

## Standard Machines



**Lab/R&D**

A very economical machine for R&D departments, start up situations or production quantities that don't require our standard high volume equipment.

This unit comes complete with heat and cooling timers, air cooling of the die, a water cooled die/tool holder, coil/die centering adjustment and a liquid cooler for proper cooling of the induction generator, coil and tool post.

All tooling used in the machine is completely interchangeable with all of our other air cooled systems.



**Pneumatic Slide**

This machine offers PLC control of all processing parameters and offers the ultimate in control for single or dual tube tipping or bonding.

Precision tip forming or changing any configuration of plastic tubing requires heating of a forming die followed by rapid cooling to retain formed memory. Only induction heating can achieve desired temperatures within a second or less, providing the user an efficient, high quality production tool. Heat times will vary with tubing sizes, tubing configuration and size of generator.

PVC, polyethylene, polyurethane, nylon, teflon and other thermoplastics can be easily formed with our tooling and machines. Closed or open tips, neck downs, butt and internal welds and more sophisticated shapes such as angled tips and balloon-to-tube welds are possible with PlasticWeld Systems catheter tipping equipment.

### Closed Tipped Tubes ↓



### Open Tipped Tubes ↓



### Bonded Tubes ↓



### Tipped & Bonded Tubes ↓



### Flanged Tubes ↓



### Flared Tubes ↓



**Programmable Slide**

For those that prefer the control that an electric slide offers, the single or dual tube machines can give programmed control of tipping distance and velocity.

### The PlasticWeld Single Tipformer

For intermediate production volume the Single Tip-former is the ideal machine. Individual parameters and mechanical functions can be controlled by timers or a PLC & Operator Interface. The latter also provides program storage. This operator friendly machine produces one tip formed catheter per cycle.

### The PlasticWeld Dual Tipper Line

This line consists of the pneumatic Dual (side by side) Tip-former, pneumatic Dual Independent Tip-former, Electronic Dual Tube Tip-former and the Water Cooled Dual Tipformer.

For higher volume output these are the machines to consider. A PLC and an Operator Interface control all mechanical functions and provide program storage. Each of these machines produces two completed tip-formed catheters per cycle.

## ***PlasticWeld Systems HPS-Series Of Catheter Production Equipment***

The PlasticWeld Dual (side by side) Tipformer

This machine is identical to the Dual Independent machine with a fixed carriage which tips two tubes simultaneously.

The PlasticWeld Dual Independent Tipformer –

Incorporated into this machine is a split collet carriage. This along with a precision regulator / valve feed system provides each catheter tube an independent travel and depth control as well as reacting individually to the “melt” of the tube during processing. Available as front feed or standard side feed.



**Slope Front Platform**

The slope front operator platform provides a comfortable work area plus allows greater visibility of the tipping tools. For those applications that may require wire or mandrel insertion for each cycle. Available on all of the above machines except Tipper/Eyecutter Machine.

### **STANDARD FEATURES INCLUDE:**

- Proprietary PlasticWeld Transistorized Solid State Power Supply
- All parameters programmable through Touch Screen Interface Panel
- Pneumatic Actuator or Stepper Motor Actuator system
- Precise adjustment for correct coil placement of the heat zone
- Collet clamping of tubes with adjustable clamp pressure
- Diagnostic functions incorporated in Interface Panel
- 0-100% stepless power & heat On/Off controlled through Operator Interface Panel
- Constant current control within  $\pm 0.5\%$  of a 10% line voltage variation
- Load matching transformer & capacitors
- Self contained re-circulating liquid cooler
- Foot switch
- Air or water cooling of tooling
- Water cooled tool holder
- Quick tool change over
- Stainless steel or Nickel tooling
- Easy clean Stainless Steel Cabinet with integrated work platform

We have provided equipment for processing tubing from 1fr to 40fr and many other unusual custom applications.



**Dual Alternating Machine**

This unit has two alternating forming stations which allow the operator to unload and load one side while the other side is processing tubes. You produce the output of two dual machines in the space of one unit with only one operator.



**Induction Eye-Former**

This unit uses induction energy to form smooth polished eyes in tubes.



**PlasticWeld Systems, Inc.**

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## Combination Machines

This machine produces completed tip-formed catheters with cut eyes per cycle. If the catheter design requires a drilled eye, a drilling unit replaces the eye-cutting device. Magazine loading and part ejection is available.



**Tipping / Skiving**



Produce Open or Closed Tips and Skive eyes in one cycle of the machine.



**Tipping / Punching**



Produce Open or Closed Tips and Punch eyes in one cycle of the machine.



**Tipping / Drilling**



Produce Open or Closed Tips and Drill eyes in one cycle of the machine.

# *PlasticWeld Systems HPS-Series Of Catheter Production Equipment*

## STANDARD FEATURES continued---

PLASTICWELD MACHINE SPECIFICATIONS:	
Power Output (watts)	1000
Output Frequency (khz)	Variable
Line Voltage *	1 ph 50/60hz 110/120 vac
Air Requirements	80psi or 5.5 bar
Weight	Approximately 120 lbs or 54 kg
Approximate Dimensions	19" wide x 25" deep x 18" high or 483mm wide x 653mm deep x 457mm high

\* Other voltages available.

## ADDITIONAL OPTIONS:

- 1, 2 or 3 kw Power Source available
- Lab/R&D Units, Tipping Units, Flaring Units,
- Induction Eyeformer
- Combination Units –
  - Tip-Drill, Tip-Skive, Tip-Punch
- Remote Heat Stations
- Single or Dual tube units – OR –
- Customized per your specifications

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**Tipping / Induction Eye-Forming**

Produce Tips and smooth polished eyes in one cycle of the machine.

