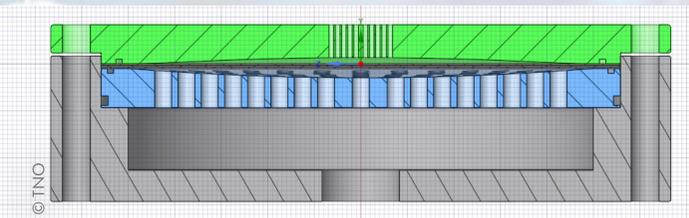


Experiments at TNO in Delft to find an efficient solution for a common problem at reciprocating compressor installations - Preventing vibrations at Small Bore Connections (SBC) by the use of visco-elastic layers.



Experiments at TNO in Delft to identify failure mechanisms of gas plates for diaphragm compressors that are used for Hydrogen fueling stations.

Contact us

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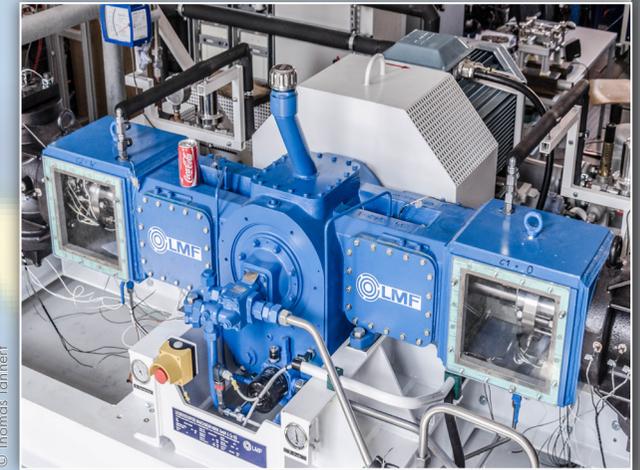
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Wrocław University of Science and Technology

And you?!

European Forum for Reciprocating Compressors



EFRC R&D Working Group

“We connect professionals to promote the reciprocating compressor on the path to a carbon neutral world.”



Who we are

The EFRC Organisation

The European Forum for Reciprocating Compressors was founded in June 1999 as a non-profit association. We connect professionals to promote the reciprocating compressor on the path to a carbon neutral world.

We support users, manufacturers and scientists working in the field of reciprocating compressors in terms of technology and exchange of experience as well as in the formation and the enforcement of precompetitive research, standards & guidelines, training and student exchange. Its geographical reach has grown from Central Europe to entire Europe & US and from 8 initial members to 42 current members.

Our Goals

Cooperation and Member Experience

- Yearly members' assemblies
- Conferences (EFRC and IREC (with VDMA))
- Cooperation with CITY Compressor Conference, KRMEA (South Korea), H₂-Groups and API
- Internet (www.recip.org) & LinkedIn
- Workshops & Trainings

Increase Know How on Reciprocating Compressors

- Student Workshops & Excursions
- Standardisation & Guidelines (ISO-Standards)
- Webinars

Foster Innovation

- Perform precompetitive R&D
- Aiming to improve the performance of the recip
- Support PhD Theses

Working Groups

- Goal of EFRC supported by activities of 4 working groups:
 - Precompetitive Research
 - Standardisation
 - Training
 - Student Workshop

Each working group is presided over by a chairperson and is open for every EFRC member willing to participate. The EFRC membership fees help to finance the activities of the working groups. Results are presented at members' assemblies and at the EFRC conferences.

EFRC R&D Working Group

Our Aims

- Joint research → only explorative research and precompetitive R&D
- Improve performance and reliability of recip
- Combine knowledge of users, manufacturers and research institutes
- Discuss, initiate and finance projects executed by universities or research institutes

Our precompetitive research

- Critical aspects of reciprocating compressor operation (e.g. studies on vibration, oil or wear related topics)
- Feasibility studies of new technologies (e.g. viscoelastic layer damping, oil film measurements, new ring & packing designs)
- Future concepts for high-pressure hydrogen compression (including optimization of membrane systems)
- Simulation tools (e.g. flow simulations, oil film thickness)

How we do it

- All EFRC members can join the R&D Working Group
- Annual budget funded by participating members
- Two physical meetings every year (frequent online meetings)
- Results are disclosed to working group members and owned by EFRC

Project examples

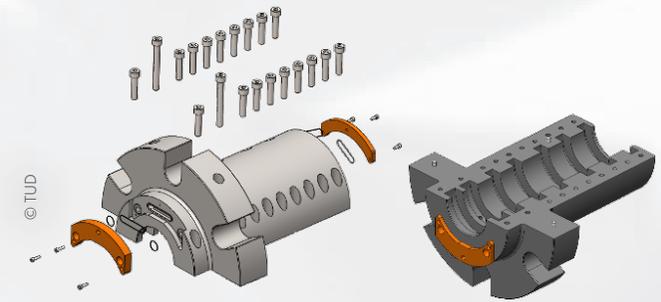


- Tribology project

Tribological test of sealing materials against novel counter surface coatings.

Tests are done at dry Hydrogen atmosphere.

- Split-Packing - a new packing concept



New concept of a piston rod packing - split housing for easier maintenance: installation without pulling the piston

How to join

- First: Join the EFRC! Send „Application for Membership“ form to contact@recip.org
- Form available on EFRC website: www.recip.org
- Contact the R&D Working Group chairperson to get an invitation for the next meeting
- **Universities can join our meetings and propose projects even without being a member**



Chairman: Dr. Marc Langela

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