

IMPACT SPRAY SYSTEM EvoCSII

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The Impact Spray System EvoCSII represents the next generation of Impact Innovations' modular Cold Spray platform for industrial 24/7 operation. It combines advanced system components with the proprietary EvoOS control software to ensure maximum process stability, full IIoT connectivity,

and easy integration into existing production environments. Thanks to its flexible system architecture, the EvoCSII System can be configured as a **stand-alone unit** or as a fully automated **turnkey solution**, tailored to specific industrial requirements.

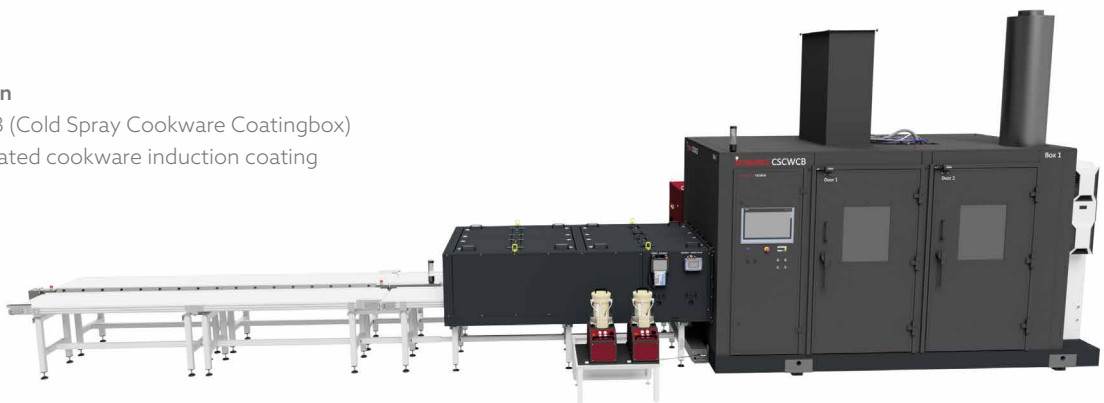


Stand-Alone Unit

Impact EvoCSII main components

Turnkey Solution

Impact CSCWCB (Cold Spray Cookware Coatingbox)
- for fully automated cookware induction coating



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ELECTRICAL CONTROL & GAS MANAGEMENT UNIT

The Impact EC-GM-Unit EvoCSII forms the heart of the EvoCSII Cold Spray System - combining electrical control, gas management, and process monitoring in one intelligent platform. It connects and controls all core components and accessories via Impact's proprietary EvoOS software, enabling precise gas regulation, real-time diagnostics, and seamless interaction between operator and system.

Built on Siemens **SIMATIC S7-1500 SP** and **TIA Portal technology**, the EC-GM-Unit provides a robust, future-ready control architecture with full IIoT connectivity and integration into higher-level automation environments.

Key facts:

- Compatible with nitrogen and helium – single or mixed operation
- Maximum process gas pressure: 100 bar
- Integrated energy metering for transparent power consumption and improved efficiency
- Remote maintenance via secure VPN connection for fast diagnostics and software updates
- Modular interface architecture with full OPC UA compatibility
- Optional **UA-Gate SI Process Data Feed** for real-time connection to higher-level systems (e.g. MES, SCADA)
- Continuous data logging of all relevant process values for traceability and quality assurance
- Uninterruptible Power Supply (UPS) for heater protection and safe system shutdown
- **ID Key Switch System** for user authentication and access management via RFID, allowing configurable access levels, user-specific permissions, and enhanced system security



INTERFACES

The EvoCSII platform features a flexible interface concept that enables seamless integration into industrial environments:

- **Functional Safety Interface** – for integration into higher-level safety control systems (emergency stop, enable signals)
- **Seamless Integration Interface** – enables external operation and recipe control by a master production system
- **OPC UA Process Data Interface** – for real-time process data transfer to SCADA or MES systems

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SOFTWARE – EvoOS

Developed fully in-house, EvoOS is the next level of Cold Spray control. It provides a modern UI, robust architecture, smart diagnostics and adaptive powder feed control – all IIoT-ready.



