

Process fluid and waste water treatment

Atec specializes on the treatment of industrial process baths and waste water. In this field our **core competency** is **membrane filtration**.

The fluid to be cleaned is pushed through the pores of the membrane. The chosen and well-defined pore size allows to **remove dirt (e.g. oil and particles)**. The clean fluid, consisting of water and bath chemicals (e.g. surfactants), goes back into the process.

Your benefits

- longer lifetime of process bath
- more stable (cleaning) process
- savings on chemicals, water and waste water
- savings on working time for changing and monitoring of process baths



- purely physical treatment; no chemicals needed
- perfect and constant permeate quality
- target quality, right from start of operation
- low operating and maintenance costs
- very space-saving
- ideal to retrofit existing systems

Example: Treatment of a degreasing bath of an immersion cleaning system

- **Feed of filtration:** Degreasing bath with dirt, particles and oil (emulsified and free floating).
- **Permeate:** Cleaned liquid, dirt-free. Bath chemicals remain in permeate, which returns to the degreasing bath.
- **Concentrate:** Dirt which has been retained in the filtration system (oil and particles). For disposal as liquid waste.
- **Result:** Noticeable enhancement of bath lifetime (up to 10-fold) and constantly high bath quality. Perfectly clean parts during the whole lifetime of the bath and reduced costs for bath monitoring, chemicals and waste water disposal.

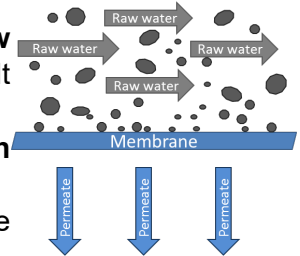


Atec membrane filtration systems

For the treatment of industrial process fluids and waste water, Atec mainly uses **cross-flow filtration**. In general, this type of membrane filtration is suitable for the treatment of difficult and heavily polluted fluids.

Through the **continuous mechanical cleaning of the membrane surface**, **long filtration cycles**, **stable permeate flow** and **high concentrations (less waste)** can be obtained.

All Atec filtration systems can be equipped with **different types of membranes** and therefore can be **adapted to the individual application**.



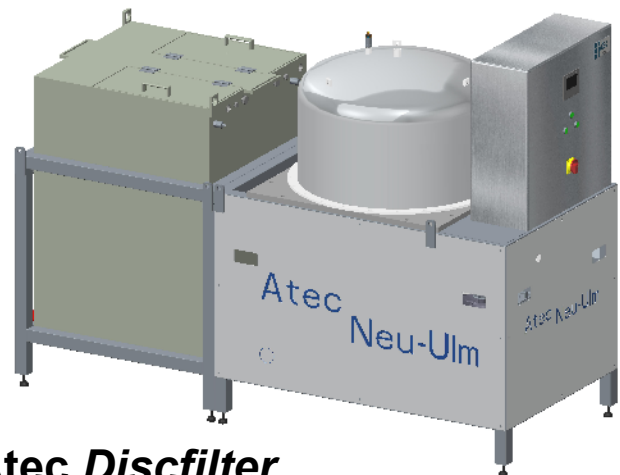
Atec Minitube

- our smallest fully automated filtration unit
- ideal for small and medium sized process baths
- standard version for typical applications (e.g. degreasing or rinsing baths)
- special versions for corrosive and/or high temperature applications (e.g. aluminium pickling bath)



Atec Miditype

- ideal for medium and large sized process baths
- standard version as *stand-alone* system
- modular version for very large applications and central waste water treatment



Atec Discfilter

- ideal for large process baths and heavily polluted fluids
- very high concentrations through special design possible
- large membrane surface area in a very space-saving design