



**FSM Frankenger  
GmbH & Co. KG**  
Equipment for Water  
and Waste Water  
Inlet Works

**Product line**

**The specialists for  
environmental technology**

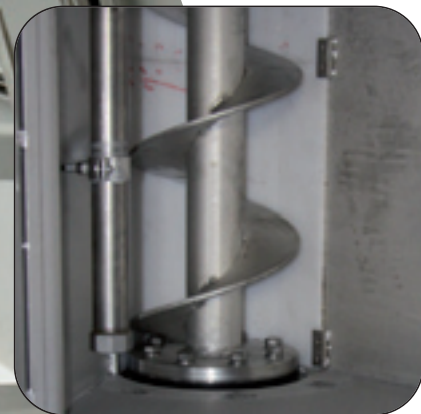
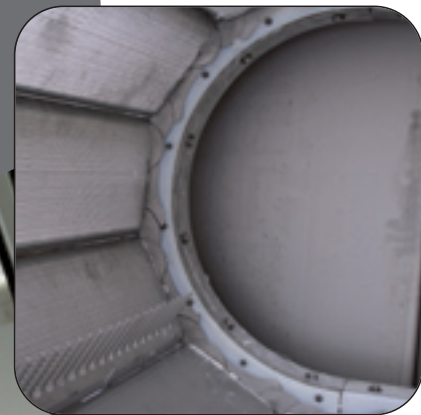
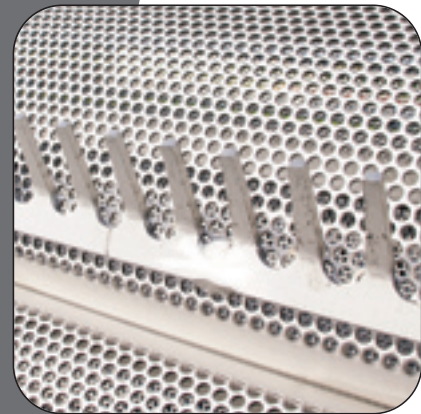
*Since 1970*





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FSM single-mindedly and continually developed a virtually complete range of products for mechanical water and wastewater treatment.



