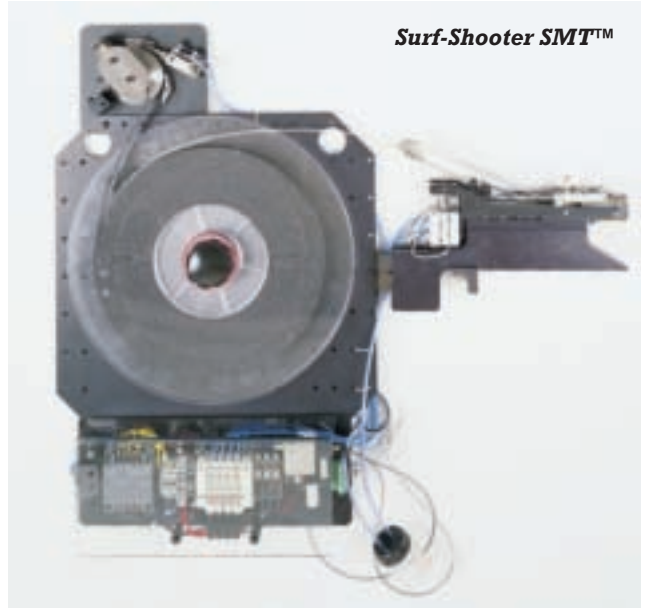**Model 9700 XY**

**Surf-Shooter SMT™**

Zierick's family of full and semi-automated through-hole terminal insertion systems simplifies applications, and provides the greatest range of functionality and flexibility for insertion needs.

Our complete line of THT insertion systems includes the Model 9700 XY and Model 9700 and hand tools.

Zierick's *Surf-Shooter SMT™* Feeder for Continuous Strip terminals and our SMT Loose Piece Pin feeder are designed to work with our customers' placement systems, and eliminate the need for costly taping.

**Model 9700**

**SMT Loose Piece Pin Feeder**

**Model MP 1000**

Semi-Automated and Manual Wire Crimping Equipment for SMT Insulation Piercing Connectors

**Versa Crimp**

## Basic Features

- ■ *Fully Automatic*
- ■ *12" x 12" PC board capacity*
- ■ *High speed servo driver platform*
- ■ *Machine cycle rate capable of over 5,000 pph*
- ■ *Easy operator programmability*
- ■ *Standard Model 9700 tooling compatibility*
- ■ *Dedicated or adjustable board fixturing options*
- ■ *Touch-screen interface*
- ■ *Ergonomic safety cover package*
- ■ *Compact table top design*
- ■ *Optional CE compliance*
- ■ *BEC Capabilities*
- ■ *Microprocessor controlled*
- ■ *Efficient insertion for a range of applications*
- ■ *Sturdy construction for long life*
- ■ *Accurate, repeatable results*
- ■ *Quick change tooling*

## Air Requirements

- ■ *90-120 PSI (6.2- 8.3 bar)*
- ■ *10 CFM (4.2 L/S)*

## Power Requirements

- ■ *120 VAC, 60Hz, 10 AMPS*
- ■ *Optional 240V, 50 Hz, 5 AMP*

## Dimensions

- ■ *Length 48" (1219 mm)*
- ■ *Depth 45" (1143 mm)*
- ■ *Height 38" (965 mm)*
- ■ *Weight 275 lbs. (125 Kgs.)*

Designed for maximum reliability, the Zierick Model 9700 XY Positioning Terminal Insertion System is an ideal work cell for production lines, and provides solutions for the fluctuating demands of contract manufacturers. Its modular tooling reduces down-time between terminal changeovers to keep things moving on your shop floor.

The 9700 XY incorporates a modified 9700 terminal insertion machine with a dual axis positioning system to achieve high speed, repeatable insertions through a set of programmed coordinates. User interface is through a series of menus presented to the operator via touch-screen controls.

Programming can be done manually though a simple jog and teach process, or specific data points can be downloaded directly to the PLC with an optional data connection kit. The unit is capable of storing 50 programs with 150 position points each, all of which can be

*This is an image of a PCB inside the work board holder of the XY. Zierick's Model 9700 XY Terminal Insertion System is fully automatic, with a machine cycle rate of over 5,000 pph.*

modified, deleted, or added to at any time.

The system is a self-contained positioning and insertion unit, which is designed to fit on a standard bench top and require minimal user intervention. Once programmed and aligned for a specific board pattern, the system will provide fast, repeatable insertions without the need for adjustment or calibration.