## Purpose Built Machines



**Remote Power Supply for  
Tipping, Welding, Bonding,  
Upsetting.....**

This heat station is ideal for instances where it is desirable to remove the power supply from the clean room environment or bench top space is limited. This unit is designed for tipping, welding, bonding and upsetting.

A remote heat station allows the user to place the power supply separate from the tip-forming actuator. The unit features a low friction pneumatic actuator with adjustable speed, length of stroke and tube gripping pressure.

Single or double tube configurations are available as a turnkey system which includes the power supply, remote heat station, induction coil, cooling system tooling and documented process parameters. The package requires only a 110/120 volt 50/60hz power source.

## Automatic Feeder System



Fill the raw material hopper with tubes and turn on the machine. The pre-cut tubes are picked up, fed to the tipping machine, tipped and unloaded into the finished product tray without an operator touching the material.

## Thermal Impulse Sealer w/Shuttle Table



Utilizes a tray to hold and advance product during the sealing process. The machine pictured seals 5 parts per cycle, 10 rows of product per tray. Bench top unit features: PLC control of all functions, automatic operation of sealer once cycle is started, 220 AC, 20amp, 50/60hz, 1-phase/80 – 120 psi.

## ADDITIONAL SERVICES & EQUIPMENT

- Thermal Tip Formers
- Induction and Radio Frequency Tooling
- Semi-Automatic and Automatic Systems

## Heated Staking Machine



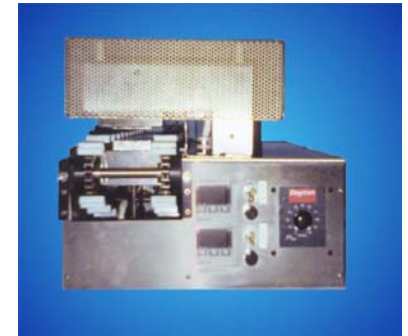
Bench top machine utilizes heated tooling to stake rigid components together. Features two-hand operation, fully guarded heat zone, and requires only a 120 volt receptacle and a clean compressed air source for operation.

## Heated Platen Press



Compact bench top unit for sealing PVC film. Excellent for prototype and short runs. Features PLC control of all functions.

## Tube Bending Oven



The PlasticWeld Systems conveyor oven is designed for bending angles in rigid PVC to forming hooks, single curves, double curves, pigtail and other shaped catheter tips. Depending on the complexity of the equipment the oven's range from table top size to stand alone units.

## Stand Alone Drilling & Punching Machines

In addition to PlasticWeld Systems, Inc. line of tip-forming/welding machines we also offer manual and automatic punching and drilling equipment. Pictured is a manual drill press tooled for drilling holes in a spiral pattern in a multi-lumen catheter. Additional tooling also allows skiving operations to be performed on the same machine. The punch press is tooled for eye-cutting and skiving of air-lumens in a dual lumen tube. Pneumatic equipment is available and will accept the same wide variety of tooling. For high volume production, automatic drilling, punching and indexing equipment can be provided. This equipment features PLC control and program storage for ease of set-up in multiple job operations.

## Custom Manufacturing Equipment

### MANUAL DRILL PRESS

(below left)

- 200 to 20,000 rpm spindle speed
- Hollow quill with slug eject system
- Adjustable depth stop
- X & Y axis tooling adjustment
- Rapid tool changeover
- Decimal or metric readouts
- Factory or customer tooling
- 220 volt conversions available



### MANUAL HOLE PUNCH

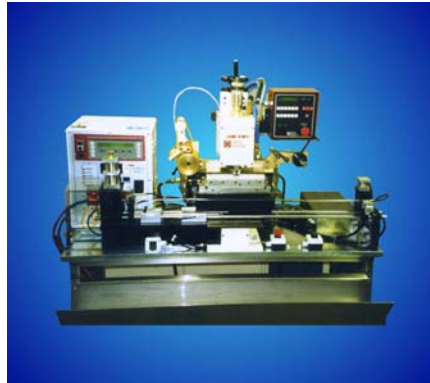
(above right)

- Hollow ram with slug eject system
- Adjustable depth stop
- X & Y axis tooling adjustment
- Rapid tool changeover
- Factory or customer tooling

Just a few of the custom items that have been designed and manufactured at PlasticWeld Systems, Inc. are multi-function equipment to perform, tipping, proximal and distal skiving and hot stamping of tubing, custom pneumatic tube cutters, cutting fixtures for intricate cuts of mesh or thin plastic sheets, flaring equipment tubes up to 6" diameter.

### Custom Multi-Function Machinery:

This equipment performs tipping, proximal and distal skiving and hot stamping of tubing.



We offer material and tipping evaluations at our facility in Newfane, NY. Please send samples of materials with a drawing, sketch or sample of the configuration you wish to produce. We will make prototypes using in house tooling, and contact you with the results.

Most products can be produced on our standard line of equipment, however, our systems can easily be customized to meet your specific applications.

We are committed to providing technically superior systems. Our customers can expect maximum production, minimum maintenance and ease of operation. All of which will afford them the opportunity to produce the highest quality end product at a competitive price.

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**Thermal Impulse Sealer:** for sealing thin plastic film sleeves.

### Custom Multi-Angle Film Cutter:

For cutting straight or angled shapes from roll fed film.

