



O₂-Ecoflex 2000 Membrane Tube diffuser System Design

O₂-Ecoflex 2000 Membrane tube diffuser design provides spacious air delivery channels allowing air to flow evenly across the entire contour of the O₂-Ecoflex 2000 diffuser membrane and diffuser support pipe circumference. The unique design has achieved the effect of minimising pressure losses throughout the installation, thus significantly improving the aeration systems overall efficiency. Each O₂-Ecoflex 2000 Membrane tube diffuser has in excess of twenty thousand Micro-perforations. The perforated design utilised delivers evenly spread and highly efficient oxygen entrainment. Testing completed on the O₂-Ecoflex 2000 Diffusers substantiate the efficiencies achieved by the Design Team at Convitec, as identified within the test data referenced within this document.

Installation

O₂-Ecoflex 2000 Membrane tube diffusers can be installed onto round or square air delivery pipe systems efficiently and safely. There is minimal chance of field failures due to the simple installation methodologies needed as a result of the diffuser design. There is only one air delivery hole required to be drilled where the O₂-Ecoflex 2000 diffuser connects to the main air delivery piping. No bolting, screwing or specialist tools are necessary to connect the O₂-Ecoflex 2000 diffuser to the air delivery piping. The diffuser membrane is able to be installed on to the support pipe with a single hand grip without tooling, providing significantly reduced installation times and subsequent aeration system installation costs.

The air delivery and buoyancy characteristics of the O₂-Ecoflex 2000 diffuser system is very well suited to removable applications needed where aeration basins are not able to be taken off line.

The removable systems designed by Convitec allow for the efficient replacement of diffuser membranes with minimal process interruptions to the facility.

Product Quality

Only high quality plastics are utilised in the manufacturing of O₂-Ecoflex 2000 Membrane tube diffusers. O₂-Ecoflex 2000 Membrane tube diffuser's components are all manufactured utilising state of the art moulded injection systems. This manufacturing process achieves superior mechanical strength, and eliminates surface roughness of air delivery components known to affect operational efficiencies.

The O₂-Ecoflex 2000 diffuser systems are only manufactured in state of the art production facilities located in Germany in accordance with Internationally recognised Quality Management Systems providing systems for control and traceability of all design and manufacturing processes.

Cost Competitiveness

O₂-Ecoflex 2000 Membrane tube diffusers have proven to be very cost effective for a number of reasons:

Lower aeration system project installation costs are achieved thru the products innovative design, which achieves reduced site Installation times, piping and equipment costs.

- The elimination of installation rework from product failure due to the stringent quality control systems implemented in all areas of production. Systems and procedures are implemented for fabrication component traceability, batch sampling inspections, and factory pretesting prior to shipment.
- The Robustness of the O₂-Ecoflex 2000 diffuser membrane design, and the consistent quality of the German manufactured membranes will achieve superior operational longevity if operated within the designed process parameters.

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