Vibration unit for glass mat production

VibroBeam

VibroBeam is a vibration device for even distribution of glass fibers on the process belt. It is used between the resin application and the drying section and transfers vibration to the process belt and the glass mat on it.

Our newly introduced VibroBeam is a simple yet very effective and reliable solution for a better distribution of fibers on the process belt after the resin application and before the drying section. The only contact with the process belt is a smooth polymer bar that prevents wear of the process belt.

Thanks to a special design, the polymer bar is easily replaced allowing the extraction of the whole unit from underneath the belt. The strictly vertical movement of the polymer bar agitates the process belt thus allowing the fibers to settle more densely, resulting in a reduction of wrinkles and the veil caliper.

The only moving part is the beam with the polymer bar on it. In addition, the vibration shakes excess fibers and binders away. This concentrates the contamination in the easy-to-clean VibroBeam and significantly reduces it in the dryer.
Voith VibroBeam

Technical data

<table>
<thead>
<tr>
<th>Adjustments</th>
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<tbody>
<tr>
<td>individual width for each process belt</td>
<td></td>
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<tr>
<td>vibration frequency range</td>
<td>30 – 60 Hz</td>
</tr>
<tr>
<td>vibration amplitude</td>
<td>1 – 5 mm</td>
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<tr>
<td>distance to process belt</td>
<td>0 – 50 mm</td>
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Process and quality improvements through
- Improved fiber distribution on belt
- Reduction of wrinkles
- Improved veil caliper
- Concentration of contamination in easy-to-clean system components

Mechanical impact in the process
- Very gentle vibration transfer to process belt
- Polymer bar prevents wear of process belt
- No openly moving parts, only vibration

Advantages

+ Reliable: Sturdy design for a long lifetime, maintenance-free unbalanced motors
+ Simple: Very simple design with only one wear part
+ Smart: Gliding bars easily exchanged
+ Easily accessible: Installed on a rail system for quick extraction and cleaning
+ Clean: Special designs to be cleaned quickly: dust collectors are removable and therefore very easy to clean