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Company:  
 Address:  
 Phone | Fax: |  
 Design: Masonry - Feb 23, 2023  
 Fastening point:

Page: 1  
 Specifier:  
 E-Mail:  
 Date: 24/02/2023

**Specifier's comments:**

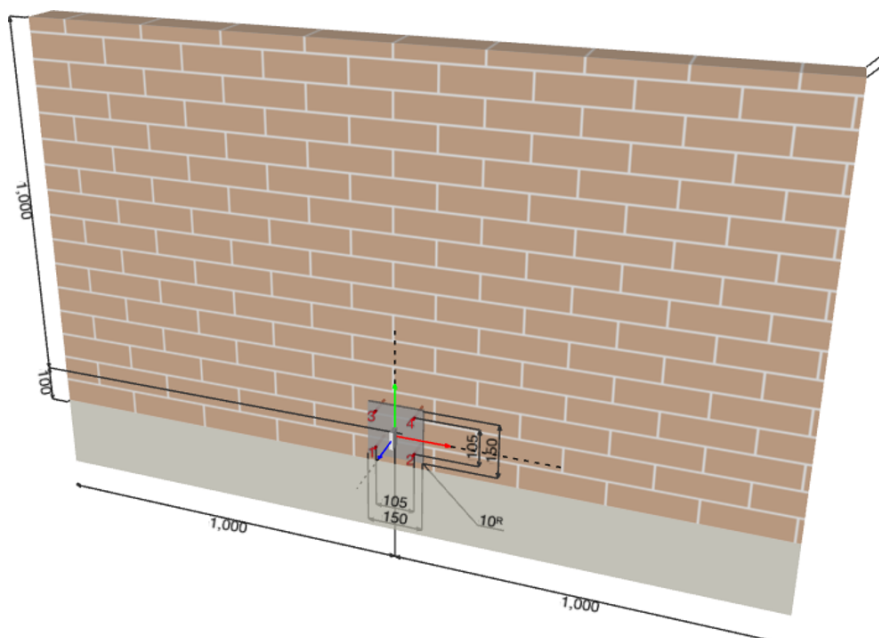
**1 Input data**



|                                  |  |
|----------------------------------|--|
| <b>Anchor type and diameter:</b> | <b>HIT-HY 270 + HAS-U 8.8 M8, HIT-SC 16x50</b>   |
| Item number:                     | 2237091 HAS-U 8.8 M8x110 (element) / 2092828 HIT-HY 270 (adhesive) / 375981 HIT-SC 16x50 (sieve sleeve)  |
| Effective embedment depth:       | $h_{ef,act} = 50.0$ mm   |
| Material:                        | 8.8  |
| Evaluation Service Report:       | Hilti Technical Data   |
| Issued   Valid:                  | -   -  |
| Proof:                           | Design Method ETAG 029, Annex C  |
| Stand-off installation:          | $e_b = 0.0$ mm (no stand-off); $t = 10.0$ mm   |
| Anchor plate <sup>R</sup> :      | $l_x \times l_y \times t = 150.0$ mm x $150.0$ mm x $10.0$ mm; (Recommended plate thickness: not calculated)   |
| Profile:                         | Flat bar, $50 \times 10$ ; $(L \times W \times T) = 50.0$ mm x $10.0$ mm   |
| Base material:                   | Brick layout: Stretcher; Brick: England Nostell Red Multi (hollow brick), Clay, $L \times W \times H: 215.0$ mm x $102.0$ mm x $65.0$ mm;<br>$f_{b,v} = 70.00$ N/mm <sup>2</sup> ; $E_{wall} = 8,806.05$ N/mm <sup>2</sup><br>Mortar: M2,5 - M9; Vertical joints filled: YES; vertical: $6.0$ mm; horizontal: $6.0$ mm |
| Installation/Use:                | Installation condition: Dry; Use condition: Dry;<br>Cleaning: compressed air<br>Temp. short/long: $40/24$ °C   |

<sup>R</sup> - The anchor calculation is based on a rigid anchor plate assumption.

**Geometry [mm]**

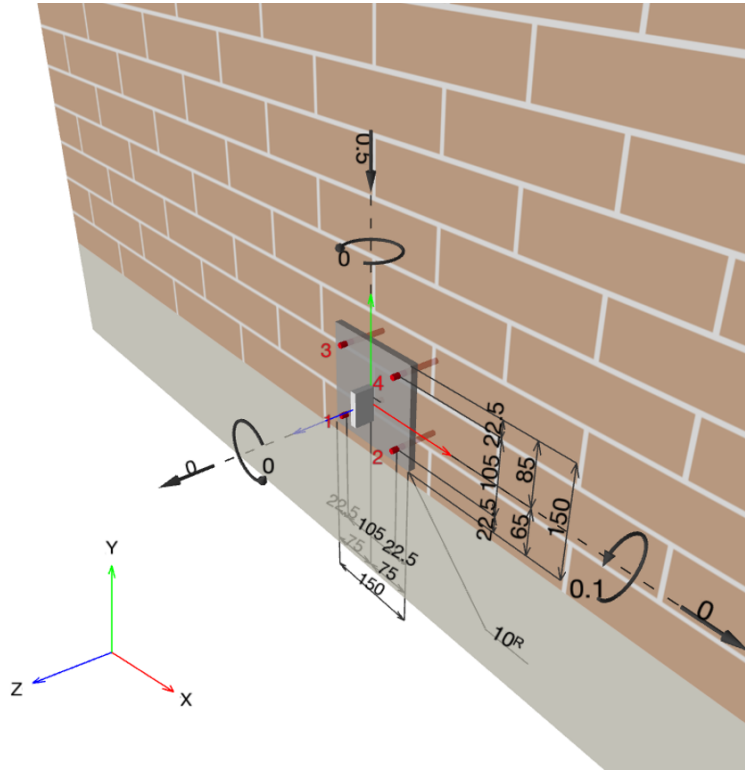


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**Geometry [mm] & Loading [kN, kNm]**



**1.1 Load combination**

| Case | Description             | Forces [kN] / Moments [kNm]  | Seismic | Fire | Max. Util. Anchor [%] |
|------|-------------------------|--|---------|------|-----------------------|
| 1    | Load case: Design loads | N = 0.000; V <sub>x</sub> = 0.000; V <sub>y</sub> = -0.500;<br>M <sub>x</sub> = 0.100; M <sub>y</sub> = 0.000; M <sub>z</sub> = 0.000; | no      | no   | 65                    |

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## 2 Proof I Utilization (Governing Cases)

| Loading | Proof                              | Design values [kN] |          | Utilization             | Status |
|---------|------------------------------------|--------------------|----------|-------------------------|--------|
|         |                                    | Load               | Capacity | $\beta_N / \beta_V$ [%] |        |
| Tension | Pullout of one brick               | 0.899              | 2.285    | 40 / -                  | OK     |
| Shear   | Brick edge failure in direction x- | 0.250              | 1.000    | - / 25                  | OK     |

| Loading                          | $\beta_N$ | $\beta_V$ | $\alpha$ | Utilization $\beta_{N,V}$ [%] | Status |
|----------------------------------|-----------|-----------|----------|-------------------------------|--------|
| Combined tension and shear loads | 0.394     | 0.250     | 1.000    | 65                            | OK     |

## 3 Warnings

- Please consider all details and hints/warnings given in the detailed report!

**Fastening meets the design criteria!**



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|                  |                        |            |            |
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#### 4 Remarks; Your Cooperation Duties

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