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**ZIERICK**
ENGINEERED INTERCONNECTION SOLUTIONS

## Basic Features

- *Interchangeable tooling*
- *Self-locating anvil/lower tooling*
- *Cycle rate up to 5,000 pph*
- *Modular head, anvil, & feed*
- *Microprocessor controlled*
- *Automatic activation system*
- *Front panel machine status lights*
- *Optional CE compliance*

## Air Requirements

- *80-90 PSI (6.2-8.3 bar)*
- *8 CFM (3.8 L/S)*

## Power Requirements

- *120 VAC, 60Hz, 2 AMPS*
- *Optional 240V, 50 Hz, 1AMP*

## Dimensions

- *Length 33.5″ (851mm)*
- *Depth 5″ (381mm)*
- *Width 12″ (305mm)*
- *Weight 118lbs. (53.5Kgs)*
- *Throat Depth 15″ (361mm)*

The Model 9700 delivers fast performance, with production rates up to 5,000 pph, and inserts Zierick's full range of continuous strip PCB terminals and connectors.

Flexibility makes the Model 9700 ideal for production lines and manufacturers. Its sleek, compact appearance is combined with a rugged yet lightweight construction, providing dependable performance in a small bench-top footprint.

This model is designed for easy operator use. Set-up, alignment, and terminal changeover are accomplished by a number of key equipment features. These features include interchangeable applicator tooling, calibration tools for head-to-anvil alignment, fewer moving parts, and accurately machined mating surfaces.

## Features and Benefits:

■ *Simple and reliable method for inserting press-fit and splay mounted terminals.*

■ *Single tool can handle multiple terminal insertion applications.*

■ *Tools can be installed on almost any type of manual or pneumatic press.*

Ideal for low volume, short run, and prototype PCB assembly applications, Zierick's hand tools offer a simple and reliable method for inserting press fit and splay mounted terminals.

The hand tool can be easily installed on any type of press machine for increased flexibility and faster insertion. With the



addition of a lower tool die, terminals can then be splayed and locked into place to improve reliability and prevent part removal and rotation.

Zierick hand tools are available for PCB-mounted quick-disconnect terminals, quick-disconnect receptacles, post receptacles, test points and IDC terminals.
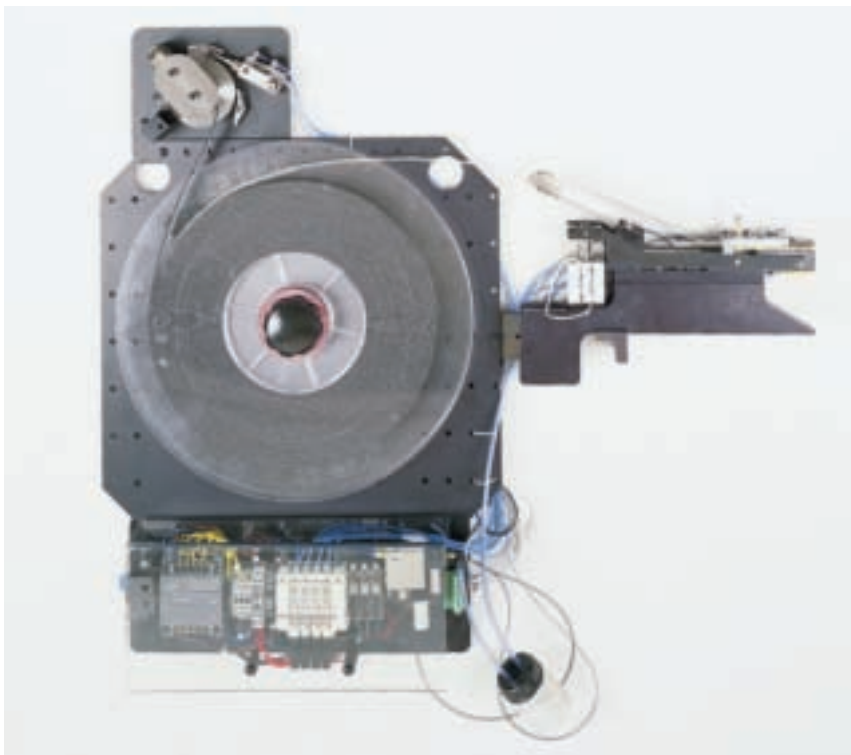
### Zierick Terminals (part numbers) that can be inserted with the Terminal Insertion Hand Tool

