

## Chapter 5

### 5.0 Jellyfish Filter Installation

The installation of the precast concrete or fiberglass Jellyfish Filter structure should conform to state highway, provincial or local specifications for the installation of maintenance manholes. Selected sections of a general specification that are applicable are summarized in the following sections.

For more information, please refer to the Jellyfish Filter Performance Specification with document title **Standard Specification – Water Quality Filter Treatment Device**.

#### Excavation

- Excavation and general site preparation for the installation of the Jellyfish Filter structure should conform to state highway, provincial or local specifications.
- Topsoil removed during the excavation should be stockpiled in designated areas and should not be mixed with subsoil or other materials.
- The Jellyfish Filter structure should not be installed on frozen ground.
- Excavation should extend a minimum of 12 inches (300 mm) from the precast concrete surfaces plus an allowance for shoring and bracing where required.
- If the bottom of the excavation provides an unsuitable foundation additional excavation may be required. In areas with a high water table, continuous dewatering may be required to ensure that the excavation is stable and free of water.



- Level the sub-grade to the proper elevation. Verify the elevation against the structure dimensions, the invert elevations on the approved Jellyfish Filter drawing and the site plans. Adjust the base aggregate if necessary. Verify the soil bearing capacity is adequate for the required load.

#### Installation of Jellyfish Filter Structure

- Set the base section of the Jellyfish Filter structure on solid sub-grade.
- Verify the level and elevation of the base section before adding any riser sections.
- Add specified watertight seal to the base section. Set riser section(s) on the base section.
- Install the inlet and outlet pipes to the structure.
- Install the top slab and frames and covers.
- Do not install Jellyfish membrane filtration cartridges until the upstream catchment and site have been stabilized.

#### Installation of Jellyfish Membrane Filtration Cartridges

- After the upstream catchment and site have been stabilized, remove any accumulated sediment and debris from the structure.
- Safely descend to the cartridge deck using the ladder attached to the sidewall of the manhole. Confined space entry procedures are required.
- Carefully lower the Jellyfish membrane filtration cartridges into the cartridge receptacles within the cartridge deck. A filter cartridge should be placed into each of the draindown cartridge receptacles outside the backwash pool weir. Depending on the specific Jellyfish Filter model number, filter cartridges should be placed into most or all of the hi-flo cartridge receptacles within the backwash pool weir. If a membrane joint snags on the receptacle lip, use a slight twisting or sideways motion to clear the snag. Do not force the membranes down into the cartridge receptacle, as this may damage the membranes. Use a slight downward pressure on the cartridge head plate to seat the rim gasket (thick circular gasket on the stainless steel head plate) into the cartridge receptacle.
- Examine the cartridge lids to differentiate lids with a small orifice, a large orifice and no orifice. Lids with a small orifice are to be inserted into the draindown cartridge receptacles. Lids with a large orifice are to be inserted into the hi-flo cartridge receptacles. Lids with no orifice are to be inserted into unoccupied cartridge receptacles within the backwash pool weir.
- To install a cartridge lid, ensure the cartridge lid male threads are aligned properly with the cartridge receptacle female threads. Firmly twist the cartridge lid clockwise to seat the filter cartridge snugly in place.

## Chapter 6

### 6.0 Jellyfish Filter Inspection and Maintenance

For inspection and maintenance information, please refer to the **Jellyfish® Filter Owner's Manual**.

Jellyfish Filter operation and maintenance are depicted in an **animation** on Imbrium Systems website ([www.imbriumsystems.com](http://www.imbriumsystems.com)).



## Chapter 7

### 7.0 Jellyfish Filter Replacement Parts

Replacement parts for the JellyfishFilter can be ordered by contacting Imbrium Systems at:

**United States:** 888-279-8826 or 301-279-8827

**Canada / International:** 800-565-4801 / 416-960-9900

**[www.imbriumsystems.com](http://www.imbriumsystems.com)**

