Installation

Terms and conditions

Glue jobs must be carried out :

- At temperatures between 5-25° C
- The trays must be dry and kept under dry conditions during the hardening process

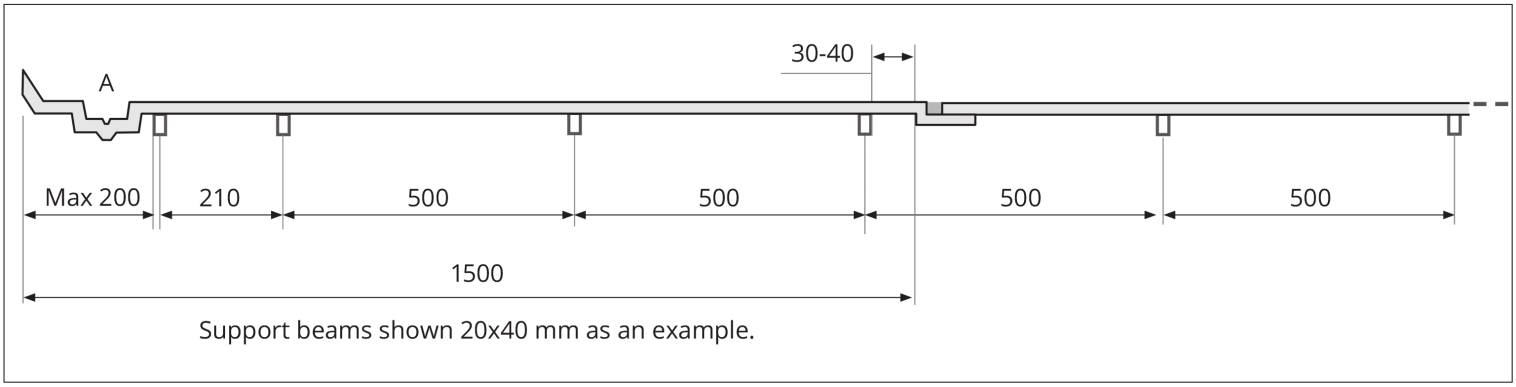
Sub-support of bench trays

The trays are designed to support a maximum load of 70 kg/m^2 evenly distributed.

The following criteria must be met :

- Bench trays must be supported with up to 500 mm of space
- The support should be placed less than 70 mm from the glue rim
- The support should be placed less than 200 mm from the edge of the bench tray. Note that the sump must not rest on the support beam

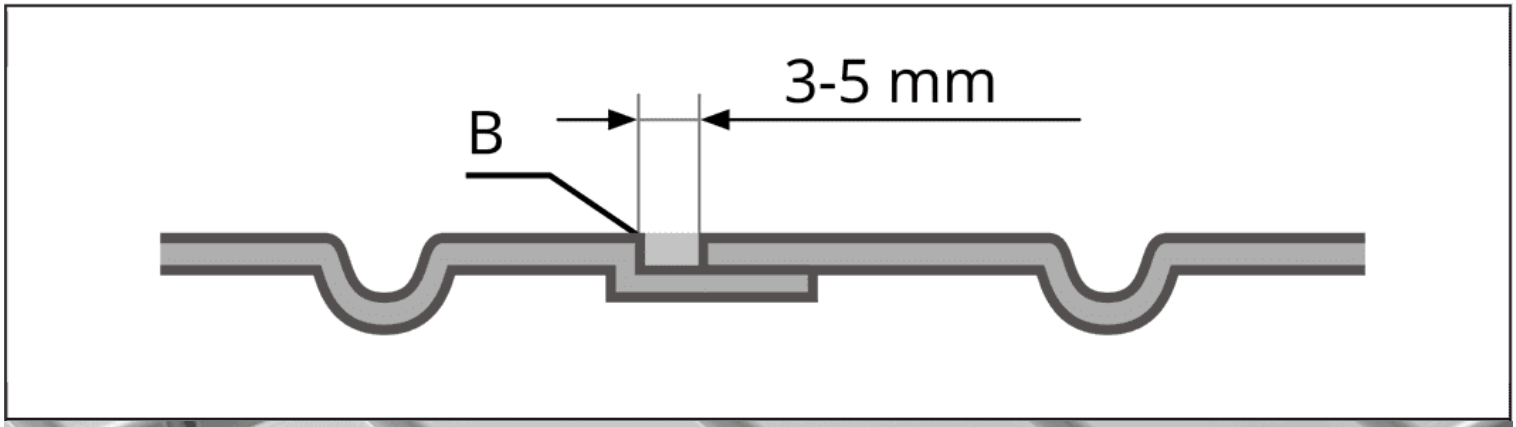
NOTE: The support MUST be placed under the part of the tray that contains the glue lip (see drawing).



Support beams shown 20x40 mm as an example.

