The drum is primarily installed to remove solid particles from various types of wastewaters. There is a wide range of screens, which can be tailored to any use. Fine-screening has many advantages as compared with different kinds of bar screens. This is one of the reasons why Roto-Sieve drum screens have been installed in most slaughter houses, food processing and fish industries and almost half of Sweden’s municipalities. Roto-Sieve is a Swedish product and represented in Europe, the US, and the Far East.

ROTO-SIEVE DRUM SCREENS

The Roto-Sieve drum screen consists of a rotating perforated drum (1) with an internally mounted transport screw (2) wich transports the separated solids out of the drum. The drum rotates on trunnion wheels (3) and is operated by a cog gear motor (4). The incoming water is fed into the drum by means of an inlet pipe (5) which distributes the water over a large area of the drum’s inside. The water passes through the holes of the drum and is collected in a trough (6) under the drum. The captured particles leave the drum through the discharge (7).

To prevent the apertures clogging, all Roto-Sieve drum screens are equipped with a roller brush (8) and a pipe with spray nozzles (9).

The drum screens are completely encased with detachable splash guards (10) and are equipped with a ventilation connection (11) to establish a more hygienic working enviroment in the room where the screens are located. Larger Roto-Sieve drum screens are available with an overflow system.

THE UNIQUE PRINCIPLE

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RELIEABLE CONSTRUCTION

Roto-Sieve drum screens come in four sizes for different flows, thus ensuring that there will always be one or more units to fit the bill. All models are mainly in stainless steel AISI 304 or AISI 316, and have the following options:

• Hole perforation from 0.6 mm to 2.5 mm. Larger holes on request.
• Varying types of inlet pipes for water or sludge.
• With or without overflow system.
• Various rotating speeds.
• Variable inclination available for certain models.
• Low weight and small built in measurements for easy installation.
• Hygienically encased with ventilation connection.

Consider a combination of one or more screens with automatic functions, conveyors and presses from Roto-Sieve Filter AB.
ROTO-SIEVE DRUM SCREENS FOR BETTER ECONOMY

Roto-Sieve drum screens are guaranteed safe investment, with reliability in operation, long life and low energy consumption. For certain applications the drum screen has proved superior to other equipment and saved the user a great deal of money. Here are a few facts.

**FIBRE SEPARATION**

The figure shows a round hole of 1.0 mm diameter compared with a 0.5 mm slot. It is generally accepted and easily seen that a fibre or long, thin solid could pass through the circular opening only by orienting itself perpendicular to the drum, whereas the long, slotted opening provides a much easier passage for fibres, sticks, etc.

**SLUDGE THICKENING**

By adding polymer to the sludge, a Roto-Sieve drum screen can be used as a sludge thickener. Dewater the sludge up to 10% DS and volym reduction up to 75%.

![Sewage treatment plant, Kullavik, Sweden](image)

Roto-Sieve drum screens offer an optimum removal among mechanical methods. Removals carried out in the first step is of deicisive importance for the rest of the treatment process. Adequate fine-screening is also of the outmost importance as regards both function and reliability in the following circumstances.

- Trickling filters
- Rotating biol. contactors
- Infiltration
- Direct precipitation
- Sludge handling
- Flotation
- Phosphorus reduction
- Nitrogen reduction
- Aeration
- Heat exchangers

Overall performance is improved by elimination of clogging and increased chemical contact.

**APPLICATIONS**

<table>
<thead>
<tr>
<th>MUNICIPAL</th>
<th>INDUSTRY</th>
</tr>
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<tbody>
<tr>
<td>• Sewage works&lt;br&gt;• Pumping stations&lt;br&gt;• Water works&lt;br&gt;• Heating plants&lt;br&gt;• Sea outfalls&lt;br&gt;• Sludge thickening</td>
<td>• Pulp and paper mills&lt;br&gt;• Slaughter houses&lt;br&gt;• Food processing&lt;br&gt;• Fish processing&lt;br&gt;• Chemical industries&lt;br&gt;• Textile mills&lt;br&gt;• Breweries&lt;br&gt;• Ships (Purification plants)</td>
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TECHNICAL DATA

### Technical data

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<tr>
<th>Models</th>
<th>11</th>
<th>40</th>
<th>51</th>
<th>55</th>
<th>60</th>
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<tbody>
<tr>
<td>Length, m A</td>
<td>1.23</td>
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<td>Width, m B</td>
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<td>Rated power, kW</td>
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<td>0.55</td>
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<tr>
<td>Weight, kg</td>
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<td>250</td>
<td>300</td>
<td>490</td>
<td>1200</td>
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### Capacity l/sec.*

<table>
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<th>Models</th>
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<td>100</td>
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</table>

*with Ø 1.5 mm hole

Capacity is dependent on drum dimensions, number of revolutions, hole perforation, flow speed, degree of pollution and type of polluting agent.

The capacities indicated apply to wastewaters with normal contents of fat, grease and oil. Heavier concentrations of such agents have the effect of reducing flow capacity. Contact your Roto-Sieve agent for relevant control measures.

### OTHER ROTO-SIEVE PRODUCT:
We can also supply: flow speed reducers, conveyors, piston presses, screw presses and much more besides.

Always ask for Roto-Sieve when it comes to cleaning water.