

BRANSON

Staying in Synch with New Technologies
Innovative Solutions for Business
and Consumer Electronics


EMERSON
Industrial Automation

Branson Helps Electronics Product Manufacturers Quickly Adapt to Ongoing Market Changes

Branson understands the impact that constant product evolution has on companies in the Business and Consumer Electronics marketplace. Technological advances continually affect the look, feel and performance of electronic products, putting pressure on you to deal with shorter product life cycles and the need for rapid product development. For more than 60 years Branson has helped solve these challenges by providing the joining technologies, technical expertise, and responsive service that enable electronics manufacturers to get new products to market quickly and cost-effectively.

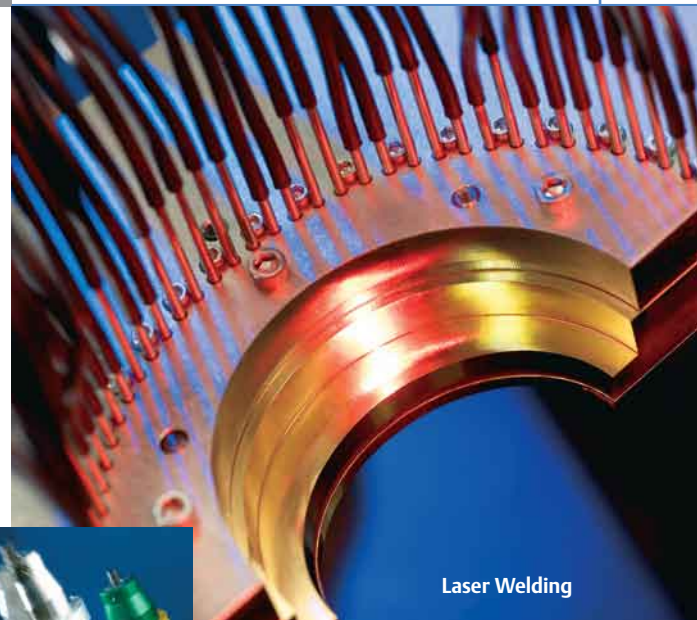
Ergonomics, functionality, ecology, durability, and aesthetics are major factors that impact product design and choice of materials. Manufacturing considerations include the use of high-performance engineering resins, new combinations of materials, thin-wall designs, and the more precise welding requirements and tighter tolerances of new precision parts. No matter how demanding the application, you can rely on Branson's global resources and unrivaled capabilities to provide a superior solution.



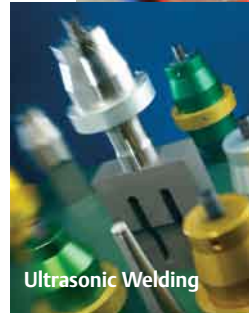
A “Process Neutral” Approach Leads to the Right Solution

With expertise in a wide variety of joining technologies, Branson offers a range of possible solutions for every application. Taking a “process neutral” view, we don’t try to promote any one specific joining technique. Guided by our unmatched application experience, we can quickly select the technology or combination of technologies that best meet your product and processing requirements.

Branson’s plastics welding technologies include Ultrasonic Assembly, Vibration Welding, Hot Plate Welding, Spin Welding, Thermal Processing, or one of our Clean Joining Technologies: Laser Welding, Infrared Welding, and Vibration Welding with infrared preheating. We also offer Ultrasonic metal welding techniques, which include spot welding and wire termination systems, continuous seam welding systems, wire splicing systems and tube sealers.



