

## Anchor Bolts

**HB** Anchor bolts are used for fastening components on to load bearing substrates. There are many types of anchor bolts available for use for installing fixtures on to different types of base materials.

Anchor bolt type selection is made according to the type of walls, whether it is, concrete, masonry, block work, or stone. Design loads for tensile and shear load directions are taken into account in order for the correct selection of the anchor bolts.

Expansion bolts are all tested to meet the tensile force and shear force performance criteria. There are different anchor bolt sizes to meet the design loads of the application. Load capacities of the anchor bolts are verified by the testing made in house and at authorized testing laboratories.

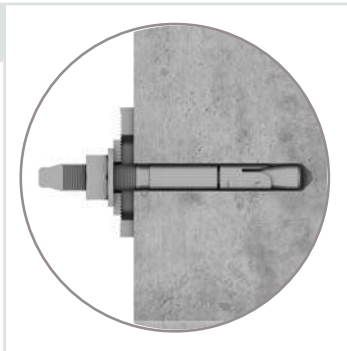
Below is the main categories of anchor bolts:

- Torque-Controlled Expansion Anchors
- Bonded Anchors
- Undercut Anchors
- Deformation-Controlled Expansion Anchors

Anchor bolts are available in stainless steel grade 1.4301 & 1.4401 and galvanized mild steel grade 1.0038.

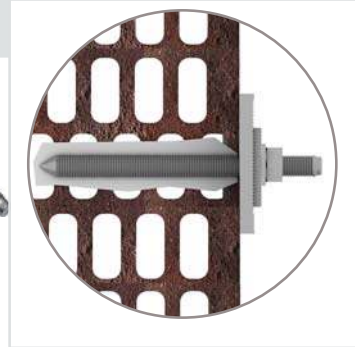


### Expansion bolts



- Torque controlled anchor bolts
- Available in from M6 to M16 sizes
- For use in concrete and filled and reinforced block work

### Chemical anchor bolts



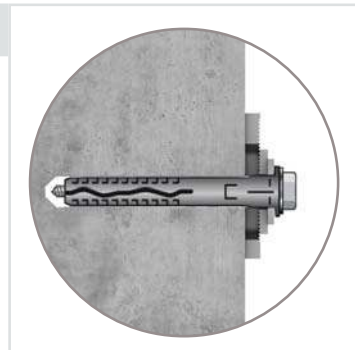
- Bonded anchor bolts
- Is used in combination with epoxy resin
- Available in sizes M8 to M20
- For use in concrete, block work and masonry walls

### Undercut anchor bolts



- Undercut anchor bolts
- Used for fixing on to natural stone
- Wet drilling system with suitable drilling equipment is required

### Wall plugs



- Deformation controlled anchor bolts
- Available in sizes M8 & M10
- For use in concrete, block work and masonry walls



Istanbul, Levent district sky line, Turkey

**Concrete walls:** Concrete is a base material that contains cement and gravel. The performance of expansion bolts on concrete walls depends on the compressive strength of the concrete. The most common concrete compressive strength is C20/25 which means that there is 25 N / mm<sup>2</sup> compressive strength on the concrete.

**Brick walls:** Brick walls are built with individual brick layer on top of each other and bonded together with mortar. Brick walls may be constructed with either hollow or solid bricks. The choice of bolts to be used largely depends on whether the bricks are hollow or solid.

**Block work walls:** Block work walls are built with individual blocks layer on top of each other and bonded together with mortar. Block work walls may be constructed with either hollow or solid blocks. The choice of bolts to be used largely depends on whether the blocks are hollow or solid.

