



EXPLAINER

Chemical Supply Systems
for Open Plant Cleaning

Chemical supply – system setup

Central, decentral or hybrid chemical supply?

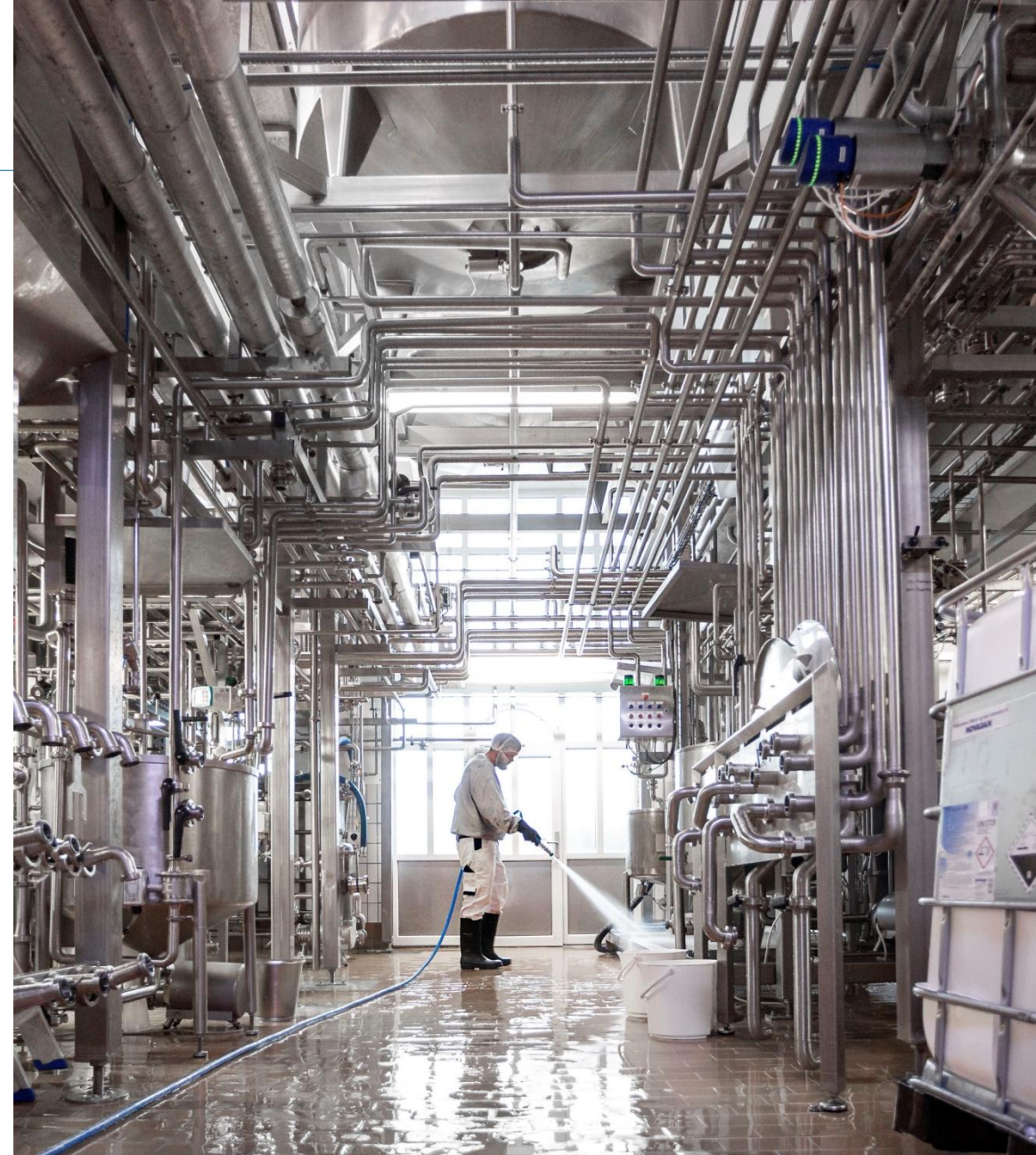
Each processing plant has its own characteristics, and the requirements for a cleaning system depend on various factors, e.g.,



Is it a new or existing processing plant?

