



## ***NEWS RELEASE***

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FOR IMMEDIATE RELEASE

### **SONOBOND ULTRASONICS' TECHNOLOGY CAN NOW DO EVEN MORE FOR BALLISTIC VEST MANUFACTURERS**

***The SureWeld™ 20 Ultrasonic PlungeBonder™ now permits straps made of coated synthetic material to be quickly and easily attached to the outer shell of body armor.***

WEST CHESTER, Pennsylvania, July 8, 2009—Leading ballistic vest manufacturers rely on Sonobond Ultrasonics' equipment to help them comply with the tough standards set by the National Institute of Justice (NIJ). These standards mandate that body armor must be totally waterproof. (See NIJ-0101.06.) Sonobond's SeamMaster™ High Profile Ultrasonic Bonder is regularly used for sealing the outer shell that protects the ballistic-resistant material inside



the vests. The unit's rotary system seals, sews, and trims the nylon fabric in one quick, reliable step that uses no thread or other consumables.

Now manufacturers can rely on another

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Sonobond unit, the SureWeld™ 20 Ultrasonic PlungeBonder™ with custom tooling, to ultrasonically bond straps *within the seam of the vest's outer shell*.

This is a separate operation that does *not* compromise the integrity of the ultrasonically sealed outer shell. As a result, manufacturers are able to continue producing ballistic vests that comply with current NIJ submersion requirements.

### Ultrasonic Bonding Procedure

Sonobond bonders and welders use ultrasonic energy to reliably seam and seal synthetic materials in just one pass. This is accomplished *without* stitching, heat-sealing, or adhesives.

In the case of the SureWeld™ 20 Ultrasonic PlungeBonder™, the outer



shell material and the strap are placed between the unit's customized horn and anvil. The anvil is surrounded by a Plexiglass plate that supports the materials. High frequency vibrations are then

channeled to the materials to create a localized buildup of heat. This seals the materials *without* heating the surrounding area. The ultrasonic bonding process is fast, energy-efficient, environmentally-friendly, and produces high-quality results. In commenting on this added capability, Melissa Alleman, Sonobond's vice president, said, "The new tooling for the SureWeld™ 20 is yet another example of our support for an industry that delivers important protection to police officers and military personnel. We are very pleased that this machine can now

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be customized to bond straps to the front and the back sections of a ballistic vest's outer shell. Velcro® can then be attached to the straps and used to connect both sides of the vest.”

The SureWeld™ 20 Ultrasonic PlungeBonder™ with customized tooling can comfortably attach straps to five vests per minute.

#### **Versatile Machines**

Both the SeamMaster™ High Profile Ultrasonic Bonder and the SureWeld™ 20 Ultrasonic PlungeBonder™ are easy to operate with only minimal training.

Sonobond's SeamMaster™ High Profile Ultrasonic Bonder—the unit used to seal the outer shell of body armor—is a versatile, general-purpose machine that features a large pattern wheel and a higher clearance. This makes it ideal for handling bulky materials, as well as for hand-guided operations. The unit virtually eliminates fraying or unraveling of bonded edges and seams. Also available as a modular unit, the SeamMaster™ High Profile Ultrasonic Bonder can be easily integrated into production lines. It is four times faster than conventional sewing machines and ten times faster than adhesive methods.

Sonobond's SureWeld™ 20 Ultrasonic PlungeBonder™ is a powerful machine that seals large, multiple-layer or difficult-to-bond materials with just one pulse. The machine consists of a rugged welding press and a heavy-duty 1000- to 1500-watt power supply. The unit's rigid rectangular support column

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eliminates deflection, even at the full 660 lb. force level. It also has a built-in leveling feature in the base with “T” slot and toe clamps for reliable fixture holding. This bonder permits easy changeover of the converter/booster/horn simply by loosening the bolt and opening the cover to remove or replace the component.

### **Sonobond: A Leader in Ultrasonic Technology**

Sonobond is a worldwide leader in the application of ultrasonic welding and bonding technology. Over its 49 years of operation, Sonobond has earned an outstanding reputation for its pioneering work and quality-engineered products. Today, the company manufactures a complete line of ultrasonic welding and bonding equipment for a wide variety of customers in the body armor, filtration, medical, apparel, automotive, appliance, electrical, HVAC, and aerospace industries. Sonobond’s engineers and sales personnel work closely with customers to find the optimal solution for each company’s requirements. They are also committed to providing exceptional technical support and superior service before, during, and after installation.

### **Additional Information**

For more information about the SeamMaster™ High Profile Ultrasonic Bonder and the SureWeld™ 20 Ultrasonic PlungeBonder™—as well as to learn about the company’s free, no obligation Ultrasonic Bonding Viability Test—visit the Sonobond website at [www.SonobondUltrasonics.com](http://www.SonobondUltrasonics.com) or call 800-323-1269.

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You can also contact Sonobond's vice president, Melissa Alleman, at

[MAlleman@SonobondUltrasonics.com](mailto:MAlleman@SonobondUltrasonics.com).

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### **PHOTO CAPTIONS**

#### ***[Photo of ballistic vest with straps]***

Sonobond's SureWeld™ 20 Ultrasonic PlungeBonder™ with customized tooling permits manufacturers to attach straps to the front and back sections of a ballistic vest's nylon outer shell. These straps are ultrasonically bonded within the seam line *without* compromising the integrity of the body armor.

#### ***[Photo of the SureWeld™ 20 unit]***

Thanks to new customized tooling, the Sonobond SureWeld™ 20 Ultrasonic PlungeBonder™ can comfortably attach straps to the outer shell of five ballistic vests per minute. This bonding process is fast, efficient, and environmentally-friendly.