

## Stone Fixing Systems

Natural stone façades are constructed with fixing systems that are made out of stainless steel, that allow secure and easy method of supporting stone panels on to load bearing backing walls.

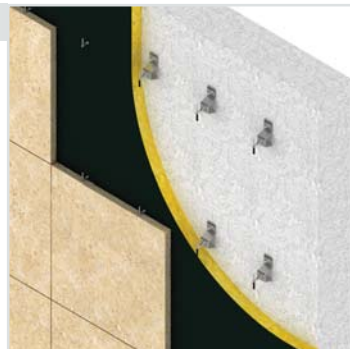
Three dimensional adjustable anchors that are fixed on to load bearing walls either with anchor bolts or mortar are the most common method of stone fixing systems in the construction industry. Fixing systems accommodate all types of backing walls whether they are concrete walls, block work & masonry walls or steel structures.

There are various types of fixing systems with varying sizes to suit the wall cavity sizes, to carry the stone loading and to with stand the wind pressures. Careful analysis of the stone application must be conducted when choosing the most suitable fixing systems required. The following points are taken into consideration when designing a fixing system for natural stone installation.

- Stone type and dimensions
- Wall structure: projection size, wall cavity and insulation thickness
- Application type: horizontal or vertical joint installation
- Joint size and the requirement of expansion and compressing joints
- Structural wall backing type
- Height of facade
- Relevant loads such as dead loads, wind loads and seismic loads
- Design criteria of the project and safety factors to be used in calculations

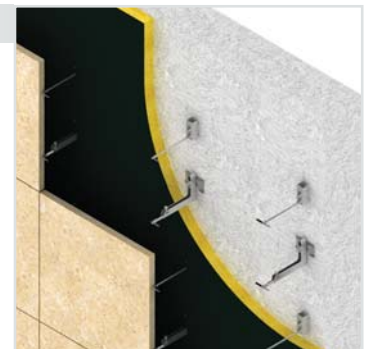


### HZ Z Anchors



- Fixing to concrete with anchor bolts
- Projection sizes up to 150 mm
- Recommended for loads up to 800N
- Installation at horizontal or vertical joints
- Three dimensional adjustability

### AXO Body Anchors



- Fixing to concrete with anchor bolts
- Projection sizes up to 260 mm
- Recommended for loads up to 1300 N
- Installation at horizontal or vertical joints
- Optimum static performance
- Three dimensional adjustability

### HA L Anchors



- Fixing to concrete with anchor bolts
- Can be used for stone thickness's higher than 50 mm
- Various types to enable adjustability
- Installation at horizontal joints only

### HDM Mortar Anchors



- Fixing to masonry with mortar
- Projection sizes up to 240 mm
- Recommended for loads up to 1200 N
- Installation at horizontal or vertical joints
- Three dimensional adjustability



Demir Bank Head Quarters, Istanbul

#### Direct fixing to concrete walls with anchor bolts

Fixing to load bearing walls with anchor bolts. Insulation is cut at each anchoring point. The insulation part is laid back in to position after the anchor is fastened. Insulation joints are sealed with insulation tape to avoid cold bridging.

#### Direct fixing to concrete or masonry walls with mortar

Fixing to load bearing walls with mortar anchors using mortar. Insulation is drilled at each anchoring point. Drilled holes are filled with mortar and anchors are set in to the mortar filled holes. Curing time for the mortar should be spent before commencing the work.