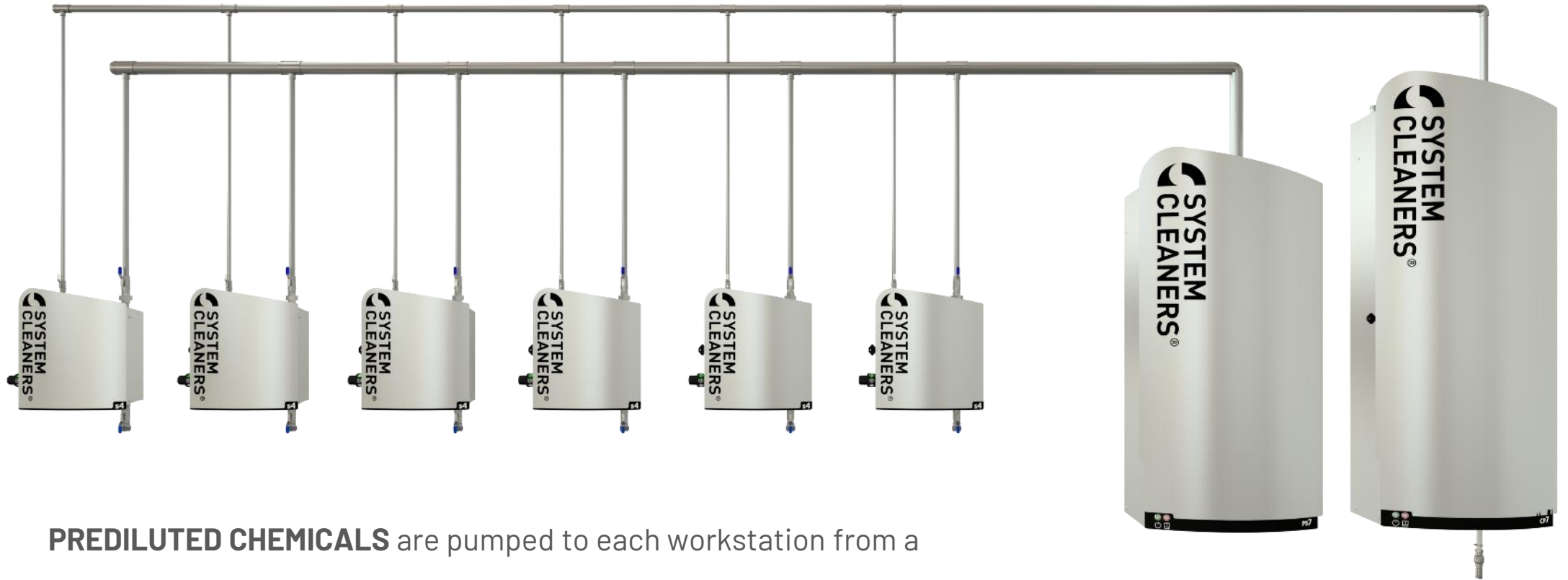


Is there a corporate chemical handling policy dictating that chemicals are prohibited in the production area?



Manual system setups

Manual central system



PREDILUTED CHEMICALS are pumped to each workstation from a chemical pump station placed in a separate, central location.

Manual central system



The solution is often recommended in connection with the expansion of production facilities and/or the construction of new.



If the company has a chemical handling policy that prohibits chemicals in the production area, a central setup is the optimal solution.

Manual central solution



SATELLITE STATIONS

- S1**
Basic model 1 chemical
- S2**
2 chemicals
- S3**
3 chemicals
- S4**
Advanced model 4 chemicals

CHEMICAL PUMP STATIONS

CP5 & 7			
Capacity	25 - 50 l/min		
	6.6 USGAL/13.2 USGAL/min		
Power	1.1 - 2.2 kW	1.5 - 3 Hp	
Users	1 - 7 users		
CP10/30/40 & KPV400			
Capacity	106-400 l/min	28 - 105,7 USGAL/min	
Power	4 - 11 kW	5.4 - 15 Hp	
Users	15 - 60		

PUMP STATIONS/BOOSTER STATIONS

PS5 & 7			
Capacity	150 - 210 l/min		
	39.6 - 55.5 USGAL/min		
Power	5.5 - 7.5 kW	7 - 10 Hp	
Users	1 - 7		
BS			
Capacity	300-1200 l/min	50-318 USGAL/min	
Power	5,5 - 4x11 kW	7 Hp - 4x15 Hp	
Users	Up to 40		

Manual central system

Advantages

- ✓ Minimizes chemical handling – health and safety
- ✓ Consistent chemical concentration on all workstations
- ✓ More efficient – less work procedures
- ✓ Cost-effective chemical purchase, less plastic

Disadvantages

Extensive investment in pipe work, chemical room



Manual decentral system



CONCENTRATED CHEMICALS are stored and dispensed at each workstation.

