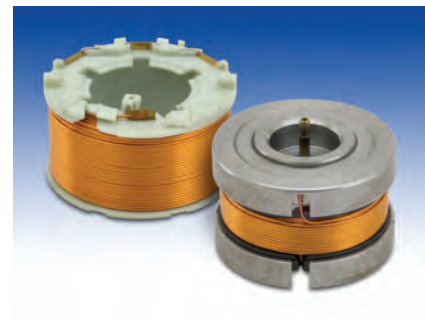


40 kHz -- 20 kHz -- 15 kHz

# 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

**MODEL M20**

# Ultrasonic Metal Welding Systems



Model M20 Metal Welder



Model MG Power Supply

Ultra Sonic Seal offers its latest line of ultrasonic metal welders combined with the new G-Series power supplies to create a powerful and precise system designed to handle a broad spectrum of applications.

The G-Series power supplies provide user-friendly microprocessor control and are available at 1200, 1700, 2200 and 3500 watts in 3 different welding mode configurations for maximum versatility.

The M20 provides simple and precise set-up and operation with optimum operator safety and ergonomics.

**Weld by:**

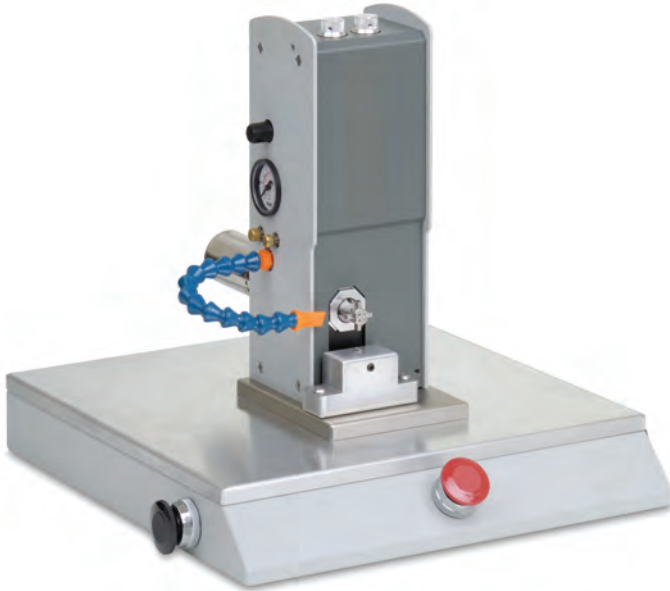
- digital time - **Model TG**
- digital time and/or constant energy - **Model MG**
- digital time, constant energy and/or distance - **Model DG**

**STANDARD FEATURES INCLUDE:**

- Automatic frequency tuning
- Digital amplitude control
- Good part / Bad part output signal
- Multiple job storage
- Back-lit LCD display
- Ultrasonics load meter scale
- Upper and lower weld quality settings
- RS232 Serial Port printer output
- Optional PLC/IO (input/output) ports
- Soft start overload protection circuitry
- Load regulation circuitry
- Distance mode settings in English or metric units (with Model DG only)

**MODEL M40**

# Ultrasonic Metal Welding Systems



Model M40 Metal Welder



Model MG Power Supply

Ultra Sonic Seal offers its latest line of ultrasonic metal welders combined with the new G-Series power supplies to create a powerful and precise system designed to handle a broad spectrum of applications.

The G-Series power supplies provide user-friendly microprocessor control and are available at 400 and 800 watts in 3 different welding mode configurations for maximum versatility.

The M40 provides simple and precise set-up and operation with optimum operator safety and ergonomics.

**Weld by:**

- digital time - **Model TG**
- digital time and/or constant energy - **Model MG**
- digital time, constant energy and/or distance - **Model DG**

**STANDARD FEATURES INCLUDE:**

- Automatic frequency tuning
- Digital amplitude control
- Good part / Bad part output signal
- Multiple job storage
- Back-lit LCD display
- Ultrasonics load meter scale
- Upper and lower weld quality settings
- RS232 Serial Port printer output
- Optional PLC/IO (input/output) ports
- Soft start overload protection circuitry
- Load regulation circuitry
- Distance mode settings in English or metric units (with Model DG only)

**MODEL M15**

# Ultrasonic Metal Welding Systems



Model M15 Metal Welder



Model MG Power Supply

Ultra Sonic Seal offers its latest line of ultrasonic metal welders combined with the new G-Series power supplies to create a powerful and precise system designed to handle a broad spectrum of applications.

The G-Series power supplies provide user-friendly microprocessor control and are available at 3500 and 4500 watts in 3 different welding mode configurations for maximum versatility.

The M15 provides simple and precise set-up and operation with optimum operator safety and ergonomics.

#### Weld by:

- digital time - **Model TG**
- digital time and/or constant energy - **Model MG**
- digital time, constant energy and/or distance - **Model DG**

#### STANDARD FEATURES INCLUDE:

- Automatic frequency tuning
- Digital amplitude control
- Good part / Bad part output signal
- Multiple job storage
- Back-lit LCD display
- Ultrasonics load meter scale
- Upper and lower weld quality settings
- RS232 Serial Port printer output
- Optional PLC/IO (input/output) ports
- Soft start overload protection circuitry
- Load regulation circuitry
- Distance mode settings in English or metric units (with Model DG only)