

Transorfilter

Filter system for grinding applications



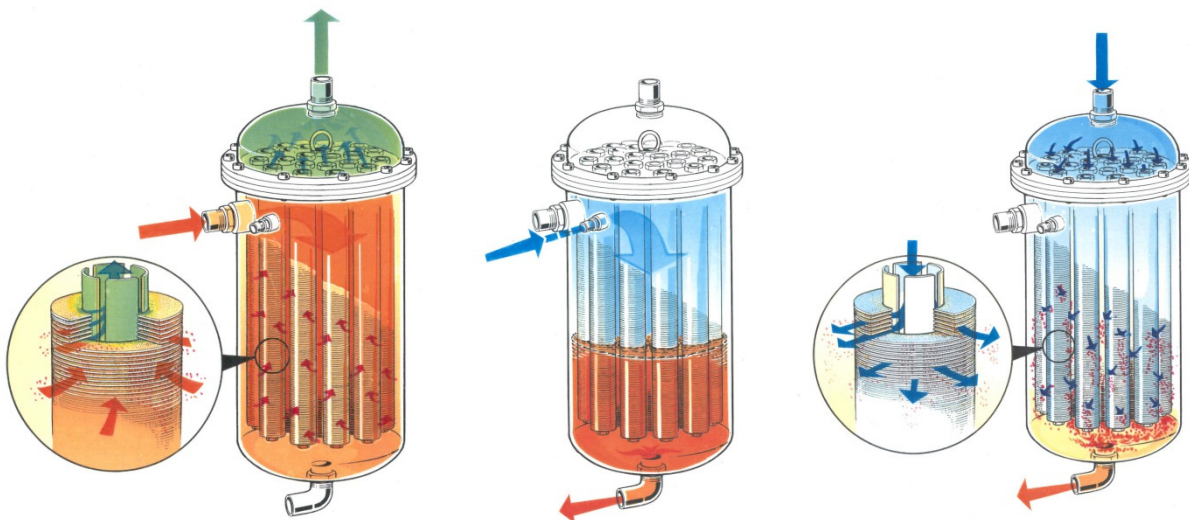
TRANSORFILTER
www.transorfilter.se **Sweden**

Transorfilter



*Transorfilter for applications in e.g. grinding.
The filter provides work piece and grinding wheel with clean oil, which provides many benefits.
The oil is purified by filter elements which are located in one or more filter vessels.*

Feature description



Filtration

Oil passes through the filter vessel and the filter elements from the return oil tank to the clean oil tank on its way to the grinding machine.

Particles stick on the periphery of the filter element. Degree of filtration as per code 16/14/13* in accordance with ISO 4406.

Draining

The filter vessel is drained from oil before backflushing starts. Oil is returned by compressed air to the return oil tank.

Backflushing

When the filter vessel is drained the filter elements are backflushed by compressed air through the core of the filter elements. The sludge is transported to a sludge handling unit. Backflushing is automatic and takes approximately 5 min. Filter goes back to operating normally afterwards.

* Deviation may occur depending on the material and/or processing method.

Transorfilter, Feature description

Function

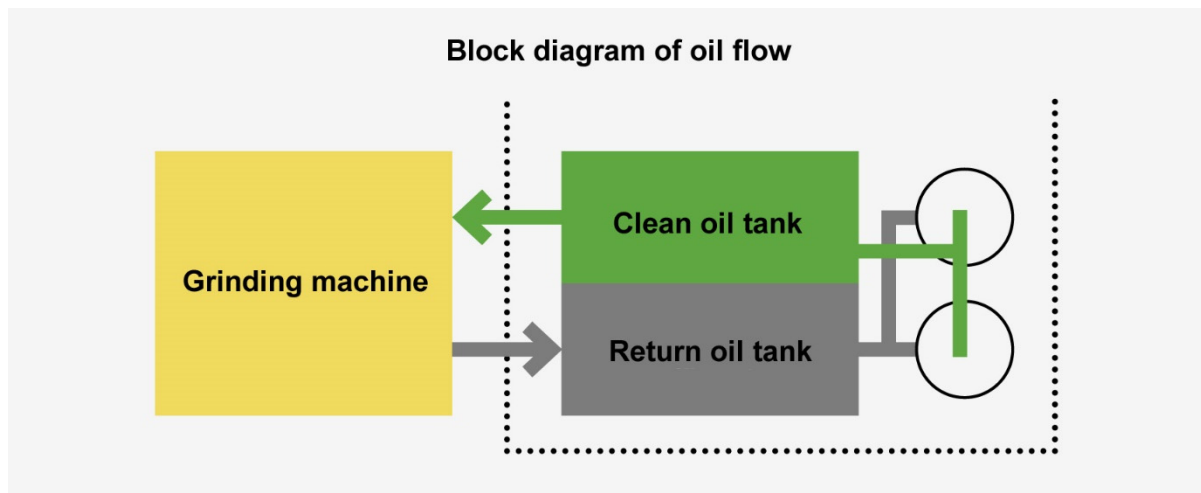
The continuous flow of oil is shown schematically in the block diagram below.

