



## CUSTOMER

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**Vamma Hydroelectric Power Station, Norway**

## BACKGROUND

Vamma Hydroelectric Power Station, built in 1915 to harness the power of eight waterfalls on the River Glomma, originally used eddy current brakes for stopping the 10 MW (13,410 hp) water turbines.

## APPLICATION

Each of the horizontal turbines was refitted with Dellner SKD 80 hydraulically applied disc brakes, which operate on 1,000 mm (39.4 in) diameter brake discs. The brakes slow down, stop and hold the turbines after the water stream has been shut off.

Hydraulic pressure of 50 bar (725 psi) is applied to the brakes, providing 9,300 Nm (82,300 lbf-in) of brake torque. Stopping time is around 5 minutes and each of the brakes is equipped with an indicator to show if the brake is on or off.