

Bord Gais External Wall Insulation & Domestic Gas Installations Guidelines

1. Background

It has been observed onsite by Bord Gais Networks (BGN) that External Wall Insulation has/is being installed onto existing premises and may have an impact on the safety of the gas installation. This has given cause for safety concerns, as in some cases, the external insulation has impeded access to the gas meter and isolation valve. It has also been fitted over the gas inlet and outlet pipes, which contravenes relevant gas standards. There are two types of domestic gas meter boxes, a Recessed Meter Box (figure 1) and a Surface Mounted Box (figure 2). This insulation can vary in thickness depending on its type. This covers in a substantial amount of the Surface Mounted Meter Box and has the potential to completely cover a Recessed Meter Box type. The purpose of this bulletin is to increase the safety awareness with respect to gas installations.

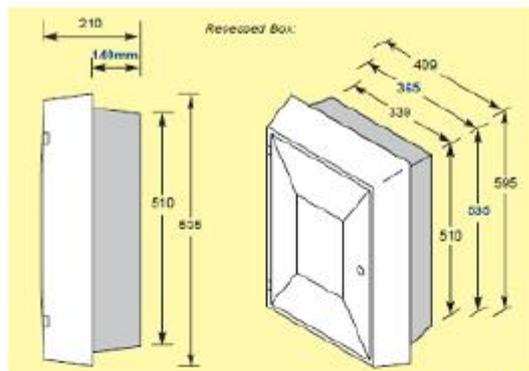
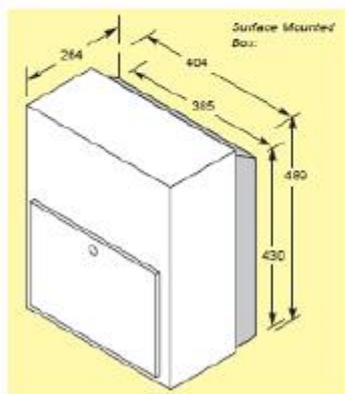


Figure 1, Recessed Meter Box ^[1]



2a.



2b.

Figure 2a, 2b, Surface Mounted Meter Box ^[1]

Please note, Surface Mounted Meter Boxes by design allow for the housing to be completely removed from its back support panel, see Figure 2b, this function is restricted when the insulation is fixed to the building's exterior wall. Figure 3 below shows the thickness of the insulation compared to an existing adjacent wall, this particular type of external insulation had a depth of 150mm.

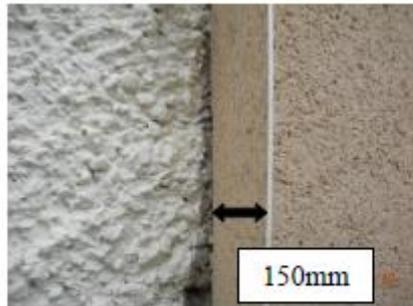
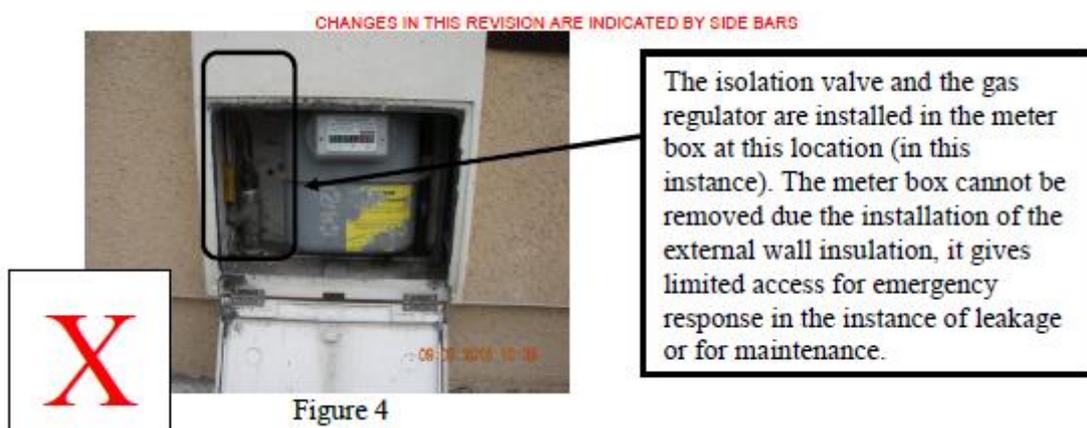


Figure 3

2. Safety Concerns

Due to the construction configuration of BGN gas services when the insulation is fitted it may cover/partially cover the meter box and/or the related gas pipework. The following concerns are present, this list should not be considered exhaustive as each installation may have varying properties:

- Potential ingress of gas into the newly constructed cavity in-between the old outer wall and the new external insulation.
- Potential ingress of gas into the insulation material.
- The effect of the insulation material, and method in installing, on all gas pipe-work associated with the gas installation, i.e. corrosion, etc.
- Limited/No access to the gas isolation valve, gas meter and pressure regulator. See Figure 4 below.
 - Access to the gas isolation valve is required at all times, for emergency shut off and maintenance purposes.



