



# ASG Servo Electric Press Product Line Overview

## Fast Facts

*A full line of servo electric driven press systems for the mass termination of compliant pin products*

- Servo electric drive for accurate and precise application of compliant pins
- Wide range of systems to meet low to high volume production
- Press force capacity from 3 to 12 tons [27 to 107 kN]
- Board size capacity from 18" x 24" [460 mm x 610 mm] up to 36" x 48" [914 mm x 1220 mm]
- Ability to monitor and control force, distance and speed for every press cycle
- Full SPC data of every component pressed for quality assurance and traceability
- Database driven software for simple programming and automatic setup
- Engineered and manufactured using processes independently certified to internationally recognized quality standards ISO-9001 :2000 and Telecommunications Industry Standard TL 9000

## Compliant Pin Application Solutions

The number of compliant pin applications has grown rapidly as manufacturers realize the benefits of this simple, field proven and solder free process. For over 15 years, the Tyco Electronics line of ASG servo electric presses has provided manufactures with application tooling that takes advantage of compliant pin technology's solder free process for higher quality and lower applied cost. With a full range of systems, Tyco Electronics can help with the application of mass termination compliant pin products from high speed communications connectors through molded housings with complaint pins.

## Servo Drive for Precision and Accuracy

Every ASG press utilizes a PC controlled servo electric drive to provide the force to apply mass termination compliant pin products. This provides a degree of accuracy and precision not possible with hydraulic or pneumatic press systems. Each connector can be pressed to the force and distance requirements without the noise of a pneumatic system or the messy oil leaks common with hydraulic systems. When processing expensive multi-layer PCBs or housings used in control and safety applications, the cleanliness, precision and accuracy of a servo drive is crucial.

## Force Monitoring for Quality Assurance

Compliant pin products have distinct advantages over through-hole solder technology. One key advantage is the ability to monitor and control the press cycle in real-time. This allows for 100% quality assurance without the need for an additional process or destructive testing. All presses in the ASG line automatically monitor and control the force, distance and speed of every press cycle to maximize quality, improve yield and lower the overall applied cost.

## Simple Programming and Automatic Setup

Each press is programmed and run via a PC with Windows XP Professional. Information for product, tools and process is entered into and stored in a database structure. This allows for specific data to be entered once into the computer. If a future board uses the same tool and/or connector, the data is simply pulled up from the specific database and is not required to be re-entered.

During operation, all of the necessary adjustments to the press stroke are completed automatically without operator intervention. Starting clearances, min and max force requirements, height requirements, speed and press cycle logic are automatically adjusted eliminating the scrap and re-work from common operator error.

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## Compliant Pin Connector Application Solutions

Compliant pin connectors have been used for many years in high speed telecommunications applications. Tyco Electronics offers a wide range of pressing solutions to help address operations from low to high volume. Semi-automatic and automatic solutions are available for both stand-alone production cells and inline operation. Each system utilizes the same servo drive technology with control and monitoring of the press force, height and speed to assure the proper application of every connector to its specific requirements.



**BMEP 3T/5T**

**MEP 6T**

**MEP 12T**

**AEP 6T**

	<b>BMEP 3T/5T</b>	<b>MEP 6T</b>	<b>MEP 12T</b>	<b>AEP 6T</b>
<b>System Type</b>	Semi-automatic press, Benchtop	Semi-automatic Press Standalone	Semi-automatic Press Standalone	Automatic Press Standalone
<b>Footprint (W x L x H)</b>	31 x 24 x 33" [785 x 610 x 840mm]	38 x 36 x 60" [965 x 915 x 1780mm]	43 x 43 x 73" [1095 x 1095 x 1855mm]	60 x 75 x 72" [1525 x 1910 x 1830mm]
<b>Estimated Cycle Speed</b>	3-5 sec/connector	3-5 sec/connector	3-5 sec/connector	3-5 sec/connector
<b>PCB Size</b>	18 x 24" [460 x 610mm]	24 x 36" [610 x 915mm]	30 x 36" [760 x 915mm]	30 x 36" [760 x 915mm]
<b>Force Capability</b>	3 or 5 tons [27 or 44 kN]	6 tons [53 kN]	12 tons [107 kN]	6 tons [53 kN]
<b>Electrical Requirements</b>	120 VAC, 1 ph, 15 amps, 50/60 Hz	208/220 VAC, 3 ph, 15 amps, 50/60 Hz	208/220 VAC, 3 ph, 15 amps, 50/60 Hz	208/230 VAC, 1ph, 25 amps, 50/60 Hz
<b>Air Requirements</b>	80 psi [0.6 Mpa] dry air	80 psi [0.6 Mpa] dry air	80 psi [0.6 Mpa] dry air	80-120 psi [0.6 Mpa] dry air

## Compliant Pin Housing Application Solutions

The use of compliant pins in discreet housings has grown, particularly in the automotive industry. Many components are used for sensing and control in safety operations such as air bag, ABS and passenger occupancy detection. Tyco Electronics brings its years of compliant pin experience in both product and tooling to the market to help with the growth of this technology. The critical nature of these applications requires complete quality control of every product applied. The control and monitoring of the press force, height and speed available on all ASG presses is critical to assure the proper application of every component to its specific requirements.



**BMEP 3T/5T**

**SEP 3T**

	<b>BMEP 3T/5T</b>	<b>SEP 3T</b>
<b>System Type</b>	Semi-Automatic Press, Benchtop	Semi-Automatic Press, Stand Alone with Shuttle
<b>Footprint (W x L x H)</b>	31 x 24 x 33" [785 x 610 x 840mm]	31 x 38 x 64 [785 x 965 x 1625mm]
<b>Estimated Cycle Speed</b>	3-5 sec/connector	6-8 sec/stroke including shuttle of product
<b>Housing Size</b>	Application Dependent	Application Dependent
<b>Force Capability</b>	3 or 5 tons [27 or 44 kN]	Up to 3 tons [27 kN]
<b>Electrical Requirements</b>	120 VAC, 1ph, 15 amps, 50/60 Hz	120 VAC, 1 ph, 20 amps, 50/60 Hz
<b>Air Requirements</b>	80 psi [0.6 Mpa] dry air	80 psi [0.6 Mpa] dry air

Catalog **1309329** / 05-09 / GATD

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