

# Design Optimization of Beam Balance Pump Unit



Leading beam balance pumping unit manufacturer for oil & gas sector based out of USA.

**23%**  
cost reduction

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## BUSINESS CHALLENGE

Optimize the design of beam balance pump unit to reduce weight, unit cost and improve quality & reliability.

## SOLUTION

- New design was proposed and developed in compliance with API 11E 11G standards
- Simulation experts validated the design & weld life as per the applicable standards
- Best cost country materials were recommended to bring down the costs
- Complete ownership from design till manufacturing including certification dossiers
- Design optimization template was developed

## RESULTS

- Cost reduction of 23% per unit
- 10 other product families were optimized based on the design optimization template
- Improved quality and reliability through weld life analysis