

Installation

Version 09/04

1. Preparation of surface:

The formwork can be placed either directly on to the ground or the blinding layer. The surface has to be level.

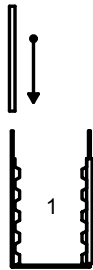
2. Preparation of the formwork:

Following the layout plan, firstly all U-shaped formbraces together with the reinforcing tubes are positioned approx. every 1.0 m. Then the formwork units and the inside formbraces are placed to the left and right of the intended course of the formwork.

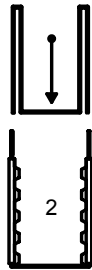
3. Installation of the formwork:

We recommend to have 3 workers ready to install the formwork. The individual units are simply assembled. The formwork units are rigidly fixed with formbraces. These can be fastened even more effectively when hit with a hammer once.

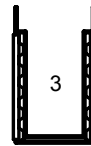
$b \leq 1.20 \text{ m}$



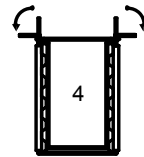
Place U-shaped formbrace with reinforcing tubes at the respective distances and place formwork units.



Secure formwork unit with formbrace. The formbrace is inserted into the reinforcing tubes as far as possible.

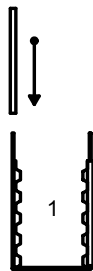


Install reinforcement according to DIN 1045 or EC 2 guidelines.

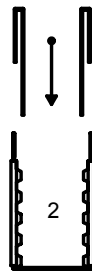


Install S-hook as a form tie. To fasten the S-hook, fold ends of the U-shaped formbrace by 90°.

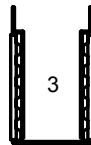
$b > 1.20 \text{ m}$



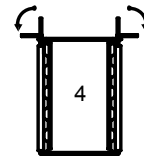
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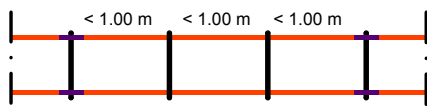


Install reinforcement according to DIN 1045 or EC 2 guidelines.

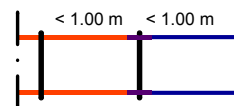


Install S-hook as a form tie. To fasten the S-hook, fold ends of the U-shaped formbrace by 90°.

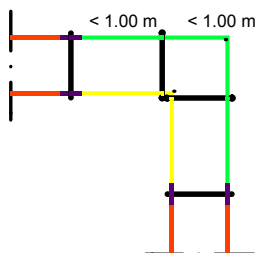
4. Installation of the formbraces and form ties: max. distance < 1.00m



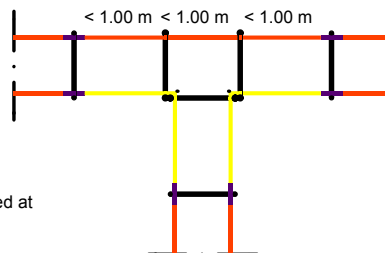
Straight course : To be placed at every lap joint !
Note maximum distance of formbraces



Start : Placed at the lap joint



Diversion/corner : Placed at every corner



Installation

5. Lap joints

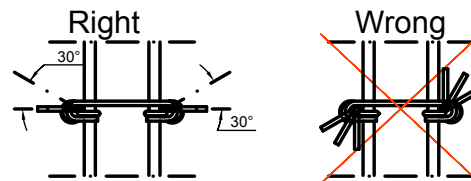
The number of formwork units is calculated for 20 cm overlaps. During installation, the overlap should be at least 15-20 cm.

6. Connection with metal forms for column foundation formwork

All formwork units bordering metal forms are connected with an angle bracket. This bracket is fixed to the metal form with self-tapping screws. Fixing to the strip foundation is carried out with formbraces.

7. Folding of the U-shaped formbraces

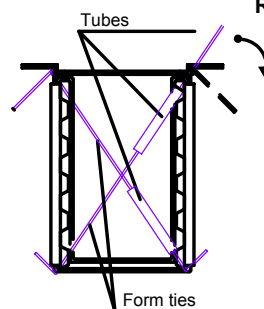
To secure the S-hooks, the U-shaped formbraces are to be folded in transversers to the foundation prior to concreting (see section 3, fig. 4). The position of the S-hooks has to be as seen in the following drawing.



8. Preventing the units from tilting

In the case of foundation heights exceeding 50 cm the formwork is to be secured against tilting. This can be achieved by one of the following measures:

- a) Reinforcement with slanted form ties (see drawing)
- b) Even placement of non-compacted backfill material on both sides of the formwork to a height of 1/3 - 1/2 of the formwork. In this case the reinforcement serves as support on the inside and is to be secured with spacers placed on the sides.
- c) Securing with traditional methods, e.g. support with timber struts.
- d) Concreting in two steps (1/3 of the height + 2/3 of the height).



Re. a) Reinforcement with slanted form ties

The form ties are manufactured with hooks and are placed underneath the trapezoidal sheet metal. The ends exposed on top are then folded over using a tube. This is easily done once a tube is placed over the form tie. The form ties are to be installed crosswise approx. every 5.00 m.

9. Preventing the units from moving sideways

To prevent the formwork from moving sideways, we recommend to fix the bottom of the formwork approx. every 3.00 m (e.g. by using a nail gun and fasteners).

10. Checking the dimensions of the formwork

During installation all dimensions must be checked against the current layout and reinforcement plans.

11. Concreting

To avoid extreme loads, concreting is to be carried out with a concrete pump or a hose.