Manual decentral system

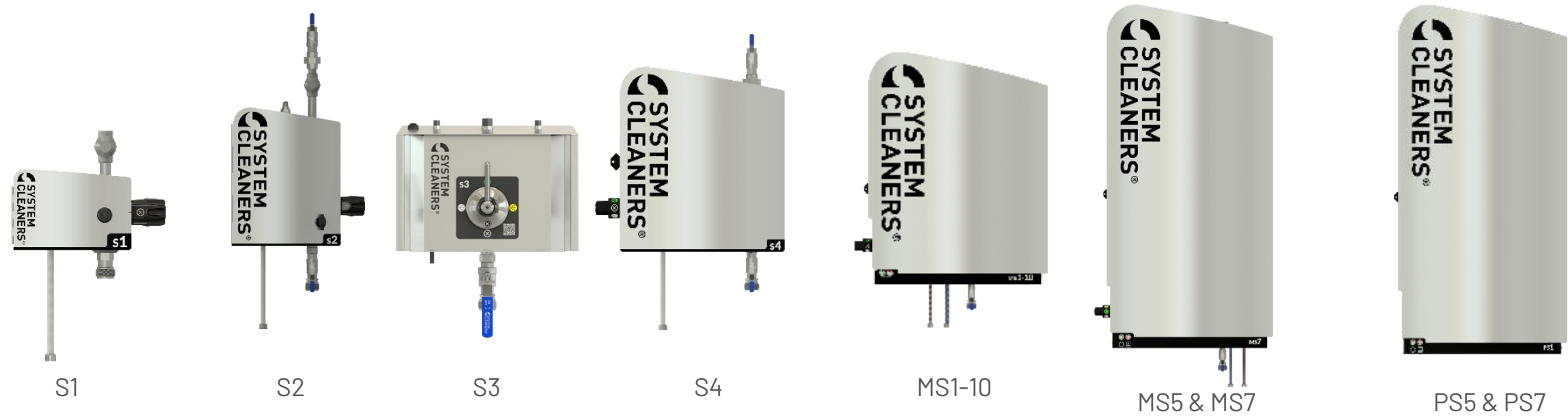


The solution is easy to install in existing facilities.



Decentral systems can be either fixed to the wall or mounted on a trolley (mobile units). Both wall mounted and trolley models can be used at the same processing site.

Manual decentral solution



SATELLITE STATIONS

- S1**
Basic model 1 chemical
- S2**
2 chemicals
- S3**
3 chemicals
- S4**
Advanced model 4 chemicals

MAIN STATIONS

MS 1-10, MS5 & MS7		
Capacity	120 – 200 l/min	31 – 52 USGAL/min
Power	1.1 – 2.2 kW	1.5 – 3 Hp
	5.5 – 7.5 kW	7.5 – 10 Hp
Users	1 – 7	

PUMP STATIONS/BOOSTER STATIONS

BS		
Capacity	300-1200 l/min	50-318 USGAL/min
Power	5,5 – 4x11 kW	7 Hp – 4x15 Hp
Users	Up to 40	
PS5 & 7		
Capacity	150 – 210 l/min	
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Power	5.5 – 7.5 kW	7 – 10 Hp
Users	1 – 7	

Manual decentral system

Advantages

- ✓ Easy to install in existing facilities
- ✓ Less modifications to piping system
- ✓ No need to establish a chemical room

