

Electric Drives
and Controls

Hydraulics

Linear Motion and
Assembly Technologies

Pneumatics

Service

Rexroth
Bosch Group

Gravity band filter Type LSF

RE 50409/09.09

1/4

Technical information



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Introduction

The compact specialist for cast iron and aluminum processing, steel and non-ferrous metals

Full-flow filtration of oils or emulsions containing swarf and metal particles with continuous band or consumable fleece.

Band filters are particularly used in case of high requirements on the filtration rating with an output of 20 - 100 l/min.

They may be universally used with an integrated emergency overflow for all fluids.

A maximum fluid level above the filter medium due to low level fluctuations guarantees economical filter operation with optimal filtration results.

Standard construction

- Robust edge-welded design
- Removal slope, angled at under 25 – 30°
- Perforated support base
- Geared motor, IP 44, insul. class B
- Winding reel for filter medium
- Level control system for band feed
- Integrated emergency overflow
- Inlet distributor
- Filter medium 20, 30, 40 and 70 g/m²

Application

Filtration of emulsions, solutions, waters, oils up to 75 mm²/s during the machining of steel, cast iron, light and non-ferrous metals.

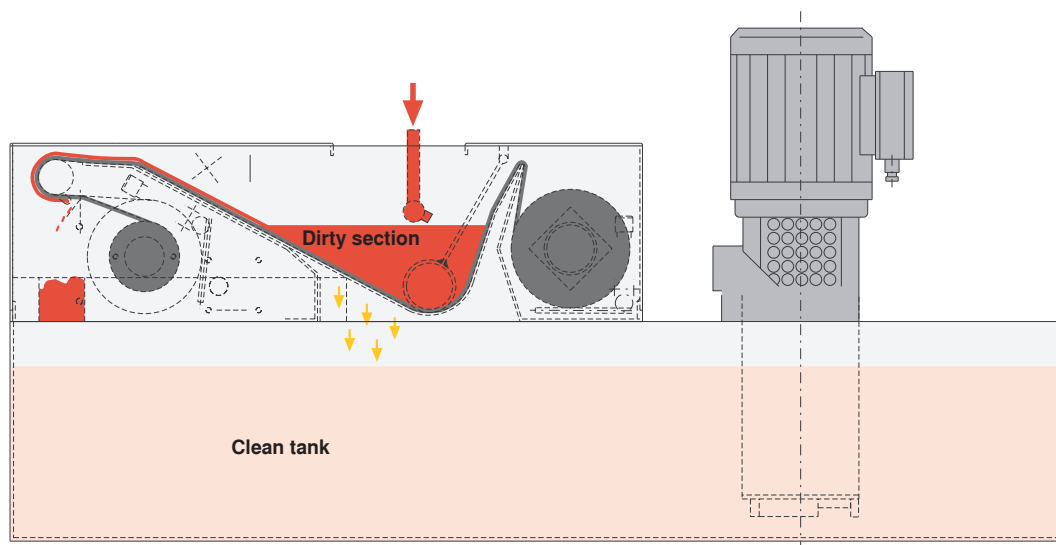
Special features

- Full-flow filtration
- Low-sided design to increase throughput, with reduced filter surface
- Universal for all fluids
- High throughput with compact dimensions
- Optimal back-up level above the filter medium
- Low space requirement
- Reduced filter medium consumption
- No moving parts in the fluid section
- Filtration rating up to 20 µm possible depending on filter cake structure
- Integrated dirt collecting box
- Version: Standard or stainless steel (1.4301, 1.4571)
- Easy to service and maintain
- As modular system extendable to suit customer requirements
- Fully enclosed
- Reel for used filter medium
- Optional continuous band design with band cleaning facility

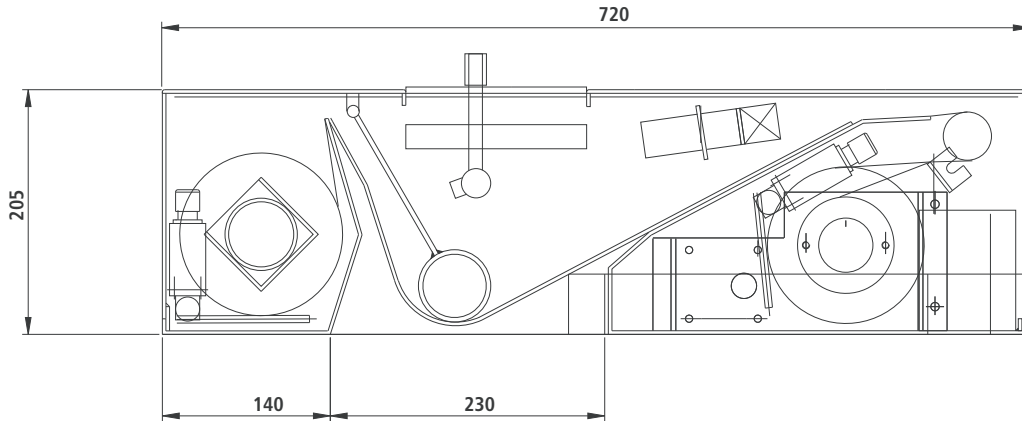
Function

The fluid to be purified reaches the dirty section of the system. The impurities are retained by the filter medium and form a filter cake which generates an increasing through-flow resistance as the layer thickens and optimizes the filtration result. This causes the fluid to rise above the filter medium until the level switch trips. The band feed (winder reel with geared motor) now feeds fresh filter medium into the filter until the now increased permeability of the filter medium causes the level to sink and the filter conveyor is switched off.

Circulating plastic bands with different filtration ratings are used for consumable fleece-free filtration. These can be cleaned by means of a beating and flushing equipment and recycled for the filtering process. Compact systems with tank, LP and HP pumps, complete pipework and electric control ready for connection and with conventional wiring or with PLC control.



Unit dimensions (dimensions in mm)



Type LSF	Width	Basic capacity	Fleece width
1	460	50	350
2	610	100	500

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