

Air Diffusion Systems®

DURABLE DIFFUSER ASSEMBLY

The ADS® disk module fine bubble diffuser assembly includes a stainless steel base supporting different types of ADS® aeration tubing. The large diameter (4') supplies a large surface area optimized to provide the maximum mixing and oxygen transfer while preventing bubble coalescing.

Other diffuser designs use smaller diameters and require higher air flow to run at optimal performance. The conception of the ADS® disk module insures uniform bubble pattern and precise air distribution.

Our linear triple cut module has 2400 precise air-cuts factory processed into each disk. This produces the desired balance of high oxygen transfer and modest head loss that our customers demand from us. Tubing material is a low density polyethylene, which ensures that the bubble size is the smallest in the business, especially at recommended airflows. Each air release emits 5 micro-bubbles per second. That is over 1 billion bubbles per day, with pumping volumes for LTC module of 22 MGD per diffuser at 15' of water depth.

The disk modules are designed to be installed on the bottom (optional support legs) or suspended from a floating header. Connection to the header is secured by ADS® LWFT feeder tube and HDPE reusable compression fittings with plastic gripper rings.

ADS® FINE BUBBLE DIFFUSER TUBING

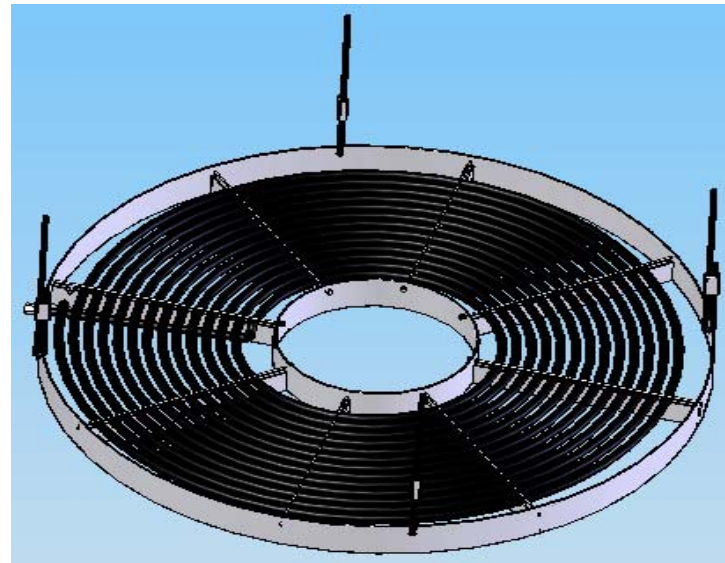
The diffuser tubing is composed of a low density polyethylene (LDPE) containing more than 2% Carbon Black. The air-cuts have a width of approximately 25 microns that require 14 kPa (2 PSI) more than hydrostatic pressure to allow uniform distribution across the length of the tubing. These precise air-cuts act as a check valve to prevent the entry of foreign material to the inside of the tubing. The pressure drop across the air-cuts is critical to ensure the following properties:

- The diffusers emit a uniform air pattern even if the pond bottom is not perfectly level (due to sludge accumulation or intended bottom slope).
- A bottom elevation variation of up to 0.5m (1.5 ft) will not compromise the bubble pattern.
- If the blowers are shut off for a period of time, the die-cuts act as one-way valves and will allow water but little or no solids to enter the diffusers.

The advanced design of ADS® Disk module fine bubble diffuser assemblies provides many advantages over previous systems:

ADS® DISK MODULE

- Highest oxygen transfer.
- Intense aeration provides up to 1 billion bubbles per day.
- Extreme pumping rates at 15' or greater water depth, more than 20 million gallons per day.
- Excellent energy performance: one horsepower @ 8 SCFM per disk.
- Outstanding warranty: 5 years and beyond.
- Very easy to install and remove.



DISK SPECIFICATION

	Model LTC Linear triple cut	Model LWA1.5 Linear single cut
Nominal Dimensions:	4' diam. by 3" high (1.2m diameter by 8cm high)	4' diam. by 3" high (1.2m diameter by 8cm high)
Nominal Weight:	38 pounds (17Kg)	38 pounds (17Kg)
Optimum Air Supply:	8.1 SCFM	2.7 SCFM
Maximum Air Pressure:	100 PSI	100 PSI
Fluid Turnover Rate ft Water Depth	>20 MGD	>7 MGD
Product Warrantee:	5 + years	5 + years

