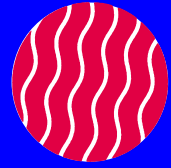


HEAVY DUTY HEAT STAKING ASSEMBLY PRESSES



SONITEK



HT SERIES MP MODEL

PLASTIC ASSEMBLY EQUIPMENT

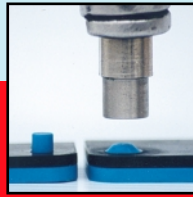
INSERTION
STAKING
DEGATING
DATE CODING

- Medical
- Aerospace
- Automotive
- Appliance
- Electronic
- Business Machine
- Toys
- Recreation

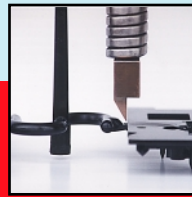
Why Use Thermal Assembly?



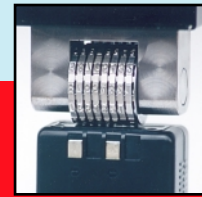
Insertion



Staking



De-Gating



Date Coding

Our thermal assembly systems offer you the fastest, most reliable and versatile assembly process available.

SONITEK manufactures a complete line of high tonnage thermal assembly systems for inserting and staking thermoplastics. Each system can be built to standard specification or custom built no matter how sophisticated your assembly needs.

SONITEK thermal presses simplify set-up, operation and changeover – resulting in less down time, higher quality and more production. Our innovative “System Controller” is easy to use with no programming required. All machine functions and diagnostic messages are displayed in plain language – *English* – at the touch of a button.

With our forty years of practical “hands-on” experience you can count on **SONITEK to provide you with high quality, reliable systems for your assembly needs.**

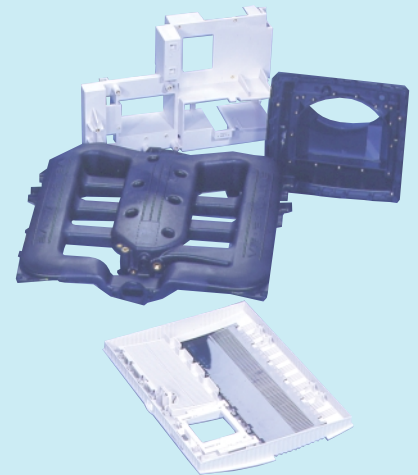
At **SONITEK** we apply the science of thermo-dynamics and over forty years of experience to provide our customers with reliable, high quality, engineered systems for practically every secondary thermal application used on thermoplastics. Our thermal technology offers the versatility, speed and interchangeability of tooling that today's manufacturers expect. Our experience and expertise in application engineering, tooling design and support makes **SONITEK** the leader in the field of thermal assembly equipment for plastic products.

Our engineering staff is available to assist you with design and application guidance to insure the success of your thermoplastic assembly need. Our team of engineers, including manufacturing, design, applications and sales engineers, carefully review all avenues for the most productive, cost efficient and ergonomic tooling approach for your project. At **SONITEK** we pull from our years of experience from working with some of the largest corporations from all over the world. Our fast accurate process is the answer for a reliable and repeatable assembly process with no material limitations.

Call **SONITEK and let us show you a faster more reliable process for your plastic assembly needs.**



Multi-Zone Temperature Controller with multi-mode auto tuning and RS 485 communications option.



INSERTION

- Extremely quiet operation
- Install all your inserts in one cycle
- Will not produce metal flakes, chips, or dust
- No limit on quantity, size, or plane
- Minimal tool wear
- Very low maintenance cost
- Minimal hoop stresses applied to boss
- Works on thin wall designs without cracking
- 10% to 20% more holding retention
- Large inserts easily installed
- No material limitations

STAKING

- Stake one or one hundred stakes on multiple planes
- No cracking, splitting, breaking, or stresses applied to boss
- 100% aesthetically pleasing
- No damage to fragile electronic or other sensitive components
- Minimal tool wear
- No flash or particulate matter created
- Extremely tight stakes created with our proven methods
- Any thermoplastic material easily staked

