Seidenader Inspection and Sorting Machines for Tablets and Capsules
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The family of Seidenader inspection and sorting machines is a system designed to increase packing line efficiency and to ensure consistent product quality.

The main advantages are:

- Accessibility for service and cleaning.
- "Plug in" guide parts and change parts wherever possible.
- Toothed belt drives are used which do not transfer grease or oil particles.
- FDA acceptable materials.
- Documentation and test protocols according to FDA recommendations.
- Ergonomic seating position and operating panels.
- Numerous possibilities for line integration.

Mode of operation

For thickness sorting the tablets are fed into the sorting channels by a stepless adjustable vibratory feeder. Upward rotation of the rollers keeps the tablets moving in single file in an upright position through the sorting channels. Movable and adjustable flap rows avoid overflow and keep the tablets oriented in the channels. The distance between the rollers is narrow in the upstream section and wider in the downstream section. Depending on thickness the tablets are automatically separated into 3 discharge channels: “too thin”, “good”, “too thick, twins etc.” by falling through the distance between the sorting rollers. Product fragments can optionally be separated by integrating a perforated plate in front of the sorting channels.

Advantages Seidenader DS

- High throughput, depending on product and machine design (DS-5 or DS-12).
- Thickness sorting accuracy steplessly adjustable up to ± 1/20 mm.
- In conjunction with blister machines or strip packers, to prevent jamming through undersized or oversized products.
- Prior to coating, to eliminate undersized or oversized product and broken tablets.
- After coating, to eliminate products with excessive coating or coating defects like noses or twins.
- To remove strangers which can be separated by size.

Technical data Seidenader DS

<table>
<thead>
<tr>
<th>Machine type:</th>
<th>DS-5</th>
<th>DS-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity - depending on product:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- tablets:</td>
<td>120 kg/h</td>
<td>290 kg/h</td>
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<tr>
<td>- hard candy and chiclets:</td>
<td>450 kg/h</td>
<td>1,080 kg/h</td>
</tr>
<tr>
<td>Dimensions (L x W x H mm):</td>
<td>1,900 x 900 x 1,900</td>
<td>1,900 x 1,500 x 1,900</td>
</tr>
<tr>
<td>Weight of machine:</td>
<td>250 kg</td>
<td>400 kg</td>
</tr>
<tr>
<td>Voltage/frequency:</td>
<td>230 V, Ph+V+PE, 50 Hz standard (others through transformer), ca. 1.5 kW</td>
<td></td>
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</tbody>
</table>

Sorting criteria for tablets

Thinness sorting:

- good “g”
- too thick a + s > 0.05 mm
- too thin a - s > 0.05 mm
- twins
- odd-shaped
- chips, small pieces

Product fragments:

- max. fragment size depends on the product

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INSPECTION AND SORTING MACHINES FOR TABLETS

Seidenader L 650
specifically designed to sort oblong tablets and candies by length. Oversized tablets, “twins” and broken or “halved” tablets are eliminated automatically.

Advantages
- Sorting is more exact than with vibration systems.
- Quick change-over – only a sorting plate and a rotating disk required.
- Easy disassembling of machine for cleaning.
- Made of stainless steel and corrosion-resistant material.

Mode of operation
The tablets are loaded into the feed hopper which has an adjustable feed gate, and fed over a perforated plate by a vibratory feeder. The perforated plate has three sections. In section 1, the holes of the plate are small enough to separate only dust and small fragments. In section 2, tablets of correct width drop through the holes onto the sorting mechanism for sorting the tablets by length. Tablets which are too short will drop through the sorting slots into a container for rejects. Tablets of the exact length are sent through a chute for good product.

Technical data Seidenader L 650
Application: Sorting of oblong tablets and candies by length, elimination of oversized, undersized, dust, broken tablets and twins
Output: up to 150,000 pcs/hour depending on product
Mode of operation: fully automatic
Voltage/frequency: 230 V, Ph+N+PE, 50 Hz standard (others through transformer), ca. 0.4 kW
Dimension: ca. 1260 x 655 x 990 mm (LxWxH)
Weight: 150 kg net

Seidenader V50-2
for consistent inspection of capsules and plain or coated tablets

Advantages
- Smooth transfer of the product onto the inspection rollers.
- No greasing points or oiled chains as toothed belts are used for transport.
- Machines can be easily dismantled within a few minutes for cleaning purposes.
- No friction through moving parts or belts in the product contact zones.
- No hidden corners, the risk of cross contamination is minimized.
- Integrated collecting box for rejects within reach of the operator.

Mode of operation
The product flows from the feed hopper into a vibratory chute where a perforated screen eliminates coarse dust and chips which are then collected in a container. The product enters the inspection stage in a single layer. The capsules and tablets are placed on rotating rollers and are continuously turned in front of the operator. This allows a reliable all-sided inspection. An adjustable mirror enables the operator to examine the far side of the product. Optionally the rotation speed of the inspection rollers is adjustable.

