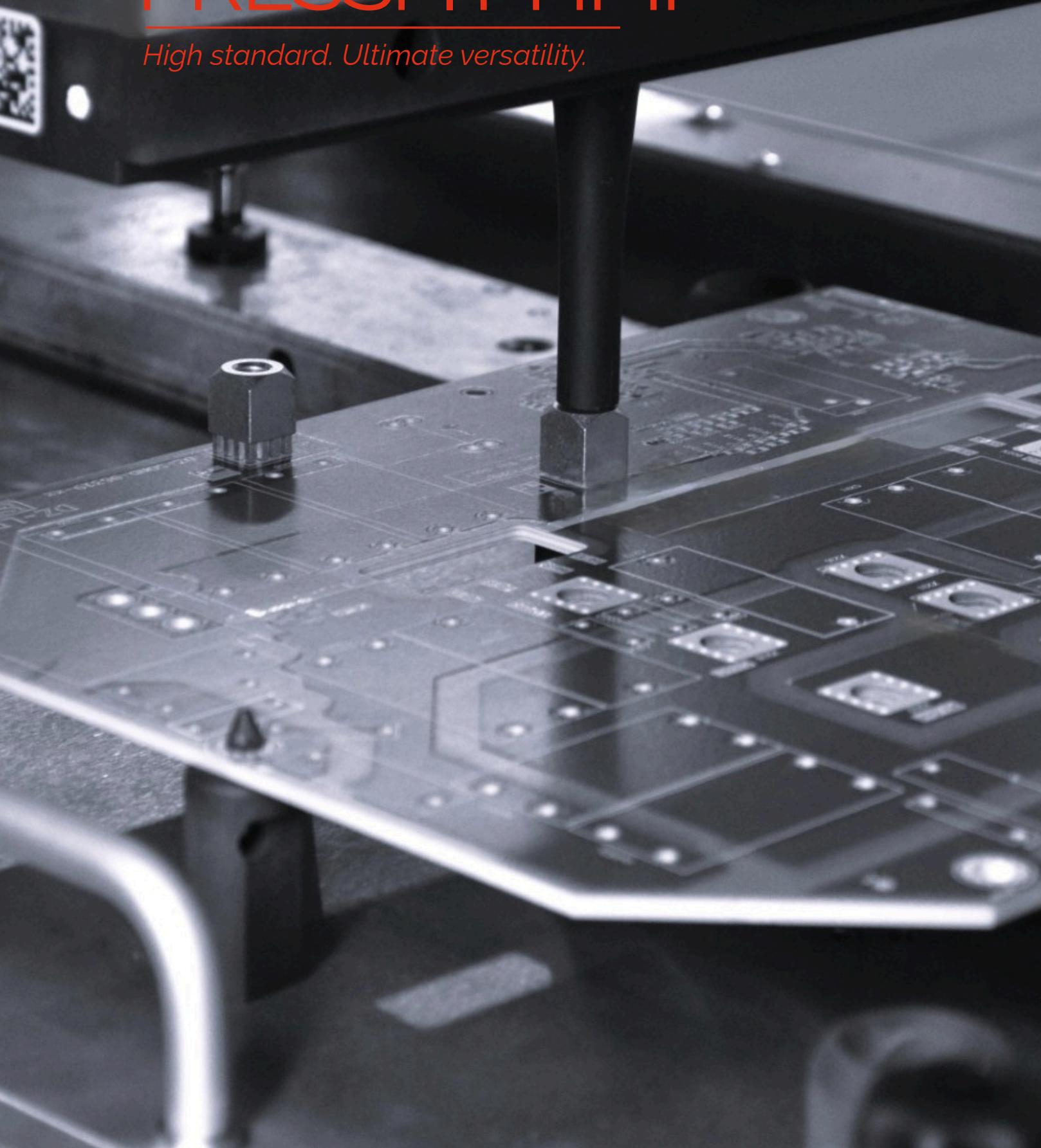




PRESSFIT HMP

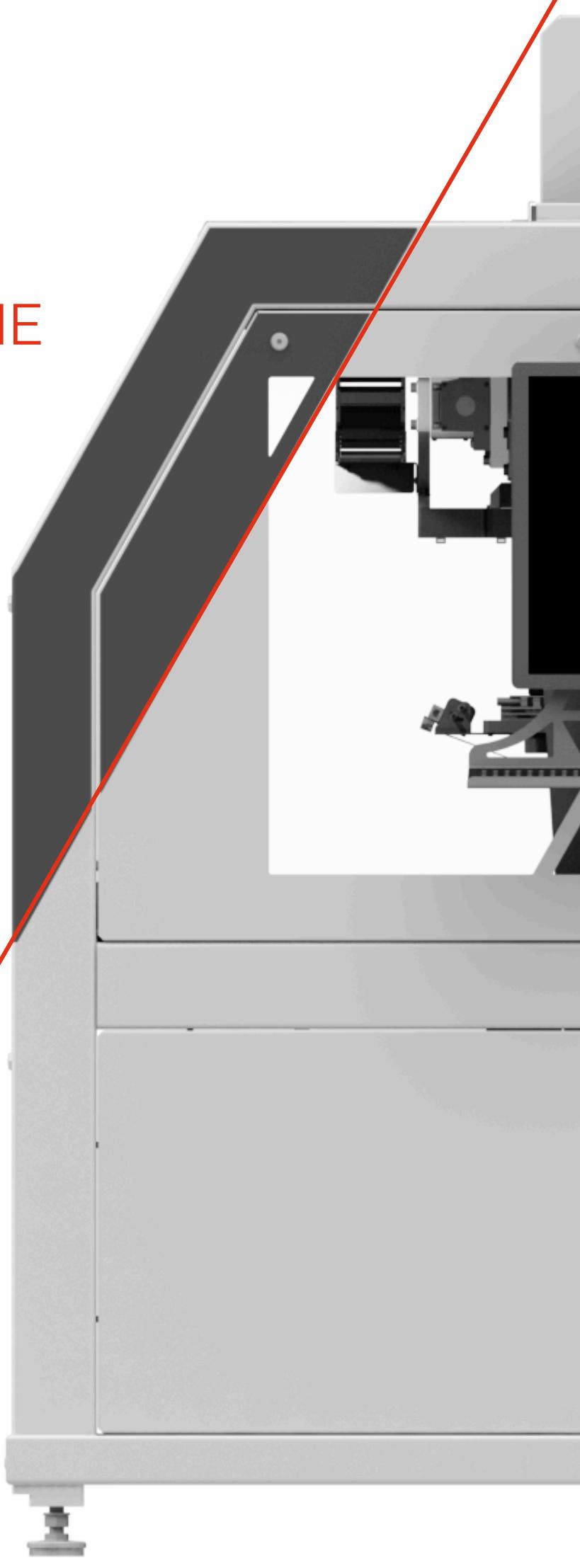
High standard. Ultimate versatility.



SEMO REVOLUTIONIZES PRESSFIT WITH THE HMP MACHINE.

SEMO comes with a new concept of machine for pressfit technology.

The HMP machine is able to properly pressfit any multi-pin component such as connectors, power semiconductors or high power terminals. It combines four strengths which it truly stands out.





