



WPCL IUT2

Wastewater recycling SYMBIO-unit for processing heavy metal containing water in a CrossLoop configuration.

For the modular integration in **kolb** AQUBE® two tank cleaning systems with integrated ClosedLoop technology.

Additional depth of the cleaning system: ca. 400 - 700 mm

Part number: 0905_ _ _ _ _ WPCLIUT2



Certifications:

This system in its basic version was certified for its energy and water saving processing, for easy operability and for the standard integration of comprehensive safety features.

- SYMBIO-integration as a framework module at the system back as fully enclosed solidly integrated unit
- CrossLoop technology for significant reduction of fresh water use and for waste water disposal
- Multiple use of pre-rinse water
- Recycling and multiple use of clear rinse water in DI / DM quality
- Two tank pre-storage system with two tanks (volume each approx. 70 litres)
- 6 filter stages
- Fully automated process, process and service intervals PLC controlled, monitored and displayed
- Integrated water exchange / refilling system
- Easy maintenance access through rear door / rear covering
- Also ideally suited for retrofitting **kolb** PSB two-tank systems (from year of construction 2016)

Key applications



AQUBE® L series



AQUBE® HY series



AQUBE® M series



PS300 2HY, PS07 TWIN

Systems for product cleaning (PCBs, DCBs, HDIs etc.) and tools cleaning (screens, stencils, solder frames / carriers, filters etc.) have to exchange the water after very single rinsing process or are equipped with an integrated rinsing water filtering cycle, which already allows multiple use of the rinse water. The water-saving cleaning systems from **kolb** have already integrated such a ClosedLoop recycling technology as a standard feature, which already allows a repeated use of the rinse water. The CrossLoop technology of WPCL IUT2 extends these resource savings of water again by a multiple.

WPCL IUT2 SYMBIO-modules with CrossLoop crossover recirculation technology and sixfold filtration manage the recycling of wastewater, thus significantly reducing the need for fresh water and the cost for producing DI water as well as for the disposal of contaminated used up water.

The installation of the fully enclosed compact WPCL IUT2 SYMBIO-module is on the rear side of the cleaning system and increases its depth by only about 400 - 700 millimeters.



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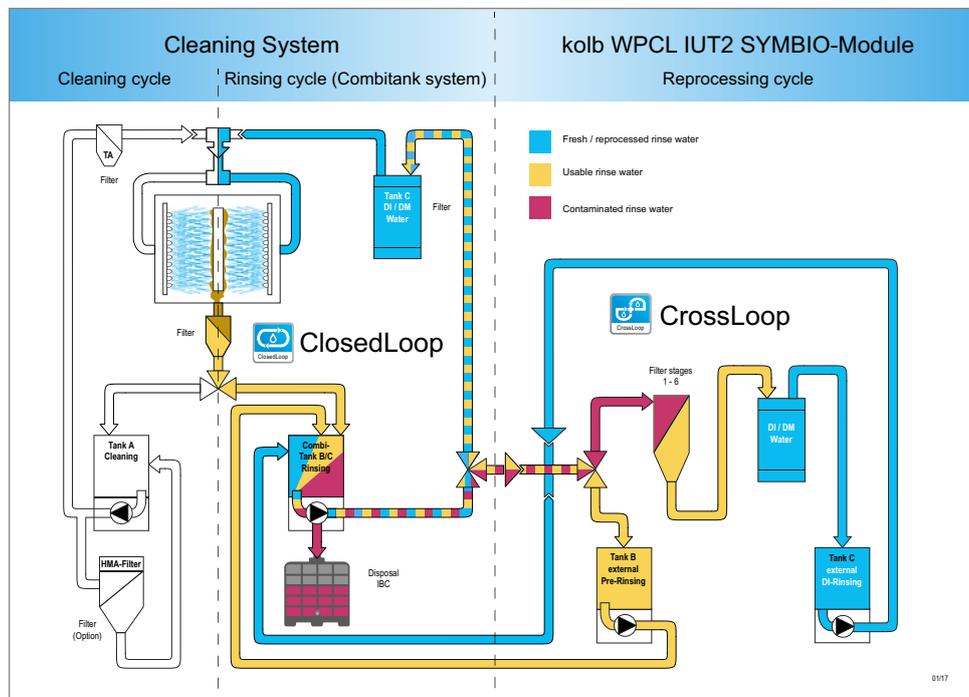
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Function

In a cleaning system, the rinse water usually shows three different process states:

1. Polluted water, which is no longer suitable for rinsing and has to be either treated for reuse or has to be discharged into the local sewage network.
2. Water that has been used for rinsing, but still is usable for this process because it is filtered in a closed loop inside the cleaning system and thus can be reused several times.
3. Fresh water or fresh recycled water which the system collects during the rinsing water exchange process either from the local water connection or from a reprocessing plant.



With the integration of the WPCL IUT2 SYMBIO module, the cleaning system is equipped with separate pre-rinse (via tank B external) and rinse cycles (via tank C external) in a CrossLoop process.

Pre-rinse cycle: After the pre-rinse cycle (usually with tap water), the system stores the rinse water from its combi-tank B / C in tank B of the SYMBIO module for multiple use.

Clear-inse cycle: The combination tank is now supplied with DI / DM water from tank C of the SYMBIO module so that the clear rinsing process can be carried out in the cleaning system. The used rinse water from the combination tank B / C is then returned to the SYMBIO module. There, organic and heavy metals (for example, lead, tin, silver, copper) are absorbed via 6 filter stages. The recycled water in DI / DM with the μS conductance quality, pre-set in the PLC of the system, is subsequently stored in tank C for the next clear rinsing process.

Disposal / filter change: If the rinse water from one or both circuits no longer meets the (SPS-controlled) quality specifications of the operator, the system automatically changes the tank contents. The contaminated water is automatically pumped, e.g. into an IBC container, for subsequent disposal by a specialist company. The filters 1 - 3 are replaced, the adsorber filter cartridges 4 - 6 are regenerated and the tanks are filled with fresh water so that all functions of the SYMBIO-unit are available to the next rinsing processes.