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# OVERVIEW OF OUR PRODUCTS



▲ Trash rake screen



▲ Grab bar screen



▲ Multi rake bar screen



▲  $\alpha\beta$ -Multi rake bar screen



▲ Basket screen



▲ Filterscreen



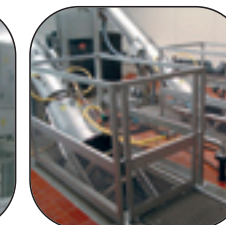
▲  $\alpha\beta$ -Filterscreen



▲ Dual flow screen



▲ Center flow screen



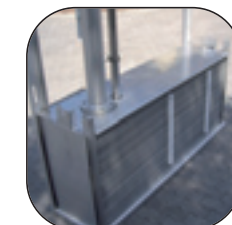
▲ Screw screen



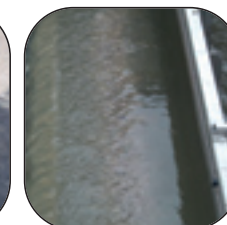
▲ Rotary drum screen



▲ Vertical screw screen



▲ Fine screen horizontal



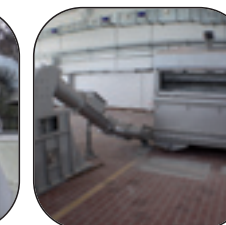
▲ Storm water screen



▲ Compact screen/Septage receiving station



▲ Septage receiving Station FK 100



▲ Screening washing press



▲ Compacting conveyor



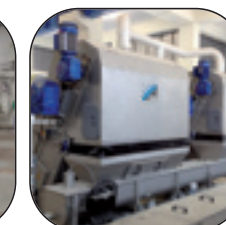
▲ Back pressure device



▲ Screenings cutter



▲ Screw and spiral conveyors



▲ Launder through



▲ Container handling system



▲ Skip hoist system



▲ Compact plant KSF-K



▲ Compact plant KSF-L



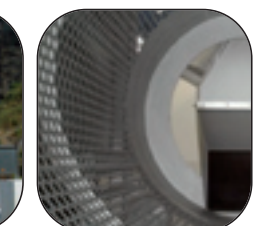
▲ Grit washer unit



▲ Grit classifier



▲ Grit receiving station



▲ Drum screen



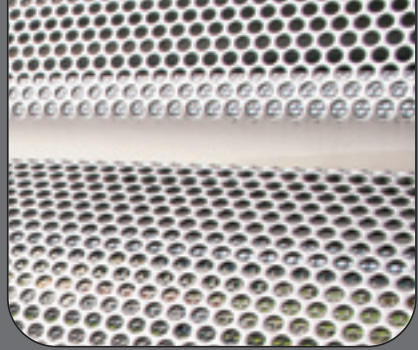
▲ Sludge screen



## Business sectors

- Municipal waste water
- Industrial waste water
- Cooling water for power stations
- Drinking water
- Process water
- River and sea water intake





## Growth on site!

1970

On 1st June 1970 Dieter Frankenberg founded the company FSM Frankenberg in Pohlheim. Originally the focus was on producing plant and machinery in the field of cooling water purification and desalination.



Guido Frankenberg  
Management



Rainer Döll  
Management

1980

In the 1980s progress towards independence was made with the development of the company's own portfolio for waste water treatment and environmental technology. The first filterscreen was launched as early as 1987 at the water treatment plant of Fernwald-Steinbach. Numerous innovative further developments followed this machinery, to the point where our offer comprised a remarkable product portfolio for mechanical water and waste water treatment.

1990

At the start of the 1990s, the young company began to develop an international market and open distribution channels serving the UK and the USA. In constant pursuit of this strategy, FSM today cooperates with more than 30 partnership firms worldwide.

In the meantime, the operating environment of the business was expanding with formation of the company WSM, a branch and further production site in Walow Mecklenburg-Vorpommern, to meet the demands of a growing market share.

In 1992 Mr Rainer Döll took over parts of FSM management, and in 1994 Mr Guido Frankenberg joined to further strengthen the company. Both of them have since successfully risen to the technical and commercial challenges of a globally operating company.

2000

At the start of 2004, FSM was transferred to Mr Guido Frankenberg and the legal form of the company became a limited partnership (GmbH & Co. KG). The company has since firmed under the name FSM Frankenberg GmbH & Co. KG.

2020

In 2020 FSM Frankenberg celebrated its 50th anniversary. Over 100 highly-qualified employees now work at the Pohlheim and Walow sites. People whose innovative approach, efficiency and tireless commitment have significantly contributed to making the company what it is today: a technologically forward-thinking company with a modern product portfolio, a company which is customer-orientated, sustainable and ready for the challenges of the future.

### Mechanical pre-treatment of waste water takes place in three stages.

In the first stage, large undissolved substances are filtered out with technical equipment such as coarse and fine screens, and handled by screenings wash presses.

The second step involves removing minerals such as oils and fat from the waste water by means of a conventional grit/fat chamber, then subjecting them to further treatment in grit washers and grit separators.

Finally, the primary sludge is settled and the waste water is prepared for biological purification. This takes place in primary sedimentation basins or via further fine filtration. The resulting primary sludge is filtered through a sludge screen to protect the downstream treatment stages, and has impurities removed.

Screw conveyors take over transportation of the solid residues such as screenings, grit particles and sludge between the individual treatment stages and at the end of the treatment process transport these to suitable containers for disposal.

FSM Frankenberg offers customized concepts for this whole mechanical operating process with a variety of efficient products.

With comprehensive specialist competency based on major development potential, experience and ongoing professional training, we provide suitable design solutions ranging from a standard application to a special customer-specific design.