Technical data Seidenader V50-2
Application: Inspection of capsules, plain or coated tablets and other round or cylindrical objects by one operator
Design: Rigid frame structure of rectangular aluminium profiles. All machine parts contacting the product are of stainless steel W 1.4435 (SS 316, special low carbon type) electropolished
Inspection rollers: Makrolon, qualified for pharmaceutical applications, sand blasted
Inspection capacity: up to 100,000 capsules/hour or up to 50 kg tablets/hour depending on product
Voltage/frequency: 230 V, Ph+N+PE, 50 Hz standard (others through transformer), ca. 0.6 kW
Compressed air: Pressure 6 bar, consumption ca. 10 Nm³/h, connection 1/8” required for optional hand-held vacuum nozzle or automatic empty capsule separation unit only
Dimensions: ca. 1,400 x 625 x 1,290 mm (LxWxH)
Weight: ca. 150 kg net
Inspection belt

Seidenader WB 20

for consistent inspection of plain or coated tablets

The inspection belt

The Seidenader WB 20 with tablet turn-over system enables your operators to inspect reliably up to 50 kg of tablets per hour from all sides. Defective tablets can be eliminated by the operators with a flexible hand-held vacuum nozzle.

Advantages

- Reliable and smooth turn-over of the tablets.
- Any contamination of the product with abrasion of belts or chains is eliminated.
- No greasing points or oiled chains.
- Ergonomic design minimizes fatigue of operators.

Machine can be easily dismantled within a few minutes for cleaning purposes.

No hidden corners, easy access, the risk of cross contamination is minimized.

Mode of operation

The product flows from the feed hopper into a vibratory chute where a perforated screen eliminates coarse, dust and chips which are then collected in a container. The product enters the inspection stage in a single layer. The tablets are placed on a transport belt made from a FDA approved material and are presented to a first operator for the inspection of the upper side of the products. A special turn-over system transports the products to the second operator to inspect the bottom side of the product. During both inspection stages the products lie flat on the belt and are in constant motion – no vibration!

Adjustable mirrors enable the operators to examine the far side of the product. This process allows a reliable inspection of the full circumference of all products.

Technical data Seidenader WB 20

Application: Inspection of plain or coated tablets by two or four operators

Design: All machine parts contacting the product are of stainless steel W 1.4435 (SS 316, special low carbon type) electropolished

Feed hopper: content 30 l, with slide plate

Transport belts: FDA acceptable polyurethane material

Inspection stages: 2 x 325 x 200 mm (length x width)

Inspection capacity: up to 50 kg/hour, depending on product and product size

Inspection air: Pressure 6 bar, consumption ca. 10 Nm³/h, connection 1/8 “, required for optional hand-held vacuum nozzle only

Dimensions: ca. 1,850 x 850 x 1,315 mm (LxWxH)

Weight: ca. 150 kg net

Capsule cleaning and polishing machine

Seidenader PM 60

for dedusting, cleaning and high gloss polishing of hard gelatin capsules

The Seidenader PM 60 continuously cleans the capsules while gently transporting them to the next process. Coarse dust is already removed on the vibratory conveyor or chute at the infeed, before the capsules get between the polishing belts.

Advantages

- Adjustable to all capsule sizes, without any additional change parts.
- The polishing belts are continuously cleaned by a permanent vacuum system.
- Disassembly of machine without tools within a few minutes.
- No hidden corners, the risk of cross contamination is minimized.
- In-line integration possible, due to adjustable drive and optional fill level inspection at the opening of the feed hopper.

Mode of operation

The capsules are loaded into the feed hopper which is regulated with a slide gate at the opening and an adjustable vibratory conveyor. The capsules pass from the conveyor between two counter-rotating polishing belts that clean and polish the capsules. The lower belt is running faster than the upper belt in order to transport the products. Dust is continuously removed from the polishing fleece by two vacuum units. The Seidenader PM60 can be integrated between two production steps, and in combination with the inspection belt Seidenader V50-2. The capsules are cleaned, polished and inspected in one process.

Technical data Seidenader PM 60

Application: Hard gelatin capsules

Construction: Rigid frame structure of rectangular anodized aluminium profiles.

All machine parts contacting the products are made of stainless steel W 1.4435 or natural fleece.

Lower belt: center to center distance approx. 1,300 mm, stepless adjustable drive

Upper belt: center to center distance approx. 1,200 mm, constant speed

Throughput: up to 300,000 capsules/hour, depending on capsule size

Voltage/frequency: 230 V, Ph+N+PE, 50 Hz standard (others through transformer), ca. 0.4 kW

Compressed air: Pressure 6 bar, consumption ca. 10 Nm³/h, connection 1/8 “

Dimensions: 1,950 x 510 x 1,400 mm (LxWxH)

Weight: ca. 180 kg net

Seidenader

Inspection and Sorting Machines

for Tablets and Capsules
Seidenader
Pharma Technology Solutions

The product range of Seidenader Maschinenbau GmbH includes:

- automatic inspection machines
- semi-automatic inspection equipment
- complementary inspection technologies
- track and trace solutions / serialization, e-pedigree
- equipment for inspecting and sorting of tablets
- exterior washing machines
- industrial vision systems
- automation & IT solutions for pharmaceutical packaging lines

Since we are constantly working on the improvement of our high-quality machines, the texts, illustrations and figures on these pages are illustrative only and not binding.