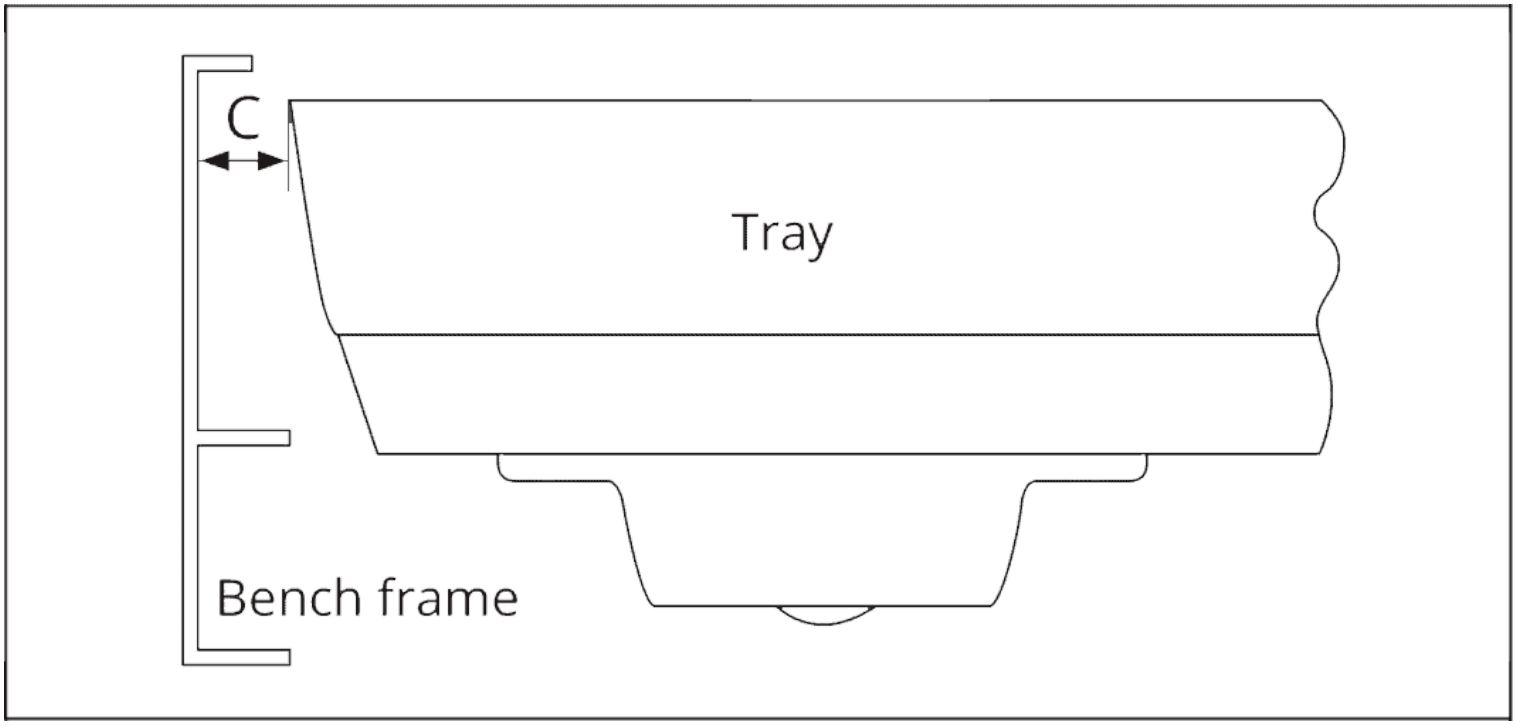
Installation

Bench trays should be placed and distributed in a way that makes the glue joint visible at 3-5 mm.



Due to variations in temperature the bench trays work lengthwise. It is therefore important to ensure that there is distance between the edge of the trays and the edge of the bench frames.

The required distance depends on the tray length and the temperature variations it is exposed to.



Use the following calculations as a reference for 20° C tray temperature*:

2a. For installations in cooler regions, use at least 2 mm of space per linear meter bench tray, distributed evenly between both ends. This can be expressed in the following formula: Space [mm] = bench length [mm] x 0.002.

2b. For installations in warmer regions, use at least 3 mm of air per linear meter bench tray, distributed evenly between both ends. This can be expressed in the following formula: Space [mm] = bench length [mm] x 0.003.

* For every 10° C temperature variation under 20° C, use an extra 1 mm of space per linear meter bench tray.

Always handle the bench trays carefully. Do not store new bench trays in cradles or empty benches trays in direct sunlight or on uneven ground – especially not on warm days. The sun can rapidly heat the plastic material up to and above 60°C. If the bench trays are left empty, protect them by stacking the benches, move them into the shade, cover them or fill them with water.

Recommended gluing instruction

1. Place the trays in the bench frame with the correct gap 3-5 mm. Always remember to have sufficient distance between the tray and the bench frame in both ends and between the supports and the glue lip, to allow for heat expansion
2. Apply 3 – 4 cm of hot melt glue at each side of the joint – apply the hotmelt glue only in the overlap area between the two trays (in the middle area between 1st and 2nd lengthwise channel). Do not apply any hotmelt **glue in** the glue joint. Apply the hotmelt glue by lifting the upper tray a few cm up, apply the glue and gently press the two trays together.
3. Press the Polystyrene glue into the joint. Smoothen and remove excess glue with a putty knife. Make sure the glue is in contact with both tray parts everywhere (to avoid leaks).
4. **Always use as little glue as possible**. Excessive use will damage the trays (damaged trays due to in-correct gluing procedure is not covered by warranty).
5. Glue use should not exceed 1 liter per 20 meter glue joint, or one 300 ml cartridge per 6 meter joint
6. **The glue must dry for 48 – 72 hours at 20°C**. If the temperature is bellow 20°C or ventilation is insufficient, the drying time will increase. The temperature must be kept constant during hardening. Make sure the glue feels completely hardened before you take the trays into use. You can test by sticking your finger nail into the glue joint, if it feels hard like the rest of the tray the entire trays can be taken into use.
7. Use breath protection, goggles and gloves during installation. See MSDS for further guidance.

This new improved gluing procedure, adding an extra hotmelt step, makes it easier to keep the modular trays in position during the Polystyrene gluing process. Furthermore the quality of the glue joint is improved, especially if the trays are exposed to small temperature variations during the hardening process.