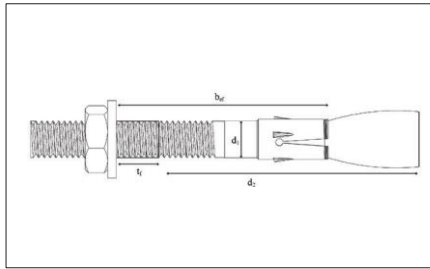


## GreenBolt G2 Through Anchor - GBGTA



### Specification

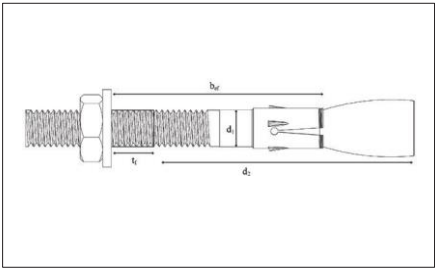
|                     |   |
|---------------------|---|
| Material            | Carbon Steel                                  |
| Surface             | Zinc-Plated (min. 5 µm)                       |
| Corrosion Resistant | Yes (for indoor dry conditions)               |
| Drilling Method     | Hammer Drilling, Diamond Drilling             |
| Base Material       | Concrete (Uncracked), Grades C20/25 to C50/60 |
| Type of Fastening   | Pre-Fastening, Through-Fastening              |
| Reusability         | No  |

## Product Definition

GreenBolt G2 Through Anchor is mechanical anchor with a galvanized steel shaft and galvanized expansion clip, designed for secure fastening through pre-drilled holes in concrete. The through-bolt design allows installation directly through the fixture.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>f</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBGTA06060   | M6 x 60   | 200             | 6                       | 55               | 2                      | 40                   | 40                       | 5.29              | 4.08            |
| GBGTA06070   | M6 x 70   | 200             | 6                       | 55               | 12                     | 40                   | 40                       | 5.29              | 4.08            |
| GBGTA06080   | M6 x 80   | 200             | 6                       | 55               | 22                     | 40                   | 40                       | 5.29              | 4.08            |
| GBGTA06090   | M6 x 90   | 200             | 6                       | 55               | 32                     | 40                   | 40                       | 5.29              | 4.08            |
| GBGTA06100   | M6 x 100  | 200             | 6                       | 55               | 42                     | 40                   | 60                       | 5.29              | 4.08            |
| GBGTA06110   | M6 x 110  | 200             | 6                       | 55               | 52                     | 40                   | 60                       | 5.29              | 4.08            |
| GBGTA06120   | M6 x 120  | 100             | 6                       | 55               | 62                     | 40                   | 60                       | 5.29              | 4.08            |
| GBGTA06130   | M6 x 130  | 100             | 6                       | 55               | 72                     | 40                   | 60                       | 5.29              | 4.08            |
| GBGTA06140   | M6 x 140  | 100             | 6                       | 55               | 82                     | 40                   | 60                       | 5.29              | 4.08            |
| GBGTA06150   | M6 x 150  | 100             | 6                       | 55               | 92                     | 40                   | 60                       | 5.29              | 4.08            |
| GBGTA06160   | M6 x 160  | 100             | 6                       | 55               | 102                    | 40                   | 60                       | 5.29              | 4.08            |
| GBGTA06170   | M6 x 170  | 100             | 6                       | 55               | 112                    | 40                   | 60                       | 5.29              | 4.08            |
| GBGTA06180   | M6 x 180  | 100             | 6                       | 55               | 122                    | 40                   | 80                       | 5.29              | 4.08            |
| GBGTA08060   | M8 x 60   | 100             | 8                       | 50               | 3                      | 48                   | 80                       | 5.29              | 4.08            |
| GBGTA08075   | M8 x 75   | 100             | 8                       | 65               | 5                      | 48                   | 80                       | 9.29              | 7.44            |
| GBGTA08090   | M8 x 90   | 100             | 8                       | 65               | 20                     | 48                   | 80                       | 9.29              | 7.44            |
| GBGTA08100   | M10 x 100 | 100             | 8                       | 65               | 30                     | 48                   | 80                       | 9.29              | 7.44            |
| GBGTA08115   | M8 x 115  | 100             | 8                       | 65               | 45                     | 48                   | 80                       | 9.29              | 7.44            |
| GBGTA08120   | M8 x 120  | 100             | 8                       | 65               | 50                     | 48                   | 40                       | 9.29              | 7.44            |
| GBGTA08130   | M8 x 130  | 100             | 8                       | 65               | 60                     | 48                   | 60                       | 9.29              | 7.44            |
| GBGTA08155   | M8 x 155  | 100             | 10                      | 65               | 85                     | 48                   | 80                       | 9.29              | 7.44            |
| GBGTA10070   | M10 x 70  | 100             | 10                      | 65               | 3                      | 55                   | 20                       | 9.29              | 7.44            |
| GBGTA10080   | M10 x 80  | 100             | 10                      | 60               | 13                     | 55                   | 20                       | 9.29              | 7.44            |
| GBGTA10090   | M10 x 90  | 100             | 10                      | 75               | 10                     | 55                   | 20                       | 12.67             | 11.76           |
| GBGTA10100   | M10 x 100 | 100             | 10                      | 75               | 20                     | 55                   | 120                      | 12.67             | 11.76           |
| GBGTA10120   | M10 x 120 | 50              | 10                      | 75               | 40                     | 55                   | 120                      | 12.67             | 11.76           |
| GBGTA10140   | M10 x 140 | 50              | 10                      | 75               | 60                     | 55                   | 160                      | 12.67             | 11.76           |
| GBGTA10150   | M10 x 150 | 50              | 10                      | 75               | 70                     | 55                   | 160                      | 12.67             | 11.76           |
| GBGTA10160   | M10 x 160 | 50              | 10                      | 75               | 80                     | 55                   | 165                      | 12.67             | 11.76           |
| GBGTA10170   | M10 x 170 | 50              | 10                      | 75               | 90                     | 55                   | 165                      | 12.67             | 11.76           |
| GBGTA10230   | M10 x 210 | 50              | 12                      | 75               | 100                    | 55                   | 170                      | 17.19             | 16.48           |
| GBGTA10230   | M10 x 230 | 50              | 12                      | 85               | 110                    | 65                   | 170                      | 17.19             | 16.48           |
| GBGTA12090   | M12 x 90  | 50              | 12                      | 85               | 120                    | 65                   | 170                      | 17.19             | 16.48           |
| GBGTA12100   | M12 x 100 | 130             | 12                      | 85               | 120                    | 65                   | 175                      | 17.19             | 16.48           |
| GBGTA12110   | M12 x 110 | 130             | 12                      | 85               | 125                    | 65                   | 175                      | 17.19             | 16.48           |
| GBGTA12120   | M12 x 120 | 130             | 12                      | 85               | 125                    | 65                   | 175                      | 17.19             | 16.48           |
| GBGTA12130   | M12 x 130 | 130             | 12                      | 85               | 125                    | 65                   | 175                      | 17.19             | 16.48           |
| GBGTA12140   | M12 x 140 | 130             | 12                      | 85               | 130                    | 65                   | 175                      | 17.19             | 16.48           |

GreenBolt H2 Through Anchor - GBHTA



Specification

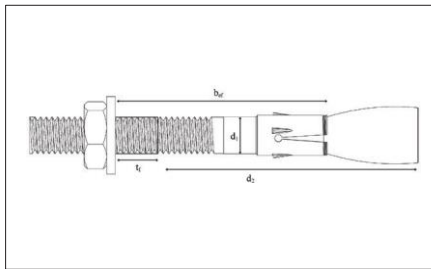
- Material: Carbon Steel
- Surface: HDG
- Corrosion Resistant: Yes (for indoor dry conditions)
- Drilling Method: Hammer Drilling, Diamond Drilling
- Base Material: Concrete (Uncracked), Grades C20/25 to C50/60
- Type of Fastening: Pre-Fastening, Through-Fastening
- Reusability: No

Product Definition

A high-load, hot-dip galvanized expansion anchor built on the GreenBolt standard of strength and reliability. Designed for non-cracked concrete, it delivers exceptional corrosion resistance, quick installation, and lasting performance in demanding structural applications.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>1</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBHTA06060   | M6 x 60   | 200             | 6                       | 55               | 2                      | 40                   | 7                        | 5.29              | 4.08            |
| GBHTA06070   | M6 x 70   | 200             | 6                       | 65               | 12                     | 40                   | 7                        | 5.29              | 4.08            |
| GBHTA06080   | M6 x 80   | 200             | 6                       | 75               | 22                     | 40                   | 7                        | 5.29              | 4.08            |
| GBHTA06090   | M6 x 90   | 200             | 6                       | 85               | 32                     | 40                   | 7                        | 5.29              | 4.08            |
| GBHTA06100   | M6 x 100  | 200             | 6                       | 95               | 42                     | 40                   | 7                        | 5.29              | 4.08            |
| GBHTA06110   | M6 x 110  | 200             | 6                       | 105              | 52                     | 40                   | 7                        | 5.29              | 4.08            |
| GBHTA06120   | M6 x 120  | 200             | 6                       | 115              | 62                     | 40                   | 7                        | 5.29              | 4.08            |
| GBHTA06130   | M6 x 130  | 200             | 6                       | 125              | 72                     | 40                   | 7                        | 5.29              | 4.08            |
| GBHTA08060   | M8 x 60   | 100             | 8                       | 50               | 3                      | 35                   | 20                       | 9.29              | 7.44            |
| GBHTA08075   | M8 x 75   | 100             | 8                       | 65               | 15                     | 48                   | 20                       | 9.29              | 7.44            |
| GBHTA08100   | M8 x 100  | 100             | 8                       | 90               | 30                     | 48                   | 20                       | 9.29              | 7.44            |
| GBHTA08130   | M8 x 130  | 100             | 8                       | 120              | 60                     | 48                   | 20                       | 9.29              | 7.44            |
| GBHTA10070   | M10 x 70  | 50              | 10                      | 60               | 3                      | 42                   | 35                       | 9.29              | 7.44            |
| GBHTA10090   | M10 x 90  | 50              | 10                      | 80               | 20                     | 55                   | 35                       | 9.29              | 7.44            |
| GBHTA10140   | M10 x 140 | 50              | 10                      | 130              | 60                     | 55                   | 35                       | 9.29              | 7.44            |
| GBHTA12090   | M12 x 90  | 25              | 12                      | 70               | 13                     | 50                   | 60                       | 12.67             | 11.76           |
| GBHTA12100   | M12 x 100 | 25              | 12                      | 85               | 28                     | 65                   | 60                       | 12.67             | 11.76           |
| GBHTA12160   | M12 x 160 | 25              | 12                      | 145              | 68                     | 65                   | 60                       | 12.67             | 11.76           |
| GBHTA14120   | M14 x 120 | 20              | 14                      | 100              | 12                     | 75                   | 90                       | 25.25             | 30.72           |
| GBHTA14220   | M14 x 220 | 20              | 14                      | 200              | 112                    | 75                   | 90                       | 25.25             | 30.72           |
| GBHTA16125   | M16 x 125 | 10              | 16                      | 110              | 25                     | 95                   | 110                      | 34.78             | 45.02           |
| GBHTA16280   | M16 x 280 | 10              | 16                      | 260              | 155                    | 95                   | 110                      | 34.78             | 45.02           |
| GBHTA20170   | M20 x 170 | 5               | 20                      | 150              | 40                     | 125                  | 200                      | 34.78             | 45.02           |
| GB HTA20270  | M20 x 270 | 5               | 20                      | 250              | 140                    | 125                  | 200                      | 34.78             | 45.02           |

## GreenBolt GS Through Anchor - GBGSTA



### Specification

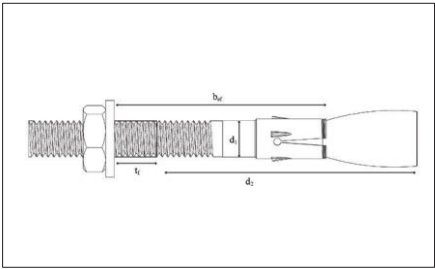
|                     |  |
|---------------------|--|
| Material            | Carbon Steel   |
| Surface             | Zinc-Plated  |
| Corrosion Resistant | Yes (suitable for indoor and low-corrosive environments) |
| Drilling Method     | Hammer Drilling, Diamond Drilling                        |
| Head Configuration  | Externally Threaded                                      |
| Base Material       | Concrete (Uncracked), Grades C20/25 to C50/60            |
| Type of Fastening   | Through-Fastening  |
| Reusability         | Not Reusable (intended for permanent installations)      |

## Product Definition

A mechanical anchor with a galvanized steel shaft, designed for secure fastening through concrete. Its through-bolt design allows direct installation through fixtures, providing strong and reliable anchoring for structural applications.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>1</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBGSTA08050  | M8 x 50   | 100             | 8                       | 40               | 2                      | 30                   | 20                       | 2.51              | 5.39            |
| GBGSTA08075  | M8 x 75   | 100             | 8                       | 60               | 9                      | 48                   | 20                       | 5                 | 9.52            |
| GBGSTA08095  | M8 x 95   | 100             | 8                       | 60               | 29                     | 48                   | 20                       | 5                 | 9.52            |
| GBGSTA08115  | M8 x 115  | 100             | 8                       | 60               | 49                     | 48                   | 20                       | 5.79              | 9.52            |
| GBGSTA10090  | M10 x 90  | 100             | 10                      | 75               | 10                     | 60                   | 40                       | 12                | 16.24           |
| GBGSTA10105  | M10 x 105 | 50              | 10                      | 75               | 25                     | 60                   | 40                       | 12                | 16.24           |
| GBGSTA10115  | M10 x 115 | 50              | 10                      | 75               | 35                     | 60                   | 40                       | 12                | 16.24           |
| GBGSTA10135  | M10 x 135 | 50              | 10                      | 75               | 55                     | 60                   | 40                       | 12                | 16.24           |
| GBGSTA10165  | M10 x 165 | 50              | 10                      | 75               | 85                     | 60                   | 40                       | 12                | 16.24           |
| GBGSTA10185  | M10 x 185 | 50              | 10                      | 75               | 105                    | 60                   | 40                       | 12                | 16.24           |
| GBGSTA12080  | M12 x 80  | 50              | 12                      | 65               | 4                      | 50                   | 60                       | 13.33             | 23.6            |
| GBGSTA12100  | M12 x 100 | 50              | 12                      | 85               | 4                      | 70                   | 60                       | 13.33             | 23.6            |
| GBGSTA12110  | M12 x 110 | 50              | 12                      | 85               | 14                     | 70                   | 60                       | 13.33             | 23.6            |
| GBGSTA12120  | M12 x 120 | 50              | 12                      | 85               | 24                     | 70                   | 60                       | 13.33             | 23.6            |
| GBGSTA12130  | M12 x 130 | 50              | 12                      | 85               | 34                     | 70                   | 60                       | 13.33             | 23.6            |
| GBGSTA12150  | M12 x 150 | 50              | 12                      | 85               | 54                     | 70                   | 60                       | 13.33             | 23.6            |
| GBGSTA12180  | M12 x 180 | 50              | 12                      | 85               | 84                     | 70                   | 60                       | 13.33             | 23.6            |
| GBGSTA12200  | M12 x 200 | 50              | 12                      | 85               | 104                    | 70                   | 60                       | 24                | 43.65           |
| GBGSTA16145  | M16 x 145 | 25              | 16                      | 105              | 28                     | 85                   | 100                      | 24                | 43.65           |
| GBGSTA16175  | M16 x 175 | 25              | 16                      | 105              | 58                     | 85                   | 100                      | 24                | 43.65           |
| GBGSTA16220  | M16 x 220 | 25              | 16                      | 105              | 103                    | 85                   | 100                      | 24                | 43.65           |
| GBGSTA16250  | M16 x 250 | 25              | 16                      | 105              | 133                    | 85                   | 100                      | 32                | 65.5            |
| GBGSTA20170  | M20 x 170 | 20              | 20                      | 125              | 32                     | 100                  | 200                      | 32                | 65.5            |
| GBGSTA20200  | M20 x 200 | 20              | 20                      | 125              | 62                     | 100                  | 200                      | 32                | 65.5            |

● **GreenBolt S2 Through Anchor - GBSTA**



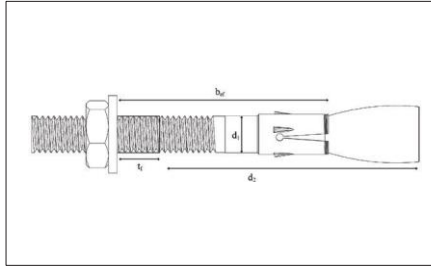
| Specification       |   |
|---------------------|---|
| Material            | Stainless Steel A2 (AISI 304)   |
| Surface             | Natural / Passivated Finish   |
| Corrosion Resistant | Yes – High resistance to corrosion (ideal for damp or mildly aggressive environments) |
| Drilling Method     | Hammer Drilling, Diamond Drilling   |
| Head Configuration  | Externally Threaded (Hex Head)  |
| Base Material       | Concrete (Uncracked), Grades C20/25 to C50/60   |
| Type of Fastening   | Through-Fastening   |
| Reusability         | Not Reusable (designed for permanent anchoring)                                       |

