



SUNCOMBE
CIP, BIOWASTE & PROCESS SOLUTIONS

CASE STUDY

DEC-Group Switzerland Clean-in-Place (CIP) system Development and Implementation

The Client

The DEC Group was founded in 1987 and is a Swiss based leading global provider of powder handling and process containment systems to the pharmaceutical, chemical, food and cosmetic industries. Their turnkey and custom designed solutions have been successfully integrated into complex operations in more than 600 companies worldwide, both multi-nationals and special niche companies. In 2008 Dec acquired the Jetpharma product range, which includes world beating micronizing and isolator systems.

The Projects

The DEC-Group required Clean-in-Place (CIP) systems for cleaning of their process equipment and containment systems. The CIP systems were required to perform a variety of cleaning duties, to support the End-users manufacturing operations with full automated CIP operations.

Using Suncombe' proprietary designs, developed over the last 60 years, the systems adopted the principles of In-line Dilution of the chemical streams. This allows the CIP systems to operate without a buffer tank whilst protecting all site utilities.

Working closely with the DEC-Group, a number of multi-disciplinary meetings were held in which the project aims and objectives were identified to ensure that all expectations were appropriately aligned. The CIP systems were to be developed to deliver WIP media at preconfigured variables to the plant equipment and isolator via cleaning nozzles and manual cleaning spray gun. The systems needed to integrate with the DEC SCADA Systems and communicate with the PW System and the WFI System. Working closely with the client's automation team a detailed interface was developed and was fully pre-tested in the UK and at DEC Groups facility in Switzerland before being commissioned and qualified on the client's site.

A number of systems were provided against this developed design and are operating in Europe and Asia.

Our Technical Approach

Once the P&ID had been constructed, reviewed and approved by all parties, detailed 3D design could start on the project. Regular and frequent meetings/teleconferences allowed project progress to be monitored closely, and feedback from all parties could be incorporated as appropriate. Collaborative working ensured that all elements of the proposed system satisfied the design intent, and over a number of iterations, a final mechanical design evolved incorporating compliant line gradients, minimised line dead-legs and millimetre-tolerances over the entire system.



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The Main Design Objectives

- To design and develop a CIP system to be able to clean both the DEC Groups process equipment and also the isolator technology;
- To ensure that this design could be versatile enough for changed duties and requirements;
- To incorporate an interface to DEC Group control systems;
- To provide a system for commissioning and implementation;
- To ensure fault-free integration for uninterrupted manufacturing.

Typical DEC Group CIP System Photograph



Suncombe Comments

Steve Overton, technical director at Suncombe, commented, "We were delighted to be part of the team for this project with the DEC-Group. Using our 60+ years of experience of producing Clean-in-Place systems, the team developed a state-of-the-art system which suited the client's specific requirements. The project provided interesting challenges for the whole team and I am proud to say that these challenges were met and exceeded."



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Clients Comments

“I used to work for GSK, so I’ve known Suncombe for many years, and I was aware that they’d done some similar work for Pfizer, at Sandwich also.

As well as one project for Roche in Shanghai, we’ve worked with Suncombe on projects for Novartis in Switzerland, and most recently in Spain.

The project involved us using barrier isolation technology to contain a specific (confidential) process. Suncombe were supplying the CIP skid, to clean both the process equipment, and also the isolated technology that we have installed. (The isolator effectively is a clean room containing a highly potent product and involving a pre-blending process).

We issued Suncombe with a URS and flow requirements etc., and they came up with the idea of what we call the in-line system, which doesn’t involve a pre-mixing tank. They did a very good job working with us to develop the system at the end of the day.

Obviously, their forte is designing CIP skids, but we benefited from their knowledge and ability to work with us to develop a system which is sized correctly to meet the demand, and met all necessary pharmaceutical standards very, very well.

The communication was good. There were quite a few changes requested by the engineering company, and if you asked me whether I’d work with Suncombe again – I’d say ‘definitely’.

Although we organised the final installation, we did a full FAT on-site at Suncombe’s premises with the end-user and the engineering company present, and this all went well.

Their documentation was brilliant. Weld logged, weld mapped - everything else which is expected, full borescope, everything was as per expected for a pharmaceutical execution. I think these guys certainly know what they're doing, and I have recommended them to other companies. ”

Andrew Lemaire – Director, Dec Group, -- Testimonial / Case Study



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