Disadvantages

Safety issues with chemical handling

Chemicals in the processing area

Added work procedures



Manual hybrid system

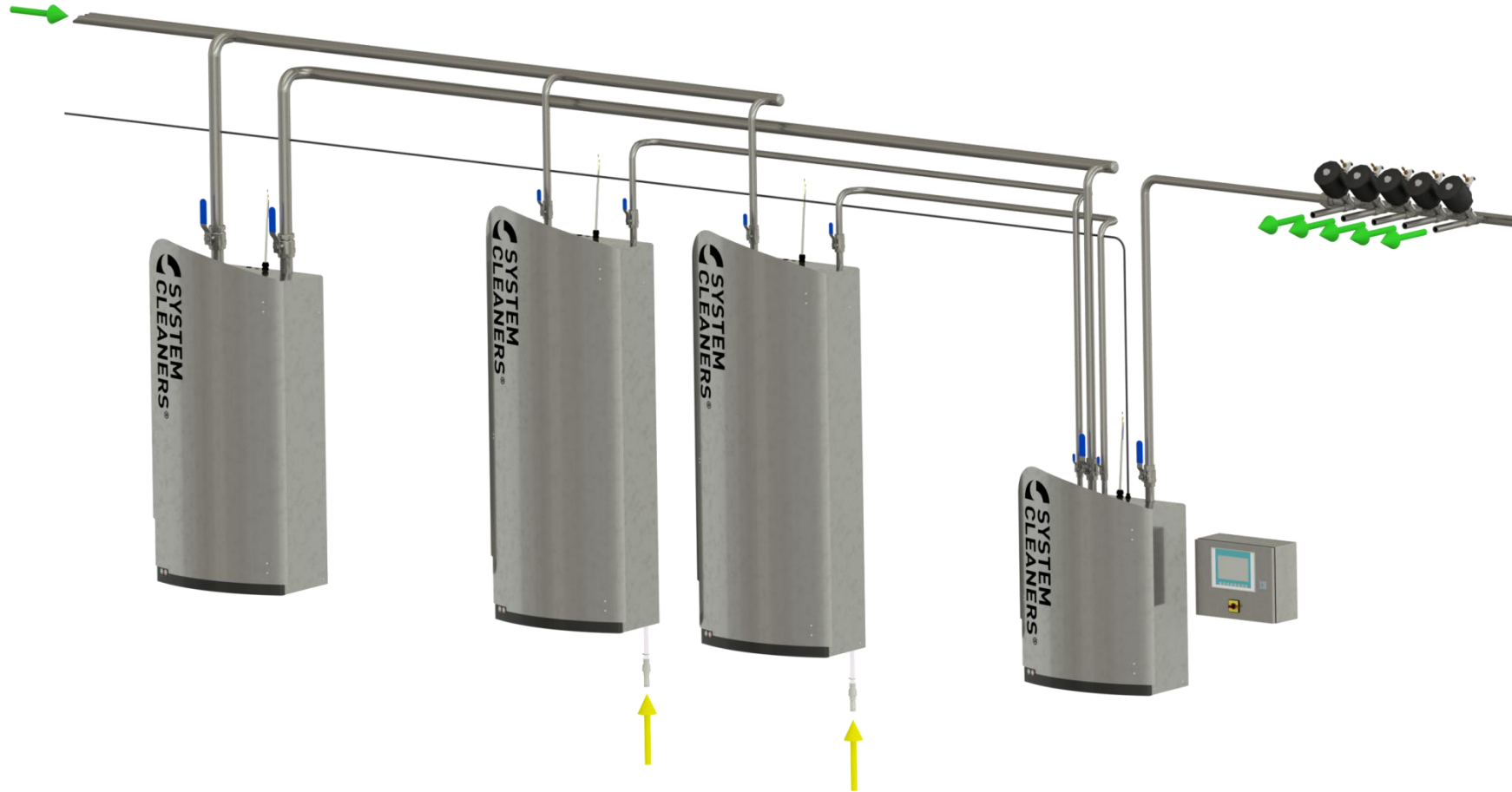
A hybrid solution has the same setup as a central system but with the additional possibility of adding an extra product at all or some of the workstations.

The solution is often applied when there is a need for an extra cleaning task to be performed independently of the regular cleaning program.



