

# THROUGHBOLT ANCHOR ATE OPTION 1

**BZPLUS**



## FEATURES

**Material :**

Steel Zinc plated  
(Also available in A4 Stainless)

**Advantages :**

- Fast and easy installation through the fixture
- Pre-assembled nut and washer
- Gives support to close edge spacing, minimum thickness
- Reduced Anchor length
- Cost effective solution for flexible use in non cracked concrete

## APPLICATION EXAMPLES

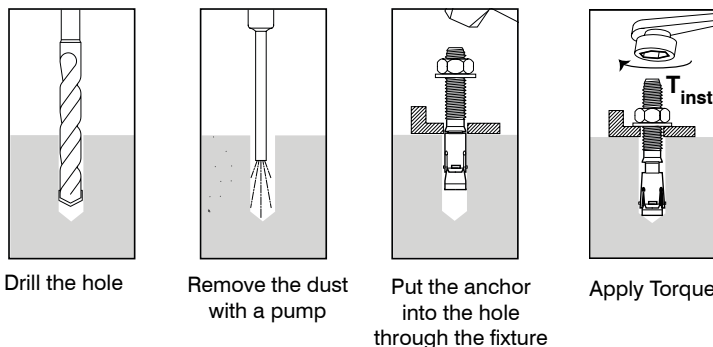
- For fixing metal profiles, railings, beams steel cladding brackets, industrial racking, consoles, cable trays...
- Industrial doors and gates
- Facades

## INSTALLATION

**Installation process :**

When applying the **torque setting ( $T_{inst}$ )** to the **nut** (with ratchet or wrench), the cone at the bottom of the anchor pulls into the **expansion ring**, which causes the segments of the ring to open. They are then pressed against the wall of the cavity causing adhesion through the support material.

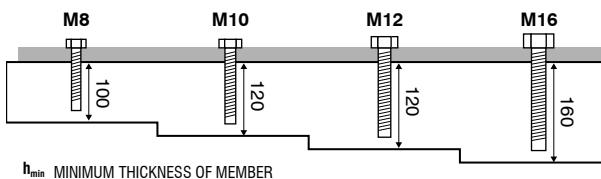
**Installation instructions :**



Please note: all installation datas should be installation data (no s)

## INSTALLATION DATAS

|           | M8 | M10 | M12 | M16 |                       |
|-----------|----|-----|-----|-----|-----------------------|
| $S_{min}$ | 65 | 150 | 80  | 85  | MINIMUM SPACING       |
| $C_{min}$ | 65 | 60  | 80  | 85  | MINIMUM EDGE DISTANCE |

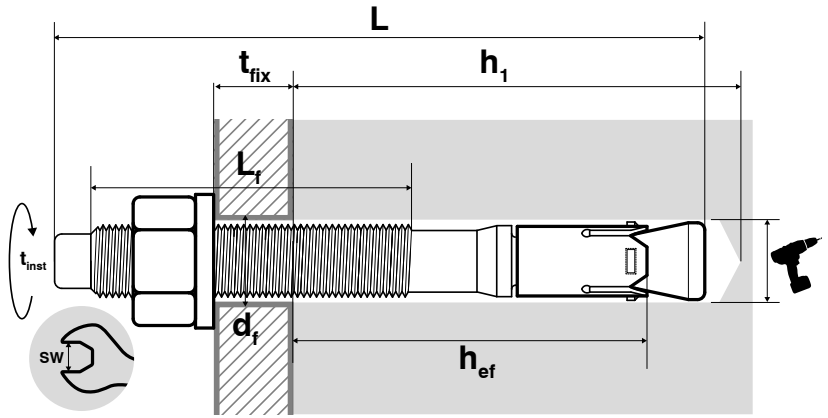


# DIMENSIONS & APPLICATION DATAS

| Ø          | L   | t <sub>fix</sub> | t  | h <sub>1</sub> | t <sub>inst</sub> | SW | L <sub>f</sub> | Reference          |
|------------|-----|------------------|----|----------------|-------------------|----|----------------|--------------------|
| Diameter   | mm  | mm               | mm | mm             | N.m               | mm | °mm            |                    |
| <b>M8</b>  | 60  | 5                | 8  | 55             | 30                | 13 | 25             | <b>BZPLUS08060</b> |
|            | 75  | 20               | 8  | 55             | 30                | 13 | 40             | <b>BZPLUS08075</b> |
|            | 85  | 30               | 8  | 55             | 30                | 13 | 50             | <b>BZPLUS08085</b> |
|            | 95  | 40               | 8  | 55             | 30                | 13 | 60             | <b>BZPLUS08095</b> |
|            | 105 | 50               | 8  | 55             | 30                | 13 | 70             | <b>BZPLUS08105</b> |
|            | 130 | 75               | 8  | 55             | 30                | 13 | 95             | <b>BZPLUS08130</b> |
|            | 155 | 100              | 8  | 55             | 30                | 13 | 120            | <b>BZPLUS08155</b> |
| <b>M10</b> | 85  | 5                | 10 | 75             | 50                | 17 | 50             | <b>BZPLUS10085</b> |
|            | 90  | 10               | 10 | 75             | 50                | 17 | 55             | <b>BZPLUS10090</b> |
|            | 100 | 20               | 10 | 75             | 50                | 17 | 65             | <b>BZPLUS10100</b> |
|            | 110 | 30               | 10 | 75             | 50                | 17 | 75             | <b>BZPLUS10110</b> |
|            | 120 | 40               | 10 | 75             | 50                | 17 | 85             | <b>BZPLUS10120</b> |
|            | 130 | 50               | 10 | 75             | 50                | 17 | 95             | <b>BZPLUS10130</b> |
|            | 160 | 80               | 10 | 75             | 50                | 17 | 125            | <b>BZPLUS10160</b> |
| <b>M12</b> | 180 | 100              | 10 | 75             | 50                | 17 | 145            | <b>BZPLUS10180</b> |
|            | 90  | 5                | 12 | 75             | 70                | 19 | 50             | <b>BZPLUS12090</b> |
|            | 100 | 15               | 12 | 75             | 70                | 19 | 60             | <b>BZPLUS12100</b> |
|            | 115 | 30               | 12 | 75             | 70                | 19 | 75             | <b>BZPLUS12115</b> |
|            | 135 | 50               | 12 | 75             | 70                | 19 | 95             | <b>BZPLUS12135</b> |
|            | 165 | 80               | 12 | 75             | 70                | 19 | 125            | <b>BZPLUS12165</b> |
|            | 175 | 90               | 12 | 75             | 70                | 19 | 135            | <b>BZPLUS12175</b> |
| <b>M16</b> | 185 | 100              | 12 | 75             | 70                | 19 | 145            | <b>BZPLUS12185</b> |
|            | 115 | 5                | 16 | 100            | 130               | 24 | 65             | <b>BZPLUS16115</b> |
|            | 125 | 15               | 16 | 100            | 130               | 24 | 75             | <b>BZPLUS16125</b> |
|            | 150 | 40               | 16 | 100            | 130               | 24 | 100            | <b>BZPLUS16150</b> |