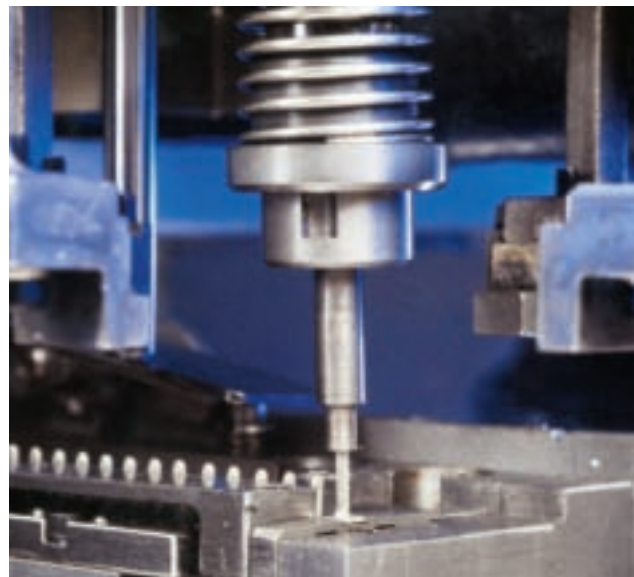| Terminal Dimensions | Male - Tab | | Female - Receptacle | | Insertion Tool |
|---|---|---|---|---|---|
| | Standard | *Stable-Lok®* | Standard | *Stable-Lok®* | |
| 0.110" x 0.020" | 834 | 1063 | – | – | ZPT81-A |
| 0.110" x 0.032" | 835 | 1064 | – | – | ZPT81-A |
| 0.187" x 0.020" | 895 | 1027 | – | – | ZPT81-A |
| 0.187" x 0.032" | 894 | 1024:1042 | – | 1025 | ZPT81-A* |
| 0.205" x 0.020" | 893 | – | – | – | ZPT81-A* |
| 0.205" x 0.025" | – | – | – | 1154 | ZPT81-A* |
| 0.205" x 0.032" | 892 | 1065 | – | – | ZPT81-A* |
| 0.250" x 0.032" | 836:906 | 1021:1041 | – | 1022:1037 | ZPT81-A* |
| | 972:953 | 1045:1057 | – | – | – |
| | 953-MOD | 1060:1061 | – | – | – |
| 0.110" x 0.020" | 949 | – | – | – | ZPT92-110* |
| 0.110" x 0.032" | 948 | – | – | – | ZPT92-110* |
| 0.187" x 0.020" | 956 | – | – | – | ZPT92-187* |
| 0.187" x 0.032" | 957 | – | – | – | ZPT92-187* |
| 0.250" x 0.032" | 901 | – | – | – | ZPT92-250* |
| 0.250" x 0.020" | 1032 | 1058 | – | – | ZPT81-A* |
| 0.250" x 0.032" | – | 1059 | – | – | ZPT81-A* |

*Available with lower tooling to effect terminal splaying. Anvil with 30° splay (standard) or 60° splay, and anvil holder are also available from Zierick.
Hand tools are also available for other Zierick terminals. Please consult factory.

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ENGINEERED INTERCONNECTION SOLUTIONS

The *Surf-Shooter SMT™* continuous strip feeder is a combination feed, shear and part present station designed to mount on the feeder rack of a placement system. With its own sophisticated on-board control system, the Surf-Shooter works independently of the host placement system. It senses when a part is picked up and automatically cycles, presenting another part for pick-up, eliminating the need for a mechanical, electrical or pneumatic interface with the placement machine. In most cases, standard nozzles are utilized and Surf-Shooter surface mount connectors are placed with no special machine modifications.

