

HydroSuction Dredge & Sluicer

Arlia, Italy

Challenge

The Arlia reservoir, originally constructed in 1913, receives approximately 4,000–5,000 m³ of sediment annually.

Sediment accumulation reduced reservoir capacity and required an efficient solution capable of maintaining sediment levels without interrupting plant operation.



SediCon Digital Platform



Dredging of Arlia reservoir

Solution

SediCon designed, supplied and commissioned a combined HydroSuction Dredge and SediCon Sluicer system. A 150 mm HydroSuction Dredge was installed to provide continuous and automatic sediment removal and was used to dredge an area for a 225 mm SediCon Sluicer.

The system utilizes two separate siphons, one providing the driving force for the Dredge and Sluicer, while the second acts as a compensation flow siphon to control sediment concentration. The HydroSuction Dredge is fully automatic and integrated with the SediCon Digital Platform, enabling remote monitoring and operation from anywhere in the world.



Project Location

Project facts

Client: Enel Green Power
 Project: Arlia
 Location: Italy
 Technology: HydroSuction Dredge & Sluicer
 Installed capacity: 3.75 MW
 Reservoir volume: 16,000 m³

Results and benefits

- Fully automatic operation
- Remote monitoring and control
- Continuous sediment removal
- Handles 4,000–5,000 m³ annually
- Integrated digital platform
- Combined Dredge and Sluicer solution

For more than 30 years, SediCon has developed and supplied proprietary sediment handling technologies from Trondheim, Norway. Our solutions for reservoirs, intakes, desanders and tunnels have been successfully implemented in hydropower projects in more than 20 countries across five continents.