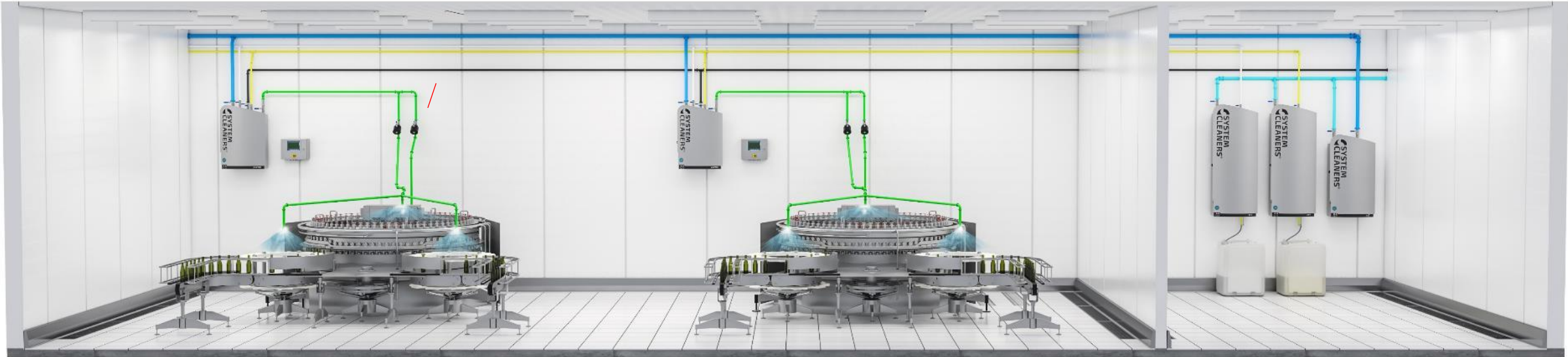
Automatic system setups

Automatic central system



PREDILUTED CHEMICALS are pumped to each workstation from a chemical pump station placed in a separate, central location.

Automatic central solution



CONTROLLER

CV18 3P
8 programs
18 segments
3 products

ADVANCED
Multiple possibilities

SATELLITE STATIONS

AS 150 & 200
Advanced and flexible as S4,
but for PLC control
(3 chemicals)

CHEMICAL PUMP STATIONS

CP5 & 7		
Capacity	25 – 50 l/min	6.6 USGAL/13.2 USGAL/min
Power	1.1 – 2,2 kW	1.5 – 3 HP
Users	1 – 7 users	
CP10/30/40 & KPV400		
Capacity	106 – 400 l/min	28 – 105.7 USGAL/min
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PUMP STATIONS/BOOSTER STATIONS

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Capacity	150 – 210 l/min	39.6 – 55.5 USGAL/min
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BS		
Capacity	300-1200 l/min	50-318 USGAL/min
Power	5,5 – 4x11 kW	7 HP – 4x15 HP
Users	Up to 40	