Laser Welding



Ultrasonic Welding



Vibration Welding

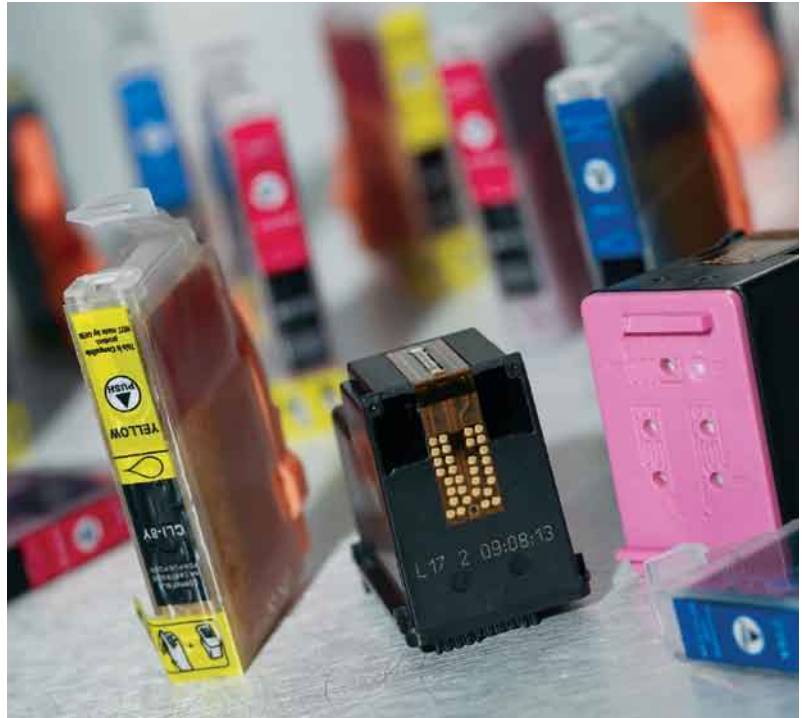
Fast Response, Worldwide

There are over 70 Branson technical centers, manufacturing facilities and sales and support offices strategically positioned throughout the Americas, Europe and Asia. Being close by, we can respond to your needs quickly, wherever you are located. Our knowledge of local markets and regulations enables us to keep projects on track, and on time. If your electronic products are designed in one part of the world and manufactured in another, we can help you coordinate international development and processing for greater productivity, cost-efficiency and speed to market.

Our internal communications map provides a seamless transfer of information to all Branson facilities around the world. The knowledge gained in one region is quickly disseminated to all regions, so customers everywhere can take advantage of the latest advances in joining technology.

Better Application Development Through Continuous Innovation

Branson's culture of innovation enables us to quickly provide solutions that enhance your ability to keep up with the latest industry demands. We've developed assembly processes that support ecological standards and requirements for recyclability. Our bonding technologies are highly energy-efficient and eliminate the need for chemical solvents and adhesives or the addition of fastening crimps and screws. We ensure better production controls with data management systems that offer a full range of storage and analysis options. And we're continually expanding our joining capabilities, finding ways to do things never before done, such as effectively combining plastic assembly with metal welding.



Ink cartridges have evolved from PS using Ultrasonics to PP using Vibration Welding to PC using Laser Welding. Branson's range of joining technologies adapt to changing demands.

A Wider Range of Application Knowledge

Whether your processing challenge is working with delicate and sensitive instrumentation, heavy-duty components, irregular shapes, complex geometries, or difficult-to-join materials, you can depend on Branson's expertise to see that you get it right. A partial list of our electric/electronic applications experience includes the following:

- Micro Speakers, Sensors, Switches (Dip SW), Connectors
- RFID (Radio Frequency Identification Device), ACF (Anti-Clone Function)
- Media Components: USB, SD, Flash Memory
- Ink and Toner Cartridges (Powder- and Liquid-Filled)
- Mobile Devices: Cellular Phones, PDAs
- Modems
- Accessories: Adaptors, Ear Phones

Branson Applications Labs Let You Test for Success

When it's time to change or upgrade the business or personal electronics products you make, you'll find a wealth of guidance at Branson's applications development laboratories. With locations in every region of the globe, there is a Branson laboratory close to you, staffed by highly experienced application specialists ready to help whenever you need them. From prototype development to production, material and process selection, from tooling requirements and processing speed to costs of production, they'll help you to quickly assess the feasibility of your application.



Application Development

- Battery Packs (for Phones, Power Tools, PCs)
- Game Stations
- Solar PV Cell Batteries, Electric Storage Devices
- Bar Code Scanners



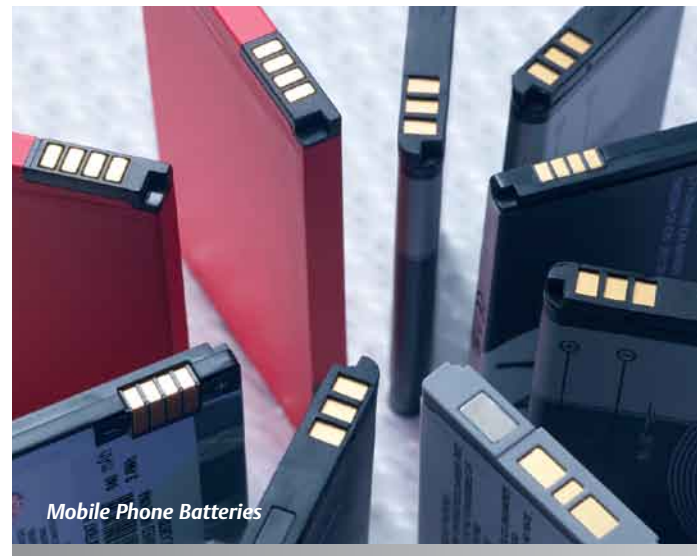
Media Components

A Reliable Partnership

We have developed close working relationships with companies of every size in the Business and Consumer Electronics marketplace. Our collaborative efforts have enabled us to move fast to evaluate new design concepts, material options, multiple welding techniques, and production efficiencies, resulting in successful entries into rapidly evolving electronics markets worldwide.

