JENSEN STORMWATER SYSTEMS

Jensen Deflective Separator (***JDS***) - Field Installation Notes

The ***Jensen Deflective Separator*** (***JDS***) unit will be delivered to the project site via a flatbed transport unless otherwise specified. The contractor shall prepare the site and provide the equipment necessary to unload the ***JDS*** components. The ***JDS*** consists of following major components.

Components of ***JDS*** unit

1. Base Section with sump
2. Intermediate Barrel Section with separation chamber and separation slab.
3. The separation chamber consists of Inlet and Outlet Piping, Fiberglass/Stainless Steel Inlet Cylinder and Stainless Steel Separation Screen.
4. Top Slab/Manhole Cap with Frame and Cover(s) and grade ring(s) to match finished grade.

Standard Procedure for Field Installation of ***Jensen Deflective Separator*** (***JDS***) unit

1. Excavation, Dewatering and Shoring: The contractor shall excavate, dewater and shore in accordance with the applicable project specifications for “Excavation and Backfill “, “Dewatering and Shoring “, as provided by the Engineer to ensure a safe working environment.

2. Preparation of Sub-Grade/Sub-Base: Subgrade elevations shall be established as shown on the Plan and Profile drawings. The subgrade material shall be composed to withstand a design loading of 2,000 pounds per square foot (psf). It is also recommended that the hole be over-excavated by a minimum of 6“and backfilled with aggregate base and compacted to 90% to make subgrade.

3. Base / Sump Section Installation: After the subgrade is prepared, the base section shall be installed. The installation elevation of the base section shall be confirmed to ensure that the precast component elevations will exactly match the existing elevation. For e.g. Inlet and Outlet pipe/ blockout elevation in the precast unit matches the existing pipe inverts.

4. Separation Chamber and additional Middle Barrel Section Installation: Align the Separation Chamber so that the Inlet and Outlet Pipe blockout matches the alignments of the storm drain pipelines.

   Before installing the Middle Barrel section, a layer of ¾” x 3” mastic rope (unless otherwise specified) shall be placed on the tongue of the base / sump section joint. Precaution should be taken during the installation of the Separation Chamber on top of the Base / Sump section to ensure a watertight seal between the sump and the separation chamber.

   The separation chamber has the blockouts for the Inlet and Outlet Piping. This separation Chamber also has the following pre-installed internal components: Fiberglass/Stainless Steel Inlet Cylinder and Stainless Steel Separation Screen all anchored to the separation slab at the bottom of the Separation Chamber as well as to the side walls. For the 72-ID and smaller Manhole structures, these internal components are pre-installed by Jensen at our Precasting Facility unless otherwise specified. For larger manhole structures, these internal components must often be installed in the field and Jensen provides more detailed field installation drawings and instructions for these larger installations.

   Additional Manhole Riser sections: Additional Manhole Riser section may be required in most of the cases to bring the precast unit to the finished grade elevation. In these cases, a layer of ¾” x 3” mastic rope shall be placed on the tongue of the barrel section joint as described previously.

5. Trimming Inlet Pipe: The inlet pipe must be trimmed in the field to closely match the internal radius, diameter of the manhole structure. This pipe may not be allowed to stick into the structure, because the pre-installed internal inlet component matches the internal diameter of the manhole structure. This pipe trimming and the represents one of the few installation work items that is beyond the effort necessary to install a typical manhole structure.

6. Top Slab/ Manhole Cap Installation: Before installing the Top slab, a layer of ¾" x 3" mastic rope shall be placed on the tongue of the barrel section joint as described previously. The proper alignment of the top slab shall be ensured so that the opening for the frame and cover matches the Plan and Profile/Shop drawings. After installing the top slab, Access Riser/Grade Rings and grout pack along with the frame and cover shall be installed to match the finished grade.

7. Backfill:
The backfill material around the base and intermediate barrel sections shall be placed and compacted achieving a minimum compaction of 90% when tested by ASTM Designation A1557. Backfill material may be a "minimal compaction effort" material such as 3/8" pea gravel or clean fill sand. The Contractor may use native material if approved by the Engineer and if said material provides an allowable bearing pressure of 2,000 pounds per square foot. The native material shall be compacted to a minimum relative density of 90% when tested by ASTM Designation A1557.

Upon completion of the ***JDS*** unit installation, the excavation shall be backfilled with an aggregate base material, pea gravel, or controlled density cement backfill. The aggregate base material shall be compacted to 90% compaction when tested by ASTM Designation A1557, except as noted below.
If the unit is installed in a travel way, the upper two feet of backfill shall be aggregate base compacted to 95%.