

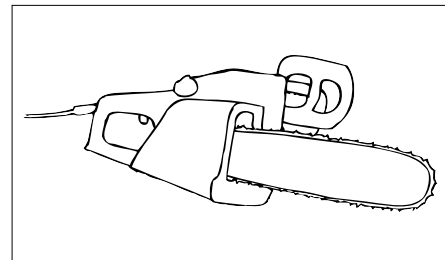
# Träullit Wall Element

## Technical Standards & Installation

Träullit Wall Element is a unique building system of pre-fabricated cement-bonded wood wool boards that offer the market a homogenous external wall with several functional characteristics. The wall elements are precast at Träullit's factory, allowing for a swift construction period that meets today's increasing demands for industrialized and streamlined constructions.

### Handling and storage

The elements are delivered upright on an open truck. Lifting straps are cast into the upper edge of the elements. A mobile crane, or other lifting aid, is required to handle the elements in the workplace. The elements should be stored dry and on a flat surface. They must be protected against precipitation and handled so that surfaces and edges are not damaged. The elements are marked per the element, facade, and assembly drawings.

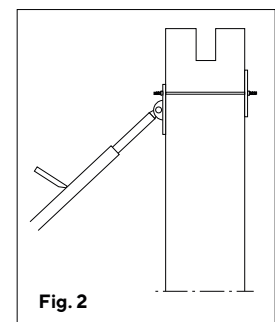
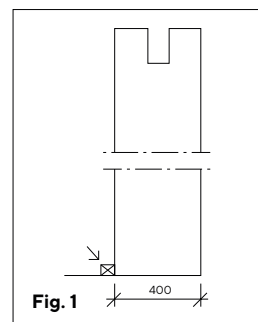


### Processing

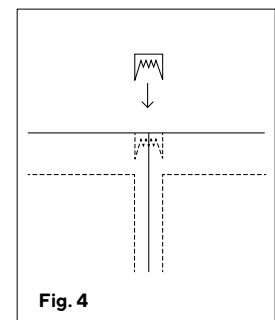
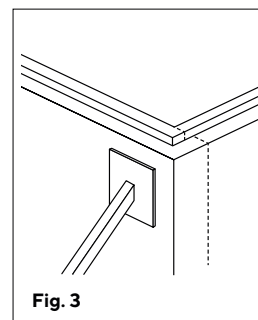
The elements are most efficiently processed with a chainsaw, suggestively Stihl MSE 220 C-Q with a 50 cm sword with a chain type Rapid Duro or Rapid Duro S.

### Installation

Ensure that the concrete slab/foundation is level. Fix a distance (eg 45x70 mm joist) of 400 mm from the edge of the concrete slab to facilitate the fitting of the element (see Fig. 1).



Initiate the assembly in a corner. Fix the elements with a thin grout or cement mortar-A with small ballast (max. 2 mm). To ensure tightness between the wall and the foundation the mortar must cover the entire thickness of the wall. Use strut to stabilize the elements and to get them perpendicular - 2 pcs per element (see Fig. 2).



Drill a hole, 8 mm, straight through the element. Apply an 8 mm threaded rod with a large washer (at least 200x200 mm, eg a piece of plywood or OSB) and anchor it to the piston. Drive the hole before trimming. Corner elements that "connect" the next element must be stabilized to avoid movements during casting (see Fig. 3).

To stabilize the upper part of the elements before casting, toothed sheet metal members can be driven down between the elements (see Fig. 4).

To ensure tight joints, put the far side of the element down first, then lower the entire element into place. Drive the joints if the elements are not close together (see Fig. 5).

At door gaps, the sides and lower edge of the beam must be fitted with moldboards to allow the casting of concrete columns and beams (see Fig. 6).

In the U-shaped upper part of the elements, reinforcing steel is applied, normally 4 pcs  $\text{\O}12$  – 2 pcs at the lower edge and 2 pcs at the top edge. Casting must be done with K40 concrete with a floating additive. Ballast max 8 mm.

