

HydroSuction Dredge

Xacbal, Guatemala

Challenge

The Xacbal peaking reservoir receives large quantities of sand and fine sediments that accumulate over time and reduce available storage capacity.

Conventional dredging equipment had limited dredging depth and was unable to provide an efficient long-term sediment management solution



Water jetting system



Sediment outflow

Solution

SediCon designed, supplied and commissioned a HydroSuction Dredge capable of removing sediments at depths of up to 30 meters without interrupting power production.

The system was specifically designed to operate safely in a reservoir lined with a geomembrane and combines gravity-driven HydroSuction with powerful water jetting systems. During site acceptance testing, sediment removal rates of 95 m³/h were achieved.



Project Location

Project facts

Client: Hidroxacbal, Grupo Terra
Project: Xacbal HPP
Location: Guatemala
Technology: HydroSuction Dredge
Installed capacity: 94 MW
Annual generation: 480 GWh
Reservoir volume: 750,000 m³

Results and benefits

- Dredges to 30 m depth
- Suitable for lined reservoirs
- No production interruptions
- Achieved 95 m³/h capacity
- Gravity-powered operation
- Low operating costs

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.