



ROTO-SIEVE

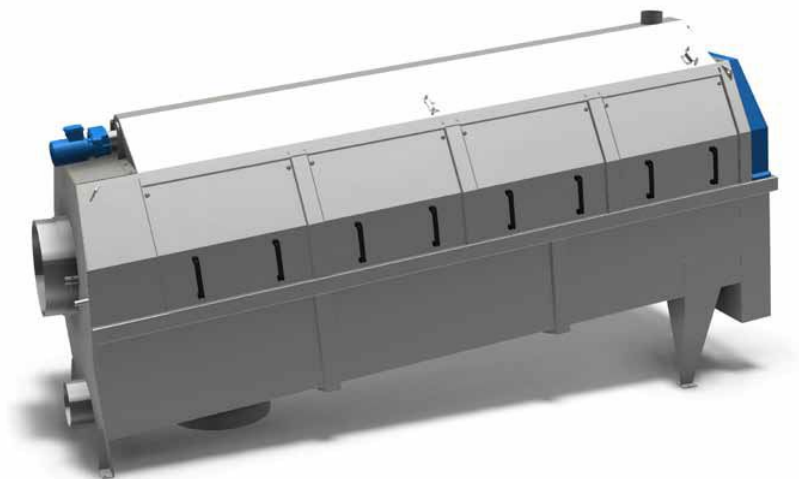


LACKEBY



Roto-Sieve rotating drum screens

Particle separation : screening of water and liquids



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Your Läckeby distributor for the Benelux countries

Roto-Sieve rotating drum screen

Roto-Sieve rotary drum screens for water treatment applications

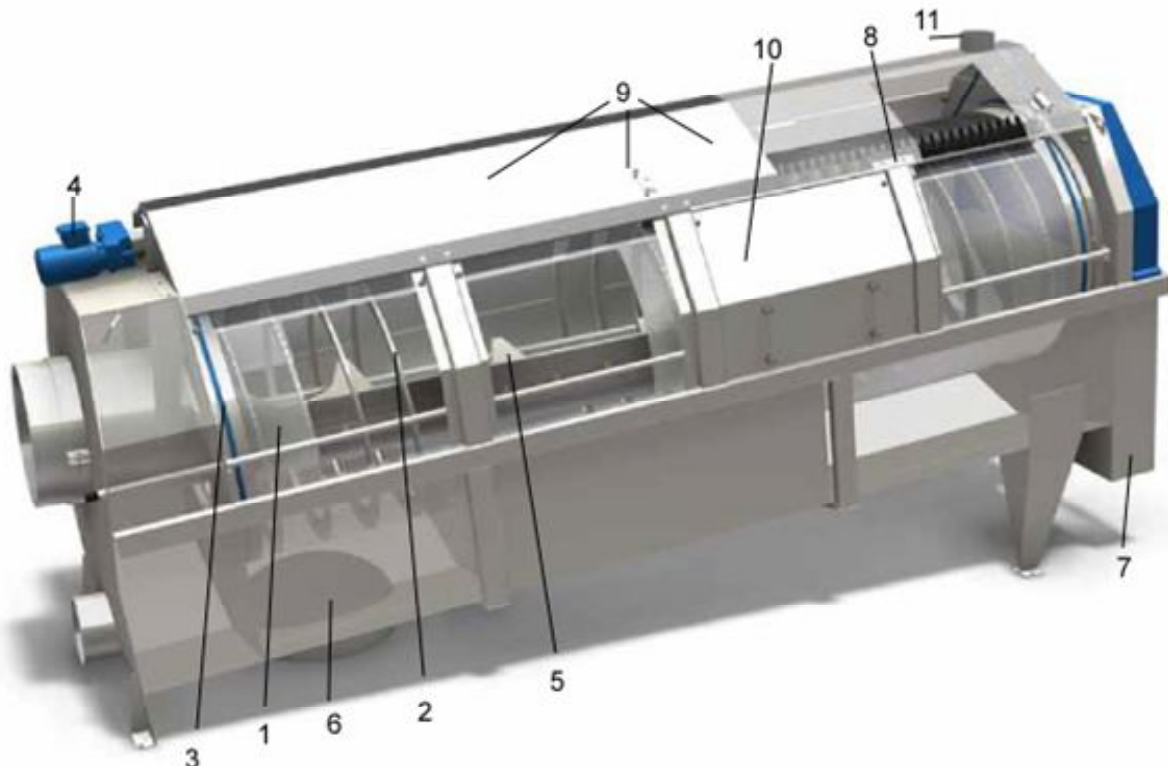
The advantages of rotary screens in water treatment, and more specifically in the pre-purification stage, are often insufficiently known. This is entirely unjustified. Moreover, Roto-Sieve can also be used for several types of liquid flows.

