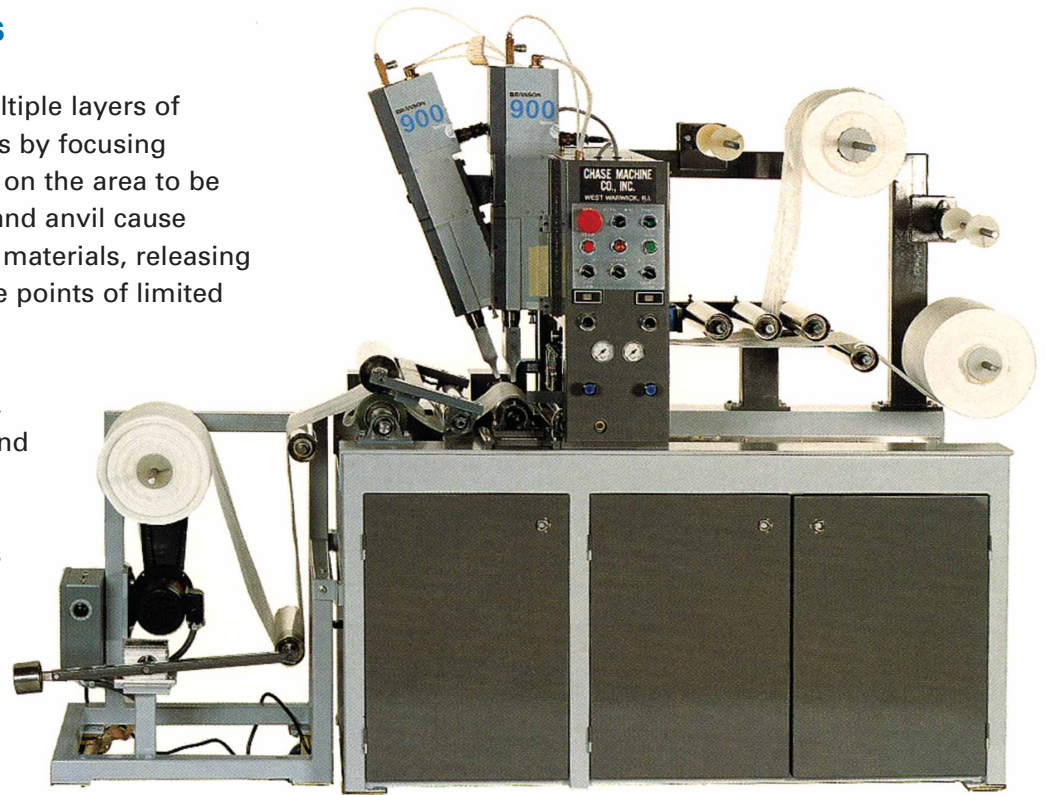


For Clean, Efficient, Permanent Bonding of Multiple Layers

Ultrasonic bonding fuses multiple layers of similar or dissimilar materials by focusing mechanical vibratory energy on the area to be bonded. An ultrasonic horn and anvil cause mechanical stress within the materials, releasing thermal energy, softening the points of limited contact, and bonding the layers. Polyester, nylon, polypropylene, polyethylene, PVC, urethane, saran, EVA, and surlyn can all be bonded and laminated ultrasonically. Some natural fabrics such as cotton and paper can also be laminated with the interlaying of a thermoplastic.



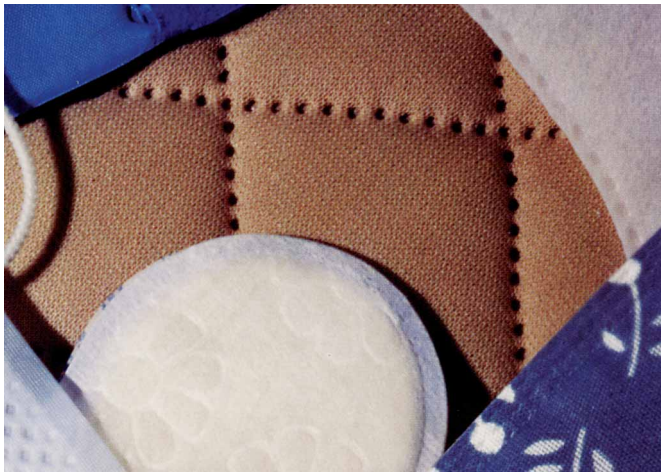
BENEFITS

- Eliminates preheat time
- Provides absolute on/off operation
- Facilitates clean production
- Allows precision fabrication
- Produces finished edge with no loose fibers
- Preserves breathability and absorption qualities

COMMON APPLICATIONS

- Clean room wipes
- Hospital gowns
- Gloves
- Diapers
- Filters
- Face masks
- Incontinence products
- Mattress pads
- Quilts
- Window fashions

continued on reverse side



There are two ways to apply ultrasonic bonding: through plunge mode, for single-strike bonding such as spot welding, cutting to length, button holes, grommets, and attaching ties and straps; and through a rotary drum, for continuous web bonding. Chase Machine is primarily involved in rotary drum bonding and slitting machines for the nonwovens industry.

Rotary drum machines use a custom-made steel cylinder to localize the energy from the ultrasonic horn to produce a specific pattern requested by the customer. Bonding only takes place at the points of contact between the horn and the drum pattern. The ultrasonic process is ideal for applications that require high loft, softness, breathability, and/or high absorption. It offers precise bonding without stiffening material as thermal bonding can.

Branson Ultrasonics Corporation, the leading worldwide manufacturer of ultrasonic and vibration welding equipment, provides the components for our ultrasonics equipment. These include the horn, ultrasonic power supply, and the converter, which transforms the high-frequency electrical energy into mechanical vibratory energy.

Chase Machine has extensive experience with a wide variety of web handling equipment. That enables us to offer customers numerous options based the number of web layers, material thicknesses, automated or manual tension controls, and unwinds and rewinds. Depending on the materials and bonding pattern, speeds can approach one thousand feet per minute.

For more information on ultrasonic rotary drum bonding and slitting machines, or to discuss a new application, please contact Guy Gil (guygil@chasemachine.com).



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