

All frames must be adequately, solidly and continuously supported to a degree sufficient for the designed load conditions in each particular case. Because of the diversity of site conditions it is not possible to give precise instructions for each application but the following details will serve as a guide to installation in most cases.

All Gatic 2000 covers have been fitted within their respective frames to a degree that the seating faces are in metal to metal contact. They must be set up in position at site with covers in their own frames (as indicated by numbers and/or grinding nick on top edge and/or as steel banded together) to the same degree of fit and kept thus while concreting in position.

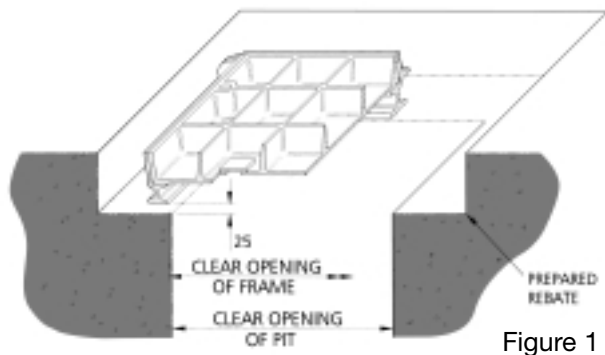
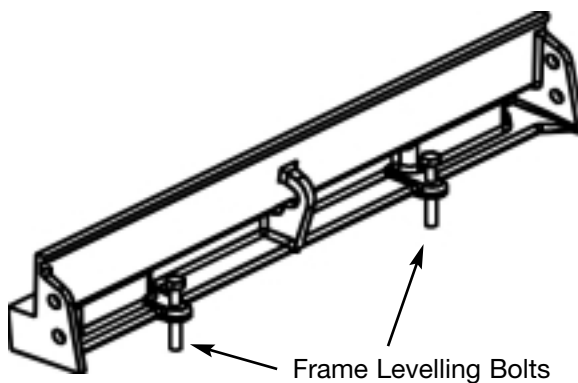


Figure 1



### 1 Place centrally

Place the unit squarely over the pit on a prepared foundation making sure the frame does not overhang the pit wall.

### 2 Adjust to correct level

Using the levelling bolts provided in the frame, adjust to the required level.

### 3 Shuttering

Remove cover and shutter inside face of pit.

### 4 Metal to metal contact

Clean contacting faces of cover and frame then place the cover in position making sure of metal to metal contact on all seating faces by adjusting as stated in 2 above.

### 5 Mask keyholes

Position nylon keyhole plugs in keyholes before concreting.

### 6 Mask holes in base

Where applicable, cover all holes in the base plate of cover with suitable material i.e. metal, slate, etc.

### 7 Good concrete

Concrete the frame in position and fill cover (if of recessed type) with C45/10 concrete. Thoroughly tamp to eliminate voids. Allow to mature before any load is applied.

### 8 Clean and grease

After installation and whenever cover is removed, clean and regrease all seating faces of cover and frame before replacing.

(We would recommend a graphite based grease.) Finally refit nylon keyhole plugs.

# Installation of Duct and Continuous Trench Covers & Frames

## 1. Prepare rebates

Prepare frame rebate in accordance with dimensions on drawing provided.

## 2. Connect first frame section

Place end frame number 1 in position followed by adjacent frame member numbered 1-2 and 2-3 (normally joined in one section). Remove nuts and washers from bolts at ends of side members but do not disturb lead pads. Join corners together with nuts and bolts finger tight. See ILLUSTRATION (F)

## 3. Position first cover

Clean contacting faces of frame and cover number 1-2 then position cover to match frame numbering. This method of cleaning prior to positioning is to be followed every time a cover is placed in its frame.

## 4. Adjust to correct level

Using the levelling bolts provided in the frame, adjust to the required level.

## 5. Shuttering

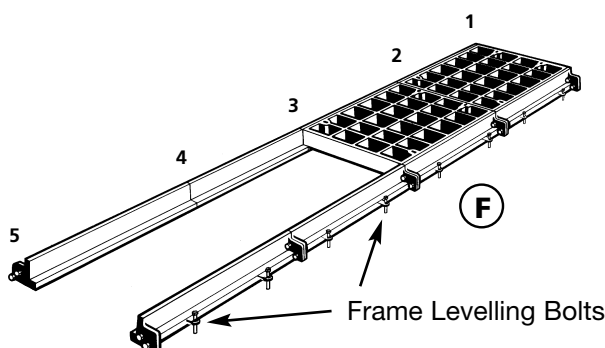
Remove covers, shutter inside face of pit, then replace covers.

