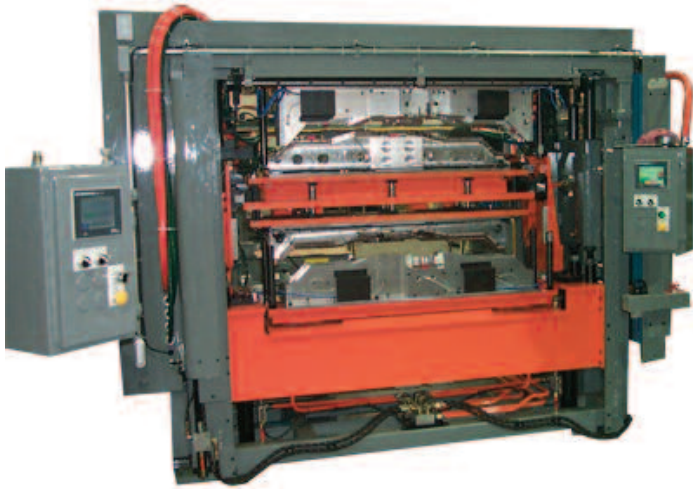




# Servo-Controlled Hot Plate Welding Systems



Sonics' custom hot plate welding systems offer assembly solutions for welding single and multi-cavity parts produced by injection, extrusion, or blow molding. Hot plate welders utilize servo-motor actuation technology instead of traditional pneumatic or hydraulic actuation. Therefore, systems are capable of welding parts with wall thickness down to 1 mm.

The servo-control system is compact, accurate, flexible, and reliable. In addition, systems are sold at a price competitive with pneumatic and hydraulic technologies. Servo-Controlled Hot Plate Welders can be custom-designed to meet your specific application requirements.

There are many advanced features incorporated in Sonics' Servo-Controlled Hot Plate Welders that streamline the welding process. Feature highlights are listed below and on the reverse side.

**No Mechanical Stops Required** - Through a keypad interface that contains password protection, all system actuation can be programmed. The welder can be rapidly set up due to its ability to store and retrieve programs through this keypad.

**Quick & Easy Set-up** - The tooling on the systems are designed with a couple of bolts to eliminate the usual lengthy setup procedure, making these units very simple to operate and set up.

*For information on features, options and typical joint welding designs, please see reverse.*

## Servo-Controlled Hot Plate Welders: Additional Features and Options

**Dual Axis Positioning** – Yields independent control of the part melt depth. It also ensures accuracy to +/- .001" for more precision over the weld cycle.

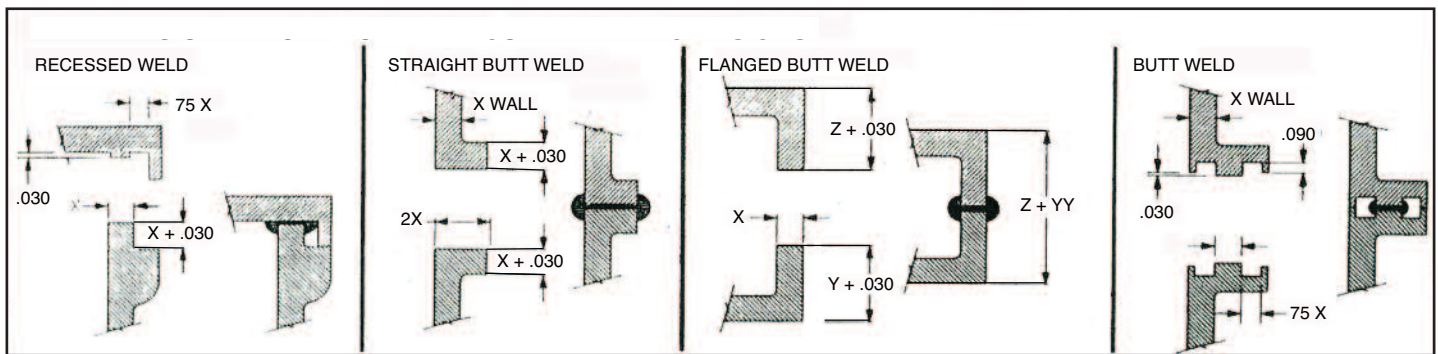
**Variable Speed Control** – To ensure even more accuracy, variable speed control can be programmed for a precise melt during heating and assembly cycles.

**Contact Heating Mode** – Direct contact bonding is suitable for most types of materials. This mode creates applied pressure and heat to seal plastic parts in seconds.

**Radiant (Non-Contact) Heating Mode** – This mode is ideal for abrasive materials or for materials that tend to stick or string. The system can be quickly and simply programmed in order to avoid contact of the parts with the platen during the heating phase.

**Independent Heating Zones** – When welding parts of different materials, temperatures for separate heated platens can be digitally controlled and modified. A safety mechanism is in place to restrict the machine operation if temperatures fall below the target range.

### Typical Examples of Hot Plate Joint Welding Designs



Sonics can design or modify these systems as well as recommend the most appropriate joint welding design to meet a customer's specific application requirements. Call or e-mail to speak directly with one of our applications engineers.

Sonics offers a complete line of plastics assembly solutions, including:

- Ultrasonic welding systems (bench-top and held)
- Ultrasonic kits and stack components for OEM systems
- Heat staking and inserting machines
- Vibration welders
- Spin welders
- Custom tooling and fixtures

