

BRANSON

Softwings



Softwings from Stephanie Keller e.K.
www.softwings.de

Branson “Cut and Seal” process solution overcomes Softwings multi-layer, textile sealing challenge.

Background

As an alternative to conventional antiperspirants, Stephanie Keller e.K. developed a fabric underarm pad to protect against underarm moisture. The pad’s direct contact with the body required that it be gentle on the skin. In addition, the product had to have an aseptic surface that guards against the formation of odor and bacterial growth. The underarm pads are made of several textile layers: a soft surface fabric, a highly absorbent middle layer made of viscose, and a water-impermeable, breathable back side.

Challenge

The manufacturing process involved a complex step of joining three different layers that, because of their properties, behave differently. In addition, this composite product needed to be comfortable so annoying seams or protruding lint after sealing had to be avoided. Plus the impermeable, silicone paper only needed to be attached to a portion of the surface of the back side.

Solution

Within a very short time, Branson presented a solution that combined cutting the materials and welding them in a single process. Branson developed a “cut & seal” process that solved the problem and maximized the production process. In addition, by using the 2000Xc ultrasonic welding system, Branson was also able to increase the longevity of the horn and cutting anvil.

During the cut-and-seal process, a brief metal-to-metal contact occurs between the horn and anvil, which results in fast sealing of the pad materials between the tools. During the weld mode, the targeted clamp force between the cutting anvil and horn can be precisely controlled. This keeps the contact time between the horn and anvil to a minimum, which considerably increases the service life of the tools while also producing the necessary weld integrity.

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Americas

Branson Ultrasonics Corp.
41 Eagle Road
Danbury, CT 06810, USA
T: 203-796-0400
F: 203-796-0450
www.bransonultrasonics.com

Europe

Branson Ultraschall
Niederlassung der Emerson
Technologies GmbH & Co. OHG
Waldstrasse 53-55
63128 Dietzenbach, Germany
T: +49-6074-497-0
F: +49-6074-497-199
www.branson.eu

Asia

Branson Ultrasonics (Shanghai) Co., Ltd.
758 Rong Le Dong Road
Song Jiang, Shanghai, PRC, 201613
T: 86-21-3781-0588
F: 86-21-5774-5100
www.branson.com.cn

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Results

The advanced adjustment capabilities of the Branson ultrasonic welder allowed contact between the layers of material to be controlled in a precise manner during the cut-and-seal process.

The process resulted in no visible fibers appearing along the seams of the fabric layers of the pad. And the high-quality sealing procedure of the layers produced a comfortable, wearable pad.

Stephanie Keller, owner, was involved in the solution procedure during the extensive testing period and said, **“It was during the testing phase that I became convinced that Branson was a competent and strong partner for ultrasonics.”**