

Vacuum filter VLO

KNOLL
.It works

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Properties

Low residual moisture in the filter concentrate

Continuous filter belt

Scaling of the filter area with the same base area

Up to 3 filter modules per system

Benefits

Reduction of cooling lubricant cost

Reduction of consumption and disposal costs

Space-saving installation

- Later expansion possible
- Redundant layout possible
- Different filter qualities possible

Application

The vacuum filter VLO is designed for cleaning cooling lubricants (KSS) for grinding processes.

- Ideal for section and gear grinding with oil
- Local use for a single machine or centrally for several machines

Description

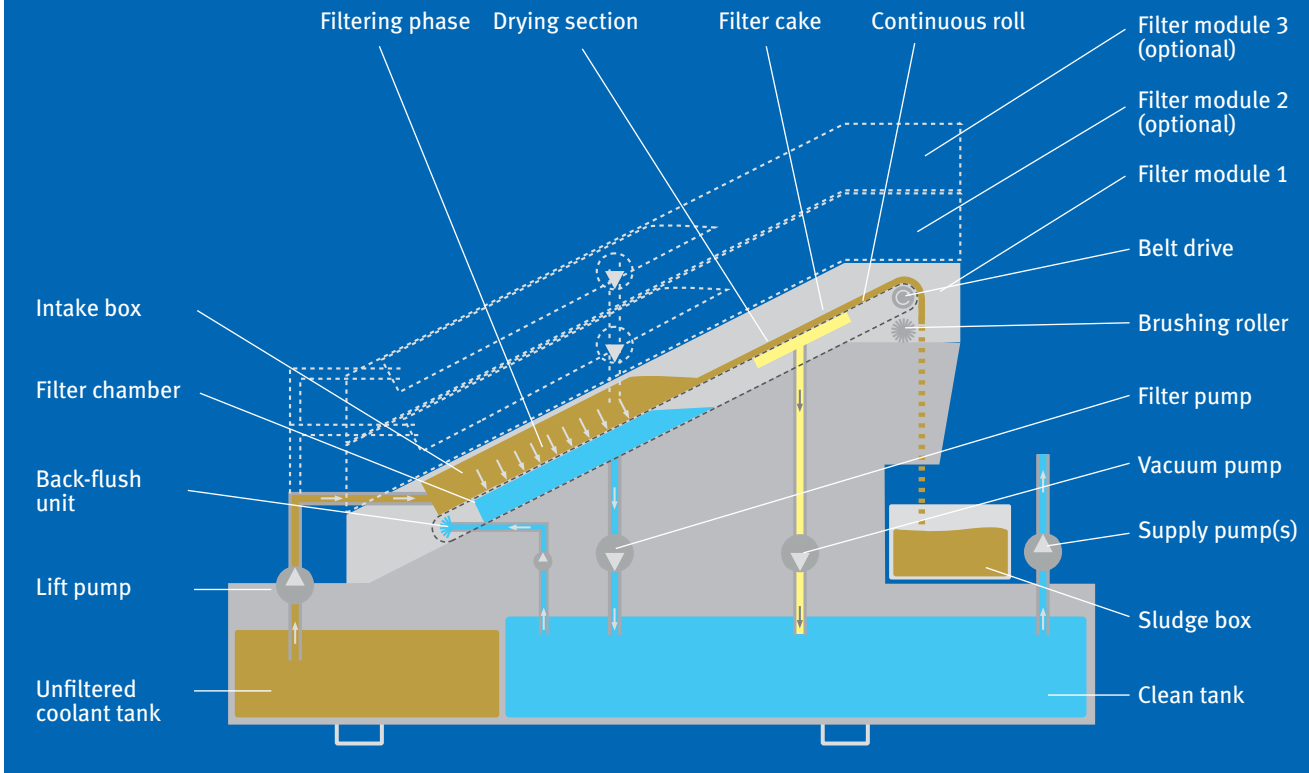
Filtering process

1. A lift pump conveys the waste fluid into the intake box
2. Having been cleaned, the KSS flows through the continuous roll into the filter chamber and subsequently into the clean tank
3. A filter cake is formed on the continuous roll which, as a depth filter, retains the finest dirt particles

