

# AC and ventilation inspections – revision of EN 15240 and EN 15239

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# Merging of EN 15240 and EN 15239

-into prEN 16798-17 and prCEN/TR 16798-18

-by CEN/TC 156/WG 23

- The standards from 2007 contain many overlapping issues which were not completely in line with each other
- Ventilation and air conditioning functions are often integrated together
- BUT: Heating under CEN/TC 228

# Contents of draft EN and TR

It gives the inspection methodology for

- “Ventilation only” systems
- Air conditioning systems, which may or may not include ventilation

# Titles of draft EN and TR

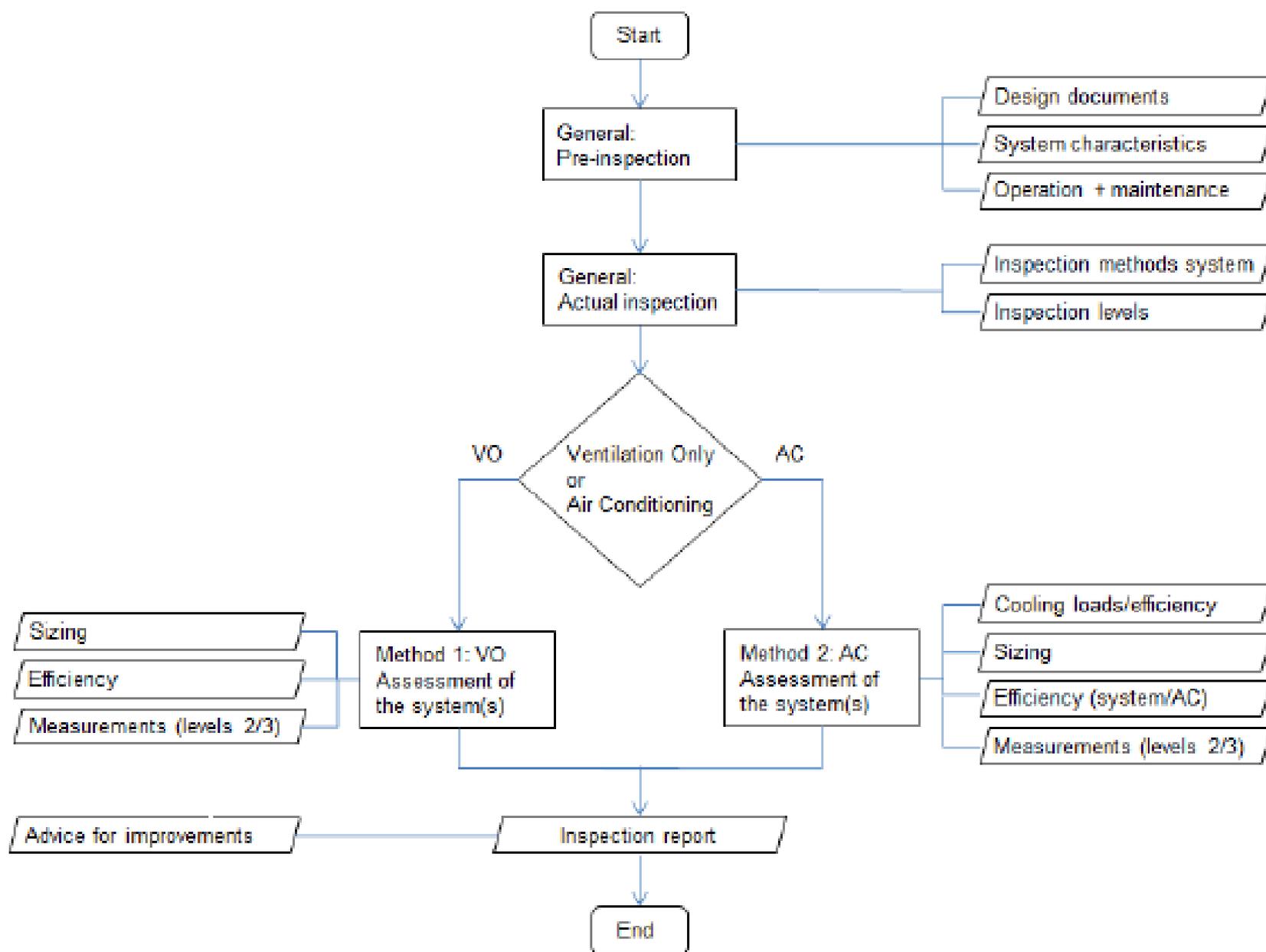
- -prEN 16798-17 Energy performance of buildings - Part 17: Ventilation for buildings - Module M4-11, M5-11, M6-11, M7-11 - Guidelines for inspection of ventilation and air conditioning systems
- pr CEN/TR 16798-18 Energy performance of buildings - Part 18: Ventilation for buildings - Module M4-11, M5-11, M6-11, M7-11 - Guidelines for inspection of ventilation and air conditioning systems in EN 16798-17

# prEN 16798-17, main contents

- New structure, not necessarily much new in the technical contents. Main issues:
  - 5 Inspection procedure
  - 6 Method 1 – Ventilation-only systems
  - 7 Method 2 – Air conditioning systems
  - 8 Inspection report
- Focus on the methodology

# Inspection procedures

- 5.1 Purpose of the inspection
- 5.2 Methods
- 5.3 Pre-inspection procedure
  - general
  - design documentation
  - system characteristics
  - building and system operation and maintenance status
  - building and system survey
  - output of the pre-inspection
- 5.4 Cleanliness and accessibility of the system



**Figure 1 — Flow chart representing steps involved in inspection**

# Method 1 – ventilation-only systems

- 6.1 General
- 6.2 Output data
- 6.3 Follow-up of pre-inspection
- 6.4 Methodology
  - general approach: sampling, humidity, measurement method...
  - mechanical ventilation systems (incl. Ductwork, air handling units, air filters, heat exchangers, air terminals, controls and settings...)
  - natural ventilation
  - hybrid ventilation
- 6.5 Advice for improvements

# Method 2 – air conditioning systems

- 7.1 General
- 7.2 Output data
- 7.3 Follow-up of pre-inspection
- 7.4 Methodology
  - general approach
  - refrigeration equipment
  - pumps and chilled water pipe work
  - outdoor heat rejection devices
  - water and refrigerant-based terminal units
  - mechanical ventilation
  - building system controls and control parameters
  - metering
- 7.5 Advice for improvements

# Challenges

## *...in order to improve the standards*

- COMMENTING !!
- Attention to the methodology, but also pre-inspection issues – should work in existing buildings!
- Also look at alternative approaches (monitoring..)
- Point out the need for
  - a practicable approach
  - consistency , not only between ventilation and air conditioning, but also between ventilation, cooling and HEATING (may or may not be integrated with the other systems), which is dealt with in a WG under TC 228

# Challenges ...in order to promote implementation in practice

- REHVA Guidebook for inspections (REHVA Task Force)

***Thank you for your attention!***

***Questions?***

