



FILTRATION IN PERFECTION

Innovative technology for the highest demands and highest quality.



Quality. Innovation. Service.

We are your contact for the world of filtration.

FAUDI does business globally in the filtration and separation technology sector and is your address of choice when it comes to trouble-free system operation. Our decades of experience in the planning and manufacture of filtration plants for the treatment of cooling lubricants ensure sustainable system availability for our customers.

We offer filtration solutions for a broad range of applications. Our products and services help you to comply with legal regulations, improve performance and at the same time reduce your operating costs. This is because at FAUDI, when we talk about quality, we go

far beyond the categories of long service life and trouble-free operation: "Total cost of ownership" (TCO) is an important measure our engineers apply for their development work. From planning and manufacturing to turnkey installation and commissioning, FAUDI is your competent partner.

Moreover, we are also your contact for engineering and pipeline planning as well as monitoring and control. Get in touch with us. We will gladly advise you personally.



Part of a strong network

FAUDI and the Watz Group.

As part of the Watz Group, we are one of four businesses which together offer our customers full-service support, including consultancy, development, production, assembly and commissioning as well as maintenance, repairs and conversions. With their many years of experience, the companies Watz Hydraulik, Watz-Service GmbH, HydroService Zylinderbau and FAUDI GmbH which comprise the Group are strong business partners. The Bosch Group is of the same opinion and has awarded FAUDI the **Bosch Global Supplier Award**.

WATZ
UNTERNEHMENSGRUPPE

WATZ HYDRAULIK / **WATZ** SERVICE
FAUDI FILTRATIONSTECHNOLOGIE
HYDROSERVICE ZYLINDERBAU



Doing business globally

Innovative engineering made in Germany.

The solutions FAUDI provides are diverse. And so are the areas of application. This is why enterprises from a wide range of sectors rely on FAUDI in their daily business. We operate worldwide in the following branches of industry:



Automotive industry

- Truck industry
- Passenger car industry
- Supplier industry

Central coolant lubricant filtration |
Briquetting of metal chips and
grinding sludge | Recycling man-
agement | Filtration of paints



Metal processing industry

- Ball-bearing industry
- Valve industry
- Transmissions, brakes, etc.



Machine tool industry

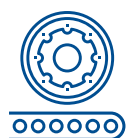
Coolant lubricant filtration and recovery for turning, drilling, milling and grinding processes | Customized filtration applications | Briquetting of grinding sludge and metal chips | Recycling management



Steel and rolling mill industry

- Rolling mill manufacturers
- Steel and rolling mill industry

Filtration systems for rolling oil and emulsion filtration | Filtration systems for surface-treatment applications



Metalworking industry

- Sheet metal forming industry
- Galvanizing industry
- Paint industry

Recycling of process media | Product filtration | Painting plant filtration



Aviation industry

- Jet engine manufacturing
- Aeroplanes, helicopters

Filtration and recycling of process media | Vacuum transport and briquetting of metal chips | Recovery of oil and emulsions

An overview of filtration technology

Contaminations classes, product groups, applications.

To provide you with a quick overview of contamination classes and the services FAUDI offers, we have summarized the most important information on these topics here:

CONTAMINATIONS CLASSES

The purity of the coolant lubricant is a decisive factor for trouble-free and low-wear operation of a system. Higher purity ensures less idle time and better results. Consequently, the following contamination classes have been defined to simplify the assessment of the degree of contamination.