Regeneration process

1. The growing filter cake increases the flow resistance through the filter surface
2. The vacuum in the filter chamber increases
3. When the level reaches a defined threshold value, the belt drive cuts in and conveys the continuous roll a little further
4. The continuous roll without filter cake reaches the filter surface; the volume flow through the filter chamber increases again

Diagram

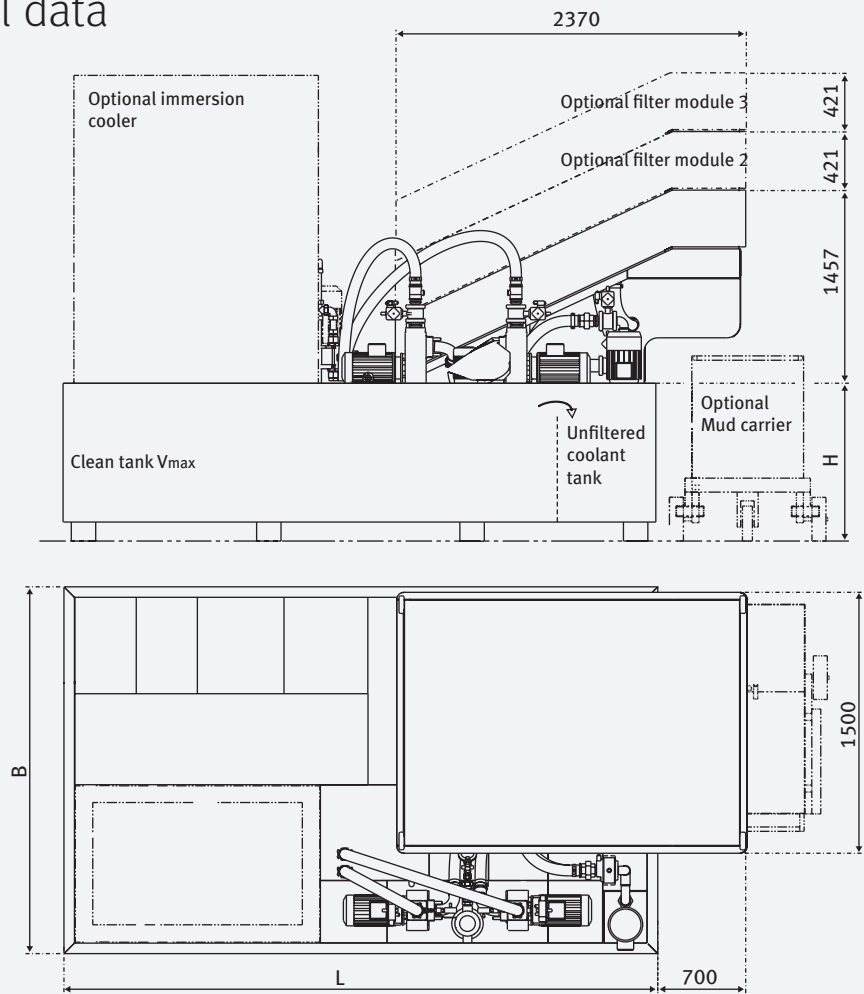


Equipment

Vacuum pump	●
Filter pump	●
Fill level measuring technology	●
Belt drive	●
Continuous roll	●
Brush-off unit	●
Control system	○
Mud carrier or mud box	○
Railing with ladder	○
Cooling lubricant tank system with lifting and supply pump(s)	○
Temperature control (cooling/heating)	○
Filter module 2	○
Filter module 3	○
Fill level measuring technology i.a.w. WRA	○

- Basic equipment
- Optional

Dimensions and technical data



Type	Max. filter capacity (l/min) ¹	L	B	H	Vmax [l]
	Oil ²				
VLO 300-1	300	3400	2100	800	2850
VLO 300-2	600	3400	2100	1000	5700
VLO 300-3	900	4000	2100	1200	8400

Dimensions without specification of units in mm

¹ Approximate values for profile grinding (roughing, smoothing) of hardened steel. Other cooling lubricant viscosities, processing methods and materials increase or reduce the specified values

² $\nu = 20 \text{ mm}^2/\text{s}$ (at operating temperature)