● **Product Definition**

A stainless steel mechanical anchor with both shaft and expansion clip, designed for secure fastening through concrete. Its through-bolt design allows direct installation through fixtures, offering corrosion-resistant, durable, and reliable anchoring for structural and outdoor applications.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>r</sub>         | b <sub>eff</sub>     | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBSTA06045   | M6 x 45   | 200             | 6                       | 40               | 1                      | 25                   | 7                        | 6                 | 3               |
| GBSTA06060   | M6 x 60   | 200             | 6                       | 55               | 2                      | 40                   | 7                        | 6.01              | 3.95            |
| GBSTA06080   | M6 x 80   | 200             | 6                       | 55               | 22                     | 40                   | 7                        | 6.01              | 3.95            |
| GBSTA06120   | M6 x 120  | 100             | 6                       | 55               | 62                     | 40                   | 7                        | 6.01              | 3.95            |
| GBSTA06140   | M6 x 140  | 100             | 6                       | 55               | 82                     | 40                   | 7                        | 6.01              | 3.95            |
| GBSTA06160   | M6 x 160  | 100             | 6                       | 55               | 102                    | 40                   | 7                        | 6.01              | 3.95            |
| GBSTA06170   | M6 x 170  | 100             | 6                       | 55               | 112                    | 40                   | 7                        | 6.01              | 3.95            |
| GBSTA06180   | M6 x 180  | 100             | 6                       | 55               | 122                    | 40                   | 7                        | 6.01              | 3.95            |
| GBSTA08050   | M8 x 50   | 100             | 8                       | 40               | 4                      | 23                   | 20                       | 8                 | 7.15            |
| GBSTA08075   | M8 x 75   | 100             | 8                       | 65               | 5                      | 48                   | 20                       | 8                 | 7.15            |
| GBSTA08090   | M8 x 90   | 100             | 8                       | 65               | 20                     | 48                   | 20                       | 8                 | 7.15            |
| GBSTA08115   | M8 x 115  | 100             | 8                       | 65               | 45                     | 48                   | 20                       | 8                 | 7.15            |
| GBSTA10070   | M10 x 70  | 100             | 10                      | 60               | 3                      | 42                   | 35                       | 8.89              | 11.45           |
| GBSTA10090   | M10 x 90  | 100             | 10                      | 75               | 10                     | 55                   | 35                       | 8.89              | 11.45           |
| GBSTA10120   | M10 x 120 | 50              | 10                      | 75               | 40                     | 55                   | 35                       | 8.89              | 11.45           |
| GBSTA10150   | M10 x 150 | 50              | 10                      | 75               | 70                     | 55                   | 35                       | 8.89              | 11.45           |
| GBSTA12075   | M12 x 75  | 50              | 12                      | 60               | 5                      | 43                   | 60                       | 13.89             | 16.58           |
| GBSTA12090   | M12 x 90  | 50              | 12                      | 70               | 13                     | 50                   | 60                       | 13.89             | 16.58           |
| GBSTA12110   | M12 x 110 | 50              | 12                      | 85               | 18                     | 65                   | 60                       | 13.89             | 16.58           |
| GBSTA12140   | M12 x 140 | 50              | 12                      | 85               | 48                     | 65                   | 60                       | 13.89             | 16.58           |
| GBSTA16090   | M16 x 90  | 25              | 16                      | 75               | 4                      | 49                   | 120                      | 19.44             | 30.99           |
| GBSTA16145   | M16 x 145 | 25              | 16                      | 75               | 23                     | 84                   | 120                      | 19.44             | 30.99           |
| GBSTA16170   | M16 x 170 | 25              | 16                      | 75               | 48                     | 84                   | 120                      | 27.17             | 48.36           |
| GBSTA20120   | M20 x 120 | 20              | 20                      | 75               | 5                      | 71                   | 240                      | 27.17             | 48.36           |

## GreenBolt M2 Through Anchor - GBMTA



### Specification

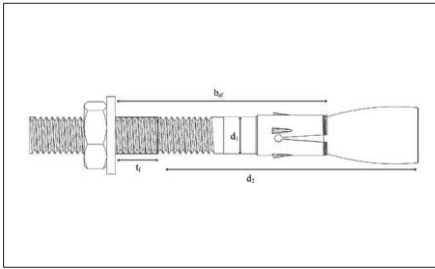
|                     |   |
|---------------------|---|
| Material            | Stainless Steel A4 (AISI 316)   |
| Surface             | Natural / Passivated Finish   |
| Corrosion Resistant | Yes – Very high corrosion resistance (suitable for coastal, chemical, or marine environments) |
| Drilling Method     | Hammer Drilling, Diamond Drilling   |
| Head Configuration  | Externally Threaded (Hex Head)  |
| Base Material       | Concrete (Uncracked), Grades C20/25 to C50/60   |
| Type of Fastening   | Through-Fastening   |
| Reusability         | Not Reusable (permanent fixing solution)  |

## Product Definition

A mechanical through-anchor made of A4/316 stainless steel for both shaft and clip, providing superior corrosion resistance. Ideal for secure fastening through concrete in highly corrosive or marine environments, with direct installation through fixtures for reliable structural anchoring.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>1</sub>         | b <sub>1</sub>       | T <sub>1</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBMTA06045   | M6 x 45   | 200             | 6                       | 40               | 1                      | 25                   | 7                        | 4.1               | 3.95            |
| GBMTA06060   | M6 x 60   | 200             | 6                       | 55               | 2                      | 40                   | 7                        | 6.01              | 3.95            |
| GBMTA06080   | M6 x 80   | 200             | 6                       | 55               | 22                     | 40                   | 7                        | 6.01              | 3.95            |
| GBMTA08050   | M8 x 50   | 100             | 8                       | 40               | 4                      | 23                   | 20                       | 6.01              | 3.95            |
| GBMTA08075   | M8 x 75   | 100             | 8                       | 65               | 5                      | 48                   | 20                       | 8                 | 7.17            |
| GBMTA08090   | M8 x 90   | 100             | 8                       | 65               | 20                     | 48                   | 20                       | 8                 | 7.17            |
| GBMTA08115   | M8 x 115  | 100             | 8                       | 65               | 45                     | 48                   | 20                       | 8                 | 7.17            |
| GBMTA10070   | M10 x 70  | 100             | 10                      | 60               | 3                      | 42                   | 20                       | 8.89              | 11.45           |
| GBMTA10090   | M10 x 90  | 100             | 10                      | 75               | 10                     | 55                   | 20                       | 8.89              | 11.45           |
| GBMTA10120   | M10 x 120 | 50              | 10                      | 75               | 40                     | 55                   | 20                       | 8.89              | 11.45           |
| GBMTA10150   | M10 x 150 | 50              | 10                      | 75               | 70                     | 55                   | 20                       | 8.89              | 11.45           |
| GBMTA12075   | M12 x 75  | 50              | 12                      | 60               | 5                      | 43                   | 20                       | 8.89              | 11.45           |
| GBMTA12090   | M12 x 90  | 50              | 12                      | 70               | 13                     | 50                   | 20                       | 8.89              | 11.45           |
| GBMTA12110   | M12 x 110 | 50              | 12                      | 85               | 18                     | 65                   | 20                       | 13.89             | 16.87           |
| GBMTA12140   | M12 x 140 | 50              | 12                      | 85               | 48                     | 65                   | 20                       | 13.89             | 16.87           |
| GBMTA16090   | M16 x 90  | 25              | 16                      | 75               | 4                      | 49                   | 20                       | 13.89             | 16.87           |
| GBMTA16145   | M16 x 145 | 25              | 16                      | 110              | 2                      | 84                   | 20                       | 13.89             | 30.9            |
| GBMTA16170   | M16 x 170 | 25              | 16                      | 110              | 48                     | 84                   | 20                       | 19.44             | 30.9            |
| GBMTA20170   | M20 x 170 | 20              | 20                      | 135              | 23                     | 103                  | 240                      | 19.44             | 30.9            |
| GBMTA20220   | M20 x 220 | 20              | 20                      | 135              | 73                     | 103                  | 240                      | 19.44             | 30.9            |

# ● GreenBolt GH Through Anchor - GBGHTA



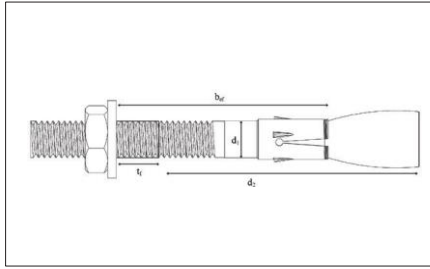
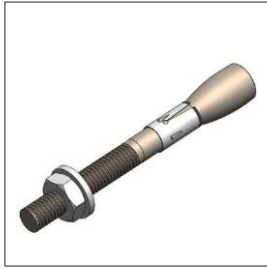
| Specification       |   |
|---------------------|---|
| Material            | Carbon Steel (High-grade steel)                 |
| Surface             | Zinc-Plated (Min. 5 µm)                         |
| Corrosion Resistant | Moderate – Suitable for dry indoor environments |
| Drilling Method     | Hammer Drilling, Diamond Drilling               |
| Head Configuration  | Externally Threaded (Hex Head)                  |
| Base Material       | Concrete (Uncracked), Grades C20/25 to C50/60   |
| Type of Fastening   | Through-Fastening                               |
| Reusability         | Not Reusable (designed for permanent fixings)   |

## ● Product Definition

A mechanical through-anchor with a galvanized steel shaft and hot-dip galvanized expansion clip, designed for secure fastening through concrete. Its through-bolt design allows direct installation through fixtures, offering enhanced corrosion resistance for structural applications.

| Product Code | Size      | Pack Size | Installation Parameters |                |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------|-------------------------|----------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |           | Drill Ø                 | Drill Hole     | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |           | d <sub>1</sub>          | d <sub>2</sub> | t <sub>f</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBGHTA08050  | M8 x 50   | 100       | 8                       | 40             | 2                      | 30                   | 15                       | 2.51              | 8.08            |
| GBGHTA08075  | M8 x 75   | 100       | 8                       | 60             | 9                      | 48                   | 15                       | 5.56              | 9.52            |
| GBGHTA08080  | M8 x 80   | 100       | 8                       | 60             | 14                     | 48                   | 15                       | 5.56              | 9.52            |
| GBGHTA08095  | M8 x 95   | 100       | 8                       | 60             | 29                     | 48                   | 15                       | 5.56              | 9.52            |
| GBGHTA08115  | M8 x 115  | 100       | 8                       | 60             | 49                     | 48                   | 15                       | 5.56              | 9.52            |
| GBGHTA10090  | M10 x 90  | 100       | 10                      | 75             | 10                     | 60                   | 40                       | 12                | 16.24           |
| GBGHTA10105  | M10 x 105 | 50        | 10                      | 75             | 25                     | 60                   | 40                       | 12                | 16.24           |
| GBGHTA10115  | M10 x 115 | 50        | 10                      | 75             | 35                     | 60                   | 40                       | 12                | 16.24           |
| GBGHTA10135  | M10 x 135 | 50        | 10                      | 75             | 55                     | 60                   | 40                       | 12                | 16.24           |
| GBGHTA10165  | M10 x 165 | 50        | 10                      | 75             | 85                     | 60                   | 40                       | 12                | 16.24           |
| GBGHTA10185  | M10 x 185 | 50        | 10                      | 75             | 105                    | 60                   | 40                       | 12                | 16.24           |
| GBGHTA12080  | M12 x 80  | 50        | 12                      | 65             | 4                      | 50                   | 60                       | 18.67             | 23.6            |
| GBGHTA12100  | M12 x 100 | 50        | 12                      | 85             | 4                      | 70                   | 60                       | 18.67             | 23.6            |
| GBGHTA12110  | M12 x 110 | 50        | 12                      | 85             | 14                     | 70                   | 60                       | 18.67             | 23.6            |
| GBGHTA12120  | M12 x 120 | 50        | 12                      | 85             | 24                     | 70                   | 60                       | 18.67             | 23.6            |
| GBGHTA12130  | M12 x 130 | 50        | 12                      | 85             | 34                     | 70                   | 60                       | 18.67             | 23.6            |
| GBGHTA12150  | M12 x 150 | 50        | 12                      | 85             | 54                     | 70                   | 60                       | 18.67             | 23.6            |
| GBGHTA12180  | M12 x 180 | 50        | 12                      | 85             | 84                     | 70                   | 60                       | 18.67             | 23.6            |
| GBGHTA12200  | M12 x 200 | 50        | 12                      | 85             | 104                    | 70                   | 60                       | 18.67             | 23.6            |
| GBGHTA12220  | M12 x 220 | 25        | 12                      | 85             | 124                    | 70                   | 60                       | 18.67             | 23.6            |

## GreenBolt HS Through Anchor - GBHSTA



### Specification

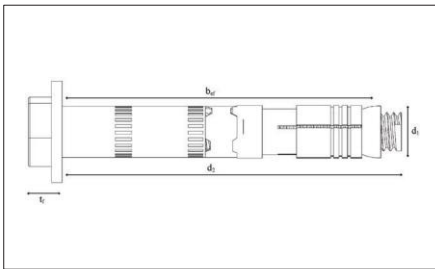
|                     |   |
|---------------------|---|
| Material            | Carbon Steel (High-grade steel)                     |
| Surface             | Hot-Dip Galvanized                                  |
| Corrosion Resistant | High – Suitable for outdoor or humid environments   |
| Drilling Method     | Hammer Drilling, Diamond Drilling                   |
| Head Configuration  | Externally Threaded (Hex Head)                      |
| Base Material       | Concrete (Uncracked), Grades C20/25 to C50/60       |
| Type of Fastening   | Through-Fastening                                   |
| Reusability         | Not Reusable (intended for permanent installations) |

## Product Definition

A mechanical through-anchor with a hot-dip galvanized (HDG) steel shaft and stainless steel expansion clip, designed for secure fastening through concrete. Its through-bolt design ensures direct installation through fixtures, offering corrosion-resistant and durable anchoring for structural applications.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>1</sub>         | b <sub>eff</sub>     | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBHSTA06060  | M6 x 60   | 200             | 6                       | 50               | 10                     | 40                   | 7                        | 3.33              | 4.83            |
| GBHSTA06070  | M6 x 70   | 200             | 6                       | 50               | 20                     | 40                   | 7                        | 3.33              | 4.83            |
| GBHSTA06100  | M6 x 100  | 200             | 6                       | 50               | 50                     | 40                   | 7                        | 3.33              | 4.83            |
| GBHSTA08050  | M8 x 50   | 100             | 8                       | 40               | 2                      | 30                   | 15                       | 4.51              | 5.39            |
| GBHSTA08060  | M8 x 60   | 100             | 8                       | 40               | 12                     | 30                   | 15                       | 4.51              | 5.39            |
| GBHSTA08075  | M8 x 75   | 100             | 8                       | 60               | 9                      | 48                   | 15                       | 5.56              | 9.52            |
| GBHSTA08095  | M8 x 95   | 100             | 8                       | 60               | 29                     | 48                   | 15                       | 5.56              | 9.52            |
| GBHSTA08115  | M8 x 115  | 100             | 8                       | 60               | 49                     | 48                   | 15                       | 5.56              | 16.24           |
| GBHSTA10070  | M10 x 70  | 100             | 10                      | 60               | 5                      | 45                   | 40                       | 12                | 16.24           |
| GBHSTA10090  | M10 x 90  | 100             | 10                      | 75               | 10                     | 60                   | 40                       | 12                | 16.24           |
| GBHSTA10105  | M10 x 105 | 50              | 10                      | 75               | 25                     | 60                   | 40                       | 12                | 23.19           |
| GBHSTA10115  | M10 x 115 | 50              | 10                      | 75               | 35                     | 60                   | 40                       | 12                | 23              |
| GBHSTA10135  | M10 x 135 | 50              | 10                      | 75               | 55                     | 60                   | 40                       | 12                | 23.19           |
| GBHSTA10165  | M10 x 165 | 50              | 10                      | 75               | 85                     | 60                   | 40                       | 12                | 23              |
| GBHSTA10185  | M10 x 185 | 50              | 10                      | 75               | 105                    | 60                   | 40                       | 12                | 23              |
| GBHSTA12080  | M12 x 80  | 50              | 12                      | 65               | 4                      | 50                   | 60                       | 18                | 23              |
| GBHSTA12110  | M12 x 110 | 50              | 12                      | 85               | 14                     | 70                   | 60                       | 18                | 23              |
| GBHSTA12130  | M12 x 130 | 50              | 12                      | 85               | 34                     | 70                   | 60                       | 18                | 23              |
| GBHSTA12150  | M12 x 150 | 50              | 12                      | 85               | 54                     | 70                   | 60                       | 18                | 23              |
| GBHSTA12200  | M12 x 200 | 50              | 12                      | 85               | 104                    | 70                   | 60                       | 18                | 23              |

