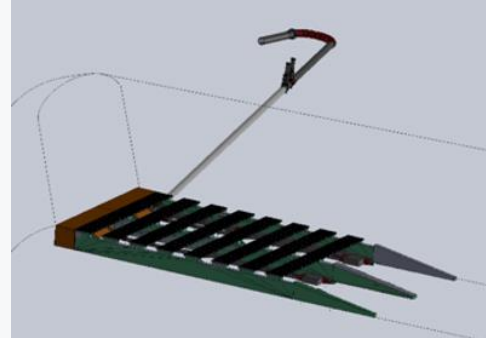


Sluicer

Tonstad HPP, Norway

Challenge

Tonstad HPP, Norway's largest hydropower plant, operates with a 180m long desander that collects sand and gravel. Conventional sediment removal required dewatering and mechanical excavation, resulting in significant maintenance cost and operational constraints. There was also concern that fine sediments were being re-suspended and transported further into the waterway system.



Common outlet pipe passes through 32m of rock



Downstream desander with 4 SediCon Sluicers



Solution

SediCon designed and supplied eight SediCon Sluicers installed in specially designed chambers throughout the 180 m long desander. The system is protected by heavy-duty stainless-steel gratings that allow traffic while preventing large stones and debris from entering the sluicer chambers.

Sediments are continuously transported through a dedicated outlet system to settling basins, eliminating the need for frequent mechanical cleaning. Installation was completed during scheduled maintenance and the system entered successful operation following commissioning in May 2025.



Project Location

Project facts

Client: Sira-Kvina Kraftselskap AS
Project: Tonstad HPP
Location: Sirdal, Norway
Technology: 8 x SediCon Sluicers
Installed capacity: 960 MW
Annual generation: 3.8 TWh

Results and benefits

- 8 Sluicers installed
- Continuous sediment removal
- No production interruptions
- 180 m desander
- Reduced maintenance costs
- Improved turbine protection

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.