

Installation Guide

CombiDeck

Ancon CombiDeck (Fig. 1)

Ancon CombiDeck has been developed for use with the permanent metal deck shuttering of steel-framed structures to both retain concrete and provide a fixing for a masonry support systems; it features an integral channel section that accepts 'T' Head Bolts. It is manufactured in standard three metre lengths in a height to suit the floor thickness.

CombiDeck should only be used with Ancon bolts and Ancon masonry support systems, and should be fixed in accordance with the recommendations provided in this guide.

Storage and Care Instructions

Ancon CombiDeck performs a structural function. It is very important that the outside edge remains vertical.

Care must be taken when handling the CombiDeck to avoid deformation and damage. Bundles should be stored clear from the ground on suitable supports, to avoid contamination and damage.

CombiDeck has a special stiffener incorporated into its design to help alleviate any local distortion, however any damage should be avoided as this will affect the channel line and level, and ultimately the stability of the external leaf of masonry.

Vertical Alignment (Fig. 2)

CombiDeck should be fixed ensuring the vertical leg which incorporates the cast-in channel is within $\pm 1^\circ$. The consequence of a non-vertical leg is reflected when the support system is fixed. The example shown indicates the amplification of movement for a typical downstand system.

Butt Joints (Fig. 3)

Lengths of CombiDeck should be butted against each other and the joints taped to prevent concrete leakage. (Tape: Aluminium foil tape 50mm wide, 'Alifoil').

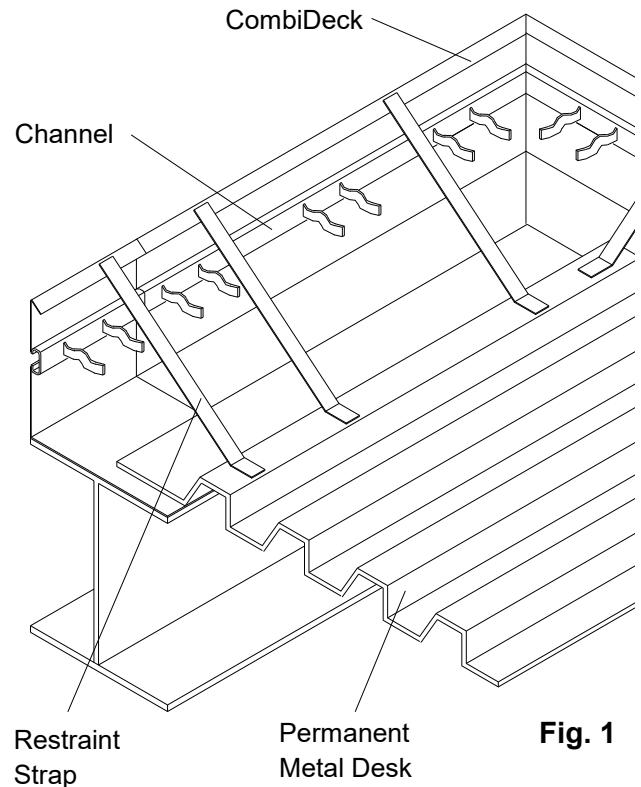


Fig. 1

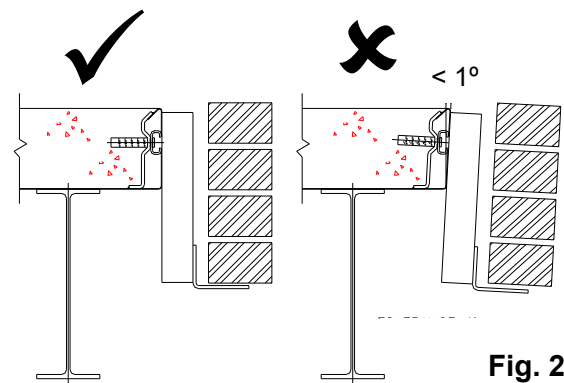


Fig. 2

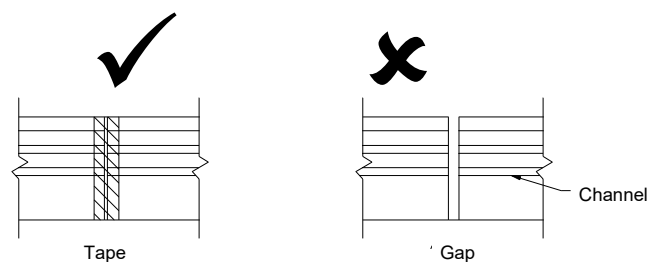


Fig. 3

Edge Details & Local Reinforcement (Fig. 4)

A minimum of 125mm should be left between the outer edge of the CombiDeck and the metal deck to allow sufficient space for the channel anchors and the local reinforcement. Where the decking is at 90° to the CombiDeck, the open troughs must be filled to retain the wet concrete.

CombiDeck requires no special reinforcement, providing that the slab provides at least the equivalent of H8 Shape 13 bars at a maximum of 150mm centres.

When positioning the CombiDeck it is essential that the top longitudinal reinforcement does not rest or interfere with the channel lugs. Should this occur the top edge distribution bar should be moved slightly away from the slab edge to give sufficient clearance.

