Technical Note 68

VMS Gantry Installation Procedure

April 2012
1 Options

Outlined below are the two options for the installation VMS Gantries.

1.1 Option 1

1. Fabricate the steel wedges which will support the VMS gantry column;
2. Prepare the site for the installation of the gantry;
3. Determine the height of the column base plate;
4. Place a thin layer of foam around the wedge.
5. Position the 4 - steel wedges at 90° to one another.

Figure 1 Steel wedge

6. Mix up Conbextra GP mortar (or approved equivalent) to a trowelable consistency;
7. Place the mortar to the height greater than the required height;
8. While the mortar is still plastic, lower the gantry column onto the holding down bolts and support the column on the steel wedges to the correct level and angle; (Excess mortar should be squeezed out when the column is installed.)
9. Install the nuts on the holding down bolts so they are finger tight;
10. Wait 24 hours for the mortar to achieve the required strength of 32MPa;
11. Remove the steel wedges and tension the hold down bolts until they are snug tight;
12. Repair the mortar where the wedges were placed with Conbextra GP mortar (or approved equivalent) to a trowable consistency;
13. Install cantilever section and the sign face.

1.1.1 Installation for the splice bolts

The following process shall be used for the cantilever splice bolts to ensure they are tensioned correctly.

1. Tension the bolts to the Structures Technical Note - Assembly and Tensioning of High Strength Bolts;
1.2 **Option 2**

1. Fabricate the steel wedges which will support the VMS gantry column;
2. Prepare the site for the installation of the gantry;
3. Determine the height of the column base plate;
4. Place a thin layer of foam around the wedge.
5. Position the 4 steel wedges at 90° to one another.

*Figure 2 Steel wedge*

6. Place formwork around the base plate which is water tight;
7. Install the nuts on the holding down bolts so they are finger tight;
8. Mix up Conbextra GP mortar (or approved equivalent) to a flowable consistency;
9. Place the mortar under the gantry base plate;
10. Wait 24 hours for the mortar to achieve the required strength of 32MPa;
11. Remove the steel wedges and tension the hold down bolts until they are snug tight;
12. Repair the mortar where the wedges were placed with Conbextra GP mortar (or approved equivalent) to a trowable consistency;
13. Install cantilever section and the sign face.

1.2.1 Installation for the splice bolts

The following process shall be used for the cantilever splice bolts to ensure they are tensioned correctly.

1. Tension the bolts to the Structures Technical Note - Assembly and Tensioning of High Strength Bolts;