



## Technical Service Bulletin

June 2016 TSB414.02

### HYDRAsub<sup>®</sup>-MBR Storage Procedure

This Technical Service Bulletin provides information required to store HYDRAsub<sup>®</sup>-MBR membranes as spares or after they have been placed in service.

#### Storage of New Membranes as Spares

New HYDRAsub<sup>®</sup>-MBR membranes should be stored in a cool, dark, dry place away from any sharp edges or debris. The acceptable storage temperature is 1-40 deg C.

**NOTE: New HYDRAsub<sup>®</sup>-MBR membranes should be kept dry until use to avoid loss of hydrophilicity.**

When they are ready to be put into operation, the permeability of the membranes must be tested. If the average permeability of the new membranes in clean water is less than 15 gfd/psig (370 l/mh-bar), refer to TSB401.

#### Storage of Used Membranes

If the membranes have become wetted or been used in sludge conditions, it is recommended that the membranes are stored wet. They can be stored dry, if necessary, but this will require a hydrophilic treatment (see TSB401) before putting the membranes back into service.

**NOTE: Sludge will adhere to the membrane surface even after a thorough cleaning and it will be difficult to remove if the fibers are left out to dry.**

For any membrane (whole module, single element, etc.) that is to be stored wet, a CEB in clean water or Out Of System cleaning should be performed. The following procedure describes the cleaning method when the module is to be removed from the membrane and placed into a cleaning tank for an Out Of System clean. For instructions on removing a module from the membrane tank, refer to TSB411 *Assembly, Installation and Servicing Guidelines for HYDRAsub<sup>®</sup>- MBR*.

1. Remove the module from the membrane tank according to TSB411. Immerse the module into a tank filled with 1000-3000 ppm chlorine solution made from sodium hypochlorite. For best results, the solution should be

kept at about 30°C as the cleaning capability of the solution lowers as temperature decreases.

**NOTE: Make sure that the volume of solution displaced by the wet module does not cause the cleaning tank to overflow.**

2. Let the module sit for 6-24 hours.
3. Rinse the module with clean water after the soak is complete. This can be done by lifting the module above the tank and spraying it with water. Alternatively, the cleaning tank can be completely drained, disposing chemical waste per local regulations, and spraying the module with water while it is still in the tank.

**NOTE: Caution should be taken to not use a high pressure hose. Pressure should not exceed 40 psig (2.8 bar) and the nozzle should be at least 8.0 in (20 cm) away from membranes.**

Once the membranes are thoroughly cleaned, they may be placed in the storage tank or area. The storage tank should be clean, free of sharp edges or debris, and kept in a cool, dark place so as to avoid direct sunlight. Care should also be taken to not allow the tank to be exposed to freezing conditions. The acceptable storage temperature is 1-40 deg C. Tank water should be replaced 1-4 times per month to avoid microorganism growth in the tank. For long storage times, contact Hydranautics for further instructions.

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