

## ultrasonic spot welding systems

### ACTUATORS

#### FEATURES

- Rigid Cast Center Frame
- Single Piece, Dual Nodal Mount Horn and Booster Stack
- Precisely Adjustable Up and Down Stops
- Independent Horn and Converter Air Cooling Flow Controls
- Pre-Lubricated and Sealed Linear Bearings
- Pneumatic Actuation
- Electronic Pressure Control



MWB401 Actuator  
on Integral Base



MWA401  
Actuator

Sonics' 40 kHz ultrasonic metal welding systems consist of an actuator (available versions shown above) and a power supply (MX or MSC series) shown below.

### POWER SUPPLIES

#### MODELS

**MXE** - Time and Energy Based Weld Modes

**MSC** - *SmartControl* with Time and Energy Based Weld Modes and Weld Height Verification



MX Series Power Supplies



MSC *SmartControl*  
Power Supplies

#### POWER LEVELS

- 800 Watts Peak Power

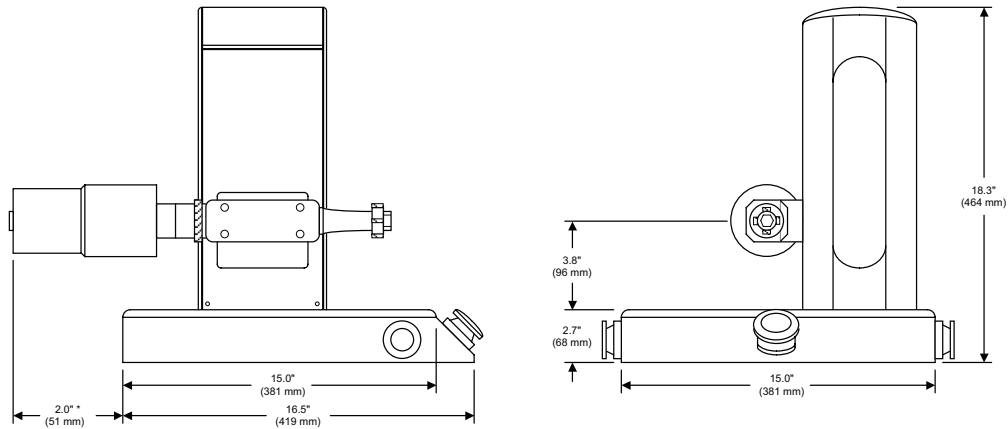
Sonics' 40 kHz power supplies are available in two versions, the MX Series, with standard keypad operation and the *SmartControl* MSC Series with full color touch screen controls. The features of the models are compared below.

POWER SUPPLY FEATURES	MXE	MSC
Microprocessor Controlled	■	■
Automatic Frequency Tuning	■	■
Digital Amplitude Control	■	■
Digital Force Triggering	■	■
Weld Time Delay Setting	■	■
Afterburst Time Setting	■	■
Multiple Job Storage	■	■
Digital Stack Wattage Display	■	■
Digital Stack Frequency Display	■	■
Weld Cycle Counter	■	■
Upper and Lower Weld Mode Limit Settings	■	■
Soft Start Overload Protection Circuitry	■	■
Load Regulation Circuitry	■	■

POWER SUPPLY FEATURES	MXE	MSC
Color Touch Panel Operator Screen		■
Weld Cycle Graph Chart Screen		■
Weld Teach Mode		■
Weld Sequence Mode		■
Amplitude and Pressure Ramping		■
Timed Converter and Horn Air Cooling Cycle		■
English and Metric Weld Height Settings		■
Password Protected Four-Level User Access		■
Serial Printer Port Connection	■*	■
PLC I/O Interface Connection	■*	■

\*Optional

## MWB401 dimensional data



\*\*Add Approximately 2.5" (63 mm) for Secondary Booster)

## specifications

### Actuator Data:

MWA401 Actuator Weight: 44 Lbs. (19.9 kg)

MWB401 Actuator on Integral Base Weight: 85 Lbs. (38.5 kg)

Pneumatic Requirement: 80 PSI Clean and Dry Air Service

### High Profile Power Supply Data:

Peak Output Power: 800 W

Power Supply Weight: 21 Lbs. (9.5 kg)

Power Supply Dimensions: 15.2" (386 mm) Wide x 7.0" (178 mm) High x 18.7" (476 mm) Deep

Power Requirement: 220 VAC @ 20A

## system options

**Foot Pedal  
Switch with  
Emergency Stop**



**Secondary Booster:**  
Aluminum or Titanium  
Secondary Booster