PRESSFIT HMP

semo

1/QUALITY FOR MOST DEMANDING INDUSTRIES

2/ULTIMATE VERSATILITY

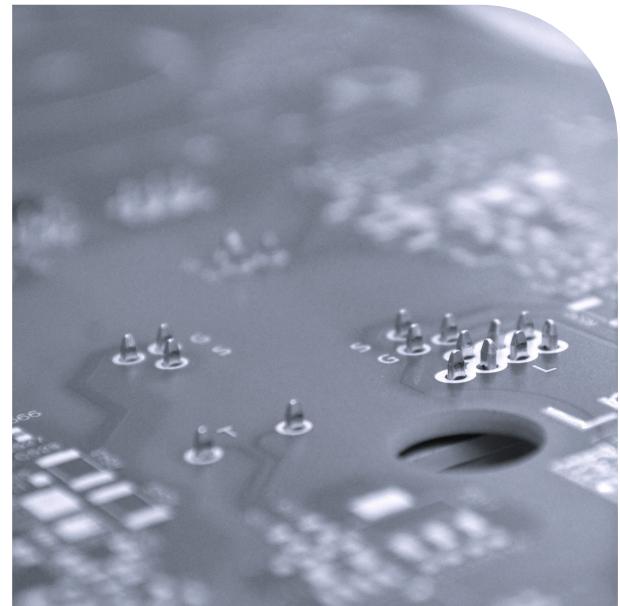
3/ "EASE OF USE" FOR PRODUCTIVITY

4/BUILT TO LAST

QUALITY FOR MOST DEMANDING INDUSTRIES

For high-end industries such as nuclear, defense, aerospace, railway or medical, guaranteeing product compliance is not an option. The HMP machine is equipped with high accuracy position speed and force sensors. This enables to monitor and control the process for the highest quality level.

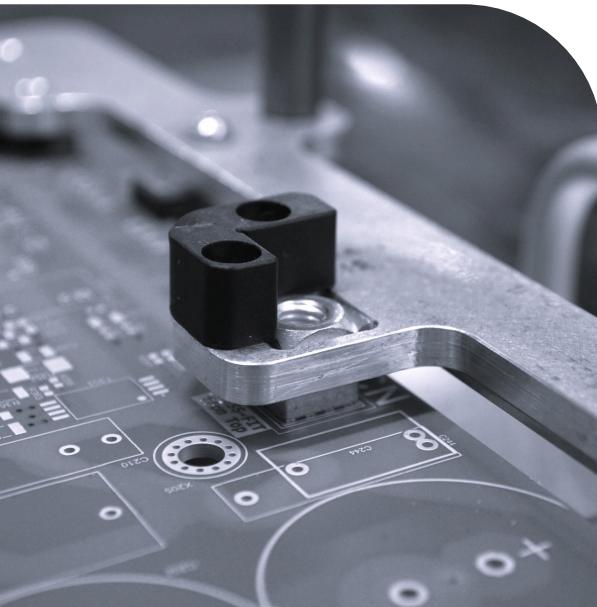
- High precision X, Y and Z axis for accurate positioning
- Force sensitivity to identify early or abnormal contact
- Travel, force and speed controlled and monitored
- PCBA thickness probing and compensation when needed
- Upper and lower tools interlocking system with DM reader
- Process data recording including the travel-force diagram
- SEMO mechanical and software expertise



ULTIMATE VERSATILITY

Who knows which components you will need to process in the future?

The HMP pressfit offers an very agile solution to apply pressfit technology on very exotic components for high mix – low volume production. Typically, the machine is adapted to any of the REDCUBE terminals from Würth Elektronik as well as complex connectors.

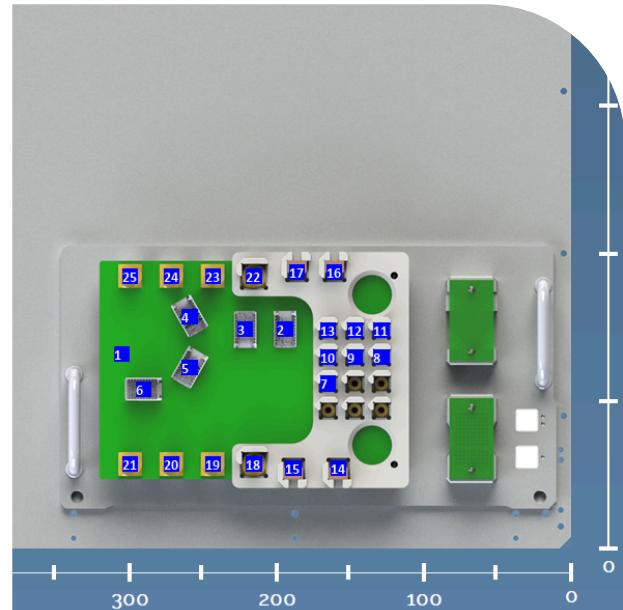
A grayscale close-up photograph of a printed circuit board (PCB). A component is being processed by a machine, with a 360-degree rotative head visible. The image emphasizes the machine's ability to handle components at any angle, showcasing its versatility and adaptability to various component types.

