

waterloo



Measuring slot diffuser guide



General

To make installation on site as easy and quick as possible it is useful for Waterloo and the customer to have a common understanding of how slot diffuser is measured, labelled, packed and delivered.

If the customer has their own procedure for identifying the individual elements of the runs of slot diffuser, Waterloo are normally happy to conform to that procedure. If the customer does not have their own procedure, this document lays out the preferred Waterloo procedure.

In either case, a distinction is made between:

- When on-site measurement **is not** required - situations where the required slot diffuser can solely be ascertained by take-offs from drawings.
- When on-site measurement **is** required – situations where site measurement is required in addition to any take-offs from the drawings to allow for any as-built variations. By following these notes the need for on-site measurement has been kept to a minimum and as simple as possible.

Drawing mark-up

If the customer has not already marked-up the drawing to label the individual elements of the runs of slot diffuser, the preferred Waterloo way is to look at the slot diffuser from a position in the centre of the room.

When allocating standard lengths of slot diffuser, each straight element will normally include an infill gap that will require a non-standard length of slot diffuser to complete that element.

Waterloo's default infill gap positioning is, wherever possible, to place the infill gaps of adjacent straight elements either side of the common corner (the implication being that alternate corners will NOT normally have infill gaps next to them). This allows economy of installation on site as it normally requires less moving of access equipment.

Alternatively, other positions may be chosen to suit site conditions. In any case the length of the infill pieces remains identical, only the take-off, measuring and installation sequences are affected.

Running round the room clockwise from a designated start point:

1. Identify and label each continuous run of slot diffuser.
2. For each continuous run, label the left hand end **E-left**.
3. Moving clockwise along the run, label each straight element in alphabetical order **A, B, C, D** and so on.
4. Similarly, label each corner in succession **C1, C2, C3** and so on.
5. Label the right hand end **E-right**.
6. Identify and label each infill gap by reference to the straight element it forms part of, **G-A, G-B, G-C, G-D** and so on.
7. Continue around the whole room in the same way.

In some circumstances the slot diffuser may be laid out differently, but the same general principles apply.

In certain circumstances variations may be required such as curved elements, off-sets, non-90° corners and non 90° end pieces. Again, the same general principles apply.

Take-off

For each continuous run:

1. Identify the marked-up infill gaps (**G-A, G-B, G-C** and so on).
2. Allocate a standard end piece to each end of the run (**E-left, E-right**). The standard length of end pieces is 1.5m. Non-standard end pieces can be from 1m to 2m.
3. Allocate a standard corner piece to each corner (**C1, C2, C3** and so on).
4. Starting from each standard end piece and each standard corner piece that does not have an adjacent infill gap, and working towards the infill gaps, allocate standard lengths of plain slot diffuser. The preferred standard length of plain slot diffuser is 1.5m.
5. For infill gaps, the preferred minimum and maximum lengths for infill pieces are 1m and 2m.
 - If the infill gap is shorter than 1m, omit the last standard length of slot diffuser and then see below.
 - If the infill gap is between 1m and 2m, use a non-standard length infill piece
 - If the infill gap is between 2m and 2.5m, use a pair of equal but non-standard length infill pieces.
 - If the infill gap is over 2.5m, add an additional standard length of slot diffuser and then see above.
 - If the entire run of slot diffuser is less than 2m, then allocate a single double ended section of slot diffuser to match the requirement.



- If the entire run of slot diffuser is between 2m and 4m then split the run into two and allocate a pair of equal non-standard length end pieces.

When on-site measurement of infill gaps is necessary, at the take-off stage Waterloo will estimate the length of the necessary infill pieces using the method stated above but these will not be manufactured until site measurement has been undertaken (see below).

Labelling and packing

Each section of slot diffuser will be individually labelled, including unique references for each infill piece. Once packed the labelling will be duplicated on the outside of the packaging to assist in identifying the contents of each package.

On site

Waterloo will supply site with a schedule that identifies how many standard lengths of slot diffuser go in each position. The schedule will also give the unique references for each infill piece.

