

SBA sliding brick anchors

Halfen SBA sliding brick anchors are specifically designed to restrain brickwork below horizontal soft joints by attaching the brickwork to the structure without restricting differential movement.

Description

SBA sliding brick anchors are available with a range of head configurations to allow fixing to the soffit or edge of concrete slabs or to steelwork.

The heads are normally of welded construction as shown.

The brick ties, code HST, which are free to move up and down the stem, are available in both single-ended and double-ended form, in the lengths shown below.

Material

SBA sliding brick anchors and HST ties are available in either Grade 304 stainless steel (Grade 316 to special order) or mild steel hot-dip galvanised after manufacture to BS EN ISO 1461: 1999. Galvanised HST ties are spun after dipping, and are not suitable for the outer skin.

Performance

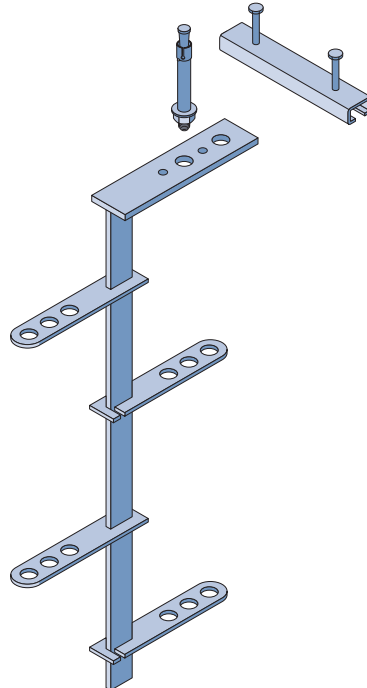
It is apparent from tests that sliding brick anchors used in cavity walls are not required to withstand bending in the stem. Their performance is governed by the bond of the tie in the mortar and the method of fixing the top plate. As a guide, Halfen suggest a Safe Working Load of 2.0 kN per SBA with a welded top plate. However, the quantity required for any given detail is more likely to be governed by the need to provide adequate ties between the two leaves of masonry.

Fixing

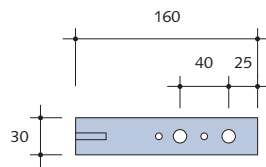
To concrete: Fixing to the structure may be by either cast-in channel or site-drilled bolt. Site-drilled bolts are usually the 'through' type, code FB.

To steelwork: SBA sliding brick anchors can be bolted to the flanges of structural steelwork. When bolting stainless steel SBAs to mild steel flanges, bi-metallic corrosion is not normally a problem, but separation can be provided by Halfen, if specified.

SBA sliding brick anchor



SBA with welded head for bolt fixing

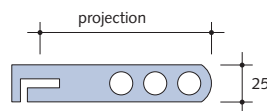


SBA/L

Hole sizes and positions are variable to suit customer requirements. Stem lengths are normally 350 or 550 mm.

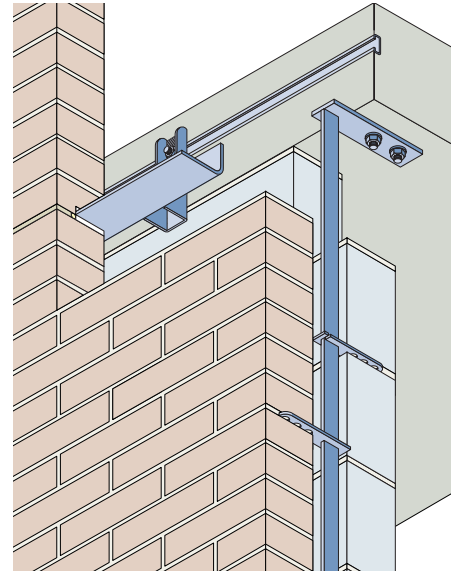
HST – sliding brick anchor tie variations

Halfen recommend the use of single-ended perforated ties, code HST 12, in most situations. However, double-ended ties, code HST 12/12, and HST ties with other tail shapes and projections are available to order. Drip grooves on single-ended ties are also available to order.

