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natural refrigerants
19 & 20 April, 2016 – Barcelona

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SCHAUFLER Academy

BITZER‘s new international centre of knowledge, information exchange and further education

Volker Stamer, Director SCHAUFLER Academy,
BITZER Kühlmaschinenbau GmbH, Germany

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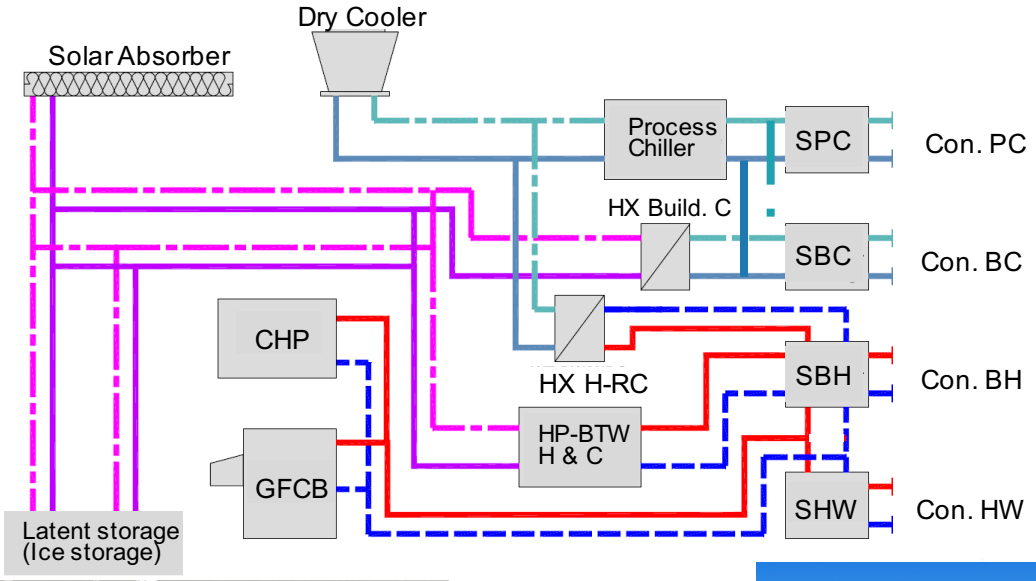
SCHAUFLER Academy – Motivation // Objectives

- Training, knowledge and information exchange has a long history at BITZER
- Cooperation with universities, academies and institutions
- Presentation of BITZER innovations, products and services
- Practical training of customers and staff in the field of new technologies, refrigerants, regulations and laws etc.
- Focus on natural refrigerants and efficiency
- International training network of BITZER subsidiaries
- Training staff (mainly application engineers)

SCHAUFLER Academy: The Building

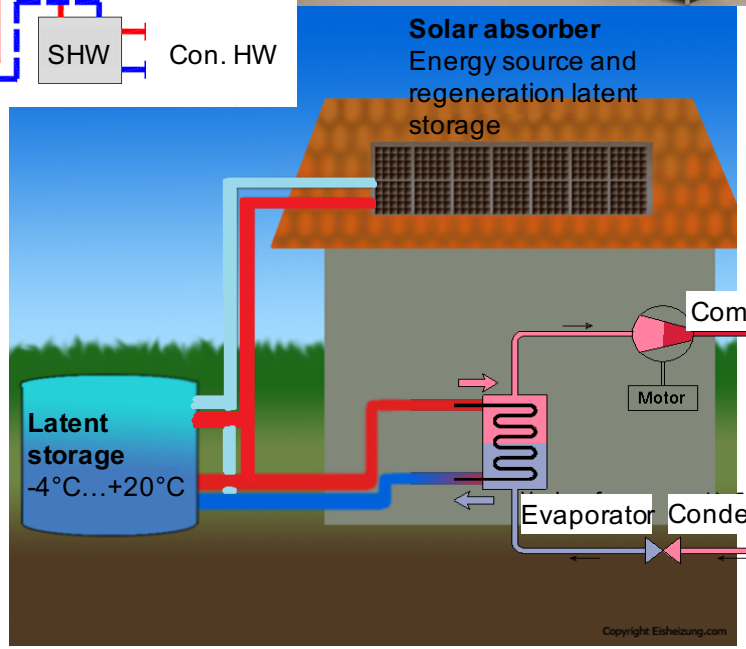
- Ground breaking: August 2014
- Multifunctional building – 3500 m² total
- Representative reception building
- Company restaurant for employees and training guests (ca. 110 seats)
- Office space for training personal
- 5 seminar & 3 practical training rooms
- Integration of BITZER Products into the building – accessible for trainings
- Finished: October 2015
- Grand opening: February 3rd, 2016

