

SediCon Ejector Dredge in Necaxa Reservoir, Mexico

Necaxa reservoir has a significant accumulation of sediment in front of the intake tower, which has caused the lower gates to be blocked. SediCon was in charge of designing, manufacturing and comisioning of the equipment that allows these gates to be released.



General view of the SediCon Ejector Dredge



Main raft in Necaxa reservoir

Project Description:	The Necaxa reservoir has been in operation since 1905 and feeds the Necaxa Hydroelectric System, with a capacity of 199 MW.
Location:	Juan Galindo, Puebla, Mexico. Coordinates: 20° 13.009'N 98° 0.127'O
Sediment Challenge:	The reservoir has been in operation for 116 years and highly consolidated sediments are expected. In addition, the sediment layer has a thickness of 16 m and a maximum depth of 40 m.
Solution:	SediCon delivered equipment capable of disintegrating clays with an undrained shear strength of up to 160 kPa. The equipment operates with a water ejector system, capable of removing material up to 200 mm and relocating it at 200 m.
Implementation:	The SediCon Ejector Dredger was successfully installed and commissioned between November and December 2021.
Results:	<p>The tests carried out during commissioning gave very good results. During site acceptance tests (SAT), dredging rates greater than 80 m³/hour were measured.</p> <p>Sediment suction is driven by a 132 kW power pumping system. The water injection system, capable of disintegrating material with an undrained shear strength of 160 kPa, uses equipment with a power of 264 kW.</p>

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