# Hilti HUS-M
# SCREW ANCHOR

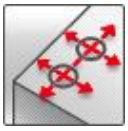
## Technical Datasheet

**Update: Aug-20**

# HUS-M Screw anchor with HUS-WA window aligner

## Everyday standard screw anchor

| Anchor version | | Benefits |
|---|---|---|
|  | HUS-M 6x50 for concrete | - Quick and easy setting<br>- Low expansion forces in base materials |
|  | HUS-M F 6x100 AAC for aerated concrete | - Through fastening<br>- Removable<br>- Window aligner for aligning the wooden window frame |
|  | HUS-WA aligner for wooden frame | |

| Base material | | Installation conditions |
|---|---|---|
|  Concrete (non-cracked) |  Autoclaved aerated concrete |  Small edge distance and spacing |

### Basic loading data (for a single anchor)

**All data in this section applies to:**

- Correct setting (See setting instruction)
- No edge distance and spacing influence
- Concrete as specified in the table
- Concrete C 20/25, $f_{ck,cube}$ = 25 N/mm²
- Applied loads to individual bricks/blocks without compression may not exceed 1,0 kN
- Applied loads to individual bricks/blocks with compression may not exceed 1,4 kN
- Data applies only to bricks/blocks, there is no test data available for loads in mortar joints. Hilti recommends at least 50% load reduction or on site testing, if the location of the anchor in relation to the joint can not be specified because of wall plaster or insulation.
- Plaster, gravelling, lining or levelling courses are regarded as non-bearing and may not be taken into account for calculation of embedment depth

**Note:**
When tightening the screw anchor in soft base materials and in hollow brick, care must be taken not to apply too much torque. If the screw anchor is over-tightened the fastening point is unusable for the HUS-M 6.

| Base material | | Autoclaved aerated concrete |
|---|---|---|
| | | PPW Block |
| Compressive strength | [N/mm²] | 6 |
| Bulk density | [N/mm²] | 0,6 |
| Format (length/width/height) | [mm] | - |

| Anchor size | | | HUS-M 6x50 | HUS-M F 6x100 AAC |
|---|---|---|---|---|
| **Base material** | | | **Non-cracked concrete** | **PPW** |
| Nominal embed. depth | $h_{nom}$ | [mm] | 35 | 80 |
| Edge &spacing distance | $c_{min}$,$s_{min}$≥ | [mm] | 35 | 40 |
| Tension $N_{Rec}$ | | [kN] | 0,65 | 0,4 |
| Shear $V_{Rec}$ | | [kN] | 0,65 | 0,4 |

With overall partial safety factor for action $\gamma$ = 1,4. The partial safety factors for action depend on the type of loading and shall be taken from national regulations.

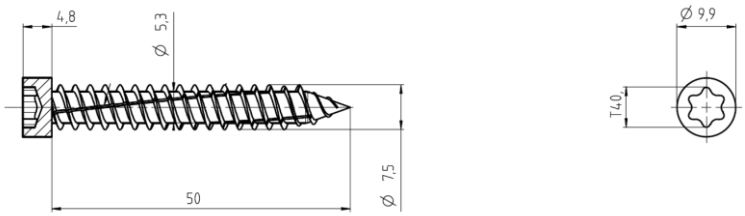
**Material quality**

| Part | Material |
|---|---|
| Screw anchor HUS-M 6x50 | Carbon Steel, galvanized ≥ 5 µm |
| Screw anchor HUS-M F 6x100 ACC | Carbon Steel, zinc flake coating |
| Windoe aligner HUS-WA M16 F | Carbon Steel, zinc flake coating |

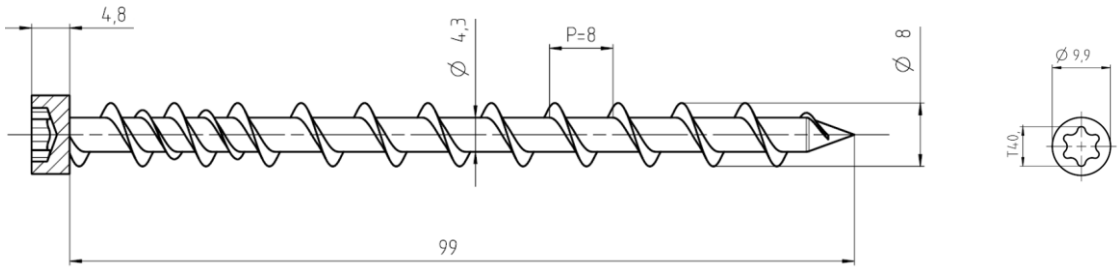
**Anchor dimensions**

| Anchor size | | | HUS-M 6x50 | HUS-M F 6x100 ACC |
|---|---|---|---|---|
| Nominal length of screw | $l_s$ | [mm] | 55 | 100 |
| Core diameter | $d_k$ | [mm] | 5,3 | 4,3 |
| Shaft diameter | d | [mm] | 7,5 | 8,0 |