Some placement systems require communication between the feeder and the placement system. Zierick will work with the placement system manufacturer to provide that communication.
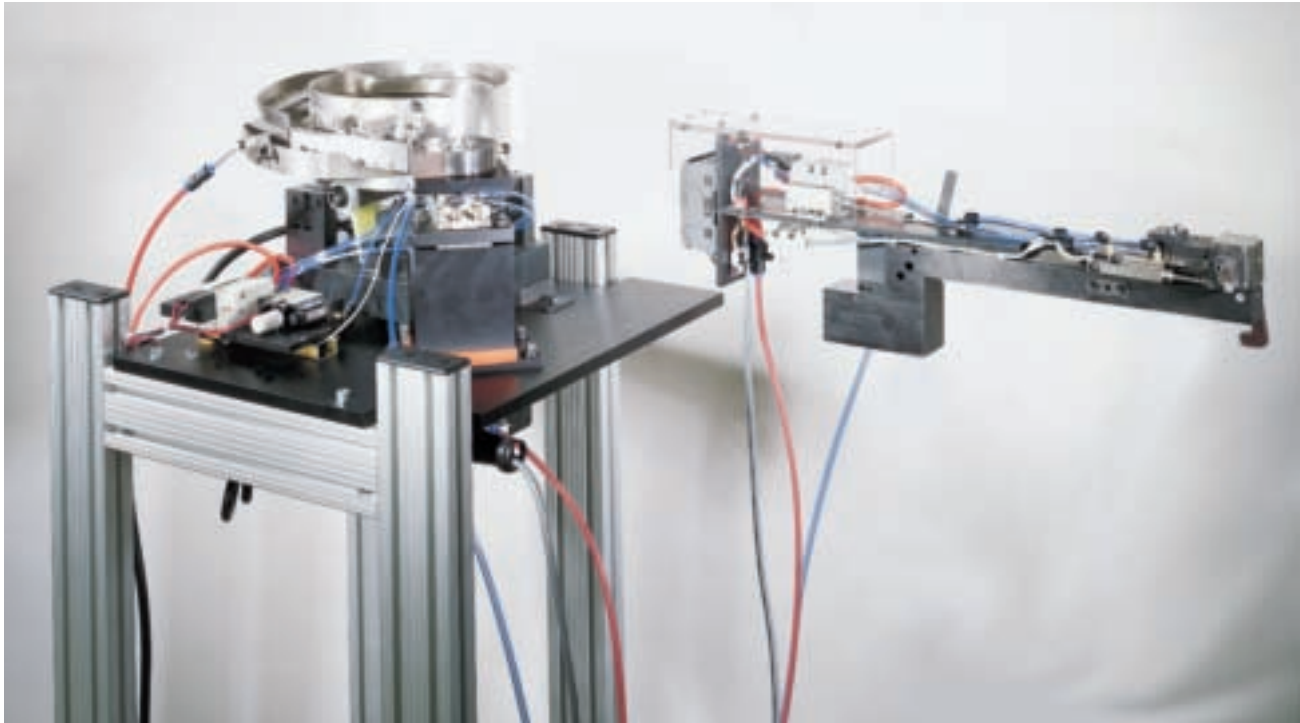
*Odd - shaped parts can be assembled in-line on existing placement equipment.*

*Surface Mount connectors are provided on a continuous reel of parts in strip form and are separated and presented to a vacuum pick-up nozzle by the feeder. Continuous Reels are supplied for Zierick SMT connectors such as Pins, Posts, IDCs, Tabs, Jumpers, Wire Grippers, Box Receptacles, and Clips.*
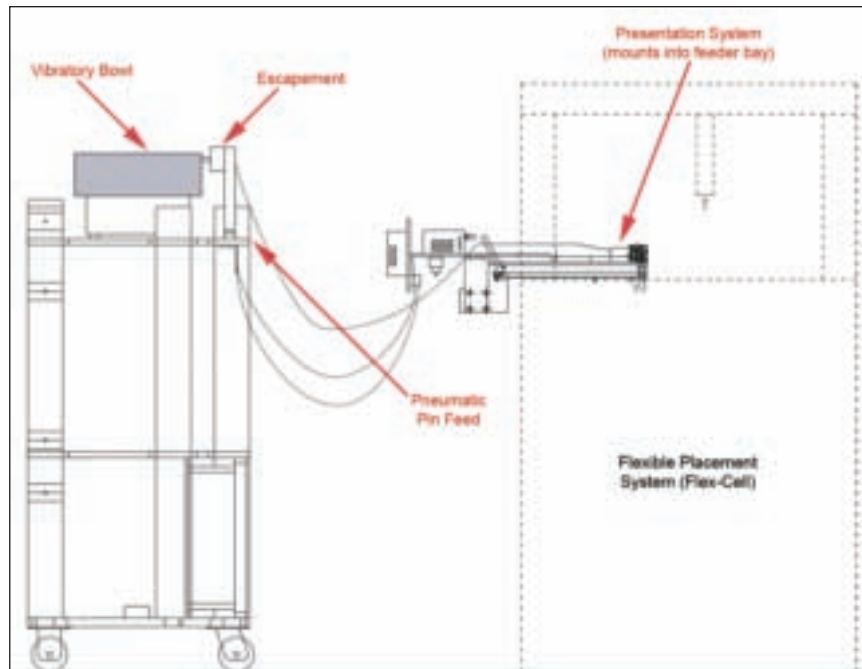
*U.S. Patent Nos. 5,605,430 and 5,449,265*

Zierick's *Surf-Shooter SMT™* loose piece pin feeder feeds surface mount loose piece pins ranging in size from 0.025" (0.64mm) square to 0.080" (2.03mm) in diameter, up to 0.750" (19.05mm) in length, at feed rates greater than 1 pin per second. The *Surf-Shooter SMT™* presentation unit is 3.750" (95.25mm) wide and is readily mounted in the feeder bay of most flexible placement systems, including Siemens, Universal, and Europlacer machines.