### Exceeding expectations!

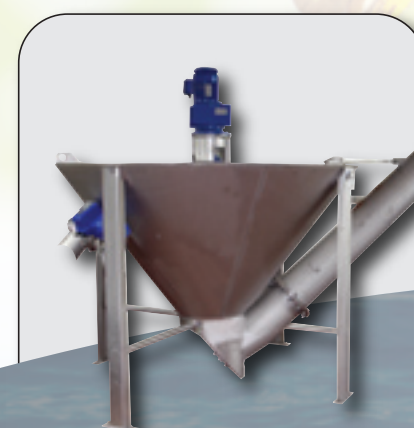
Expert support and service is the optimum basis for obtaining value from an FSM Frankenberg machine. Our commitment never ends with the sale of a product. We also offer a worldwide, well-developed network of cooperation partners and service points. Committed, well-trained staff to provide advice, assembly and maintenance ensure that a skilled contact person is always available. To support our customers in every conceivable way, to understand questions and problems and develop targeted solutions for these is the basis of our self-image.

### Services

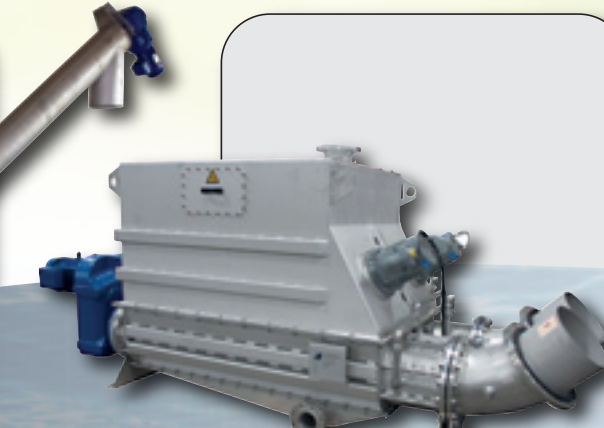
Services and assembly

#### Our services:

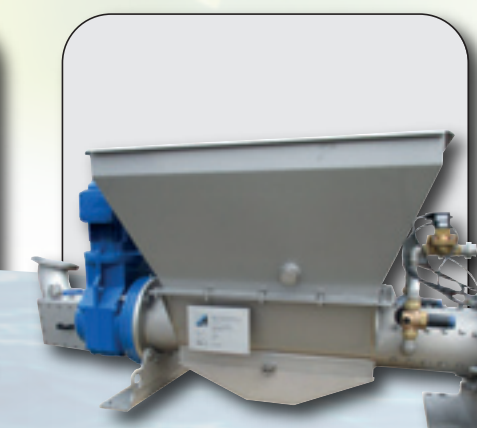
- Repairs and refurbishment
- Spare parts service
- Maintenance contracts
- Training courses
- and much more



FSM Grit classifier



FSM Double press



FSM Screening washing press



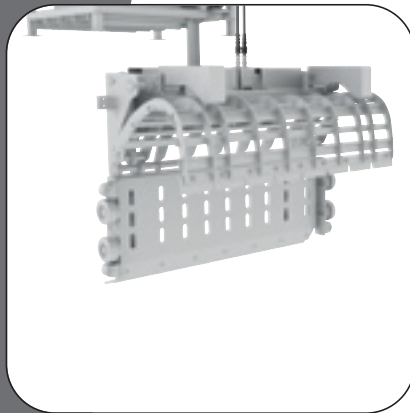
FSM Filterscreen





## COARSE AND FINE SCREENING

Over the years, FSM has established and maintained a reputation for efficient, well-engineered and extremely robust screening technology. We have a wide range of screening equipment types, enabling the ideal solution for every application to be selected.



### ● Trash rake screen

Coarse screen for channels of large depth and width  
Application in water and waste water treatment

#### Technical data:

Channel depth:	up to 70 m - larger depths on request
Channel width:	customizable
Gap width:	up to 200 mm
Installation angle:	75 up to 90°



### ● Grab bar screen

Coarse screen in extremely robust design  
Application in water and waste water treatment

#### Technical data:

Channel depth:	up to 50 m - larger depths on request
Channel width:	up to 8 m
Gap width:	up to 100 mm
Installation angle:	75 up to 90°

