



Fabweld Steel Products Ltd

Value and service for our customers through our people

## Installation Guidelines

### Pre- Delivery Checks

- Before dispatch all covers and frames manufactured by FSP are fully assembled (locked, sealed and marked with identification numbers where applicable) and rigorously checked for dimensional accuracy, quality and overall fitness for purpose in accordance with ISO: 9001 quality system
- It is important no component is modified without consultation with our technical team as both strength and durability may be jeopardised. Fabweld Steel Products Ltd accepts no responsibility whatsoever, for modification to assemblies supplied by ourselves, unless authorised by us and carried out by our personnel

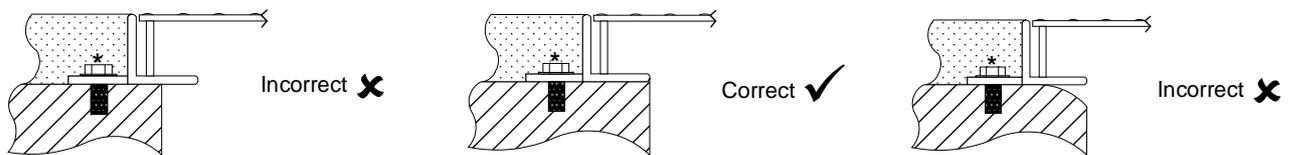
### Recessed covers (to be filled on site)

- Recessed covers rely on the concrete infill to achieve the rated load bearing performance, this is based on filling with a minimum grade of C50 concrete
- It is important to fill the cover in its frame without distortion (ensure the cover is flat prior to filling). No locking screws should be removed before infilling. Care must be taken to protect the locking screws lifting key slots etc. from being blocked by concrete or resin mortar
- Recessed covers for 'solid' infill such as block paviors or slabs will normally be 20-30mm deeper in the recess to enable the infill to sit on a bed of sand. If the covers have a key mesh on the base this means the infill should be bedded on an epoxy mortar

### General

Once in service, the entire load on the cover is transferred to the frame and structural opening. It is vital to make sure the structure of the opening is adequate and any bedding applied beneath the frame is sufficiently strong. Frames which are not properly supported, cause issues with installation and will impact on the performance of the cover.

The below images indicate correct and incorrect installation



\*Frame must be mechanically secured where fixing holes are provided

### Installation

#### Single Leaf covers

1. Centralise cover and frame over chamber, where applicable loosely position frame and mark for drilling of 10mm hole to suit M12 Hexagon Head Anchor Fixings (COM00309)
2. Set frame to required level with mineral or metallic packing, and adjust as necessary ensuring frame fixing bolts are not fully tightened
3. Check to ensure cover is aligned with finished floor level, adjust packing material as necessary
4. To ensure integrity, any unsupported areas of the frame must be filled with a suitable grouting material and be allowed to fully harden
5. When grouting is fully cured, check that covers can be removed from frame freely, before final screeding or concreting takes place
6. When screeding or concreting to finished floor level care must be taken to ensure debris does not enter the locking down boltholes and lifting key slots or seals. It is particularly important to ensure that if concrete or screed enters the keyway it gets removed before curing commences. Always refer to concrete suppliers guidelines for cure times before covers are trafficked.

#### Twin, Triple and Multiple leaf covers

Depending upon application, twin, triple and multiple leaf covers will be supplied with suitable support mechanisms. If seals are specified a suitable mastic should be used between the frame and support mechanism to maintain effectiveness of sealing. Frames for multiple leaf covers, may be braced allowing covers to sit in the correct position for grouting. These bracing bars will be marked 'remove once grouted' and can be cut away from the frame once the concrete or screeding process has fully cured. Any exposed steel work should be touched up with galvafruid paint to prevent corrosion.



Certificate Number 1678  
ISO 9001, BS EN 1090



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### Continuous ducting

1. Centralise frame over duct; removing and replacing covers one at a time in sequential order as per identification markings on the covers and frames or the drawings provided to ensure correct alignment
2. If locking down bolts are specified, insert into the appropriate location but do not fully tighten to allow movement of the cover and ensure any removable support mechanisms are in place
3. If applicable loosely position frame holding down bolts to mark and drill 10mm holes for M12 Hexagon Head Anchor Fixing bolts (COM00309)
4. Set frame to required level with mineral or metallic packing, and adjust as necessary ensuring frame fixing bolts are not fully tightened
5. Check to ensure cover is aligned with finished floor level, adjust packing material as necessary
6. To ensure integrity, any unsupported areas of the frame must be back filled with a suitable grouting material and be allowed to fully harden
7. Tighten holding down bolts if applicable, checking height and level. Care must be taken not to over tighten fixing bolts (COM00309), which could result in misalignment and distortion of frame
8. When grouting is fully cured, check that covers can be removed from frame freely, before final screeding or concreting takes place. All recessed covers should be filled in their frames, unless supplied pre-filled
9. When screeding or concreting to finished floor level, care must be taken to ensure debris does not enter the locking down boltholes and lifting key slots or seals. It is particularly important to ensure that if concrete or screed enters the keyway it gets removed before curing commences
10. It is imperative that all frame joints are set at the same vertical and horizontal alignment and that when covers are in situ, frame and cover surfaces are flush
11. To ensure perfect alignment, it is advisable that during duct assembly where it may occupy a visually prominent position, spacers are inserted between covers and their frames during screeding.
12. When covers are supplied with support mechanisms that are not an integral part of the frame, it is advised that the supplied support pockets are fixed to the chamber wall using the preferred fixing method of injection resin anchors

### Sealing

Neoprene seals should be cleaned to remove debris, to guarantee seal integrity is not compromised. Once the screed has fully cured, and before traffic is admitted to the area, covers should be removed and sealing areas cleared. If the product has a grease seal this should be filled at this stage with a suitable compound. Do not grease if the cover already has a neoprene seal in place, as it will affect cover performance. All covers locked onto a neoprene gasket provide an airtight seal when the cover and frame have been installed correctly.

We do not guarantee a cover to be fluid or gas tight unless specifically designed to do so.

### General Maintenance

All access covers supplied by Fabweld must be removed with FSP keys, using another manufacturers lifting key may damage the lifting point. Whenever covers are removed from the frames the seating area should be cleaned with a soft brush before re inserting covers (failure to do this can cause rocking and affect performance). Wherever locking screws are removed grease should be re applied to the locking screws before reinstating the covers. Always ensure the locking points are free from debris before re-inserting the locking screws.

### Important Notes

All of our products go through a rigorous quality check. If the cover is rocking in the frame, please check that there is nothing clashing on the underside of the cover with the chamber. Finally, double check by removing the cover from the frame and placing on a flat surface.

If you have a products supplied with gas rams please refer to alterative installation guidelines, which will accompany your product. Hinged covers with accessories (safety stays, turnbuckle locks, torsion spring assistance, etc) will be fixed and assembled at FSP to ensure perfect alignment. At no time must any component be removed or tampered with. The performance of fabricated access covers depends upon the correct loading and correct installation of the cover. If you need guidance, this can be obtained from our technical department

Operation of our turnbuckle Lock can be downloaded from our website <http://www.manholes.co.uk/faq.html>



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