

# HBS EVO C5

## COUNTERSUNK SCREW



### C5 ATMOSPHERIC CORROSIVITY

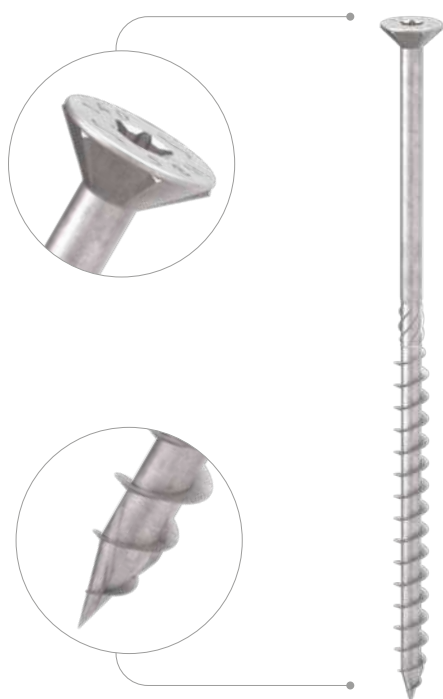
Multi-layer coating capable of withstanding outdoor environments classified C5 according to ISO 9223. SST (Salt Spray Test) with exposure time greater than 3000h carried out on screws previously screwed and unscrewed in Douglas fir timber.

### MAXIMUM STRENGTH

It is the screw of choice when high mechanical performance is required under very adverse environmental and wood corrosive conditions.

### 3 THORNS TIP

Thanks to the 3 THORNS tip, minimum installation distances are reduced. More screws can be used in less space and larger screws in smaller elements, reducing costs and time.



MANUALS



BIT INCLUDED

LENGTH [mm]

3 **3,5** 8 12

DIAMETER [mm]

12 **30** 320 1000

SERVICE CLASS

**SC1** **SC2** **SC3**

ATMOSPHERIC CORROSIVITY

**C1** **C2** **C3** **C4** **C5**

WOOD CORROSIVITY

**T1** **T2** **T3** **T4**

MATERIAL

**C5**  
EVO  
COATING

carbon steel with C5 EVO coating with very high corrosion resistance



### FIELDS OF USE

- timber based panels
- solid timber and glulam
- CLT and LVL
- high density woods

## CODES AND DIMENSIONS

| d <sub>1</sub><br>[mm] | CODE         | L<br>[mm] | b<br>[mm] | A<br>[mm] | pcs |
|------------------------|--------------|-----------|-----------|-----------|-----|
| 3,5<br>TX 15           | HBSEVO3530C5 | 30        | 18        | 12        | 500 |
|                        | HBSEVO3540C5 | 40        | 18        | 22        | 500 |
| 4<br>TX 20             | HBSEVO440C5  | 40        | 24        | 16        | 500 |
|                        | HBSEVO450C5  | 50        | 30        | 20        | 400 |
| 4,5<br>TX 20           | HBSEVO4550C5 | 50        | 30        | 20        | 200 |
|                        | HBSEVO4560C5 | 60        | 35        | 25        | 200 |
| 5<br>TX 25             | HBSEVO550C5  | 50        | 24        | 26        | 200 |
|                        | HBSEVO560C5  | 60        | 30        | 30        | 200 |
|                        | HBSEVO570C5  | 70        | 35        | 35        | 100 |
|                        | HBSEVO580C5  | 80        | 40        | 40        | 100 |
|                        | HBSEVO590C5  | 90        | 45        | 45        | 100 |
|                        | HBSEVO5100C5 | 100       | 50        | 50        | 100 |
|                        | HBSEVO680C5  | 80        | 40        | 40        | 100 |
| 6<br>TX 30             | HBSEVO6100C5 | 100       | 50        | 50        | 100 |
|                        | HBSEVO6120C5 | 120       | 60        | 60        | 100 |
|                        | HBSEVO6140C5 | 140       | 75        | 65        | 100 |
|                        | HBSEVO6160C5 | 160       | 75        | 85        | 100 |
|                        | HBSEVO6180C5 | 180       | 75        | 105       | 100 |
|                        | HBSEVO6200C5 | 200       | 75        | 125       | 100 |

| d <sub>1</sub><br>[mm] | CODE         | L<br>[mm] | b<br>[mm] | A<br>[mm] | pcs |
|------------------------|--------------|-----------|-----------|-----------|-----|
| 8<br>TX 40             | HBSEVO8100C5 | 100       | 52        | 48        | 100 |
|                        | HBSEVO8120C5 | 120       | 60        | 60        | 100 |
|                        | HBSEVO8140C5 | 140       | 60        | 80        | 100 |
|                        | HBSEVO8160C5 | 160       | 80        | 80        | 100 |
|                        | HBSEVO8180C5 | 180       | 80        | 100       | 100 |
|                        | HBSEVO8200C5 | 200       | 80        | 120       | 100 |
|                        | HBSEVO8220C5 | 220       | 80        | 140       | 100 |
|                        | HBSEVO8240C5 | 240       | 80        | 160       | 100 |
|                        | HBSEVO8280C5 | 280       | 80        | 200       | 100 |
|                        | HBSEVO8320C5 | 320       | 100       | 220       | 100 |

