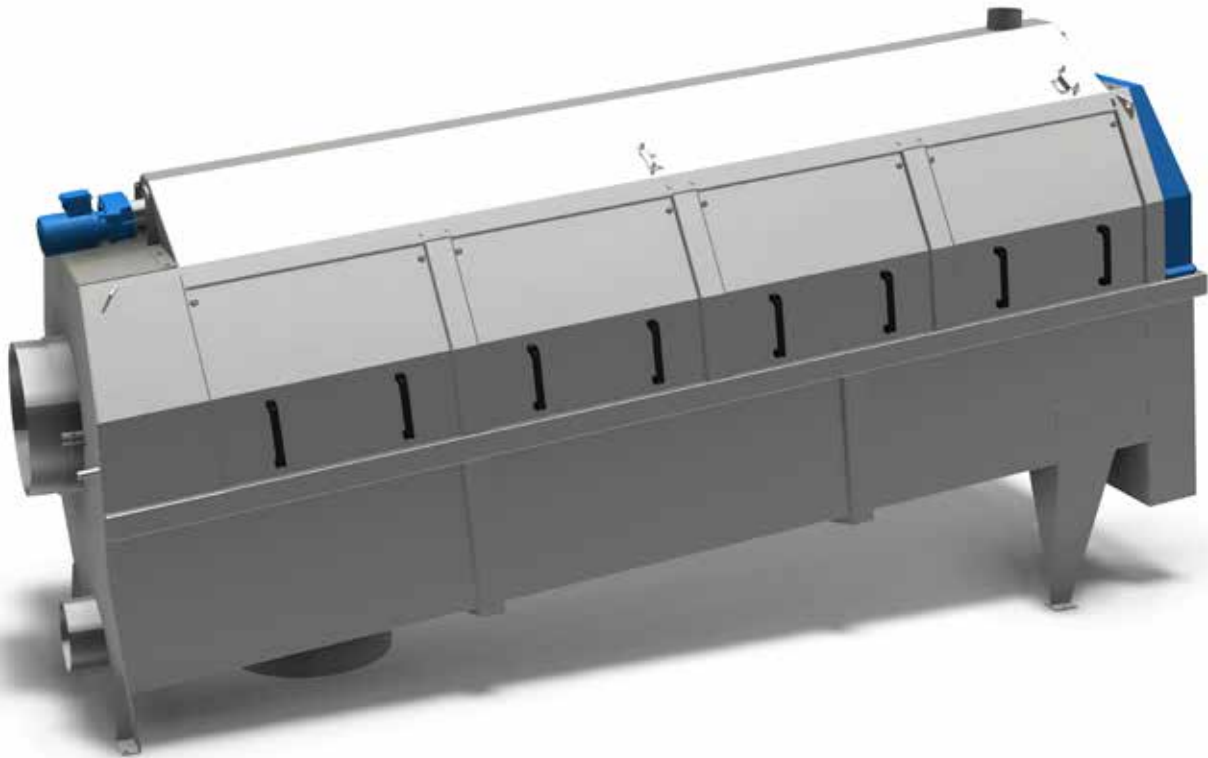


ROTO-SIEVE® DRUM SCREEN



Läckeby Products manufactures, markets and sells Roto-Sieve drum screens, which separate solid particles and fibres from liquids by screening. The drum screens are based on proven technology with a self-cleaning function that delivers very good results and minimises maintenance.

With high operational reliability, a long service life and low energy consumption, Roto-Sieve drum screens are a proven good investment.

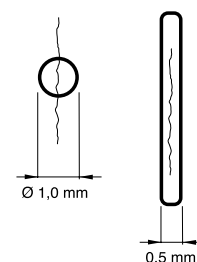
Due to its internal feed and circular perforations, Roto-Sieve offers the best separation that can be achieved mechanically. It has been shown in practice that a fibre or hair has a very small chance of orienting itself at a right angle and against the water current, so that it can pass through a round hole.

