# SELF DRILLING SCREW

HWH 5.5 X L #5 "A" HX8 TC ALU-16B

- Name of head type
- Ø5.5 outer thread diameter
- Length measured from under the head to the tip of the screw
- Drill point #5 with a drill capactity of 4.0 - 12.5 mm
- Headmark "A" indicates that the screw is made from hardened steel
- Hex head with 8.0 mm width across flats
- Thread cut
- Ø16 mm aluminium washer with black EPDM-rubber

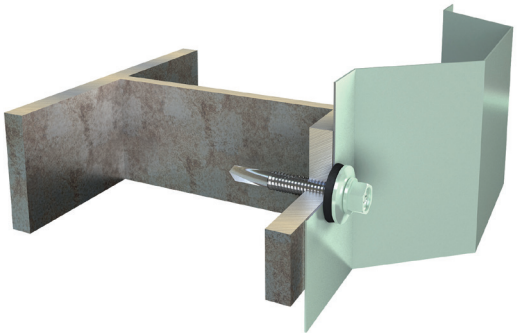
European Technical Assessment ETA-10/0021 | Effective length | Hex head | Hardened steel

## PRODUCT RANGE

| Art.no. | Item name | Washer [mm] | Thread [mm] | Length L [mm] | Effective length $L_{ef}$ [mm] | Drill point | Drill cap. [mm] | Head [mm] | Unit |
|---|---|---|---|---|---|---|---|---|---|
| 12877 | HWH 5.5 X 32 #5 "A" HX8 TC ALU-16B | ALU Ø16 | Ø5.5 | 32 | 9.0 | #5 | 4.0 - 12.5 | HEX 8.0 | 250 |
| 12092 | HWH 5.5 X 38 #5 "A" HX8 TC ALU-16B | | | 38 | 15.0 | | | | |
| 12878 | HWH 5.5 X 51 #5 "A" HX8 TC ALU-16B | | | 51 | 28.0 | | | | 100 |
| 12879 | HWH 5.5 X 76 #5 "A" HX8 TC ALU-16B | | | 76 | 53.0 | | | | |
| 12880 | HWH 5.5 X 102 #5 "A" HX8 TC ALU-16B | | | 102 | 79.0 | | | | |

## ADVANTAGES

- Drilling, tapping and fastening in one operation
- Drill point designed for fast drilling in harder steel
- Tall head for easy and stable mounting
- Available with washer for better load distribution and increased sealing abilities
- Surface treated with ZYTEC™ M for optimal corrosion protection
- Surface treatment for use in corrosion category C3 certified by SP
- Available in more than 500 colours (Qualicoat certified facade quality powder)
- CE marked according to european standards







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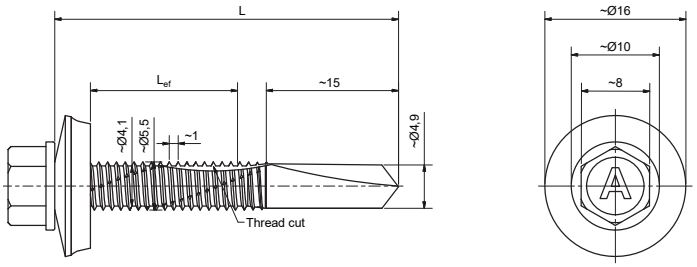
## PRODUCT DATA

| Technical data | |
|---|---|
| Head: | Hex head with 8.0 mm width across flats |
| Washer: | Ø16 mm aluminium washer with black EPDM-rubber |
| Diameter: | Ø5.5 mm |
| Effective length: | $L_{ef}$ = L - 23.0 mm |
| Drill point: | #5 |
| Drill capacity: | 4.0 - 12.5 mm (Stål GD280) |
| Material: | Hardened steel |
| Surface treatment: | ZYTEC™ M |
| Corrosivity category: | C3 (High) according to EN ISO 12944-2 |




## DESIGN RESISTANCE

The design resistance of the screw is determined in accordance with european technical approval ETA-10/0021.

The resistance when loaded in tension, $N_{Rd}$, appears from the table on the right and is the minimum value of the pull-out resistance of the supporting object, the pull-through resistance of the fixed object, and the tension resistance of the screw.

The resistance when loaded in shear, $V_{Rd}$, appears from the table on the right and is the minium value of the bearing resistance of the supporting object and the fixed object, and the shear resistance of the screw.

The theoretical values must be considered indicative since the conditions of the construction site may vary. Practical tests of the specific application are recommended for verification of the listed values.

