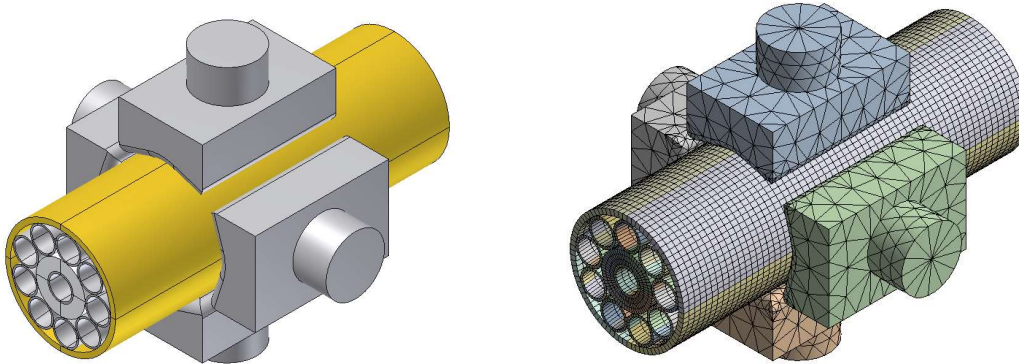




# Crush Analysis

Finite element analysis of lateral load capacity of steel tube umbilicals and cables by use of ANSYS software

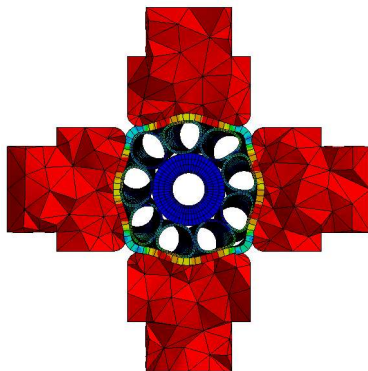
## System overview:



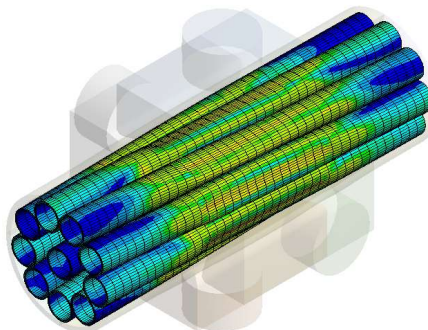
- 3-D CAD model of umbilical including tensioner pads.
- Finite element analysis by use of ANSYS Workbench.
- Bi-linear material properties and non-linear frictional contacts.
- Evaluation of critical lateral load capacity.

## Example of results:

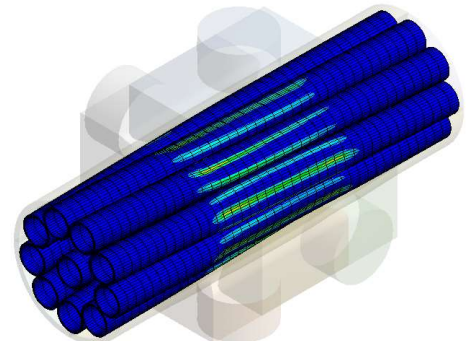
Total deformation



Von Mises stress (steel tubes)



Plastic strain (steel tubes)



### Ultra Deep, LLC

USA Tel: +1 281-216-2434/8225  
 e-mail: kie@ultradeep.com  
 or  
 e-mail: em@ultradeep.com

