

SSEP002 - Calculation of load limits of an elbow with under thickness

Summary:

In this test, one calculates the limiting load of an elbow with under thickness.

One calculates the limiting load in two different ways:

- 1) By a static approach which allows the calculation of the loading which corresponds to the solution of the free plastic flow. This approach makes it possible to calculate by the undervaluing interior one of the limiting load. It is enough to record the value of `ETA_PILOTAGE` as from the moment when this value is stabilized.
- 2) By a kinematic approach regularized by the method of Norton-Hoff-Friaâ which calls on incompressible elements. It is based on a linear static resolution and parametric piloting.

A postprocessing with the order `POST_ELEM` allows to obtain the estimates of the high delimiters and lower of the limiting load.

This case test is used to check the validity of the command files corresponding to the load limits lower and higher of the two cases of an elbow with under thickness. The under-thickness is defined starting from the points of measurement raised on site.

Modeling a:

- Calculation of the load limits lower.

Modeling b:

- Calculation of the load limits higher.

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