

[Back](#) **Design Guidelines****500 SERIES MP**

Plastic Heat Staking and Insertion Equipment

"Take Total Control of Your Operations!"

Our thermal assembly systems offer many distinct advantages over other methods of assembly:

- **Lower Capital Investment**
- **Unlimited Tooling Design**
- **Interchangeability of Tools.**
- **Increased productivity by combining several operations into a single cycle.**

**NEW**

All Sonitek Controllers are now available with Sonitek's new Thermo-soft™ Temperature Controlling Software

Insertion
Standard tips available for
inserts up to 3/8" or
M10



Micro Processor Control System

Operating parameters are easily loaded into the microprocessor controller using the digital key pad and are monitored using 2 line 32 character display.

Dwell time, cycle counters, security lockout and automation

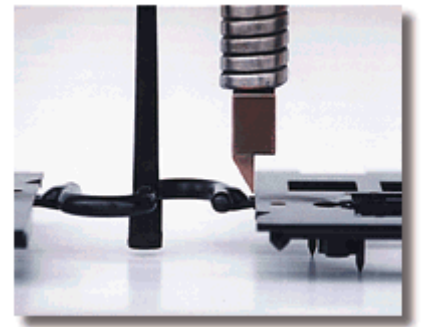
Hot Knife De-Gating
Heated sharp blades
with beveled
edge can cut gate flush
to **-.010**

controls are among the standard features accessed through the keypad.

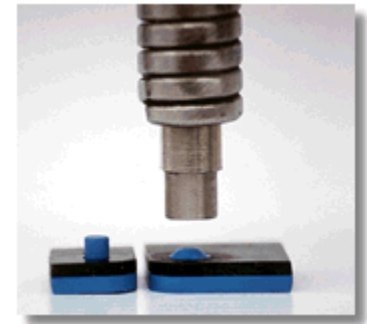
The pneumatically operated bench top system offers precise, rigid support for upper tooling that can meet the needs of the most challenging multi-plane, multiple insert and staking applications.

Out of temperature alarm/lockout for up to twelve zones, and an upper limit switch are standard features, as are dual non tie-down non-repeat palm buttons for safe press actuation.

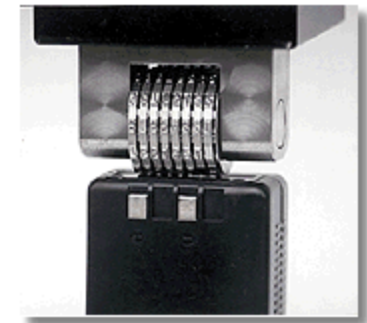
The multizone digital temperature control chassis can house up to 6 dual zones. Controllers can be added to the standard chassis as needed. The optional post cooling feature speeds up assembly time and assures tight assemblies.



Staking
Custom platens available to stake several studs/tabs simultaneously.



Date Coding/Serialize
Use type holders or multi-wheel numbering for permanent part I.D.



Multi zone temperature controller



Digital key pad control with 2 line 32 character display



Unique Post Cooling Feature for tight stakes and faster assembly

Standard Features

- Digital key pad control, 2 line 32 character display
- Secondary post cycle cooling kit

Options Available

- Remote start cable/remote reset cable
- 1/4 Ton, 1/2 Ton, or 3/4 Ton Presses
- Multi zone temperature controls (up to 12)

- Parts counter digital/resettable 0-99,999
- Total cycles counter digital 0-99,999
- Self diagnostic circuitry with integrated manual test points/buttons
- Microprocessor based auto tuning PID temperature controllers
- Digital dwell timer
- Dynamic triggering
- Upper limit switch
- Hydraulic slow down/speed control
- Head up/head down flow controls
- Micro style mechanical depth stop
- 4" stroke with precision linear bearing system
- Quick change tooling set-up
- 80 - 1200F operating temperature (probes only)
- Dual palm buttons with E-stop
- Two hand, anti-tie-down-circuitry
- Anti-deflection kit
- Gross head height adjustment crank
- Non asbestos insulators
- Pressure regulator, gauge, and filter
- Air dump valve with lockout/tag out
- Comprehensive instruction manual
- One year warranty
- Optical touch buttons/photo-optic actuation switches
- Pneumatic part clamping mechanism
- Manual part clamping mechanism
- Remote start cable
- Machine stands with locking/swiveling casters
- Manual and pneumatic slide tables
- X-Y adjustable thermal probe mounts
- X-Y adjustable thermal tip mounts
- Modular mounting hub for machine less base
- Lockout panels for power supply and temperature control panels
- Custom fixturing
- Multiple heating element platens
- 7" stroke
- Precision die sets

Electrical Specifications: (Using 340 watt probes)

One (1) through six (6) temperature zones:

= 115 VAC, 50/60Hz - current draw at full rated output 20.0 amps

Seven (7) through twelve (12) temperature zones:

= 220 VAC, 50/60 Hz - current draw at full rated output 20.0 amps

Dimensions:

Maximum working height

26" without upper/lower tooling

19.687" with standard thermal probe assembly and 3/4" long tip (lower fixturing not included)

Throat depth

6.250" to center of tool mounting gusset plate

Mechanical specifications

Pneumatic requirements:

Clean dry air at 100 psig maximum working force

Model 500 - 490lbs @ 100 psig

Model 550 - 960lbs @ 100 psig
 Model 570 - 1,380lbs @ 100 psig

Stroke Length: 4" standard (7" is available option)

Fixture Mounting Hole Dimensions on Base: (Same as Ultrasonic Welders)

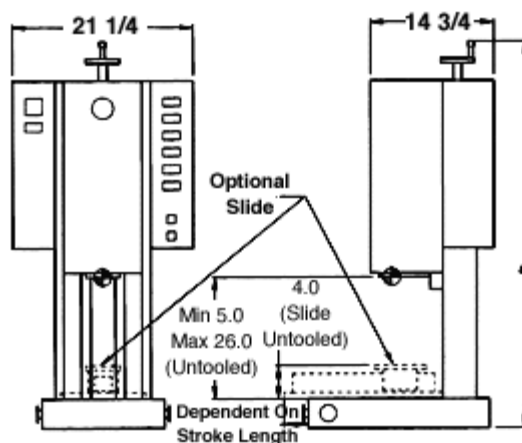
Four tapped 3/8-16 threaded holes on 7" B.C. and 12" B.C.

Base Dimensions: 14 1/2" W x 22 1/2" L

Machine Height To Top of Crank Handle: 48"

Machine Width: 21 1/4" Across Upper Control Panel

Standard Model Specifications



TS500 1/4 Ton TS550 1/2 Ton TS570 3/4 Ton

Determining Model Designations

TS 5	(0/5/7)	(1-12)	(1-12)
	Cylinder	Connector Outputs	Temp Zones
Model	Size*	for heater or probes**	12 Max

* 0=1/4 Ton 5=1/2 ton 7=3/4 ton

** 7 or more zones requires 1/2 or 3/4 ton press

Sonitek reserves the right to change specifications without notice. All Sonitek presses come with a one year warranty.

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