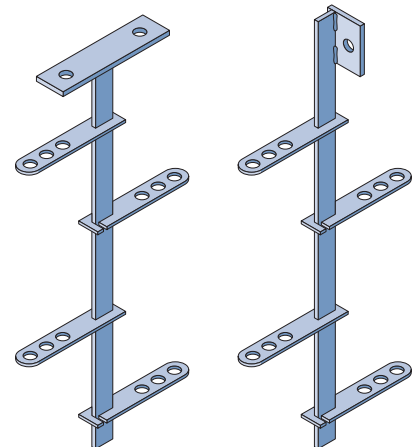


HST 12

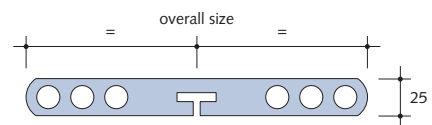
Standard projections: 100, 125, 150 and 200 mm



Typical SBA application, looking up at slab soffit



Alternative SBA head details



HST 12/12

Standard overall sizes: 200, 225 and 250 mm, with slot on centre line.

Head restraint fixings

Non-loadbearing internal walls require a soft joint between the top of the blockwork and the floor slab to allow for differential movement. Under these conditions the top of the internal wall must be restrained to provide lateral stability.

Angle cleats

A traditional method of providing restraint to internal walls is to fix angle cleats, on either side of the wall, at approximately 1200 mm centres and staggered (see illustration right).

Halfen can supply hot or cold rolled mild steel angle cleats with a hot-dip galvanised finish suitable for this application.

Cold rolled angle cleats can be made any size to order. 100 x 100 x 6 mm, 150 mm long, is a stock item suitable for most applications.

Hot rolled cleats are standard sizes from steelwork tables.

Each cleat should be fixed to the soffit of the floor slab using two suitable site-drilled bolts.

Telescopic restraint for concealed details

Where aesthetics are a consideration, e.g. in fairface blockwork, restraint can be provided using CHR 215 telescopic restraint ties. CHR 215 is a two-part tie that provides a positive fixing into the bed joint, whilst allowing vertical tolerance and differential movement.

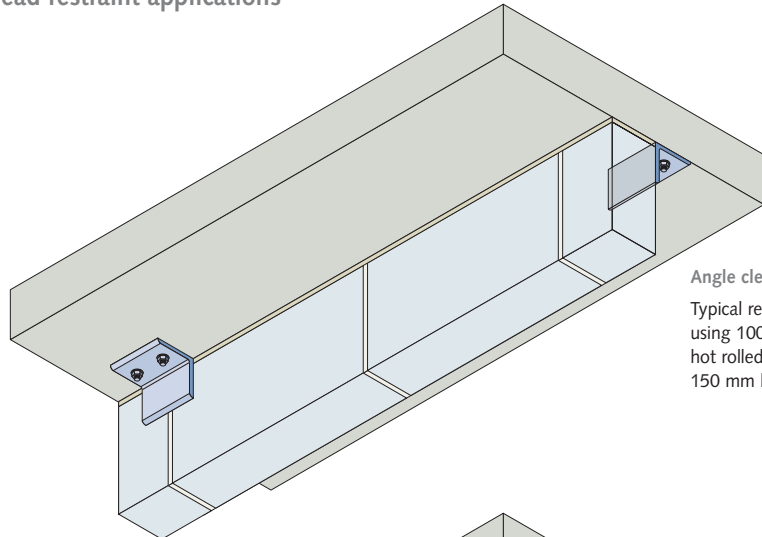
A strap is fixed to the soffit and engaged in a hollow section welded to a bed joint tie. The soffit fixing may be either M8 bolt to cast-in channel, SEB 8 drilled bolt or self-tapping screw to steel. Also, the strap may be shouldered to suit 28/15 channel.