## Installation datas

|                               |                   | M8 | M10 | M12 | M16 |
|-------------------------------|-------------------|----|-----|-----|-----|
| Anchor depth                  | h <sub>ef</sub>   | 40 | 60  | 60  | 80  |
| Ø drill size                  | d <sub>out</sub>  | 8  | 10  | 12  | 16  |
| Drill depth                   | h <sub>1</sub>    | 55 | 75  | 75  | 100 |
| Ø Maximum hole in the fixture | d <sub>f</sub>    | 9  | 12  | 14  | 18  |
| Socket/wrench size            | SW                | 13 | 17  | 19  | 24  |
| Torque setting                | T <sub>inst</sub> | 30 | 50  | 70  | 130 |



Ø: Thread diameter  
L: Total Length  
t<sub>fix</sub>: Maximum fixture thickness

L<sub>f</sub>: Thread length  
h<sub>ef</sub>: Effective anchor depth

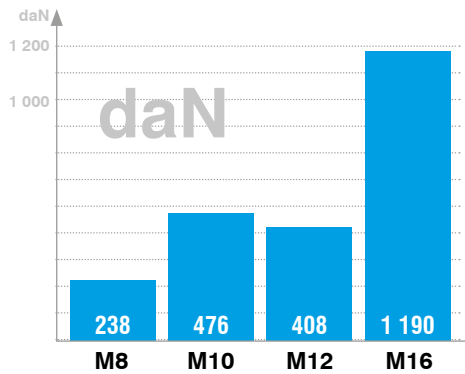
## RECOMMENDED LOADS

Loads are calculated from published characteristic values in the ETA on which partial safety factors from the ETAG001 and a partial coefficient action  $\gamma_f = 1.4$  are applied. Values are given for standard anchor depth for non-cracked concrete C20 / 25.

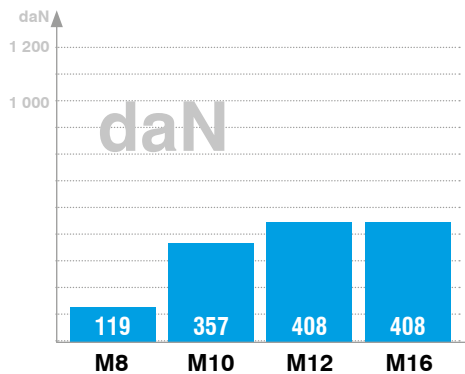
### TENSILE



NON CRACKED  
CONCRETE



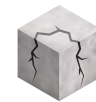
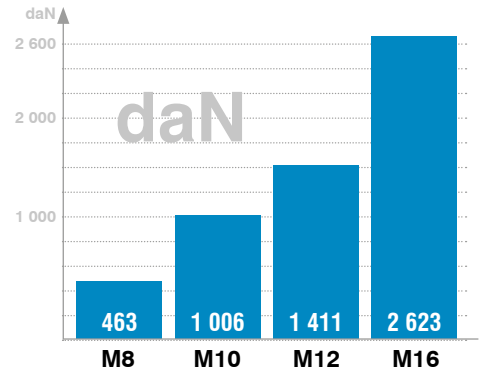
BÉTON FISSURÉ



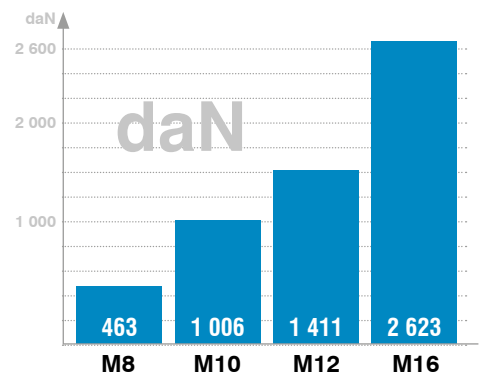
### SHEAR



NON CRACKED  
CONCRETE



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For accurate loads and implementation data, requirements specified in the ETA 15/0528 must be respected as well as the installation guide.