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# European Forum for Reciprocating Compressors



# EFRC Training Working Group



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### Who we are

#### The EFRC Organisation

The European Forum for Reciprocating Compressors was founded in June 1999 as a non-profit-association. It supports users, manufacturers and scientists working with reciprocating compressors in terms of technology, exchange of experience, initiation and collaboration on precompetitive research, standards and guidelines, training and student exchange.

Its geographical reach has grown from Central Europe to entire Europe and to the US and from 8 initial members to 42 in 2018.

# **Our Goals**

#### **Exchange of Information and Experience**

- Conferences (EFRC and IREC (with VDMA))
- Cooperation with KRMEA (South Korea)
- Internet (www.recip.org) & LinkedIn
- Workshops + Trainings

#### Improve image of reciprocating compressors

- Student Workshops and Excursions
- Standardisation and Guidelines (→ ISO-Standards)

#### Perform joint research

- Precompetitive R&D
- Aiming to improve the performance of the recip

#### Working Groups

- Goals of EFRC supported by activities of four working groups:
  - Precompetitive Research
  - Standardisation
  - Training
  - Young Talents (Students 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 EFRC conferences.

# **EFRC Training Working Group**

#### Exchange of knowledge and experience

This working group focusses on organising events to share valuable knowledge and experience between EFRC-members and other people from our industry. The trainings cover a broad spectrum of technical topics, with the reciprocating compressor in the focus.

#### Informal and social atmosphere

The workshops are always embedded in a social and amicable atmosphere. They allow for personal interaction with sufficient time for discussions. A training dinner promotes further exchange of experiences.



#### Working group

We are an enthusiastic team from various EFRC members involved in the technical supervision, the practical organisation, selection of speakers as well as PR & advertisement.

#### Want to take part?

We invite all members and non-members to participate in the EFRC training. It is valuable for new, young engineers but also for the more experienced engineers who want to stay ahead in their field of technology. Participants and speakers love our training! Don't hesitate to contact us with suggestions for relevant training topics, and interesting venues for the training event. We encourage you to act as a host of an EFRC training event. EFRC also welcomes you to promote that the chief engineers in your company volunteer as a lecturer during a training.

### **Examples**

#### **Conference trainings**

- "Foundation Design for Reciprocating Compressors" (2014, Vienna, Austria)
- "Lubrication and Wear in Reciprocating Compressors" (2016, Düsseldorf, Germany)
- "State-of-the-art design and selection of Reciprocating Compressors" (2018, Madrid, Spain)

#### Trainings for young engineers & specialized topics

- "Basic design and operation of reciprocating compressors" (2013, 2015 and 2017, Delft, The Netherlands)
- "Foundation design" (2017, Delft ,The Netherlands)
- "Condition monitoring" (2017, Delft ,The Netherlands)

### Next EFRC Training Workshop

### Basic training and in-depth specialist topics June 26<sup>th</sup> – 27<sup>th</sup>, 2019, Delft, The Netherlands

Learn the basic concepts of reciprocating compressor technology and discover the state-of-the-art developments from the experts in our industry!



**Chairman: Leonard van Lier** Pulsation and Vibration Consultant TNO, Business Unit Energy leonard.vanlier@tno.nl

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# **EFRC TRAINING WORKING GROUP**