Application
Cylindrical screening machines are used for sorting and grading of seeds and cereals such as grain, maize, sunflower seed, rice and similar commodities. Also generally granular products such as recycling products.

Working mode
The incoming material is sorted according to its width (round perforation) and respectively its thickness (slotted perforation). All kernels thinner than the screen holes fall through the screen, and all thicker kernels remaining in the screening cylinder are transported to the end-outlet.

By means of the permanent circulation of the product and the resulting centrifugal force, each kernel is forced to be in contact with the screen perforation, enabling sorting operations to be carried out with high accuracy.

The single cylinders built as self supporting steel constructions can be joined in various configurations by means of the simple modular system, always using only one drive motor (energy saving) with chain drive connection to the single cylinders. A maximum of 3 cylinders can be installed above each other. This means a huge spectrum of sorting targets can be covered.

Parallel operation
The grain flow is divided to the separate inlet channels of each single cylinder, so they receive part of the grain flow at a time. The oversize product is discharged at the end of each cylinder. The product falling through will direct by the deflector box so as to by-pass the following cylinder.

Series operation
The product falling through the upper screening cylinder is fed to the inlet of the next cylinder by means of a vibrating trough. The oversize product is discharged at the end of each cylinder.

Assembly units:
- Screen box
  The screen box houses the screening cylinder.
- Screen cylinder
  The ZS300 and ZS500 type has a single-sieve push on cylinder.
  The ZS700 type has 3 screen segments which are attached on supporting discs.
- Vibrating through
  The vibrating through is used to feed the product falling through the upper screening cylinder to the inlet of the next cylinder. When arranged as lowest unit it will collect all throughs and convey them to a discharge pipe.
- Deflector box
  The deflector box is used for deflecting the product falling through the upper screening cylinder so that it does not hit the lower cylinder but by-passes the following cylinder.
- Discharge hopper
  It is invariably arranged as lowest assembly of the equipment, it is only for collecting the throughs and tailings in troughs from where they are piped out through suitable conduit.

Features
- The drive can be equipped with fixed or variable speed (by frequency inverter or by mechanical speed variator gear).
- Permanent screen cleaning too prevent blockage of the screen-holes, (additional hand operated cleaning device or brush rollers can be installed as an alternative).
- Adjustable screen-inclination for regulation of the throughput-capacity, (steplessly adjustable between 0 and 2.5°).
- Simple screen-exchange
  On the types ZS300 and ZS500, the screening cylinders are precisely inserted via leading-bars and fixed by means of a bayonet lock.
- Screens
  Standard perforations or special perforations for very flat products.
### CYLINDRICAL SCREENING MACHINES
**ZS 300 / 500 / 700**

<table>
<thead>
<tr>
<th>Diagram</th>
<th>Type</th>
<th>Capacity [t/h]</th>
<th>Drive [kW]</th>
<th>Dimensions [mm]</th>
<th>Net weight [Kg]</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Diagram" /></td>
<td>ZS 300 I</td>
<td>1.8, 0.7, 0.9, 1.6, 1</td>
<td>0.37, 0.55</td>
<td>10</td>
<td>2242, 565, 925</td>
</tr>
<tr>
<td><img src="image2.png" alt="Diagram" /></td>
<td>ZS 300 II-A</td>
<td>3.6, 1.4, 1.8, 3.2, 2</td>
<td>2</td>
<td>0.75, 1.1</td>
<td>20</td>
</tr>
<tr>
<td><img src="image3.png" alt="Diagram" /></td>
<td>ZS 300 III-P</td>
<td>5.4, 2.1, 2.7, 4.8, 3</td>
<td>1.1, 1.5</td>
<td>10</td>
<td>2584, 565, 2770</td>
</tr>
<tr>
<td><img src="image4.png" alt="Diagram" /></td>
<td>ZS 300 III-S</td>
<td>1.8, 0.7, 0.9, 1.6, 1</td>
<td>1.1, 1.5</td>
<td>10</td>
<td>2584, 565, 2506</td>
</tr>
<tr>
<td><img src="image5.png" alt="Diagram" /></td>
<td>ZS 300 III-PS</td>
<td>3.6, 1.4, 1.8, 3.2, 2</td>
<td>1.1, 1.5</td>
<td>10</td>
<td>2584, 565, 2745</td>
</tr>
<tr>
<td><img src="image6.png" alt="Diagram" /></td>
<td>ZS 300 VI-P</td>
<td>22.5, 7.5, 10.5, 19.8, 12</td>
<td>3, 4</td>
<td>20</td>
<td>3991, 1036, 4900</td>
</tr>
<tr>
<td><img src="image7.png" alt="Diagram" /></td>
<td>ZS 300 VI-S</td>
<td>1.5, 2.2</td>
<td>20</td>
<td>2584, 1096, 1715</td>
<td>930</td>
</tr>
<tr>
<td><img src="image8.png" alt="Diagram" /></td>
<td>ZS 300 VI-PS</td>
<td>7.2, 2.6, 3.6, 6.4, 4</td>
<td>2.2, 3</td>
<td>20</td>
<td>2624, 1096, 2745</td>
</tr>
</tbody>
</table>

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