Expansion Anchor for Curtain Wall

- LLOYDS REGISTER & DIBt APPROVED CONNECTIONS
- GUARANTEED SAFE WORKING LOAD
- SAFETY FACTOR OF 5:1
BOXBOLT steelwork connections offer designers and installers a range of approved and independently tested blind bolts suitable for securing structural glazing and curtain wall brackets directly to structural tube sections or where access to the rear of the connection is limited or not available. Installations need to accommodate a wide variance in loadings and the BOXBOLT range of products provides effective solutions for everything from small low rise buildings to multi-story high rise structures.

**Simple Installation**

The BOXBOLT is inserted into a pre-drilled or pre-formed hole in the glazing or curtain wall bracket, continuing through into a hole in the main steel structure. While the hexagon shoulder is gripped with an open ended wrench, the core bolt is simply tightened to the recommended torque; the wedge is pulled up the length of the bolt which in turn expands the wings forming a secure connection.

While BOXBOLT connections are designed to be made using simple hand tools, KEE SAFETY can supply the BOXSOK, a unique installation tool that will attach to standard air tools to reduce installation time even further.

**Extensive Testing**

BOXBOLT connection products have been extensively tested, and certified by Lloyds Register Type Approval and DIßt (Deutsches Institut für Bautechnik) for use within Shear and Tensile applications.

**Engineered Design**

BOXBOLT products have been engineered to offer a guaranteed Safe Working Load and a Factor of Safety of 5:1 (load and dimensional data can be found on page 4). The BOXBOLT is available in six different bolt diameters ranging from 1/4” to 3/4”. Within each bolt diameter, the BOXBOLT can be supplied in three overlapping lengths to accommodate a wide range of combined material thicknesses being connected together.

**Material & Finish Options**

The BOXBOLT can be supplied in mild steel with a bright zinc or hot dip galvanized finish or in Grade 316 Stainless Steel.

**Head Options**

The BOXBOLT can be supplied with a range of different head options where aesthetic appearance is essential.
Glazing Bracket
Secured to Square, Rectangular, or Circular Tube

BOXBOLT expansion anchors can be used to secure glazing brackets directly to the steel structure. Glazing brackets are typically cast, profiled or machined with one to four arms spaced around a central hole through which the BOXBOLT can be inserted.

Curtain Wall Bracket
Secured to Square or Rectangular Structural Tube

The BOXBOLT expansion anchor provides engineers and designers a method of connecting curtain wall brackets that allow a high degree of multidirectional on site adjustment.

Curtain Wall Bracket
Secured to Circular Structural Tube

The use of the BOXBOLT expansion with fabricated or machined brackets provides a simple solution when connecting to circular structural tube.

Curtain Wall Bracket
Secured to Beams, Columns, or Channels

The BOXBOLT expansion with fabricated or machined brackets provides engineers and designers a method of connecting curtain wall brackets that allow a high degree of multidirectional on site adjustment.
**BoxBolt® Technical Data**

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<th>part number &amp; description</th>
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**Hole Dimensions & Positioning**

It is important that the correct hole size is drilled to accommodate the body of the BOXBOLT connector. Dimensions are shown in the table below. If a BOXBOLT connector is being used close to the edge of a section or in close proximity to another BOXBOLT connector, a minimum spacing is required to ensure that the wings are free to expand correctly.

**Product Notes:**

The standard finish for the BOXBOLT connector is zinc plate, this is indicated by the letter Z in the product code. If you require the BOXBOLT connector with a hot dip galvanized finish, please substitute with the letter G. If you require the BOXBOLT in stainless steel, use the letter S. For example, 5/8" bolt diameter, Size 1 BOXBOLT connector, with a hot dip galvanized finish will be product code BQ1G16 and a 3/8" bolt diameter, Size 1 BOXBOLT connector in stainless steel will be BQ1S10. The BOXBOLT connector is only available with a metric internal bolt. Bolt diameters shown above in inches are converted from metric sizes.

**Clamping Range**

The clamping range of the BOXBOLT connector is the combined thickness of the steel being connected and the steelwork being connected to. (Refer to page 2 for Clamping Range diagram.) Each diameter of the BOXBOLT connector has three overlapping lengths designed to accommodate a wide range of material thicknesses. If your clamping range exceeds those stated above, special lengths are available. Contact KEE SAFETY for further information.

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