

CONNECTOR PRESS-FIT MACHINE

AEP-LT

AUTOMATIC ELECTRIC PRESS



SYNEO'S EXPERT TEAM INNOVATES EVERYDAY TO ADDRESS YOUR PRESS CHALLENGES OF TOMORROW



- Industry 4.0 Ready
- Ethernet Ready
- CAD Import System to quickly transfer press position information
- Automatic Profile Generation
- Common Software with 1 Click Recipe Transfer between Machines
- Easy Maintenance

WHAT MAKES SYNEO UNIQUE?

They are the ONLY machines on the market to combine these technologies



TRUE DISTANCE MEASUREMENT: Dramatically improves the head position accuracy independently of the load being applied to the connector during pressing, thanks to a **0.001mm resolution linear encoder** mounted as close as possible to the anvil of the press head.



CONNECTOR BOTTOM SUPPORT TOOL: Feature allowing an extremely high degree of flexibility. Instead of changing large, heavy, and expensive PCB support fixtures at each change of PCB style, this fixture raises **gently underneath to support** the PCB **just below the connector** to be pressed.



INSTANTANEOUS FEEDBACK: Our **real-time press monitor** allows the operator to be **immediately made aware of a problem**, such as a bent pin, or an incorrectly positioned connector, during the press cycle.



TRANSPORT SYSTEM: Newly designed, it **handles** the PCB **gently**, with no raise or lowering of the PCB which decreases the possibility of dislodging sensitive connectors before pressing.



INTUITIVE SOFTWARE SYSTEM: User-friendly system with an **easy setup** (no complex profiles required), a powerful importing tool, fine tuning and **troubleshooting assistance**, integrated online help, **multi-language**, touchscreen, keyboard, and mouse.



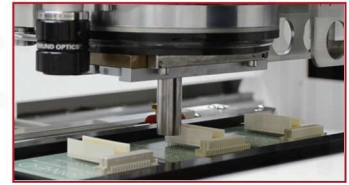
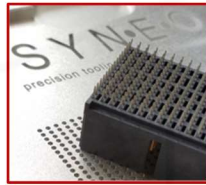
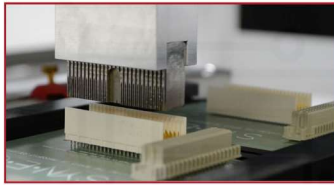
AUTOMATIC FACTORY READY: With Industry 4.0, Autowidth Adjustment, and Individual Connector Bottom Support Tool, SYNEO **exclusively** offers a **solution** for the **Automatic Factory** where **no operator** is needed to switch productions.



FLOATING BOTTOM TOOL SUPPORT (OPTION): In case a connector needs to be pressed on a PCB and a connector has already been pressed on the bottom side of that same PCB, an optional **floating bottom tool** allows the insertion of a bottom connector support tool into the **already pressed bottom connector**. This floating tool also has force feedback to ensure that the connector will not be damaged during the insertion.



LIGHT TOUCH SENSITIVITY: Detects force even **under 20 Lbs.** Improved sensitivity along with instant response monitoring allows the machine to **detect the slightest anomaly** and stop immediately to protect the connector.



TECHNICAL DATA

BOARD SIZE CAPACITY	915 x 1220mm (36" x 48") – Max Weight 25 Kg (50 Lbs.)
MAX CONNECTOR SIZE TOOL (TOOL BAR SIZE)	250 x 50mm (10" x 2")
FORCE CAPACITY	53kN (6 Tons)
FORCE SYSTEM ACCURACY	100 – 4500 N < 90N, 4.5kN-45kN <5% of actual reading 45-53kN < 450N
BOARD CLEARANCE	TOP - 50mm (2") / BOTTOM - 40mm (1.57") / Edge 3mm (0.12")
PCB THICKNESS	2 -12mm (0.08" x 0.47")
CONNECTOR TYPE	TEC / FLAT ROCK
BOTTOM TOOL	PCB or CONNECTOR FIXTURE (PCB Fixture up to 25 kg)
FLOATING BOTTOM TOOL SUPPORT	OPTION
TOOL RACK CAPACITY	18
BOARD WIDTH ADJUSTMENT	AUTOMATIC
BOARD LOADING	IN LINE / FIXTURE
FIXTURE LOADING	INSIDE / ON CONVEYOR
BOARD FLOW DIRECTION	SETUP / RECIPE SELECTABLE
FOOTPRINT (W x L x H)	1650 x 3096 x 2005mm (65" x 122" x 79")
X & Y AXIS	SERVO WITH LINEAR ENCODER
APPROX. CRATE WEIGHT	3402 kgs (7500Lbs)
APPROX. CRATE DIMS. (W x L x H)	2080x3500x2540mm (82"x138"x100")