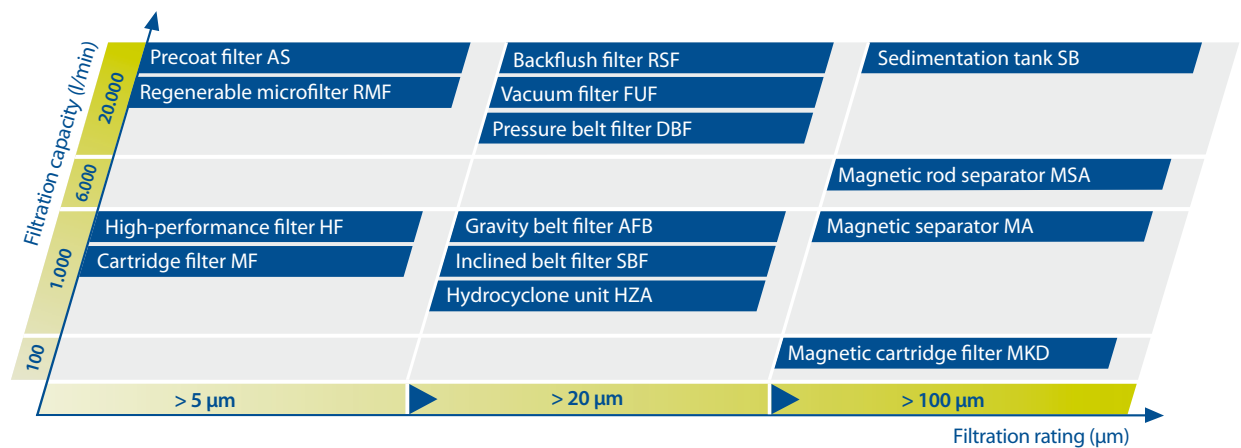
Purity class for coolant lubricants

Contamination class	Number of particles per 100 ml				
	5 – 15 µm	15 – 25 µm	25 – 50 µm	50 – 100 µm	> 100 µm
00	125	22	4	1	0
0	250	44	8	2	0
1	500	89	16	3	1
2	1,000	178	32	6	1
3	2,000	356	63	11	2
4	4,000	712	126	22	4
5	8,000	1,425	253	45	8
6	16,000	2,850	506	90	16
7	32,000	5,700	1,012	180	32
8	64,000	11,400	2,025	360	64
9	128,000	22,800	4,050	720	128
10	256,000	45,000	8,100	1,440	256
11	512,000	91,200	16,200	2,880	512
12	1,024,000	182,400	32,400	5,760	1,024

Contamination classes as per NAS 1638

PRODUCT GROUPS

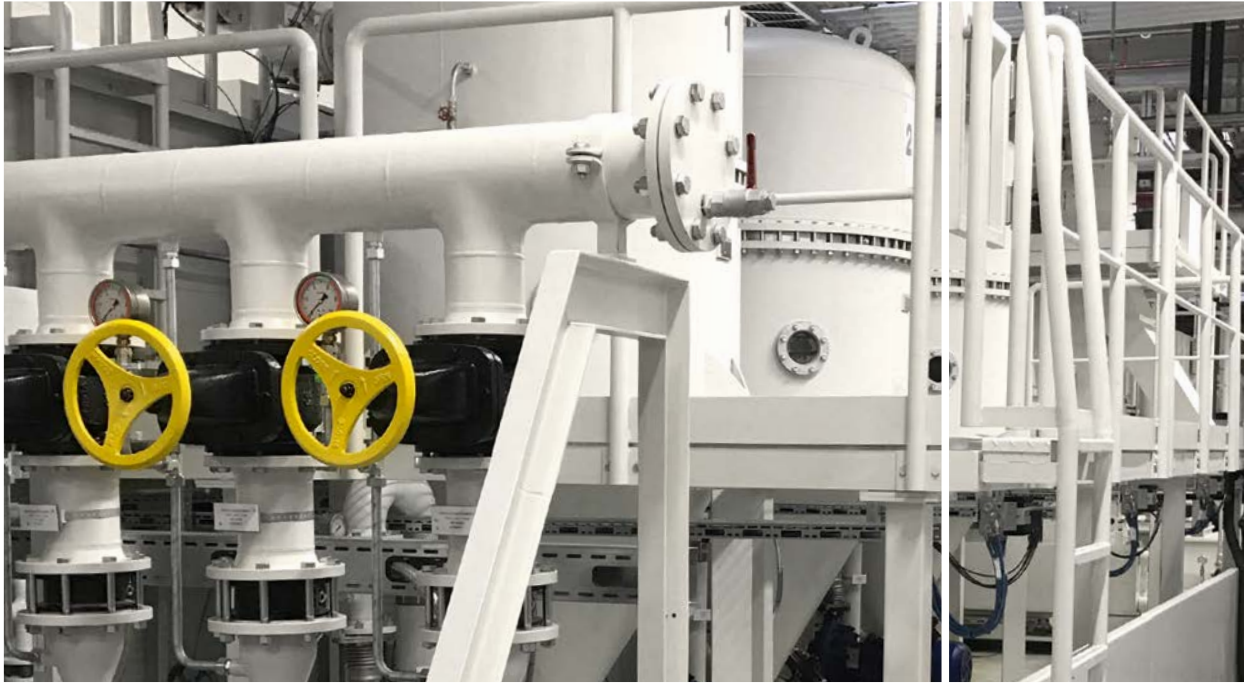
We have a solution for you that is exactly right for your needs. Here is a guide to give you a performance overview of our product groups:



APPLICATIONS

This overview chart summarizes which filter technology is appropriate for your application:

Filtration rating		> 5 µm				> 20 µm				> 100 µm					
Type of processing	Filter system	Precoat filter AS	Regenerable microfilter RMF	High-performance filter HF	Cartridge filter MF	Backflush filter RSF	Gravity belt filter AFB	Inclined belt filter SBF	Vacuum filter FUF	Pressure belt filter DBF	Hydrocyclone unit HZA	Magnetic cartridge filter MKD	Magnetic rod separator MSA	Magnetic separator MA	Sedimentation tank SB
Turning/Drilling/Milling (Machining centres)						x	x	x	x	x			x	x	x
Broaching/Deep-hole drilling							x		x					x	x
Washing				x											
Grinding		x	x		x		x	x	x		x	x		x	x
Honing + superfinishing		x			x			x	x				x	x	
Cold rolling		x			x		x	x	x				x	x	



The whole world of filtration

An overview of our products.

FAUDI offers filter technologies for widely diverse applications. We have summarized the entire spectrum of solutions we offer including an extensive range of accessories for you here.



Precoat filter

The largest German automobile manufacturer has relied on the quality of FAUDI precoat filters for many years.



Cartridge filter systems

- Precoat filters
- Regenerable micro filters
- Backflush filters

Belt filter systems

- Vacuum filters
- Pressure belt filters
- Inclined belt filters
- Folding belt filters
- Gravity belt filters

Chip and sludge treatment

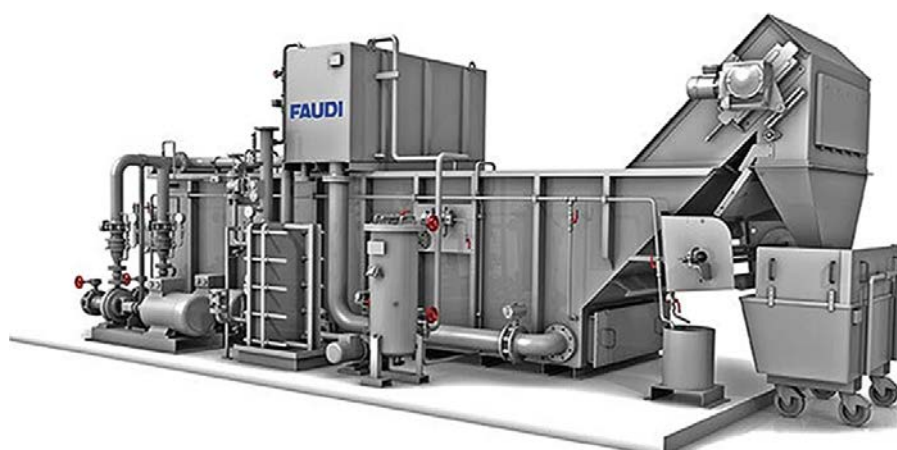
- Briquetting presses
- Screw presses
- Vacuum extraction
- Chip breakers
- Chip bunkers

Magnetic separators

- Roller separators
- Rod separators
- Magnetic cartridge filters

Accessories

- Return pump stations
- Pressure boosting stations
- Scraper conveyor
- Filter medium metering units
- Skimmers
- Hydrocyclone units
- Disc filters



Vacuum filter

The FAUDI vacuum filter covers the global needs of the largest automotive supplier in the key markets of the USA, China and Europe.

Precoat filter

With a filtration capacity of 15,000 l/min and a filtration fineness of 3 µm, in use by the largest automotive supplier worldwide.



Cartridge filter systems

Precoat filter systems (AS, AST, ASG)

APPLICATION AREAS

Do you place the highest demands on filtration quality, for example for grinding and honing processes, or in finishing, lapping, eroding, pressing and rolling as well as in ultra-fine filtration? Then FAUDI precoat filters are the best choice for your application. We offer the following solutions for these purposes:

Precoat filter with wet discharge, Type AS

Conventional precoat filtration with wet discharge. The sludge treatment takes place in secondary filters.

Precoat filter with dry discharge, Type AST

Advantages include the low space requirements; no secondary sludge treatment is necessary. Additional benefits include dry filter cake discharge and the wear-free cartridge.

Electroplating precoat filter, Type ASG

Type ASG precoat filters are ideal for cleaning electroplating baths (acid baths), treatment of salt solutions, electrochemical processing and the treatment of other aggressive media as well as for ultra-fine filtration.

Compact precoat filters

Perfect for disposal from individual machines and/or small machining units, such as in grinding and honing processes.

All of the filter types are also available in a compact design and are an ideal solution for decentralized, space-saving requirements.

Filtration capacity

The filtration capacity depends on the filter size and the filter medium. However, the modular design makes it possible to adapt the filtration capacity from **50 l/min to 20,000 l/min**.