Overhang (Fig. 5)

The outer edge of the CombiDeck can extend un-propped beyond the steelwork up to a maximum distance of 100mm. If a greater distance is required, both the metal deck and the CombiDeck will need to be propped.

Fixing Details (Fig. 6,7,8)

The bottom leg of the CombiDeck should be fixed to steelwork / metal deck at 300mm maximum centres.

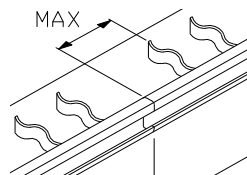
Straps are supplied to restrain the top edge of the CombiDeck. These should be fixed within 100mm of a joint or end and at centres not exceeding 450mm thereafter. The straps are supplied in 1.5 metre lengths for cutting and bending on site.

Ancon stainless steel and carbon steel self-drill self-tap screws are available from Leviat.

Cutting on site (Fig. 9)

CombiDeck can be cut to suit on site. As with all cast-in channels, it is important to ensure that there is an anchor within 50mm from the end of the channel. A distance greater than 50mm will reduce the load carrying capacity of the channel.

Fig. 9



Safety Precautions

Ancon steel products are produced from sheared plate. As with all such industrial fabrications, these may have sharp edges. **Suitable personal protective equipment should be worn at all times during handling and installation.**

The Construction applications and details provided in this guide are indicative only. In every case installation should be entrusted to appropriately qualified and experienced persons. Normal handling precautions should be taken to avoid physical injury. The company cannot be held responsible for any injury as a result of using our products, unless such injury arises as a result of our negligence.

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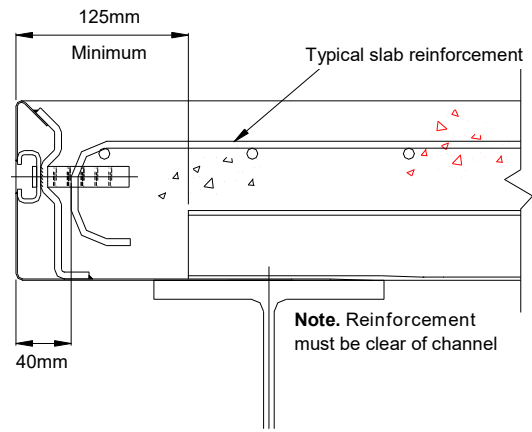


Fig. 4

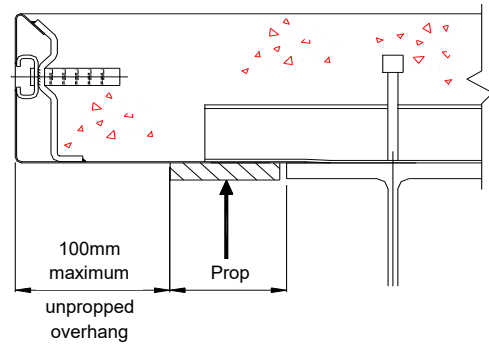


Fig. 5

Restraint Strap fixed to CombiDeck and Metal Decking at 450mm centres and no more than 100mm from a joint / end

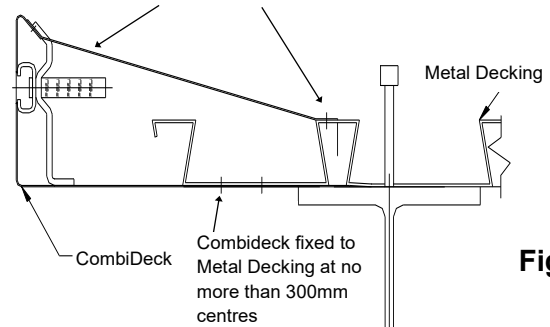


Fig. 6

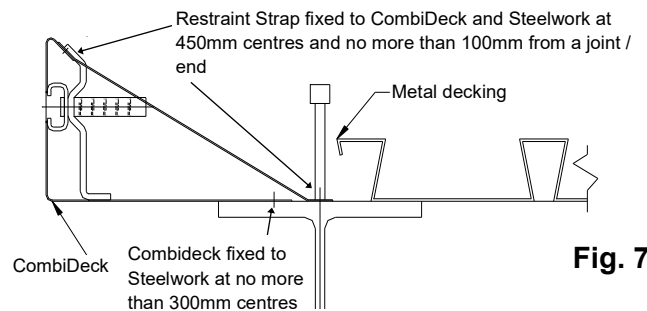


Fig. 7

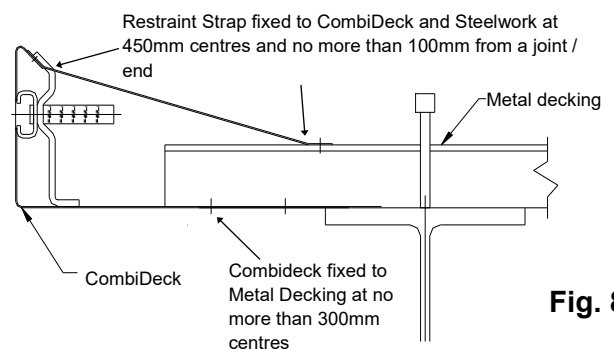


Fig. 8