

Revolutionary ideas in the field of compressors considering

- * mobile application,
- * refrigeration technology,
- * process gas industry
- * turbo compressor application

have been developed and investigated in the recent past.

The focus of the 1st Innovation Day of Compressor Technology is on specific innovations considering e.g. lubrication, materials and gas bearings as well as on the transferability between small scale solutions and large scale compressor technology.

The major goal is the use of synergy effects of all branches that deal with compressor technology.

The number of participants is limited due to the premises.

Registrations will be considered with respect to the date of their receipt.

The participation in the 1st Innovation Day of Compressor Technology is free of charge.

For your participation please use the form under the link until October 16th, 2017:

[1st Innovation Day of Compressor Technology](#)



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1st Innovation Day of Compressor Technology

Synergies of Compressor Technologies

October 20th, 2017

Dülfer-Saal

Technische Universität Dresden

Dülferstraße, 01069 Dresden

Thursday, October 19th, 2017

Beginning: 6:30 pm

Welcome Reception with Lab tour at the Bitzer Chair of Refrigeration, Cryogenics and Compressor Technology

Welcome:
Prof. Dr.-Ing. Ullrich Hesse

Location: Evening event: TU Dresden, Alte Mensa, Westsaal. Use the entry from Helmholtzstraße.

Friday, October 20th, 2017

9:00 am Reception Desk

09:30 am Welcome
Prof. Dr.-Ing. Ullrich Hesse, Bitzer Chair of Refrigeration, Cryogenics and Compressor Technology, TU Dresden

Location: TU Dresden, Dülfer-Saal/Alte Mensa. Use the entry from Dülferstraße

Part 1: LUBRICATION - (UN)NECESSARY EVIL?

9:45 am **Influence of Lubricants in Refrigeration and Process Gas Compressors**
Tobias Göpfert, TU Dresden

10:20 am **Refrigerant Injection in Scroll and Screw Compressors**
Dr. Heinz Jürgensen, Bitzer

10:55 am **Water Injection in Screw Compressors**
Piotr Skibinski, RELO GmbH Verdichter

11:30 am **Oil Free Compression in Domestic Household Refrigerators**
Prof. Cláudio Melo, POLO - Research Laboratories for Emerging Technologies in Cooling and Thermophysics

12:05 pm **Spindelverdichter für Ölfreie Verdichtung von R-718**
Dr. Ralf Steffens, Ingenieurbüro

12:40 – 1:40 pm Lunch Break

Part 2: PERFORMANCE IMPROVEMENT TECHNOLOGIES FOR COMPRESSION AND EXPANSION MACHINES

1:40 pm **Performance improvement with VVR for Residential Scroll Compressors**
Dr. Bachir Bella, Emerson Commercial & Residential Solutions

2:15 pm **Investigation on Poppet Valves for Compressors and Expansion Machines** Christian Stöckel, TU Dresden

2:50 – 3:10 pm Coffee Break

Part 3: TURBO COMPRESSORS – THE FUTURE OF OILFREE COMPRESSION?!

3:15 pm **Turbo Compressors in Refrigeration Technology**
David Williamson, Director, Europe and Middle East, Danfoss Turbocor Compressors

3:50 pm **Gas Bearings for Turbo Compressors**
Prof. Jürg Schiffmann, École Polytechnique Fédérale de Lausanne

4:25 pm **WRAP-UP**
Prof. Dr.-Ing. Ullrich Hesse, TU-Dresden