Data and facts

- With filter aid
- Filtration fineness: 3 µm
- Filter surface area per filter dome: 1.5 – 85 m²
- Filter material: FAUDI cartridges in plastic and stainless steel
- Medium: Oils, machining emulsion

Your advantages at a glance

- Highest possible filtration quality
- Can be used for different processing methods
- Especially economical for large volumetric flow rates
- Long service life
- Compact and durable design

Cartridge filter systems

Regenerable microfilter systems (RMF)

APPLICATION AREAS

The patented RMF filters are used primarily for cleaning contaminated coolant lubricants from grinding processes, especially in the area of ultra-fine processing of metal surfaces. Whenever high demands are made on the degree of purity for the coolant lubricant used, FAUDI's RMF technology is the perfect choice.

RMF compact

With the compact version, the advantages of the RMF technology can be applied perfectly to meet space-saving and decentralization needs.

Filtration capacity

The filtration capacity depends on the filter size and the filter medium. However, the modular design makes it possible to adapt the filtration capacity from **50 l/min to 20,000 l/min.**

Data and facts

- Without filter aid
- Filtration fineness: 5 – 10 µm
- Filter surface area per filter dome: 2.5 – 73 m²
- Filter material: patented FAUDI cartridge filter
- Medium: Oils

Your advantages at a glance

- Filtration without a filter aid
- Can be used for different processing methods
- Especially economical for large volumetric flow rates
- Long service life
- Compact design possible

Regenerable microfilter system

For more than 20 years, the largest German truck manufacturer has relied on FAUDI's patented RMF technology which enables filtration at the highest level without the use of a filter aid.



Cartridge filter systems

Backflush filters (RSF)

APPLICATION AREAS

Filtration without a filter aid for both water-based and non-water-based coolant lubricants and oils for various different types of machining, such as turning, drilling, milling, etc.

Filtration capacity

The filtration capacity depends on the filter size and the filter medium. However, the modular design makes it possible to adapt the filtration capacity from **250 l/min to 20,000 l/min.**

Data and facts

- Without filter aid
- Filtration fineness: 20 – 100 µm
- Filter surface area: 0.8 – 9.1 m² per filter dome
- Filter material: FAUDI cartridges in various different versions
- Medium: Oils, machining emulsions and water

Your advantages at a glance

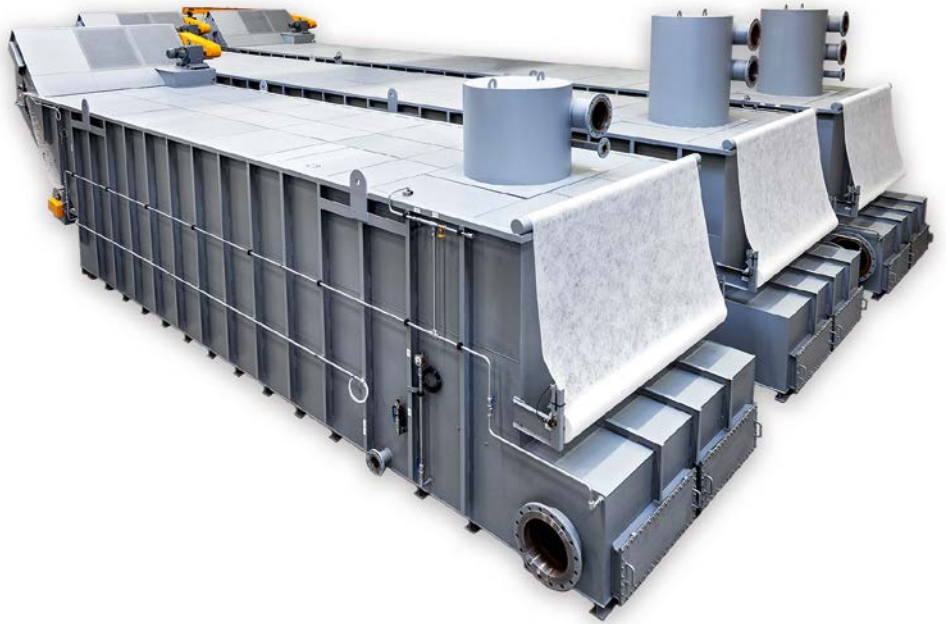
- Machining quality through guaranteed filtration fineness
- Low emissions and consistent coolant lubricant quality through a predominantly closed system
- Future oriented due to easy removal of the filter surface
- Several filtration qualities can be realized with a single system



Backflush filter

Used successfully in close quarters by one of the largest automobile manufacturers.

Vacuum filter system
The Chinese steel industry
also relies on FAUDI vacuum
filters made in Germany.