The filter elements lifespan under normal conditions is up to 15 000 hours. The filter backflush automatically at intervals of 4 to 6 hours. The filter elements are cleaned by compressed air and the sludge is transported to a sludge handling unit. Backflushing takes normally 5 minutes. During that period the filter delivers oil from the return oil tank without interruption. The sludge handling unit is emptied of sludge a few times per month.

The filter can be placed in connection to a machine or in any appropriate location. One filter may provide multiple machines with clean oil.

The filter provides the work piece and grinding wheel with clean oil, which provides many benefits:

- Increased precision and reduced cycle time result in higher productivity.
- No filter cartridges, paper rolls or other consumable materials. The concentrated sludge consists only of removed material from the work piece and the grinding wheel.
- No grinding waste affecting spools, spindles, valves, etc.
- Minimal machine maintenance. Continuous flow during backflushing. No interruption for sludge removal.



Size and amount of filter vessels depends on application.

Filter may be prepared for connection of multiple machines in the future.

Transorfilter, Benefits



System advantages

There are many reasons why oil with a high grade of purity is preferable. You find some of the advantages with Transor filtration below.

- The system eliminates filter cartridges, paper rolls or other filter media.
- Continuous filtration during backflushing. No downtime for filter maintenance.
- Cost of handling and disposing oil drenched waste decreases significantly.
- High precision and short cycle times results in increased productivity.
- Clean oil results in clean work pieces immediately after the grinding process.
- Shorter setup time due to cleaner machine.
- Contributes to an improved working environment due to less oil drenched waste.
- Clean oil means virtually non-existent risk of bacterial growth.
- Clean machine windows bring a good view of the grinding operation.
- Greatly reduces risk of damages due to less particles in critical areas.

Avoid problems

A variety of problems may occur without oil purification. Do you recognize any of the problems below? With Transor filtration you will avoid these problems.

- Centrifuge, paper or cartridge system, filtration between 5 and 20 my - but oil is still black!
- Coating filter which emits material that causes problems with valves and control.
- Operator must clean the machine windows to be able to see what is going on in the machine.
- Sludge from grinding wheel and cemented carbide cause unacceptable wear of the machine spindle and slides.
- Cost of material, replacement and disposal of filter paper or cartridges is unacceptably high.
- Too much time is spent on the unpopular task to replace filter paper, cartridges or other filter media.

Transorfilter



We design according to customer specification.

In the accessory list below are examples of additional equipment options available for Transorfilter.

Please contact us if you have any other requests.

Accessory
Sludge handling unit
Sludge handling lamella
ICC: backflushing method used for highly contaminated oil
Magnetic separator
Cooler
Clean oil pump
PLC
PLC with touch screen
Special paint (standard RAL 7032)
Level sensor in dirt and clean oil tank
Flow meter
Ventilation connection
Oil return connection
Valve on clean oil pump outlet
Oil filling pump



Filter element

Transorfilter, References

Application
Production of bearings.



Application
Production of cutting tools for metal industry.
Filter equipped with magnetic separator.



Application
Production of cutting tools for metal processing industry.



Application
Production of cutting tools for wood industry.



Application
Purification of oil for EDM



Subject to change without notice.