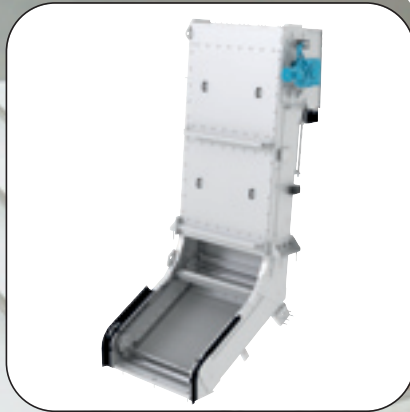


### ● Multi rake bar screen

Coarse and fine screen  
Application in water and waste water treatment

#### Technical data:

Channel depth:	up to 50 m - larger depths on request
Channel width:	up to 6 m
Gap width:	3 up to 100 mm
Installation angle:	30 up to 85° - other angles on request



### ● $\alpha\beta$ -Multi rake bar screen

Coarse and fine screening  
Application in water and waste water treatment

#### Technical data:

Channel depth:	up to 50 m - larger depths on request
Channel width:	up to 6 m
Gap width:	3 up to 100 mm
Installation angle:	Above WL: 85° Below WL: 30°

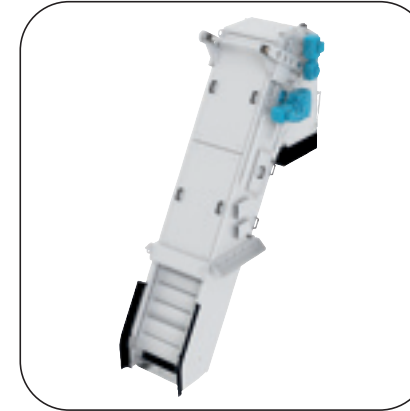


### ● Basket screen

Coarse and fine screen  
Application for pump protection in waste water treatment

#### Technical data:

Channel depth:	up to 70 m - larger depths on request
Channel width:	customizable
Gap width:	up to 200 mm
Installation angle:	75 up to 90°

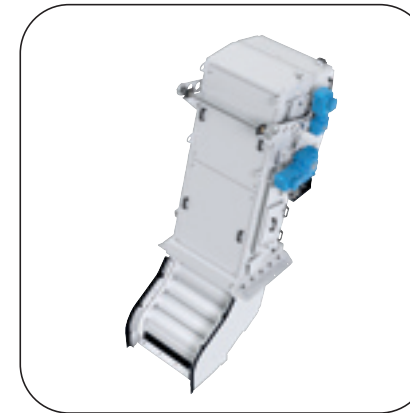


### ● Filterscreen

Fine screen with high screenings capture rate  
Application in water and waste water treatment

#### Technical data:

Channel depth:	up to 11 m - larger depths on request
Channel width:	up to 3,2 m - larger widths on request
Perforation:	2 up to 12 mm
Installation angle:	45 up to 75° - other angles on request

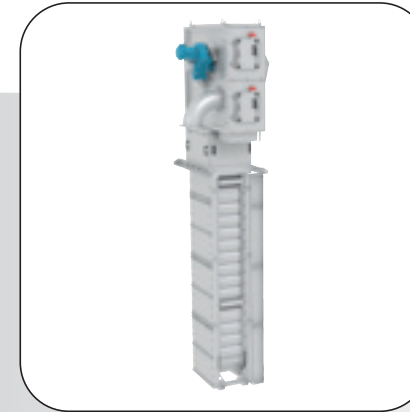


### ● $\alpha\beta$ -Filterscreen

Fine screen with high screenings capture rate  
Application in water and waste water treatment

#### Technical data:

Channel depth:	up to 11 m - larger depths on request
Channel width:	up to 3,2 m - larger widths on request
Perforation:	2 up to 12 mm
Installation angle:	Above WL: 75° Below WL: 30°



### ● Dual flow screen

Very fine screen with high screenings capture rate · Excellent protection for membrane systems · Application in water and waste water treatment

#### Technical data:

Channel depth:	up to 15 m - larger depths on request
Channel width:	up to 5 m - larger widths on request
Perforation:	1 up to 12 mm
Sieve mesh:	0,1 up to 3 mm - other dimensions on request
Installation angle:	90° - other angles on request

## COARSE AND FINE SCREENING

Over the years, FSM has established and maintained a reputation for efficient, well-engineered and extremely robust screening technology. We have a wide range of screening equipment types, enabling the ideal solution for every application to be selected.