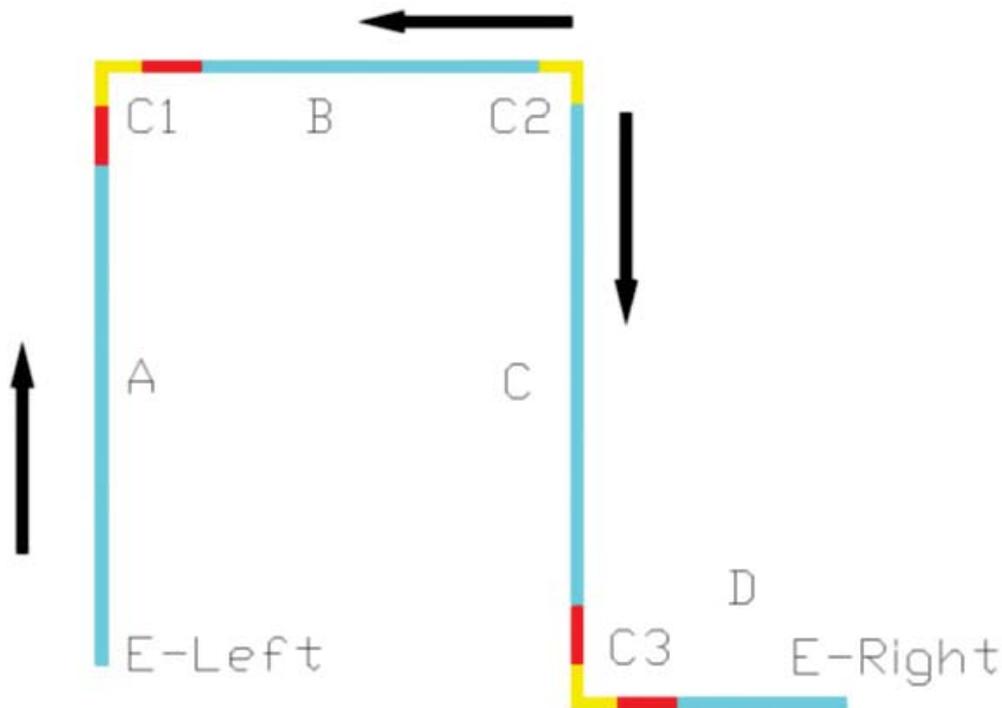
When on-site measurement is required

Once all standard corners, standard end sections and standard lengths are installed, a site survey of the infill requirements can be undertaken. All infill pieces are conventional straight sections of slot diffuser and will be uniquely identified for ease of installation.

Although this procedure covers most layouts, there will be times when it will not be the best approach and a more traditional survey will be required.

Waterloo does not undertake site surveys or provide a measuring service.

Sample illustration of Waterloo default methodology



Having labelled runs, ends and corners:

1. Allocate standard corner pieces.
2. Allocate standard end pieces.
3. Starting from **E-left**, allocate standard lengths of plain slot diffuser.
4. If there are corners, work outwards from **E-left** and outwards in both directions from each even numbered corner (**C2**, **C4**, **C6** and so on). Infill pieces will therefore normally be required either side of odd numbered corners (**C1**, **C3** and so on).
5. If there are an odd number of corners, also work outwards from **E-right**.



Waterloo Product Range

GRILLES

A complete range of products suitable for all wall, ceiling and floor applications. Most grilles are made from aluminium and have a range of fixed or moveable blades designed to give performance whilst remaining aesthetically pleasing to the eye. Grilles are made to customer specified sizes and colours (PPM/G); standard colour PPM9010 (20% Gloss White). The range is complemented by the Aircell range of polymer Grilles.



DIFFUSERS

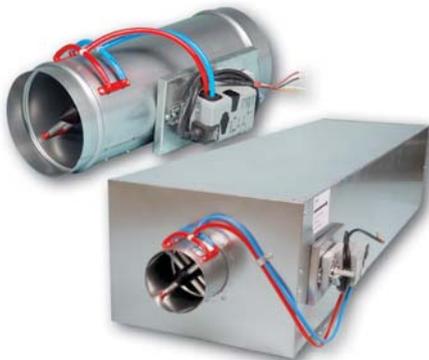
Designed to be installed in various ceiling systems, we have a complete range to suit both performance and aesthetical requirements. Most diffusers are made from aluminium and can be ordered with or without plenum boxes for easy duct work. Diffusers can be ordered in customer specified colours (PPM/G); standard colour is PPM 9010 (20% Gloss White). This range is complemented by the Aircell range of polymer Diffusers.



ACTIVE AND PASSIVE CHILLED BEAMS

The finest quality range of high output active beams, used for ventilated heating and cooling applications. These units have 4 pipe coils to allow heating and cooling circuits to run simultaneously, giving constant and responsive control. The design allows a large optimum capacity and also allows the customer to specify the nozzle type and pitch for individual circumstances.

Active beams are made from steel to a large range of customer specified sizes and as such are suitable for various different ceiling systems. Standard finish is PPM 9010, however other (PPM/G) colours are available on request.



AIR VOLUME CONTROL DAMPERS

Pressure independent Variable Air Volume and Constant Air Volume dampers made from zintec plate. Most volume dampers are regulated with an electronic motor and sensors and are calibrated to customer specifications before delivery.

The Constant Air Volume damper requires no power source as it is controlled via a mechanical device and calibrated before delivery. All volume dampers can be ordered with a single or double (insulation) skin.

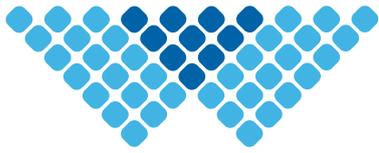
EXTERNAL LOUVRES

A quality range of products for external wall applications. Made from aluminium, with birdscreen or insect screen options. All louvres are made to customer specified sizes and (PPM/G) colours; standard colour is PPM 9006.



DISPLACEMENT

A full range of recessed, semi-recessed, floor, wall and corner units providing high ventilation efficiency and excellent comfort. The very low pressure involved also offer quiet installations. Displacement units are available as wall or floor mounted, or indeed integrated within the architectural design.



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