

# CPAutomation

## Delivering Swiss Precision

Switzerland for long has been known for its precision and exactitude. The magnitude of this statement resonates with the utmost precision and tasteful aesthetics of its watchmaking, where the country undisputedly monopolized the industry since the dawn of time. In the same vein, carrying this precision-driven philosophy to manufacturing is CPAutomation, a Switzerland-based firm that draws inspiration from its watch manufacturing proficiency and applies it to automate production lines. CPAutomation specializes in micromanipulation, laser machining, and visual inspection across medical, electronics, and luxury watch manufacturing.

CPAutomation's expertise in manufacturing automation is brought to life through its CP Series platform, which accommodates a multitude of industrial modules designed for assembly, laser and inspection processes. The modularity of the high-flexible automation platform is showcased through CP Move, CP Laser, and CP View—three indigenously developed applications for discrete operations within the assembly line. While CP Move addresses 'ultra-precise' assembly and handling needs, CP Laser functions as a tool for 2D and 3D laser micro welding and micro-engraving processes with automation part localization and orientation. CP View serves as the cherry on top for the all-encompassing platform through its visual inspection capabilities

powered by artificial intelligence. "Our platform is designed to uphold the voice of the customers above all," says Marcel Dubey, CEO of CPAutomation. "CP Series brings in the sense of flexibility and modularity to enhance the efficiency of the production workflow and improve product life cycles."

A noteworthy addition to the CP Series platform is the company's CP Plasma Cleaner equipment that is used for the surface treatment of machine parts with intricate contours, geometries, and materials. By utilizing plasma maintained at atmospheric pressure, CPAutomation cleans the surface of machined parts and activates the surface of the component for succeeding industrial operations. "We employ an anthropomorphic robot to decontaminate the surface of materials and make it hydrophilic – a crucial property that allows our customers to spread adhesives, paints, and inks on the surface effortlessly," adds Dubey. The plasma cleaner's ergonomic, semi-automatic loading mechanism also improves the productivity of the operator

while monitoring the safety of the individual operating the machinery. One of the key functionalities offered by the CP Plasma Cleaner is its pick and place module. Once the part to be cleaned is loaded on to the machine within 'safe and acoustic isolated' doors, a universal part gripper coupled with 6-axis configurable trajectories manoeuvres the workpiece in line with the plasma plume for machining. This process ensures that the part is treated with plasma plume

to obtain the desired level of surface finish while reducing the time consumed in a machining operation. The machine or the apparatus can be used with standard peripherals such as flexible feeding units, vision systems, servo presses, and many others to adapt to current and future market demands easily.

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Collectively, the CP Series platform adapts to various machining components easily while delivering on the performance, speed, accuracy, traceability, and reliability of manufacturing processes. "Our machines are capable of handling intricate parts with geometries ranging from 0.1 to 100 mm," says Dubey. "They also serve as tools of interoperability while facilitating integration with industry standard tools and processes."

Observing the merits and advantages offered by CPAutomation, it is needless to say that the company has standardized a wide array of manufacturing processes. The firm boasts precision manufacturing solutions, similar to how a manufacturer of watches handles minute and complex parts. The company's developmental strides alone stand as a testimony to its efforts in automating industrial processes. **CA**



Marcel Dubey,  
CEO