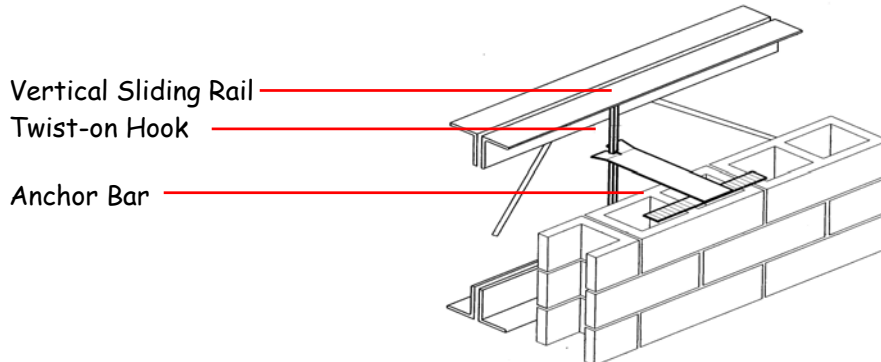




Installation and design Notes

For the new Twist-on Groutless Masonry Anchor System



CONNECTING MASONRY TO A JOIST, A JOIST GIRDER OR A BEAM

1. The Vertical Sliding Rail (Vertical Bar)

- Attach the Vertical Bar so as to be plumb after the steel is erected.
- Coordinate bars location so that the anchor will not interfere with the wall vertical reinforcement.
- When load is applied on the steel girder, the Vertical Bar will rotate with the steel girder's deflection. The girder should be designed for lesser deflection, to minimize the rotational effect of the Vertical Bars. This can be achieved easily since the load on perimeter steel is usually lesser than the load on a typical member.

2. Engaging the Twist-on Hook onto the Vertical Bar

- The Twist-on Hook should be attached onto the Vertical Bar where its horizontal displacement due to the rotation effect of the Vertical Bar is the least. In many cases this occurs near the elevation where the Vertical Bar intersects with the line connecting the end supports. For example for a typical joist supported on its top chords at each end, the top portion of the Vertical Bar will undergo less horizontal movement than the bottom portion. On the other hand for a joist supported on its bottom chords at each end, the bottom portion of the Vertical Bar will undergo less horizontal movement than the top portion. For beams supported in the center of their depth, the centerline will undergo the least horizontal movement. This should be considered for most types of anchors.
- In many cases the Vertical Bars placed in the center portion of the span will undergo less rotation due to the steel girder deflection, than the ones on each end of the span. If two or more anchors are placed on one Vertical Sliding Bar, they should be placed in the center portion of the span, rather than towards the ends of the span.
- Place the Anchor in a level plane - perpendicular to the Vertical Bar, and with the cut out centered about it.
- Leave clearance above the anchor, to allow unobstructed steel deflection.
- When installing the T-type anchors, it may be more practical to engage the Twist-on Hook onto the Vertical Bar before the masonry wall is reaching the elevation when it will interfere with the installation. The anchor can be "Parked" on the Vertical Bar temporarily until the next block is placed. The "Parked" bar is loose and can fall down – exercise special precautions.

3. Embedment of the T-type Anchor Bar in Mortar Bed

- In hollow block wall, place the anchor so that the Anchor Bar will cross at least one web rib of the hollow block, on each side of the Connector Bar. The Anchor Bar is welded eccentrically so it can be flipped to intersect with the block webs.
- Place mortar below and above the Anchor Bar and the Connector Bar, and the full width of the block web, so as to create continuous mortar bed between the front and the back of the block.
- The length of the anchor should take into consideration the construction tolerances.