- Pressfit to hard stop or to position to match component specifications
- Adjustable pressfit speed
- Ability to pressfit unstable or 90° bended components
- Ability to pressfit two-parts components from Würth Elektronik
- 360° rotative head to process components at any angle
- Step-by-step manual mode for prototyping and tests

WHEN "EASE OF USE" MEANS PRODUCTIVITY

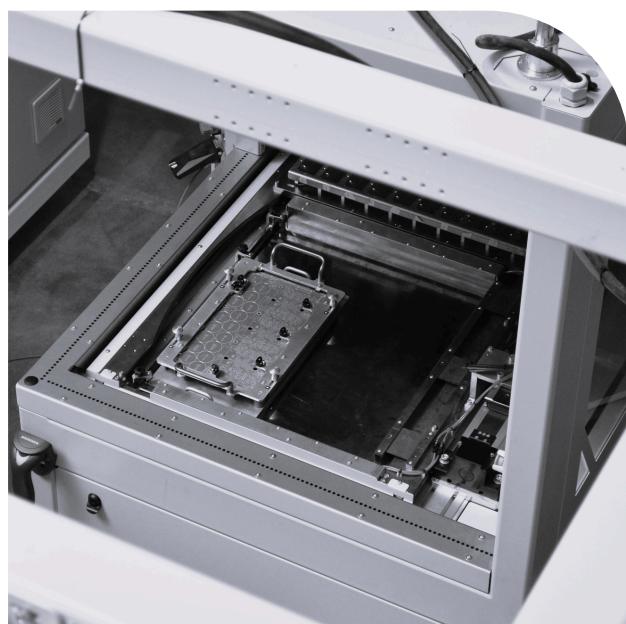
When placing into the machine the tooling related to a new PCB, the HMP machine can automatically generates 90% of the pressfit program, saving huge amount of time during product industrialization.

- New software with visual assistance
- Digital tooling for each PCB Auto-generation of the program by the machine
- Automated process to eliminate harmful manual effort
- Optional auto-change of upper tooling (10 slots)
- Auto-generation of the program by the machine



