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Kyl- och värmepumpanläggningar – Kompetens hos personal

Refrigerating systems and heat pumps – Competence of personnel

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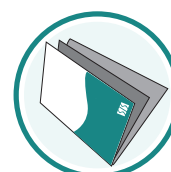
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Denna standard ersätter SS-EN 13313, utgåva 1.

The European Standard EN 13313:2010 has the status of a Swedish Standard. This document contains the official version of EN 13313:2010.

This standard supersedes the Swedish Standard SS-EN 13313, edition 1.

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EUROPEAN STANDARD

EN 13313

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2010

ICS 27.080; 27.200

Supersedes EN 13313:2001

English Version

Refrigerating systems and heat pumps - Competence of personnel

Systèmes de réfrigération et pompes à chaleur -
Compétence du personnel

Kälteanlagen und Wärmepumpen - Sachkunde von
Personal

This European Standard was approved by CEN on 16 October 2010.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

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Foreword

This document (EN 13313:2010) has been prepared by Technical Committee CEN/TC 182 “Refrigerating systems, safety and environmental requirements”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2011, and conflicting national standards shall be withdrawn at the latest by May 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13313:2001.

The main changes with respect to the previous edition are listed below:

- a) this European Standard is completely revised;
- b) this European Standard defines different competence levels;
- c) this European Standard defines the activities related to refrigerating circuits and the associated competence profiles;
- d) this European Standard takes into account an informative Annex B “Electricity”;
- e) this European Standard takes into account an informative Annex C “Examples”.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

Refrigerating systems, if not properly constructed, installed, operated and maintained, can be of danger to the health and safety of persons, the safety property, be detrimental to the environment and increase the energy consumption.

It is therefore essential that personnel dealing with such systems are competent to carry out the activity, or activities, listed in this standard. These activities cover the particular sectors in which they may operate from original design to final dismantling and disposal. As job descriptions can vary from country to country and from company to company, this standard specifies the activities to be carried out. Job descriptions should specify these activities.

This standard defines the activities related to the refrigerating circuit.

1 Scope

This European Standard defines the activities related to refrigerating circuits and the associated competence profiles and establishes procedures for assessing the competence of persons who carry out these activities.

NOTE As a refrigerating circuit is considered not to incorporate electrical and electronic systems, activities in this area are not part of this standard. For competences on electrical and electronic systems, it is recommended to refer to national regulations or appropriate European or national standards. This European Standard does not apply to persons carrying out work on self contained refrigerating systems as defined in EN 378-1 from the initial design of the product to the complete manufacture of the product, provided the process is controlled and the methods used are checked by an organisation or individual, responsible for the compliance with statutory requirements on health, safety and environment.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 378-1:2008, *Refrigerating systems and heat pumps — Safety and environmental requirements — Part 1: Basic requirements, definitions, classification and selection criteria*

EN ISO/IEC 17024, *Conformity assessment — General requirements for bodies operating certification of persons (ISO/IEC 17024:2003)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 378-1:2008 and the following apply.

3.1

assessment

process by which the evidence generated, gathered and provided about a person is judged to determine competence

3.2

assessment body

evaluation body

organisation which is recognised to assess (evaluate) the competence of persons working on refrigerating circuits

3.3

certification body

organisation which issues/awards certificates proving the competence of persons working on refrigerating circuits

NOTE 1 Depending on national regulations, assessment bodies and certification bodies may be the same or different organisations.

NOTE 2 General criteria for certification bodies can be found in EN ISO/IEC 17024.

3.4

competence

ability to perform safely and satisfactorily the activities within an occupation

3.5

qualification

evidence of a certain level of professional competence

NOTE See 4.2 and Annex A.

3.6

certification

procedure used to demonstrate the qualification of personnel at a specified level and leading to the issue of a certificate

3.7

certificate

document issued under the rules of the assessment system defined in Annex A indicating that the named person is competent to deal with applicable health, safety, environmental protection and energy conservation requirements for refrigerating systems and heat pumps

3.8

designing

collecting all data required for making an effective operating refrigerating circuit, or making the conceptual and detailed plan of the refrigerating circuit (e.g. dimensioning, calculation, component selection, refrigerant piping layout and sizing)

3.9

pre-assembling

fabricating parts and sub-assemblies of a refrigerating circuit in a workshop or on site

NOTE This excludes charging with refrigerant.

3.10

installation

joining two or more pieces of equipment or circuits designed to contain refrigerant, with a view to assembling a refrigerating, air-conditioning or heat pump system in the location where it will be operated

NOTE 1 Installation excludes the action by which a system already assembled is plugged in before being put in operation. It excludes all the operations carried out at the manufacturing site.

NOTE 2 This excludes charging with refrigerant.

3.11

putting into operation

integrity inspection of the refrigerating system and bringing it into work for the first time or after significant changes

NOTE This may include charging with refrigerant.

3.12

commissioning

ensuring that the system is performing according to the predefined conditions after putting the system into operation

NOTE This may include charging with refrigerant.

3.13

operating

running the refrigerating system in a routine manner ensuring that the system works within the conditions required in the user manual

3.14

in-service inspection

all activities needed to check if the refrigerating system complies to predefined requirements (e.g. functionality, correlation of temperature and pressure, capacity checks, quality checks of joints for existence of corrosion)

3.15

leak checking

identifying if there is a leak of refrigerant from the refrigerating system and if yes, identifying the exact location of the leak and reporting the results

3.16

general maintenance

keeping or restoring a refrigerating system to a state from which the desired operation can be provided, without breaking into the refrigerating circuit

3.17

circuit maintenance

keeping or restoring a refrigerating system to a state from which the desired operation can be provided, by breaking into the refrigerating circuit

3.18

decommissioning

ensuring that the refrigerating system is in a safe and environmentally proper condition during the period that it is out of operation

3.19

removing of refrigerant

recovering the refrigerant out of a refrigerating circuit

3.20

dismantling

breaking the refrigerating circuit down into pieces

NOTE This excludes removing of refrigerant.

3.21

basic appreciation level

BA

level of expertise required to discuss main elements of the skill with others

3.22

working knowledge level

WK

level of expertise required for direct involvement in decisions and actions

3.23

fully operational level

FO

level of expertise required to perform personally the majority of the activities

3.24

leading edge level

LE

level of expertise required for significant development of the skill area