SOFTWARE

PCB LOCATION	VISION
STATISTICAL PROCESS MEASUREMENT DATA	YES
USER DATABASES	ONLINE – SHARING CAPABILITY BETWEEN MACHINES
IMPORT 3RD PARTY PROGRAMS	DIRECT IMPORT FROM MEP – AEP IN 1 CLICK
DATABASE COMPATIBILITY BETWEEN AEP /MEP	100% - CAN SPLIT BETWEEN AEP AND MEP
IMPORT PRESS SEQUENCE FROM EXCEL	YES
INDUSTRY 4.0 READY	YES
FAILURE WARNING SYSTEM	WARN FAILURE OF COLLAPSED PIN, BENT PIN...
OPERATING SYSTEM	WINDOWS 10 PROFESSIONAL
RECIPE SELECTION	MANUAL / AUTO WITH BARCODE READER

TRANSPORT SYSTEM

BOARD WIDTH ADJUSTMENT	AUTOMATIC
HEIGHT OF WORKTABLE	SMEMA HEIGHT
IN LINE / SMEMA	COMPATIBLE
REVERSE FLOW MODE	YES
CLAMP SYSTEM OF PCB	ADJUSTABLE
DOUBLE SIDED BOARD HANDLING	STANDARD FEATURE



CONNECTOR PRESS-FIT MACHINE

AEP-ST

AUTOMATIC FLAT ROCK ELECTRIC PRESS CUSTOMIZABLE

SYNEO'S EXPERT TEAM INNOVATES EVERYDAY TO ADDRESS YOUR PRESS CHALLENGES OF TOMORROW

- **INDUSTRY 4.0** Ready
- Specially designed for **Low Count Connector PCB**
- **CAD Import System** to quickly transfer press position information
- Automatic **Profile Generation**
- **Common Software** with 1 Click Recipe Transfer between Machines

WHAT MAKES SYNEO UNIQUE?

They are the ONLY machines on the market to combine these technologies

CUSTOMIZABLE: Versatile to best fit and meet your needs without encumbering the system with unneeded options for your production.

**X & Y AXIS POSITIONING**

- FIXED
- MANUAL POSITION
- PNEUMATIC AXIS (2 FIXED POSITIONS)
- SERVO AXIS (FREE PROGRAMMABLE POSITIONS)

**TOOLING**

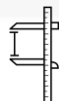
- TOP TOOL MANUAL LOADING
- TOP TOOL AUTOMATIC LOADING

**PCB LOADING**

- MANUAL SHUTTLE
- AUTOMATIC SHUTTLE
- IN LINE



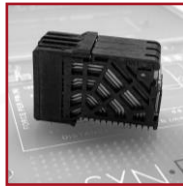
INSTANTANEOUS FEEDBACK: Our **real-time press monitor** allows the operator to be **immediately made aware of a problem**, such as a bent pin, or an incorrectly positioned connector, during the press cycle.



TRUE DISTANCE MEASUREMENT: Dramatically improves the head position accuracy independently of the load being applied to the connector during pressing, thanks to a **0.001mm resolution linear encoder** mounted as close as possible to the anvil of the press head.



INTUITIVE SOFTWARE SYSTEM: User-friendly system with an **easy setup** (no complex profiles required), a powerful importing tool, fine tuning and **troubleshooting assistance**, integrated online help, **multi-language**, touchscreen, keyboard, and mouse.



TECHNICAL DATA

BOARD SIZE CAPACITY	350 x 600mm (13.5" x 24")
MAX CONNECTOR SIZE TOOL (TOOL BAR SIZE)	152 x 50mm (6" x 2")
FORCE CAPACITY	9kN (1 Ton)
BOARD EDGE CLEARANCE	3mm (0.12")
BOARD CLEARANCE	TOP - 50mm (1") / BOTTOM - 38mm (1.57")
PCB THICKNESS	2 -12 mm (0.08" - 0.47")
CONNECTOR TYPE	FLAT ROCK 
BOTTOM TOOL	PCB FIXTURE
OPTIONAL TOOL RACK CAPACITY	MANUAL - 6 / AUTO - 8
BOARD WIDTH ADJUSTMENT	OPTIONAL
BOARD LOADING	IN LINE / SHUTTLE
FIXTURE LOADING	MANUAL
BOARD FLOW DIRECTION	SETUP / RECIPE SELECTABLE
FOOTPRINT (W x L x H)	1020 x 1270 x 2160mm (40" x 50" x 85")
X & Y AXIS	FIXED / MANUAL POS. / PNEUMATIC 2 POS./ SERVO

