

HydroSuction Dredge

Barroso, Colombia

Challenge

The Barroso River carries large amounts of sediment that accumulate in front of the intake. Previously, sediments were removed by opening a flushing gate, resulting in loss of production water and reduced power generation. A solution was required to maintain the intake while keeping the plant in operation.



SediCon HydroSuction Dredge



Sediment discharge

Solution

SediCon designed, supplied and commissioned a compact HydroSuction Dredge capable of removing sediments directly from the intake without interrupting plant operation.

The system handles gravel and stones commonly deposited in front of the intake and combines gravity-driven HydroSuction with water jetting and vacuum-assisted priming. During site acceptance testing, sediment removal rates of 192 m³/h were achieved.



Project Location

Project facts

Client: Celsia
Project: Barroso HPP
Location: Colombia
Technology: HydroSuction Dredge
Installed capacity: 20 MW
Annual generation: 131 GWh
Head: 416 m

Results and benefits

- No production interruptions
- Achieved 192 m³/h capacity
- Removes gravel and stones
- Low energy consumption
- Compact installation
- Maintains intake capacity

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.