BUILT TO LAST

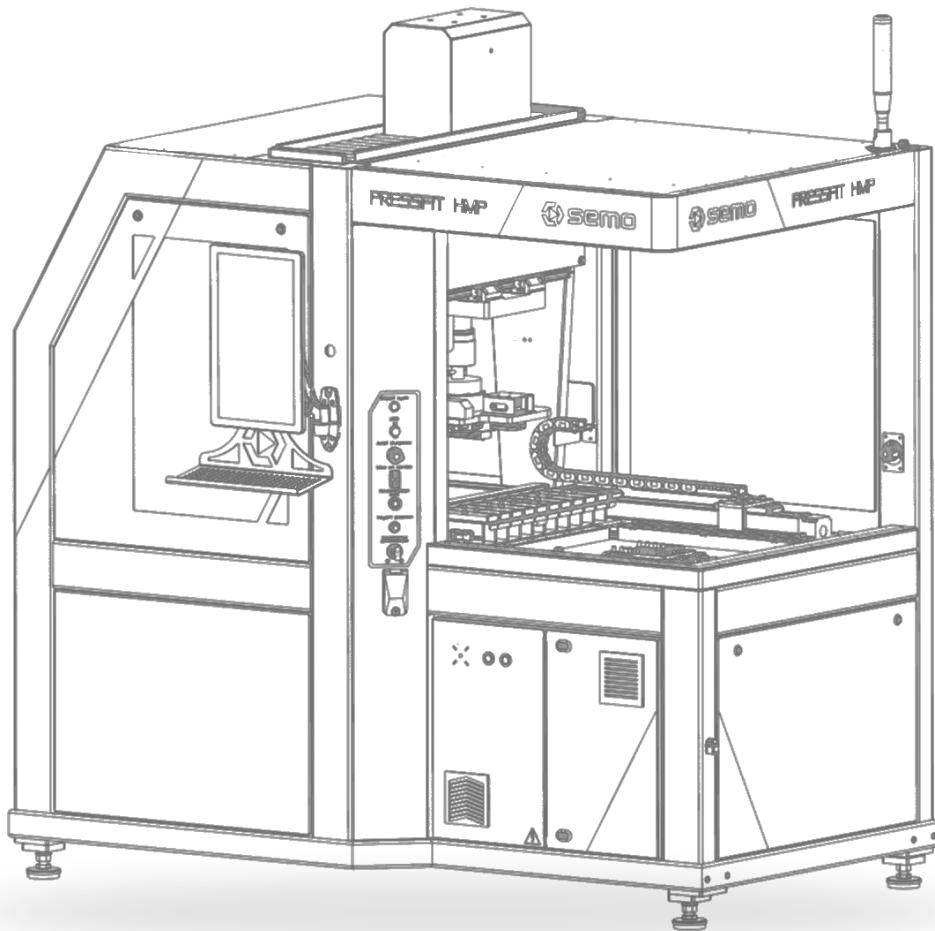
True to its over-50 year reputation, SEMO engineered the HMP machine to meet the highest machine standards. The machine is built to perform for hours and hours, days and days, years and years. Its mechanical structure is one of the pillars for high pressfit accuracy of the machine.



- 60kN servo-electric press for the most demanding applications
- Highly rigid steel-welded machine frame
- Based on SEMO over 20 year experience in pressfit
- Machine engineered and built in Toulouse, heart of Aerospace industry in Europe