Belt filter systems

Vacuum filter systems (FUF)

APPLICATION AREAS

Vacuum filters for nonwovens (Type FUF-V) and continuous operation (Type FUF-E) can be used universally and are suitable for cleaning the cutting, grinding and rolling oils, emulsions and aqueous solutions found in metalworking and are the preferred choice for central lubricating coolant systems with a high circulation capacity, such as in turning, drilling, milling or grinding.

Filtration capacity

The filtration capacity depends on the filter size and the filter medium. However, the modular design makes it possible to adapt the filtration capacity from **100 l/min to 20,000 l/min.**

Data and facts

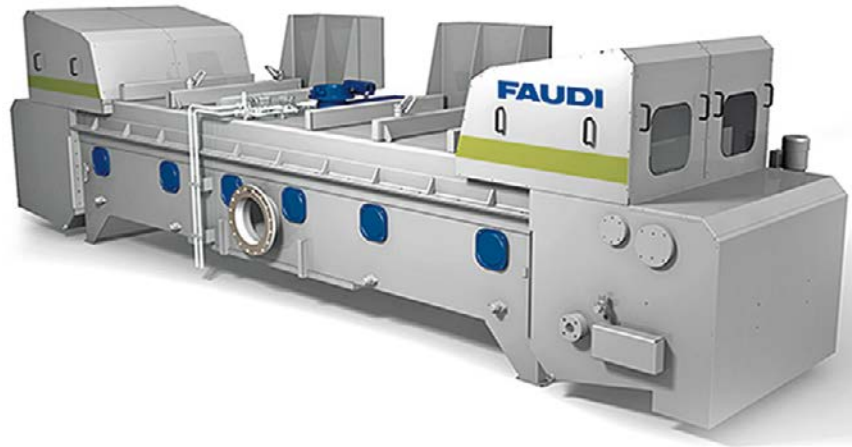
- Filtration fineness: 20 – 100 µm
- Filter surface area: 0.7 m² bis 44 m²
- Filter material: Fibre nonwovens and continuous belts
- Medium: Oils and machining emulsions

Your advantages at a glance

- Large throughput capacity
- Flushing device for synthetic filter belts (flushing nozzle, rapper shaft)
- High cost-effectiveness
- Can also be operated with nonwovens
- Winding device for nonwovens

Pressure belt filter system

Picture of the DBF which was redesigned in 2015 with significantly improved maintenance access points and larger openings at the front and back for higher filter service lives (higher filter cake).



Belt filter systems

Pressure belt filter systems (DBF)

APPLICATION AREAS

Pressure belt filters are used for cleaning contaminated coolant lubricants in metal-working and for treating various different types of sludge from rough machining, especially aluminium grinding sludge.

Filtration capacity

Dependent on the filter size and the filter medium.

Data and facts

- Choose either with or without filter aid
- Filter fineness: to 10 µm
- Filter surface area: 4; 5 and 6 m² per filter
- Filter material: Belt and nonwoven combination, belt
- Medium: Oils and machining emulsions

Your advantages at a glance

- Large throughput capacity
- Easy removal of the filter cake
- Short regeneration time
- Use of different synthetic filter belts is possible
- High cost-effectiveness
- New design is extremely stable under pressure
- Facilitates maintenance well
- Precoat possible
- Combination of synthetic belt + filter nonwovens possible

Belt filter systems

Inclined belt filters (SBF)

APPLICATION AREAS

Inclined belt filters are ideal for cleaning low-viscosity liquids, especially coolant lubricants. Depending on the area of application, inclined belt filters with fibre nonwovens (Type SBF-V) or with continuous synthetic belts (Type SBF-E) are employed. They are especially suitable for use in particularly close quarters or for high filtration capacities and are an ideal solution for decentralized filtration systems on the machine tool. FAUDI inclined belt filters can, of course, also be delivered as complete and fully automatic filtration systems either in steel or stainless steel, as desired.

Filtration capacity

The filtration capacity depends on the filter size and the filter medium. A filtration capacity of **30 l/min to 2,000 l/min** is possible.

Data and facts

- Filtration fineness: 30 – 100 µm
- Filter surface area: 0.3 – 1.8 m²
- Filter material: Fibre nonwoven/belt
- Medium: Oils, emulsion and water

Your advantages at a glance

- Custom filter systems for customers' needs
- Many components are available
- Flexible design as desired by the customer
- Conventional or with PLC
- Increased throughput capacity



Inclined belt filter

Belt filter systems

Folding belt filters (KBF)

APPLICATION AREAS

Folding belt filters are used for cleaning contaminated coolant lubricants in metalworking and for treating various different types of sludge from rough machining, especially aluminium grinding sludge.

