

SAMPLE CALCULATION

WOODEN POST CONSTRUCTION, 1 LEVEL ca. approx. 18 m² GROUND AREA

Estimation of the foundation system. Please note: this only provides information for an initial estimate or first cost assesment. The planning basis for the execution must be prepared by the commissioned engineer.

DISCLOSURES AND ASSUMPTIONS MADE

- ✓ Total dead weight approx. 3.7 t
- ✓ Snow 1, 10 kN/m²
- ✓ Wind 0.39 kN/m²
- ✓ Traffic load 1.5 kN/m² per floor

CALCULATION

- ✓ $g_k 2,06 \text{ kN/m}^2 \times 1,35 = 2,78 / \text{ m}^2$
- ✓ $q_{ks} 1,10 \text{ kN/m}^2 \times 1,50 = 1,65 \text{ kN/m}^2$
- ✓ $q_{kw} 0,39 \text{ kN/m}^2 \times 1,50 = 0,58 \text{ kN/m}^2$
- ✓ $VK 1,50 \text{ kN/m}^2 \times 1,50 = 2,25 \text{ kN/m}^2$

DESIGN LOAD 7,26 kN/m²

SIMPLE, SIMILAR LATIN INSTRUCTION

$7,26 \text{ kN/m}^2 \times 18 \text{ m}^2 = 130,68 \text{ kN} / 4 \text{ KSF} = 32,67 \text{ kN} / \text{ KSF}$

RECOMMENDATION

4 pieces KSF V 89 x 5.0 x 2000 PT incl. head and connection set

INTEGRATION DEPTH

The actual embedment depth/pile length, is determined according to the soil conditions. Screw piles are considered displacement piles according to DIN EN 12699:2015-07. The determination of the load bearing capacity and the design of the screw piles are determined via available static calculations. The internal load bearing capacity and the load tests should be performed on-site.