Brief description of the Roto-Sieve rotating drum screen

A rotating drum screen removes solid particles and fibers from various liquid flows. A rotating sieve with internal feed and round perforations offers the best possible mechanical separation. Practice shows that fibers and hairs are captured very efficiently in sieve drums, equipped with round screen openings.

Operating principle Roto-Sieve rotating drum screen

The rotating sieve consists of a perforated sieve drum (1) with an internal fixed transport screw (2) to transport the screened particles out of the drum. The drum hangs in two drive belts (3) and is driven by a geared motor (4). The liquid enters the drum through an inlet pipe (5), which disperses the water over a large area of the inside of the drum screen. During its passage through the drum, the liquid is sieved through the perforations in the drum screen, to be collected in the collection tray (6) at the bottom. The separated particles are transported to the screenings outlet via the internal transport screw. During this movement, the screened material is already largely dewatered (7). To prevent clogging of the perforations, all sieve drums are equipped with a rotating brush (8) that cleans the drum from the outside to the inside and is provided with a spray system (9). The sieve drum is completely encased in removable splash guards (10) and is equipped with a ventilation opening (11), to improve the working area, whenever installed indoors.



Advantages of Roto-Sieve rotating drum screens

Technical features

- low energy consumption
- high separation efficiency
- high operational reliability
- can be used for many applications
- self-cleaning, thus minimum maintenance
- long service life
- small footprint
- fully closed system, no odors
- simple to install and operate
- few moving wear parts, easy to replace
- can be used for many applications in many industries
- wide range for capacities from 5 to 1.000 m³/h/unit

Process benefits

- increases the performance of water treatment processes
- minimal maintenance
- low energy consumption
- reduces costs for the following treatment stages

High separation efficiency

- The round perforations show a significantly higher efficiency for fibers and hairs compared to an elongated openings.

Roto-Sieve - the different models



Model RS-11

The smallest model, with a flexible rubber coupling between the sieve drum and the motor. Two guide wheels.

Removable lid on one side.

Model RS22 - RS24 – RS36 – RS48

System with drive belts, overflow + overflow detection (conductive).

Standard with ventilation connection. These units are equipped with one removable inspection hatch on each side

Model RS412 en RS416

This unit features two removable inspection hatches on each side.

The smallest perforation for this unit is 1.0 mm

Technical specifications

		RS 11	RS 22	RS 24	RS 36	RS 48	RS 412	RS 416
Length	mm	1210	1820	2815	2900	2950	3930	4950
Width	mm	600	960	960	1250	1600	1600	1600
Height	mm	1020	1445	1550	1950	2330	2395	2500
Length (crate)	mm	1550	2100	3100	3150	3180	4120	5140
Width (crate)	mm	850	1200	1200	1500	1850	1650	1650
Height (crate)	mm	1380	1700	1800	2200	2600	2535	2640
Gross weight	kg	165	350	500	710	1020	1300	1470
Net weight	kg	115	230	320	570	880	1205	1350
Weight screen in service 1)	kg	135	260	350	615	1090	1440	1610
Recommended hydraulic pressure spraying nozzles	bar	4-6	4-6	4-6	4-6	4-6	4-6	4-6
Drum perforation Ø min - max	mm	0,6-10,0	0,6-10,0	0,8-10,0	0,8-10,0	0,8-10,0	1,0-10,0	1,0-10,0
Max. inlet speed	m/s	0,78	0,67	2,0	1,9	1,65	1,48	1,54
Noise level at 1m	dBA	<70	<70	<70	<70	<70	<70	<70