SCHAUFLER Academy: HVAC Concept



Diameter: 10,5 m
Inner height: 4 m
Water content: 297 m³

Laying of plastic heat exchanger tubes (32 mm x 2 mm)
Cylindric cisterne of concrete



Heat pump
Extracts heat from latent storage or solar absorber and heats up supply water on temperature level floor heating

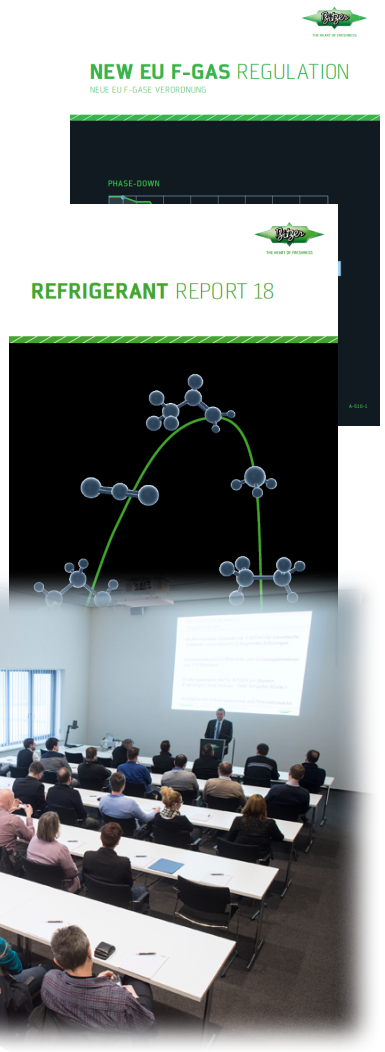
SCHAUFLER Academy: Where we are…

TRAININGS 2016 – What we offer…

REFRIGERANT TRAININGS & EVENTS

Target Group:

Installers, system planners, other interested people



/ Content in all refrigerant trainings

- Thermodynamics
  - ⇨ Efficiency
  - ⇨ Comparison to other refrigerants
- Safety
- Material compatibility
- System design

TRAININGS 2016 – What we offer…

SCHAUFLER Academy - more contents

/ Existing courses transferred

- CO_2 sub-critical
- CO_2 trans-critical

/ New courses

- Ammonia – NH_3 (since March 2016)
- Inverter driven compressors (May 2016)
- Hydrocarbons – HC (July 2016)

⇨ Others to follow

TRAININGS 2016 – What we offer…

TABLE OF CONTENTS

- EXCURSUS: WHY CO_2 AS A REFRIGERANT?
- EXCURSUS: CO_2 APPLICATIONS: SAFETY ASPECTS
- BITZER COMPETENCE – RECIPROCATING COMPRESSORS FOR SUB- AND TRANS-CRITICAL CO_2 APPLICATIONS
- EXCURSUS: LUBRICANT ISSUES WITH CO_2
- CO_2 SYSTEMS FOR TRANS-CRITICAL APPLICATIONS
- EXAMPLE PROJECT
- SYSTEM INTRODUCTION
- COMMISSIONING: CO_2 BOOSTER SYSTEM
- EVALUATION OF THE COP
- TROUBLESHOOTING AND FREQUENT MISTAKES