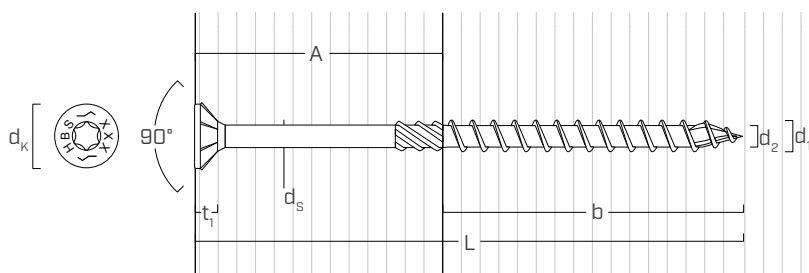
## RELATED PRODUCTS



**HUS EVO**  
TURNED WASHER

see page 68

## GEOMETRY AND MECHANICAL CHARACTERISTICS



### GEOMETRY

| Nominal diameter                          | d <sub>1</sub>   | [mm] | 3,5  | 4    | 4,5  | 5     | 6     | 8     |
|-------------------------------------------|------------------|------|------|------|------|-------|-------|-------|
| Head diameter                             | d <sub>K</sub>   | [mm] | 7,00 | 8,00 | 9,00 | 10,00 | 12,00 | 14,50 |
| Thread diameter                           | d <sub>2</sub>   | [mm] | 2,25 | 2,55 | 2,80 | 3,40  | 3,95  | 5,40  |
| Shank diameter                            | d <sub>3</sub>   | [mm] | 2,45 | 2,75 | 3,15 | 3,65  | 4,30  | 5,80  |
| Head thickness                            | t <sub>1</sub>   | [mm] | 2,20 | 2,80 | 2,80 | 3,10  | 4,50  | 4,50  |
| Pre-drilling hole diameter <sup>(1)</sup> | d <sub>V,S</sub> | [mm] | 2,0  | 2,5  | 2,5  | 3,0   | 4,0   | 5,0   |
| Pre-drilling hole diameter <sup>(2)</sup> | d <sub>V,H</sub> | [mm] | -    | -    | -    | 3,5   | 4,0   | 6,0   |

<sup>(1)</sup> Pre-drilling valid for softwood.

<sup>(2)</sup> Pre-drilling valid for hardwood and beech LVL.

### CHARACTERISTIC MECHANICAL PARAMETERS

| Nominal diameter | d <sub>1</sub>      | [mm] | 3,5 | 4   | 4,5 | 5   | 6    | 8    |
|------------------|---------------------|------|-----|-----|-----|-----|------|------|
| Tensile strength | f <sub>tens,k</sub> | [kN] | 3,8 | 5,0 | 6,4 | 7,9 | 11,3 | 20,1 |
| Yield moment     | M <sub>y,k</sub>    | [Nm] | 2,1 | 3,0 | 4,1 | 5,4 | 9,5  | 20,1 |

|                                 |                     |                      | softwood<br>(softwood) | LVL softwood<br>(LVL softwood) | pre-drilled beech LVL<br>(beech LVL predrilled) |
|---------------------------------|---------------------|----------------------|------------------------|--------------------------------|-------------------------------------------------|
| Withdrawal resistance parameter | f <sub>ax,k</sub>   | [N/mm <sup>2</sup> ] | 11,7                   | 15,0                           | 29,0                                            |
| Head-pull-through parameter     | f <sub>head,k</sub> | [N/mm <sup>2</sup> ] | 10,5                   | 20,0                           | -                                               |
| Associated density              | ρ <sub>a</sub>      | [kg/m <sup>3</sup> ] | 350                    | 500                            | 730                                             |
| Calculation density             | ρ <sub>k</sub>      | [kg/m <sup>3</sup> ] | ≤ 440                  | 410 ÷ 550                      | 590 ÷ 750                                       |

For applications with different materials please see ETA-11/0030.

For minimum distances and structural values see HBS EVO on page 52.