GreenBolt EnduraPrime Sleeve Anchor - GBEPSA



|                     |  |
|---------------------|--|
| Specification       |  |
| Material            | Carbon Steel (Heat-treated)                                      |
| Surface             | Zinc Plated or Hot-Dip Galvanized                                |
| Corrosion Resistant | Moderate to High (suitable for dry or mildly humid environments) |
| Drilling Method     | Hammer Drilling  |
| Head Configuration  | Hexagonal Head (External thread)                                 |
| Base Material       | Concrete (Uncracked), Solid Masonry                              |
| Type of Fastening   | Through-Fastening  |
| Reusability         | Not Reusable (single-use mechanical expansion anchor)            |

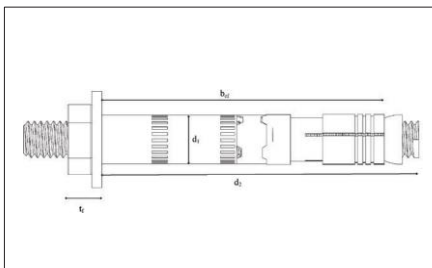
Product Definition

A heavy-duty sleeve anchor designed for high-performance fastening in concrete. Its robust design ensures secure, reliable anchoring for demanding structural and industrial applications.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>f</sub>         | b <sub>eff</sub>     | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBEPSA10070  | M6 x 70   | 50              | 10                      | 70               | 10                     | 50                   | 30                       | 10                | 11.6            |
| GBEPSA10080  | M6 x 80   | 50              | 10                      | 70               | 20                     | 50                   | 30                       | 10                | 11.6            |
| GBEPSA10100  | M6 x 100  | 50              | 10                      | 70               | 40                     | 50                   | 30                       | 10                | 11.6            |
| GBEPSA10110  | M6 x 110  | 25              | 10                      | 70               | 50                     | 50                   | 30                       | 10                | 26.4            |
| GBEPSA12080  | M8 x 80   | 50              | 12                      | 85               | 5                      | 60                   | 30                       | 13.3              | 26.4            |
| GBEPSA12090  | M8 x 90   | 50              | 12                      | 85               | 15                     | 60                   | 30                       | 13.3              | 26.4            |
| GBEPSA12100  | M8 x 100  | 50              | 12                      | 85               | 25                     | 60                   | 30                       | 14.6              | 38.41           |
| GBEPSA12120  | M8 x 120  | 25              | 12                      | 85               | 45                     | 60                   | 30                       | 15.3              | 38.41           |
| GBEPSA16100  |           |                 | 16                      | 95               | 15                     | 70                   | 50                       | 19.2              | 38.4            |
| GBEPSA16120  | M10 x 120 | 25              | 16                      | 95               | 35                     | 70                   | 50                       | 19                | 51              |
| GBEPSA16140  | M10 x 140 | 20              | 16                      | 95               | 55                     | 70                   | 50                       | 21                | 51              |
| GBEPSA16160  | M10 x 160 | 20              | 16                      | 95               | 75                     | 70                   | 50                       | 25.7              | 51              |
| GBEPSA18110  | M12 x 110 | 20              | 18                      | 110              | 10                     | 85                   | 80                       | 25.7              | 51              |
| GBEPSA18120  | M12 x 120 | 20              | 18                      | 110              | 20                     | 85                   | 80                       | 25.7              | 51              |
| GBEPSA18140  | M12 x 140 | 20              | 18                      | 110              | 40                     | 85                   | 80                       | 27.3              | 65              |
| GBEPSA18150  | M12 x 150 | 20              | 18                      | 110              | 50                     | 85                   | 80                       | 27.3              | 65              |
| GBEPSA18170  | M12 x 170 | 15              | 24                      | 110              | 70                     | 100                  | 80                       | 27.3              | 65              |
| GBEPSA18200  | M12 x 200 | 15              | 24                      | 110              | 100                    | 100                  | 80                       | 27.3              | 65              |
| GBEPSA24140  | M16 x 140 | 10              | 24                      | 130              | 20                     | 100                  | 160                      | 38                | 91              |
| GBEPSA24170  | M16 x 170 | 10              | 24                      | 130              | 50                     | 100                  | 160                      | 38                | 91              |



## ● GreenBolt EnduraApex Sleeve Anchor - GBEXSA



### Specification

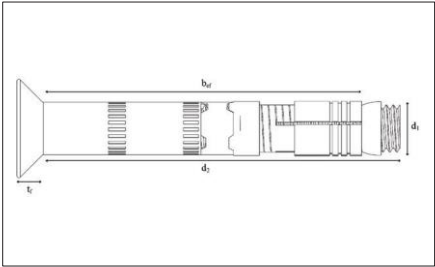
|                     |   |
|---------------------|---|
| Material            | Carbon Steel (high-strength grade)                          |
| Surface             | Zinc Plated or Hot-Dip Galvanized                           |
| Corrosion Resistant | Moderate (Zinc-Plated) or High (HDG) – depending on coating |
| Drilling Method     | Hammer Drilling   |
| Head Configuration  | External Threaded Stud                                      |
| Base Material       | Non-cracked Concrete, Solid Brick, Natural Stone            |
| Type of Fastening   | Pre-Fastening and Through-Fastening                         |
| Reusability         | Not Reusable (expansion-based mechanical fixation)          |

## ● Product Definition

A heavy-duty sleeve anchor engineered for high-load applications in concrete. Its robust design ensures maximum holding power, providing secure and reliable anchoring for demanding structural and industrial projects.

| Product Code | Size      | Pack Size | Installation Parameters |                |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------|-------------------------|----------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |           | Drill Ø                 | Drill Hole     | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |           | d <sub>1</sub>          | d <sub>2</sub> | t <sub>f</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBEXSA12095  | M8 x 95   | 50        | 12                      | 85             | 20                     | 60                   | 30                       | 13                | 27              |
| GBEXSA12155  | M8 x 155  | 25        | 16                      | 85             | 80                     | 60                   | 30                       | 14                | 29              |
| GBEXSA16125  | M10 x 125 | 25        | 16                      | 95             | 40                     | 70                   | 50                       | 19                | 39              |
| GBEXSA16160  | M10 x 160 | 20        | 16                      | 95             | 75                     | 70                   | 50                       | 20                | 40              |
| GBEXSA16245  | M10 x 245 | 10        | 18                      | 95             | 160                    | 70                   | 50                       | 22                | 43              |
| GBEXSA18150  | M12 x 150 | 20        | 18                      | 110            | 50                     | 85                   | 80                       | 26                | 52              |
| GBEXSA18170  | M12 x 170 | 15        | 18                      | 110            | 70                     | 85                   | 80                       | 27                | 53              |
| GBEXSA18260  | M12 x 260 | 5         | 24                      | 110            | 160                    | 85                   | 80                       | 28                | 56              |
| GBEXSA24145  | M16 x 145 | 10        | 24                      | 130            | 25                     | 100                  | 160                      | 29                | 66              |
| GBEXSA24170  | M16 x 170 | 10        | 24                      | 130            | 50                     | 100                  | 160                      | 28                | 69              |
| GBEXSA24200  | M16 x 200 | 10        | 24                      | 130            | 80                     | 100                  | 160                      | 30                | 72              |
| GBEXSA24280  | M16 x 280 | 5         | 28                      | 130            | 160                    | 100                  | 160                      | 32                | 75              |
| GBEXSA28210  | M20 x 210 | 5         | 28                      | 160            | 60                     | 125                  | 240                      | 38                | 92              |
| GBEXSA28230  | M20 x 230 | 5         | 28                      | 160            | 80                     | 125                  | 240                      | 40                | 95              |
| GBEXSA28310  | M20 x 310 | 5         | 28                      | 160            | 160                    | 125                  | 240                      | 42                | 99              |

GreenBolt EnduraFlush Sleeve Anchor - GBEFSA



Specification

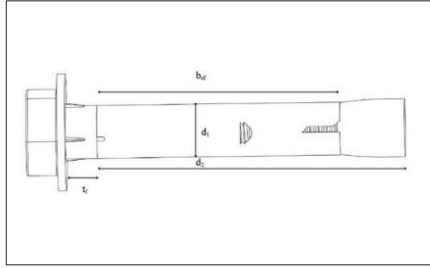
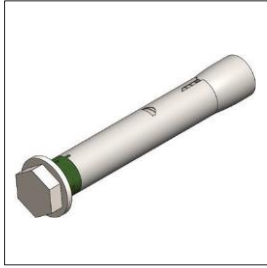
- Material: Carbon Steel (high-strength grade)
- Surface: Zinc Plated or Hot-Dip Galvanized
- Corrosion Resistant: Moderate (Zinc-Plated) or High (HDG) – depending on coating
- Drilling Method: Hammer Drilling
- Head Configuration: Countersunk Head (flush finish for aesthetic/clearance applications)
- Base Material: Non-cracked Concrete, Solid Masonry, Stone
- Type of Fastening: Pre-Fastening and Through-Fastening
- Reusability: Not Reusable (mechanical expansion remains fixed in concrete)

Product Definition

A galvanized sleeve anchor designed for high-load, high-performance applications in concrete. Its countersunk design ensures secure fastening and reliable structural anchoring.

| Product Code | Size      | Pack Size | Installation Parameters |                |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------|-------------------------|----------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |           | Drill Ø                 | Drill Hole     | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |           | d <sub>1</sub>          | d <sub>2</sub> | t <sub>r</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBEFSA10070  | M6 x 70   | 50        | 10                      | 70             | 10                     | 50                   | 15                       | 13.3              | 26              |
| GBEFSA10080  | M6 x 80   | 50        | 10                      | 70             | 20                     | 50                   | 15                       | 13.3              | 26              |
| GBEFSA10100  | M6 x 100  | 50        | 10                      | 70             | 40                     | 50                   | 15                       | 19.21             | 26              |
| GBEFSA12100  | M8 x 100  | 50        | 12                      | 85             | 25                     | 60                   | 30                       | 19.21             | 38              |
| GBEFSA16100  | M10 x 100 | 25        | 16                      | 95             | 15                     | 70                   | 50                       | 25                | 38              |
| GBEFSA16120  | M10 x 120 | 25        | 16                      | 95             | 35                     | 70                   | 50                       | 25                | 51              |
| GBEFSA18120  | M12 x 120 | 20        | 18                      | 110            | 20                     | 85                   | 80                       | 29                | 51              |

## Greenbolt HexLock Sleeve Anchor - GBHSA



### Specification

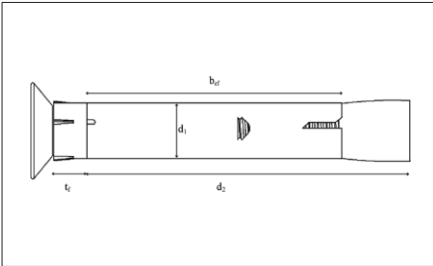
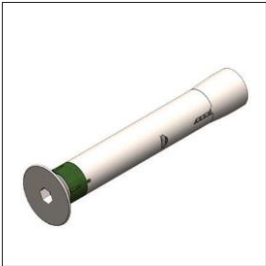
|                     |  |
|---------------------|--|
| Material            | Carbon Steel   |
| Surface             | Zinc Plated (minimum 5 µm)                             |
| Corrosion Resistant | Moderate (for indoor or dry conditions)                |
| Drilling Method     | Hammer Drilling  |
| Head Configuration  | Hexagonal Head Screw                                   |
| Base Material       | Solid Concrete, Solid Brick, Dense Natural Stone       |
| Type of Fastening   | Pre-Fastening  |
| Reusability         | Not Reusable (deforms upon installation for expansion) |

## Product Definition

A medium-duty sleeve anchor designed for use in solid materials. It operates via torque-controlled mechanical expansion, ensuring secure and reliable fastening in structural applications.

| Product Code | Size      | Pack Size | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |           | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |           | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>f</sub>         | b <sub>eff</sub>     | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBHSA08C     | M6 x 45   | 200       | 8                       | 45               | 5                      | 30                   | 10                       | 3.67              | 4.82            |
| GBHSA08L     | M6 x 60   | 200       | 8                       | 45               | 20                     | 30                   | 10                       | 3.67              | 4.82            |
| GBHSA09C     | M6 x 45   | 200       | 9                       | 45               | 5                      | 30                   | 10                       | 3.67              | 4.82            |
| GBHSA09L     | M6 x 60   | 200       | 9                       | 45               | 20                     | 30                   | 10                       | 3.67              | 8.3             |
| GBHSA10C     | M8 x 60   | 100       | 10                      | 60               | 5                      | 40                   | 20                       | 6.67              | 8.3             |
| GBHSA10L     | M8 x 80   | 100       | 10                      | 60               | 27                     | 40                   | 20                       | 6.67              | 8.3             |
| GBHSA11C     | M8 x 60   | 100       | 11                      | 60               | 5                      | 40                   | 20                       | 6.67              | 10.91           |
| GBHSA11L     | M8 x 80   | 100       | 11                      | 60               | 27                     | 40                   | 20                       | 6.67              | 10.91           |
| GBHSA12C     | M10 x 70  | 100       | 12                      | 75               | 5                      | 48                   | 35                       | 9.09              | 10.91           |
| GBHSA12L     | M10 x 100 | 50        | 12                      | 75               | 38                     | 48                   | 35                       | 9.09              | 10.91           |
| GBHSA14C     | M10 x 70  | 100       | 14                      | 75               | 5                      | 48                   | 35                       | 9.09              | 10.91           |
| GBHSA14L     | M10 x 100 | 50        | 14                      | 75               | 32                     | 48                   | 35                       | 9.09              | 13.38           |
| GBHSA16C     | M12 x 80  | 50        | 16                      | 80               | 5                      | 55                   | 50                       | 11.15             | 13.38           |
| GBHSA16L     | M12 x 110 | 50        | 16                      | 80               | 37                     | 55                   | 50                       | 11.15             | 37.68           |
| GBHSA20C     | M16 x 110 | 25        | 20                      | 105              | 15                     | 72                   | 140                      | 20.06             | 37.68           |
| GBHSA25C     | M20 x 130 | 15        | 25                      | 130              | 25                     | 80                   | 240                      | 20.06             | 46              |

Greenbolt Flush Sleeve Anchor - GBFSA



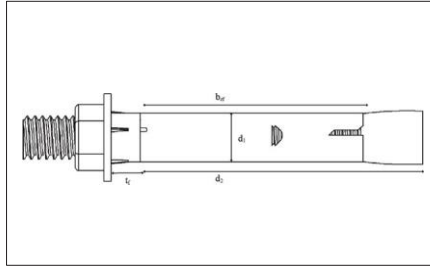
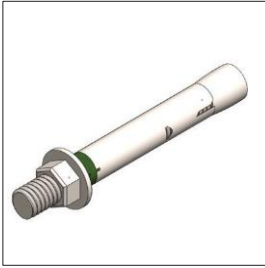
- Specification
- Material: Stainless Steel A2 (AISI 304)
  - Surface: Natural stainless finish
  - Corrosion Resistant: High (suitable for outdoor and damp environments)
  - Drilling Method: Hammer Drilling
  - Head Configuration: Hexagonal Head Screw
  - Base Material: Concrete, Solid Brick, Natural Stone
  - Type of Fastening: Pre-Fastening
  - Reusability: Not Reusable (expansion causes permanent deformation)
  - Special Feature: Anti-Spin Sleeve to prevent rotation during installation

Product Definition

A medium-duty sleeve anchor for solid materials, including reinforced concrete, concrete, brick, and stone. It works through torque-controlled mechanical expansion and is ideal for applications such as air conditioning units, aerials, street furniture, and railings.fastening through pre-drilled holes in concrete. The through-bolt design allows installation directly through the fixture.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>1</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBFSA08C     | M6 x 45   | 100             | 8                       | 45               | 5                      | 30                   | 10                       | 3.67              | 5.3             |
| GBFSA08L     | M6 x 60   | 100             | 8                       | 45               | 20                     | 30                   | 10                       | 3.67              | 5.3             |
| GBFSA10C     | M8 x 60   | 100             | 10                      | 60               | 5                      | 40                   | 20                       | 6.67              | 8.3             |
| GBFSA10L     | M8 x 80   | 100             | 10                      | 60               | 27                     | 40                   | 20                       | 6.67              | 8.3             |
| GBFSA12C     | M10 x 70  | 50              | 12                      | 75               | 5                      | 48                   | 35                       | 9                 | 10.9            |
| GBFSA12L     | M10 x 100 | 50              | 12                      | 75               | 32                     | 48                   | 35                       | 9                 | 10.9            |

