DELTA JS AG

Machine Dynamics
Engineering * Consulting * Software

Engineering and Consulting Services

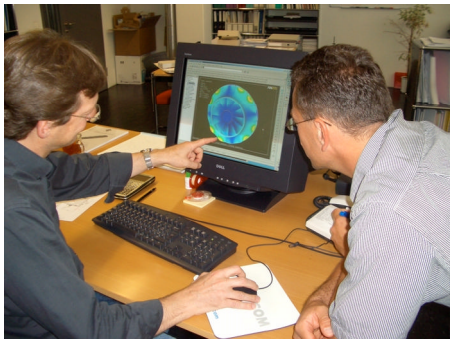
The Company

DELTA JS is an engineering company that has achieved outstanding developments in the field of machine dynamics. Its staff is characterised by an excellent scientific education and many years of practical experience to identify and analyse problems and to provide solutions.

DELTA JS, founded in 1997 in Zurich, is located in the centre of the Swiss industry with high potential of technical innovation and close the Swiss Federal Institute of Technology.

Engineering and Consulting Services

- Design verification and specification (rotors, bearings, impellers, blades, skids)
- Troubleshooting
- Implementation of tools
- Development of methods for simulation and analyses of measured data to gain models



Clients

DELTA JS provides services to world market leaders in their field:

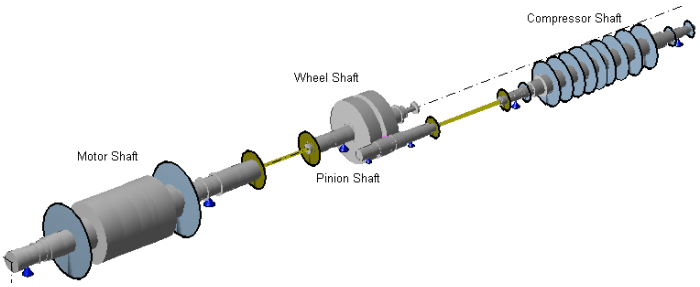
- Machine manufacturers
- Component manufacturers
- Contractors
- Machine end users

Engineering Tools

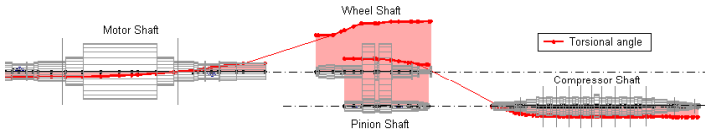
DELTA JS uses scientifically developed, combinable software tools with a proven record of success.

- MADYN 2000: For rotordynamics including fluid film and magnetic bearings
- Seal2D/3D: For Seals
- ANSYS: For general structures
- MATLAB: For general mathematics and graphics

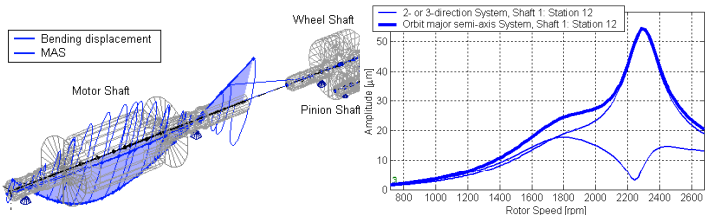
Extracts from Engineering Work



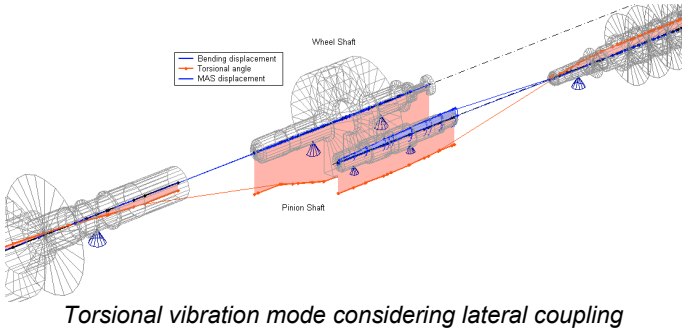
System consisting of a motor, gear, compressor