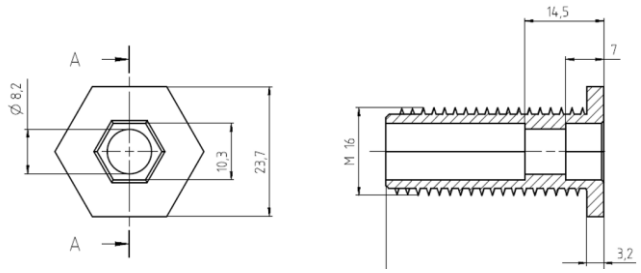
HUS-M 6x50




HUS-M F 6x100 AAC




HUS-WA 16x40



## Setting information

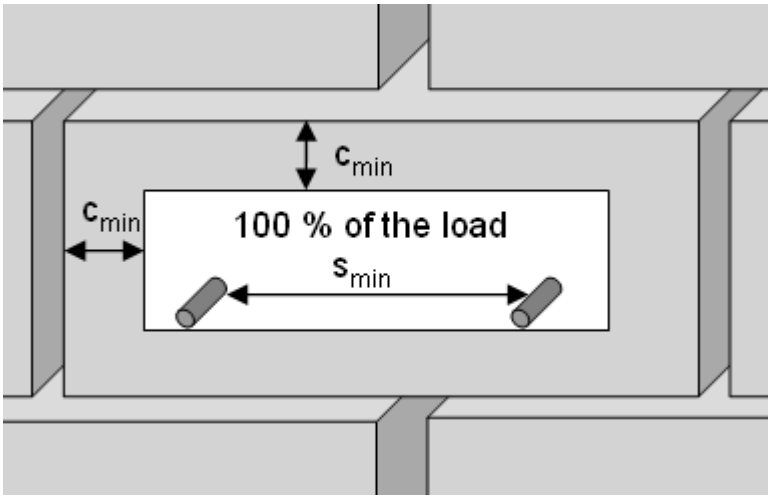
| Anchor type | | | HUS-M 6x50 | HUS-M F 6x100 AAC |
|---|---|---|---|---|
| **Base material** | | | **Concrete C20/25** | **PPW** |
| Nominal embed. depth | $h_{nom}$ | [mm] | 35 | 80 |
| Nominal diameter of drill bit | $d_0$ | [mm] | 6 | 5 |
| Cutting diameter of drill bit | $d_{cut}$ | [mm] | 6,3 | 5,3 |
| Minimum depth of drill hole | $h_1 \geq$ | [mm] | 50 | 50 |
| Diameter of clearance hole in the fixture to clamp a fixture | $d_f \leq$ | [mm] | 8,5 | 6,2 |
| Max. installation torque | $T_{inst}$ | [mm] | 10 | 4 |

**Installation equipment**

| Anchor size | HUS-M 6x50 | HUS-M F 6x100 AAC |
|---|---|---|
| Rotary hammer | TE 4 / TE 6 | |
| Drill bit | TE-CX 6/17 | TE-CX 5/17 |
| Recommended setting tool | SID 2 / SIW 6 AT gear 1 | |
| Accesories | S-B TXI 40 bit | S-B TXI 40 bit |

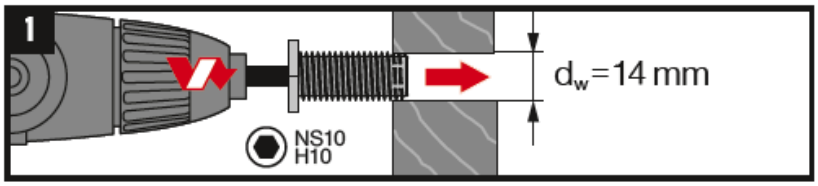
**Permissible anchor location in brick and block walls:**

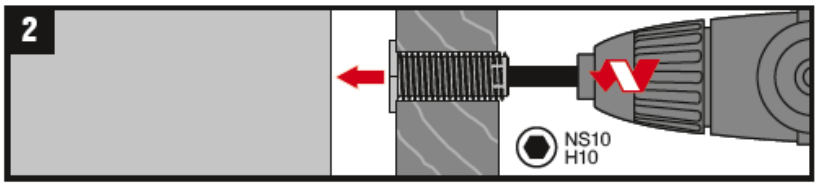
- The minimum distance to horizontal and vertical mortar joint ($c_{min}$) is stated in the recommended load table.
- Data applies only to bricks/blocks, there is no test data available for loads in mortar joints. Hilti recommends at least a 50% load reduction or on site testing, if the location of the anchor in relation to the joint (see drawing) can not be specified because of wall plaster or insulation.

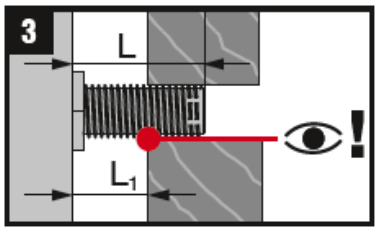


**Setting instructions**

***For detailed information on installation see instruction for use given with the package of the product**




| | L (mm) | max. $L_1$ (mm) |
|---|---|---|
| HUS-M WA 14x28 F | 28 | 13 |
| HUS-M WA 14x40 F | 40 | 23 |
| HUS-M WA 14x60 F | 60 | 40 |