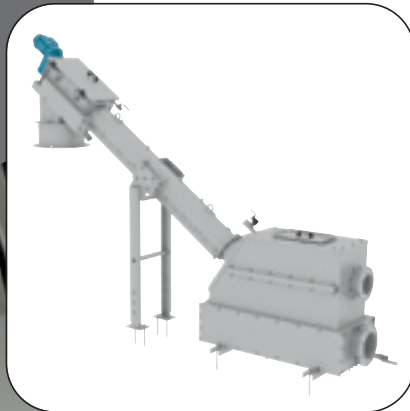


### Center flow screen

Very fine screen with high screenings capture rate · Excellent protection for membrane systems · Application in water and waste water treatment

#### Technical data:

Channel depth:	up to 15 m - larger depths on request
Channel width:	up to 5 m - larger widths on request
Perforation:	1 up to 12 mm
Sieve mesh:	0,1 up to 3 mm - other dimensions on request
Installation angle:	90° - other angles on request



### Screw screen

Fine screen · Excellent protection for membrane systems  
Application in water and waste water treatment

#### Technical data:

Channel depth:	up to 2 m - greater channel depths on request
Screen element diameter:	up to 500 mm
Perforation:	2 up to 10 mm
Installation angle:	35° - other angles on request



### Rotary drum screen

Fine screen  
Application in water and waste water treatment

#### Technical data:

Channel depth:	up to 2,5 m
Drum diameter:	up to 1200 mm - larger Ø on request
Perforation:	1 up to 10 mm
Gap width:	0,5 up to 6 mm
Installation angle:	35° - other angles on request



### Vertical screw screen

Fine screen  
Application in waste water treatment

#### Technical data:

Channel depth:	up to 8 m - greater channel depths on request
Screen element diameter:	up to 700 mm
Perforation:	2 up to 10 mm
Installation angle:	90° - other angles on request



### Fine screen horizontal

Fine screen  
Application in water treatment

#### Technical data:

Screen length:	up to 6000 mm - larger lengths on request
Screen height:	up to 1500 mm - larger heights on request
Slot width:	5 up to 100 mm

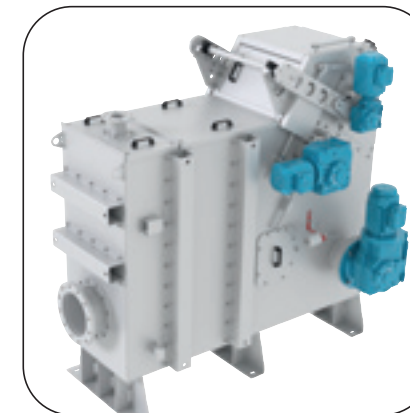


### Storm water screen

Fine screen  
Sewage water system

#### Technical data:

Screw diameter:	up to 1000 mm
Length:	up to 10000 mm - larger depths on request
Perforation:	6 up to 25 mm

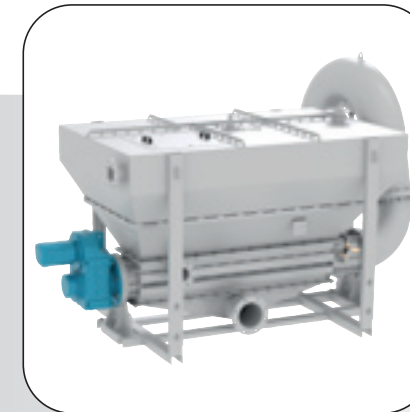


### Compact screen / Septage receiving station

Fine screen with screenings wash compactor · Optimum solution for pumped inputs and cramped locations · Application in water and waste water treatment

#### Technical data:

Throughput:	up to 1000 l/s / 3600 m³/h
Perforation:	2 up to 12 mm
Solid matter:	> 40%
Elutriation of fecal matter:	< 50 mg COD/gDS
Volume reduction:	60 up to 85%