Depth stop

Cushioned air
cylinder

System controller

Filter, regulator
lubricator

Multi-zone
temperature controller

Die-set ball bushing
head guides and
hardened steel rams
need no adjustment

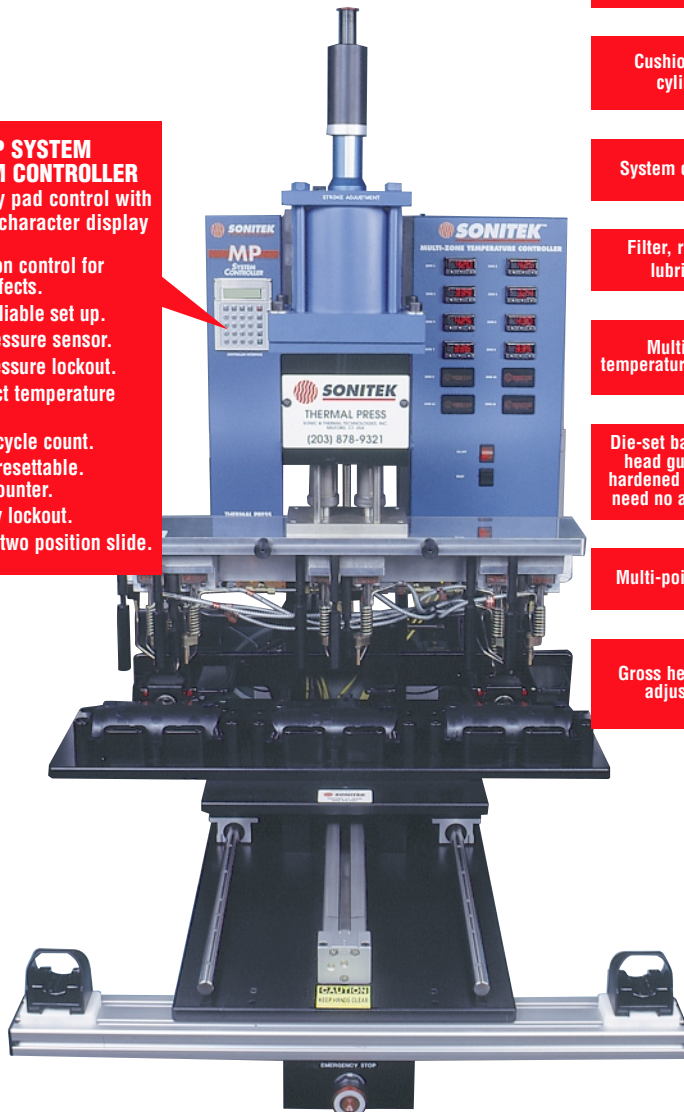
Multi-point tooling

Gross head height
adjustment

MP SYSTEM SYSTEM CONTROLLER

Digital key pad control with
2 line 32 character display

- Precision control for zero defects.
- Fast, reliable set up.
- Part pressure sensor.
- Low pressure lockout.
- Incorrect temperature alarm.
- Digital cycle count.
- Digital resettable. cycle counter.
- Security lockout.
- Control two position slide.



Heavy duty
steel frames

Custom fixtures made
for your
production pieces

Dual anti-tie down
hand buttons

High Tonnage, Heavy Duty, Heat Staking MP Series Thermal Press

Features & Benefits

Gross Head Adjustment: Designed with a rack and pinion beveled gear mechanism for ease of moving head up and down to next position/application.

Digital Dwell Timer: For precise control of the staking application once contact has been made with the product. This timer provides timing from .01 seconds up to hours. Programmable time ranges include hundredth of seconds, tenths of seconds, seconds and minutes.

Pneumatic Speed Control: Incorporated in the High Tonnage series systems is a pneumatic check unit/slow down device. Generally the tooling head enables the pneumatic speed control just prior to the heated tooling making contact with the plastic stud or insert to be staked. The speed control device is adjustable to control how fast or slow the stake is being performed.

Mechanical Depth Stop: Is used for fine adjustments of final tip position.

Post Cooling Feature: Our unique post cooling feature is used on staking applications to insure a consistently *tight assembly* and *prevent plastic adherence* or "stringing" on the hot tool. The post cooling air line is located adjacent to the heated tip and is adjustable in cooling time and air flow to the tool. This feature allows us to shorten cycle times by using elevated temperatures to "remold" the plastic part through use of true melting and cooling much like a molding machine.

Spring Loaded Plunger: Mounted to tooling head to apply pressure to work piece prior to and after staking.

Multi-Point Tooling/Probe: Our custom designed 340 watt thermal probes have an integral thermocouple at the heater/tip interface for optimum temperature control of the process tool. The probe has a 1/4"-28 tapped face to accept interchangeable tips. The High Tonnage series systems can be supplied with up to 24 outputs.

Optical Touch Buttons: Ergonomically designed photoelectric switches eliminate hand, wrist, and arm stress associated with repeated mechanical switch operation. Because no physical pressure is applied, risk of carpal tunnel syndrome is reduced and operator productivity and comfort is increased.

With the **RS485 Tek-Port™** communications option the user can remotely communicate with the system monitoring and changing values on up to 128 controllers from a single PC. Also, the new **Thermasoft-TCS™** software is a **Windows®** based software program and provides remote control and the ability to download various menus from file during initial setup or during operation. In addition, the software provides graphic real-time and historical data acquisition with full color logging and charting. This advanced technology eliminates errors and provides optimum performance for any heat staking, thermal insertion, degating and date coding application. Installation and removal of the controller is simplified by its sleeve mount and connector arrangement.