- The covering of the gas pipework also leads to the concern of ingress of natural gas into building.
- Potential damage to the insulation if removing the meter box cover is necessary for routine work, leak response, etc.
- The sleeved down-stream pipe-work through the wall where the gas pipe enters the building must be left open to the atmosphere as per IS 813.

Additional Concerns:

- Blocking of the existing air vents, which could, but not limited to, be providing air for a natural gas appliance, see Figure 5^[2]
- Flue terminals, see Figure 6^[2], may need the flue to be extended to prevent any loss of air flow across the terminal. Material(s) used for flue extension must be approved by the appliance manufacturer. Only a Registered Gas Installer (RGI) is permitted to work on domestic natural gas appliances (including flues) by law.

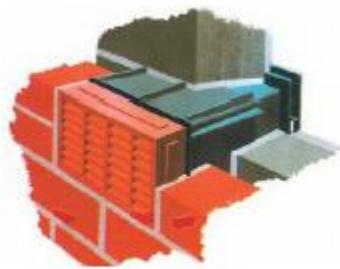


Figure 5^[2]



Boiler flue termination

Figure 6^[2]

To find a Registered Gas Installer (RGI), call 1850 454 454 or visit: www.rgii.ie

3. Advice to Contractors Pre-Insulation Works

The following points should be considered by all contractors intending to undertake the fitting of external wall insulation where a gas installation is present:

- Decision to be made if the external insulation will have an impact on the gas service line/meter location, if so then BGN should be contacted so that a suitable solution can be achieved.

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A list of minimum checks that must be conducted are as follows:

(The below points are not to be considered as an exhaustive list of operations in completing of the works safely but are given as a brief out-line.)

- Gas service pipework will not be covered.
- Gas installation pipework will not be covered.
- Gas isolation valve will remain accessible.
- Gas meter and pressure regulator will remain accessible.
- Ventilation provisions for gas appliances are unaffected.
- Air flow past the flue terminal will remain unaffected (extension of flue may be necessary)

If the insulation is planned to cover an existing wall area where a gas service/meter is located, either of the following is an approach:

Option 1

Alteration of the service/meter location to a different position where the insulation works no longer effects the gas installation and associated pipework.

Option 2

Allow for the temporary removal of the gas installation, installing of the insulation, and the reconnection of the gas installation and associated pipework.

Please note the following important points:

In the case of altering a gas installation, both Option 1 and 2 above, the down-stream pipework from the meter (customer supply) will be affected and a Registered Gas Installer (RGI) will have to be employed.

The gas installations cannot be left in-situ if the external wall insulation is to be fitted on the same wall as the meter.

4. Examples of Good and Bad Practices

The below shows both good and bad practices on residential premises with regards to the installation of external wall insulation:

4.1 Bad Practices

The bad practice of installing the insulation to cover the gas meter box plus the associated pipework, is highlighted below.



The above Figures 7 and 8 show the surface mounted meter box with the external insulation having been installed to cover both the gas installation inlet/outlet pipework and a large amount of the meter box.

4.2 Good Practices

The below shows Figure 9 and 10 respectively, the use of good practices and a brief outline of the works completed.

CHANGES IN THIS REVISION ARE INDICATED BY SIDE BARS



Outline of works undertaken by the registered insulation Contractor and/or the client commissioning the works:

The gas services and surface mounted meter boxes were identified on-site, see Figure 9.

BGN were contacted to remove these temporarily while the insulation was installed.

To minimise the impact of reducing space a recessed meter box was installed, this was provided by the client (this type of meter box is provided by the client in all instances), to include all fixtures and fittings, see Figure 10.

The gas service was recommissioned in its new position, see Figure 10. Please note that the inlet service line is not enclosed/covered by the insulation.

5. References

[1] Guidelines for Designers/Builders, Booklet 1 p.7, Revision 5, May '05. Technical Manual, Bord Gais Networks.

[2] Guidelines for Designers/Builders & Heating Installers, Booklet 2 p.33, Revision 6, May '05. Technical Manual, Bord Gais Networks.