

FINE BUBBLE DISC DIFFUSER AERATOR



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Diffused aeration has changed a lot in the last decade. Vast improvements have been made in reliability, cost and efficiency and monitoring of aeration systems, which keeps the plant running 24/7, 365 days a year, in peak operation condition.

We manufacture our disc diffusers with compression molded membranes. Standard materials are NBR that manufactured by compression molding with a standard cure, low plasticizer content. Compression molding with modern equipment utilizing individual thermocouples and vacuum technology ensures a repeatable very high quality product.

The specification of diffuser :

Diameter disc 12"

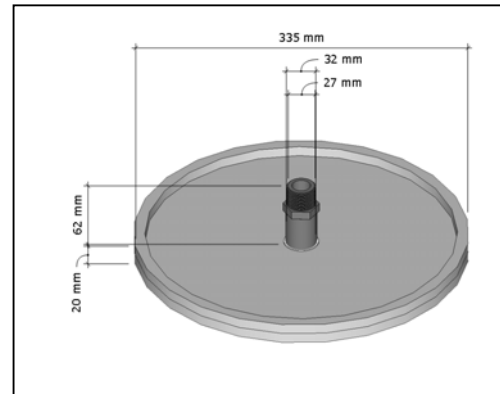
Design flow 0.07 - 0.1388 Sm³/min

Flow range 0.16 - 0.233 m³/min

Active surface area 65,000 mm²

Micro holes quantity is about 10,000

Material NBR



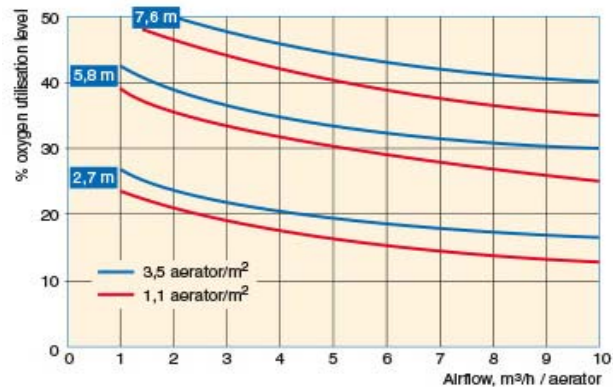
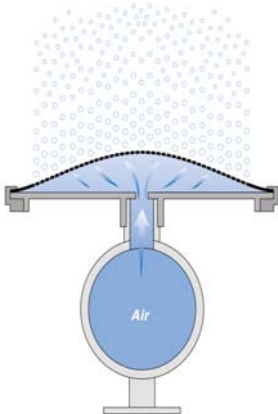
- More economical and efficient. It has low headloss , resulting in the highest SAE (kgO₂/kWh) when compared to other fine bubble diffusers.
- Simple and quick installation with QC Saddle or Grommet
- 212 F (100 C) temperature resistance and environmentally friendly polypropylene body.
- Compression-molded membranes with individual thermocouples in each cavity = 100% quality control
- Each membrane checked for even perforation depth to ensure uniform air release.
- Low membrane plasticizer content to reduce shrinkage and hardening, but enough to avoid creep.
- Multiple integral check valves keep the aeration piping system clean. The membrane diffuser doesn't get blocked and is self-cleaning. No cleaning is needed under normal operating conditions.
- The membrane diffuser contains no parts that can corrode.
- Air is forced by blowers towards the flexible rubber membrane through an opening in the bottom plate of the diffuser. A certain pressure is required to overcome the resistance that the backwash valve creates and to get the air to be released into the diffuser so the flow of air expands the membrane. When the membrane -expands and arches up above the bottom plate the micro channels in the rubber membrane release the air into the water and this creates small bubbles. The channels open and close in a quick pulsating type of operation. When the supply of air stops, the membrane resumes its rest position against the bottom plate.
- Disc membrane diffusers can be used in a wide range of applications where large quantities of air need to be added, in order to maintain a high level of oxygenation. This gives great flexibility when designing an aeration system, enabling regulation of the amount of air added and the oxygen level, which can be optimized for maximum performance.

▪ FEATURES

- High oxygen transfer efficiency.
- High resistance to clogging.
- High resistance to corrosion.
- Wide air flow range.
- Low pressure loss.
- Low energy cost.
- Easy installation.
- Uniform fine bubble.
- Back flow prevention.
- Self cleaning operation.
- Intermittent operation capability.
- Cost saving.

▪ APPLICATIONS

- Municipal wastewater treatment.
- Industrial wastewater treatment.
- Clean water treatment.
- Sludge stabilization.
- Wastewater ozone diffusion.
- Aeration of fish ponds.
- Aeration of streams and lakes.



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