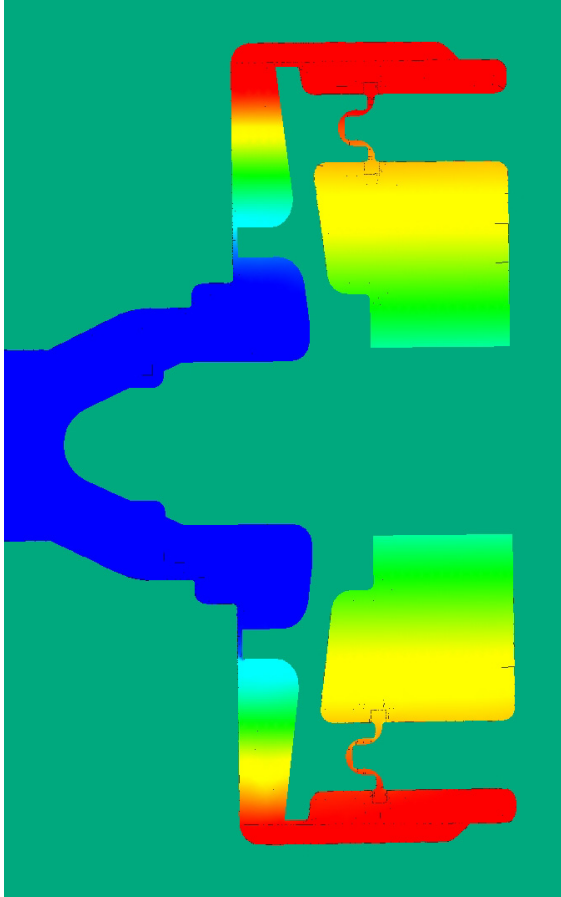




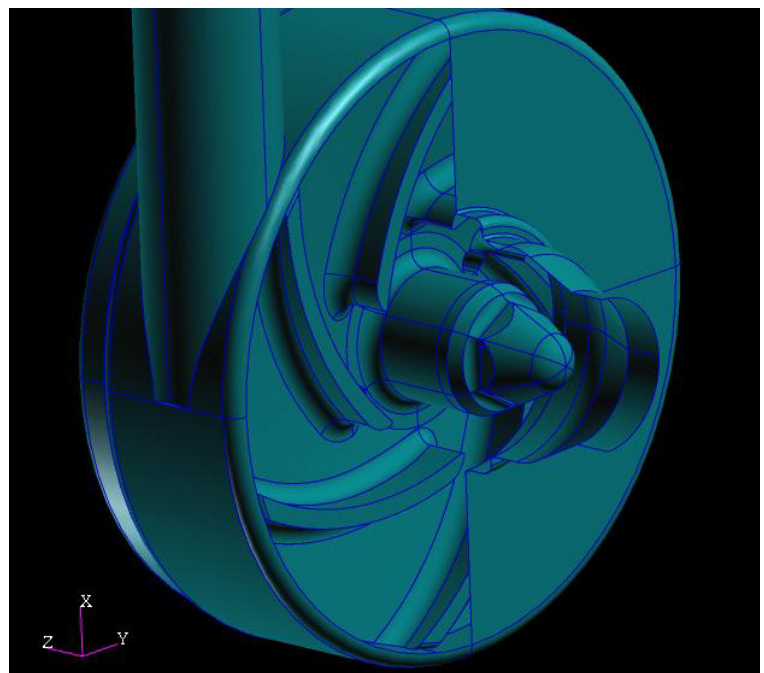
# Reduction of Axial Thrust in a Centrifugal Pump



A small stainless steel centrifugal pump used in the food and beverage industry was of the single-stage open impeller type. In trying to upsize the pump the client found the axial thrust exceeded the tolerable limit.

IFS proposed the implementation of a balancing chamber to reduce the thrust loading. This was achieved by combining spreadsheet analytical modelling with CFD simulation. The spreadsheet model facilitated design optimisation, while the CFD analysis was used to validate the design.

Designing a balancing chamber reduced axial thrust on the pump. Using a combination of spreadsheet analysis and CFD simulation reduced the cost of prototype testing.



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