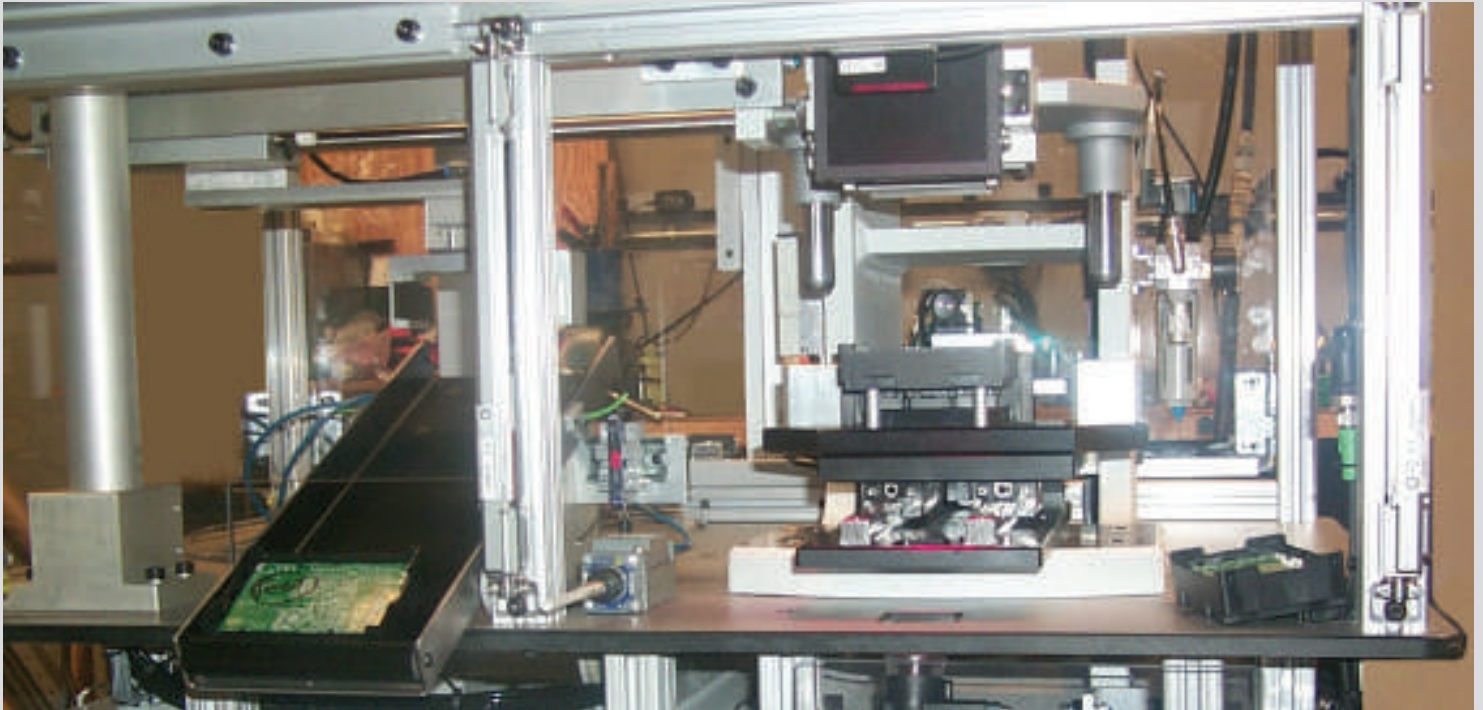


COMPLIANT PIN PRESS FIT

WITH FULL PIN INSPECTION AND MEASUREMENT
INTEGRATED INTO PRESS TOOL

NR. 420 SERVOPRESS



Application

- Press PCB onto connector pins
- Two housing models; one with one 16-pin connector, another housing with two 16-pin connectors. Both housing styles have 4 power pins.
- Inspect for pin height, absence/presence or bent pin before and after pressing operation
- Maximum cycle time part to part: 15 secs
- Ergonomic and compact station layout, following the Chaku-Chaku principle
- Manual loading/unloading by operator
- Full traceability of production. Communication with Factory Production Management System

