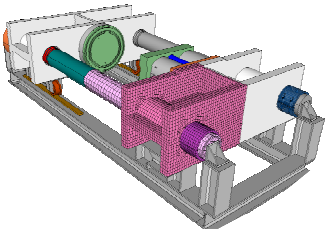
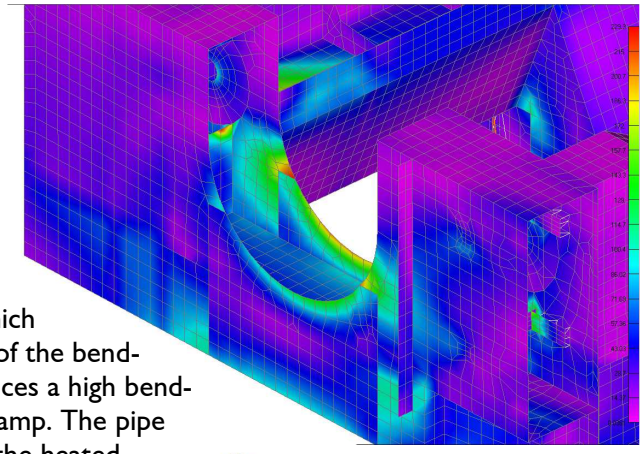
14-8-09

Pipe bending Machine

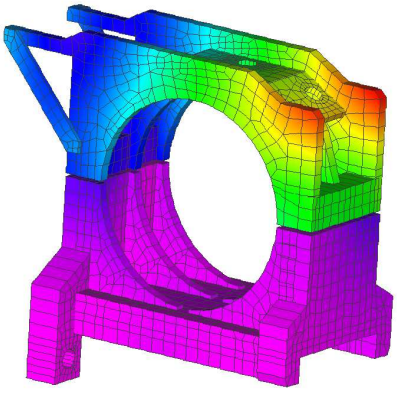


MACHINE CONSTRUCTION

Strength assessment of an induction pipe bending machine



A pipe is placed in the mainframe and fixed to the bending arm by a clamp. The bending arm is initially placed at the front of the bending machine. The pusher then pushes the pipe forward, which results in a rotation of the bending arm. This introduces a high bending moment in the clamp. The pipe will then be bend in the heated section and follows the rotation of the bending arm. The bend radius can be chosen by moving the mainframe perpendicular to the pipe to or from the pivot point of the bending arm. Stresses and displacements during several operational conditions are calculated.



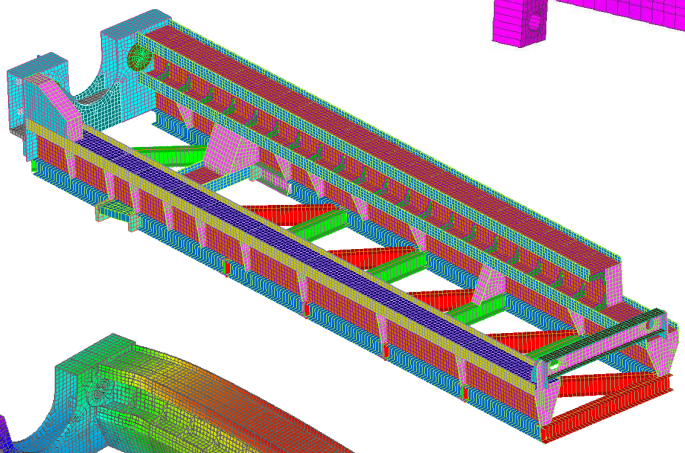
YEAR
2004

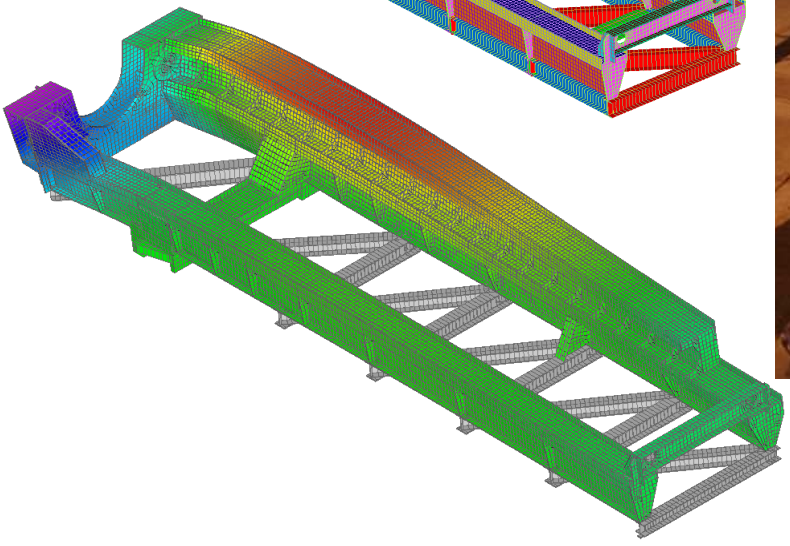
CLIENT
Cojafex

MATERIAL
Steel

SOFTWARE
MSC / Nastran

ANALYSES
Static. Plate & beam elements used





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