Filtration capacity

Dependent on the filter size and the filter medium.

Data and facts

- Choose either with or without filter aid
- Filter fineness: to 10 µm
- Filter surface area: 1.0 – 2.5 m² per filter
- Filter material: Belt and nonwoven combination, belt
- Medium: Oils and machining emulsions

Your advantages at a glance

- Large throughput capacity
- Easy removal of the filter cake
- Short regeneration time
- Use of different synthetic filter belts is possible
- High cost-effectiveness
- New design is extremely stable under pressure
- Facilitates maintenance well
- Precoat possible
- Combination of synthetic belt + filter nonwovens possible



Folding belt filter

Tested for full functionality in the FAUDI plant and ready for delivery to the customer.

Gravity belt filter



Belt filter systems

Gravity belt filters of steel (AFB-ST) and stainless steel (AFB-EST)

APPLICATION AREAS

Gravity belt filters are used for cleaning low-viscosity liquids, especially coolant lubricants. They are available either in steel or stainless steel, as desired.

They are especially suited for close quarters and can, of course, also be delivered as complete and fully automatic filtration systems.

Filtration capacity

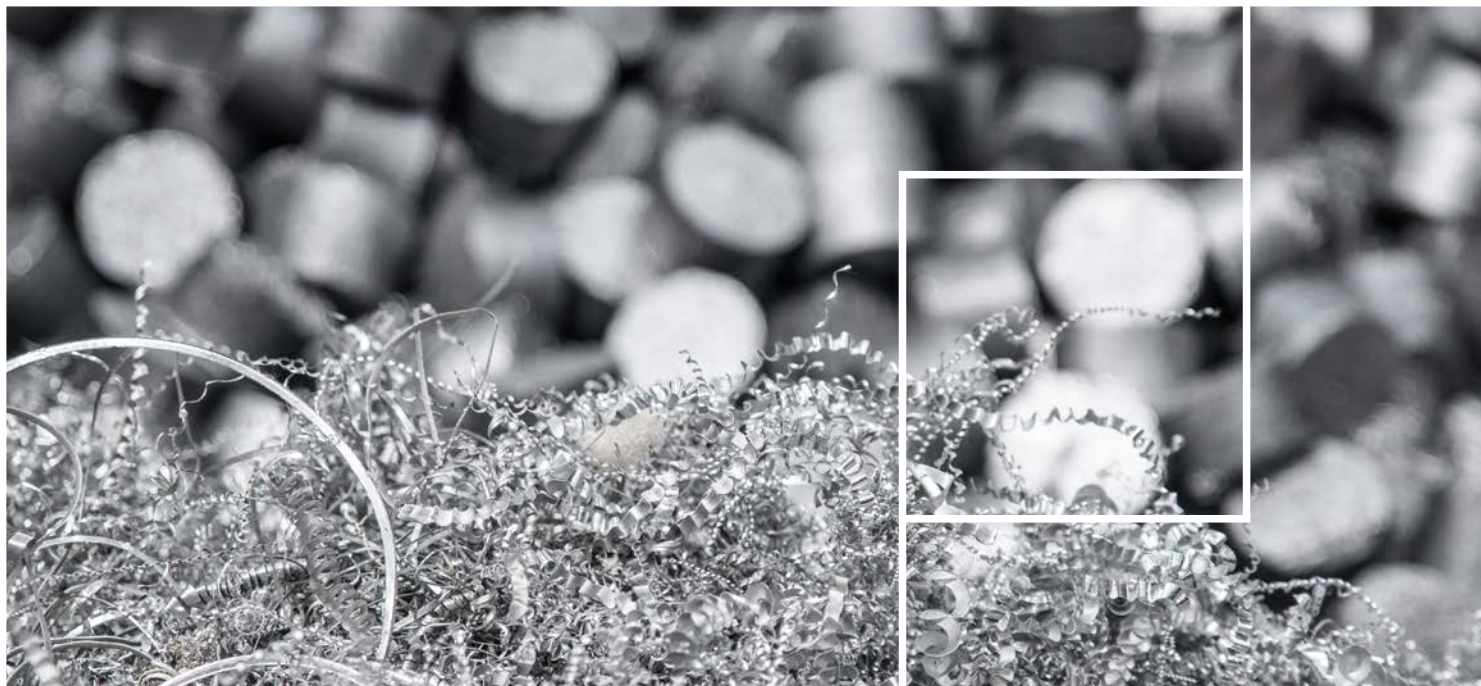
The filtration capacity depends on the filter size and the filter medium. A filtration capacity of **30 l/min to 1,500 l/min** is possible.