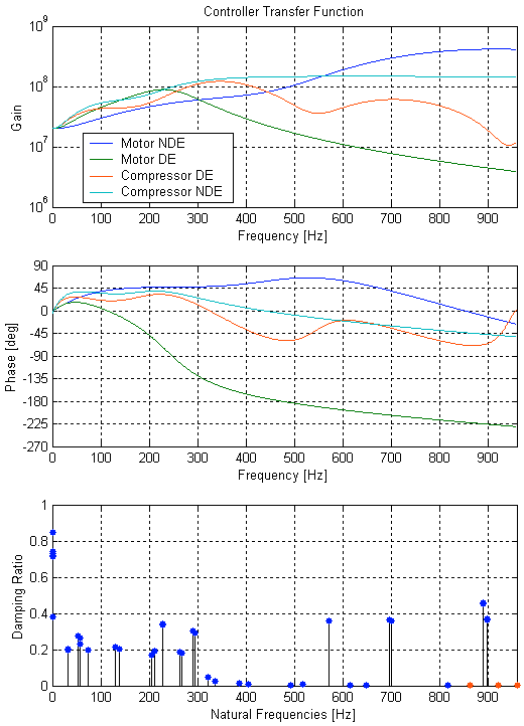
Torsional natural vibration mode



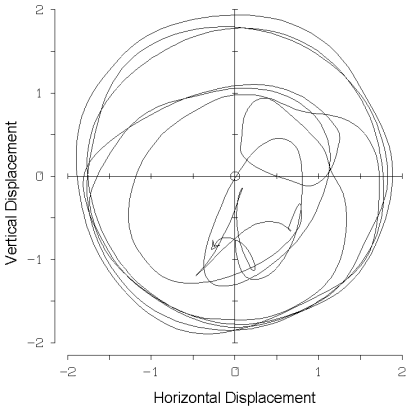
Lateral natural vibration mode with unbalance resonance curve



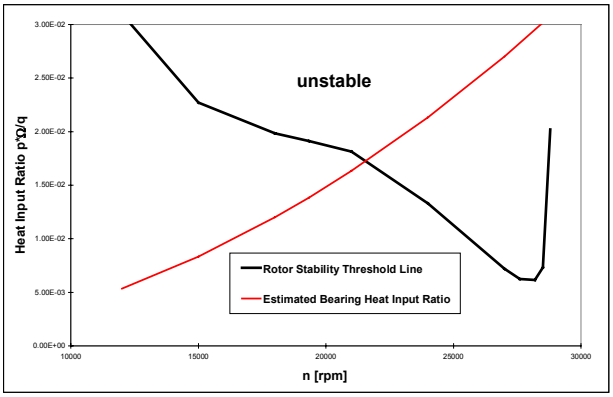
Torsional vibration mode considering lateral coupling in the gear



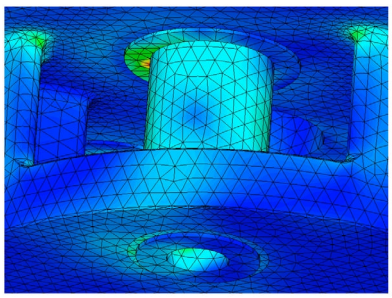
Magnetic bearing transfer functions and eigenvalues (frequency and damping) to assess the stability for controller design



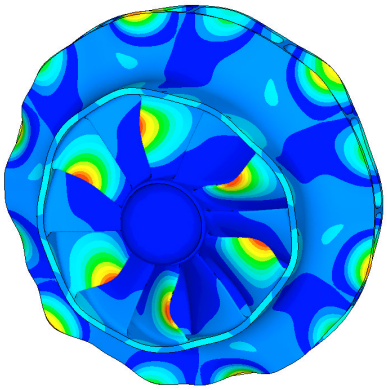
Whirling orbit in case of a drop into the back up bearings of magnetic bearings



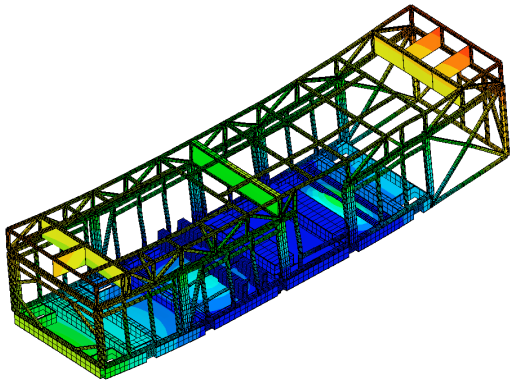
Hot spot stability chart to check dangerous regions for thermally induced synchronous instability (also known as Morton effect)



Stresses in contacts



Natural mode of an impeller to check for impeller resonances



Response of a turbogenerator skid to an earthquake spectrum excitation.

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