



TRANSOR
FILTER GMBH®

Micro Filtration without consumables

- *single supply*
- *machine group supply*
- *centralized systems*



More than 30 years „Experience for the Future“



TRANSOR Filter GmbH was established 1981. The **TRANSOR** edge filter principle soon became the synonym for media free fine filtration. In our facility Usingen near Frankfurt/Main we construct, build and put into service more than 300 filter systems per anno. Nowadays over 10.000 filter units supply machines with filtered and cooled oil. From here we also co-ordinate the cooperation with our partner companies worldwide.



TRANSOR Filtration



All **TRANSOR-systems** are fully automatic backflushable (self-cleaning) filter units. Contaminations of even less than 3µm in coolants (grinding oils) are captured on the surface of the filter elements. Unlike other systems no consumable filter media is utilized. The self-cleaning (backflushing) of the filters is initiated by reverse flow fully automatic. The removed material (sludge) is discharged by various methods either manually but mostly automatically.

Based on more than 30 years of experience Transor consequently develops it's technology even further.

TRANSOR – Filtration without compromise Clean and clear ...

There are various element types for various applications available to micro-filtrate coolants (grinding oils) for different working operations.

High precision machining requires highest filtration efficiency of coolants. Micro filtrated coolants contribute considerably to better surface finish, finer tolerances, less wear and tear and less maintenance.

The TRANSOR filtersystems safeguard the reliable supply of micro clean and temperature controlled oil to the machines in various applications.



Transor Edge Filter



Transor Edge Filter with multi-channel geometry



TME High Flow elements made of fiber glass

Our elements have a lifetime of several years; up to ten years & above

- ◆ No consumable filter media
- ◆ Fully automatic self cleaning (backflushable)
- ◆ Uninterrupted continuous full flow filtration
- ◆ Life time of elements several years
- ◆ Short backflushing duration (only 1% of total filter time)
- ◆ Low consumption of compressed air
- ◆ Small operational oil volumes
- ◆ Compact construction
- ◆ Optional automated sludge removal
- ◆ Filtration capacities from 50 to 10.000 l/min and more
- ◆ Modular and redundant construction

Single Source Supply

Filtration and supply systems for 1-4 machines

For the various machines there are standardized systems available with capacities ranging from 50 to 300 l/min. These filters are compatible with all common (grinding-) machines. Sludge treatment and drag out optionally is achieved automatically.

Especially for the modification of existing filter units we offer a vacuum sedimentation unit for standard barrels, eliminating the necessity for additional handling.

The vacuum suction unit de-oils the sludge to a level of < 3% (weight)



Island Solutions

By utilizing so called "island solutions", groups of machines can be connected to one filter unit.

These "small centralized systems" are offering concepts which can be adopted to customer specific

requirements. Filter flow capacities range from 300 - 1000 l/min Centralized cooling, pressure dependent frequency control for the clean oil supply and other peripheral options can be included in the concepts.



Centralized Systems

For complete and complex machine parks Transor offers individually designed centralized systems with capacities ranging from 1.000 to 10.000 l/min and more.

Submerged or semi-submerged floor space saving constructions including the complete piping as "turn-

key" complete our scope of capabilities. Energy efficiency is also our main objective.

Worldwide leading companies in tooling-, automotive-, aviation/space-, and other high precision machining industries utilize Transor filtration technology.



TRANSOR Design and Construction. The Heart of the System

The modular construction, a big clean oil storage capacity and a short self-cleaning cycle enable uninterrupted, continuous and reliable supply of coolant to the connected machines with micro-filtrated and temperature controlled oil.

Compact elements and systems are designed for the specific applications and work without consumables. Filtration efficiencies of less than 3µm achieve life time cycles of several years. These advantages result in minimized maintenance and handling costs. The low pressure filtration enables high flow rates on a small foot print area.



