Innovation in Separation Technology

Bacteria separation

A-PF SOLUTIONS©

REDA SEPARATION

REDA Bacteria separators

The modern and efficient solution for milk hygienization and cleaning

REDA Bacteria-removing separators are designed for continuous inline bacteria and spore removal and are widely used in the dairy industry to improve milk quality. The main purpose of the bactofugation is to reduce the total bacteria count for fresh product (fresh and ESL milk) or spore count for long-life product (hard and semi-hard cheese and UHT milk). Since bacteria and spores have a significantly higher density than the milk, the mechanical effect of the bacteria separation makes it a particularly effective application for their elimination.

Furthemore these spores are resistant to heat treatment; therefore the bacteria removal becomes a very useful complement to thermization, pasteurization and sterilization of milk.

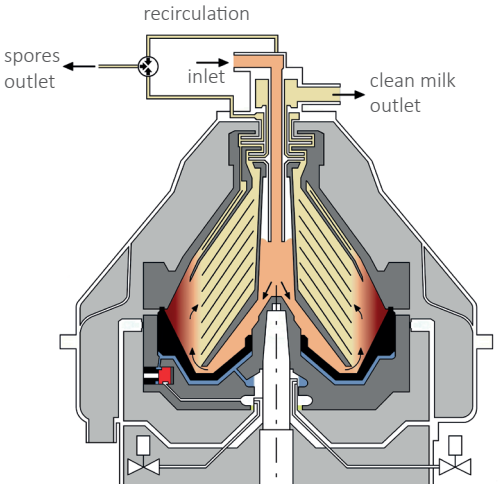
More recently, the application of bacteria's separation on drinking milk (ESL milk) has generated a new interest since this process can meet the needs of the modern distribution market that requires a longer shelf life than the traditional fresh pasteurized milk.

"Bactofree" working system

The REDA Bactofree system combines a centrifugation system in a high-efficiency separation rotor with a recirculation system for the bacterial concentrate in order to minimise product loss during the process. It features two types of working systems, that are freely selectable by the operator:

- **One-phase system** (Recirculation): the full bacteria product is continuously remixed at the inlet to be reconcentrated. The separator needs more frequent discharges, but the total product loss is reduced compared to the system without recirculation.

- **Two-phase system** (maximum reduction of bacterial and sporogenic charge): this system has two outlets at the top: one for continuous discharge of the heavy bacterial phase (2%-5% of the flow), and the other for milk with reduced bacterial charge. The heavy bacterial phase can be later re-circulated after appropriate sterilization treatment.



Our plus

Make the most for you and your milk

- Soft inflow system: no breakage of the fat globules
- PRS (**Protein Recovery System**) to reduce the losses of milk during discharges.
- Noiseless operation
- PLC automation with touch screen control
- Automatic solids discharges at preset intervals (by PLC)
- Possibility to CIP cleaning at the end of production
- Motor control with frequency converter (*FREQ-CLUTCH*) for fast, progressive and silent motor startings.
- Minimum number of service seals - *FREE SERVICE*.
- Low maintenance costs
- Optimization of energy consumptions
- 100% stainless steel

High separation and clarification efficiency:

- > 80% reduction in the total bacterial count;
- > 95% reduction in the aerobic spores count;
- > 98% reduction in the anaerobic spore count.

PRS+

To further improve the efficiency of the Protein Recovery System (for the reduction of milk losses during the discharge), the "PRS+" system is also available. This device has a very precise control system and is very easy to install since it comes premounted on a stainless steel skid.

Advantages of PRS-Plus system

- No milk losses during the discharges
- Less discharges
- Higher concentration of solids in the sludge
- Longer intervals between a discharge and the next one

Our series RE-B

	Flow rates	Milk cleaning	Transmission	PRS™	Dimensions	Motor kW
RE50B	5,000	8,000	Direct	✓	110 x 720 x 1100	11
RE70B	7,500	10,000	Direct	✓	1240 x 760 x 1290	15
RE100BE	10,000	12,000	Direct	✓	1240 x 760 x 1290	15
RE120B	12,000	15,000	Direct	✓	1540 x 910 x 1380	18.5
RE150B	15,000	20,000	Direct	✓	1650 x 1660 x 1050	22
RE200B	20,000	30,000	Belt drive	✓	1650 x 1680 x 1050	30
RE250B	25,000	35,000	Belt drive	✓	1680 x 1050 x 1700	30
RE300B	30,000	38,000	Belt drive	✓	1680 x 1050 x 1780	37
RE350B	35,000	40,000	Belt drive	✓	1820 x 1120 x 1890	37
RE500B	50,000	60,000	Belt drive	✓	2200 x 1800 x 2250	55

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Notes:
- Flow capacities are expressed in liters/hour.