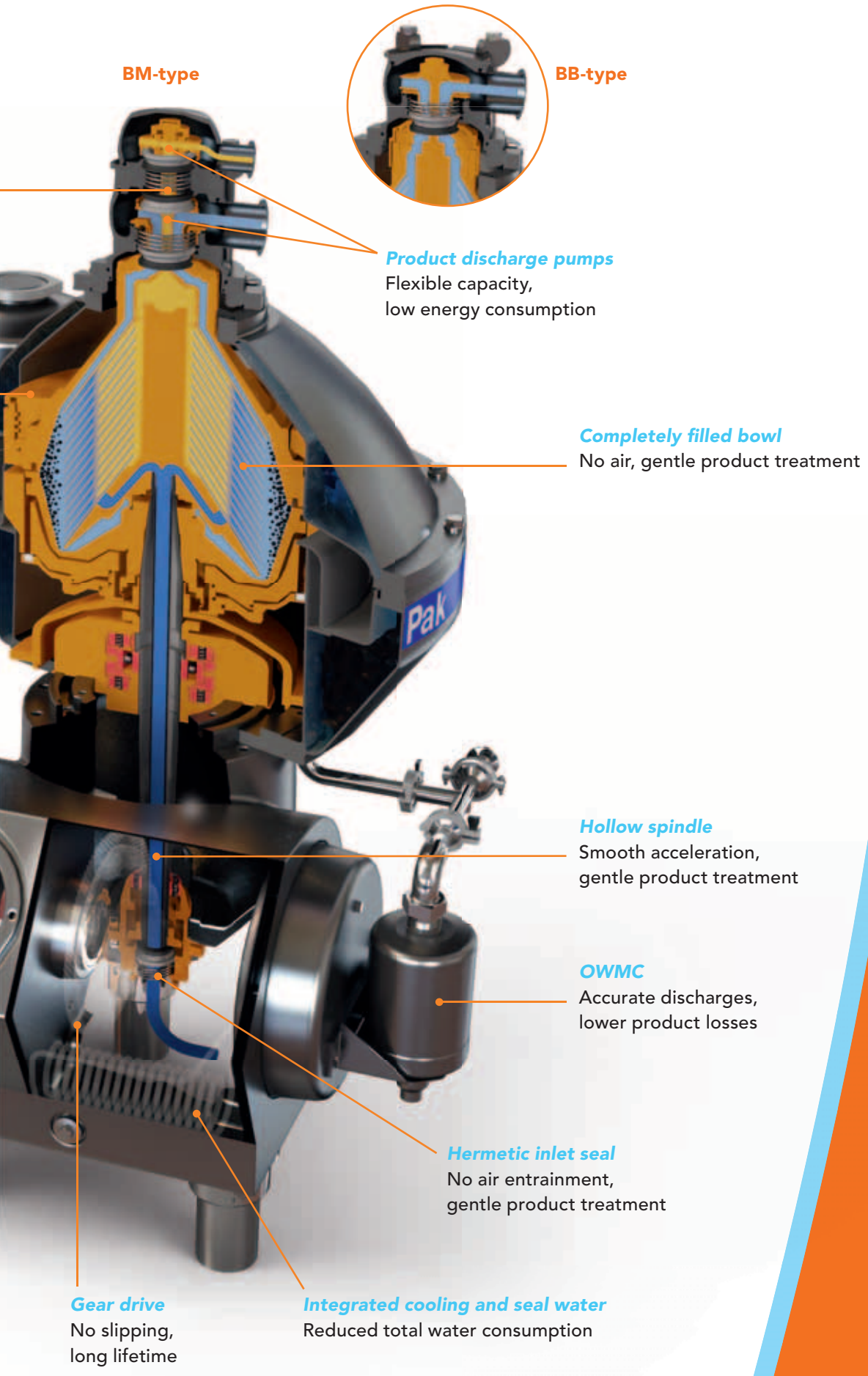
**Pneumatic brake**

Can also be braked  
by means of VFD

**Direct drive**

Lower service cost





**BM-type**

**BB-type**

**Product discharge pumps**  
Flexible capacity,  
low energy consumption

**Completely filled bowl**  
No air, gentle product treatment


**Hollow spindle**  
Smooth acceleration,  
gentle product treatment

**OWMC**  
Accurate discharges,  
lower product losses

**Hermetic inlet seal**  
No air entrainment,  
gentle product treatment

**Gear drive**  
No slipping,  
long lifetime

**Integrated cooling and seal water**  
Reduced total water consumption



*“The Tetra Centri Bactofuge unit ensures the industry’s most efficient removal of spores and other unwanted organisms from milk for higher quality and purity.”*

# Tetra Centri AirTight facts

## BACTOFUGE UNITS

Technical data	BB10	BM714	BB714	BM30	BB35	BM40	BB45	BM50	BB55
Flow rate, nominal, l/h	5,000	10,000	15,000	25,000	25,000	35,000	35,000	40,000	40,000
Flow rate, max, l/h	10,000	15,000	25,000	30,000	35,000	40,000	45,000	50,000	55,000
Motor rating, kW	15	22	22	25	25	37	37	42	42
Connections, inlet	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5
Connections, light phase	63.5	51	63.5	63.5	63.5	63.5	63.5	63.5	63.5
Connections, heavy phase	n.a.	63.5	n.a.	63.5	n.a.	63.5	n.a.	63.5	n.a.
Sediment space, l	5	10	10	17	17	17	17	17	17
Air pressure, kPa	600	600	600	600	600	600	600	600	600
Overhead hoist, kN	10	10	10	15	15	15	15	15	15
Inlet pressure, max kPa	600	600	600	600	600	600	600	600	600
Outlet pressure, max kPa	600	600	600	600	600	600	600	600	600

n.a.= not applicable

## Dimensions

- Height (overhead hoist), mm 2,800 (714: 2,600)
- Length (service area), mm 2,800
- Width (service area), mm 2,800

## Auxiliary equipment

- Set of tools
- Inlet pipe, complete
- Flushing arrangement for axial seals
- Constant pressure unit on outlet
- Connection set
- Tetra Centri Control (separator control)
- Tetra Centri Drive (motor control)



## Sound processing performance

Our job is to enable you to develop and improve your products and production.

The component solutions we deliver are specifically designed to:

- treat your products gently
- be as economical with resources as possible
- meet high demands on flexibility – in your present production and via future upgrading possibilities

That's what we call sound performance.