### Septage receiving station FK 100

Fine screen  
Application in waste water treatment

#### Technical data:

Throughput:	up to 30 l/s / 108m³/h
Perforation:	2 up to 12 mm
Solid matter:	> 40%
Elutriation of fecal matter:	< 50 mg COD/gDS
Volume reduction:	60 up to 85%



## SCREENINGS HANDLING

The ideal extension for every FSM screen is an efficient screenings handling plant with which practically complete washing out of septage together with higher dryness and strongly reduced volume reduction can be achieved.



### ● Screening washing press

Washing, dewatering and volume reduction of screenings  
Application in water and waste water treatment

#### Technical data:

Throughput:	up to 12 m³/h - larger throughputs on request
Solid matter:	up to 50%
Elutriation of fecal matter:	< 50 mg COD/gDS
Volume reduction:	60 up to 85%



### ● Compacting conveyor

Washing, dewatering and volume reduction of screenings  
Application in water and waste water treatment

#### Technical data:

Throughput:	up to 10 m³/h - larger throughputs on request
Solid matter:	> 30%
Volume reduction:	40 up to 60%



### ● Back pressure device

Active or passive support for screenings wash compactors  
Application in water and waste water treatment

#### Technical data:

Throughput:	up to 12 m³/h - larger throughputs on request
Solid matter:	> 50%



### ● Screenings cutter

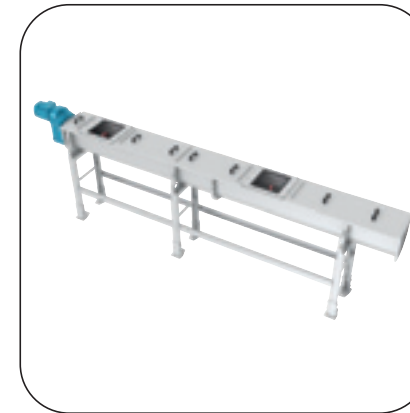
Supplementary item for screenings wash compactors · Optimum use of container volume · Application in water and waste water treatment

#### Technical data:

Throughput:	up to 12 m³/h - larger throughputs on request
Screw diameter:	up to 530 mm

## CONVEYOR SYSTEMS

The key to trouble-free and efficient operation is an optimized automatic conveyor system. FSM is able to use its large and varied range of solutions to deal with all conveying and distribution situations.



### ● Screw and spiral conveyors

Conveying of practically every material · Arrangements with a variety of discharge methods, mobile and/or slewing · Application in water and waste water treatment

#### Technical data:

Throughput:	up to 20 m³/h
Screw diameter:	up to 500 mm - larger diameters on request
Length:	up to 30000 mm - larger depths on request
Set-up angle:	0 up to 90°



### ● Launder through

Fluming conveyor for floating matter

#### Technical data:

Throughput:	up to 10 m³/h
Width:	up to 400 mm
Length:	up to 30000 mm - larger depths on request



### ● Container handling system

Machinery and installations for acceptance and movement of one or more containers. · Application in water and waste water treatment



### ● Skip hoist system

Hoist system for vertical transport of various materials from pump stations etc.

#### Technical data:

Lift height:	up to 100 m - larger heights on request
Lifting capacity:	up to 1500 kg - larger capacity on request

## COMPACT INSTALLATIONS

FSM compact installation mounted in a stainless steel container for complete mechanical pre-clarification of waste water. Installations can be fitted with any of the FSM screens combined with one of the two compact grit separators. The grit separator can be supplemented by a grit washing installation.



### ● Compact plant KSF-K

Conventional combined grit separator/grease trap with aerated grit chamber · Application in water and waste water treatment

#### Technical data:

Throughput:	up to 200 l/s / 720 m <sup>3</sup> /h
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### ● Compact plant KSF-L

Innovative grit separator/grease trap with moving lamellar strips, finely aerated grease trap and non-aerated grit chamber · Application in water and waste water treatment, small space requirement

#### Technical data:

Throughput:	up to 200 l/s / 720 m <sup>3</sup> /h
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## GRIT TREATMENT

FSM grit treatment systems are amongst the most efficient and durable heavy duty equipment available on the world market. Our long experience enables us to combine individual units to produce complete installations which clean and load the grit completely automatically.



