Sand Separators

Hydrocyclone, Dirt Trap and Sand Classifier
Sand Separators

Application
Sand separators are used for heavy contaminant separation from suspensions. Wire and pieces of metal sheet, in particular small, grainsize particles, such as glass and grit, will be separated.

Construction
- Hydrocyclone:
  - Headpiece including inlet and outlet pipes provided with wear-resistant inserts
  - Separating cone with wear-resistant insert
  - Intermediate pipe
- Dirt trap:
  - Two pneumatically operated special gate valves
  - Flush valve
- Sand classifier:
  - Box
  - Spiral conveyor

Operation
The suspension entering the head-piece in tangential direction is subjected to high centrifugal acceleration based on the hydrocyclone principle. Under the effect of this, contaminants are flung to the wall of the separating cone, from where they sink into the dirt trap through an intermediate pipe, followed by the clean suspension being discharged from the headpiece of the grit separator in axial direction. Two looking glasses have been provided in the dirt trap for checking the sinking process. Heavy contaminants, such as adhering fibrous particles, are removed by the addition of backflow water to the dirt trap. Adjustable operating cycles of gate valves and dirt trap guarantee high adaptability to any level of contamination in the suspension.
Sand Separators

Dirt trap

Sand classifier:
- Box to sand classifier
- Spiral conveyer
- Support

Sand separator:
- Discharge pipe
- Cyclone head piece
- Adapter long
- Adapter short
- Discharge plate pipe
- Sight glass tubes

Dirt trap:
- Upper dirt trap valve
- Dirt trap body with flush valve
- Lower dirt trap valve
- Sand discharge
### Sand Separators

#### Type 160K, 160T, 200K, 200T, 250K, 250T

<table>
<thead>
<tr>
<th>Type</th>
<th>160K</th>
<th>160T</th>
<th>200K</th>
<th>200T</th>
<th>250K</th>
<th>250T</th>
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<tbody>
<tr>
<td>Throughput</td>
<td>[l/min]</td>
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<td>500</td>
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<td>2000</td>
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<td>2 – 20</td>
<td>2 – 5</td>
<td>2 – 20</td>
<td>2 – 8</td>
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<tr>
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<td>65</td>
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<td>150</td>
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<tr>
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<tr>
<td>Trap Ø</td>
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