PROXICLEAN
Close proximity cleaning-in-place unit using lost or recovered solutions

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PIERRE GUERIN
TECHNOLOGIES

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ISO 9001
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Certification

PROXICLEAN

CLOSE PROXIMITY CLEANING-IN-PLACE UNIT

Control hygiene to secure your processes

> The design of the Proxiclean cleaning station includes all **EHEDG, 3A and GMP recommendations**

> The complete automation of these units guarantees the **safety**, **reproducibility** and **traceability** of the cycles as well as the control of all the cleaning parameters.

> Moreover, aware of the environmental impact of cleaning, PIERRE GUERIN provides its expertise to enable **sustainable development** of your industrial tool by minimizing energy consumption.

Configuration of Proxiclean functions and tanks

It is possible to select the desired functions among the 6 possible (cold rinse, hot rinse, detergent 1, detergent 2, disinfectant, recovery) and to assign each one to a dedicated tank or to use a common tank, according to the following criteria:

Use of one product per dedicated tank

> The solution is recovered: energy and product savings
> Shorter cleaning time
> Higher equipment cost
> Larger overall dimensions

Use of one product per CIP tank

> The solution is lost Longer
> cleaning time Optimized
> equipment cost Smaller
> overall dimensions

	Dedicated tank	CIP tank 185L on base	In line	From network
Cold water	✔			✔
Hot water	✔	✔		✔
Detergent 1	✔	✔	✔	
Detergent 2	✔	✔	✔	
Disinfectant	✔	✔	✔	
Recovered water	✔	✔		

Selection guide

*Several choices are possible

CIP tank

Code	Options	Selection
R	Clean water tank (CIP tank)	X
R1*	Hot water (CIP tank)	☐
R2*	Detergent 1 (with dosage) (CIP tank)	☐
R3*	Detergent 2 (with dosage) (CIP tank)	☐
R4*	Recovery (CIP tank)	☐
R5*	Disinfectant (with dosage) (CIP tank)	☐

Dedicated tank

Code	Options	Selection
R	Clean water tank (CIP tank)	X
Ec*	Dedicated hot water tank	☐
D1*	Dedicated detergent tank (with dosage)	☐
D2*	Dedicated detergent tank (with dosage)	☐
Re*	Dedicated recovery tank	☐
Dc*	Dedicated Disinfectant tan (with dosage)	☐

** only one choice possible

Common selections

regardless of the choice of CIP or Dedicated Tank

Code	Options	Selection
P1**	185L vertical tank	☐
P2**	400L vertical tank	☐
P3**	800L vertical tank	☐
Isc1	tank insulation	☐
Ch1**	Heating with steam	☐
Ch2**	Heating with hot water	☐
Ch3**	Heating with electric resistance	☐
Rc1	1st rinse with hot water	☐
Ed**	Direct in-line water	☐
Ve1**	Water valve on each tank	☐
Ri1	With feedback sensors switches	☐
Rp1	With product recovery	☐
Di1	With in-line disinfection	☐
Lic1	With continuous level on each tank	☐
Fte1	With flow meter	☐
Ftr1	With return flow meter	☐
Fsl1	With return flow sensor	☐
Tu1	With turbidimeter	☐
Fta1	With water flow meter	☐
Sa1	With air blowing	☐
Pr1	With return pump	☐
Pe1	With supply pressure sensor	☐
Fi1	Filter	☐
Fi2	Return filter	☐
Ai1	With stainless steel cabinet	☐

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Reduced environmental impact

The choice of cleaning devices is decisive in order to combine performance and low flow, water and energy consumption.

CIP balls normal operating conditions	Action radius (m)	Pressure (bar)	Flow rate (m^3/h)
Static ball (light mechanical action)	1	1.2	1.8
	3	1.2	4.8
	4	1.2	7.2
Rotating ball (mechanical action by sweeping)	1	2	1
	1.5	1.5	5
	2	3	3
Mechanised ball (mechanical action by impact)	2.5	5	3
	4	5	6
	5	5	9
Wall cleaner	2	3	4.5

- Washing phases with recirculation are preferred to washing with direct delivery of solutions to the effluent
- Stations with recovered solutions integrate a sorting strategy that limits water losses and detergent dilutions
- Recovery of the last rinsing water used is activated as soon as possible
- Tank insulation contributes to reducing energy consumption
- The automatic system allows cleaning times and parameters to be optimised

Cleaning sequence

Test modules allow you to adapt the cycles to your cleaning protocols according to the specificities of your products and equipment.

Type of CIP cycle	Fluids	Temperature	Time (mins)
Pre-wash equipment	Water	15°/ 20°C	5
Blowing & Purging piping	Air		3(1)
Solution preparation detergent 1	Water + caustic solution	60°/ 85°C	7(2)
Recirculation detergent solution detergent 1	Water + caustic solution	60°/ 85°C	15
Rinsing/blowing after detergent 1	Air / Water		3(1)
Solution preparation detergent 2	Water + Acid	50°/ 55°C	7(2)
Recirculation detergent solution detergent 2	Water + Acid	50°/ 55°C	10
Rinsing/blowing after detergent 2	Air / Water		3(1)
Rinsing CIP station and equipment	Water	10°/ 15°C	5
Final rinse equipment	Process water		10
Blowing & Purging piping	Process air		5
Total			**60 to 70**

(1) Can be carried out as a background task
(2) Can be done as a background task only on a recovered solution station

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