Materials

	Material	RS 11	RS 22	RS 24	RS 36	RS 48	RS412	RS 416
Drum	EN 1.4301	S	S	S	S	S	S	S
	EN 1.4404	O	O	O	O	O	O	O
Side covers	GRP	-	S	S	S	S	S	S
	EN 1.4301	S	O	O	O	O	O	O
	EN 1.4404	O	O	O	O	O	O	O
Outlet cover	GRP	S	S	S	S	S	S	S
Brush	Heat resistant	S	S	S	S	S	S	S
Spray nozzles	Brass	S	S	S	S	S	S	S
	EN 1.4404	O	O	O	O	O	O	O

S = Standaard
O = Optioneel

1) maximum operating weight of screen, filled with water up to overflow

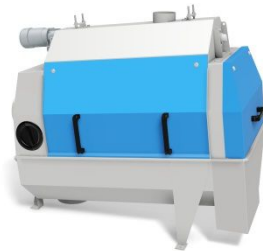
Design

The Roto-Sieve drum screens are available as standard in five models, for different flow rates, in stainless steel 304 or 316. All models are equipped with fiberglass reinforced splash covers, the brushes are made of heat-resistant material.

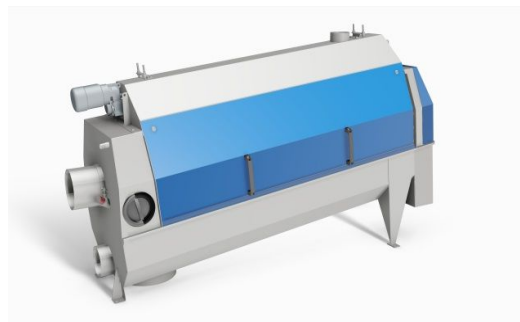
The standard perforations of the drum are 0.8-1.0-1.5-2.0-2.5 mm, the smallest available perforation is 0.6 mm, the largest 10 mm. All models, with the exception of model 11, are supplied with integrated emergency overflow as standard.



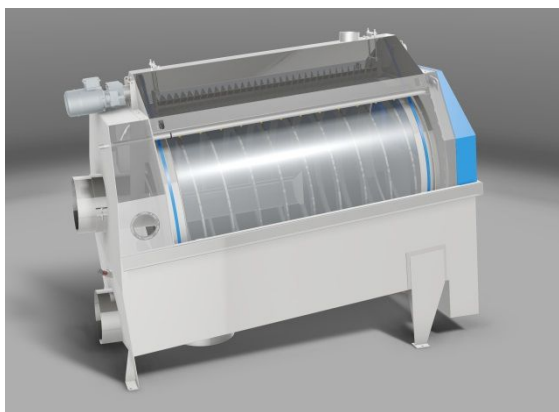
Roto-Sieve Model 11



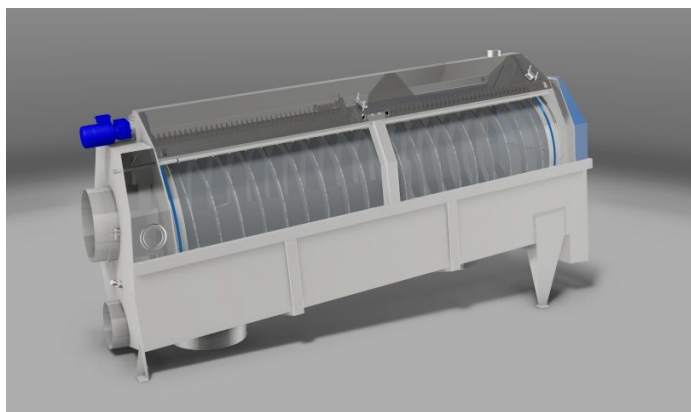
Roto-Sieve Model 22



Roto-Sieve Model 24



Roto-Sieve Model 48



Roto-Sieve Model 416

References

Läckeby has already supplied thousands of Roto-Sieve drum screens worldwide for both industrial water treatment applications, as well as WWTPs and small-scale water treatment plant.

The drum screens are designed, developed and manufactured by Läckeby. Years of expertise and careful production can guarantee high quality and service. If required, Task/Läckeby can already assist you from the planning phase of each project in order to achieve an optimal and highly efficient result. Such projects of course also allow us to offer a full process guarantee.

Please consult our website www.task.be for detailed information, references, case studies, operation on film, etc.



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