### ● Grit washer unit

Solid-liquid separation from grit separator or pre-treated sewer flushing material and street sweepings with simultaneous reduction of volatile solids · Application in water and waste water treatment

#### Technical data:

Hydraulic:	up to 40 l/s / 144 m <sup>3</sup> /h
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Throughput:	up to 6 t/h solid
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Growing loss:	< 3%
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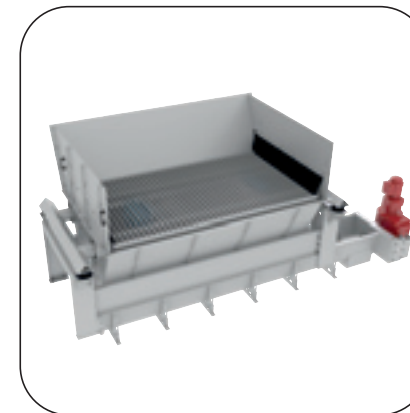
### ● Grit classifier

Solid-liquid separation from grit separator or pre-treated sewer flushing material and street sweepings · Application in waste water treatment

#### Technical data:

Hydraulic:	up to 50 l/s / 180 m <sup>3</sup> /h
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Throughput:	up to 3 t/h solid
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### ● Grit receiving station

Receiving station for grit separator or pre-treated sewer flushing material and street sweepings · Can be extended to provide a complete unit for grading, waste water treatment and dewatering · Application in waste water treatment

#### Technical data:

Buffer volume:	up to 24 m <sup>3</sup> - greater volumes on request
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Coarse screen:	any gap width, designed as fixed grid or as vibrating screen
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### ● Drum screen

Grading and pre-cleaning grit separator material, sewer flushing material and street sweepings · Application in waste water treatment

#### Technical data:

Diameter:	500 up to 2000 mm
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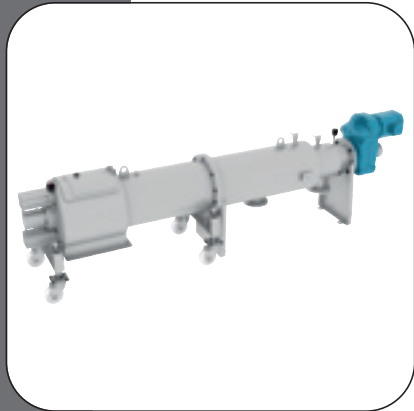
Throughput:	up to 10 m <sup>3</sup> /h - larger throughputs on request
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Perforation:	2 up to 40 mm - other dimensions on request
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## SLUDGE TREATMENT

Over the years, FSM has established and maintained a reputation for efficient, well-engineered and extremely robust screening technology. We have a wide range of screening equipment types, enabling the ideal solution for every application to be selected.



### ● Sludge screen

Screening of primary and secondary sludge. Dewatering and compaction of screenings. The machine is odour encapsulated.

#### Technical data:

Drainage of the screenings:	up to zu 35% TS
Throughput:	up to 110 m <sup>3</sup> /h sludge- and 150 m <sup>3</sup> /h process water
Perforation:	1 up to 10 mm, other perforations on request

## CAREERS & TRAINING

### Become part of our team

#### What we offer employees

- flat hierarchies
- exciting fields of work and customers
- structured training and professional development
- cooperative working practices
- a secure job

### We provide training!

In the areas of warehouse logistics, metalworking and assembly, or as a student trainee.

**Our team looks forward to meeting you!**







The specialists for environmental technology



### Machines for water and waste water treatment

Excellent innovative capacity combined with many years of experience and a highly motivated team providing advice, assembly and service are your guarantee of outstanding products "Made in Germany", expert contract management through to commissioning and, of course, thereafter.

Get to know us, perhaps in the near future at a Trade Fair in your locality.

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