Press Release:

October 27 - 2025

Hofstetter PCB Group purchases **Mass-PCB** Vacuum-Filling & Planarising system from **Adeon Technologies** for starting its Via Filing Subcontract Services.

During the Productronica Exhibition in Munich from November 18 through to 21, Adeon is announcing the sale of the newest 2025 model Via Filling equipment with Large Container System and the Planarising system from Mass-PCB to SMF-Hofstetter from Herrenberg, Germany.

The complete line will be exhibited on the Adeon booth to be installed at SMF Hofstetter after the Productronica. The decision towards the Mass equipment from SMF Hofstetter was made after through evaluation at the Mass-PCB Demo Application Centre in Anröchte, Germany.

The new development from Mass-PCB is the resulting combination of 20 years' experience in this field and converting a scientific research project lead by the Mass-PCB management together with the experiences from Adeon coming from the field. It encompasses higher reliability and uniformity at lowest vacuum rates possible, which can be held at process times suitable for all types of design complexity.

This is also another important step for the Hofstetter PCB Group in expanding its range of services and capabilities for the European printed circuit board industry. Printed circuit board manufacturers now have the option of sending their panels for the plugging process directly to the same address as the products for plating Jobs and having them returned together with the plated panels.

SMF-Hofstetter has chosen Lackwerke Peters as their supplier of Resin Filling Paste. Lackwerke Peters has actively supported the trials and evaluation with their latest development of Resin Paste.

SMF-Hofstetter, Mass-PCB and Adeon, will jointly support this important landmark, showing confidence and strength to the European PCB industry.

Adeon, as the distributor and service partner for Mass-PCB since 2004, is extremely proud to have such a competent company like SMF Hofstetter as partner. We welcome all Poductronica visitors to our booth in Hall B3 to meet the teams behind this and see the equipment.

The process will be available to all PCB manufacturers at **SMF Hofstetter in Herrenberg from January 2026**. Preliminary clarifications can be made in advance. Please contact Timo Hörmann t.hoermann@hofstetter-pcb.de and r.fischer@hofstetter-pcb.ch.

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About the new Mass-PCB Via Filling system:

MASS: Via Hole Filling - Introducing the new machine generation VCP $_{M+}$ 5000-1

Vacuum technology is revolutionizing printed circuit board (PCB) plugging, ensuring the highest reliability in modern electronics manufacturing. By working under vacuum, air is extracted from drilled holes before paste application, guaranteeing complete, dense filling. Without vacuum, trapped air can expand during thermal curing, causing voids or damage — a risk minimized almost entirely with vacuum plugging. For fine-hole geometries, vacuum is essential for consistent quality.

MASS pioneered a unique approach by placing the PCB directly inside a fully evacuated chamber. This innovation allows independent control of pressure and filling speed, offering unmatched process precision. In operation, the PCB is clamped inside the vacuum chamber; once evacuated, the filling head dispenses paste from top to bottom. All parameters are precisely adjustable via software.

The new VCP $_{M+}$ generation brings significant advancements, notably the integration of optional vacuum cleaning steps before and after plugging. Initially, the chamber pressure is reduced below 10 mbar to remove air, moisture, and outgassing from the substrate. Faceplates remain closed to prevent paste evaporation under low pressure, enabling optimal hole preparation. Plugging is then performed under a controlled pressure of around 100 mbar.

Vacuum Cleaning, applied after plugging, addresses surface air bubbles caused by paste turbulence. The PCB remains in the vacuum chamber for an adjustable period, lowering pressure to open surface bubbles and evacuate trapped gases. Capillary forces and the Kelvin effect prevent paste boiling, enabling deeper vacuum without affecting the filled holes.

These innovations deliver superior hole filling, consistent quality, and enhanced reliability for demanding PCB manufacturing. The VCP $_{M+}$ offers precise process control and the ability to meet even the most challenging production requirements — making it a vital solution for next-generation electronics.

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About Peters Group & Resin Paste

With ELPEPCB® PP 2794 TG150, Peters as the leading European specialist for coating innovations for electronics introduces a via-filler which enables excellent and bubble-free filling results in combination with MASS vacuum chamber filling technology.

PP 2794 TG150 was formulated making a careful choice of reliable raw material suppliers and is entirely „Made in Germany“ with a short supply chain within Europe from the manufacturer to the user.

PP 2794 TG150 offers a shelf-life of 6 months at storage temperatures of up to + 8°C, meaning safety and no need for costly and energy-intensive deep-freezing during transportation and storage.

Complex and multi-stage hardening with intermediate grinding is not necessary to enable best possible filling results.

UL-approval and independently tested outgassing according to ASTM E595 ensure a large field of applications. Low CTE (approx. 23 ppm/°C < Tg and approx. 72 ppm/°C > Tg) in combination with a high Tg of 150°C underline the performance of PP 2794 TG150.