Assumptions:

Fixed object: Steel S280GD - EN 10346
Supporting object: Steel S280GD - EN 10346

$t_I$ = Thickness of the fixed object [mm]
$t_{II}$ = Thickness of the supporting object [mm]

All resistances are stated in kN (1 kN ≈ 100 kg)
Safety factor: $\gamma_M$ = 1.35

Design resistance when loaded in tension, $N_{Rd}$ [kN]

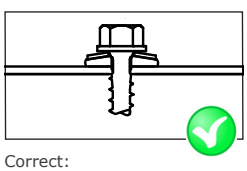
| $t_I$ \ $t_{II}$ | 4.00 | 5.00 | 6.00 | 8.00 | 10.00 | 12.00 |
|---|---|---|---|---|---|---|
| 0.50 | 1.31 | 1.31 | 1.31 | 1.31 | 1.31 | 1.31 |
| 0.55 | 1.45 | 1.45 | 1.45 | 1.45 | 1.45 | - |
| 0.63 | 1.74 | 1.74 | 1.74 | 1.74 | 1.74 | - |
| 0.75 | 2.02 | 2.02 | 2.02 | 2.02 | 2.02 | - |
| 0.88 | 2.12 | 2.12 | 2.12 | 2.12 | 2.12 | - |
| 1.00 | 2.21 | 2.21 | 2.21 | 2.21 | 2.21 | - |
| 1.25 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | - |
| 1.50 | 3.61 | 3.61 | 3.61 | 3.61 | 3.61 | - |

Design resistance when loaded in shear, $V_{Rd}$ [kN]

| $t_I$ \ $t_{II}$ | 4.00 | 5.00 | 6.00 | 8.00 | 10.00 | 12.00 |
|---|---|---|---|---|---|---|
| 0.50 | 1.67 | 1.67 | 1.67 | 1.67 | 1.67 | 1.67 |
| 0.55 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | - |
| 0.63 | 2.20 | 2.20 | 2.20 | 2.20 | 2.20 | - |
| 0.75 | 2.72 | 2.72 | 2.72 | 2.72 | 2.72 | - |
| 0.88 | 3.24 | 3.24 | 3.24 | 3.24 | 3.24 | - |
| 1.00 | 3.76 | 3.76 | 3.76 | 3.76 | 3.76 | - |
| 1.25 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | - |
| 1.50 | 5.09 | 5.09 | 5.09 | 5.09 | 5.09 | - |

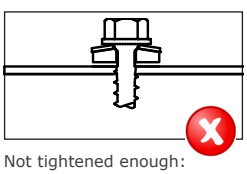
## INSTALLATION INSTRUCTION

Installation instructions must be followed to achieve optimal performance.



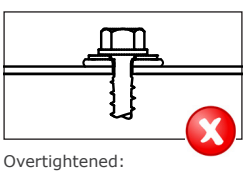
Correct:

When correctly installed optimal performance is achieved



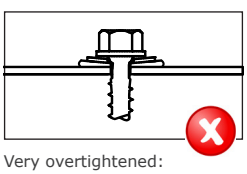
Not tightened enough:

When the screw is not tightened enough the risk of an unsealed and unstable assembly are present



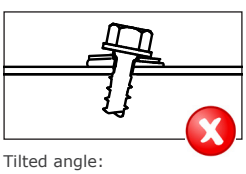
Overtightened:

When overtightened the risk of an unsealed assembly is present. The corrosion resistance can also be reduced



Very overtightened:

When very overtightened the risk of an unsealed assembly is present. The carrying capacity and the corrosion resistance can also be reduced



Tilted angle:

If the angle is tilted the risk of an unsealed assembly is present. The carrying capacity and the corrosions resistance can also be reduced





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# DECLARATION OF PERFORMANCE

In compliance with 'REGULATION (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products' (the Construction Products Regulation or CPR), it is stated that the performance of the construction product identified below is in conformity with the declared performance.

Product identifications:

**MG:06 PG:2390 | HWH 5.5 X L #5 "A" HX8 TC ALU-16B**

(Main Group # Product Group # | Item name)

The screws mentioned above are packed in branded cartons clearly marked with CE according to ETA-10/0021. For specification of the intended use and declared performance of the product please refer to the technical data sheet.

Placed on the market by:

**ASTON SWEDEN AB**

Hangarvägen 23
SE-691 35 Karlskoga, Sweden

(Name / address)

| | |
|---|---|
| European Assessment Document: | EAD 330046-01-0602 |
| European Technical Assessment: | ETA-10/0021 |
| Technical Assessment Body: | Deutsches Institut für Bautechnik |
| Notified Body no.: | 0769 |
| System of AVCP: | 2+ |

This declaration of performance is issued under the sole responsibility of the manufacturer identified above.

Morten Johansen
M.Sc., Engineering

Company stamp
ASTON SWEDEN AB

2018-04-23
Date of issue

Ver. 201211
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