Data and facts

- Filtration fineness: To 20 – 30 µm
- Filter surface area: 0,3 – 11,0 m²
- Filter material: Fibre nonwoven
- Medium: Liquids in the chemical industry, aqueous media, oils and emulsions

Your advantages at a glance

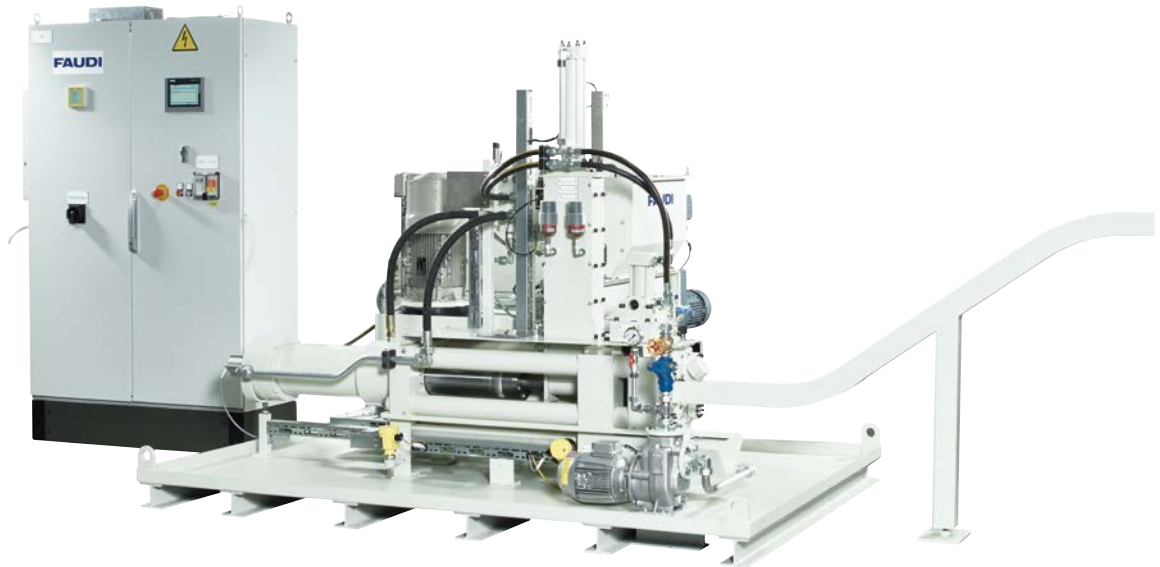
The vast range of options allows special customer requirements to be met flexibly. For example, FAUDI belt filters can be installed on top of existing tanks and are offered as a complete system with tanks, pumps, heating, cooling and a control system – conventional or with PLC.



Chip and sludge treatment

With our chip and sludge treatment system as well as our extensive line of accessories, we offer a broad spectrum of solutions which complement our innovative filtration technology and round out our range for a great many applications. We would like to present our solutions in the areas of chip and sludge treatment as well as magnetic separation to you below.

Briquetting press



Chip and sludge treatment

Briquetting presses (WSPK)

APPLICATION AREAS

Metal chips are a valuable commodity for the metalworking industry. With FAUDI briquetting presses, you are able to convert expensive production waste materials into recoverable secondary raw materials. Recycling them completes various cycles and serves the aim of sustainability in resource efficiency and environmental management.

Which materials can be processed?

- Metal chips, such as aluminium, brass and copper, steel chips, magnesium chips, grey cast iron and cast steel chips, stainless steel chips
- Bottom ash and dusts of all types
- Grinding sludge of all types

Data and facts

- Throughput capacity: 40 kg/h – 2 to/h
- Briquette diameter: 60 mm – 135 mm

Your advantages at a glance

- Volume reduction of up to 90 %
- Positive image in environmental audits
- Optimal recovery of valuable coolant lubricants
- High recovery rate of melted material through uniform combustibility of the briquette
- Not defined as “hazardous waste”
- Low bacterial growth during storage
- Easy handling during collection and storage
- Complex storage containers and rooms are unnecessary
- Simplified waste verification management



Screw press

Chip and sludge treatment

Screw presses (FSP)

APPLICATION AREAS

Our screw presses are an economical and ecological solution to significantly reduce the volume of your production waste products. FAUDI screw presses can be used as an ideal add-on module in combination with the briquetting presses to increase their throughput. However, they can also be used as an economical stand-alone solution or as an upgrade for all commercially available filter systems from other manufacturers. Benefit from our screw presses for resource recovery, dewatering, deoiling, etc.