SOFTWARE

PCB LOCATION	MECHANICALLY CENTERED
STATISTICAL PROCESS MEASUREMENT DATA	YES
USER DATABASES	ONLINE - SHARING CAPABILITY BETWEEN MACHINES
IMPORT 3RD PARTY PROGRAMS	DIRECT IMPORT FROM MEP - AEP IN 1 CLICK
DATABASE COMPATIBILITY BETWEEN AEP /MEP	100% COMPATIBLE, SAME PROGRAM
IMPORT PRESS SEQUENCE FROM EXCEL	YES
INDUSTRY 4.0 READY	YES
FAILURE WARNING SYSTEM	WARN FAILURE OF COLLAPSED PIN, BENT PIN...
OPERATING SYSTEM	WINDOWS 10 PROFESSIONAL
RECIPE SELECTION	MANUAL / AUTO WITH BARCODE READER

TRANSPORT SYSTEM

OPTIONAL BOARD WITH ADJUSTMENT	MANUAL / AUTOMATIC
HEIGHT OF WORKTABLE	SMEMA HEIGHT
IN LINE / SMEMA	OPTIONAL
REVERSE FLOW MODE	YES
CLAMP SYSTEM OF PCB	ADJUSTABLE
DOUBLE SIDED BOARD HANDLING	N/A



CONNECTOR PRESS-FIT MACHINE

AEP-XT

AUTOMATIC ELECTRIC PRESS



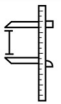
SYNEO'S EXPERT TEAM INNOVATES EVERYDAY TO ADDRESS YOUR PRESS CHALLENGES OF TOMORROW



- Industry 4.0 Ready
- 48% Smaller footprint than previous AEPs
- CAD Import System to quickly transfer press position information
- Automatic Profile Generation
- Common Software with 1 Click Recipe Transfer between Machines

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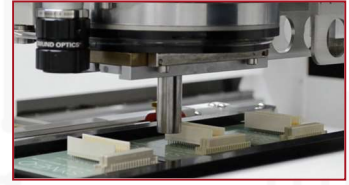
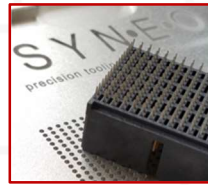
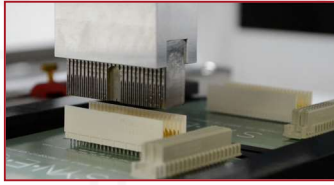
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TECHNICAL DATA

BOARD SIZE CAPACITY	610 x 915mm (24" x 36") – Max Weight 12 Kg (25 Lbs.)
MAX CONNECTOR SIZE TOOL (TOOL BAR SIZE)	152 x 50mm (6" x 2")
FORCE CAPACITY	27kN (3 Tons)
BOARD EDGE CLEARANCE	3mm (0.12")
BOARD CLEARANCE	TOP - 50mm (2") / BOTTOM - 40mm (1.57")
PCB THICKNESS	2 - 12mm (0.08" x 0.47")
CONNECTOR TYPE	TEC  / FLAT ROCK 
BOTTOM TOOL	PCB or CONNECTOR FIXTURE (PCB Fixture up to 12 kg)
FLOATING BOTTOM TOOL SUPPORT	OPTION
TOOL RACK CAPACITY	12
BOARD WIDTH ADJUSTMENT	AUTOMATIC
BOARD LOADING	IN LINE / FIXTURE
FIXTURE LOADING	INSIDE / ON CONVEYOR
BOARD FLOW DIRECTION	SETUP / RECIPE SELECTABLE
FOOTPRINT (W x L x H)	1400 x 2070 x 1950mm (55" x 81" x 77")
X & Y AXIS	SERVO WITH LINEAR ENCODER
APPROX. CRATE WEIGHT	1923 kgs (4240lbs)
APPROX. CRATE DIMS. (W x L x H)	1730x2920x2340mm (68"x115"x92")

SOFTWARE

PCB LOCATION	VISION
STATISTICAL PROCESS MEASUREMENT DATA	YES
USER DATABASES	ONLINE – SHARING CAPABILITY BETWEEN MACHINES
IMPORT 3 RD PARTY PROGRAMS	DIRECT IMPORT FROM MEP – AEP IN 1 CLICK
DATABASE COMPATIBILITY BETWEEN AEP /MEP	100% - CAN SPLIT BETWEEN AEP AND MEP
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CLAMP SYSTEM OF PCB	ADJUSTABLE
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