



# Alfa Laval Brew 250

## Disc stack separation system for brewery applications

### Introduction

The use of separators in different brewery applications goes back to the beginning of the 1900's. Based on the long-term cooperation with the brewery industry, Alfa Laval separators are specially designed for the requirements and demands of this industry.

### Application

The Brew 250 is designed and optimized for green-beer, beer pre-clarification and polishing, with the target to clarify beer with the best performance and yield.

### Benefits

- High separation efficiency
- No oxygen pick-up
- Gentle treatment of the product
- Low power consumption
- Complete system handling both process and utility requirements
- Robust and reliable design

### Design

The system consists of a separator, a valve module with valves and components for routing of product and utilities in and out from the separator, as well as control and starter cabinet. All components are mounted on a common skid to enable plug-and-play installation.

All metallic parts in contact with the process liquid are made of stainless steel. Gaskets and seals in contact with the product are made of FDA approved material and are approved according to food regulations (EC1935/2004).

The separation system is designed for completely automated Cleaning in Place (CIP).

### Scope of supply

Skid-mounted disc stack separator with valve module and control system, including:

- Main process valves of butterfly type
- Manual flow regulating valve
- Manual counter pressure valve
- Flow meter of magnetic type
- Turbidity monitor for discharge triggering
- Main motor starter with VFD from ABB



- Control panel with EPC 60 PLC and HMI
- Sight glasses for outlet
- Samples valves for in- and outlet

### Options

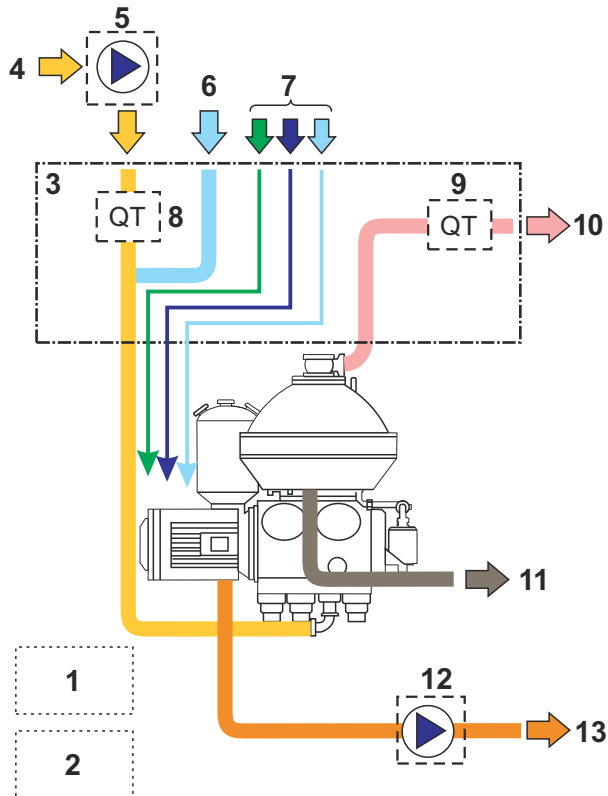
- Feed pump
- Solids receiving unit: Consists of a collection device and a pump, to pump away discharged solids
- On/off valve for by-passing and isolating the separator's product line

## Working principle

The product enters and leaves the separator via the valve module. The flow rate and the counter pressure in the outlet of the separator are controlled by the process liquid module.

Discharge of solids from the separator bowl is triggered by a timer or by a turbidity meter, placed in the outlet of the system. The discharged solids are pumped away by the optional solids receiving unit.

The valve module also controls the utility liquids for the separator's discharge system and for flushing and CIP.



General flow chart of a separator system. The details may differ slightly between different systems.

1. Control cabinet
2. Main motor starter and VFD
3. Process liquid module
4. Product inlet
5. Feed pump (optional)
6. Standby/Safety water
7. Utilities
8. Turbidity meter for capacity control (optional)
9. Turbidity meter for discharge triggering
10. Outlet for clarified product
11. Drain for separator
12. Solids receiving unit
13. Outlet of discharged solids

## Technical data

### Performance data

Capacity <sup>1</sup>	250 h/h (29,3 US gpm)
Max. motor power	18,5 kW (24,8 HP)

<sup>1</sup> Actual capacities depend on operating conditions

### Connections

Inlet	DN50:	DIN 11851 Union
Outlet	DN50:	DIN 11851 Union

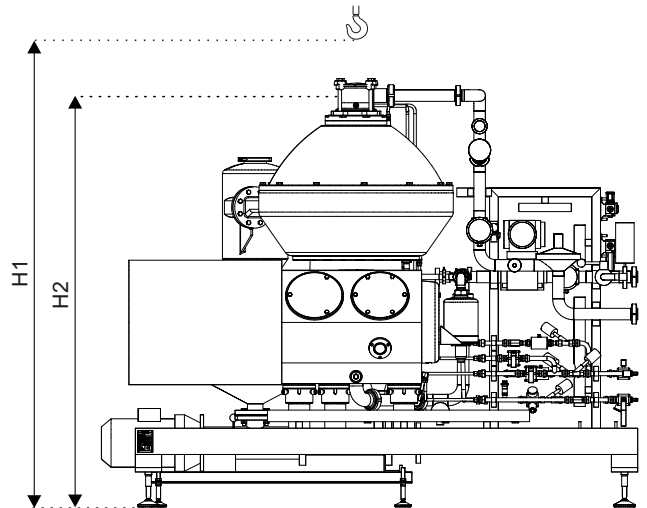
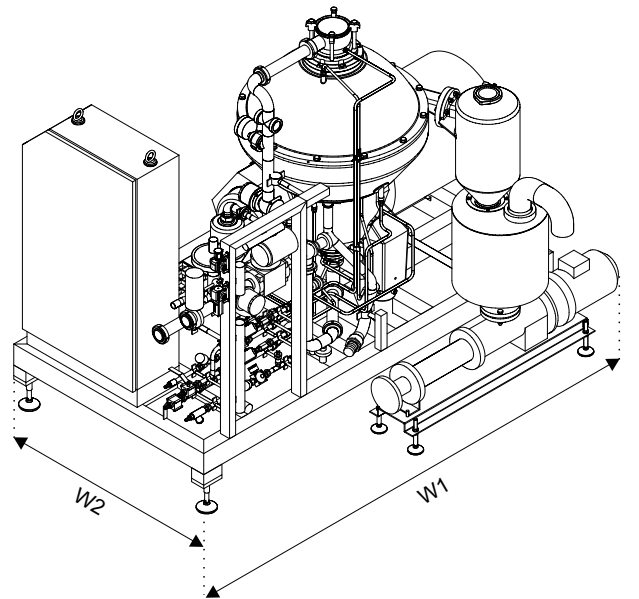
### Material data

Piping	DIN11850-2 (EN10357-A) AISI 304
Customer connection	DIN11851 Union
Gaskets in system	EPDM product wetted parts
Pipe frame	AISI 304
Cabinets	AISI 304

### Weights (approximate)

System weight incl. separator, bowl and motor	2010 kg (4430 lbs)
Bowl weight	300 kg (660 lbs)

## Dimensional drawing



### Dimensions

H1	Min. 2573 mm (8 ft 5 5/16 inch)
H2	1960 mm (6 ft 5 3/16 inch)
W1	2455 mm (8 ft 5/8 inch)
W2	1910 mm (6 ft 6 3/16 inch)

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