

# Ultima Standard Support System



## FOREWORD

The Patented Wincro Ultima masonry support system is a front-loading masonry support system, designed to support an outer leaf of masonry cladding.

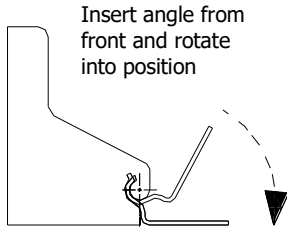
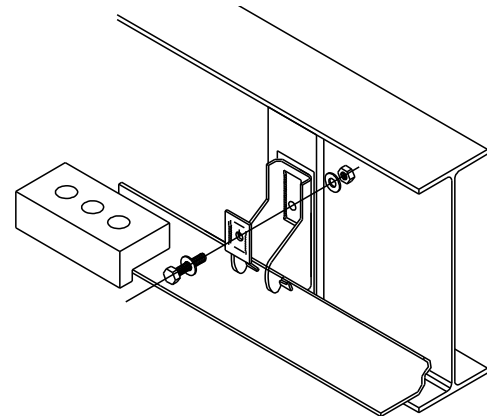


Fig. 1

The system facilitates straightforward installation. Brackets with a part-circular slot are fixed to the structure. Angles, with a correspondingly shaped vertical leg, are then rotated into the slots from the front (Fig. 1).

The system's simplicity and versatility means that the brackets and angles can be universally applied for all applications up to a maximum load of 14kN/m<sup>1</sup>.



## Recommended Best Practice

It is recommended that a maximum initial lift of 5 courses of brickwork is built and tied to the structure. This lift should then be allowed to cure prior to further masonry being built in 1.2 metre lifts (in accordance with BS 5628-1:2005). This action will allow the first lift to form a rigid composite structure between the support angle, masonry structure and the wall ties ensuring any deflection and settlement is kept to the minimum.

## VERSATILITY

### Bracket Range

Standard brackets are available in increments of 5mm to suit a range of cavities between 50 and 175mm.

### Angles

Standard sections of Ultima angle are supplied in 990mm and 790mm lengths. They are designed for use with two brackets located at each coloured bracket-fixing zone (Fig. 5). A 10mm gap is designed between angle units for ease of installation.

Corner sections of Ultima angle require three brackets, again located in the coloured zones (Fig. 4). NB: DO NOT CUT CORNER SECTIONS

### 2/3 Bearing

Minor deviations in the position of the structural face can be catered for by adjusting the position of the masonry wall on the support angle. However, a minimum 2/3rds bearing (Fig. 2) must be achieved. It is therefore recommended that angles are placed so the back edge of the masonry is within 5mm of the angle/bracket.

### Shims

The Ultima system is designed so that the interchangeable brackets allow for significant deviations in the position of the structural face. The use of shims can also adjust for slight deviations. The maximum thickness of shims should not exceed 12mm. Shims should be flat and extend the full length of the bracket.

### Vertical Adjustment

The Patented Wincro serrated slot in the back of the bracket provides vertical adjustment of +/-26mm.

### Lateral Adjustment

Ultima angles have a Bracket Fixing Zone that allows lateral adjustment of +/-15mm. This adjustment zone allows the bracket to be moved should a hole position clash with reinforcing bar, preventing drilling or for predrilled steelwork positions.

### Horizontal Soft Joints

It is recommended that the horizontal leg of the angle is set 1.5-2.0mm above the top of the soft joint (Fig. 3). This allows for normal vertical displacement under the masonry load. A rebate in the brick (pistol brick) may be required to allow the required depth for the mastic joint.

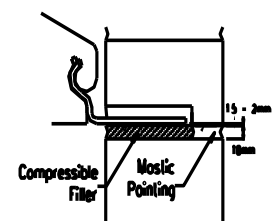
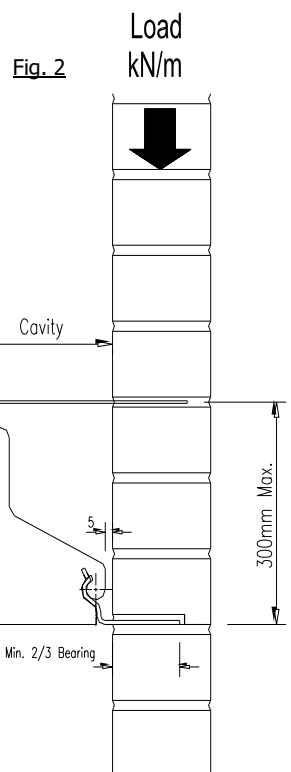


Fig. 3

<sup>1</sup> Dependant on cavity width and type of fixing - see Ultima Technical Data Sheet

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## INSTALLATION

The recommended method of installation is:

1. If required, pre-drill the holes in accordance with approved details and the Wincro Ultima Technical Data Sheet.
2. Fix the Ultima brackets back to the structure using the supplied fixings and finger tighten the fixing bolt.
3. Locate the angle onto the brackets. NB: EACH ANGLE MUST HAVE A MINIMUM OF 2 BRACKETS.
4. Check the line and level throughout, making any necessary adjustments via the adjustment washer, alternative bracket sizes and shims.
5. Lock the angle into place using the Wincro Ultima Locking Pins (2 per bracket). Lightly tap with a hammer to ensure fully engaged (Fig. 5).
6. Finally, ensure the Adjustment washer fully engages in the serrated slot in the back of the bracket and tighten the supplied fixings to the specified torque.

