

# ExcluGrille® 3 & 4

## Installation instructions

### Supplied with the grille assembly

A bag containing fixings, fitting instructions and parts list is attached to the assembly. Grilles are fully welded.

### Tools and accessories required

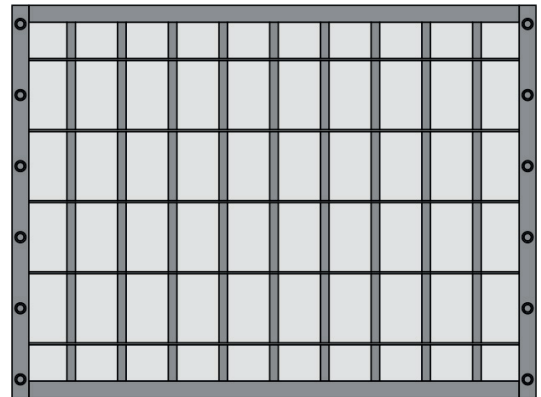
- Wedges and blocks
- Spirit level
- Shims/packers (if required)
- 8mm hexagon wrench
- 1/2 inch drive ratchet
- Kinmar permanent driver (KM10)
- Socket for M10 security fixings
- Kinmar permanent driver (KM12)
- Pozi screwdriver
- Drill and suitable masonry drill bits
- Mastic (if required)

Before removing any existing structure, please make sure that you have the correct grille assembly by checking sizes ordered against the supplied grille.

### Handling and care

Grille assemblies are usually delivered secured to a pallet on a curtain-sided lorry and can be unloaded using a forklift truck. Care must be taken when unloading, especially making sure that there are no objects on the floor that can cause damage to the grilles. Nothing should be placed on top of the grilles. Even though the grilles are made of steel they can be damaged and bent if care is not taken.

- Please be aware that these grilles may be heavy and should be moved in accordance with manual handling regulations.
- Take care not to damage the grille assembly.
- Do not store in exposed places for long periods and protect from weather.
- Protect grilles from mud stray mortar and debris.



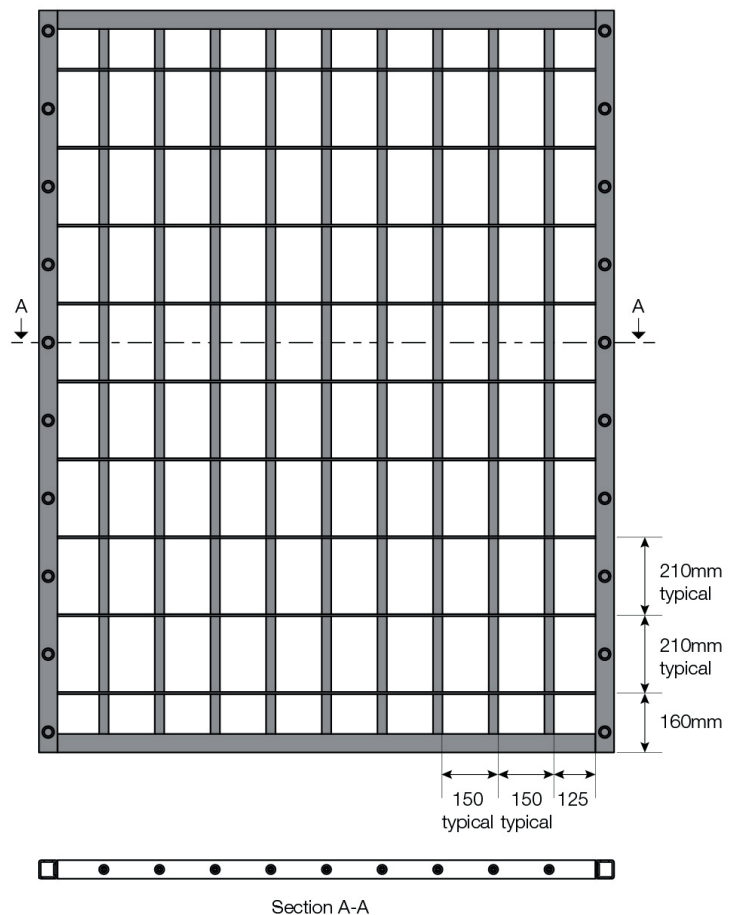
# ExcluGrille® 3 & 4

## Preparation and fitting to the structural opening

Measure and check the structural opening in several places to ensure that it is square, level and to the correct dimensions.

### Installation notes

- For internally or externally assembly is to overlap the window/vent area by a minimum of 100mm to enable a solid fix in to the structure.
- All adhesive anchors must be a minimum of 50mm from the edge of the structure.
- Steel structures must be able to be drilled and tapped to the fixings being used.
- If the structure is not yet complete, blocks or spare bricks may be used to support the frame.
- The fixings must be able to support the weight of the grilles as the wrong type of fixing can cause the frame to not sit securely and bring about future problems.
- If Kinmar® set screws are used, fix using socket supplied.
- On completion of installation ensure that the hexagonal socket of the set screws, if used, are filled with chemical fixing and allowed to cure. Curing times to manufacturer's instructions.
- M10 fixings to be tightened to 60 – 70Nm.
- M12 fixings to be tightened to 70 – 80 Nm.



# ExcluGrille® 3 & 4

## For Security Rating Level 3

**GRILLES ARE FIXED INTO BRICKWORK, REINFORCED BRICKWORK, CONCRETE, REINFORCED CONCRETE, BLOCKWORK, REINFORCED BLOCKWORK OR STEELWORK.**

### For face fixing only:

- A minimum of seven M10 fixings on each side are required.
- For fixing into brickwork, concrete blockwork, reinforced brickwork, reinforced block work or reinforced concrete use Hilti HIS-N M10 x 110 anchor with HVU M12 x 110 adhesive.
- Ensure the adhesive anchors protrude from the substrate 2.0 – 2.5mm.

### For face or reveal fixing:

- A minimum of three M12 fixings on each side are required.
- For fixing into brickwork, concrete blockwork, reinforced brickwork, reinforced blockwork or reinforced concrete use Hilti HIS-N M12 x 125 anchor with HVU M16 x 125 adhesive.
- Ensure the adhesive anchors are recessed into the substrate 17.0 – 17.5mm

## For Security Rating Level 4

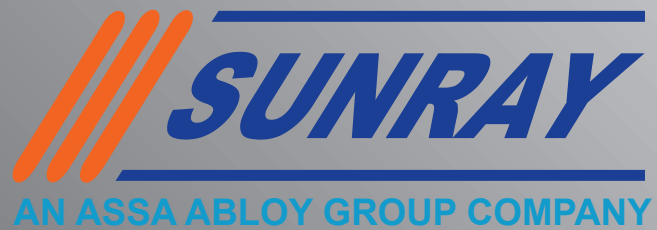
**GRILLES ARE FIXED INTO REINFORCED BRICKWORK, REINFORCED BLOCKWORK, REINFORCED CONCRETE OR STEELWORK.**

### For face or reveal fixing:

- A minimum of six M12 fixings on each side are required.
- For fixing into reinforced brickwork, reinforced blockwork or reinforced concrete use Hilti HIS-N M12 x 125 anchor with HVU M16 x 125 adhesive.
- Ensure the adhesive anchors protrude from the substrate 4.0 – 4.5mm.

### For reveal fixing only:

- A minimum of six M12 fixings on each side are required.
- When reveal fixing ensure that the adhesive anchors are recessed into the substrate 22.5mm-23mm.



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