Diversey

F&B

Open Plant Cleaning Solutions

Manual, Automatic and Mobile OPC Configurations

What is OPC... Why is it critical to my operation?

Open Plant Cleaning (OPC) is a necessity in the food and beverage industries to ensure consistent hygiene standards are maintained and food safety is not compromised. Diversey offers an extensive range of OPC chemistry that is formulated to address every cleaning environment. Diversey OPC equipment has been developed with our partners in the food and beverage industry, designed for efficiency and to maintain your high-quality standards.

The average food processing plant attributes 65% of the cost of OPC to labor and time. Through Diversey's manual, automatic, and mobile OPC engineering solutions, facilities are able to optimize their cleaning process, unlocking 30% or more cleaning time and resource requirement.

Diversey OPC Solutions

From installation and design to parts and service

Diversey OPC experts will partner with you to prioritize areas of improvement and determine what OPC solution will best address your operation's cleaning and sanitation needs. Our team will oversee OPC system installation and review its efficiency, ensuring the highest standard of cleaning results. OPCCheck, one solution within Diversey's portfolio of Knowledge-Based Services (KBS), is designed to improve your operation's OPC results, addressing food safety risks while reducing your total cost of operation.

Our service team will conduct a detailed probe into your open plant cleaning process, completing a technical audit of your current cleaning procedures and assessing the sustainability impact of the cleaning chemistry and utility usage.

Mobile OPC:

A flexible, cost efficient way to perform rinsing, foaming, and sanitation. Whether you choose the pneumatically driven, pressure-less manual foamer or the semi-automatic, boosted pressure Voyager, Diversey has the portable OPC option right for you.

Manual OPC:

Manually foam, rinse and disinfect using Diversey's highly adaptable wall mounted satellite OPC units. Wall mounted satellite units are offered as either centralized (chemicals are pre-diluted in a chemical room and centrally distributed to each satellite) or decentralized (concentrated chemicals at each satellite).

Automated OPC:

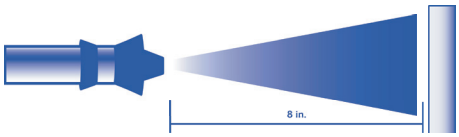
Ensure consistent, optimized OPC results on a day to day basis. Centralized or decentralized, automated OPC is the best option for the optimal cleaning of beverage carousel fillers, poultry or fish chillers, spiral freezers, or conveyors. In automated OPC systems, chemical concentration, application time, contact time, pre-rinse and final-rinse time are controlled by a PLC . This ensures a repetitive, consistent, and track-able OPC operation.

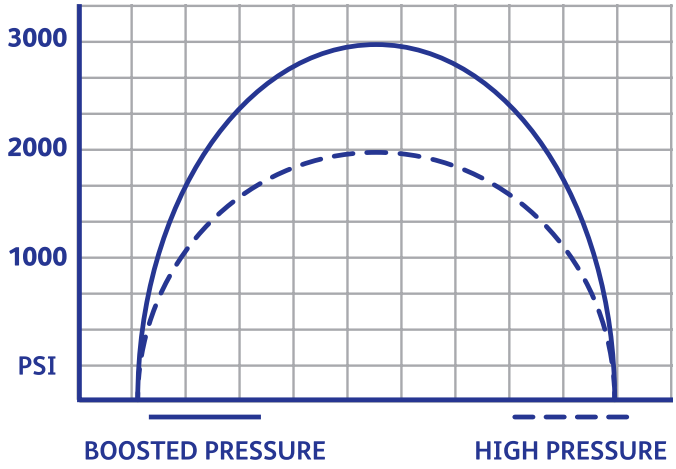
Benefits of Boosted Pressure OPC

Better Mechanical Action & Impact Consistency

When compared to high pressure systems (3000 PSI), Diversey's mobile boosted pressure system (150 and 300 PSI) ensures consistent mechanical action during rinsing operation, no matter the distance between the rinsing nozzle and the object you are cleaning.

High pressure systems are rated at 3000 PSI, providing extremely powerful mechanical action directly from the rinsing nozzle. This powerful stream may appear optimal, but the power quickly diminishes a few inches from the nozzle. Diversey's boosted pressure systems provides consistent mechanical action. Consistency is key to ensure efficient manual OPC events, as each operator rinses at varying distances.