## Greenbolt FlangeNut Sleeve Anchor - GBNSA



### Specification

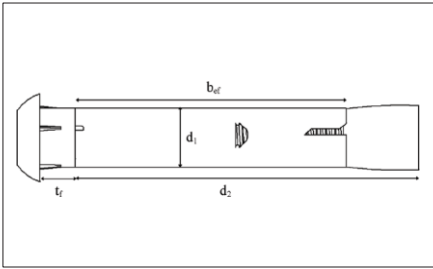
|                     |  |
|---------------------|--|
| Material            | Carbon Steel   |
| Surface             | Zinc-Plated (min. 5 µm)                                |
| Corrosion Resistant | Yes (for indoor dry conditions)                        |
| Head Configuration  | Hexagonal Head Screw                                   |
| Drilling Method     | Hammer Drilling  |
| Base Material       | Solid Concrete, Solid Brick, Dense Natural Stone       |
| Type of Fastening   | Pre-Fastening  |
| Reusability         | Not Reusable (deforms upon installation for expansion) |

## Product Definition

A medium-duty sleeve anchor for solid materials, including reinforced concrete, concrete, brick, and stone. It works through torque-controlled mechanical expansion and is ideal for applications such as air conditioning units, aerials, street furniture, and railings.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |          |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>f</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBNSA06060   | M6 x 60  | 200             | 8                       | 45               | 5                      | 30                   | 10                       | 3.67              | 2.98            |
| GBNSA06070   | M6 x 70  | 200             | 9                       | 45               | 5                      | 30                   | 10                       | 3.67              | 2.98            |
| GBNSA06080   | M6 x 80  | 100             | 10                      | 60               | 5                      | 40                   | 20                       | 6.67              | 5.27            |
| GBNSA06090   | M6 x 90  | 100             | 10                      | 60               | 27                     | 40                   | 20                       | 6.67              | 5.27            |
| GBNSA06100   | M6 x 100 | 100             | 11                      | 60               | 5                      | 40                   | 20                       | 6.67              | 5.27            |
| GBNSA06110   | M6 x 110 | 100             | 11                      | 60               | 27                     | 40                   | 20                       | 6.67              | 5.27            |
| GBNSA06120   | M6 x 120 | 100             | 12                      | 75               | 5                      | 48                   | 35                       | 9.09              | 8.35            |
| GBNSA06130   | M6 x 130 | 100             | 12                      | 75               | 32                     | 48                   | 35                       | 9.09              | 8.35            |
| GBNSA06140   | M6 x 140 | 100             | 14                      | 75               | 5                      | 48                   | 35                       | 9.09              | 8.35            |
| GBNSA06150   | M6 x 150 | 100             | 6                       | 75               | 32                     | 48                   | 35                       | 9.09              | 8.35            |

● Greenbolt Dome Sleeve Anchor - GBDSA



- 
- Specification

▶ Material

▶ Surface

▶ Corrosion Resistant

▶ Head Configuration

▶ Drilling Method

▶ Base Material

▶ Type of Fastening

▶ Reusability

Carbon Steel

Zinc-Plated (min. 5 µm)

Medium (indoor & dry outdoor environments)

Tamperproof Head (e.g. pin-in torx)

Hammer Drilling

Concrete, Solid Brick, Natural Stone

Pre-Fastening

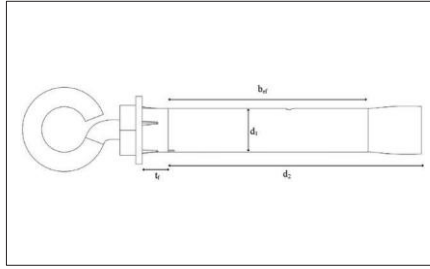
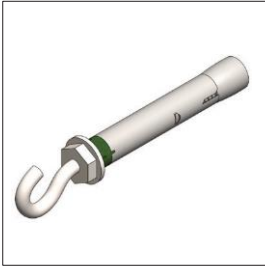
Not Reusable (expansion causes permanent deformation)

● Product Definition

A medium-duty tamper-proof anchor for solid materials, using torque-controlled expansion with anti-spin, ideal for air conditioning units, aerials, street furniture, and railings.

| Product Code | Size    | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|---------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |         |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |         |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>f</sub>         | b <sub>eff</sub>     | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBDSA08C     | M6 x 45 | 100             | 8                       | 45               | 5                      | 30                   | 10                       | 3.67              | 3.01            |
| GBDSA08L     | M6 x 60 | 100             | 8                       | 45               | 20                     | 30                   | 10                       | 3.67              | 3.01            |
| GBDSA10C     | M8 x 60 | 100             | 10                      | 60               | 5                      | 40                   | 20                       | 6.67              | 5.48            |
| GBDSA10L     | M8 x 80 | 100             | 10                      | 60               | 27                     | 40                   | 20                       | 6.67              | 5.48            |

## Greenbolt Talon Sleeve Anchor - GBTSA



### Specification

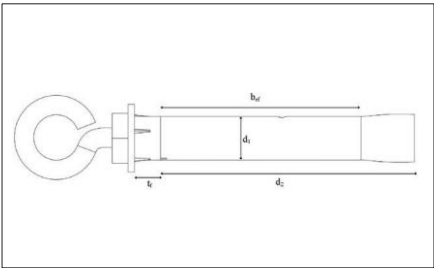
- ▶ Material: Carbon Steel
- ▶ Surface: Zinc-Plated (min. 5 µm)
- ▶ Corrosion Resistant: Medium (suitable for indoor and dry environments)
- ▶ Head Configuration: Hook Bolt Head
- ▶ Drilling Method: Hammer Drilling
- ▶ Base Material: Uncracked Concrete, Solid Brick, Natural Stone
- ▶ Type of Fastening: Pre-Fastening
- ▶ Reusability: Not Reusable (due to sleeve deformation on expansion)
- ▶ Special Features: Anti-spin sleeve ensures stability during installation; ideal for suspensions

## Product Definition

Sleeve anchor with hook bolt for medium loads in solid materials. Incorporates anti-rotation to prevent the anchor from rotating during tightening. Mechanical expansion anchor and installation by controlled torque. Manufactured in zinc-coated steel.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |               |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|---------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN |
|              |          |                 | $d_1$                   | $d_2$            | $t_1$                  | $b_{ef}$             | $T_i$                    | $N_{rd}$          | $V_{rd}$      |
| GBTSA08C     | M6 x 45  | 100             | 8                       | 45               | -                      | 35                   | 10                       | 1.5               | -             |
| GBTSA09C     | M6 x 45  | 100             | 9                       | 45               | -                      | 35                   | 10                       | 1.5               | -             |
| GBTSA10C     | M8 x 60  | 100             | 10                      | 60               | -                      | 45                   | 20                       | 2                 | -             |
| GBTSA11C     | M8 x 60  | 100             | 11                      | 60               | -                      | 45                   | 20                       | 2                 | -             |
| GBTSA12C     | M10 x 70 | 50              | 12                      | 75               | -                      | 53                   | 35                       | 3                 | -             |
| GBTSA14C     | M10 x 70 | 50              | 14                      | 75               | -                      | 53                   | 35                       | 3                 | -             |
| GBTSA16C     | M12 x 80 | 25              | 16                      | 80               | -                      | 60                   | 50                       | 4                 | -             |

Greenbolt OpenEye Sleeve Anchor - GBOSA



**Specification**

- Material: Carbon Steel
- Surface: Zinc-Plated (min. 5 µm)
- Corrosion Resistant: Medium (suitable for indoor and dry environments)
- Head Configuration: Eye Bolt Head
- Drilling Method: Hammer Drilling
- Base Material: Uncracked Concrete, Solid Masonry, Natural Stone
- Type of Fastening: Pre-Fastening
- Reusability: Not Reusable (sleeve deforms during expansion)
- Special Features: Anti-spin sleeve prevents rotation during tightening; ideal for hanging systems

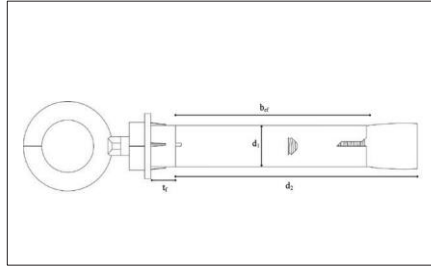
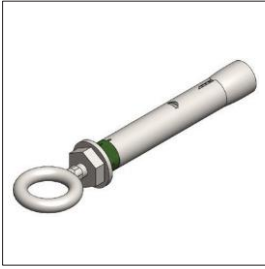
Product Definition

A medium-duty sleeve anchor for solid materials, offering enhanced corrosion protection. Ideal for secure installation of marquees and signs.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |          |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>1</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBOSA08C     | M6 x 45  | 100             | 8                       | 45               | -                      | 35                   | 10                       | 1                 | -               |
| GBOSA09C     | M6 x 45  | 100             | 9                       | 45               | -                      | 35                   | 10                       | 1                 | -               |
| GBOSA10C     | M8 x 60  | 100             | 10                      | 60               | -                      | 45                   | 20                       | 2                 | -               |
| GBOSA11C     | M8 x 60  | 100             | 11                      | 60               | -                      | 45                   | 20                       | 2                 | -               |
| GBOSA12C     | M10 x 70 | 50              | 12                      | 75               | -                      | 53                   | 35                       | 3                 | -               |
| GBOSA14C     | M10 x 70 | 50              | 14                      | 75               | -                      | 53                   | 35                       | 3                 | -               |
| GBOSA16C     | M12 x 80 | 25              | 16                      | 80               | -                      | 60                   | 50                       | 4                 | -               |



## Greenbolt LockEye Sleeve Anchor - GBLSA



### Specification

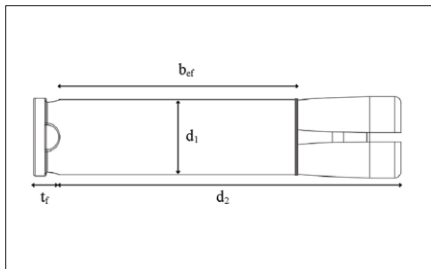
- ▶ Material Carbon Steel (High Tensile Grade)
- ▶ Surface Zinc-Plated (min. 5 µm)
- ▶ Corrosion Resistant Medium (suitable for indoor and dry environments)
- ▶ Head Configuration Forged Eye Bolt
- ▶ Drilling Method Hammer Drilling
- ▶ Base Material Uncracked Concrete, Dense Natural Stone, Solid Brick Masonry
- ▶ Type of Fastening Pre-Fastening
- ▶ Reusability Not Reusable (deformation occurs during expansion)
- ▶ Special Features Anti-spin sleeve ensures secure tightening, forged eye provides heavy load capacity and safer lifting applications

## Product Definition

A medium-duty sleeve anchor with a forged ring for solid materials. It uses torque-controlled mechanical expansion with anti-rotation, ideal for secure cable installation.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |          |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>1</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBLSA08C     | M6 x 45  | 100             | 8                       | 45               | -                      | 35                   | 10                       | 2.8               | -               |
| GBLSA10C     | M8 x 60  | 100             | 10                      | 60               | -                      | 45                   | 20                       | 6.67              | -               |
| GBLSA12C     | M10 x 70 | 50              | 12                      | 75               | -                      | 53                   | 35                       | 9.09              | -               |

## GreenBolt ShieldFix - GBSF



### Specification

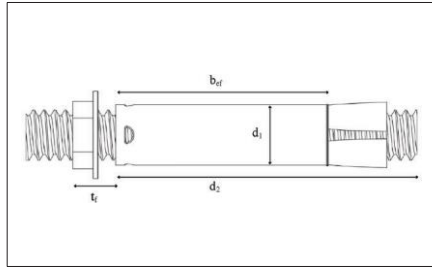
|                     |  |
|---------------------|--|
| Material            | Carbon Steel(Body & Expansion Shield)            |
| Surface             | Zinc-Plated (min. 5 µm)                          |
| Corrosion Resistant | Medium – Suitable for dry indoor environments    |
| Head Configuration  | Hexagonal Bolt (based on application)            |
| Drilling Method     | Hammer Drilling                                  |
| Base Material       | Solid Concrete, Dense Natural Stone, Solid Brick |
| Type of Fastening   | Pre-Fastening or Through-Fastening               |
| Reusability         | Not Reusable                                     |

## Product Definition

Expansion anchor with shield, designed for high loads. Use in uncracked concrete and other solid materials. Torque-controlled installation. Manufactured from zinc plated steel.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>r</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBSF06       | M6 x 40   | 50              | 10                      | 45               | -                      | -                    | 40                       | 1.27              | 4.82            |
| GBSF08       | M8 x 50   | 50              | 14                      | 60               | -                      | -                    | 60                       | 1.34              | 8.78            |
| GBSF10       | M10 x 60  | 50              | 16                      | 70               | -                      | -                    | 80                       | 6.06              | 13.92           |
| GBSF12       | M12 x 80  | 25              | 20                      | 90               | -                      | -                    | 100                      | 7.85              | 20.23           |
| GBSF16       | M16 x 100 | 10              | 25                      | 110              | -                      | -                    | 120                      | 9.59              | 37.68           |

## GreenBolt ShieldFix with Projecting Bolt - GBSFPB



### Specification

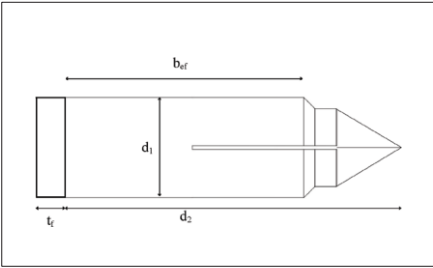
|                     |  |
|---------------------|--|
| Material            | Carbon Steel (Body & Expansion Shield)                             |
| Surface             | Zinc-Plated (min. 5 µm)  |
| Corrosion Resistant | Medium – Suitable for dry indoor environments                      |
| Head Configuration  | Projecting Hexagonal Bolt  |
| Drilling Method     | Hammer Drilling  |
| Base Material       | Solid Brick, Concrete, Natural Stone                               |
| Type of Fastening   | Pre-Fastening  |
| Reusability         | Not Reusable   |
| Special Features    | Winged design provides improved grip in hollow and solid materials |

## Product Definition

Anchor with projecting bolt for fixing high load-bearing elements in uncracked concrete and other solid materials. Operates by controlled torque expansion. Made of zinc-plated steel.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |          |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>f</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBSFPB06     | M6 x 40  | 50              | 10                      | 45               | 8                      | -                    | 40                       | 1.27              | 3.38            |
| GBSFPB08     | M8 x 50  | 50              | 14                      | 60               | 8                      | -                    | 60                       | 1.35              | 6.16            |
| GBSFPB10     | M10 x 60 | 50              | 16                      | 70               | 8                      | -                    | 80                       | 6.06              | 9.76            |
| GBSFPB12     | M12 x 80 | 25              | 20                      | 90               | 18                     | -                    | 100                      | 7.85              | 14.76           |

Greenbolt HitFix Drop-In Anchor - GBHFGA



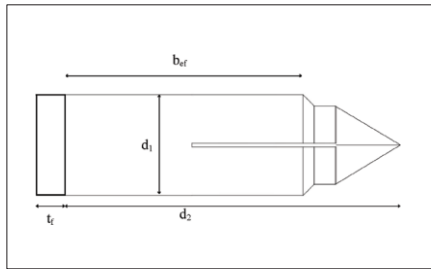
| Specification       |  |
|---------------------|--|
| Material            | Carbon Steel   |
| Surface             | Galvanized finish  |
| Corrosion Resistant | Yes, corrosion-protected by galvanization  |
| Head Configuration  | Internal expansion (drop-in) design, flush after installation                          |
| Drilling Method     | Hammer Drilling  |
| Base Material       | Solid Concrete   |
| Type of Fastening   | Mechanical expansion anchor  |
| Reusability         | Permanent; not reusable once set   |
| Installation Type   | Setting tool required for torque-controlled expansion                                  |
| Applications        | Medium to high-load fastening in solid concrete for structural and mechanical elements |

Product Definition

A galvanized drop-in anchor designed for secure fastening into pre-drilled concrete holes. Its internal expansion mechanism provides reliable, flush installation for versatile structural applications.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |          |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>r</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBHFGA06     | M6 x 25  | 100             | 8                       | 27               | 25                     | 25                   | 4                        | 3.42              | 4.1             |
| GBHFGA08     | M8 x 30  | 100             | 10                      | 33               | 30                     | 30                   | 11                       | 4.49              | 5.39            |
| GBHFGA10     | M10 x 40 | 50              | 12                      | 43               | 40                     | 40                   | 17                       | 5.93              | 7.28            |
| GBHFGA12     | M12 x 50 | 50              | 15                      | 54               | 50                     | 50                   | 38                       | 8.28              | 11.6            |
| GBHFGA12D    | M12 x 50 | 50              | 16                      | 54               | 50                     | 50                   | 38                       | 12.28             | 26              |
| GBHFGA16     | M16 x 65 | 25              | 20                      | 70               | 65                     | 65                   | 60                       | 16.76             | 38              |
| GBHFGA20     | M20 x 80 | 25              | 25                      | 86               | 80                     | 80                   | 100                      | 20.25             | 45.6            |