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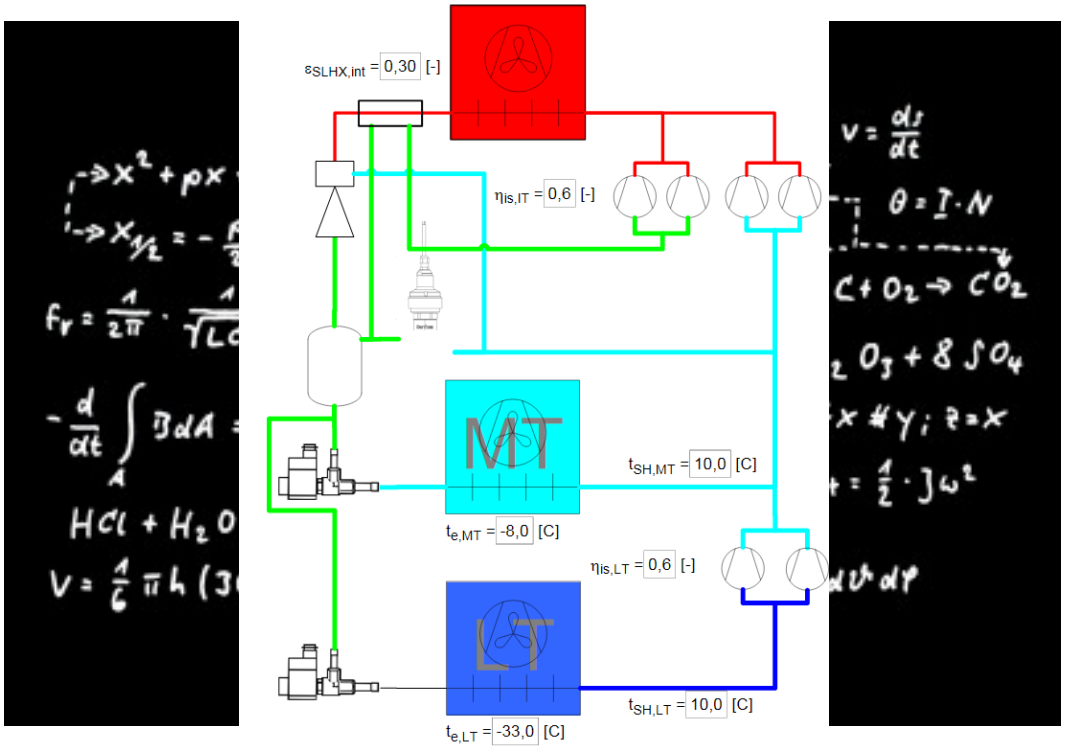
71065 Sindelfingen

IS THIS COMPLEX OR DANGEROUS?

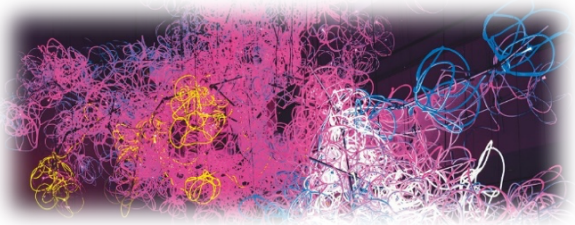
"It's no rocket science, it's just refrigeration!"



…and naturally extremely efficient, too…

SCHAUFLER Academy – More Information…

- Tailored use / rental of facilities – on request
- Individual trainings and tour packages – SCHAUWERK Art Museum, Mercedes factory / Museum, Porsche Museum, City/Castle tours etc. – on request
- For more information visit our webpage www.bitzer.de



SCHAUFLER Academy – The Movie…

”EDUCATION IS OUR PASSPORT TO THE FUTURE, FOR TOMORROW BELONGS TO THE PEOPLE WHO PREPARE FOR IT TODAY.”

- MALCOLM X -

We are looking forward to seeing you at the

SCHAUFLER Academy

THE HEART OF FRESHNESS

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Thank you very much!