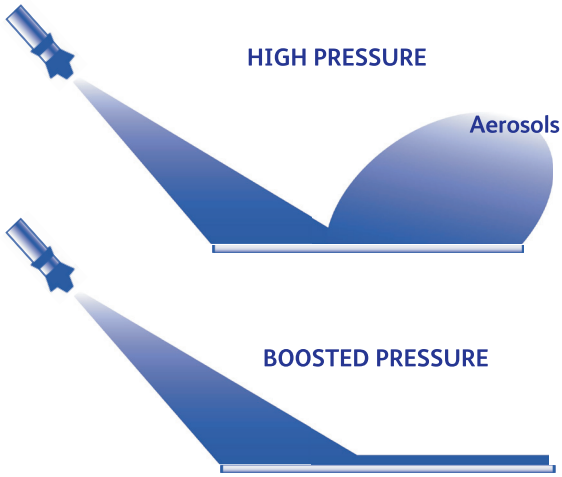




Reduced Aerosols & Cross-contamination

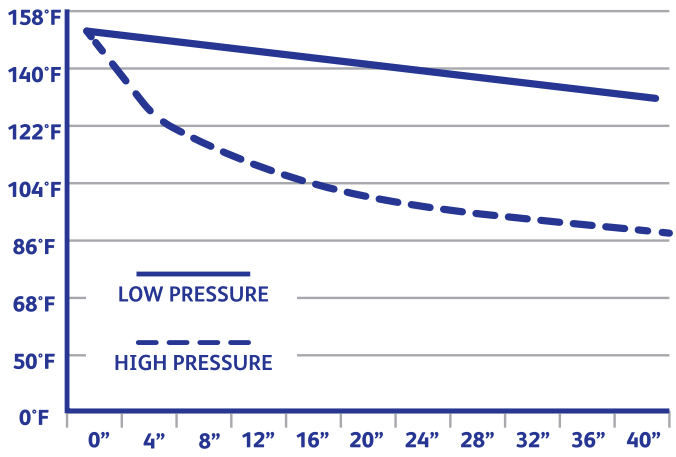
When compared to high pressure systems (3000 PSI), Diversey's mobile boosted pressure system (150 and 300 PSI) significantly reduces the risk of cross-contamination

Boosted pressure systems provide enough mechanical action to rinse soils without the creation of excess aerosols. Aerosols are a wellknown source of cross contamination during OPC operations and should be avoided. Preventing cross-contamination is critical in OPC operations, especially when a production line is being cleaned in the vicinity of lines still in production.



Lower Delta-T, Lower Energy Loss

Some OPC operations may require rinsing with temperature (90° - 120°F) to improve soil removal. High pressure rinsing (3000 PSI) has a much quicker temperature loss curve due to water atomization promoting quicker heat exchange with the environment. Diversey's boosted pressure system ensures less heat loss, allowing the cleaning surface to be rinsed at a higher temperature



Mobile OPC Equipment

Voyager Mobile Cleaning Unit

The Voyager mobile cleaning unit is ideal for cost effective, multi-room open plant cleaning operations where there is a high degree of soil and portability is key. The Voyager is an all-in-one system that allows for boosted pressure rinsing, foam application, and sanitation to be performed. This stand-alone mobile cleaning unit is available in two different capacities (150 and 300 PSI), with or without a built-in compressor

The Voyager is a highly flexible unit that can be optimized to fit and clean multiple environments. The boosted pressure model is able to incorporate a number of optional accessories:

- Handle mounted manual hose reel
- Range extender (30ft) foaming nozzle
- Triple and single rotation floor brush
- Hand-held rotating brush
- Large diameter (3”-16”) pipe cleaning nozzle

Voyager Benefits

- Stainless steel, water lubricated multi-stage centrifugal pump, mounted in a stainless steel cabinet
- No requirement for routine pump servicing
- Built in temperature sensor safeguards against overheated water
- Safety interlock ensures pump will not automatically re-start after a malfunction or power failure
- Two outlets, one for rinse and foam, the other one dedicated for sanitizer
- Integrated oil-less air compressor (in selected models).

Manual OPC Equipment

Highly Detailed Clean Made Easy

Manual OPC offers a high level of detail in plant cleaning. This technology is suitable for cleaning complex pieces of static equipment, meaning that either an operator needs to physically take apart pieces of equipment to be cleaned or, due to its static geometry and/or configuration, the operator needs to execute the OPC operation.

Manual Centralized OPC

Manual centralized OPC is optimal for plants where concentrated chemicals are not allowed inside the process rooms. In a centralized configuration, all chemicals are pre-diluted in a separate, isolated chemical room and distributed through a series of a pipelines. In the chemicals room, the rinsing water pressure is boosted by means of a multi-stage pump. Each satellite OPC unit will receive pre-diluted cleaning foam, pre-diluted sanitizer, and boosted pressure water.

Advantages:

- No concentrated chemical in the room
- Compliant with plant regulations and legislations
- Chemical dilution done in a confined room, no chance of tampering.

Manual Decentralized OPC

Manual decentralized OPC is a cost-efficient solution, suitable for plants and processes where it is possible to have concentrated chemical jerrycan at the bottom of each satellite unit. In this configuration, plants have a single water booster unit distributing boosted water to each satellite. The chemical (cleaning foam and sanitizer)is diluted on- site, introduced and dosed by means of a venturi.

