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Coarse Bubble Diffusers

SSI Coarse Cap (AFC) TM Diffuser Specifications

1.0 GENERAL

- 1.1 SSI Coarse Cap (AFC) TM Diffusers shall be manufactured by Stamford Scientific International, Inc. (U.S.A.).
- 1.2 Each diffuser shall be designed to efficiently release air into the aeration tanks at the locations shown on the contract drawings. Each unit shall be factory assembled with removable and replaceable membranes.

2.0 MATERIALS

- 2.1 Diffuser Base: The Diffuser Base shall be molded high rigidity Acetyl plastic. The Diffuser Base shall be of one piece construction and shall have 3/4" NPT threads for connection to the air header system.
- 2.2 Diffuser Diaphragm Membrane: The Diffuser Diaphragm Membrane shall be of EPDM rubber compounded to meet SSI specifications. The Diffuser Diaphragm Membrane shall contain ten (10) engineered orifices spaced to release air from the top of the diffuser assembly and to initiate immediate fluid interaction with maximum bubble formation and dispersion. The Diffuser Diaphragm Membrane shall be designed to cover the Diffuser Base and attach to the scalloped edge of the base. The membrane shall be replaceable for future service/maintenance requirements.

- 2.3 Diffuser Operating Pressure: The Diffuser Diaphragm Membrane shall be engineered to operate at minimum pressure drop to deliver maximum performance at minimum energy consumption. Membrane operating pressure shall distribute air uniformly over the diffuser and throughout the piping system. The pressure drop thru the Diffuser Diaphragm Membrane shall not exceed _____ inches water column, _____ psi at _____ scfm air flow per diffuser.
- 2.4 Diffuser Surface Area: The maximum allowable surface area for the diffuser shall be 8 square inches.

3.0 OPERATION

- 3.1 The diffuser diaphragm shall be designed to open under air pressure, to release air in a steady, uniform stream of bubbles and to close when airflow to the diffuser is stopped, thus preventing back flow of fluids and prevent clogging with solids or biomass. The diffuser shall be designed to operate at a design airflow of 0 to scfm, with maximum recommended air flow rate of 10 scfm.

4.0 WARRANTIES

- 4.1 Stamford Scientific International, Inc. warrants the SSI Coarse Cap (AFC)™ diffuser assembly for a period of one (1) year from the date of purchase against defects in materials and workmanship under normal usage.