Halfen recommend that CHR 215 ties are used at approximately 900 mm centres. CHR 215 telescopic ties are manufactured in stainless steel Grade 304.

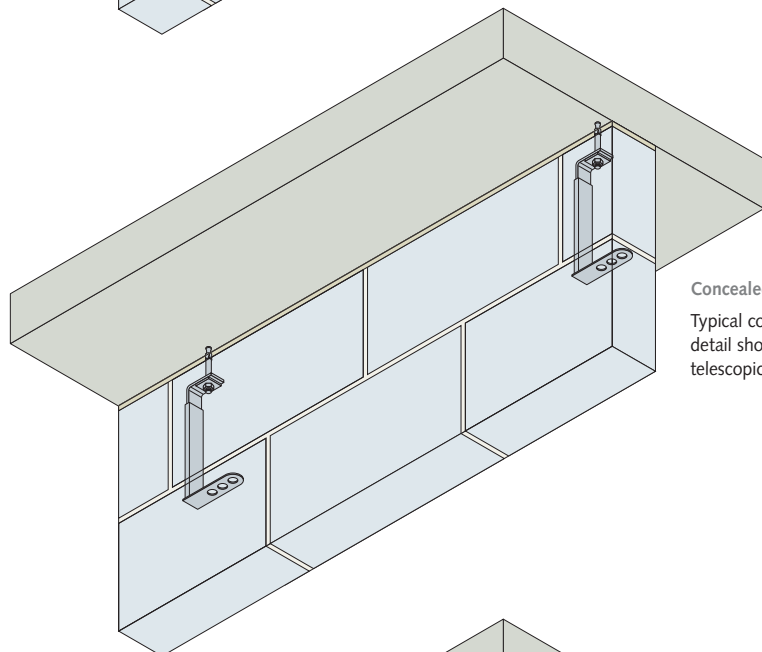
Halfen HHR restraint

For details where an angle can be fixed from one side only, a two-part fitting as shown is manufactured, code HHR. The stock part is designed for 100 mm blockwork, but can be made to order to suit other block thicknesses.

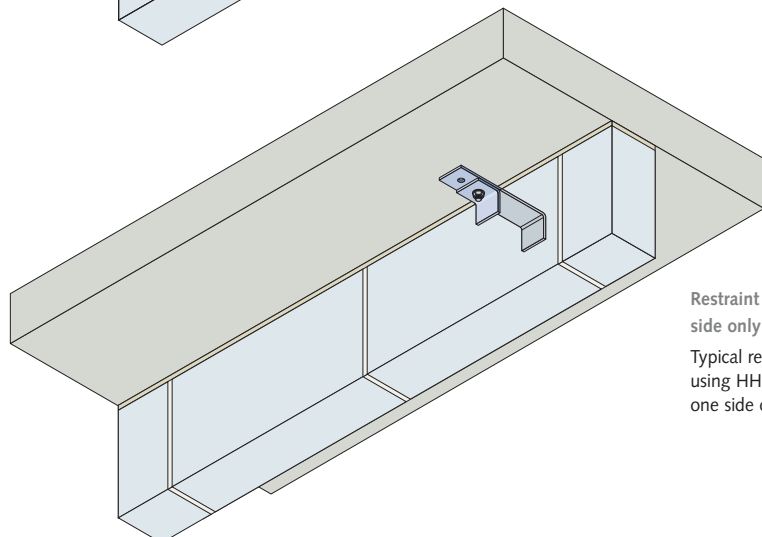
Head restraint applications



Angle cleat restraint
Typical restraint detail using 100 x 100 x 6 mm hot rolled angle cleats 150 mm long



Concealed restraint
Typical concealed restraint detail showing CHR 215 telescopic ties



Restraint fixed on one side only
Typical restraint detail using HHR tie fixed to one side of wall only