

Wedge Anchor BZ3 dynamic

Steel, zinc plated



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Range of Loading: 0,9 kN – 7,2 kN
Range of concrete quality: C20/25–C50/60

Description

The new Wedge Anchor BZ3 dynamic is the first mechanical expansion anchor with ETA for fatigue cyclic loading. It can be used in through-setting and pre-setting installation. The red color marking makes it easy to visually check the required anchorage depth. To fill the annular gap between the attachment and the Wedge Anchor BZ3 dynamic, the mortar is injected through the hole in the filling washer using a reducing adapter on the static mixer.

The quick and easy installation of the Wedge Anchor BZ3 dynamic significantly improves the economic efficiency and makes it the ideal anchor for the fastening of light to medium fatigue cyclic loads.

Advantages

- European Technical Assessment in cracked and uncracked concrete under fatigue loading
- Approved also for use under seismic loading, performance categories C1 and C2 and under fire exposure (R30-R120)
- Quick and easy installation, immediately statically loadable
- Coloured marking of the minimum anchorage depth



- Through-setting and pre-setting installation for flexible application
- When using the hollow drill bit SB, the subsequent cleaning of the borehole can be omitted and the development of drilling dust is avoided
- Very low anchorage depths and minimum component thicknesses
- Small spacings and edge distances
- Economical alternative to injection- and undercutting systems

Applications

Fastening of light to medium fatigue cyclic loads in cracked and uncracked concrete: crane systems, industrial robots, elevator guides, conveyor systems, etc.

Wedge Anchor BZ3 dynamic



- Steel, zinc plated
- Approved for loads with fatigue cyclic loading
- There are 5 mixer tips per 25-pack and 2 mixer tips per 10-pack in each assembly package

| Description | Ref. No. | Fixture thickness | | Anchorage depth | | Drill hole-Ø | | Depth of drill hole | | Bohrlochtiefe durch Anbauteil | Anchor length | Thread | Pkg. content | Weight per pkg. | Amount of adhesive per anchor ¹⁾ |
|-----------------------|----------|-------------------------|-------------------------|--------------------|-------------------|---------------------|-------------------|---------------------|--------|-------------------------------|---------------|--------|--------------|-----------------|---|
| | | t _{fix,min} mm | t _{fix,max} mm | h _{ef} mm | d ₀ mm | h ₁ ≥ mm | h _a mm | l mm | mm | | | | | | |
| BZ3 dyn M10x100/5-10 | 18210001 | 5 | 10 | 60 | 10 | 71 | 81 | 100 | M10x26 | 25 | 2,07 | 2,7 | | | |
| BZ3 dyn M10x120/10-30 | 18220001 | 10 | 30 | 60 | 10 | 71 | 101 | 120 | M10x31 | 25 | 2,33 | 3,8 | | | |
| BZ3 dyn M10x140/30-50 | 18230001 | 30 | 50 | 60 | 10 | 71 | 121 | 140 | M10x51 | 25 | 2,64 | 4,9 | | | |
| BZ3 dyn M12x115/6-10 | 18310001 | 6 | 10 | 70 | 12 | 83 | 93 | 115 | M12x31 | 25 | 3,17 | 2,9 | | | |
| BZ3 dyn M12x135/10-30 | 18320001 | 10 | 30 | 70 | 12 | 83 | 113 | 135 | M12x35 | 25 | 3,73 | 4,3 | | | |
| BZ3 dyn M12x155/30-50 | 18330001 | 30 | 50 | 70 | 12 | 83 | 133 | 155 | M12x55 | 25 | 4,01 | 5,7 | | | |
| BZ3 dyn M16x155/8-25 | 18520001 | 8 | 25 | 85 | 16 | 102 | 127 | 155 | M16x37 | 10 | 2,77 | 4,7 | | | |
| BZ3 dyn M16x180/25-50 | 18530001 | 25 | 50 | 85 | 16 | 102 | 152 | 180 | M16x54 | 10 | 3,17 | 7,2 | | | |

