
Technical Workshop on Hydrocarbon Refrigerants; Safety and Application

Part 4: Practical session

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Part 4: Practical session

Introduction

- Group exercises
 1. Area risk assessment and equipment checks
 2. Determine maximum charge size and minimum room area
 3. Identifying potential sources of ignition on condensing unit

Part 4: Practical session

Area risk assessment and equipment checks

- Imagine you are about to start refrigerant handling work on an R290 system
- Identify and list
 - Initial checks to take to ensure area is safe to work in
 - Measures that you (the technician) have to implement in the area to minimise flammability risk
 - Appropriate and necessary equipment you (the technician) should have available before commencing work
- Present the findings in plenary

Part 4: Practical session

Maximum charge size and minimum room area

- Imagine you are about to install air conditioning equipment in the allocated area
- With reference to NTC 6228-1, Tabla A.2 and Anexo A.4, carry out and document
 - Height from which the refrigerant could leak into the space and location of refrigerant-containing parts of the equipment
 - Estimate amount of refrigerant that can leak from the applicable parts of the system
 - Size of the space that the equipment will serve and the maximum (releasable) refrigerant charge permitted
 - Refrigerant charge of the equipment and the corresponding minimum size of the area it may serve
- Present the findings in plenary

Part 4: Practical session

Potential sources of ignition on condensing unit

- Imagine you are to redesign air conditioning equipment for use with R290, which current design is for R22
- Identify and record
 - All electrical components associated with the equipment
 - Those components that may be a potential source of ignition
 - How those components should be handled such that a leak of R290 would not be ignited
- Present the findings in plenary

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