SeamMaster® High Profile Ultrasonic Sewing Machine

Ultrasonic sewing machine that seals, sews, and trims nonwoven and synthetic fabrics in one quick, reliable step.

General Description
The Sonobond SeamMaster provides rapid sealing, sewing, and trimming of synthetic fabrics without thread, glue, or other consumables. Although similar in appearance and operation to traditional sewing machines, the SeamMaster High Profile bonder has a higher clearance between the wheel and the horn, making it ideal for hand-guided applications with tight tolerances, or when working around curves. Ultrasonic bonding with the SeamMaster eliminates needle and thread breakage, thread color changeover and thread unraveling problems. And with production speeds up to 4 times faster than sewing, heat sealing and adhesive machines, the SeamMaster is highly cost-effective.

Sonobond’s SeamMaster is designed for specialized applications in the textile, apparel and engineered fabrics industries. A variety of interchangeable pattern rollers are available for slitting, embossing, and “stitching,” as well as custom pattern wheels designed by Sonobond engineers. The SeamMaster performs in one quick pass saving time, labor, and material. Seams bonded by Sonobond’s SeamMaster are so perfectly fused and sealed that they can be used to help comply with OSHA’s regulations for barrier seams.

Features and Benefits
- Seams, trims, and seals without thread, glue, or other consumables
- Quick and efficient. Performs four times faster than conventional sewing machines and ten times faster than adhesive methods
- Larger wheel and high clearance above the bench allows for increased access for hand-guided operations
- Available as modular units for integration into production lines
- Virtually eliminates fraying or unraveling of bonded edges and seams
- Features a wide selection of interchangeable roller patterns for seams, hemming, embossing, and printing
- Requires minimal training to operate
- Combines several labor-intensive operations into one pass—saving time and money

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Features and Benefits
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• Helps meet OSHA regulations for barrier seams in medical apparel

• Exclusive SoftSeam™ process produces seams that are soft and smooth against the skin

Applications

The Sonobond SeamMaster offers a production alternative for joining and slitting synthetic fabrics. Materials best suited for ultrasonic bonding are 100 percent synthetic or blends with up to 40 percent natural fibers.

Materials that can be used on the SeamMaster Series of ultrasonic bonders are polypropylene, polyester, nylon, acrylics, vinyls, PVC, and thermoplastic urethanes that are constructed as wovens, nonwovens, knits, films, and laminates. Products include draperies, window shades, garments, blankets, filters, awnings, athletic accessories, automotive seats and carpets, banners, flags, medical apparel and disposables, safety garments, ballistics coverings, aviation insulation panels, netting, and ribbons.

Theory of Operation

Ultrasonic bonding is accomplished by channeling high-frequency vibrations to the fabric. As synthetic or nonwoven material passes between an ultrasonic unit’s horn and anvil, the vibrations are directed into the fabric where they create a rapid heat buildup. This heat causes the material’s synthetic fibers to melt and fuse, creating bonded seams that will not fray or unravel.

Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>20Khz</td>
</tr>
<tr>
<td>Services</td>
<td>110 or 220 volt; 12 amp</td>
</tr>
<tr>
<td>Tuning</td>
<td>Automatic</td>
</tr>
<tr>
<td>Max Pattern Width</td>
<td>Up to 1-inch</td>
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<tr>
<td>Standard Speed</td>
<td>60 ft per min</td>
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<tr>
<td>Optional Speed Kit</td>
<td>120 ft per min</td>
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<tr>
<td>Compressed Air</td>
<td>Clean, dry air at 90psi (6.3Kg/cm²), 2 CFM (1 liter per sec)</td>
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<tr>
<td>Dimensions (approx.)</td>
<td>48 inches wide x 21 inches long x 30 inches high</td>
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<tr>
<td>Weight (approx.)</td>
<td>265 lbs</td>
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</tbody>
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Ordering Information

SM86 Standard machine
SM86PF For pleated filter version
SM Module For modular version

Specifications are provided for information only and are believed to be accurate. However, no responsibility is assumed by Sonobond Ultrasonics for their use. Ongoing product development and improvement may cause changes without notice.