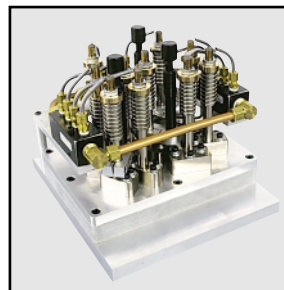
With the **RS485 Tek-Port™** the user can remotely communicate with the system monitoring and changing values on up to 128 controllers from a single PC.



10 Point Platen



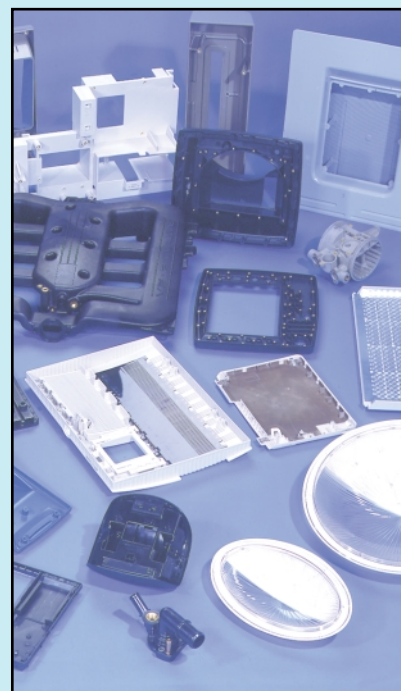
5 Ton 4-Post Press



Custom Thermal Tooling

HEAVY DUTY HEAT STAKING ASSEMBLY PRESSES

MODEL NUMBER	HT1000	HT1500	HT2500
Nominal Pressure	1 Ton (907 kg)	1-1/2 Ton (1360 kg)	2-1/2 Ton (2268 kg)
Clamp Pressure at 100 psi (7 bar)	1963 lbs (890 kg)	2827 lbs (1282 kg)	5026 lbs (2280 kg)
Cylinder Bore Diameter	5" (127mm)	6" (152mm)	8" (203mm)
Throat Depth – From Center of Head	8.5" (216mm)	9.5" (241mm)	12.5" (318mm)
Head Stroke – Standard – Optional	4" (101mm) 6" (152mm)	4" (101mm) 6" (152mm)	4" (101mm) 6" (152mm)
Ground Steel 12" x 16" x 3/4" Work Table (305 x 406 x 19mm)	12" x 16" x 3/4" (305 x 406 x 19mm)	12" x 16" x 3/4" (305 x 406 x 19mm)	
Dimensions – Height – Width – Depth	41" (1040mm) 28" (711mm) 25" (635mm)	48" (1219mm) 28" (711mm) 27" (686mm)	49" (1245mm) 35" (888mm) 34" 863mm)
Air Consumption at 80 psi (6bar) 20 cycles per minute	8.5 scfm 240 l/min	13.5 scfm 375 l/min	21 scfm 600 l/min
Weight – Uncrated – Crated	350 lbs (159 kg) 450 lbs (203 kg)	375 lbs (170 kg) 475 lbs (215 kg)	450 lbs (204 kg) 550 lbs (250 kg)
Electrical Service Heated Tooling Platen 220 VAC	System controller 110 VAC Consult Factory for more information		



Standard Features

- Heavy duty welded H frame
- Cushioned air cylinder
- 4" stroke with precision twin die set ball bushings and four hardened steel shaft
- Gross head height mechanism with rack and pinion gear mechanism
- Micrometer style positive depth stop with locking mechanism
- Air filter regulator
- Pressure gauge
- Ram speed up/down control
- Work table with leveling capability
- Dual anti tie-down palm buttons with E-stop
- Digital dwell timer
- Operator lock-out controls
- Comprehensive instruction manual
- Microprocessor control

Options Available

- Multi-zone temperature controls
- High pressure cylinders
- Custom fixturing
- Customized systems
- Multiple element platens
- Adjustable probe mounts
- Precision die sets
- Part & component position sensor
- Components clamping systems
 - Mechanical part holding clamps
 - Plunger Clamp System
 - Pressure Plate Clamping System
- Rotary tables/linear conveyors
- Machine stands
- Extended column height
- Photo Optic Activation switches (Opto-touch)
- Post cycle cooling
- Two position sliding fixtures (manual/pneumatic)
- Horizontal orientation
- Pre/post cycle clamping
- Part Position System
 - Simple sliding pallet with docking pin in shuttle table mounted on precision rail for manual, pneumatic, or stepper motor indexing. Rotary table and pallet transfer systems also available

Keep up to date with all our new
application studies and
insertion and staking equipment
ON THE INTERNET

www.sonitek.com



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