

Sluicer

Winkeltal Hydropower Plant, Austria

Challenge

Winkeltal is a 2.6 MW run-of-river hydropower plant located in the Austrian Alps. During spring snowmelt, the river carries large amounts of sand and gravel that rapidly accumulate in the desander.

Frequent cleaning was required to protect the turbines and maintain operation. The original design included two desander basins to allow sediment removal without interrupting power production.



Winkeltal run-of-river hydropower plant



Ø355 SediCon Sluicer installed in the desander



Solution

SediCon optimized the original design by replacing the two-basin configuration with a single desander equipped with a Ø355 SediCon Sluicer. The system continuously removes settled sediments without interrupting power generation, while specially designed hydrodynamic components minimize head losses.

SediCon provided design, supply and installation of the complete system. The Sluicer was installed in only 10 days without requiring embedded parts in the concrete structure.



Project Location

Project facts

Client: Gemeinder Ausservilgraten & INFRA Project Development GmbH
Project: Winkeltal
Location: Austria
Technology: SediCon Sluicer
Installed capacity: 2.6 MW
Annual production: 11.1 GWh
Head 208 m
Design discharge: 1.5 m³/s

Results and benefits

- Single-basin desander solution
- Installed in only 10 days
- Capacity up to 30 m³/h
- Handles gravel up to 64 mm
- Continuous power production
- In operation since 2017

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.