Advantages:

- Lower investment
- Higher flexibility with the possibility of having different chemical and/or concentration at each satellite

Manual Centralized OPC

Manual Decentralized OPC

Automated OPC Equipment

Consistent, Compliant Plant Cleaning

Automated OPC systems are suitable for cleaning and sanitizing large production facilities that have complex, movings productions units, such as carousel fillers, belt conveyor, tipping conveyors, spiral freezers, spiral chillers, seasoning drums, tumbler trimmers among many other pieces of equipment. In an automated OPC installation, the cleaning foam and sanitizer is applied by means of a custom manifold, made to fit and reach each piece of equipment, ensuring that even the hardest-to-reach spots are covered during the cleaning and sanitation process. During automated OPC, all pre-rinse, product application, contact, and post rinse times are all controlled by a PLC, ensuring consistent and accurate results during each cleaning event.

Automated Centralized OPC

Automated centralized OPC is optimal for plants where concentrated chemicals are not allowed inside the process rooms. In the centralized configuration, all chemicals are pre-diluted in a separate, isolated chemical room and distributed through a series of a pipeline. In the chemical room, rinsing water pressure is boosted by means of a multi-stage pump. Each automated satellite receives pre-diluted cleaning foam and sanitizer with boosted pressure water. A PLC controls the automated satellite units, cleaning each part of the equipment following pre-programed sequences.

Advantages:

- No concentrated chemical in the room.
- Compliant with plant regulations and legislations
- Chemical dilution done in a confined room, no chance of tampering

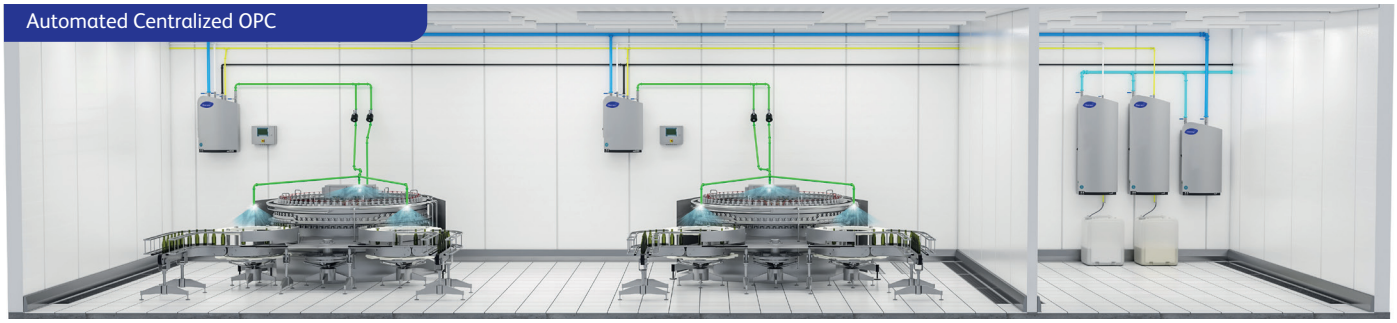
Automated Decentralized OPC

Automated decentralized OPC systems are a costefficient cleaning solution that is suitable for processes where it is possible and/or allowed to have concentrated chemical jerrycans at the bottom of each automated satellite. In this configuration, a single water booster unit distributes boosted water to each satellite. The chemical (cleaning foam and sanitizer) is then drawn by means of a venturi for on-site dilution.

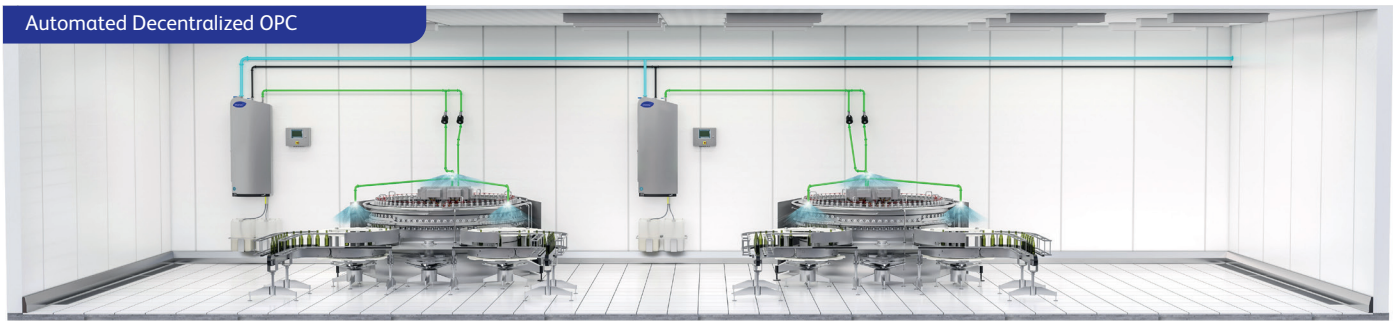
Advantages:

- Lower investment
- Higher flexibility with the possibility of having different chemical and/or concentration at each automated satellite

Automated Centralized OPC



Automated Decentralized OPC



Diversey has been, and always will be, a pioneer and facilitator for life. We constantly deliver revolutionary cleaning and hygiene technologies that provide total confidence to our customers across all of our global sectors. Headquartered in Fort Mill, South Carolina, USA, Diversey employs approximately 8,800 people globally, generating net sales of approximately $2.7 billion in 2018.

For more information, visit www.diversey.com or follow us on social media.

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