

Eirik Volent



Department of Energy and  
Process Engineering

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Solid particle erosion in  
control valves

**Supervisor:**

Ole Gunnar Dahlhaug

**Co-supervisor:**

Nils Braaten



## Background

Subsea Chokes International is a company which is developing erosion resistant control valves and nozzles for applications such as Pelton turbine systems.

Erosion is a challenge in many industries where fluid is transferred through pipe- and valve systems. Erosion can occur in a diversity of systems and is often related to the presence of solid particles in the fluid flow. Erosive wear can cause a vast variety of damage ranging from manageable wear to component failure.

The objective of this industrial PhD is to study particle trajectories and erosion in a laboratory environment, and compare with numerical models. The aim is to develop a method for designing relevant valve geometries and predicting erosion in control valves and nozzles.

This is an industrial PhD project with Subsea Chokes International, supported by The Research Council of Norway.

