



Are you ready for VM3? We Are!

On November 29, 2021, the Ministry of Business, Innovation, and Employment (MBIE) introduced significant changes to the acceptable solution and verification methods for H1 compliance, marking the most substantial update in a decade. These changes primarily focus on increasing insulation values to reduce energy consumption for heating new homes by up to 40% and commercial buildings by up to 23%. Additionally, a lesser-known alteration involves the implementation of verification method VM3, which outlines energy efficiency requirements for HVAC systems in commercial buildings. This document came into effect immediately for commercial building consents lodged on or after November 29, 2021.

Impacts on the HVAC Industry

The new regulations outline compliance requirements for various aspects of commercial building HVAC systems. These measures aim to address inefficiencies and establish guidelines and minimum standards for HVAC system designers and installers. Several key areas within the regulations are expected to impact the industry:

1. Controls and Zoning: The regulations specify certain requirements for the controls and zoning of HVAC systems.
2. Insulation Levels: Minimum insulation levels are now mandated for ductwork and pipe work.
Pump Efficiency and Pressure Drop: The regulations define specific pump efficiency levels and maximum pressure drop levels for pipe work.
3. Equipment Efficiency: Minimum efficiency levels are established for boilers, chillers, and heat pumps.

Adjustments by Central Heating New Zealand

In response to these regulatory changes, Central Heating New Zealand has diligently reviewed its systems and products to ensure compliance with VM3. The company has made the following modifications to its offerings:

1. Pipe Sizing Process: Central Heating has incorporated an additional step in its pipe sizing process to ensure compliance with the pressure drop limits specified in the VM3 tables.
2. Insulation Enhancement: To meet the insulation level requirements outlined in the VM3 tables, Central Heating has collaborated with a new supplier to obtain VM3-compliant insulation for its pre-insulated Multitubo pipe system. Insulation is supplied separately and applied to bare lengths of Multitubo pipe.
3. Buffer Tanks: Central Heating has identified that certain buffer tanks from Fiorini do not meet the insulation levels specified in the VM3 tables for tanks and vessels. Consequently, the company has worked closely with Fiorini to develop solutions that involve additional insulation layers or alternative materials to ensure compliance.

What is a Commercial Building

The VM3 requirements outlined in the article are specific to buildings classified as 'Commercial' according to the building code Clause A1.

Commercial buildings are defined as structures where natural resources, goods, services, or money are developed, sold, exchanged, or stored. Examples of commercial buildings include amusement parks, auction rooms, banks, car parks, catering facilities, coffee bars, computer centres, fire stations, funeral parlours, hairdressers, libraries, offices (commercial or government), police stations, post offices, public laundries, radio stations, restaurants, service stations, shops, showrooms, storage facilities, television stations, and transport terminals.

It is important to note that buildings falling under other classifications such as Housing, Communal Residential, Communal Non-Residential, Industrial, Outbuildings, and Ancillary are not required to comply with VM3. Examples of these types of buildings that do not need to adhere to VM3 include detached dwellings, multi-unit dwellings, group dwellings, accommodation buildings (hotels, motels, boarding houses, etc.), elderly care buildings, health camps, prisons, restricted community care buildings, churches, museums, public pools, theatres, early childcare centres, schools, universities, factories, warehouses, and agricultural buildings.

When Central Heating New Zealand's commercial team assesses a project for design or materials offer, they carefully consider the building category to determine if VM3 compliance is necessary. The team then communicates this information to customers, providing clarity on whether their offer aligns with VM3 requirements or not. This approach ensures transparency and helps customers make informed decisions regarding compliance.

Commitment to Compliance

Central Heating New Zealand has taken these measures to ensure its customers' full compliance with the building code. The company has expressed disappointment with other suppliers in the industry who have failed to provide their clients with compliant solutions. As the awareness of VM3 requirements continues to grow, Central Heating New Zealand remains committed to providing customers with appropriate advice and compliant product solutions.