Typically, no electronic interface is required between feeder and placement machine. Some placement systems require communication between the feeder and the placement system. Zierick will work with the placement system manufacturer to provide that communication.

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The MP 1000, along with the appropriate interchangeable Crimp Die Set, is designed for medium to high volume applications. It delivers cost-effective wire terminations of the Zierick family of Insulation Piercing Crimp Terminals: PNs 1286, 1293, and 1295.

This powerful bench-top pneumatic machine provides an output range that is dependent on application and operator.

Available single position Crimp Dies:

- MP1-CRIMP-1286 for PN 1286
- MP1-CRIMP-1293 for PN 1293
- MP1-CRIMP-1295 for PN 1295

## Basic Features of the MP1000:

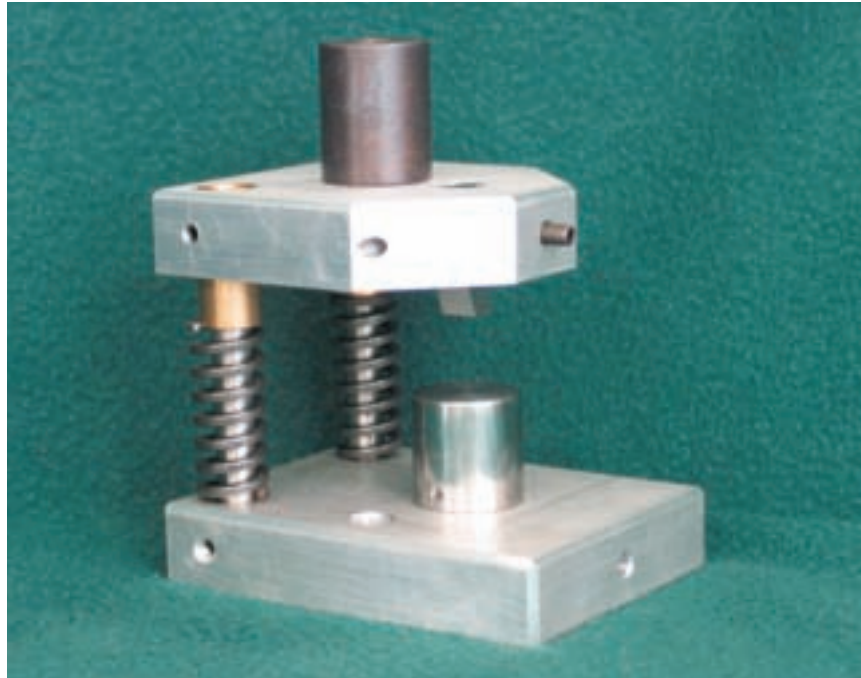| Base Width | 8" |
|---|---|
| Base Depth | 14" |
| Height<br>*(max. opening, anvil to crimp die)* | 0.500" |
| Depth of throat, max. | 2. 625" |
| Weight | 30 to 35 lb. |
| Air Required | 20 to 95 psi |



This small LCD Video Screen & Camera System can be attached to the MP 1000 in order to insure proper positioning of the PCB, to monitor the application, and for quality control.

LCD Video Screen & Camera Systems are sold separately.

The Versa-Crimp is designed for low volume applications. It is a small portable tool which, using the appropriate interchangeable Crimp Die Set, is designed for low volume applications, with options for different part numbers. It can be used with an arbor press, a bench vice or anything that will create enough force to make an adequate crimp.

## Specifications for the Versa-Crimp 1.5:

| | |
|---|---|
| **Base Width** | 3" |
| **Base Depth** | 4" |
| **Height when Open** | 3.650" |
| **Height** *(from top of mounting base to bottom of crimp die)* | 4.710" |
| **Center of Tool to Pin Springs** | 1.500" |
| **Weight** | 2.35 lbs. |



## WTC Wire Termination Crimp Hand Tool

This WTC Wire Termination Tool can be used, with the appropriate interchangeable Crimp Die Set, to terminate wires into any of the family of Crimp terminals. It was designed for use in the field or for low volume production.

These terminals include:

- PN 1286
- PN 1293
- PN 1295



*Wire Crimped
in Hand Termination Tool*



*Close-Up of PCB
in Hand Termination Tool*



*Interchangeable Die Set*

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