The waste water, which enters the Compact Plant through an inlet pipe, undergoes the following processes:

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Subsequently the waste water is ready for further treatment (chemical, physical or biological), while the solids are discharged for disposal.

**Benefits**
- Decreased infrastructure costs;
- Easy on-site machine assembly using standard tools - Reduction of intermediate storage costs;
- Best footprint-volume ratio for this type of machine;
- Durable heavy-duty shaftless screws manufactured in patented process;
- Self-adjusting scraper device (patent pending) - Limited water removal in any flow condition.

**Applications**

**Municipal and Industrial Waste Water Mechanical Pre-treatment**

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**Return on Investment - Life Cycle Cost Calculation Over 15 Years**

Life Cycle Cost Comparison between WASTEMASTER® TSF and traditional concrete construction

![Graph showing return on investment over 15 years](attachment://image.png)

**Graph**

- **Y-axis**: Euro
- **X-axis**: Sewage Flow [m³/day]
- **Graphs**:
  - Compact Plant
  - Concrete Construction

**Applications**

**Municipal and Industrial Waste Water Mechanical Pre-treatment**

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The WASTEMASTER® TSF Compact Plant consists of a screw screen, a sedimentation tank, a sand extracting screw and a grease scraper.

The first phase in the waste water treatment process is mechanical pre-treatment including:
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Features

The WASTEMASTER® TSF is designed for a wide range of waste water flow rates with different sedimentation capacities.

The possibility to choose the size of the screen perforation/slots, as well as cross section and length of the tank, is the assurance for the customer that he will obtain the right solution to his problem.

The machine comes in high-quality, industrially manufactured, standard modules, ready for comfortable on-site assembly if requested.

The screen section of the plant is equipped with a compacting device in the upper part for a volume reduction of the screenings of up to 35%. A washing system for the reduction of organic matter in the screenings is available on request.

The shaftless screen screw, which is manufactured in an innovative, patented process, ensures smooth operation without clogging even in presence of fibres.

The table below shows an example of how to choose the correct machine according to the requested sedimentation output rate.

<table>
<thead>
<tr>
<th>Model</th>
<th>Indicative Flow Rate</th>
<th>Sand Removal %</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSF 2-3 100 N</td>
<td>360 m³/h</td>
<td>&gt; 90%</td>
</tr>
<tr>
<td>TSF 2-3 100 R</td>
<td>360 m³/h</td>
<td>75 - 85%</td>
</tr>
</tbody>
</table>

To reach the sedimentation capacity in % the following conditions must be met:

<table>
<thead>
<tr>
<th>Material</th>
<th>Bulk Density</th>
<th>Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>2.6 - 2.65 t/m³</td>
<td>&gt; 500 μm</td>
</tr>
</tbody>
</table>
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- Grease flotation and removal (TSF 3 only).

### Features

- **Durable heavy-duty shaftless screw**
- **Easy on-site assembly**
- **Easy maintenance thanks to wide inspection hatches**
- **Bolted wear bars**
- **Self-adjusting grease scraper with limited water removal**
- **Pivoting extracting screw**

The WASTEMASTER® TSF is designed for a wide range of waste water flow rates with different sedimentation capacities. The possibility to choose the size of the screen perforation/slots, as well as cross section and length of the tank, is the assurance for the customer that he will obtain the right solution to his problem.

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<tr>
<td>Sand</td>
<td>2.4 - 2.65 t/m³</td>
<td>&gt; 200 μm</td>
</tr>
</tbody>
</table>

### Table

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSF 10</td>
<td>2,650</td>
<td>7,350</td>
<td>1,550</td>
<td>1,280</td>
<td>1,100</td>
<td>3,610</td>
<td></td>
</tr>
<tr>
<td>TSF 20</td>
<td>4,850</td>
<td>7,350</td>
<td>1,550</td>
<td>1,280</td>
<td>1,100</td>
<td>3,610</td>
<td></td>
</tr>
<tr>
<td>TSF 30</td>
<td>6,850</td>
<td>7,350</td>
<td>1,550</td>
<td>1,280</td>
<td>1,100</td>
<td>3,610</td>
<td></td>
</tr>
<tr>
<td>TSF 45</td>
<td>6,830</td>
<td>4,000</td>
<td>1,780</td>
<td>1,460</td>
<td>1,420</td>
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<tr>
<td>TSF 100</td>
<td>10,820</td>
<td>4,630</td>
<td>2,310</td>
<td>1,750</td>
<td>1,940</td>
<td>4,270</td>
<td></td>
</tr>
<tr>
<td>TSF 120</td>
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To reach the sedimentation capacity in % the following conditions must be met:

- Solids Separation
- Sedimentation
- De-greasing

**Product Description**

**Overall Dimensions**

**Process Description**
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![Graph showing comparison of Compact Plant and Concrete Construction costs over 15 years.](image)
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- Compact Plant