

Sluicer

Khimti Headworks Hydropower Plant, Nepal

Challenge

Khimti is a 60 MW run-of-river hydropower plant utilizing a 680 m hydraulic head. Thick sediment deposits accumulated in the expansion zones of the desanding basins, preventing efficient operation of the main flushing system. Frequent manual excavation and flushing were required, increasing maintenance efforts and reducing operational efficiency.



Khimti Headworks Hydropower Plant



Installation of four SediCon Sluicers in the desander

Solution

SediCon supplied and installed four independent Sluicers in the upstream expansion zones of the desilting basins. The Sluicers operate either intermittently or continuously, removing accumulated sediments simply by opening the flushing gates while restoring the full performance of the desilting basins.

Commissioned in 2010, the system delivers high sediment removal capacity with exceptionally low water consumption, significantly reducing manual maintenance requirements and improving plant operation.



Project Location

Project facts

Client: Himel Power Limited
Project: Khimti Headworks HPP
Location: Nepal
Technology: 4 x SediCon Sluicers
Installed capacity: 60 MW
Annual production: 350 GWh
Net Head: 680 m

Results and benefits

- Capacity up to 3,000 m³/h
- Water consumption only 5 m³/m³
- Continuous or intermittent operation
- Eliminates manual excavation
- Improves desander performance
- Successfully operating since 2010

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.