Technical features

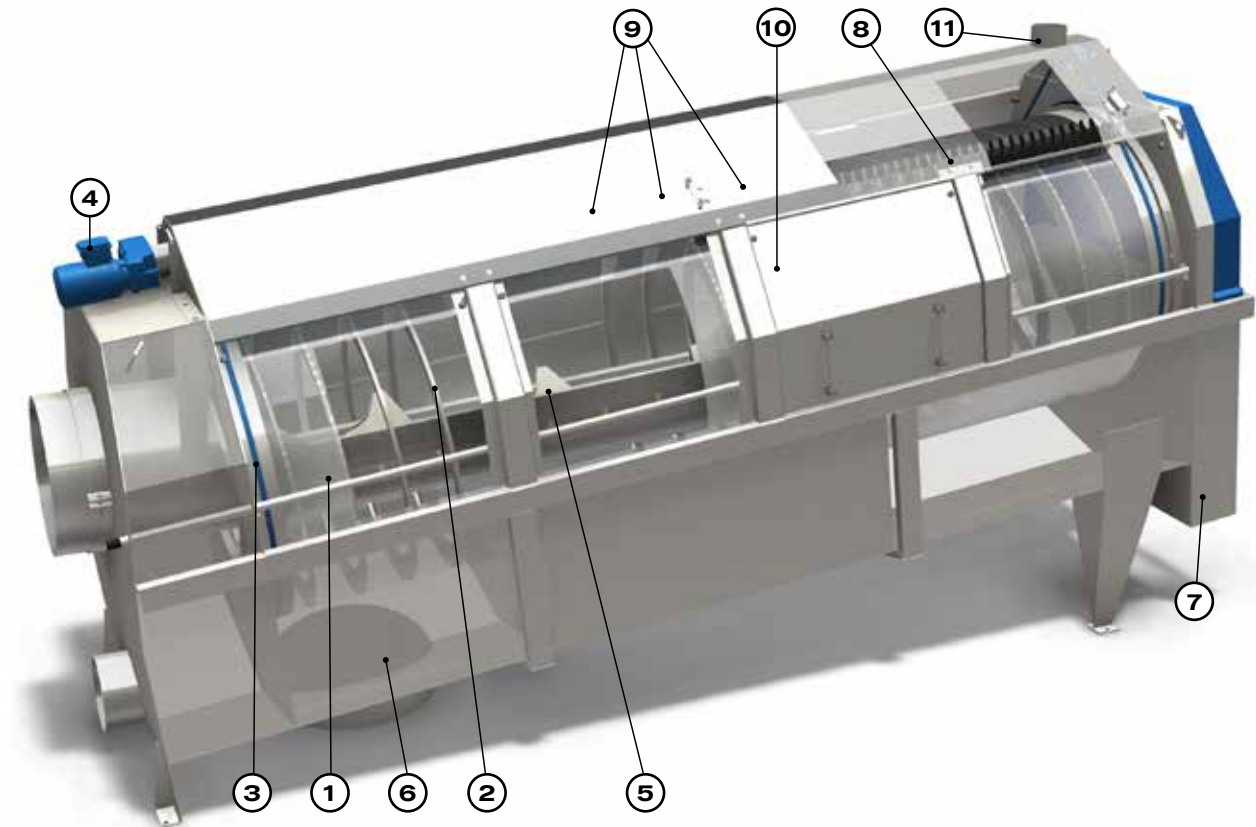
- Low energy consumption
- High degree of separation
- High operational reliability
- Good utility in many applications

Process benefits

- Enhances processes, for instance in treatment works
- Reduces need for cleaning
- Makes servicing easier
- Reduces running costs of subsequent stages



The diagram shows a circular hole with \varnothing 1.0 mm on an internally-fed Roto-Sieve drum screen, compared with a 0.5 mm opening along the drum's rotating direction on an externally-fed screen.



Function

Roto-Sieve drum screens consist of a perforated drum **(1)** with internally fixed screw **(2)**, which transports the separated particles out of the drum. The drum rotates by drive belts **(3)** and is driven by a cog gear motor **(4)**.

Incoming liquid is fed into the drum through an inlet pipe **(5)**, which distributes the water over a large area of the drum's interior. During passage through the drum, the liquid is screened through the drum's perforations and collects in the trough **(6)** underneath. Separated particles are transported out of the drum through the screenings outlet **(7)**. Dewatering continues throughout transport in the drum.

To prevent clogging of the unit's perforations, all drum screens are fitted with a rotating brush **(8)** and a spray header with spray nozzles **(9)**. Roto-Sieve drum screens are completely encased in removable splash guards **(10)** and equipped with a ventilation exhaust **(11)** to improve the working environment.

Model RS-11

The smallest model, with a flexible rubber coupling between the drum and motor. Two trunnion wheels. Removable steel splash guard on one side.

Model RS-22

Belt drive system with an overflow system and conductive electrode for switch-on signal. Ventilation exhaust connection as standard.

Model RS-24

Similar to the model above, but larger.

Model RS-48

Similar to model RS-24, but larger, more robust version. Two removable splash guards on each side. Smallest perforation is 1.0 mm.

