

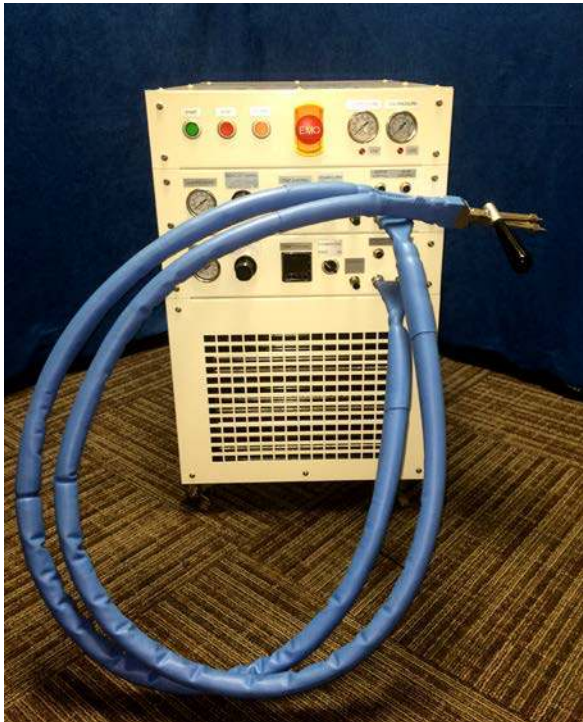


OMEGA™

CO₂ Integrated Spray Cleaning Module...

Easily integrates into a wide variety of cleaning processes. The patented independent adjustment of solid CO₂ particle generation and thrust are incorporated into this multi-channel workhorse. Connect up to four discrete nozzles to your selected automation system to provide precision cleaning of parts from every angle or in specified locations for maximum efficiency. No need to bring costly high-pressure bottles of liquid to the workcell as the Omega™ cleaning module filters and condenses CO₂ from distant storage tanks. Sensors monitor incoming supplies of CO₂ gas and propellant, as well as the status of system information for each channel.

Installation is fast with a single, rear panel I/O connector, integrated single point connection facilities and available casters. The Omega™ cleaning module can be configured with the SmartSpray™ process, which automatically adjusts the spray to maintain optimum user defined conditions. The Omega™ cleaning module can be integrated into virtually any assembly process and tool, utilizing existing machine controllers. Products don't have to be removed, cleaned and returned to the production line - resulting in reduced human interaction, higher throughput, and decreased cost-of-ownership.



OMEGA™ Highlights:

- Integrates into a wide variety of cleaning systems.
- Up to four independent discrete channels.
- Adaptable to array of nozzle systems.
- Configures with automation end effectors.
- Monitoring of system parameters / remote communication.
- Filters and condenses gaseous CO₂.
- Fast installation.



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OMEGA™ Models

To accommodate the widest possible requirements and budgets, Omega™ is available in different models for increased efficiency:

Omega™ 1000 – Benchtop CO₂ Cleaning Module

- Single or dual nozzle configuration
- Single channel
- Powder coated enclosure

Omega™ 3000 – Basic CO₂ Cleaning Module

- Up to 4 nozzle configuration
- Runs on two channels
- Additional parking garage
- Powder coated enclosure

Omega™ 4000 – Standard CO₂ Cleaning Module

- Up to 4 nozzle configuration
- Runs on independent channels
- Remote communication interface via contactor
- Powder coated enclosure, stainless steel optional

Omega™ 5000/7000 – Advanced CO₂ Cleaning Module

- Communication interface via PLC or contactor
- Refill station and mobile unit cleaning
- Stainless steel enclosure

Omega™ 8000 – Expert CO₂ Cleaning Module

- 4 nozzle configuration – runs on independent channels
- SmartSpray™ automated spray tuning
- Advanced communication interface via HMI/PLC
- Multiple communication protocols available: RS-232, CC Link, Modbus, Ethernet, Profibus
- Ultra filtration of all fluids
- Stainless steel enclosure

Additional Options:

- CO₂ atmospheric plasma technology generator.
- Integration / Environmental Control support.
 - CO₂ Integrated Spray with solvent.
 - Extended length delivery lines.
 - Custom Applicators – Nozzles



CO₂ Integrated Spray Cleaning Technology is an innovative development in the application of solid phase carbon dioxide. A small quantity of liquid CO₂ is injected into a capillary condenser tube and condensed into a solid – a patented process called “capillary condensation”. This process creates a dense mass of solid phase particles having variable size, density and hardness. The solid CO₂ is injected and mixed with a heated, pressure-regulated inert propellant gas to form a homogenous cleaning spray mixture. Particles of solid CO₂ impact the substrate at high velocity to produce a high shear stress on surface contaminants, providing efficient and effective removal of inorganic residues, organic thin film contaminations, and particles from critical substrate surfaces.

