

SediCon Gravel Excluder for Laxá III Power Station

The SediCon Gravel Excluder can remove 300m³ of rocks per hour.



Installation of Gravel Excluder



Outlet valve & pipe



Construction in progress

Project Description:

13.5 MW, Run-of-River, estimated to be commissioned in 2017.
Annual production of 92 GWh
The head is 39 m and discharge is 43 m³/s

Location:

Laxá river, Iceland
[65°48'58.6"N 17°18'33.5"W](#)

Client:

Landsvirkjun, National Power Company of Iceland

Sediment Challenge:

During winter, ice covers the bay temporarily and previous settled sediments are eroded and transported to the intake. This HPP suffers from both sedimentation and ice transport. The ice can carry large material, including rocks that can reach the machinery.

Solution:

SediCon proposed a combined solution of SediCon Gravel Excluder and SediCon Sluicer. One Ø630 SediCon Gravel Excluder was installed together with a Stafsjø knife gate Valve, DN600. The Gravel Excluder will remove rocks from the intake and the SediCon Sluicer will remove finer sediments inside the tunnel. In addition, a monitoring system consisting of pressure cells and piezometers was installed to monitor the sediment levels.

Implementation:

The installation started in October 2016 and was completed in January 2017.

Results:

The SediCon Gravel Excluder is estimated to remove 300m³ of sand per hour.

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