

# Slip joint connections for offshore wind turbines

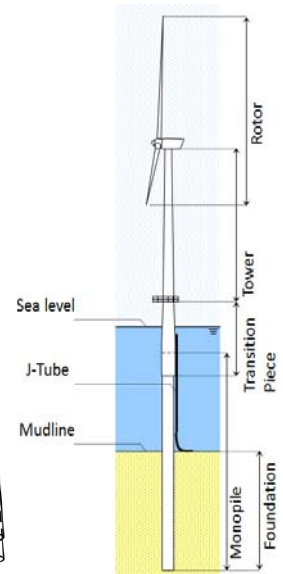
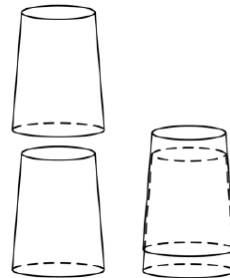


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## Description:

The grouted connection used in current monopile support structures designs for offshore wind turbines are settling. An alternative connection between the foundation and turbine tower is the slip joint. This is a connection of two conical sections based on friction. This connection has not been used offshore and therefore needs further investigation.

- How will the contact, deformations and residual stresses develop during installation?
- What parameters influence the contact, deformations and residual stresses in the slip joint after installation?



Visualisation of the slipjoint Overview of the components of a monopile support structure for offshore wind turbines

## Goal:

The goal of to predict the behaviour of a slip joint connection for offshore wind turbine with a the design lifetime(20-25yrs) in order to prevent progressive settlement or failure of the joint.

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