Fig. 4

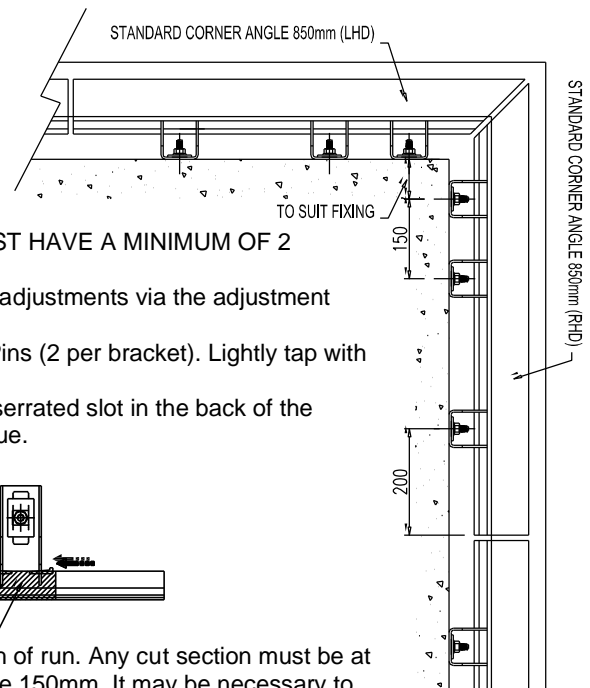
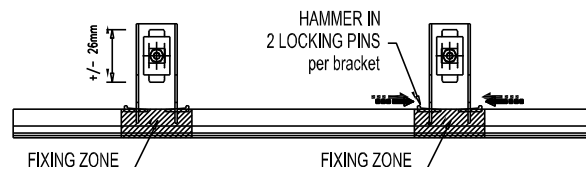


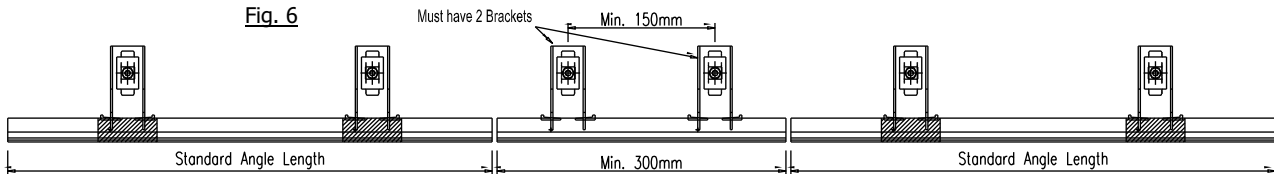
Fig.5



### Site Cutting

Standard Ultima angles may be cut on site to suit the particular length of run. Any cut section must be at least 300mm long (Fig. 6) and the minimum bracket centres should be 150mm. It may be necessary to cut two angles to maintain this minimum length. NB: DO NOT CUT CORNER SECTIONS.

Fig. 6



### Wall Ties

Wall ties are essential to the performance of any masonry support system and care should be exercised to ensure correct installation. Suitable Wall Ties and/or Restraints must be installed at a maximum of 450mm horizontal centres within 300mm above and below<sup>2</sup> the support angle (Fig. 2). See [www.wincro.com](http://www.wincro.com) for recommended products.

### Fixings

Wincro Ultima has been developed to fix back to range of structures using approved Wincro fixings as per Table 1. Contact Wincro on 0114 242 2171 if an alternative fixing is required for use with Ultima. Non-approved fixings should not be used, as this will invalidate the Wincro warranty.

### Material

Wincro Ultima is manufactured from Grade 304 Stainless Steel (EN 1.4301). For applications that may be subject to a more corrosive environment, a higher grade of material should be considered.

### Health and Safety

The components of the Ultima System are generally lightweight and easy to handle. However, they are produced from sheared plate and can have sharp edges. Suitable gloves/PPE should be worn by anyone handling and installing them.

NB: WINCRO can accept no responsibility for the incorrect installation of any Ultima system. For more information please contact our Technical Design team on 0114 242 2171 or visit [www.wincro.com](http://www.wincro.com)

Fixing Type	Structure	Torque Nm
WBXS Xylan Setscrew M12	Steelwork UB / UC Steel gussets	57
WBBB Blindbolt M12	Box Section RHS SHS	38
WBT38 T Head Bolt M12	Concrete 38/17 channel	25
WBEB Expansion Bolt M12	Concrete	45

Table 1

## GENERAL

All Wincro products are produced from Type 1.4301 (304) Stainless Steel u.n.o. and are generally produced from sheared plate. As with all similar industrial fabrications, these may present sharp edges and suitable personnel protective equipment should be worn at all times during handling and installation. In all cases, installation should be entrusted to appropriately qualified/experienced persons.

All contact between dissimilar metals must be isolated using isolation patches/washers.

All bolts specified must be installed and torqued to Manufacturers Recommendations / Guidelines.

The Construction applications and details provided in this guide are indicative only.