Fixing elements stacked on top of each other must be done with a thin grout. Concrete pillars are reinforced vertically with 8 mm reinforcing steel which is stapled to the concrete slab/foundation.

When several elements are placed on top of each other, the vertical reinforcement should go all the way to the concrete beam on the top element and be nailed together with the horizontal reinforcement.

Some window gaps can not be pre-made at the factory due to the location of the lifting straps. Window gaps that can be made at the factory are reported on the element drawings. Window gaps cut at the workplace are paid for by the client. Angled window sills can be offered separately upon request.

## Convection seal

Träullit Wall Elements offer excellent air permeability. This requires that the elements' window gaps, wall coping, etc. must be wind-proofed before installing doors, windows, and trusses (the shaded surfaces – see Fig. 7).

Convection seal is performed with a mortar. Other visible surfaces are sealed with the plaster layer. External sludge can be ordered from the factory and offered separately. Sludge only includes the outside of the outer wall - not window holes, masonry, etc.

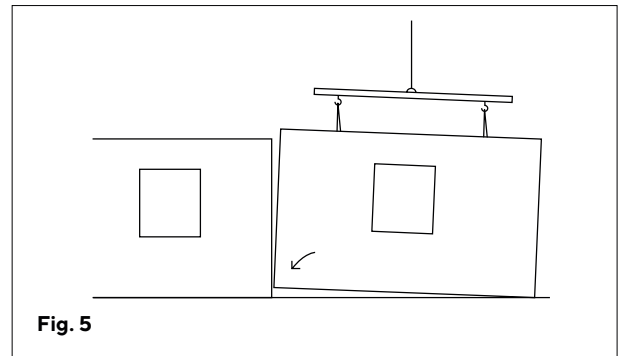


Fig. 5

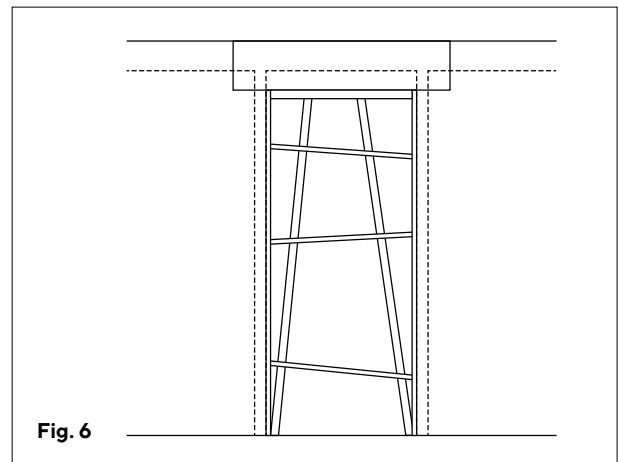


Fig. 6

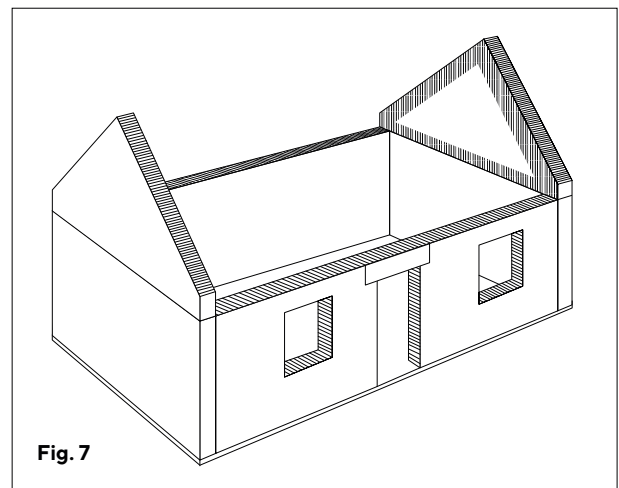


Fig. 7