Model RS-416

Smallest perforation is 1.0 mm. Four removable inspection hatches in steel on each side.

Tecnical data

Drum screen. model		RS-11	RS-22	RS-24	RS-48	RS-416
Capacity ¹⁾	max l/s	9	32	95	207	435
Length	mm	1210	1920	2910	3020	5010
Width	mm	600	960	960	1600	1600
Height	mm	1020	1490	1600	2330	2560
Transport volume. incl. crate	m ³	1.8	5.2	7.6	19.6	23.2
Gross weight	kg	165	410	560	1050	1550
Net weight	kg	115	270	370	910	1430
Working load ²⁾	kg	135	300	400	1090	1610
Inlet pipe	ext. Ø mm	124	250	250	404	606
Outlet pipe ³⁾	ext. Ø mm	150	250	400	500	702
Overflow outlet pipe	ext. Ø mm		200	200	254	304
Drum rotation	rpm	29	18.2	18.2	9.1	9.1
Spray header connection	ISO	G ¾"	R 1"	R 1"	R 1"	R 1"
Spray water pressure	min bar	4	4	4	4	4
Spray water consumption	l/min	23	22	46	46	98
Drum inclination. standard	°	6	6	6	6	6
Drive motor - rated power	kW	0.25	0.37	0.37	0.55	0.55
Drive motor - rated current (230/400V)	A	1.32/0.76	1.89/1.09	1.89/1.09	2.63/1.52	2.63/1.52
Perforation	Ø	0.8 - 2.5 mm	0.8 - 2.5 mm	0.8 - 2.5 mm	1.0 - 2.5 mm	1.0 - 2.5 mm

1) Wastewater with a SS-load of 200 ppm and
Ø 2.0 mm perforations. Flow speed reducer is
recommended at high capacities.

2) Static weight with drum filled to the overflow level.

3) Sized for unrestricted gravity discharge.

Material

Part	Material	RS-11	RS-22	RS-24	RS-48	RS-416
Stand	Stainless steel	#	#	#	#	#
	Acid-proof steel)))))
Drum screen	Stainless steel	#	#	#	#	#
	Acid-proof steel)))))
Inlet pipe / Spray header	Stainless steel	#	#	#	#	#
	Acid-proof steel)))))
Splash guard	Stainless steel	#	#	#	#	#
	Acid-proof steel)))))
	Glass-fiber plastic (Screening outlet cover)		#	#	#	#
Brush	Heat resistant material	#	#	#	#	#

= Standard

) = Optional

Design

As standard, Roto-Sieve drum screens are manufactured in five models for various flows, in stainless steel or acid-proof steel. For all models, splash guards are made in stainless steel covers. Brushes are manufactured in heat resistant material. Standard drum perforations are 0.8-1.0-1.5-2.0-3.0 mm and the smallest perforations are 0.6 mm. Most models are supplied with overflow systems as standard.



Roto-Sieve drum screens, model RS-24, installed at Guadeloupe treatment plant for the protection of plant membranes.



Roto-Sieve drum screens, model RS-22, installed at Zwalm treatment plant for the protection of plant membranes.

References

Läckeby Products has supplied more than 4,000 Roto-Sieve drum screens to both industrial and municipal plants worldwide.

Läckeby Products develops, designs and manufactures drum screens. Coordinated expertise and production ensures high quality service and delivery. Läckeby Products can also participate in the planning stage and take on responsibility for everything from dimensioning to installation. Through our involvement at the planning stage, we can offer a total process guarantee.



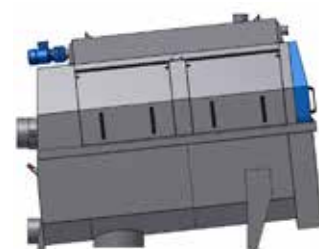
Roto-Sieve Drum Screen, model 11



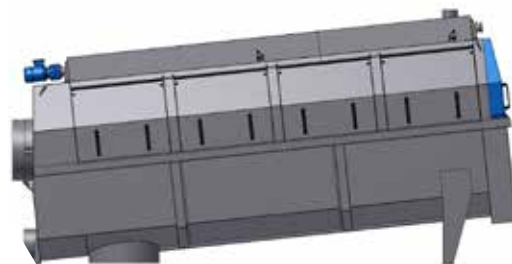
Roto-Sieve Drum Screen, model 22



Roto-Sieve Drum Screen, model 24



Roto-Sieve Drum Screen, model 48



Roto-Sieve Drum Screen, model 416

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