SediCon®
Removing sediments

Reference Project 2023

Boulder Excluder for brook intake at Brattset HPP, Norway

Without any intervention and without any loss of water for production, the SediCon Boulder Excluder Nova brook intake maintains the intake and removes boulders up to 800 mm.

Boulder Excluder installed and ready for decades of service

Challenging installation in a narrow gorge!

Project Description: Nova brook intake is a major brook intake at Brattset Hydropower plant in central Norway. The intake is located in a deep canyon and the river carries a significant amount of gravel, stones and boulders, that frequently blocks the intake.

Location: Ulsberg, 100 km south of Trondheim, Norway.

Client TrønderEnergi AS, Norway

Sediment Challenge: Material transported as bedload to the intake can be nearly a meter in size and often causes partial blockage of the intake. The structure is in a deep canyon, without permanent electricity or communication, limiting the solutions that can be implemented.

Solution: SediCon custom designed supplied a 1000 mm Boulder Excluder, capable of removing rocks up to 800 mm in diameter. The Boulder Excluder uses the siphon principle and removes sediments in front of the intake only when there is surplus water. (This is when sediments come as well). It has no moving parts and works entirely without any intervention or monitoring.

Implementation: Installation of the Boulders Excluder was successfully completed in September 2023. Due to lack of access by road, being in steep gorge and with a power line above the HDPE components were lifter down with a temporary timber winch and assembled and installed on the intake structure with light tools.

Results: The Boulders Excluder was installed days before writing this. However, installation went smooth in spite of very challenging access to the site, and nothing indicates it shouldn't work just as well as all other boulder excluders.

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