## 6. Metal to metal contact

Clamp together the vertical seating faces to ensure a metal to metal fit on all contact faces and finally tighten corner frame joint bolts.

## 7. Connect second frame section

Place the next two frame sections, i.e. number 3-5 in position, removing nuts and washers as before, so that the number 3 frame joint can be made.



## 8. Placing of covers

Place covers No. 2-3, 3-4 in position, repeating the same sequence of operations as specified for cover No. 1-2. Repeat the previous sequence with the remaining frames and covers until the end of the duct

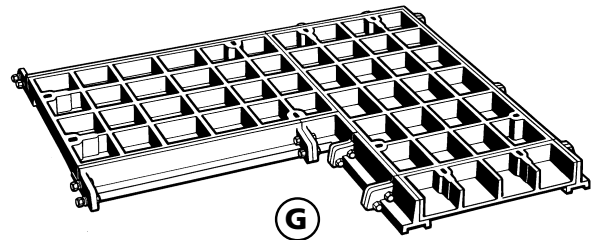
is reached. At all stages check that covers are in metal to metal contact with their frames.

## 9. Mask key holes

Position nylon keyhole plugs in keyholes.

## 10. Position first cover

Where applicable, cover all holes in the base plate of covers with suitable material i.e., metal, slate etc.



## 11 Final check

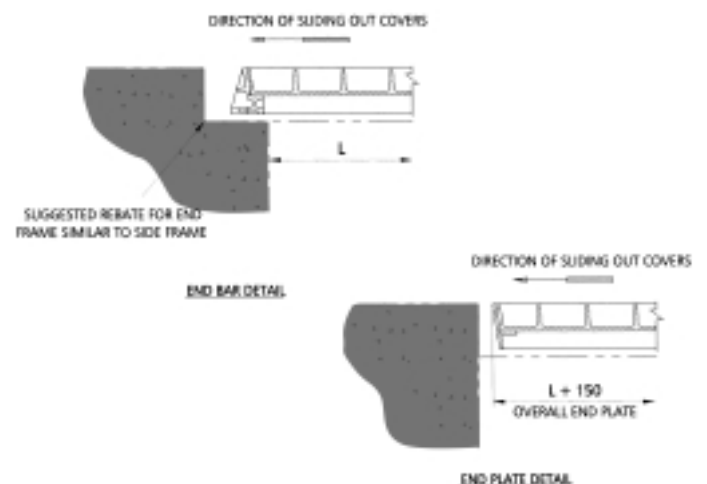
Before concreting check that covers are in metal to metal contact with their frames and each other and that all grinding nicks are in alignment (see Note 7 above). Leave void around U-clamps to ensure clamp removal after concrete has matured. Infill voids after removing clamps.

## 12 Good concrete

Concrete the covers and frames in position with grade C45/10 concrete. Thoroughly tamp to eliminate voids. Allow to mature before any load is applied.

## 13 Clean and regrease

After installation and whenever cover is removed clean and regrease all seating faces of cover and frame before replacing. (We would recommend a graphite based grease). Finally refit nylon keyhole plugs.



# Installation of Multispan Covers & Frames

All Gatic 2000 covers have been fitted within their respective frames to a degree that the seating faces are in metal to metal contact. They must be set up in their position at site with covers in their own frames (as indicated by numbers and/or grinding nick on top edge) to the same degree of fit and kept thus while concreting in position.

All frames and beam wallboxes must be adequately, solidly and continuously supported to a degree sufficient for the designed load conditions in each particular case. Because of the diversity of site conditions it is not possible to give precise instructions for each application but the following details will serve as a guide to installation in most cases.

## 1. Prepare rebates

ILLUSTRATION (A) shows frame rebate and beam wallbox pockets which should be prepared in accordance with dimensions shown on drawing provided.