Utilizing Branson's engineering and application expertise in the early design stages can speed up the entire product development

process, from concept to full-scale manufacturing. Plus, our complete dedication to customer satisfaction includes a wide range of hands-on support services from operator training to troubleshooting.



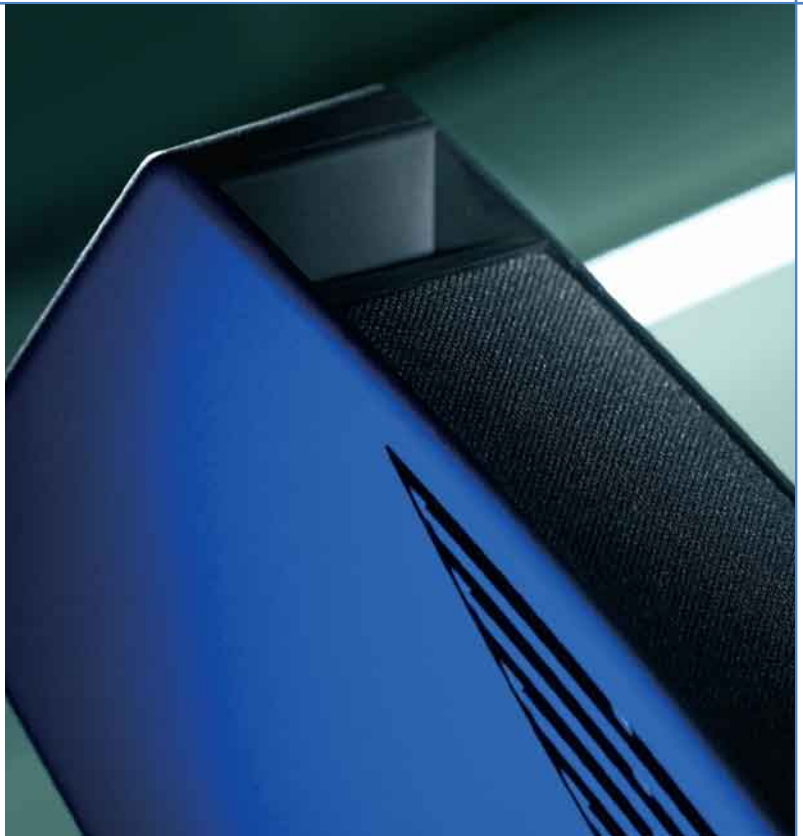
Mobile Phone Batteries



Flash Drives

Branson is part of the Industrial Automation division of Emerson, a diversified international manufacturing and technology company committed to developing technological breakthroughs that advance the performance of a wide range of products and processes. Emerson takes pride in developing forward-thinking technologies that help customers stay ahead of the curve.

Instilled with Emerson's proactive corporate philosophy, we utilize our exceptional capabilities and global reach to develop and implement custom solutions that meet our customers' specific needs. We invite you to bring us your most challenging application ideas, whether actual or conceptual, and together we'll turn them into new or modified products that provide a functional and competitive advantage.



Speaker

More Business and Consumer Applications

Examples of additional solutions for the business and consumer industry include battery tabs, memory drives and game consoles.



Maintaining a Focus on the Future

Our continuous investment in R&D is an essential commitment to the future success of Branson and its customers, especially in the electronics industry where technology changes are an ever-present reality. We actively participate in the publicly funded industrial collective research initiative and cooperate with various research centers that have produced widespread innovations benefitting companies everywhere.

To meet the need for precision welding of new materials being used in electronics products, we're developing Torsional Welding techniques. This clean and delicate joining process is suitable for thin-foil assemblies and ultra-thin housings where protection of sensitive inner electronic parts is essential. We're also refining the Shear Welding process to improve the weldability of liquid-crystal polymers, enabling you to take advantage of the material's excellent strength and heat resistance for electronics applications.

Our advances in fiber-coupled simultaneous Laser Welding enable precise, clean and fast joining in mass production environments.

To see how Branson's electronics joining expertise can help you adapt to new trends quickly and economically, contact the regional center nearest you.

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