



HÜLSKENS
SEDIMENTS



WE CLEAN NATURALLY

Sustainable Sediment Management for Reservoirs

**WINNER OF THE
GUARDIANS OF
THE RESERVOIR
CHALLENGE 2022**



RESERVOIRS SILT UP

HIGH COSTS – LOW EFFICIENCY

Hülskens Sediments GmbH is your partner for the continuous desedimentation of reservoir waters. In this way, we counteract the siltation of dams, reservoirs or fire ponds, i.e. the reduction of the effectively usable capacity. With our know-how, our equipment and the control technology used, we ensure sustainable sediment management in reservoirs during ongoing operation. In this way, we reliably guarantee the long-term availability of the reservoir volume for drinking water supply, energy generation, flood protection or water level regulation. We also restore the natural sediment balance in the tailwater for a healthy ecosystem.

2%

RESERVOIR VOLUME
IS LOST EVERY YEAR

The estimated annual silt-up rate is 1 – 2% worldwide*. Accordingly, the usable reservoir volume is significantly reduced with negative effects on energy production, water regulation and flood protection.

*Oehy et al. 2000

SUSTAINABLE SEDIMENT MANAGEMENT – YOUR ADVANTAGES AT A GLANCE



In ongoing operations

Our system works fully automatically without limiting system operation. Neither you nor your customer will notice that we are cleaning your reservoir.



According to the EC WFD

A water body in ecologically good status is sediment-passable! Our system restores sediment passage from top to tailwater and operates in accordance with the EC WFD.



No landfill and downtime costs

Dredging and removal are eliminated, valuable landfill space is not needed. After all, sediment is not waste but a valuable product for tailwaters.



Low investment and operating costs

We design and build our units ourselves - based on our experience with easy-to-maintain components at low prices. In fully automatic mode, there are no personnel costs and the operating costs remain low.



Continuous (24/7) sediment transport from top to tailwater

Our Sustainable Sediment Management enables automated, continuous “round-the-clock”-sediment passage in your dam.

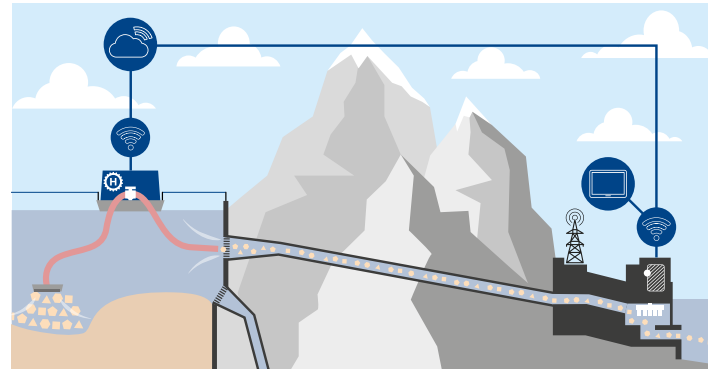
ConSedTrans®

The patented (award-winning) ConSedTrans® process describes the continuous conveyance of sediment from the point of deposition to the discharge.

Floating platforms with the appropriate technical equipment loosen up the deposited sediment and transport it through a pipe system until it is naturally transported onwards by the following body of water. It is optional whether the discharge is directly into the lower water body or the sediment is to pass through the operational culverts. It is also possible to first transport the sediment by road to a treatment plant. The process works 24/7 fully automatically, parameter-controlled and can be adjusted according to local conditions.

We continuously measure sediment transport, document it and can intervene to control it. This means that our system complies with all environmental requirements. No changes need to be made to the dam. The system operation is not impaired either, often not even during

installation. The process meets the requirements of the EC Water Framework Directive for ecologically desirable sediment continuity as well as all relevant guidelines and bulletins.



INDIVIDUAL SOLUTIONS FROM A – Z FROM A SINGLE SOURCE CONSULTANCY



CONSULTATION

We advise on problems of siltation, sediment loading, solutions for desedimentation, sediment transfer, removal, recycling and also regarding the very often cost-intensive landfill. We always focus on the optimal solution for you – environmentally friendly and cost-efficient.

PLANNING

Together with you, we analyse and plan an economically attractive and ecologically valuable solution to restore your reservoir volume. According to your wishes, we develop a sediment management plan that is precisely tailored to the needs of your dam.

IMPLEMENTATION

We go one step further. We design and build our equipment ourselves, take care of installation and process control, and ultimately ensure smooth operation.



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