

PAS

PLASTIC ASSEMBLY SYSTEMS

Models HS40/AS40 Ultrasonic Welding Systems

PAS offers its new line of SS-Series 700 watt ultrasonic power supplies, combined with 40 kHz welders, to provide a fast, precise process for delicate assemblies that require mild ultrasonic horn vibrations.

The new SS-Series provides microprocessor control and consistent reliability for every application, Power supplies feature smart-logic, user-friendly key-pad navigation and are available in three different welding mode configurations for maximum versatility and flexibility.

Standard Features

- Multiple Job Storage
- Digital Force Triggering
- Calibration Pulse Prior to Every Weld Cycle
- Back-Lit LCD Display
- Ultrasonic Load Meter Scale
- Upper and Lower Weld Limit Settings
- RS232 Serial Port Printer Output
- Optional PLC I/O (Input Output) Ports
- Soft Start Overload Protection Circuitry
- Load Regulation Circuitry
- Distance Mode Settings in English or Metric Units (with optional linear encoder only)
- Digital Amplitude Control
- Ultrasonic Horn/Stack Frequency Display
- Good Part/Bad Part Output Signal
- Weld by: Digital Time - Model SST
Digital Time and/or Constant Energy - Model SSE
Digital Time, Constant Energy and/or Distance - Model SSD *Requires optional linear encoder.



SS-Series Power Supply
Dimensions: 15.25" W x 6.50" H x 17.00" D
(387.3 x 165.1 x 431.8mm)
Weight: 21 lbs. (9.5kg)

WE SUPPLY SOLUTIONS!

THERMAL ASSEMBLY EQUIPMENT • SPIN WELDERS • ULTRASONIC WELDERS • VIBRATION WELDERS
HOT PLATE WELDERS • CUSTOM ASSEMBLY SYSTEMS • PRE-OWNED EQUIPMENT

Welding Stands and Assembly System Configurations

PAS's standard 40kHz ultrasonic welders are configured as bench top units or Actuator Systems for special automated machinery integration. Ultrasonic "stacks" (converter/booster/horn) are also available for special machinery integration and where multiple RF sequencing stations are required.



Model HS40 Welding Press

The HS40 Welding Press is a bench-top unit with a rigid cast aluminum base, dual, non tie down, anti-repeat palm buttons, and emergency stop. The press has adjustable pressure triggering and an adjustable positive stop. For greater operational flexibility, the power supply can be remotely positioned up to 35 ft. (10.6m) from the welder.

Model AS40 Actuator

Designed for use in automated assembly systems, the head can be mounted in any position on a bridge or other structural member. The welding head is guided on precision linear roller bearing slides and can be matched with all of PAS's power supplies including models SST, SSE and SSD.

Optional Linear Encoder

For more precise weld depth control, an optional encoder is available on either the model HS40 press or AS40 actuator with depth of weld accuracy of +/-0.001" (0.025mm).



For extremely high precision, close tolerance depth of weld applications, PAS's SMP Welder with stepper motor drive and SSE power supply is recommended. To find out more about the SMP Welder, call to request a brochure.

40 kHz Welding Overview

Ultrasonic welding at 40kHz is particularly suited for smaller, precision plastic assembly applications that require gentler action. The tooling of 40 kHz welders is one-half the size of units operating at the more common 20 kHz frequency range. This results in a lower amplitude of horn vibration and consequently less stress on the parts being assembled.

The gentler action of 40 kHz ultrasonic welding is fast, precise and virtually inaudible. 40 kHz welders and components are smaller in size and are more readily accommodated where space is a premium in automated assembly systems.

Typical assembly applications using 40 kHz ultrasonic welders include microelectric components, printed circuit boards, high-precision assemblies such as intricate medical devices, and plastic parts in which class "A" surface marking is undesirable.

40 kHz is also well suited for ultrasonic staking or riveting, where the controlled flow of the molten plastic is used to capture or retain another component, usually of a dissimilar material.

All of PAS's 40 kHz ultrasonic welding equipment can be configured to meet the particular requirements of a wide range of applications.

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