Ventilation For Decent Homes In The Social Sector
Learning Objectives - Agenda

• Company overview
• Decent Homes History
• What is a ‘Decent Home’
• Condensation and Mould
• Ventilation Solutions
Over 50 years Xpelair has earned an enviable reputation in world-class domestic, commercial and industrial ventilation leading the way with innovative technologies and style to ensure the air we breathe is clean, fresh and healthy.

Xpelair products are specified and distributed in over 50 countries, their ease of installation and reliability gaining many international Government contracts and firmly retaining their position as the specifier's choice.
Company Overview

Design

Manufacturing

Customvent

Warehouse

Logistics

After - sales service

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Xpelair supply to over 50 countries and are continually developing new opportunities worldwide...

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The **Decent Homes Standard** is a technical standard for public housing introduced by the UK Government.

It underpinned the **Decent Homes Programme** which aimed to provide a minimum standard of housing conditions for all those who are housed in the public sector i.e. Council housing and housing associations.

The standard was updated in 2006 to take account of the Housing Act 2004, included the implementation of the Housing Health and Safety Rating System (HHSRS).

At the start of 2010, the CLG announced that 95% of Council homes would meet the standard by the end of the year. However, provisional figures published in August that year indicated that 10.2% had failed the standard at the original target date of April 2010 and figures for London published in September showed that a quarter of Council homes still fell below the standard.
A ‘decent home’ is a property that meets a minimum standard set by the DCLG (formerly ODPM) by 31st December 2010 and is maintained to that standard thereafter. The property must meet the landlord’s and the tenant’s priorities and meet the following four criteria:

- Is free from Category 1 Housing Health & Safety Rating risks
- Be in a reasonable state of repair
- Have acceptable and modern facilities and services
- Provide an acceptable level of thermal comfort
What is a Decent Home?

When a property has its insulation improved as part of a decent homes refurbishment but does not allow for the appropriate level of ventilation, the following will occur:

- **Airborne contamination**
- **Poor air quality**
- **Mould growth**
- **Reduction in air circulation**
- **Increase in condensation**
Condensation and Mould

Mould is a serious problem for both Landlord and Tenant due to the impact it can have on the health of any person residing in the property as well as the actual deterioration of the building itself.

The main causes of mould are:

Condensation from high relative humidity in air

Too much water vapour or steam being generated through cooking, washing, bathing, showering and clothes drying which is allowed to travel throughout the house.

Inadequate heating

Inadequate ventilation
Condensation and Mould

Relative Humidity above 60% not only promotes bacteria and viruses, but also encourages mould growth and increased activity by house dust mites, which can trigger allergies.

Relative Humidity is a measure of water vapour in the air.

100% RH at a given temperature denotes saturation.

Optimum Relative Humidity is between 40% and 60%.
Ventilation Solutions

The objective of a good ventilation strategy is to provide a balance between energy efficiency and indoor air quality.

Prolonged relative humidity levels (>60%) lead to condensation and mould growth. The solution is to control relative humidity levels to between 40 – 60%.

This can be achieved by installing suitable ventilation systems:

- Local Extract Fans
- Mechanical extract ventilation
- Whole-house mechanical ventilation and heat recovery
Local Extract Fans Advantages

Traditional ‘room based’ ventilation

Extract fans located in all wet rooms including bathroom, kitchen, utility & WC

Background Ventilators located in all rooms
Local Extract Fans Advantages

- Document F Compliance: ✔️
- Energy Efficient: ✗
- Heat Loss: ✗
- Draughts: ✗
- Controllable: ✔️
- Heat Recovery: ✗
- Balanced Ventilation: ✗
- Condensation Control: ✔️
- Noise Ingress: ✗
- Indoor Air Quality: ✗
- SAP Positive: ✔️

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Continuous extract ventilation can be either centralised (one unit ducted throughout the dwelling) or de-centralised (room based e.g. kitchen/bathroom)

Extract points located in all wet rooms

Background ventilators located in all habitable rooms

Controls located within every wet room for centralised systems

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Mechanical Extract Ventilation (MEV)  Decentralised Mechanical Extract Ventilation (DMEV)
Mechanical Extract Ventilation Advantages

- Document F Compliance: ✔
- Energy Efficient: ✔
- Heat Loss: ✗
- Draughts: ✗
- Controllable: ✔
- Heat Recovery: ✗
- Balanced Ventilation: ✗
- Condensation Control: ✔
- Noise Ingress: ✗
- Good Indoor Air Quality: ✔
- SAP Positive: ✔

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Heat Recovery Ventilation Advantages

Whole house mechanical ventilation with heat recovery is the ultimate ventilation system for both energy efficiency and indoor air quality.

MVHR systems are fully independent systems and negate the requirement for trickle vents, thus maintaining the integrity of the building fabric.

Heat recovery ventilators can sustain humidity levels reducing condensation and the potential for mould from a property.
Heat Recovery Ventilation Advantages

- Document F Compliance
- Energy Efficient
- Heat Loss
- Prevents Draughts
- Controllable
- Heat Recovery
- Balanced Ventilation
- Condensation Control
- Noise Ingress
- Good Indoor Air Quality
- SAP Positive
With a number of Ventilation solutions available, the key is to pick what’s right for you!