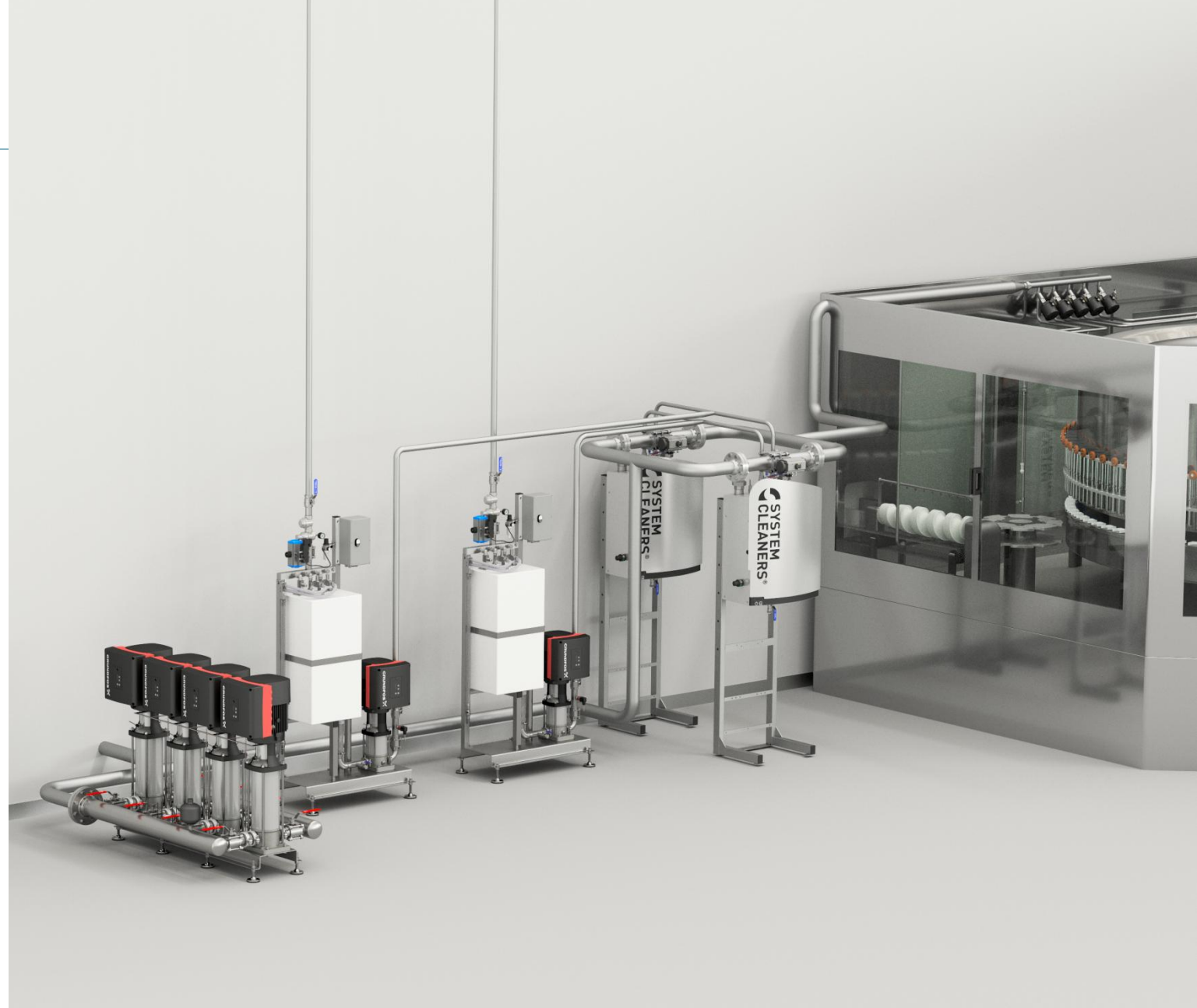
Automatic central system

Advantages

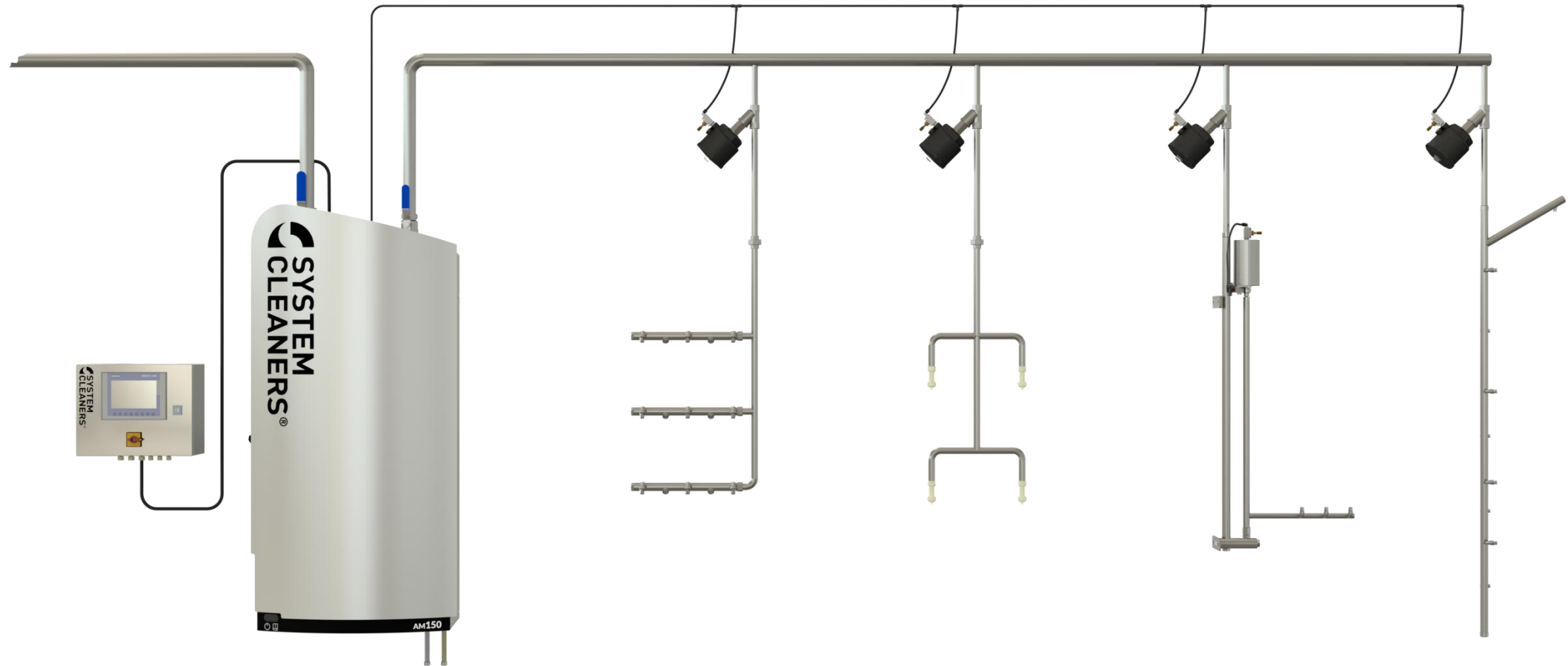
- ✓ Minimizes chemical handling
- ✓ Health and safety for staff
- ✓ Consistent chemical concentration on all workstations
- ✓ More efficient – less work procedures
- ✓ Cost-effective chemical purchase, less plastic

