SediCon®
Removing sediments

Reference Project 2023

# Boulder Excluder for brook intake at Ulla Førre, Norway

**Without any intervention and without any loss of water for production, the SediCon Boulder Excluder at a brook intake at Ulla Førre maintains the intake and removes boulders up to 600 mm.**

A nice summer day for interesting work

Commissioned and discharging sediments in June 2023

**Project Description:** Nyastølbekken is one of nearly 50 brook intakes at Norway's largest hydropower scheme, Ulla Førre. The brook intakes collect as much as 1 TWh of energy annually, which is stored in Blåsjø, 3000 Mm3 and nearly 8 TWh of energy.

**Location:** Suldal, South-western Norway.

**Client** Statkraft SF, Norway

**Sediment Challenge:** The brook carries gravel and stones which partly fills the tiny intake pond and reduces its capacity perhaps especially in winter conditions when snow cover is several meters high and fills the intake as well. Gravel and small rocks that pass the trash rack enters into the tunnel system where a build-up of sediments is believed to reduce its capacity.

**Solution:** SediCon custom designed and supplied a 720 mm Boulder Excluder, capable of removing boulders up to 600 mm. 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 June 2023. The HDPE components were flown in by helicopter, assembled and installed with assistance of an excavator and tested and commissioned in less than two days.

**Results:** The SediCon Boulder Excluder can also be primed manually at any time with a vacuum pump. This was done just after installation and removed existing gravel and stones in the pond. At the time of writing this reference sheet there has not been recorded floods large enough to prime the boulder excluder automatically. Please ask us!

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