



DIGITAL SOLUTIONS

SESAM™ PIPELINE

DNVGL-ST-F101 Code Compliance

Related to the re-issue of the DNV GL Offshore Standard for Submarine Pipeline Systems, DNV GL has updated the program for doing the code check. DNVGL-ST-F101 Code Compliance is a VBA (Visual Basic for Applications) based program with a user-friendly Microsoft Excel spreadsheet interface.

The following code checks are included:

- burst (pressure containment) related to both system test condition and operation
- collapse for an empty pipeline
- propagating buckling for an empty pipeline
- load controlled load interaction (moment, axial force and external/internal overpressure)
- displacement controlled load interaction (axial strain and external/internal overpressure)

The program calculates:

- the minimum required wall thickness for the given conditions
- utilization based on a wall thickness given by the user

The program is made to fit engineering purposes, with one input and result sheet showing all necessary information given in short form. Explanations are given as regular Excel comments in relevant cells.

Safety class and assumptions regarding corrosion and de-rated material can be selected individually for the different limit states/conditions.

The program allows the user to save and retrieve several sets of input data (cases) within one file, saving time and the amount of files required for each project. The program also allows the user to perform parameter studies/sensitivity studies on each case, e.g. calculate minimum required wall thickness for varying depth.