## Greenbolt HitFix Drop-In Anchor - A4 - GBHFMA



### Specification

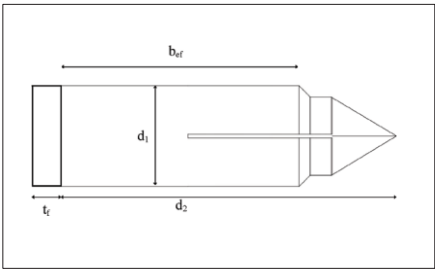
- ▶ Material: Stainless Steel A4 (AISI 316)
- ▶ Surface: Natural – Stainless
- ▶ Corrosion Resistant: High – Suitable for outdoor and marine environments
- ▶ Head Configuration: Internal Metric Thread (Flush Head)
- ▶ Drilling Method: Hammer Drilling
- ▶ Base Material: Non-Cracked Concrete (C20/25 to C50/60)
- ▶ Type of Fastening: Pre-Fastening (expansion via setting)
- ▶ Reusability: Reusable (in some applications, based on condition and load requirements)
- ▶ Special Features: Excellent durability in aggressive or humid environments
- ▶ Applications: Excellent durability in aggressive or humid environments

## Product Definition

A stainless steel (A4) drop-in anchor designed for secure fastening into concrete. Its internal expansion provides flush installation with high corrosion resistance, ideal for structural and outdoor applications.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |          |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>f</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBHFMA06     | M6 x 25  | 100             | 8                       | 27               | 25                     | 25                   | 4                        | 1.19              | 4.1             |
| GBHFMA08     | M8 x 30  | 100             | 10                      | 33               | 30                     | 30                   | 11                       | 1.67              | 5.39            |
| GBHFMA10     | M10 x 40 | 50              | 12                      | 43               | 40                     | 40                   | 17                       | 1.67              | 7.28            |
| GBHFMA12     | M12 x 50 | 50              | 15                      | 54               | 50                     | 50                   | 38                       | 3.1               | 11.6            |
| GBHFMA16     | M16 x 65 | 25              | 20                      | 70               | 65                     | 65                   | 60                       | 5.95              | 26              |
| GBHFMA20     | M20 x 80 | 25              | 25                      | 86               | 80                     | 80                   | 100                      | 7.84              | 38              |

Greenbolt HitFix Drop-In Anchor - HDG - GBHFHA



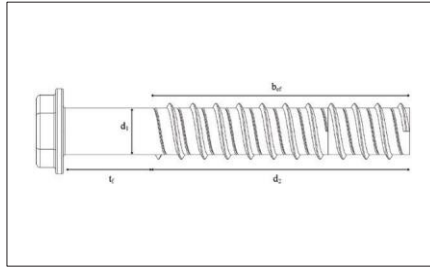
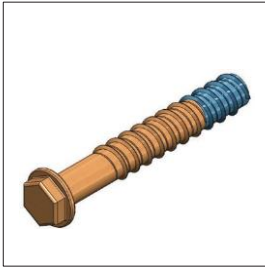
| Specification       |  |
|---------------------|--|
| Material            | Carbon steel   |
| Surface             | Hot-dip galvanized (HDG) finish  |
| Corrosion Resistant | Yes, high resistance due to galvanization  |
| Head Configuration  | Internal expansion (drop-in) design  |
| Drilling Method     | Pre-drilled hole in concrete   |
| Base Material       | Solid concrete   |
| Type of Fastening   | Mechanical expansion anchor  |
| Reusability         | Permanent; not reusable once set   |
| Installation Type   | Setting tool required for torque-controlled expansion                                  |
| Applications        | Medium to high-load fastening in solid concrete for structural and mechanical elements |

Product Definition

A hot-dip galvanized drop-in anchor designed for secure fastening in concrete, reinforced concrete, or stone. Its internal expansion ensures reliable installation while offering enhanced corrosion protection for long-lasting structural performance.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |          |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>f</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBHFHA08     | M8 x 30  | 100             | 10                      | 33               | 30                     | 30                   | 11                       | 4.49              | 5.39            |
| GBHFHA10     | M10 x 40 | 50              | 12                      | 43               | 40                     | 40                   | 17                       | 5.93              | 7.28            |
| GBHFHA12     | M12 x 50 | 50              | 15                      | 54               | 50                     | 50                   | 38                       | 8.28              | 11.6            |
| GBHFHA16     | M16 x 65 | 25              | 20                      | 70               | 65                     | 65                   | 60                       | 12.23             | 26              |

## GreenBolt CutFix Flange Concrete Screw - A4 - GBCFMS



### Specification

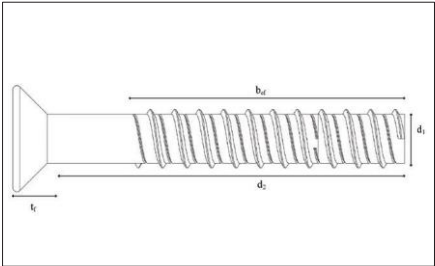
|                     |   |
|---------------------|---|
| Material            | A4 Stainless Steel  |
| Surface             | Natural stainless steel finish                                  |
| Corrosion Resistant | Yes, highly resistant due to A4 stainless steel                 |
| Head Configuration  | Flange head with stud   |
| Drilling Method     | Direct fixing into pre-drilled                                  |
| Base Material       | Cracked and non-cracked concrete                                |
| Type of Fastening   | Direct mechanical fixing  |
| Reusability         | Removable and reusable  |
| Installation Type   | Torque-controlled installation, direct fixing                   |
| Applications        | High-load fastening of structural or heavy elements in concrete |

## Product Definition

High-performance direct fixing screw with hex head, designed for secure fastening of heavy elements in both cracked and non-cracked concrete. Features a removable, reusable design with bimetal technology combining an A4 stainless steel body and a hardened carbon steel tip for strength and durability.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>r</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBCFMS06040  | M6 x 40   | 100             | 6                       | 45               | 5                      | 35                   | 10                       | -                 | 7.03            |
| GBCFMS06060  | M6 x 60   | 100             | 6                       | 65               | 5                      | 55                   | 10                       | 6.67              | 11.72           |
| GBCFMS08070  | M8 x 70   | 50              | 8                       | 75               | 5                      | 65                   | 20                       | 9.81              | 11.72           |
| GBCFMS08080  | M8 x 80   | 25              | 8                       | 75               | 15                     | 65                   | 20                       | 9.81              | 11.72           |
| GBCFMS08090  | M8 x 90   | 25              | 8                       | 75               | 25                     | 65                   | 20                       | 9.81              | 11.72           |
| GBCFMS08105  | M8 x 105  | 25              | 8                       | 75               | 40                     | 65                   | 20                       | 9.81              | 11.72           |
| GBCFMS10070  | M10 x 70  | 50              | 10                      | 65               | 15                     | 55                   | 30                       | 12                | 16.04           |
| GBCFMS10090  | M10 x 90  | 25              | 10                      | 95               | 5                      | 85                   | 30                       | 14.99             | 27.87           |
| GBCFMS10100  | M10 x 100 | 25              | 10                      | 95               | 15                     | 85                   | 30                       | 14.99             | 27.87           |
| GBCFMS10120  | M10 x 120 | 25              | 10                      | 95               | 35                     | 85                   | 30                       | 14.99             | 27.87           |
| GBCFMS12080  | M12 x 80  | 25              | 12                      | 90               | 5                      | 75                   | 50                       | 25                | 27.87           |
| GBCFMS12110  | M12 x 110 | 25              | 12                      | 120              | 5                      | 105                  | 50                       | 25                | 27.87           |

GreenBolt CutFix CSK Concrete Screw - A4 - GBCKMS



Specification

- Material: A4 Stainless Steel
- Surface: Natural stainless steel finish
- Corrosion Resistant: Yes, highly resistant due to A4 stainless steel
- Head Configuration: Countersunk (CSK) head with stud
- Drilling Method: Direct fixing into pre-drilled
- Base Material: Cracked and non-cracked concrete
- Type of Fastening: Direct mechanical fixing
- Reusability: Removable and reusable
- Installation Type: Torque-controlled installation, direct fixing
- Applications: High-load fastening of structural or heavy elements in concrete

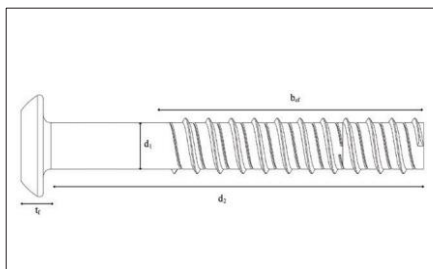
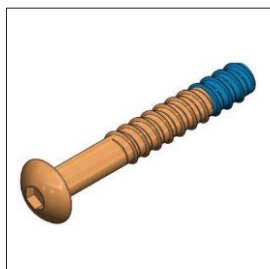
Product Definition

Direct fixing screw with countersunk head for flush installations in cracked or non-cracked concrete. Designed for heavy-load applications, it is removable, reusable, and built with bimetal technology combining an A4 stainless steel body and hardened carbon steel tip for durability and strength.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>f</sub>         | b <sub>eff</sub>     | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBCKMS08060  | M8 x 60   | 50              | 8                       | 60               | 10                     | 50                   | 20                       | 6.67              | 9.01            |
| GBCKMS08080  | M8 x 80   | 25              | 8                       | 75               | 15                     | 65                   | 20                       | 9.81              | 11.72           |
| GBCKMS08120  | M8 x 120  | 25              | 8                       | 75               | 55                     | 65                   | 20                       | 9.81              | 11.72           |
| GBCKMS10070  | M10 x 70  | 50              | 10                      | 65               | 15                     | 55                   | 30                       | 9.81              | 16.04           |
| GBCKMS10090  | M10 x 90  | 25              | 10                      | 95               | 5                      | 85                   | 30                       | 14.99             | 19.25           |
| GBCKMS10120  | M10 x 120 | 25              | 10                      | 95               | 35                     | 85                   | 30                       | 14.99             | 19.25           |



## GreenBolt CutFix Truss Concrete Screw - A4 - GBCTMS



### Specification

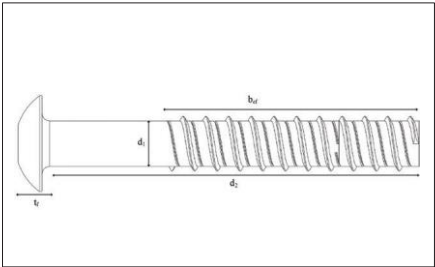
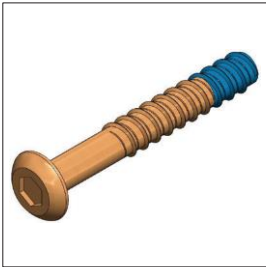
- ▶ Material A4 Stainless Steel
- ▶ Surface Natural stainless steel finish
- ▶ Corrosion Resistant Yes, highly resistant due to A4 stainless steel
- ▶ Head Configuration Truss head with stud
- ▶ Drilling Method Direct fixing into pre-drilled
- ▶ Base Material Cracked and non-cracked concrete
- ▶ Type of Fastening Direct mechanical fixing
- ▶ Reusability Removable and reusable
- ▶ Installation Type Torque-controlled installation, direct fixing
- ▶ Applications High-load fastening of structural or heavy elements in concrete

## Product Definition

Direct fixing screw with truss head for heavy-load fastening in cracked and non-cracked concrete. Removable, reusable, and designed for flush installation. Made with bimetal technology: durable A4 stainless steel body and hardened carbon steel tip.

| Product Code | Size    | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|---------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |         |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |         |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>r</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBCTMS06040  | M6 x 40 | 50              | 6                       | 45               | 5                      | 35                   | 10                       | 7.03              | 5.5             |
| GBCTMS06050  | M6 x 50 | 50              | 6                       | 45               | 15                     | 35                   | 10                       | 12                | 5.5             |
| GBCTMS06060  | M8 x 60 | 50              | 8                       | 65               | 5                      | 35                   | 10                       | 12                | 5.5             |

GreenBolt CutFix Pan Concrete Screw - A4 - GBCPMS



Specification

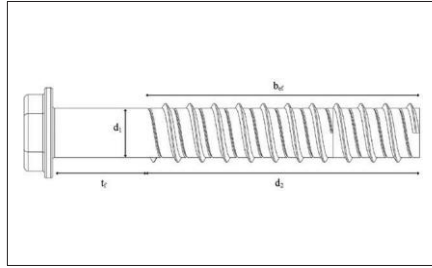
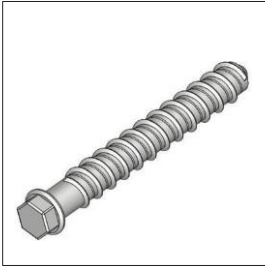
- Material: A4 Stainless Steel
- Surface: Natural stainless steel finish
- Corrosion Resistant: Yes, highly resistant due to A4 stainless steel
- Head Configuration: Truss head with stud
- Drilling Method: Direct fixing into pre-drilled
- Base Material: Cracked and non-cracked concrete
- Type of Fastening: Direct mechanical fixing
- Reusability: Removable and reusable
- Installation Type: Torque-controlled installation, direct fixing
- Applications: High-load fastening of structural or heavy elements in concrete

Product Definition

Direct fixing screw with pan head for high-load applications in cracked or non-cracked concrete. Designed for flush installation, it is removable, reusable, and built with bimetal technology combining an A4 stainless steel body and hardened carbon steel tip for maximum strength and durability.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |          |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>f</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBCPMS06050  | M6 x 50  | 50              | 6                       | 45               | 15                     | 35                   | 10                       | 7.03              | 5.5             |
| GBCPMS06060  | M6 x 60  | 50              | 6                       | 65               | 5                      | 55                   | 10                       | 12                | 5.5             |
| GBCPMS06080  | M6 x 80  | 50              | 6                       | 65               | 25                     | 55                   | 10                       | 12                | 5.5             |
| GBCPMS06100  | M6 x 100 | 50              | 6                       | 65               | 45                     | 55                   | 10                       | 12                | 5.5             |
| GBCPMS08060  | M8 x 60  | 25              | 8                       | 60               | 10                     | 50                   | 20                       | 12                | 5.5             |
| GBCPMS08080  | M8 x 80  | 25              | 8                       | 75               | 15                     | 65                   | 20                       | 17.67             | 10              |

## GreenBolt AquaFix Flange Concrete Screw - A4 - GBAFMS



### Specification

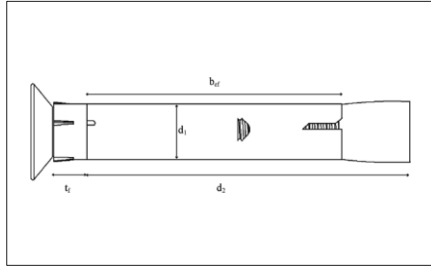
|                     |   |
|---------------------|---|
| Material            | Carbon Steel                                |
| Surface             | Zinc-Plated ( $\geq 5 \mu\text{m}$ )        |
| Corrosion Resistant | Medium (Indoor or dry outdoor applications) |
| Head Configuration  | Hexagonal Head                              |
| Drilling Method     | Hammer Drilling                             |
| Base Material       | Uncracked Concrete (C20 to C50)             |
| Type of Fastening   | Direct Fixing (Screw-in, no expansion)      |
| Reusability         | Non-reusable                                |

## Product Definition

A high-strength concrete screw with flange head, engineered for secure fastening without expansion. Manufactured from A4 stainless steel, it delivers superior corrosion resistance, durability, and reliable performance in demanding environments.

