

FRAUNHOFER INSTITUTE FOR PRODUCTION SYSTEMS AND DESIGN TECHNOLOGY IPK

### PRESS RELEASE

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# Completely Clean Without Chemicals: CO<sub>2</sub>-Based Cleaning at parts2clean 2025

Cleaning with carbon dioxide (CO<sub>2</sub>) is a promising approach to clean components dry and residue-free without the use of harmful chemicals or energy-intensive downstream processes. At parts2clean from October 7 to 9 in Stuttgart, Fraunhofer IPK will present various CO<sub>2</sub>-based cleaning processes.

The regulatory framework for companies in manufacturing is becoming increasingly stringent. The European Commission's Zero Pollution Action Plan aims to reduce air, water, and soil pollution to a level that is harmless to health and natural ecosystems by 2050. To achieve this, toxic and or environmentally harmful substances will be gradually banned – these bans affect many cleaning chemicals.

 $\mathrm{CO_2}$ -based cleaning methods are a possible alternative. Unlike many conventional methods,  $\mathrm{CO_2}$  blasting processes leave no residue on the cleaning object. Additionally, subsequent and often energy-intensive drying operations can be circumvented saving time and energy. The  $\mathrm{CO_2}$  used is a byproduct obtained from other industrial processes and has a neutral carbon footprint. At parts2clean, Fraunhofer IPK presents a range of applications and possibilities offered by cleaning processes such as  $\mathrm{CO_2}$  pellet and micro-pellet blasting,  $\mathrm{CO_2}$  snow blasting, and high-pressure  $\mathrm{CO_2}$  blasting.

#### Come talk to us!

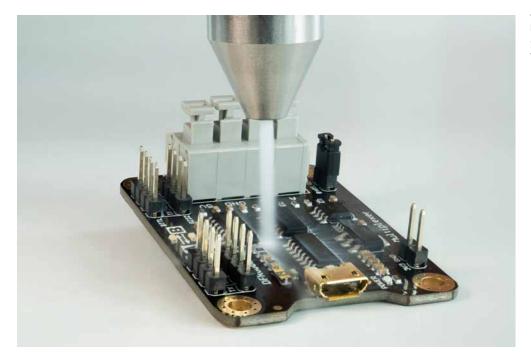
You can find us at the Fraunhofer joint booth: Hall 10, Stand E28

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## Cleaning a circuit board by means of CO<sub>2</sub> snow blasting

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