SCHMIDT® NR. 420 SERVOPRESS

Concept Description

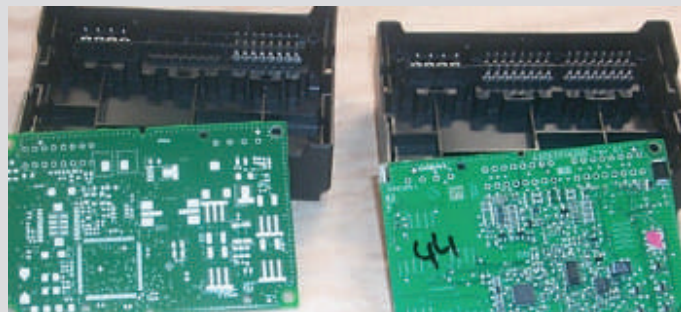
The station consist of a self-contained cell on a floor standing table. Footprint is approx. 1.2m x 0.9m / 48" x 36"

The pin inspection module is integrated with the press tool, mounted to the Servo Press ram. A slide table transfer the assembly load to press position. The nesting fixture for the housing and PCB is on slide top. A housing load unit is located on the left hand side of the press. upon successful press & post-press inspection, this unit will transfer the assembly to an unload location. In case an assembly fails pre-, post-press inspection or press operation, it is not automatically removed from the fixture, but instead returns to the operator.

Upon cycle initiation a camera inspects for which housing type is loaded and a barcode scanner reads the PCB barcode label prior to transferring the assembly. The customer Factory Manufacturing System will send an OK to cycle, provided housing and PCB matches. A NOT OK to cycle signal wil prompt a message on the SCHMIDT control, indicating "HOUSING & PCB DOES NOT MATCH".

The Camera and Barcode signal is interfaced to customer PC, which in turn is networked to tthe Factory Manufacturing System.

Guarding is handled via a light curtain on the load side, and a stationary guard on the return side. The station has access doors on the back, which are interlocked with the E-stop circuit.



Tooling Description

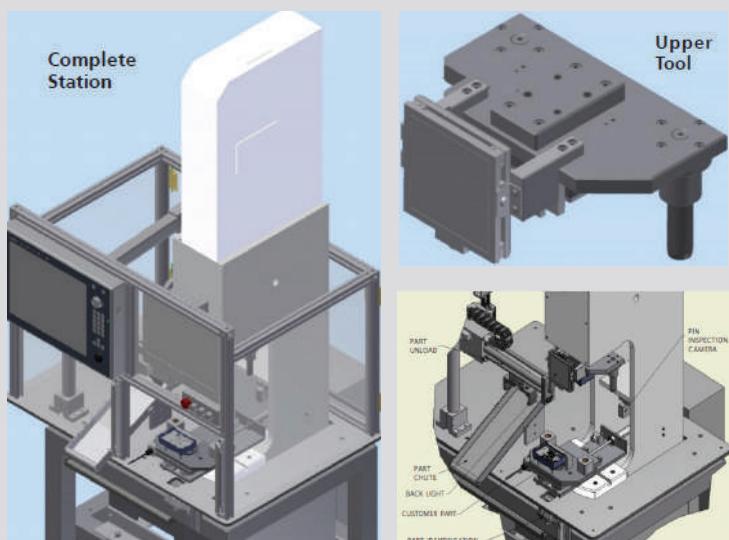
The nesting fixture will support the pins on a shoulder and is also interchangeable. One tool accomodates both housing styles: the 20-pin and 36-pin housing. The press tool features integrated inspection of pin presence/pin height.

Equipment, Performance

- SCHMIDT® Servo Press Module No. 420
- SCHMIDT® Press Control 5000RT
- Press Control 5000HMI
- STU-16.5K.250 Precision Shuttle Table
- Part identification camera to recognise housing type based on pin configuration
- OPC server based communication PRC 5000 HMI- customer system
- ESD Compliance
- Integrated pin height inspection.
- Measurement accuracy < 0.003"/0.075"mm
- Barcode scanner for traceability

Operation and Cycle Time (estimate in seconds)

• Load pre-assembled components	2.5
• Initiate cycle	0.5
• Inspect for matching assembly	1.0
• Travel to press position	1.0
• Pre-press assembly & inspect	0.5
• If OK, press Assembly	1.5
• Post-press inspection	0.5
• Remove assembly from nesting fixture	2.0
• Return slide to operator	1.0
• Communication with MES	0.5
• Part to part cycle time	12.0



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