| Product Code  | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |               |
|---------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|---------------|
|               |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN |
|               |          |                 | $d_1$                   | $d_2$            | $t_f$                  | $b_{ef}$             | $T_i$                    | $N_{rd}$          | $V_{rd}$      |
| GBAFMS05040   | M5 x 40  | 100             | 5                       | 45               | 5                      | 35                   | 8                        | -                 | 4.49          |
| GBAFMS05050   | M5 x 50  | 100             | 5                       | 55               | 5                      | 45                   | 8                        | 6.79              | 4.49          |
| GBAFMS05060   | M5 x 60  | 100             | 5                       | 55               | 15                     | 45                   | 8                        | 6.79              | 4.49          |
| GBAFMS05080   | M5 x 80  | 50              | 5                       | 55               | 35                     | 45                   | 8                        | 6.79              | 4.49          |
| GBAFMS05100   | M5 x 100 | 50              | 5                       | 55               | 55                     | 45                   | 8                        | 6.79              | 4.49          |
| GBAFMS06035   | M6 x 35  | 100             | 6                       | 45               | -                      | 35                   | 10                       | 6.79              | 4.49          |
| GBAFMS06040   | M6 x 40  | 100             | 6                       | 45               | 5                      | 35                   | 10                       | 8.35              | 6.24          |
| GBAFMS06045   | M6 x 45  | 100             | 6                       | 45               | 10                     | 35                   | 10                       | 8.35              | 6.24          |
| GBAFMS06050   | M6 x 50  | 100             | 6                       | 45               | 15                     | 35                   | 10                       | 8.35              | 6.24          |
| GBAFMS06060   | M6 x 60  | 100             | 6                       | 65               | 5                      | 55                   | 10                       | 8.35              | 6.24          |
| GBAFMS0606010 | M6 x 60  | 10              | 6                       | 65               | 5                      | 55                   | 10                       | 9.25              | 8.35          |
| GBAFMS06070   | M6 x 70  | 50              | 6                       | 65               | 15                     | 55                   | 10                       | 9.25              | 6.24          |
| GBAFMS06080   | M6 x 80  | 50              | 6                       | 65               | 25                     | 55                   | 10                       | 9.25              | 6.24          |
| GBAFMS06100   | M6 x 100 | 25              | 6                       | 65               | 45                     | 55                   | 10                       | 9.25              | 6.24          |

## GreenBolt AquaFix CSK Concrete Screw - A4 - GBAKMS



### Specification

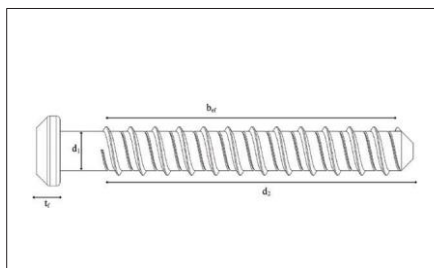
- ▶ Material: Carbon Steel
- ▶ Surface: Zinc-Plated ( $\geq 5 \mu\text{m}$ )
- ▶ Corrosion Resistant: Medium (Indoor or dry outdoor applications)
- ▶ Head Configuration: Countersunk Flat Head
- ▶ Drilling Method: Hammer Drilling
- ▶ Base Material: Uncracked Concrete (C20 to C50)
- ▶ Type of Fastening: Direct Fixing (Screw-in, no expansion)
- ▶ Reusability: Non-reusable
- ▶ ETA Assessment: Generally available
- ▶ Installation Method: Drive in using suitable driver

## Product Definition

A countersunk-head concrete screw designed for flush fastening in solid substrates. Made from A4 stainless steel, it ensures exceptional corrosion resistance, high load capacity, and long-lasting reliability without the need for expansion.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |               |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|---------------|
|              |           |                 | Drill $\varnothing$     | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN |
|              |           |                 | $d_1$                   | $d_2$            | $t_1$                  | $b_{ef}$             | $T_i$                    | $N_{rd}$          | $V_{rd}$      |
| GBAKMS05040  | M5 x 40   | 100             | 5                       | 45               | 5                      | 35                   | 8                        | -                 | 3.13          |
| GBAKMS05060  | M5 x 60   | 100             | 5                       | 55               | 15                     | 45                   | 8                        | 6.79              | 4.47          |
| GBAKMS05080  | M5 x 80   | 50              | 5                       | 55               | 35                     | 45                   | 8                        | 6.79              | 4.47          |
| GBAKMS05100  | M5 x 100  | 50              | 5                       | 55               | 55                     | 45                   | 8                        | 6.79              | 4.47          |
| GBAKMS06045  | M6 x 45   | 100             | 6                       | 55               | 10                     | 35                   | 10                       | 8                 | 6.24          |
| GBAKMS06050  | M6 x 50   | 100             | 6                       | 45               | 15                     | 35                   | 10                       | 8                 | 6.24          |
| GBAKMS06060  | M6 x 60   | 100             | 6                       | 45               | 5                      | 55                   | 10                       | 8                 | 6.24          |
| GBAKMS06080  | M6 x 80   | 100             | 6                       | 45               | 25                     | 55                   | 10                       | 9.25              | 8.35          |
| GBAKMS06100  | M6 x 100  | 100             | 6                       | 45               | 45                     | 55                   | 10                       | 9.25              | 8.35          |
| GBAKMS06120  | M6 x 120  | 100             | 6                       | 65               | 65                     | 55                   | 10                       | 9.25              | 8.35          |
| GBAKMS06140  | M6 x 140  | 100             | 6                       | 65               | 85                     | 55                   | 10                       | 9.25              | 8.35          |
| GBAKMS08060  | M8 x 60   | 50              | 8                       | 65               | 10                     | 50                   | 20                       | 9.25              | 8.35          |
| GBAKMS08080  | M8 x 80   | 25              | 8                       | 65               | 15                     | 65                   | 20                       | 12.5              | 10.34         |
| GBAKMS08100  | M8 x 100  | 25              | 8                       | 65               | 35                     | 65                   | 20                       | 12.5              | 10.34         |
| GBAKMS08120  | M8 x 120  | 25              | 8                       | 65               | 55                     | 65                   | 20                       | 12.5              | 10.34         |
| GBAKMS10100  | M10 x 100 | 25              | 10                      | 65               | 15                     | 85                   | 30                       | 15.25             | 12.52         |
| GBAKMS10120  | M10 x 120 | 25              | 10                      | 65               | 35                     | 85                   | 30                       | 15.25             | 12.52         |

## GreenBolt AquaFix Pan Concrete Screw - A4 - GBAPMS



### Specification

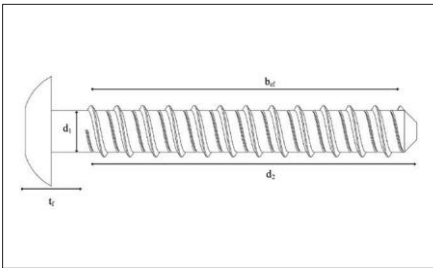
- ▶ Material: Carbon Steel
- ▶ Surface: Zinc-Plated ( $\geq 5 \mu\text{m}$ )
- ▶ Corrosion Resistant: Medium (Indoor or dry outdoor applications)
- ▶ Head Configuration: Pan Head (slightly rounded top)
- ▶ Drilling Method: Hammer Drilling
- ▶ Base Material: Uncracked Concrete (C20 to C50)
- ▶ Type of Fastening: Direct Fixing (Screw-in, no expansion)
- ▶ Reusability: Non-reusable
- ▶ ETA Assessment: Option 1 available for selected sizes
- ▶ Installation Method: Screw-in using impact driver

## Product Definition

A direct-fixing screw anchor with hexagonal pan head and stud design, suitable for high load-bearing applications in both cracked and non-cracked concrete. Made from A4 stainless steel, it offers excellent corrosion resistance, reliable strength, and is fully removable and reusable.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |               |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|---------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN |
|              |          |                 | $d_1$                   | $d_2$            | $t_r$                  | $b_{ef}$             | $T_i$                    | $N_{rd}$          | $V_{rd}$      |
| GBAPMS05040  | M5 x 40  | 100             | 5                       | 45               | 5                      | 35                   | 8                        | 2.99              | 3.59          |
| GBAPMS05060  | M5 x 60  | 100             | 5                       | 55               | 15                     | 45                   | 8                        | 2.99              | 3.59          |
| GBAPMS06040  | M6 x 40  | 100             | 6                       | 45               | 5                      | 35                   | 10                       | 2.99              | 3.59          |
| GBAPMS06050  | M6 x 50  | 100             | 6                       | 45               | 15                     | 35                   | 10                       | 2.99              | 3.59          |
| GBAPMS06060  | M6 x 60  | 100             | 6                       | 65               | 5                      | 55                   | 10                       | 2.99              | 3.59          |
| GBAPMS06080  | M6 x 80  | 50              | 6                       | 65               | 25                     | 55                   | 10                       | 2.99              | 3.59          |
| GBAPMS06100  | M6 x 100 | 50              | 6                       | 65               | 45                     | 55                   | 10                       | 2.99              | 3.59          |
| GBAPMS08060  | M8 x 60  | 25              | 8                       | 60               | 10                     | 50                   | 20                       | 2.99              | 3.59          |
| GBAPMS08080  | M8 x 80  | 25              | 8                       | 75               | 15                     | 65                   | 20                       | 2.99              | 3.59          |

● GreenBolt AquaFix Truss Concrete Screw - A4 - GBATMS



## Specification

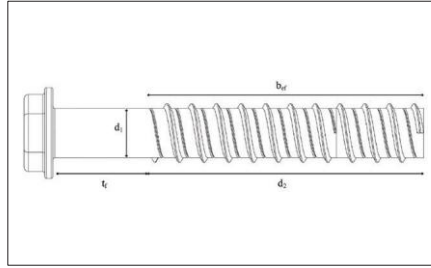
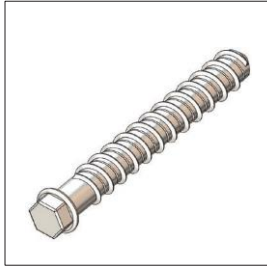
|                         |   |
|-------------------------|---|
| ▶   Material            | Carbon Steel                                |
| ▶   Surface             | Zinc-Plated (≥ 5 μm)                        |
| ▶   Corrosion Resistant | Medium (Indoor or dry outdoor applications) |
| ▶   Head Configuration  | Truss Head (low-profile head)               |
| ▶   Drilling Method     | Hammer Drilling                             |
| ▶   Base Material       | Uncracked Concrete (C20 to C50)             |
| ▶   Type of Fastening   | Direct Fixing(Screw-in, no expansion)       |
| ▶   Reusability         | Non-reusable                                |
| ▶   ETA Assessment      | Option 1 approved for structural use        |
| ▶   Installation Method | Screw-in using electric/impact driver       |

● Product Definition

A truss-head concrete screw offering wide surface clamping for secure fastening without washers. Crafted from A4 stainless steel, it provides superior corrosion resistance, enhanced strength, and reliable performance, making it ideal for applications where broader load distribution is required.

| Product Code | Size    | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |               |
|--------------|---------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|---------------|
|              |         |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN |
|              |         |                 | $d_1$                   | $d_2$            | $t_r$                  | $b_{ef}$             | $T_i$                    | $N_{rd}$          | $V_{rd}$      |
| GBATMS06040  | M6 x 40 | 100             | 6                       | 45               | 5                      | 35                   | 10                       | 2.99              | 3.59          |
| GBATMS06050  | M6 x 50 | 100             | 6                       | 45               | 15                     | 35                   | 10                       | 2.99              | 3.59          |
| GBATMS06060  | M6 x 60 | 100             | 6                       | 65               | 5                      | 35                   | 10                       | 2.99              | 3.59          |

## GreenBolt CutFix Flange Concrete Screw - GBCFS



### Specification

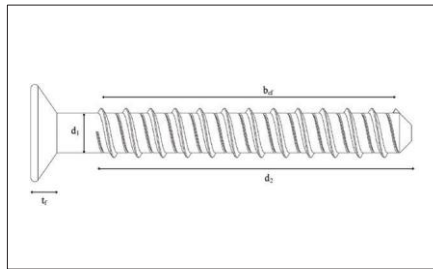
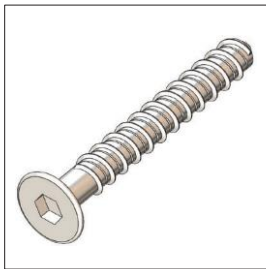
- Material: Zinc-plated steel
- Surface: Zinc-plated finish
- Corrosion Resistant: Yes, protected by zinc coating
- Head Configuration: Flange head with stud
- Drilling Method: Direct fixing into pre-drilled hole
- Base Material: Cracked and non-cracked concrete
- Type of Fastening: Direct mechanical fixing
- Reusability: Removable and reusable
- Applications: High-load fastening
- Installation Type: Torque-controlled installation

## Product Definition

A high-strength hexagon-head screw anchor for cracked and non-cracked concrete. Engineered for heavy load applications, it ensures secure, removable, and reusable fastening with long-lasting reliability.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |          |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>f</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBCFS05040   | M6 x 60  | 100             | 5                       | 45               | 5                      | 35                   | 8                        | 2.99              | 3.59            |
| GBCFS05050   | M6 x 70  | 100             | 5                       | 55               | 5                      | 45                   | 8                        | 2.99              | 3.59            |
| GBCFS05060   | M6 x 80  | 100             | 5                       | 55               | 15                     | 45                   | 8                        | 2.99              | 3.59            |
| GBCFS05080   | M6 x 90  | 50              | 5                       | 55               | 35                     | 45                   | 8                        | 2.99              | 3.59            |
| GBCFS05100   | M6 x 100 | 50              | 5                       | 55               | 55                     | 45                   | 8                        | 2.99              | 3.59            |
| GBCFS06035   | M6 x 110 | 100             | 6                       | 45               | -                      | 35                   | 10                       | 2.99              | 3.59            |
| GBCFS06040   | M6 x 120 | 100             | 6                       | 45               | 5                      | 35                   | 10                       | 2.99              | 3.59            |
| GBCFS06045   | M6 x 130 | 100             | 6                       | 45               | 10                     | 35                   | 10                       | 2.99              | 3.59            |
| GBCFS06050   | M6 x 140 | 100             | 6                       | 45               | 15                     | 35                   | 10                       | 2.99              | 3.59            |
| GBCFS06060   | M6 x 60  | 100             | 6                       | 65               | 5                      | 55                   | 10                       | 2.99              | 3.59            |
| GBCFS06070   | M6 x 70  | 50              | 6                       | 65               | 15                     | 55                   | 10                       | 2.99              | 3.59            |
| GBCFS06080   | M6 x 80  | 50              | 6                       | 65               | 25                     | 55                   | 10                       | 2.99              | 3.59            |
| GBCFS06100   | M6 x 100 | 25              | 6                       | 65               | 45                     | 55                   | 10                       | 2.99              | 3.59            |
| GBCFS06120   | M6 x 120 | 25              | 8                       | 65               | 65                     | 55                   | 10                       | 2.99              | 3.59            |
| GBCFS08055   | M8 x 55  | 50              | 8                       | 65               | 5                      | 50                   | 20                       | 2.99              | 3.59            |
| GBCFS08060   | M8 x 60  | 50              | 8                       | 60               | 10                     | 50                   | 20                       | 2.99              | 3.59            |
| GBCFS08070   | M8 x 70  | 50              | 8                       | 75               | 5                      | 65                   | 20                       | 2.99              | 3.59            |
| GBCFS08075   | M8 x 75  | 25              | 8                       | 75               | 10                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCFS08080   | M8 x 80  | 25              | 8                       | 75               | 15                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCFS08090   | M8 x 90  | 25              | 8                       | 75               | 25                     | 60                   | 20                       | 2.99              | 3.59            |
| GBCFS08100   | M8 x 100 | 25              | 8                       | 75               | 35                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCFS08110   | M8 x 110 | 25              | 8                       | 75               | 45                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCFS08120   | M8 x 120 | 25              | 8                       | 75               | 55                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCFS08140   | M8 x 140 | 25              | 8                       | 75               | 75                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCFS10060   | M10 x 60 | 50              | 10                      | 65               | 5                      | 55                   | 30                       | 2.99              | 3.59            |
| GBCFS10070   | M10 x 70 | 50              | 10                      | 65               | 15                     | 55                   | 30                       | 2.99              | 3.59            |

## GreenBolt CutFix CSK Concrete Screw - GBCKS



### Specification

|                     |                                     |
|---------------------|-------------------------------------|
| Material            | Zinc-plated steel                   |
| Surface             | Zinc-plated finish                  |
| Corrosion Resistant | Yes, protected by zinc coating      |
| Head Configuration  | Countersunk (CSK) head with stud    |
| Drilling Method     | Direct fixing into pre-drilled hole |
| Base Material       | Cracked and non-cracked concrete    |
| Type of Fastening   | Direct mechanical fixing            |
| Reusability         | Removable and reusable              |
| Applications        | High-load fastening                 |
| Installation Type   | Torque-controlled installation      |

