



# Separator MSE 100-01-177

Technical Data | Milk skimming, whey skimming

This separator is designed for hot milk or whey skimming.

A hydraulic system enables continuous operation by regularly ejecting separated solids with short bowl openings.

The optional GEA proplus system enables the extension of the ejection intervals in order to increase the product yield.

Thanks to the self-discharging bowl, the machine is suitable for fully automatic CIP cleaning (Cleaning In Place).

The product is supplied into the machine via a closed-line system. The heavy and the light phase are discharged under pressure by a double centripetal pump. The product feed and outlet are hydro-hermetically sealed and do not feature mechanical seals.

The product connections are equipped with aseptic fittings according to DIN 11864-1 including counterparts. Optionally, other standards such as DIN 11851 or ISO 2852 (TriClamp) can be used.

The machine is driven by a frequency-controlled 3-phase motor without a clutch via a flat belt.

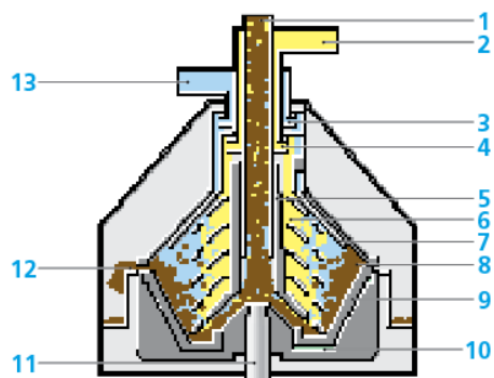
The optional GEA PerformancePlus condition monitoring system provides a permanent monitoring of bearing condition and smooth rotation as a basis for targeted pro-active maintenance. The cast iron frame and the motor of the machine are completely stainless steel clad.

All product-contacting parts are made of stainless steel. FDA approved materials are available for the seals.

The hygienic design of the separator is certified by 3-A sanitary standards. For optimizing the cream management the standomat control unit is available in various versions.

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## Operating principles and constructional features



- |   |                               |    |                       |
|---|-------------------------------|----|-----------------------|
| 1 | Product feed                  | 7  | Separating disk       |
| 2 | Light phase discharge         | 8  | Solids holding space  |
| 3 | Centripetal pump, heavy phase | 9  | Sliding piston        |
| 4 | Centripetal pump, light phase | 10 | Closing chamber       |
| 5 | Distributor                   | 11 | Drive spindle         |
| 6 | Disk stack                    | 12 | Solids ejection port  |
|   |                               | 13 | Heavy phase discharge |

### Feed capacities

|                    |                     |
|--------------------|---------------------|
| Milk skimming      | 15,000 l/h (66 gpm) |
| Milk standardizing | 20,000 l/h (88 gpm) |
| Whey skimming      | 15,000 l/h (66 gpm) |

### Process data

|                                  |   |
|----------------------------------|---|
| Feed pressure                    | 1.0 bar (15 psi)                              |
| Useful disch. pressure heavy ph. | 2.5 bar (36 psi)                              |
| Useful disch. pressure light ph. | milk 2.5 bar (36 psi)<br>whey 0.5 bar (7 psi) |

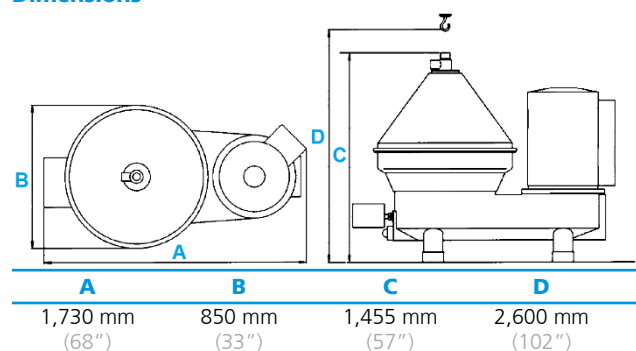
### Energies & utilities (guide values)

|                             |                                    |                  |
|-----------------------------|------------------------------------|------------------|
| Motor rating                | 22 kW (30 hp)                      |                  |
| Operating water supply      | 2.5 bar; 2,000 l/h (36 psi; 9 gpm) |                  |
| Operating water consumption | closing water                      | 30 l/h (0.1 gpm) |
|                             | discharge                          | 20 l (4 gal)     |
|                             | hood spray                         | 80 l/h (1 gpm)   |

### Weights

|                     |                     |
|---------------------|---------------------|
| Bowl                | 400 kg (882 lb)     |
| Separator, complete | 1,500 kg (3,307 lb) |

### Dimensions



### Standard scope of delivery

- foundation frame
- set of special tools
- basic spare part set
- gear oil
- control system IO with PLC, HMI and MCC, based on Siemens components

### Options

- stainless steel base frame on machine feet
- process connections DIN 11851, TriClamp or SMS
- solids tank or discharge compensator for direct connection to the sewer
- manometers for feed and discharge
- proplus system for reducing the discharge frequency
- feed flow control
- skim milk discharge pressure control
- cream flow control
- fully automatic cream and milk standardizing control unit standomat
- continuous condition monitoring PerformancePlus
- booster pump for operating water
- control system based on Rockwell components



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