## 2. Prepare frame

Place the frame sections on prepared rebates ensuring that the numbers marked on each frame component are matched in the manner shown in ILLUSTRATION (B). Remove connecting nuts and washers from bolts at ends of side components without damaging lead pads so that joints between side and end frames can be made. Cover sequence will be related to the numbering of frame components as shown.

## 3. Assemble frame sections

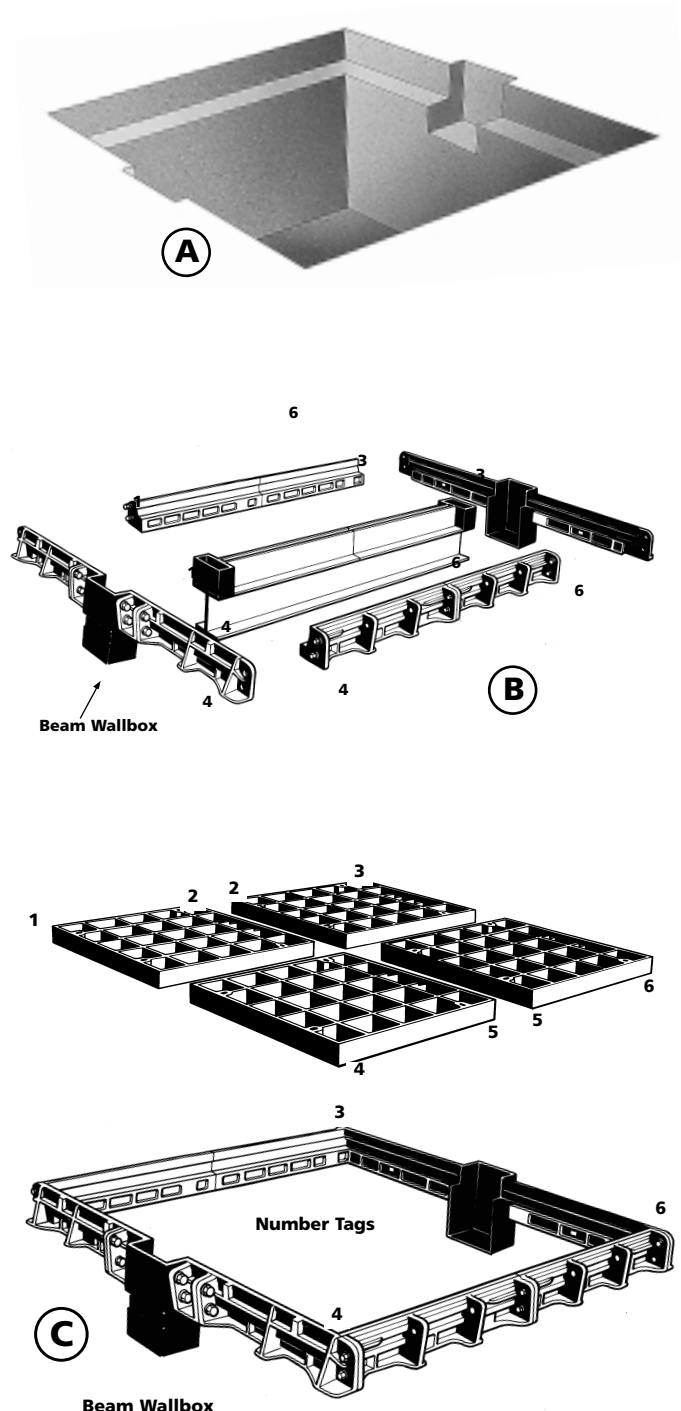
Connecting nuts and washers can then be located and finger tightened. See ILLUSTRATION (C).

## 4. Position beam

Carefully lower removable beam into position first making sure that all contact surfaces are thoroughly clean and that identification numbers match those of frames. See ILLUSTRATION (D). Check thoroughly that beam wallboxes are properly supporting the beam and are fitting metal to metal on all contact faces by clamping over the vertical seatings as shown.

## 5. Cleaning

Thoroughly clean all contact surfaces of covers, frames and beams.