Disadvantages

Investment in pipe work, chemical room

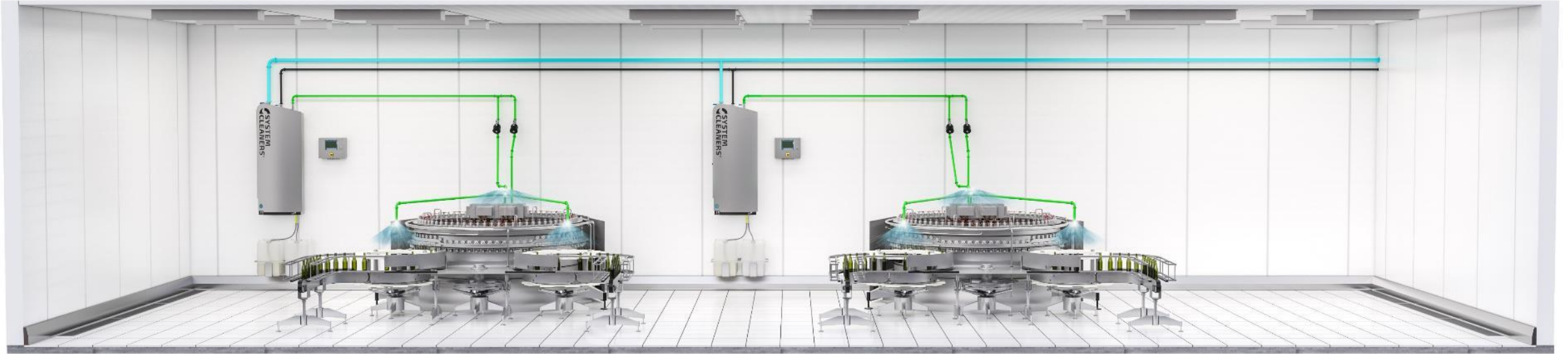


Automatic decentral system



CONCENTRATED CHEMICALS are stored and dispensed at each workstation.

Automatic decentral solution



CONTROLLER

CV18 3P

8 programs
18 segments
3 products

ADVANCED

100% customized PLC

MAIN STATIONS

AM/AMM50, 150 & 200

Capacity	50 – 210 l/min	1.5 – 10 HP
Power	1.1 – 7.5 kW	13.2 USGAL/min – 55.5 USGAL/min

