



## **Recommended Installation Procedure for Box Culvert – See drawing# Box-2**

1. The trench should be prepared as required by the engineer. The bottom of the trench should be as true to grade as possible. The bedding material should be graded smooth and compacted to provide a flat, stable surface on which to place the box culvert sections.
2. Attach supplied lifting clutches to lifting inserts in box. Insure that the box is structurally sound prior to lifting. A quick visual examination of the joint areas should be done at this time.
3. The box should then be carefully lifted into the trench. At this time, the joint shall be rechecked to be sure that it is clean.
4. If the box is to be sealed using butyl mastic jointing material, the material should be installed at this time. The mastic is placed on the top of the spigot of the box being put in place and in the bottom of the bell of the box it is being placed into. Allow for 200mm overlap of material. (Diagram 1)
5. In order to allow a good installation the bedding material under the bell of the previous box should be dug out about 50mm deep, 150mm out along the width of the box. This will allow a space for bedding material to be displaced as the spigot is being homed without it boiling up into the joint. (Diagram 2)
6. The box is now carefully lowered into position to install. Due to the weight of the box culvert, it is important to get the box as close to grade as possible before attempting to home the joint. It should be noted that the box culvert joint design has an annular space (gap for gasket material) much larger than pipe. If the box is homed by pushing with a hoe or being dragged on the bedding you may have an offset of up to 10-12mm. It is very important that the box bedding be level as possible.
7. A method of preventing problems with dragging and boiling up of bedding material is to place a sheet of plywood under the joint area prior to installation. (Diagram 3)
8. After the box has been seated, it is important to keep some pressure on the joint as you set the box down. This will help prevent the joint from opening up.
9. Detach lifting clutches from inserts. Supplied clutches may be returned for credit if no longer required.

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