TRAINING IN REFRIGERATION AND AIR CONDITIONING TECHNOLOGY WITH GUNT TRAINING SYSTEMS

The complete program for all issues in refrigeration and air conditioning technology

Suitable both for vocational education and engineering training

Practical exercises
- Assembly
- Adjustment
- Testing
- Replacement

Scientific investigations
- Thermodynamic interrelationships
- Observations in the cyclic process
- Energy balances and energy efficiency
- Efficiency

With the GUNT training systems you can work successfully in almost all subject areas as a mechatronics engineer for refrigeration.

SUBJECT AREAS FOR TRAINING AS A MECHATRONICS ENGINEER FOR REFRIGERATION

REFRIGERATION	AIR CONDITIONING TECHNOLOGY	ELECTRICAL ENGINEERING, CONTROL AND AUTOMATION
Functional interrelationships in the refrigeration circuit	Investigation of the states of the air	Principles of electrical engineering
Production of mechanical subsystems	Basic interrelationships in ventilation and room air conditioning	Consumers of single phase alternating current
Thermodynamics, log p-h diagram	Construction elements and function of the air conditioning system	Protection against electrical hazards
Refrigerants and lubrication oils	Air conditioning, h-x diagram	Simple refrigeration controls
Primary and secondary controllers	Air circuit in the ductwork	Consumers of three phase alternating current
Heat exchangers	Fire protection measures	Electrical drives and fault finding
Compressors	Energy saving	Control of refrigeration systems
Piping		Building automation
Fault finding, maintenance and disposal		

Extensive allocation of GUNT units to the subject areas can be found on page 224.

= covered by GUNT units

Structure of the catalogue Refrigeration and Air Conditioning Technology

The catalogue is divided into the three main chapters refrigeration, air conditioning technology and electrical engineering. Informative pages containing basic knowledge precede the sub-chapters and explain the technical and physical context in an easy to comprehend manner. This allows for an easy introduction to the respective subject matter of the catalogue.

REFRIGERATION
- Principles of Cold Production
- Thermodynamics of the Refrigeration Cycle
- Components of Refrigeration
- Assembly, Fault finding, Maintenance
- Modular Training Systems
- Heat Pumps and Ice Stores

AIR CONDITIONING TECHNOLOGY
- States of the Air
- Principles of Air Conditioning Technology
- Practical Air Conditioning Systems
- Ventilation Technology

ELECTRICS IN REFRIGERATION AND AIR CONDITIONING TECHNOLOGY
- Refrigeration Controls
- Control of Refrigeration Systems
- Fault Finding

Mainly with experimental orientation *Mainly with technical orientation*

GUNT training systems are complete systems where everything is coordinated and from a single source.
- Experimental unit
- Measuring technology
- Tailored software
- Instructional material
  - Theoretical background
  - Detailed experiment instructions
  - Worksheets for trainees
  - Solutions and hints for the teacher

This means that GUNT training systems can be used fast and effectively during lessons and study.