Automatic decentral system

Advantages

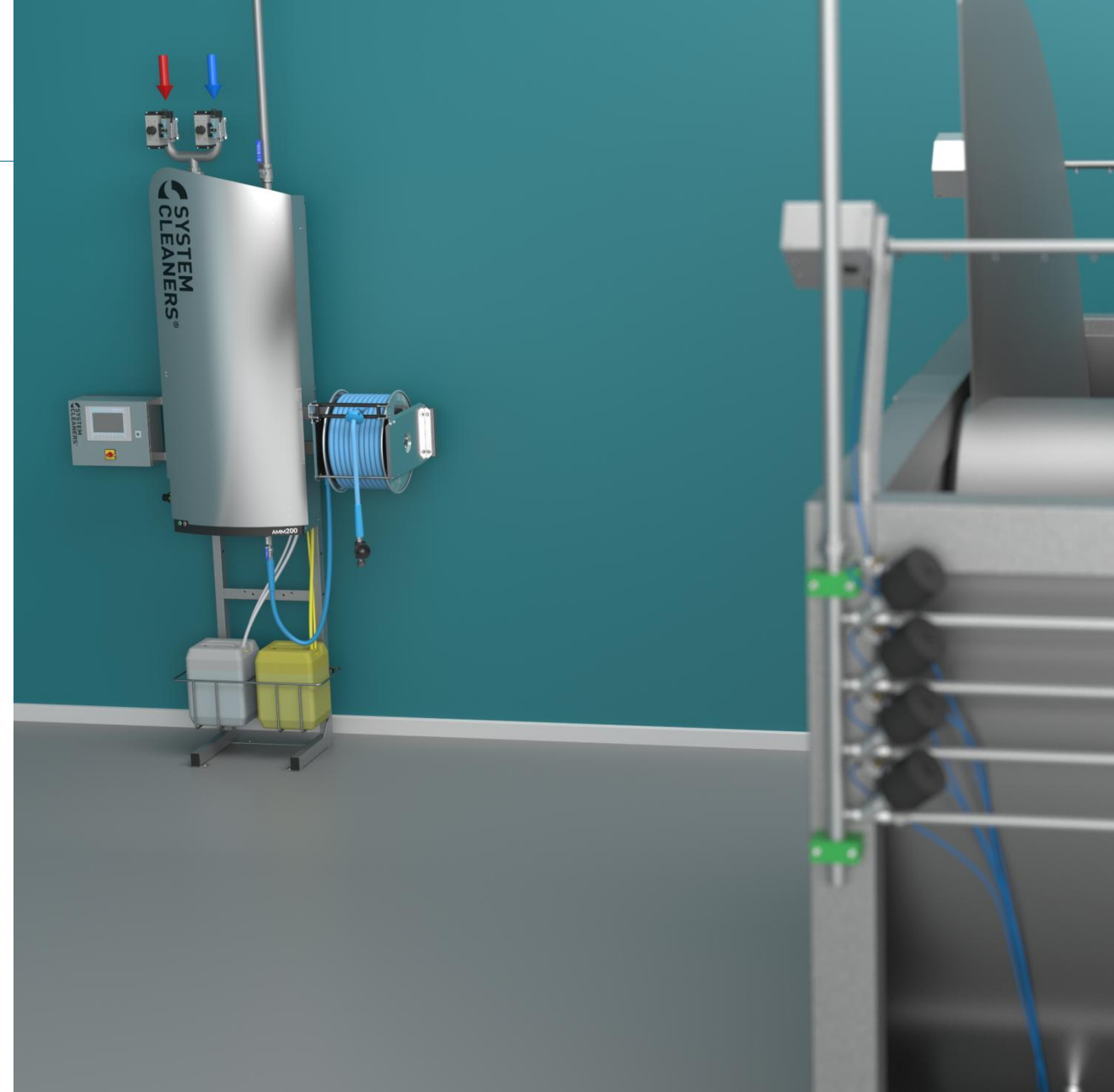
- ✓ Easy to install in existing facilities
- ✓ Less modifications to piping system
- ✓ No need to establish a chemical room

Disadvantages

Safety issues with chemical handling

Chemicals in the processing area

Added work procedures



Equipment used in automatic systems



CP5 & 7



AM/AMM50, 150 & 200



PS5 & 7



AS/ASM150 & 200



CV18 3P

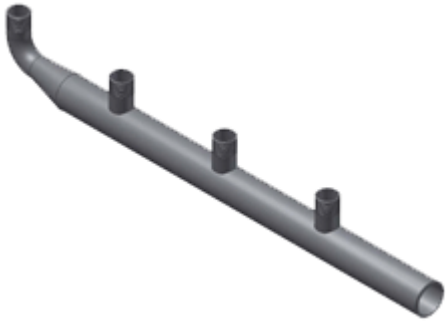


CP10/30/40



Booster stations

Key components in nozzles systems



MANIFOLD



SEGMENT VALVE



FLAT JET NOZZLE
Concentrated, high impact



ROTATING NOZZLE
Covering large surfaces

Mobile system setups

Mobile system



Mobile systems are always decentral: concentrated chemicals are stored under or inside the mobile satellite or Voyager main station.

Equipment used in mobile systems



VOYAGER 1, 2 AND 4



MOBILE SATELLITES S1, S2, S3 & S4



Member of AxFlow Group