



**Colding A/S**

## **Resumé for Jørgen Colding-Jørgensen**

1979 M. Sc. Mech. Eng. from Technical University of Denmark

Graduation Project: Machine Dynamics

Holds the necessary certificates for offshore work in Norwegian and UK oil and gas installations.

Subsequent work in industry includes:

-Consultant on the U.S. National Aeronautic and Space Administration Space Shuttle Main Engine project, calculating impeller forces, 1980

-Rotor Dynamic and piping flow dynamics research and trouble shooting for Niro Atomizer, 1983-85.

-Customer support in machine monitoring and vibration analysis for Brüel & Kjær, 1985-87.

-Associate professor at Technical University of Denmark and Engineering Academy of Denmark, 1987-91, teaching machine dynamics. Research work with J. W. Lund and J. Tønnesen in rotordynamics of fluid handling machinery, vibrations and computer aided dynamic analysis.

-1991-95 consultant in charge of machine vibrations, piping pulsations and rotor dynamics with Ødegaard & Danneskiold-Samsøe A/S. 1992-95 section manager, rotordynamics and machine vibrations.

-November 1995: founder of Colding Consult, providing technical services to prevent and solve machine dynamics and vibration problems. Clients included the norwegian oil and gas companies Statoil and Norsk Hydro, engineering companies Kvaerner Oil and Gas, Aker Engineering and Umoe, and several companies from the danish wind energy sector.

June 2002-present: CEO of Colding A/S which was formed from Colding Consult in conjunction with a capital increase, in order to increase development and sale of the web based vibration monitoring and analysis system CC 2000, in addition to continuation of the consulting services in vibration and machinery dynamics.

### **Published papers by Jørgen Colding-Jørgensen**

- 1) Effect of fluid forces on rotor stability of centrifugal compressors and pumps, NASA CP 2133, Proceedings of a workshop held at Texas A&M University, College Station, Texas, May 12-14, 1980
- 2) Fluid Induced Rotordynamic Instability in Rotary Atomizers, Journal of Engineering for Gas Turbines and Power, April 1989
- 3) Fluid Induced shaft vibrations in Rotary Atomizers. Proceedings of IMech E, Vibrations in Rotating Machinery, Edinburgh, September 1988.
- 4) Fluid induced rotordynamic instability of a rotor with an unbound centrifugal impeller. Proceedings of the 1989 ASME conference on mechanical vibration and noise, Montreal, DE Vol. 18-1.
- 5) Limit cycle vibration analysis of a long rotating cylinder partially filled with liquid. Journal of Engineering for Gas Turbines and Power, October 1991.
- 6) Fluid induced rotor vibrations in decanter centrifuges. Proceedings of IFToMM 3rd international conference on rotor dynamics, Lyon, September 1990.
- 7) A Finite Element approach to dynamic stability calculations. Proceedings of ASME Computers in Engineering Conference, Boston, August 1990.
- 8) Rotor whirl measurements on a long rotating cylinder partially filled with liquid. ASME Journal of Vibration and Acoustics, Vol. 115, April 1993.
- 9) Prediction of rotordynamic destabilizing forces in axial flow compressors. ASME Journal of Fluids Engineering. December 1992.
- 10) Rotordynamic Effects of Impeller Flow in Centrifugal Compressors. VDI Berichte Nr. 1082, 1993: "Dämpfung und Nichtlinearität", pp 317-336.
- 11) Prevention of Rotordynamic Problems in High Pressure Centrifugal Compressors. Proceedings of the 1st International Conference on Turbomachinery, Rotating Equipment and Condition Monitoring Equipment. Singapore, 20-22 July 1994.