

SediCon Desander Dredge for Chacabuquito, Chile

Efficient sediment removal using travelling crane and without drawdown in forebay



Sediments during maintenance stop



Desander with SediCon removal equipment



SediCon's equipment outlet

- Project Description:** Chacabuquito HPP is the lowest plant on Aconcagua river basin starting at nearly 7,000 masl. 29 MW Run of river power plant.
- Location:** Los Andes, Region V: Valparaíso, Chile
[32°51'30.0\"S 70°30'22.6\"W](https://www.google.com/maps/place/32°51'30.0\)
- Client:** Power plant owned and operated by Colbún SA.
- Sediment Challenge:** River originated in highest mountain of America, consisting of a glaciers that produce high sediment transport, promoted by steep slopes and uncovered surface. Sediment transport highest during summer when snow melting also produces highest floods. Historically sediments are removed from forebay using mechanical equipment during power plant stop.
- Solution:** SediCon provided a sediment removal equipment for existing forebay working as a siphon over spillway. Suction head is operated from travelling crane also supplied as part of SediCon's contract. Contract capacity is 20 m³/hour, however, during initial tests much higher figures were achieved.
- Implementation:** Entire SediCon Sediment Removal System was installed during Dec. 2016 – Jan. 2017. No embedded parts were required for installation and minimum interference with normal power plant operation, which made it easy to implement.
- Results:** Project was designed, manufactured and installed according to schedule within 7 months from contract signing. Components were specifically designed with hydrodynamic shape to adapt to high water velocity. Deepest sediment deposits are located below outlet level, and still can be removed using SediCon equipment during normal operation

SediCon is the leading supplier of sediment handling worldwide and provides reliable solutions with low water consumption and uninterrupted power production.