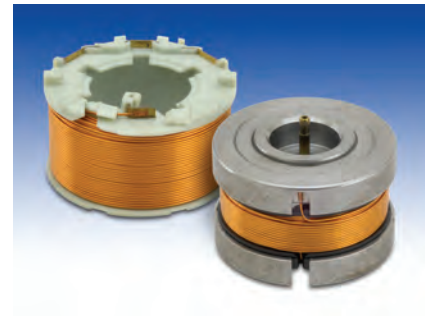


40 kHz -- 20 kHz -- 15 kHz

Ultrasonic Metal Welding



Ultra Sonic Seal manufactures ultrasonic metal welding systems in frequencies of 40 kHz, 20 kHz and 15 kHz with available power ranging from 700 to 6000 watts. Systems are available as bench-top and hand-held units. A typical bench-top system consists of an ultrasonic power supply, converter, booster, horn, pneumatic press/actuator and holding fixture.

Ultra Sonic Seal also designs and develops custom ultrasonic welding systems, both fully automated and semi-automated, to customer production requirements.

In addition to complete ultrasonic metal welding systems, Ultra Sonic Seal manufactures a full range of custom tooling in a variety of materials, as well as holding fixtures and components.

FEATURES AND BENEFITS:

- Ultrasonic Metal Welding is the ideal process for bonding conductive materials such as copper, aluminum, brass, gold and silver.
- Excellent welds are achieved with otherwise difficult applications, such as welding materials that are dissimilar in thickness and composition.
- The process is environmentally green as no solders, flux or braze material are required.
- Very little energy is expended. A typical weld uses under 2000 watts and is completed in under one-half second.
- The process is a cold weld so that components are not annealed and no harmful intermetallics are formed during welding.
- The ultrasonic weld is extremely reliable with built-in process monitoring to help assure zero rejects.
- Weld tooling typically lasts for several hundred-thousand cycles with no maintenance.
- Large weld areas of up to 150mm sq. can be produced with our 6000 watt power supply.

TYPICAL APPLICATIONS

- Wire Splicing
- Wire Termination
- Flex Cable Termination
- Tube Sealing
- Batteries
- Heat Sinks
- Solar Panels
- Coils
- Contacts
- Switches