FITTING GUIDELINES FOR T & G AND SQUARE EDGED PLASTIC BOARDS - February 2021

***** These boards are made from re-cycled plastic which expands and contracts. You MUST allow for this when fitting to a metal frame *****

- Pre-drilling holes before installation is recommended. Oversize holes by min of 2mm in relation to bolt size.
- Use a stainless-steel bolt and washer system. <u>DO NOT</u> use countersunk screws. Use coach bolts, coach screws and pan head with large washers wherever possible. 6mm bolts are most popular. 6mm stainless bolts, washers and nuts available from Talitech.
- <u>DO NO</u>T over tighten bolts, allow for thermal expansion at the rate of approx 2.1mm per linear metre per 10-degree rise in temperature.
- For the T&G boards, slot gently into each other as they are a loose fitting board.
- Boards should be fitted where possible, at or near its anticipated upper service temperature and always stored in a level and flat condition.
- Before installing, boards should be stored at the ambient temperature that it will operate in once fitted. Ideally this needs to be 24 hours or longer.
- Sawing: preferably with an electrical circular saw, with a large blade if possible. A small blade can heat up, causing the material to melt and to become more difficult to saw. When sawing the tongue and groove boards lengthways the smaller piece can become bowed.
- DO NOT nail or glue any part of the planks, when fitting to a metal frame.
- You can <u>ONLY</u> nail or screw boards when you are fitting the plastic boards to each other. E.G: Raised flower beds, garden furniture. In these cases, everything expands and contracts together! So no need to allow extra room.

Recommendations:

(Please note that these recommendations may need to be altered to suit your particular project depending on where the boards are being used)

- <u>BRACE SUPPORTS</u> Rule of thumb for 28mm T&G boards is that anything over 1100mm tall needs a centre brace and for the 24mm T&G boards anything over 600mm should be braced. If T&G boards are being fitted horizontally, then the upright supports should also be every 1100mm/600mm. The thinner the boards the more bracing required e.g the 95 x 20mm square edged boards should be supported every 500mm. Only 1 bolt is required at Top, Middle (if centre braced) and bottom.
- Fortification (strengthening) strips are now available for the 28mm T&G boards. By using these every 3rd board it can eliminate the need to centre brace up to approx. I800mm tall or wide if being fitted horizontally.
- If fitting into stable doors/partitions etc, always over compensate and heir on the side of caution when bracing boards as high impact is highly likely.

Other metalworkers have suggested the following:

When using the T&G boards for external structures, the use of a U-Frame is recommended. The boards need to be framed on all 4 sides and should not be packed too tightly.

An effective way of securing the first and last boards is to screw a long, strong screw horizontally through the side of the frame into the first and last board. Ensure that the screw is inserted at least 7 - 8 cm into the board.

Alternatively, halfway down the frame's vertical length a small metal plate (at least $5 \text{cm} \times 5 \text{cm}$) can be screwed across the joint where the side of the frame meets the first / last board. This will secure the end boards to the frame and prevent movement.

The intermediate boards are held straight due to the T&G system.