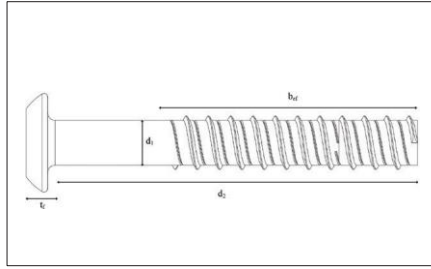
## Product Definition

High-strength concrete screw with a countersunk head for flush installation. Suitable for cracked and non-cracked concrete, designed for heavy-load fixings. Removable and reusable.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>1</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBCKS05040   | M5 x 40   | 100             | 5                       | 45               | 5                      | 35                   | 8                        | 2.99              | 3.59            |
| GBCKS05060   | M5 x 60   | 100             | 5                       | 55               | 15                     | 45                   | 8                        | 2.99              | 3.59            |
| GBCKS05080   | M5 x 80   | 50              | 5                       | 55               | 35                     | 45                   | 8                        | 2.99              | 3.59            |
| GBCKS05100   | M5 x 100  | 50              | 5                       | 55               | 55                     | 45                   | 8                        | 2.99              | 3.59            |
| GBCKS06045   | M6 x 45   | 100             | 6                       | 45               | 10                     | 35                   | 10                       | 2.99              | 3.59            |
| GBCKS06050   | M6 x 50   | 100             | 6                       | 45               | 15                     | 35                   | 10                       | 2.99              | 3.59            |
| GBCKS06060   | M6 x 60   | 100             | 6                       | 65               | 5                      | 55                   | 10                       | 2.99              | 3.59            |
| GBCKS06080   | M6 x 80   | 100             | 6                       | 65               | 25                     | 55                   | 10                       | 2.99              | 3.59            |
| GBCKS06100   | M6 x 100  | 100             | 6                       | 65               | 45                     | 55                   | 10                       | 2.99              | 3.59            |
| GBCKS06120   | M6 x 120  | 100             | 6                       | 65               | 65                     | 55                   | 10                       | 2.99              | 3.59            |
| GBCKS06140   | M6 x 140  | 100             | 6                       | 65               | 85                     | 55                   | 10                       | 2.99              | 3.59            |
| GBCKS08060   | M8 x 60   | 50              | 8                       | 60               | 10                     | 50                   | 20                       | 2.99              | 3.59            |
| GBCKS08080   | M8 x 80   | 25              | 8                       | 75               | 15                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCKS08100   | M8 x 100  | 25              | 8                       | 75               | 35                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCKS08120   | M8 x 120  | 25              | 8                       | 75               | 55                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCKS10100   | M10 x 100 | 25              | 10                      | 95               | 15                     | 85                   | 30                       | 2.99              | 3.59            |
| GBCKS10120   | M10 x 120 | 25              | 10                      | 95               | 35                     | 85                   | 30                       | 2.99              | 3.59            |



## GreenBolt CutFix Truss Concrete Screw - GBCTS



### Specification

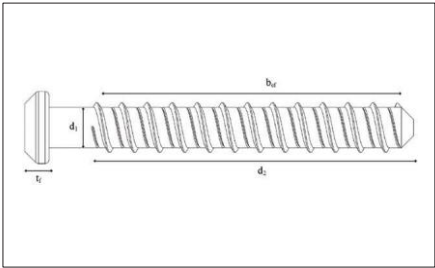
- ▶ Material Zinc-plated steel
- ▶ Surface Zinc-plated finish
- ▶ Corrosion Resistant Yes, protected by zinc coating
- ▶ Head Configuration Countersunk (CSK) head with stud
- ▶ Drilling Method Direct fixing into pre-drilled hole
- ▶ Base Material Cracked and non-cracked concrete
- ▶ Type of Fastening Direct mechanical fixing
- ▶ Reusability Removable and reusable
- ▶ Applications High-load fastening
- ▶ Installation Type Torque-controlled installation

## Product Definition

A direct-fixing truss-head screw for cracked and non-cracked concrete. Ideal for high-load applications, it ensures even load distribution, a clean visible finish, and is fully removable and reusable.

| Product Code | Size    | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |               |
|--------------|---------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|---------------|
|              |         |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN |
|              |         |                 | $d_1$                   | $d_2$            | $t_f$                  | $b_{eff}$            | $T_i$                    | $N_{rd}$          | $V_{rd}$      |
| GBCTS06040   | M6 x 40 | 100             | 6                       | 45               | 5                      | 35                   | 10                       | 2.99              | 3.59          |
| GBCTS06050   | M6 x 50 | 100             | 6                       | 45               | 15                     | 35                   | 10                       | 2.99              | 3.59          |
| GBCTS06060   | M6 x 60 | 100             | 6                       | 65               | 5                      | 35                   | 10                       | 2.99              | 3.59          |

GreenBolt CutFix Pan Concrete Screw - GBCPS



Specification

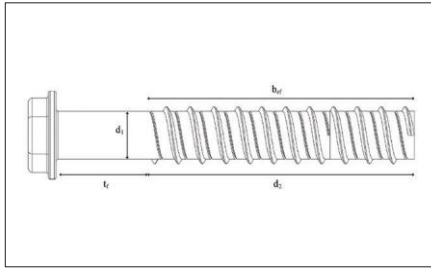
- Material: Zinc-plated steel
- Surface: Zinc-plated finish
- Corrosion Resistant: Yes, protected by zinc coating
- Head Configuration: Pan head with stud
- Drilling Method: Direct fixing into pre-drilled hole
- Base Material: Cracked and non-cracked concrete
- Type of Fastening: Direct mechanical fixing
- Reusability: Removable and reusable
- Applications: High-load fastening
- Installation Type: Torque-controlled installation

Product Definition

A direct-fixing pan-head screw for cracked and non-cracked concrete, designed for high-load applications. Its head allows high tightening torque with simple installation, and it is fully removable and reusable.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |          |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>1</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBCPS05040   | M5 x 40  | 100             | 5                       | 45               | 5                      | 35                   | 8                        | 2.99              | 3.59            |
| GBCPS05060   | M5 x 60  | 100             | 5                       | 55               | 15                     | 45                   | 8                        | 2.99              | 3.59            |
| GBCPS06040   | M6 x 40  | 100             | 6                       | 45               | 5                      | 35                   | 10                       | 2.99              | 3.59            |
| GBCPS06050   | M6 x 50  | 100             | 6                       | 45               | 15                     | 35                   | 10                       | 2.99              | 3.59            |
| GBCPS06060   | M6 x 60  | 100             | 6                       | 65               | 5                      | 55                   | 10                       | 2.99              | 3.59            |
| GBCPS06080   | M6 x 80  | 50              | 6                       | 65               | 25                     | 55                   | 10                       | 2.99              | 3.59            |
| GBCPS06100   | M6 x 100 | 50              | 6                       | 65               | 45                     | 55                   | 10                       | 2.99              | 3.59            |
| GBCPS08060   | M8 x 60  | 25              | 8                       | 60               | 10                     | 50                   | 20                       | 2.99              | 3.59            |
| GBCPS08080   | M8 x 80  | 25              | 8                       | 75               | 15                     | 65                   | 20                       | 2.99              | 3.59            |

## GreenBolt CutFix Hex Concrete Srew - GBCHS



### Specification

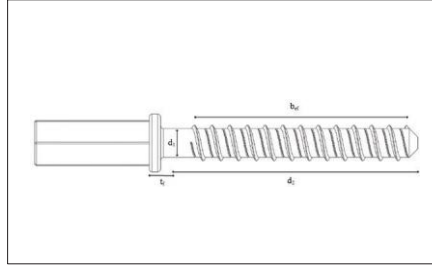
|                     |                                     |
|---------------------|-------------------------------------|
| Material            | Zinc-plated steel                   |
| Surface             | Zinc-plated finish                  |
| Corrosion Resistant | Yes, protected by zinc coating      |
| Head Configuration  | Pan head with stud                  |
| Drilling Method     | Direct fixing into pre-drilled hole |
| Base Material       | Cracked and non-cracked concrete    |
| Type of Fastening   | Direct mechanical fixing            |
| Reusability         | Removable and reusable              |
| Applications        | High-load fastening                 |
| Installation Type   | Torque-controlled installation      |

## Product Definition

Direct fixing screw anchor with hex head and stud bolt for heavy-load fastening in cracked or non-cracked concrete. Removable, reusable, and made of durable zinc-plated steel.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |          |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>1</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBCHS05040   | M5 x 40  | 100             | 5                       | 45               | 5                      | 35                   | 8                        | 2.99              | 3.59            |
| GBCHS05050   | M5 x 50  | 100             | 5                       | 55               | 5                      | 45                   | 8                        | 2.99              | 3.59            |
| GBCHS05060   | M5 x 60  | 100             | 5                       | 55               | 15                     | 45                   | 8                        | 2.99              | 3.59            |
| GBCHS05080   | M5 x 80  | 50              | 5                       | 55               | 35                     | 45                   | 8                        | 2.99              | 3.59            |
| GBCHS05100   | M5 x 100 | 50              | 6                       | 55               | 55                     | 45                   | 8                        | 2.99              | 3.59            |
| GBCHS06035   | M6 x 35  | 100             | 6                       | 45               | -                      | 35                   | 10                       | 2.99              | 3.59            |
| GBCHS06040   | M6 x 40  | 100             | 6                       | 45               | 5                      | 35                   | 10                       | 2.99              | 3.59            |
| GBCHS06045   | M6 x 45  | 100             | 6                       | 45               | 10                     | 35                   | 10                       | 2.99              | 3.59            |
| GBCHS06050   | M6 x 50  | 100             | 6                       | 45               | 15                     | 35                   | 10                       | 2.99              | 3.59            |
| GBCHS06060   | M6 x 60  | 100             | 6                       | 65               | 5                      | 55                   | 10                       | 2.99              | 3.59            |
| GBCHS06070   | M6 x 70  | 50              | 6                       | 65               | 15                     | 55                   | 10                       | 2.99              | 3.59            |
| GBCHS06080   | M6 x 80  | 50              | 6                       | 65               | 25                     | 55                   | 10                       | 2.99              | 3.59            |
| GBCHS06100   | M6 x 100 | 25              | 6                       | 65               | 45                     | 55                   | 10                       | 2.99              | 3.59            |
| GBCHS06120   | M6 x 120 | 25              | 6                       | 65               | 65                     | 55                   | 10                       | 2.99              | 3.59            |
| GBCHS08055   | M8 x 55  | 50              | 6                       | 60               | 5                      | 50                   | 10                       | 2.99              | 3.59            |
| GBCHS08060   | M8 x 60  | 50              | 6                       | 60               | 10                     | 50                   | 20                       | 2.99              | 3.59            |
| GBCHS08070   | M8 x 70  | 50              | 8                       | 75               | 5                      | 65                   | 20                       | 2.99              | 3.59            |
| GBCHS08075   | M8 x 75  | 25              | 8                       | 75               | 10                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCHS08080   | M8 x 80  | 25              | 8                       | 75               | 15                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCHS08090   | M8 x 90  | 25              | 8                       | 75               | 25                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCHS08100   | M8 x 100 | 400             | 8                       | 75               | 35                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCHS08110   | M8 x 110 | 400             | 8                       | 75               | 45                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCHS08120   | M8 x 120 | 400             | 8                       | 75               | 55                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCHS08140   | M8 x 140 | 300             | 8                       | 75               | 75                     | 65                   | 20                       | 2.99              | 3.59            |
| GBCHS10060   | M10 x 60 | 200             | 10                      | 65               | 5                      | 55                   | 30                       | 2.99              | 3.59            |
| GBCHS10070   | M10 x 70 | 200             | 10                      | 65               | 15                     | 55                   | 30                       | 2.99              | 3.59            |

## GreenBolt CutFix Socket Concrete Screw - GBCSS



### Specification

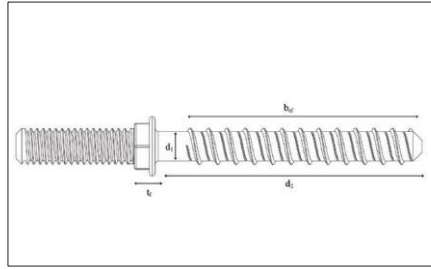
|                     |                                     |
|---------------------|-------------------------------------|
| Material            | Zinc-plated steel                   |
| Surface             | Zinc-plated finish                  |
| Corrosion Resistant | Yes, protected by zinc coating      |
| Head Configuration  | Socket head with stud               |
| Drilling Method     | Direct fixing into pre-drilled hole |
| Base Material       | Cracked and non-cracked concrete    |
| Type of Fastening   | Direct mechanical fixing            |
| Reusability         | Removable and reusable              |
| Applications        | High-load fastening                 |
| Installation Type   | Torque-controlled installation      |

## Product Definition

Direct fixing screw anchor with socket head and stud bolt for secure heavy-load fastening in cracked or non-cracked concrete. Removable, reusable, and manufactured from high-strength zinc-plated steel.

| Product Code | Size    | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |               |
|--------------|---------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|---------------|
|              |         |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN |
|              |         |                 | $d_1$                   | $d_2$            | $t_r$                  | $b_{ef}$             | $T_i$                    | $N_{rd}$          | $V_{rd}$      |
| GBCSS05035S  | M5 x 35 | 50              | 5                       | 45               | -                      | 35                   | 8                        | 2.99              | 3.59          |
| GBCSS06035   | M6 x 35 | 50              | 6                       | 45               | -                      | 35                   | 10                       | 2.99              | 3.59          |
| GBCSS06040   | M6 x 40 | 50              | 6                       | 45               | -                      | 35                   | 10                       | 2.99              | 3.59          |
| GBCSS06055   | M6 x 55 | 50              | 6                       | 65               | -                      | 55                   | 10                       | 2.99              | 3.59          |
| GBCSS08050T  | M8 x 50 | 50              | 8                       | 60               | -                      | 50                   | 20                       | 2.99              | 3.59          |
| GBCSS08050W  | M8 x 50 | 50              | 8                       | 60               | -                      | 50                   | 20                       | 2.99              | 3.59          |

## GreenBolt CutFix Pin Concrete Srew - GBCIS



### Specification

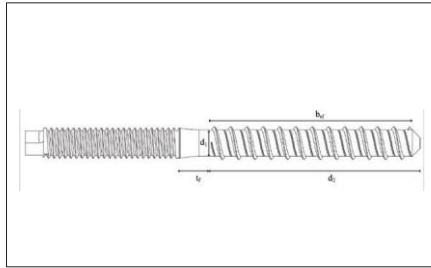
|                     |                                     |
|---------------------|-------------------------------------|
| Material            | Zinc-plated steel                   |
| Surface             | Zinc-plated finish                  |
| Corrosion Resistant | Yes, protected by zinc coating      |
| Head Configuration  | Pin head with stud                  |
| Drilling Method     | Direct fixing into pre-drilled hole |
| Base Material       | Cracked and non-cracked concrete    |
| Type of Fastening   | Direct mechanical fixing            |
| Reusability         | Removable and reusable              |
| Applications        | High-load fastening                 |
| Installation Type   | Torque-controlled installation      |

## Product Definition

Direct fixing screw anchor with pin head and stud bolt for high-load applications in cracked or non-cracked concrete. Removable, reusable, and built from durable zinc-plated steel.

| Product Code | Size    | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |               |
|--------------|---------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|---------------|
|              |         |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN |
|              |         |                 | $d_1$                   | $d_2$            | $t_f$                  | $b_{ef}$             | $T_i$                    | $N_{rd}$          | $V_{rd}$      |
| GBCIS06035   | M6 x 35 | 100             | 6                       | 45               | -                      | 35                   | 10                       | 2.99              | 3.59          |
| GBCIS06055   | M6 x 55 | 100             | 6                       | 65               | -                      | 35                   | 10                       | 2.99              | 3.59          |

## GreenBolt CutFix Stud Concrete Screw - GBCUS



### Specification

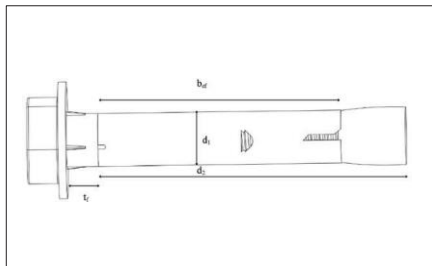
|                     |                                     |
|---------------------|-------------------------------------|
| Material            | Zinc-coated steel                   |
| Surface             | Zinc-plated finish                  |
| Corrosion Resistant | Yes, protected by zinc coating      |
| Head Configuration  | Threaded stud (no separate head)    |
| Drilling Method     | Direct fixing into pre-drilled hole |
| Base Material       | Cracked and non-cracked concrete    |
| Type of Fastening   | Direct mechanical fixing            |
| Reusability         | Removable and reusable              |
| Applications        | HVAC hangers, suspended ceiling     |

## Product Definition

Direct fixing screw anchor with threaded stud for heavy-load fastening in cracked or non-cracked concrete. Removable, reusable, and made from strong zinc-coated steel.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |               |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|---------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN |
|              |           |                 | $d_1$                   | $d_2$            | $t_f$                  | $b_{ef}$             | $T_i$                    | $N_{rd}$          | $V_{rd}$      |
| GBCUS06100   | M6 x 100  | 50              | 6                       | 65               | 31                     | 55                   | 10                       | 2.99              | 3.59          |
| GBCUS06120   | M6 x 120  | 50              | 6                       | 65               | 51                     | 55                   | 10                       | 2.99              | 3.59          |
| GBCUS08110   | M8 x 110  | 50              | 8                       | 75               | 29                     | 65                   | 20                       | 2.99              | 3.59          |
| GBCUS08130   | M8 x 130  | 50              | 8                       | 75               | 49                     | 65                   | 20                       | 2.99              | 3.59          |
| GBCUS10120   | M10 x 120 | 25              | 10                      | 85               | 26                     | 75                   | 30                       | 2.99              | 3.59          |
| GBCUS10140   | M10 x 140 | 25              | 10                      | 85               | 46                     | 75                   | 3                        | 2.99              | 3.59          |

