Noggerath®
Spiral Sieve NSI / NSI/D

Fine screening of wastewater in a channel with a perforated or wedgewire screen, including conveyance of screenings, dewatering, compacting and discharge.

Equipment for the fine screening of wastewater in inlet has been part of the standard range of the brand Noggerath® of Aqseptence Group since 1988. Our compact and robust spiral sieves are ranked among the best machines of their kind in the world.

The liquid flows into the sieve basket, which is open on the inlet side. Solids with a larger diameter than the hole / gap width are retained. A continuous layer of solids is thus formed on the surface of the screen, reducing free passage through it and causing the level of the liquid upstream of the screen casing to rise. A level measuring device, installed upstream of the spiral screen, monitors the respective level of the liquid. When the preset maximum level is reached or exceeded, the drive of the spiral screen is automatically activated. The deposits of solids retained in the sieve basket are then conveyed by the spiral into the pressing zone and dewatered. A rotating scraper in the discharge area ensures that the dewatered solids are automatically discharged. During the discharge procedure, the sieve basket surface is cleaned by means of a spiral brush mounted on the spiral. As a result of the cleaning and discharging processes, the level of the liquid upstream of the sieve basket drops. When this level reaches or falls below the set level, the spiral drive switches off automatically.

Our spiral sieve solutions are suitable for both indoor and outdoor installation and have proven to be particularly economical in operation. No service water is needed with an installation angle of 35°, for example, and the brush, which divided into two individually exchangeable elements, ensures fast and cost-effective maintenance.

Benefits

- Fine screening and dewatering in one unit
- Simple retrofitting, no bed drop required
- Complete hygienic stainless steel encapsulation
- High operational reliability:
  - no blockages or pigtailing
  - no pressing of screenings through the sieve surface
- No service water required in the pressing zone
### Design sizes & performance

<table>
<thead>
<tr>
<th>Type</th>
<th>NSI 200</th>
<th>NSI 300</th>
<th>NSI 400</th>
<th>NSI 500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sieve basket diameter</td>
<td>200 mm</td>
<td>300 mm</td>
<td>400 mm</td>
<td>500 mm</td>
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<tr>
<td>Channel width min.</td>
<td>300 mm</td>
<td>400 mm</td>
<td>500 mm</td>
<td>600 mm</td>
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<tr>
<td>Installation angle</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Total length</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Gap size (perforation)</td>
<td>2 – 10 mm</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Gap width (wedge-wire)</td>
<td>0.25 – 6 mm</td>
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</tbody>
</table>

### Materials

<table>
<thead>
<tr>
<th>Description</th>
<th>Casing, supports, wear rails</th>
<th>Spiral</th>
<th>Brush</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>stainless steel AISI 304 or AISI 316 Others on request</td>
<td>special Micro Alloy Steel St 52 (carbon steel in acc. with AS Group standard), alternatively stainless steel AISI 304 or AISI 316</td>
<td>Plastics, alternatively AISI 304</td>
</tr>
</tbody>
</table>

### Options

- Hygienic bagging of screenings
- Extended pressing zone for screenings with high faecal content
- Manual or automatic flushing of pressing zone
- Screenings washing bar with solenoid valve
- Heating / frost protection

### Applications & fields of operation

- Sludge and septic sludge screening
- Municipal and industrial wastewater treatment
- Screening of organics from wash water