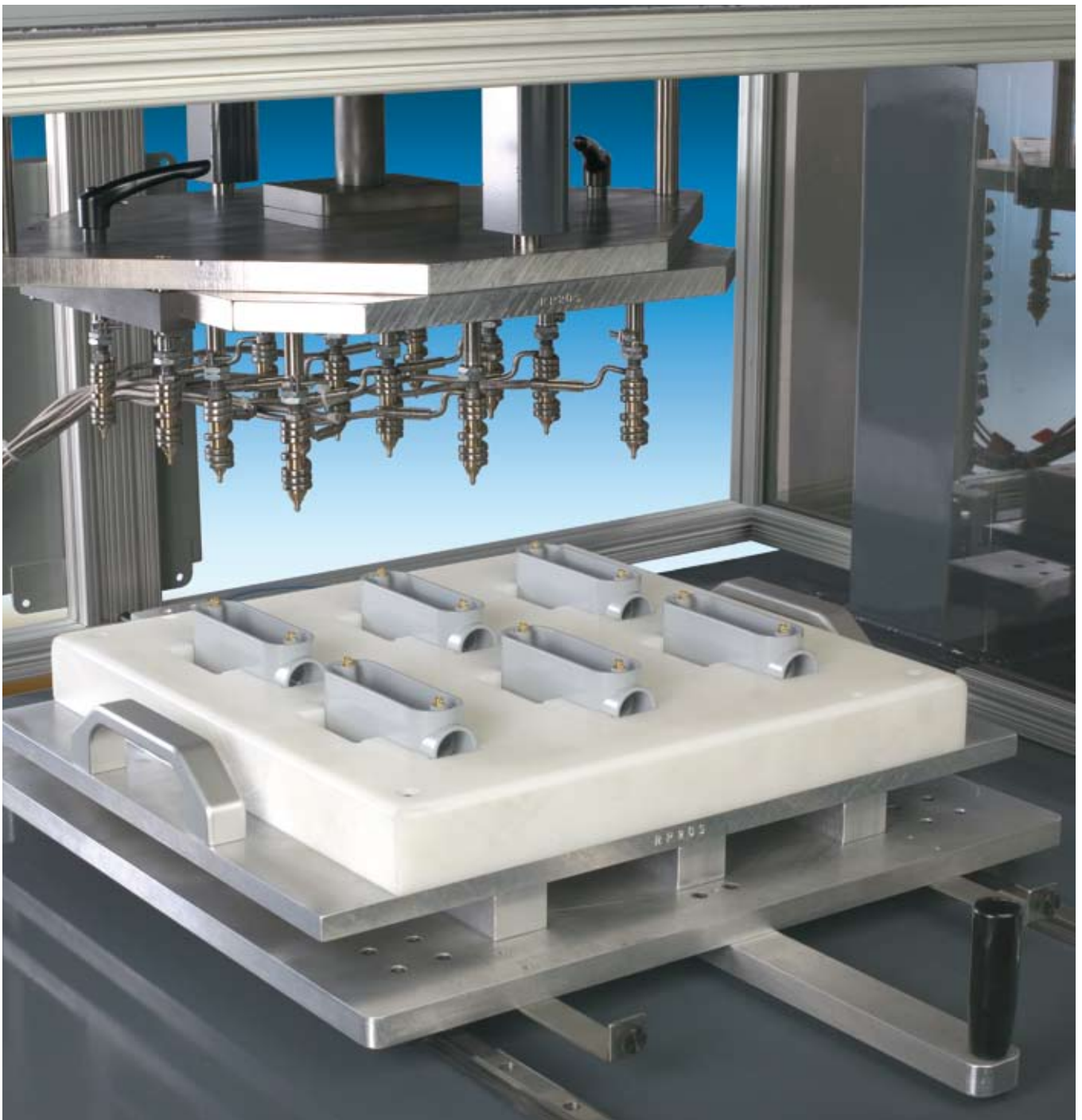


SPIROL[®]

INSERT INSTALLATION TECHNOLOGY





Cost effective, flexible solutions for your insert installation requirements

Five Step Process for Success

STEP 1 We determine your assembly objectives and prepare a proposal

SPIROL assesses your needs in areas related to the application:

- Performance requirements
- Special control/safety requirements
- Critical component specifications
- Quality objectives
- Production objectives

Based on your requirements, **SPIROL** develops the assembly concept best suited to meet your objectives. A detailed proposal is submitted with a fixed price and a performance guarantee.

STEP 2 We design an installation system based on your defined objectives

Upon receipt of your order, the assembly concept is reviewed and assigned to a **SPIROL** Project Engineer. A detailed layout is developed, components are specified and engineering drawings are prepared. A control package is carefully developed to ensure the system is interactive and fail-safe.

Our standardized, time-tested, modular designs are robust, reliable and easily adjustable – allowing for customization to meet the specific needs of your application. This translates into faster delivery, greater reliability, and the best value for equipment of comparable quality.

STEP 3 A fixture is designed to hold and align the components during installation

SPIROL specializes in custom part-holding devices called **fixtures**.

Fixturing, which includes aligning and holding your components accurately and firmly during installation, is a critical element to the performance of your installation equipment.

SPIROL reviews the detailed layout with you to ensure that all aspects of the machine meet your approval.

STEP 4 We build, test, install, and certify the machine – including educating operators and maintenance personnel

The assembly of the equipment is closely monitored by the **SPIROL** Project Engineer. The equipment is thoroughly tested at our plant.

As part of our standard procedure, **SPIROL** will send a qualified technician to your facility to set-up the machine and train your operators on the use and maintenance of the equipment. Only after you are satisfied with the quality and performance of the equipment is it turned over to you.

