HI-SIFTER
Advanced Sieving Technology

Screening Technology for the 21st Century
Elcan’s Hi-Sifter is the latest breakthrough in advanced screening technology. The Hi-Sifter excels in the food, pharma, and additive manufacturing industries and unlike other vibratory screeners, the Hi-Sifter requires no anti-blinding or screen cleaning devices to achieve fine particle separation. The material only sees a highly polished stainless steel surface and no other possible contamination surfaces. In addition, the high volume of energy being transferred to the screen allows hard to screen metal alloys to flow seamlessly. The machine also has a strong vertical vibration that translates to high rates of efficiencies and throughputs without any blinding. The removal of any potential for contamination within the machine, explosion proof designs and high energy make the Hi-Sifter the precise fit for companies looking to add screening machinery to their manufacturing plants.

### AVAILABLE SIZES:
- 15 inch (400mm) diameter
- 20 inch (500mm) diameter
- 28inch (700mm) diameter
- 40 inch (1000mm) diameter

### MACHINE FEATURES:
- Explosion Proof motors
- Inert Gas Capabilities
- Polished Stainless Steel Construction
- No organic material in contact with product
- Center-fines discharge or side-fines discharge
- Tensionless mesh design
- Various sizes available
- Single or Double Deck Configurations
- FDA Compliant Design

### MARKETS SERVED
- Metal Powders
- Ceramics
- Pharmaceuticals
- Food
- Specialty Chemicals
- Graphite
- Plastics
- Aggregates

### Mesh Working Area (per deck):
- Model 401UC: 205 in²
- Model 402UC: 205 in²
- Model 501UC: 305 in²
- Model 502UC: 305 in²
- Model 701N: 594 in²
- Model 702N: 594 in²
- Model 1001N: 1366 in²
- Model 1002N: 1366 in²

### Number of Decks:
- Model 401UC: 1
- Model 402UC: 2
- Model 501UC: 1
- Model 502UC: 2
- Model 701N: 1
- Model 702N: 2
- Model 1001N: 1
- Model 1002N: 2

### Motors (kW):
- Model 401UC: 2 x .25
- Model 402UC: 2 x .25
- Model 501UC: 2 x .25
- Model 502UC: 2 x .25
- Model 701N: 2 x .40
- Model 702N: 2 x .40
- Model 1001N: 2 x .60
- Model 1002N: 2 x .60

### Total Machine Weight (lbs):
- Model 401UC: 331
- Model 402UC: 342
- Model 501UC: 342
- Model 502UC: 353
- Model 701N: 485
- Model 702N: 507
- Model 1001N: 772
- Model 1002N: 794
Ultrasonics traditionally work by stimulating each wire within the mesh to vibrate independently from the machine itself. Where ultrasonics fall short is that it will not work with coarse or ultra-fine mesh, also it requires external hardware and is very costly to repair/replace damaged mesh.

**The Hi-Sifter solves these shortcomings.** Our technology not only vibrates in the X and Y axis like standard screeners, but also transfers significant force in the Z axis, ensuring that our screen will not blind even as fine as 10 micron. Also, our system allows for easy screen changes to be completed at the plant level eliminating the high cost and potential downtime that comes from sending out for re-screening.

### BEYOND ULTRASONICS

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>MICRON</th>
<th>RATE PER HOUR</th>
<th>MACHINE SIZE</th>
<th>EFFICIENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless Steel Powder</td>
<td>7µm</td>
<td>33 lbs/hr</td>
<td>400mm</td>
<td>93%</td>
</tr>
<tr>
<td>Stainless Steel Dust</td>
<td>10µm</td>
<td>200 lbs/hr</td>
<td>1000mm</td>
<td>85%</td>
</tr>
<tr>
<td>Nickle Powder</td>
<td>53µm</td>
<td>800 lbs/hr</td>
<td>1000mm</td>
<td>96%</td>
</tr>
<tr>
<td>Titanium</td>
<td>44µm</td>
<td>400 lbs/hr</td>
<td>1000mm</td>
<td>93%</td>
</tr>
<tr>
<td>Aluminum</td>
<td>25µm</td>
<td>130 lbs/hr</td>
<td>400mm</td>
<td>94%</td>
</tr>
<tr>
<td>Hollow Glass Microspheres</td>
<td>125µm</td>
<td>200 lbs/hr</td>
<td>1000mm</td>
<td>96%</td>
</tr>
<tr>
<td>Copper Flake</td>
<td>10µm</td>
<td>130 lbs/hr</td>
<td>1000mm</td>
<td>99%</td>
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</tbody>
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### UTRASONIC TECHNOLOGY VS ELCAN’S HI-SIFTER

<table>
<thead>
<tr>
<th>UTRASONIC TECHNOLOGY</th>
<th>ELCAN’S HI-SIFTER</th>
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<tbody>
<tr>
<td>Requires external control box and probe.</td>
<td>No need for external box or probe, resulting in lower running costs and more hygenic design.</td>
</tr>
<tr>
<td>Cannot screen below 44 micron or above a 20 mesh.</td>
<td>No Hi-Sifter machine limitations. Only limited by current mesh manufacturing.</td>
</tr>
<tr>
<td>High mesh replacement cost and production downtime due to it’s inherent design.</td>
<td>The Hi-Sifter’s tensionless mesh design allows users to easily replace their own mesh.</td>
</tr>
<tr>
<td>Ultrasions cause deflection in mesh strands creating less precise separation.</td>
<td>Due to the Hi-Sifter’s tensionless mesh design the mesh’s hole openings are not altered resulting in a more precise separation.</td>
</tr>
</tbody>
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“Sieving valuable metal powders can be hard, but it doesn’t have to be.”

The Hi-Sifter can achieve efficiencies of 95% and higher, which allows you to get the best yield out of your precious metal powder.
Elcan Industries’ state of the art toll manufacturing facility features 9 full-scale bays dedicated to tolling and testing. In addition to our advance screening technologies, we have an Electro Magnetic Separator, bulk-to-bag packaging area, blending/mixing machinery and a newly installed Elbow Jet Air Classifier. Unlike most OEMs, we run these machines in our factory every day. This daily practice has given Elcan the hands-on experience and know-how that is invaluable to our customers. All of the equipment that Elcan offers for sale is available for use in our facility. By the time our customers purchase equipment for their factory to run products they were tolling with us, the bugs are all worked out and the problems are eliminated.

Elcan also offers a free test day to any new customers looking to trial their material on the equipment offered. The ability to test products and to toll process it, allows for companies to test new markets and have confidence in the equipment they are purchasing before making a capital equipment decision.