

Sluicer

Hidromontañas, Colombia

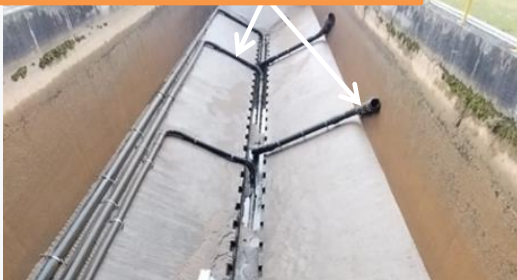
Challenge

The Hidromontañas hydropower plant is located in a river with highly variable sediment loads. During the rainy season, large quantities of sand and fine gravel rapidly accumulated in the desanders. Frequent drawdown and flushing were required to maintain performance, resulting in production losses, high water consumption and increased operational costs.



Hidromontañas desanders

SediCon Sluicer pipes fixed
to the bottom of the desander



Commissioned and discharging sediments in June 2023

Solution

SediCon designed, supplied and installed SediCon Sluicer Systems integrated with the existing flushing gates. The new system continuously removes sediments with minimal water consumption and without interrupting power generation.

The design contains no moving parts, requires very limited maintenance and maintains full desander capacity even during extreme sediment events exceeding 20,000 ppm concentration.



Project Location

Project facts

Client: Celsia
Project: Hidromontañas HPP
Location: Colombia
Technology: SediCon Sluicer
Installed capacity: 19.9 MW
Head: 416 m
Design discharge: 7 m³/s

Results and benefits

- No production interruptions
- Minimal water consumption
- Continuous sediment removal
- No moving parts
- Low maintenance requirements
- Environmentally sustainable operation

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.