Data and facts

- Attainable residual moisture: to 30 %
- Throughput capacity: to 450 kg/h
- Depression diameter: 150 – 250 mm

Your advantages at a glance

- Avoid cost-intensive disposal of raw materials
- Separate residual oils and emulsions from other raw materials
- Savings on fresh oils and emulsions
- Reduction in volume: remaining waste for disposal
- Usable as an economical stand-alone solution
- Usable in combination with FAUDI briquetting presses
- Optimal for combination with FAUDI filtration systems
- Can be combined with all commercially available filter systems from other manufacturers

Magnetic separators

Roller separators (MA)

APPLICATION AREAS

FAUDI roller separators are used for separating ferritic contaminants and chips in liquids. Typical areas of application are for cold rolling, processing steel and cast iron as well as cleaning sinter water. FAUDI roller separators are used as a pre-cleaning stage in filter systems with high demands for filtration quality. This relieves the burden on the downstream ultra-fine filter and increases its service life while reducing the consumption of filter aids. For low filtration quality requirements, FAUDI roller separators can also be used without additional filter technology. They can be installed either in the primary or the secondary flow.

Filtration capacity

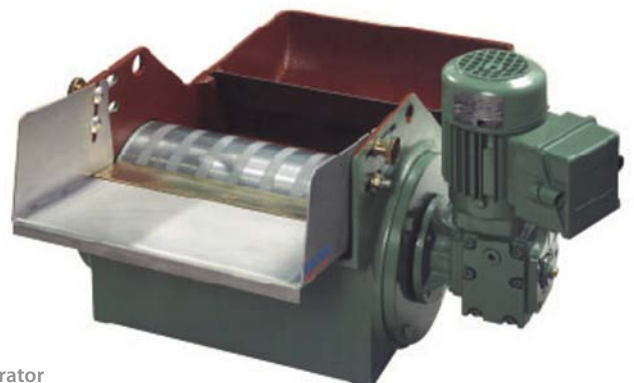
The filtration capacity depends on the filter size and the filter medium. Filtration capacities from **50 l/min to 1.500 l/min** are possible.

Data and facts

- Without filter aid
- Filter material: Magnetic roller
- Medium: Oils, machining emulsions

Your advantages at a glance

- Greater volumetric flow rates also possible through parallel installation
- Robust technology
- Roller widths of 10 to 1,500 mm
- Effective separation



Roller separator



Rod separators

Ready for delivery to one of the largest rolling stands in China with a total filtration capacity of approx. 40,000 l/min.

Magnetic separators

Rod separators (MSA 2000 – MSA 7500)

APPLICATION AREAS

Automatic magnetic rod separators are used for separating ferritic contaminants and chips in liquids. Typical areas of application are for cold rolling, processing steel and cast iron as well as cleaning sinter water.

Our automatic magnetic rod separators are used as a pre-cleaning stage in filter systems with high demands for filtration quality. This relieves the burden on the downstream ultra-fine filter and increases its service life while reducing the consumption of filter aids.

For low filtration quality requirements, FAUDI magnetic rod separators can also be used without additional filter technology. They can be installed either in the primary or the secondary flow.

When designing the magnetic rod separators, FAUDI placed special emphasis on an optimal ratio between the diameter and the spacing of the magnetic rods. This ensures the best possible exploitation of the magnetic field. As a result, an essentially “closed” magnetic field, or a “chain curtain” is created.

FAUDI magnetic rod separators have fewer magnetic rods than comparable products made by competitors. Extensive laboratory tests confirm that FAUDI magnetic rods are more powerful and operate more efficiently and thus the use of fewer magnetic rods in the magnetic rod separator makes more economic sense.

Your advantages at a glance:

- Uncomplicated, compact, mechanical cleansing system
- Low energy requirements
- Larger magnetic rod diameter results in greater magnetic force
- Low number of magnet rods
- Low maintenance
- Space saving



FAUDI Service

You can rely on them.

For us, service means that we are available to help you with every facet of your filtration system with competence and a focus on solutions – day by day, world-wide, over the entire service life.

In other words: You and the challenges you face in daily applications remain the centre of our attention even after your purchase. The reason is that our goal is to ensure your satisfaction with the filtration system over its entire service life. That is why we apply the same high quality standards for our services as we do for our filtration systems. You have a promise of quality that you can rely on!

Your advantages at a glance

- Competent technicians with a good knowledge of your filtration system
- An exact match for your needs as analysed
- Overall management through a competent partner
- Maintenance with original spare parts from FAUDI
- Foresight, training, damage analysis and prophylaxis
- Short-notice, flexible help and assistance in the event of problems with your filtration systems



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