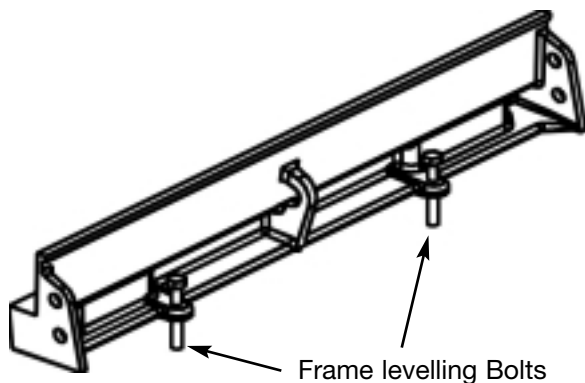


## 6. Position and adjust covers to correct level.

Place front row covers No. 1-2 and 4-5 in correct positions as detailed on drawing (covers are numbered on underside). If necessary adjust levelling bolts to ensure that covers do not rock. Insert remainder of covers repeating this operation. See ILLUSTRATION (E).

It is important that all contacting seating faces are held securely together prior to concrete filling so as to maintain the high degree of fit imparted to the product at our Works. The securing of the cover to its frame is achieved by the use of U-clamps that are located over the vertical seatings of both cover and frame.

(A sufficient number of U-clamps are included in the delivery). Finally tighten up bolts at break joints.



## 7. Shuttering

Remove a few covers and shutter inside face of pit. Replace covers and ensure they fit correctly.

## 8. Mask key holes

Position nylon keyhole plugs in keyholes.

## 9. Mask holes in base

Where applicable, cover all holes in the base plate of covers with suitable material i.e. metal, slate etc.

## 10. Final check

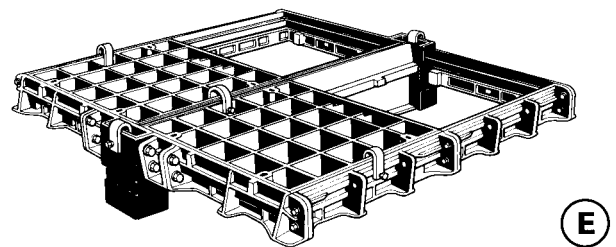
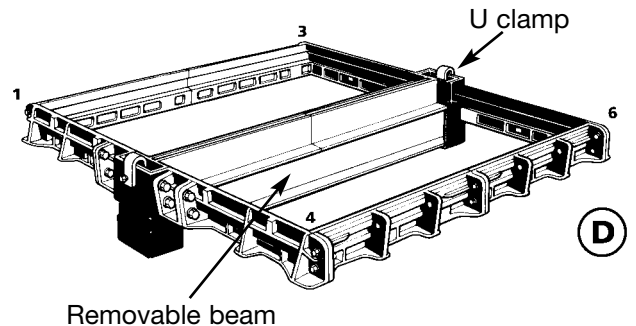
Before concreting check that covers are in metal to metal contact with their frames and each other and that all grinding nicks are in alignment (see Note 7 above). Leave void around U-clamps to ensure clamp removal after concrete has matured. Infill voids after removing clamps.

## 11 Good concrete

Concrete the covers and frames in position with grade C45/10 concrete. Thoroughly tamp to eliminate voids. Allow to mature before any load is applied.

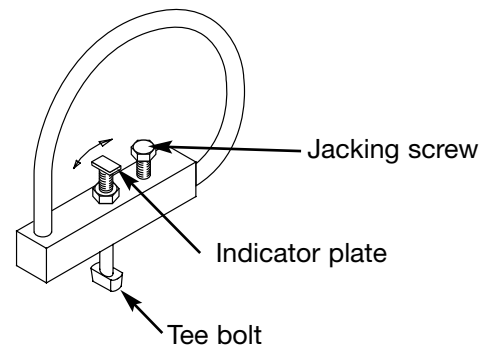
## 12 Clean and regrease

After installation and whenever cover is removed clean and regrease all seating faces of cover and frame before replacing. (We would recommend a graphite base grease). Finally fit nylon keyhole plugs.



## Manual jack screw key (not to be used for mechanical or crane lifting).

- 1) Clear all obstructions from key hole.
- 2) Slacken off Jack Screw before placing key in position.
- 3) Insert Tee Bolt in the key hole, turn clockwise through 90° and tighten Lock Nut.
- 4) Jack Screw can now be tightened to act on frame and break seal.
- 5) Slacken off Jack Screw before replacing cover.



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