¹⁾Injection Cartridge VMH for annular gap filling see page 116

Wedge Anchor-Setting Tool BSW



- Setting Tool for Wedge Anchor M6 – M16
- With SDS plus connection

| Description | Ref. No. | Suitable for Wedge Anchor | Length mm | Package content pcs. | Weight per pkg. kg |
|-------------|----------|---------------------------|-----------|----------------------|--------------------|
| BSW M6-M16 | 43990101 | BZ3/BZ plus/B M6 – M16 | 140 | 1 | 0,13 |



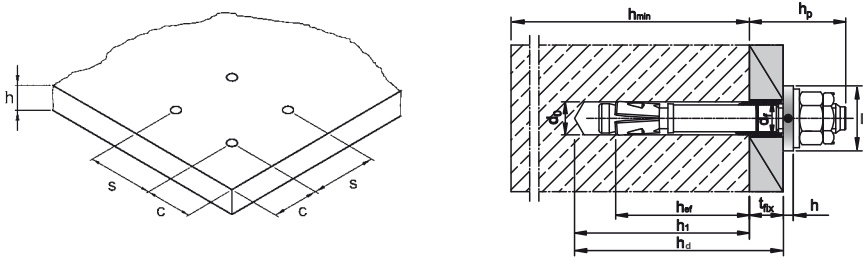


Extract from Permissible Service Conditions of European Technical Assessment ETA-20/0117 for use under fatigue cyclic loading in cracked and uncracked concrete

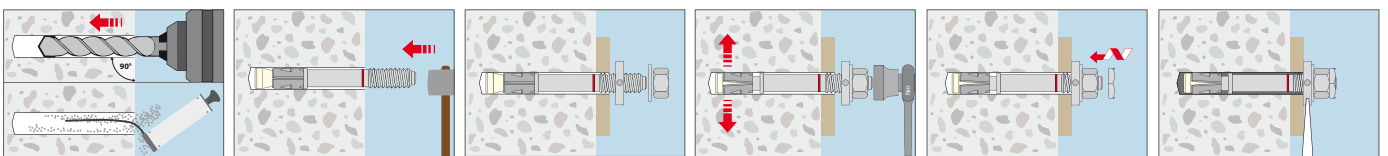
Approved loads according to EN 1992-4 for single anchors without the influence of spacing and edge distances. The total safety factor (γ_M und γ_p) is included. Load capacities under fire exposure see page 196.

| Loads and performance data | Wedge Anchor BZ3 dynamic | M10 | M12 | M16 |
|--|----------------------------|------------------|------------------|------------------|
| Single fixing | | | | |
| cracked and uncracked concrete | | | | |
| Approved loads, tension | \geq C20/25 appr. N [kN] | 3,4 | 4,6 | 7,2 |
| Approved loads, shear | \geq C20/25 appr. V [kN] | 1,9 | 3,0 | 5,6 |
| Multiple use (per anchor) | | | | |
| cracked and uncracked concrete | | | | |
| Approved loads, tension | \geq C20/25 appr. N [kN] | 1,7 | 2,3 | 3,6 |
| Approved loads, shear | \geq C20/25 appr. V [kN] | 0,9 | 1,5 | 2,8 |
| Spacing and edge distance | | | | |
| Effective anchorage depth | h_{ef} [mm] | 60 | 70 | 85 |
| Minimum thickness of concrete slab | h_{min} [mm] | 90 | 105 | 127,5 |
| Minimum spacing | s_{min} [mm] | 40 | 50 | 65 |
| Minimum edge distance | c_{min} [mm] | 45 | 55 | 65 |
| Installation parameters | | | | |
| Drill hole diameter | d_o [mm] | 10 | 12 | 16 |
| Diameter of clearance hole in the fixture | $d_f \leq$ [mm] | 12 | 14 | 18 |
| Drill hole depth | $h_1 \geq$ [mm] | 71 | 83 | 102 |
| Installation torque | T_{inst} [Nm] | 40 | 60 | 110 |
| Width across nut | SW [mm] | 17 | 19 | 24 |
| Outer diameter x thickness of filling washer | D x h [mm] | 26x5 | 28x5 | 34x5 |
| Overstand | h_p [mm] | $21,5 + t_{fix}$ | $25,5 + t_{fix}$ | $29,5 + t_{fix}$ |

Mechanical Heavy Duty Anchors



Pre-setting installation



Through-setting installation