## Greenbolt HexLock Sleeve Anchor (8.8) - GBHESA



### Specification

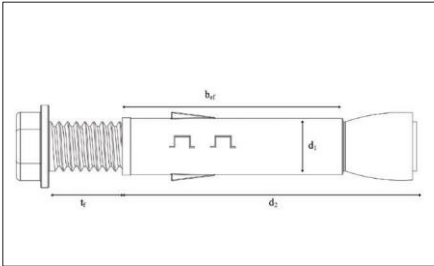
- ▶ Material: Steel grade 8.8
- ▶ Surface: Zinc-plated / corrosion-protected
- ▶ Corrosion Resistant: Yes, protected by zinc coating
- ▶ Head Configuration: Hexagonal head
- ▶ Drilling Method: Pre-drilled hole (torque-controlled)
- ▶ Base Material: Solid materials (concrete, stone, brick)
- ▶ Type of Fastening: Mechanical expansion
- ▶ Reusability: Removable and reusable

## Product Definition

A medium-duty sleeve anchor with a high-strength 8.8 grade hexagonal bolt, designed for solid materials. Its material properties provide superior tensile and shear strength, ensuring secure and reliable fastening for structural applications.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |               |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|---------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>1</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           |                   |               |
| GBHESA8808C  | M6 x 45   | 200             | 8                       | 45               | 5                      | 30                   | 10                       | 3.67              | 5.39          |
| GBHESA8808L  | M6 x 60   | 200             | 8                       | 45               | 20                     | 30                   | 10                       | 3.67              | 5.39          |
| GBHESA8808C  | M6 x 80   | 100             | 8                       | 45               | 40                     | 30                   | 10                       | 3.67              | 5.39          |
| GBHESA8808L  | M6 x 100  | 50              | 8                       | 45               | 60                     | 30                   | 10                       | 3.67              | 5.39          |
| GBHESA8810C  | M8 x 60   | 100             | 10                      | 60               | 5                      | 40                   | 20                       | 6.67              | 8.3           |
| GBHESA8810L  | M8 x 80   | 100             | 10                      | 60               | 27                     | 40                   | 20                       | 6.67              | 8.3           |
| GBHESA8810C  | M8 x 100  | 50              | 10                      | 60               | 47                     | 40                   | 20                       | 6.67              | 8.3           |
| GBHESA8810M  | M8 x 120  | 50              | 10                      | 60               | 67                     | 40                   | 20                       | 6.67              | 8.3           |
| GBHESA8810L  | M8 x 140  | 25              | 10                      | 60               | 87                     | 40                   | 20                       | 6.67              | 8.3           |
| GBHESA8812C  | M10 x 70  | 100             | 12                      | 75               | 5                      | 48                   | 35                       | 9.09              | 10.91         |
| GBHESA8812L  | M10 x 100 | 50              | 12                      | 75               | 32                     | 48                   | 35                       | 9.09              | 10.91         |
| GBHESA8812C  | M10 x 120 | 50              | 12                      | 75               | 52                     | 48                   | 35                       | 9.09              | 10.91         |
| GBHESA8812L  | M10 x 150 | 25              | 12                      | 75               | 82                     | 48                   | 35                       | 9.09              | 10.91         |
| GBHESA8816C  | M12 x 80  | 50              | 16                      | 80               | 5                      | 55                   | 50                       | 11.15             | 13.38         |
| GBHESA8816L  | M12 x 110 | 50              | 16                      | 80               | 37                     | 55                   | 50                       | 11.15             | 13.38         |
| GBHESA8820C  | M16 x 110 | 25              | 20                      | 105              | 15                     | 72                   | 140                      | 20.04             | 40.07         |

Greenbolt FlangeNut Sleeve Anchor - 8.8 - GBNESA



Specification

- Material: Steel grade 8.8
- Surface: Zinc-plated / corrosion-protected
- Corrosion Resistant: Yes, protected by zinc coating
- Head Configuration: Flange nut head
- Drilling Method: Pre-drilled hole (torque-controlled)
- Base Material: Solid materials (concrete, stone, brick)
- Type of Fastening: Mechanical expansion
- Reusability: Removable and reusable

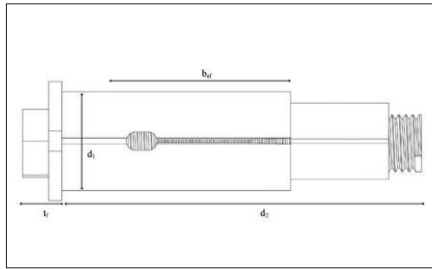
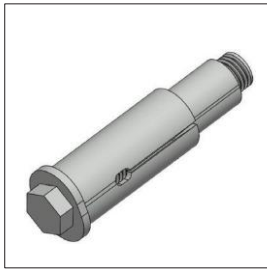
Product Definition

A medium-duty sleeve anchor with a flange nut and 8.8 grade bolt, offering high tensile strength and improved load distribution. Designed for solid materials, it ensures secure and durable fastening in demanding applications.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |          |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>1</sub>         | b <sub>1</sub>       | T <sub>1</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBNESA8808C  | M6 x 45  | 100             | 12                      | 60               | 8                      | 30                   | 10                       | 0.57              | 5.39            |
| GBNESA8808L  | M8 x 55  | 50              | 14                      | 65               | 15                     | 35                   | 20                       | 2.24              | 6.79            |
| GBNESA8810C  | M10 x 65 | 50              | 16                      | 75               | 23                     | 45                   | 40                       | 3.26              | 9.9             |
| GBNESA8810L  | M12 x 75 | 25              | 20                      | 90               | 30                     | 55                   | 65                       | 4.56              | 25.29           |
| GBNESA8812C  | M16 x 90 | 10              | 24                      | 105              | 17                     | 70                   | 150                      | 5.83              | 38.41           |



## Greenbolt Flush Sleeve Anchor - 8.8 - GBFESA



### Specification

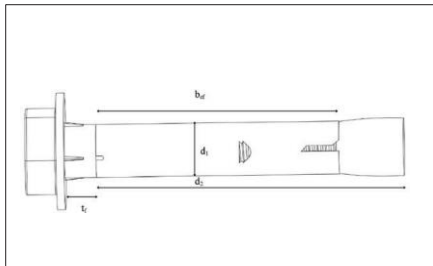
- ▶ Material: Steel grade 8.8
- ▶ Surface: Zinc-plated / corrosion-protected
- ▶ Corrosion: Yes, protected by zinc coating
- ▶ Resistant
- ▶ Head Configuration: Flat / Flushnut head
- ▶ Drilling Method: Pre-drilled hole (torque-controlled)
- ▶ Base Material: Solid materials (concrete, stone, brick)
- ▶ Type of Fastening: Mechanical expansion
- ▶ Reusability: Removable and reusable

## Product Definition

A medium-duty flush sleeve anchor with an 8.8 grade high-strength bolt, designed for solid materials. Its flush head ensures a neat finish, while the superior tensile and shear strength of the 8.8 grade provides reliable fastening for structural and heavy-duty applications.

| Product Code | Size    | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |               |
|--------------|---------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|---------------|
|              |         |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN |
|              |         |                 | $d_1$                   | $d_2$            | $t_1$                  | $b_{ef}$             | $T_i$                    | $N_{rd}$          | $V_{rd}$      |
| GBFESA8808   | M6 x 40 | 200             | 8                       | 40               | 5                      | 25                   | 10                       | 2.96              | 4.1           |
| GBFESA8810   | M8 x 40 | 100             | 10                      | 45               | 5                      | 25                   | 20                       | 3.42              | 4.1           |

## ● Greenbolt Prime Sleeve Anchor - A2 - GBPSSA



### Specification

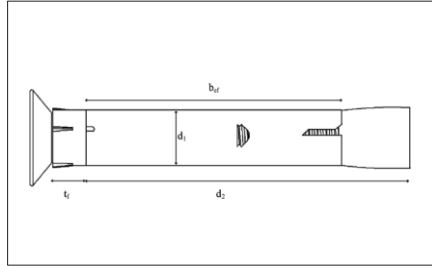
- ▶ Material Galvanized Steel
- ▶ Surface Zinc-coated / Galvanized finish
- ▶ Corrosion Resistant Yes, corrosion-protected
- ▶ Head Configuration Flat head
- ▶ Drilling Method Pre-drilled hole (torque-controlled)
- ▶ Base Material Solid materials(concrete, stone, brick)
- ▶ Type of Fastening Mechanical expansion
- ▶ Reusability Removable and reusable

## ● Product Definition

Sleeve-type anchor with flat head for medium-load fixing in solid materials. Expands by controlled torque and includes anti-rotation features for secure installation. Made from galvanized steel for durability.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>1</sub>         | b <sub>eff</sub>     | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBPSSA208C   | M6 x 45   | 100             | 8                       | 45               | 5                      | 30                   | 10                       | 5.39              | 4.52            |
| GBPSSA208L   | M6 x 60   | 100             | 8                       | 45               | 20                     | 30                   | 10                       | 5.39              | 4.52            |
| GBPSSA209C   | M6 x 45   | 100             | 9                       | 45               | 5                      | 30                   | 10                       | 5.39              | 4.52            |
| GBPSSA209L   | M6 x 60   | 100             | 9                       | 45               | 20                     | 30                   | 10                       | 5.39              | 4.52            |
| GBPSSA210C   | M8 x 60   | 100             | 10                      | 60               | 5                      | 40                   | 20                       | 5.39              | 4.52            |
| GBPSSA210L   | M8 x 80   | 100             | 10                      | 60               | 27                     | 40                   | 20                       | 5.28              | 8.24            |
| GBPSSA211C   | M8 x 60   | 100             | 11                      | 60               | 5                      | 40                   | 20                       | 5.28              | 8.24            |
| GBPSSA211L   | M8 x 80   | 100             | 11                      | 60               | 27                     | 40                   | 20                       | 5.28              | 8.24            |
| GBPSSA212C   | M10 x 70  | 100             | 12                      | 75               | 5                      | 48                   | 35                       | 5.28              | 8.24            |
| GBPSSA212L   | M10 x 100 | 100             | 12                      | 75               | 32                     | 48                   | 35                       | 7.78              | 10.91           |
| GBPSSA214C   | M10 x 70  | 50              | 14                      | 75               | 5                      | 48                   | 35                       | 7.78              | 10.91           |
| GBPSSA214L   | M10 x 100 | 100             | 14                      | 75               | 32                     | 48                   | 35                       | 7.78              | 10.91           |
| GBPSSA216C   | M12 x 80  | 50              | 6                       | 80               | 5                      | 55                   | 50                       | 7.78              | 10.91           |
| GBPSSA216L   | M12 x 110 | 50              | 16                      | 80               | 37                     | 55                   | 50                       | 8.89              | 13.38           |
| GBPSSA220C   | M16 x 110 | 25              | 20                      | 80               | 15                     | 72                   | 140                      | 11                | 16.5            |

## Greenbolt Apex Sleeve Anchor - A2 - GBXSSA



### Specification

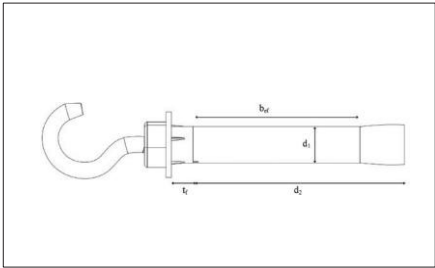
- ▶ Material: A2 Stainless Steel
- ▶ Surface: Natural finish
- ▶ Corrosion Resistant: Yes, high resistance due to stainless steel
- ▶ Head Configuration: Tamper-proof head
- ▶ Drilling Method: Pre-drilled hole (torque-controlled)
- ▶ Base Material: Solid materials (concrete, stone, brick)
- ▶ Type of Fastening: Mechanical expansion
- ▶ Reusability: Removable and reusable

## Product Definition

Sleeve-type anchor with tamper-proof head for medium-load fixing in solid materials. Expands by controlled torque with anti-rotation design, made from durable galvanized steel.

| Product Code | Size      | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|-----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |           |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |           |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>f</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBXSSA08C    | M6 x 45   | 100             | 8                       | 45               | 5                      | 30                   | 10                       | 3.85              | 3.25            |
| GBXSSA08L    | M6 x 60   | 100             | 8                       | 45               | 20                     | 30                   | 10                       | 3.85              | 3.23            |
| GBXSSA10C    | M8 x 60   | 100             | 10                      | 60               | 5                      | 40                   | 20                       | 3.77              | 5.88            |
| GBXSSA10L    | M6 x 80   | 100             | 10                      | 60               | 27                     | 40                   | 20                       | 3.77              | 5.88            |
| GBXSSA12C    | M10 x 70  | 50              | 12                      | 75               | 5                      | 48                   | 35                       | 2.62              | 7.79            |
| GBXSSA12L    | M10 x 100 | 50              | 12                      | 75               | 32                     | 48                   | 35                       | 2.62              | 7.79            |

● Greenbolt Talon Sleeve Anchor - A2 - GBTSSA



Specification

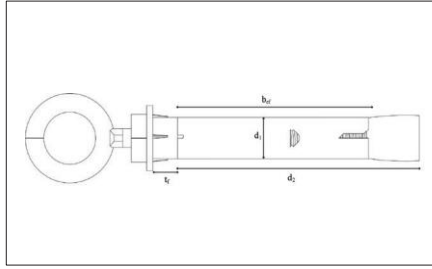
- ▶ Material A2 Stainless Steel
- ▶ Surface Natural finish
- ▶ Corrosion Resistant Yes, high resistance due to stainless steel
- ▶ Head Configuration Hexagonal head with washer
- ▶ Drilling Method Pre-drilled hole (torque-controlled)
- ▶ Base Material Solid materials(concrete, stone, brick)
- ▶ Type of Fastening Mechanical expansion
- ▶ Reusability Removable and reusable

● Product Definition

A premium torque-controlled sleeve anchor with a forged hook for secure attachment of cables, fences, and similar elements. Made from A2 stainless steel, it ensures high corrosion resistance, reliable medium-load fixing in solid materials, and features anti-rotation design for stable installation.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |          |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>f</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBTSSA208C   | M6 x 45  | 100             | 8                       | 45               | -                      | 35                   | 10                       | 1.16              | 1.6             |
| GBTSSA210C   | M8 x 60  | 100             | 10                      | 60               | -                      | 45                   | 20                       | 1.16              | 2               |
| GBTSSA212C   | M10 x 70 | 50              | 12                      | 75               | -                      | 53                   | 30                       | 2.13              | 3               |

## Greenbolt LockEye Sleeve Anchor - A2 - GBLSSA



### Specification

|                     |   |
|---------------------|---|
| Material            | A2 Stainless Steel                          |
| Surface             | Natural finish                              |
| Corrosion Resistant | Yes, high resistance due to stainless steel |
| Head Configuration  | Forged eyebolt                              |
| Drilling Method     | Pre-drilled hole (torque-controlled)        |
| Base Material       | Solid materials (concrete, stone, brick)    |
| Type of Fastening   | Mechanical expansion                        |
| Reusability         | Removable and reusable                      |

## Product Definition

Sleeve-type anchor with forged eyebolt for installing cables, fencing, and similar elements. Designed for medium-load fixing in solid materials, it expands by controlled torque with anti-rotation features. Made from durable A2 stainless steel.

| Product Code | Size     | Pack Size (pcs) | Installation Parameters |                  |                        |                      |                          | Design Resistance |                 |
|--------------|----------|-----------------|-------------------------|------------------|------------------------|----------------------|--------------------------|-------------------|-----------------|
|              |          |                 | Drill Ø                 | Drill Hole Depth | Max. Fixture Thickness | eff. Anchorage depth | Installation Torque [Nm] | Tensile Load kN   | Shear Load kN   |
|              |          |                 | d <sub>1</sub>          | d <sub>2</sub>   | t <sub>f</sub>         | b <sub>ef</sub>      | T <sub>i</sub>           | N <sub>rd</sub>   | V <sub>rd</sub> |
| GBLSSA208C   | M6 x 45  | 100             | 8                       | 45               | -                      | 35                   | 10                       | 2.25              | 2               |
| GBLSSA210C   | M8 x 60  | 100             | 10                      | 60               | -                      | 45                   | 20                       | 5.28              | 3.5             |
| GBLSSA212C   | M10 x 70 | 50              | 12                      | 75               | -                      | 53                   | 35                       | 7.78              | 4.8             |