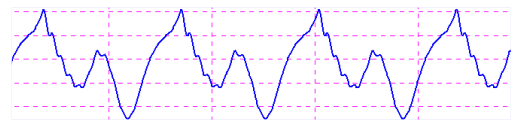


## COMPANY PRESENTATION



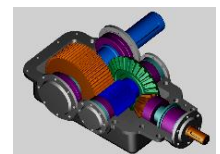
**Laschet Consulting**, a company for engineering services and technical consulting represented by the owner and managing director **Dr.-Ing. Andreas Laschet**, specializes in various fields of drive technology. *Dr. Laschet* 's extensive personal expertise is based on more than 40 years of professional experience.

The tradition of the original family-owned company started more than 100 years ago in 1918.



What **Laschet Consulting** can do for you:

- **ENGINEERING SERVICES** as added value with high value creation in the simulation of complete drive systems (**analysis of torsional vibrations and lateral vibrations** incl. **complete rotordynamic evaluation**); special know-how in the analysis, simulation, interpretation and tuning of dynamic properties in drive technology with the support of CAE tools (simulation software such as **ARMD**) as well as our own special software
- **TECHNICAL CONSULTING** and **PROJECT SUPPORT** for current problems (damage cases) incl. expert assessment (expert opinion) as well as engineering support in product development in many industrial sectors: **mechanical & plant engineering, vehicle technology, shipbuilding**
- **INTERNATIONAL SEMINARS, CUSTOMER TRAININGS** and free **WEBINARS** in the sense of **know-how transfer** incl. support by numerous own professional **publications**



Due to the extensive know-how based on more than 60 technical publications, book contributions and conference manuals, *Dr. Laschet* offers you – also in close cooperation with the US partner **RBTS, Inc.** – a professional engineering service, if necessary also including measurement support (field measurements) via external partners in the expert team.



SALZBURG 2014

GEAR PROBLEMS SOLVED BY THE ANALYSIS OF TORSIONAL VIBRATIONS

**SAE 941011**

**Computer Simulation of Vibrations in Vehicle Powertrains Considering Nonlinear Effects in Clutches and Manual Transmissions**



Have you also experienced that drive systems in machines and systems are subject to typical but also unpredictable vibrations and dynamic stresses and disturbances? What insights can be gained from vibrations - not only with known measurement methods, but also with the help of computational analyses?

As an engineering service provider, we come into play with these complex issues.

## **INTRODUCTION & OBJECTIVE**

My name is *Dr.-Ing. Andreas Laschet*, and I have been dealing with the topic of "**machine dynamics**" in **rotating machines** (including compressors, pumps, crushing machines) as well as in ship and vehicle drives for over 40 years. My own engineering and consulting company "*Laschet Consulting GmbH*" combines the expertise from these many years of experience.

And this is exactly what we offer our customers:

The communication and transfer of our extensive know-how for the **purpose of analyzing, interpreting, minimizing and, in the best case, avoiding vibrations** (torsional and lateral vibrations) in machine drive systems.

## **THE ADDED VALUE WE DELIVER TO OUR CUSTOMERS**

In order to better understand the customer's requirements, we need more detailed information about the drive system and the machine's operating conditions based on a checklist. As part of a damage assessment, we can also contribute our expert knowledge in the form of an appraisal.

Our results provide the customer with significant added value:

- More precise knowledge and a better basic understanding of the dynamics in the drivetrain
- Explanation and visualization of the vibration problems
- Solution approaches for the purpose of system improvement - also for future product developments

On request, we also offer the "**ARM D**" rotor dynamics software in various modular license models in cooperation with our partner RBTS/USA.

## **THE FIRST STEPS TO A SUCCESSFUL RESULT**

We would like to contact you in order to get more details of your concerns. To this end, we invite you to a free and non-binding consultation (<https://www.laschet.com/en/contact/>). I would also be happy to send you a link for an online meeting.

I look forward to hearing from you and send my best regards

*Dr. Andreas Laschet*

P.S.: Please also visit our website [www.laschet.com](http://www.laschet.com) for more information.