PRESSFIT HMP MACHINE



THE CHOICE OF A SUSTAINABLE SOLUTION

A zero waste machine

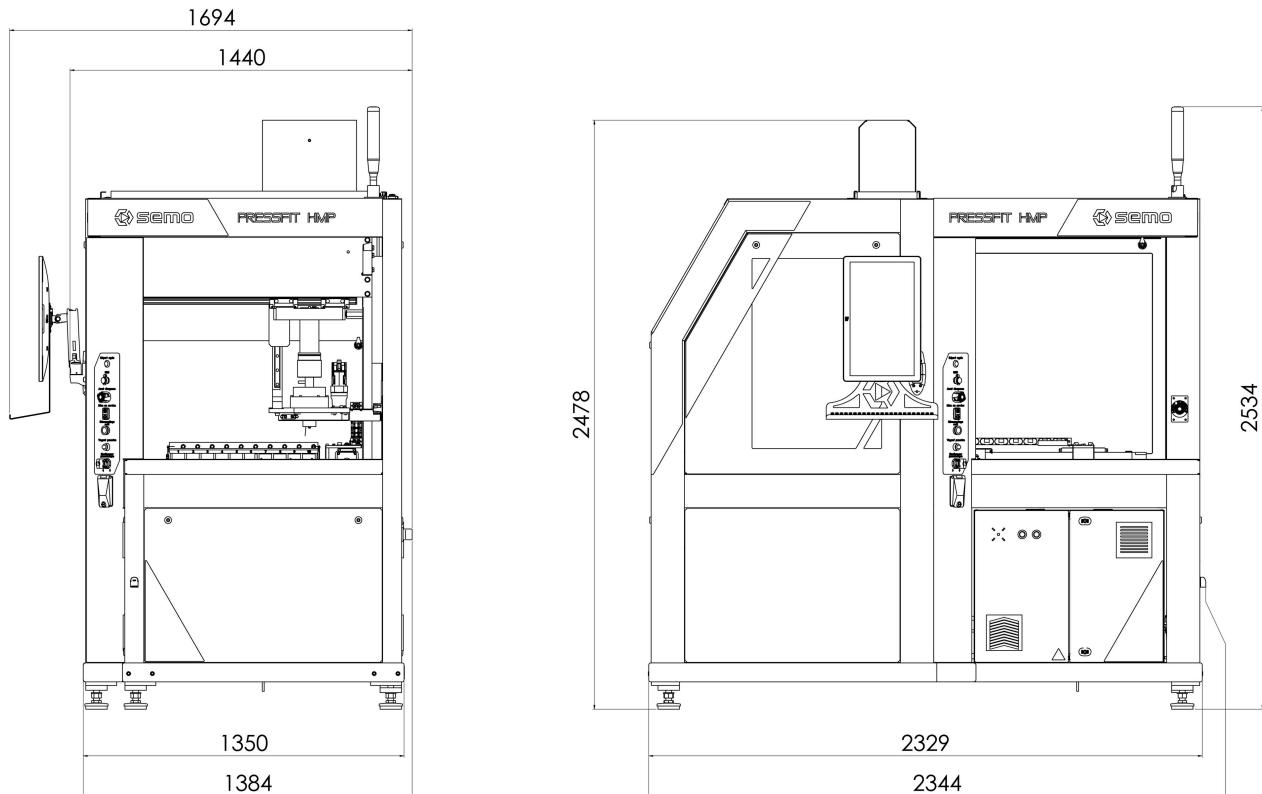
HMP is a fully electric machine. When relevant, the machine switches in standby mode to optimise power consumption. Last in addition, the machine does not need any consumable to operate, nor wearable part changes to last. In a nutshell, the HMP machine is engineered to reduce energy and material usage to strict minimum.



A clean process

The pressfit technology does not require the addition of soldering metals such as tin, nor the use of neutral gas, such as nitrogen. It does not need heating by energy engulfing ovens. And, it does not produce any volatile organic compounds (VOC). It is a direct, effective and clean assembly process.

KEY DATA ABOUT PRESSFIT HMP MACHINE



Performances

Servo press capability	60 kN
Maximum press stroke	350 mm
Low force sensors	1 for sensitive contact
High force sensors	1 for process control
Press axis (Z axis) repeatability	0.01 mm
X axis repeatability	0.05 mm
Y axis repeatability	0.05 mm
Press head rotation	360° ;with <1° repeatability

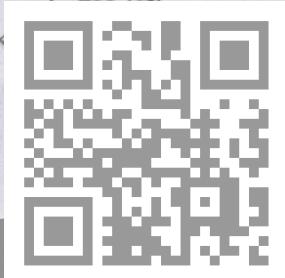
Capabilities

Max connector width	45 mm (more on demand)
Max connector length	200 mm (more on demand)
PCBA thickness	0.8 – 5 mm
Max PCBA dimension	508 x 609 mm
Max PCBA Top clearance	60 mm (more on demand)
Max PCBA Bottom clearance	60 mm (more on demand)

SEMO SERVICE

SEMO CAN SUPPORT YOU ALL ALONG YOUR PROJECT :

- **Process validation:** process testing and prototype manufacturing
- **Product validation:** pre-series manufacturing
- **Manufacturing engineering:** on-site final acceptance
- **After SOP support:** calibration and maintenance



Find us on our website !

CONTACT :
10 rue Louis Bréguet
31700 Cornebarrieu FRANCE
Phone : +33 (0)5 61 85 55 77
Fax : +33 (0)5 61 85 74 60
Mail : semo@semo.fr



Ce projet a été financé par l'Etat
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