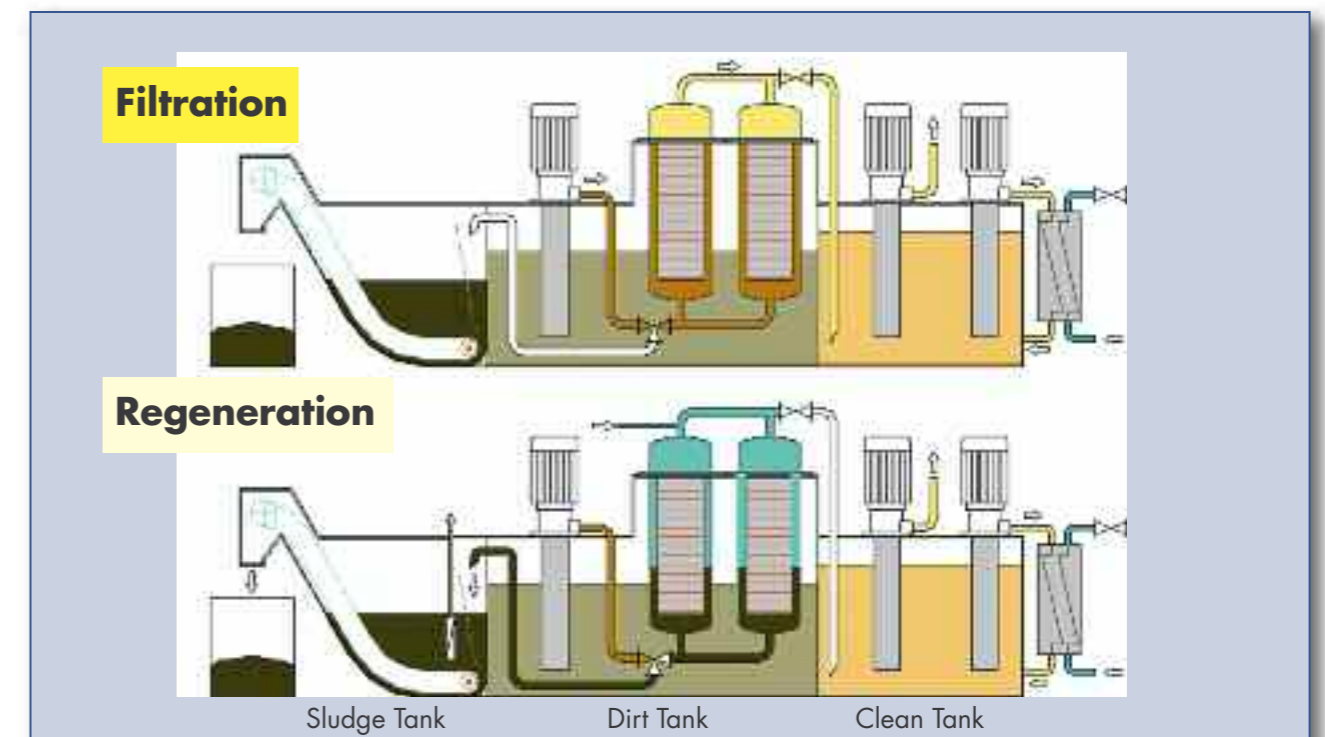
Easy, simple and fully automatic operation

A modern touch panel offers full control of the operation.

Even the smaller units have a modular & redundant construction

The clear build-up of all pneumatic and electrical components simplifies operation and service.

The TRANSOR principle



Sludge Treatment. Filter - recycle - sale

Micro Filtration of coolants is almost standard in any high precision machining and application.

Modern **TRANSOR** filtration technology keeps the (grinding-) oil in brand new condition. The oil needs no replacement. Only drag-out losses have to be filled up. Systems using consumable media (pre-coat systems, cartridge and paper band etc.) do not permit this and cause problems with disposal/recycling issues.

TRANSOR reliably works **with no consumables**. Working material (e.g. carbide from tool and cutter grinders) is processed by the integrated sludge treatment devices and is recaptured without any additional

filter aids. Vacuum supported de-oiling method reduces the **contents of sludge to < 3 %** (weight). In automatic systems this pre-dried sludge is placed directly in adjacent barrels/containers. No need for additional handling. The (carbide-)sludge can be converted into revenue.



The (carbide-)sludge can be converted into revenue.

Already one drum of carbide sludge (weight approx. 1.000 kg) yields a revenue of 15.000 € and more (depending on market price).

The amortisation (ROI) more than justifies the investment into a Transor Filtration System.

The installation of a Transor system with all its advantages pays off within shortest time.



Options & Accessories



Comprehensive accessory options complete the TRANSOR systems.

For example:

Communication/Interface

We have extensive experience with the demands of all known machine manufacturers. This ensures competent realisation of all necessary electrical, hydraulic and pneumatic interface requirements.



Pre-Filtration

Pre-filtration removes particles in order to relieve the fine filtration stage. We offer various systems:

- Efficient conventional magnetic drum filters for ferrous particles
- Super strong neodym magnetic devices for high demanding pre-filter operations
- Woven cloth/bag filters as non ferrous pre-filtration

Machine supply concepts

We offer a wide range of well known pump types and brands for all necessary flow and pressure ratings.

- Single supply pumps
- Central pump systems
- Central supply pump systems with energy optimized frequency control
- Return pump stations/lifting pumps



Cooling

We provide high precision permanent cooling options, independent of filtration method.

- Compact direct cooling integrated into filtration system as add-on or stand-alone unit. Cooling capacities from 3 to 50 KW. Precision down to 0,1 Kelvin (optional)
- Water cooling, especially for higher capacities with up to 150 KW
- Plate heat exchangers for use in existing cooling systems

Oil Mist Separator

Various capacities/makes and brands.

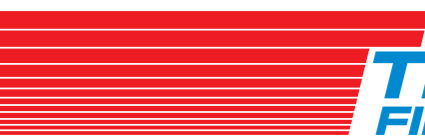
- mechanical separators
- electrostatic separators



Maintenance/Service

Start-up of operation, maintenance and service is offered on a world-wide basis

TRANSOR filter systems and your environment remains clean



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