STEP 5 We provide total customer satisfaction

We have a long history of providing installation equipment of the highest quality and reliability. We are so confident in our equipment that **SPIROL offers the only performance warranty in the industry.**



SPIROL Insert Drivers install all common types of post-mold installed Inserts – Heat/Ultrasonic, Self-Tapping, Press-In and Expansion Inserts – as well as Compression Limiters.

*Our objective is to enhance your competitiveness through product quality, increased productivity and reduced manufacturing cost. **SPIROL** remains part of the process until the machine is meeting your objectives and paying for itself.*

Quality installation with enhanced productivity

Manual, semi-automatic and fully automated solutions available

Insert performance is a direct result of installation quality



Model HP Pneumatic Heat Insert Driver

Designed to install virtually any type of Heat/Ultrasonic style Insert



Shown without safety guard

Model HA Automatic Heat Insert Driver

Designed to automatically install virtually any type of Heat/Ultrasonic style Insert



Model TA Automatic Threaded Insert Driver

Designed to automatically install Self-Tapping Threaded Inserts

Options such as pick and place systems, rotary and linear part indexing, part and Insert presence sensing, and torque monitoring for Self-Tapping Insert installation can be added for enhanced productivity, heightened process control and error-proofing.

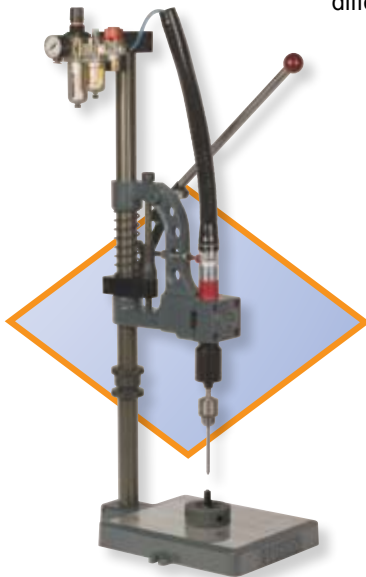
Dual and triple versions of most semi-automatic models are readily available to suit your assembly objectives.

SPIROL®



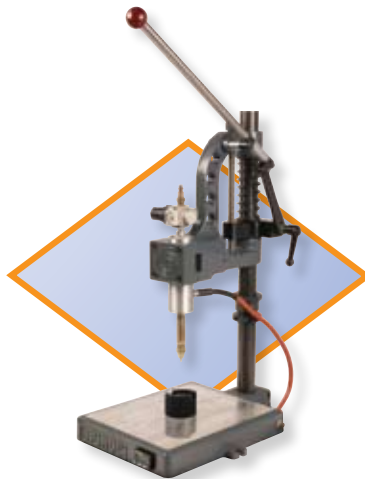
Model PH Platen-style Multi-tip Heat Insert Driver

Designed to install virtually any type of Heat/Ultrasonic style insert — up to 20 Inserts simultaneously on different levels



Model TM Manual Threaded Insert Driver

Manual drivers are extremely versatile and easily adjustable to accommodate a myriad of applications



Model HM Manual Heat Insert Driver

SPIROL Application Engineers will review your application needs and work with your design team to recommend the best solution. One way to start the process is to select Installation Systems in our Optimal Application Engineering portal at www.SPIROL.com.

Challenge Us!

U.S.A. Spirol International Corporation
30 Rock Avenue
Danielson, Connecticut 06239
Tel. +1 (1) 860.774.8571
Fax. +1 (1) 860.774.2048

Spirol West Inc.
1950 Compton Avenue, Unit 111
Corona, California 92881-6471
Tel. +1 (1) 951.273.5900
Fax. +1 (1) 951.273.5907

**Spirol International Corporation
Shim Division**
321 Remington Road
Stow, Ohio 44224
Tel. +1 (1) 330.920.3655
Fax. +1 (1) 330.920.3659

Spirol Distribution
(For Distributor Customers)
30 Rock Avenue
Danielson, Connecticut 06239
Tel. +1 (1) 860.774.8571
Fax. +1 (1) 860.774.0487

Canada Spirol Industries, Ltd.
3103 St. Etienne Boulevard
Windsor, Ontario
Canada N8W 5B1
Tel. +1 (1) 519.974.3334
Fax. +1 (1) 519.974.6550

Mexico Spirol México, S.A. de C.V.
Carretera a Laredo KM 16.5 Interior E
Col. Moisés Saenz
Apodaca, N.L. 66613 México
ó Apdo. Postal 151 de Apodaca, N.L.
Tel. +52 (01) 81 8385 4390
Fax. +52 (01) 81 8385 4391

Europe Spirol Industries, Ltd.
Princeton Road
Corby, Northants
England NN17 4ET
Tel. +44 (0) 1536 444800
Fax. +44 (0) 1536 203415
(UK Distributors: Tel. 0800 3890034)

Spirol SAS
Rue Henri Rol Tanguy
Z.A. Les Naux
51450 Bétheny - Reims
France
Tel. +33 (0) 3 26 36 31 42
Fax. +33 (0) 3 26 09 19 76

Spirol GmbH
Brienner Strasse 9
80333 Munich
Germany
Tel. +49 (0) 931 454 670 74
Fax. +49 (0) 931 454 670 75

**Asia Pacific Spirol International Engineered
Fastener Trading Co. Ltd.**
No. 11 Xi Ya Rd. North
Section A, 1F, Building 14
Wai Gao Qiao Free Trade Zone
Shanghai, China 200131
Tel. +86 (0) 21 5046-1451/1452
Fax. +86 (0) 21 5046-1540

e-mail: info@spirol.com

SPIROL.com