Key facts:

- **Intuitive User Interface**

Modern, streamlined layout for faster onboarding, effortless operation, and superior process control.

- **Maximum System Stability**

Robust software architecture designed for highest reliability and uninterrupted 24/7 operation – ideal for demanding Cold Spray applications.

- **Smart Diagnostics**

Advanced error detection and visual analytics for faster troubleshooting and preventive maintenance.

- **Ready for Future Technologies**

Fully compatible with next-generation innovations such as cooled powder injectors and integrated pressure boosters – engineered for even higher efficiency and precision.

- **Enhanced Powder Feeding System**

Adaptive feed-rate control and intelligent filtering for maximum coating quality and process consistency.

- **Cost-Efficient Modular Upgrades**

Upgrade only the modules you need – flexible, scalable, and built to reduce your total cost of ownership.

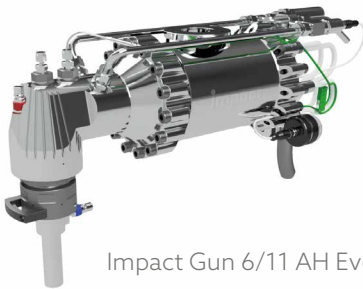
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IMPACT SPRAY GUN VARIANTS

The EvoCSII System supports multiple spray gun configurations for a wide range of Cold Spray applications:

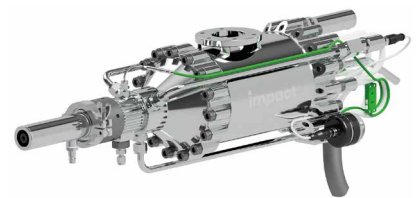
- **Impact Gun 6/11 AH** – advanced angle-head design for horizontal or downward spraying
- **Impact Gun 5/8** – compact and efficient for fine coatings and soft materials such as aluminum, copper, or tin
- **Impact Gun 6/11** – versatile all-rounder for demanding industrial Cold Spray applications with excellent coating quality and high deposition rates



Impact Gun 6/11 AH EvoCSII



Impact Gun 5/8 EvoCSII



Impact Gun 6/11 EvoCSII

IMPACT POWDER FEEDER OPTIONS

Available as **standard** and **IS (Integrated Scale)** versions.

Both variants ensure uniform powder feeding and stable process conditions.

Key facts:

- Constant powder flow through adjustable feeding rate
- Integrated vibration for improved powder handling
- Up to four feeders in parallel or single operation
- Fully integrated into EvoOS software
- Easy cleaning and ergonomic operation
- Optional PF-Station for multi-feeder setup



Impact Powder Feeder EvoCSII



Impact Powder Feeder IS EvoCSII

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IMPACT WATER COOLING UNIT 1MCC EvoCSII

The Impact Water Cooling Unit 1MCC provides efficient liquid cooling for the Impact Spray System, ensuring stable process temperatures and consistent coating quality.

It is fully integrated into the system control via the EC-GM-Unit and EvoOS software – no additional connection lines required.

The unit minimizes nozzle wear, prevents clogging, and supports continuous 24/7 operation.

Key facts:

- Nominal cooling capacity: 12 kW
- Adjustable temperature: 8–20 °C
- Flow rate: up to 22 l/min
- Fully integrated control and monitoring via EvoOS



Impact Water Cooling Unit 1MCC

ACCESSORIES & SPARE PARTS

A broad selection of original Impact Innovations accessories and upgrade options ensures optimal system performance, flexibility, and long-term reliability.

- Nozzles for various materials and coating requirements
- Cooled Powder Injectors and Central Injector Kits
- Portable Adapter for flexible system setup
- ID-Coating Solutions for internal surface applications
- Ergonomic Handling Tools and alignment aids
- And much more – perfectly matched to the EvoCSII system

All components are available through a standardized parts catalogue, ensuring fast delivery and maximum system uptime.

Our dedicated service team provides global support for installation, maintenance, and spare part logistics.

With Impact Innovations, customers benefit from a single source for advanced Cold Spray hardware, intelligent software, and long-term service expertise.