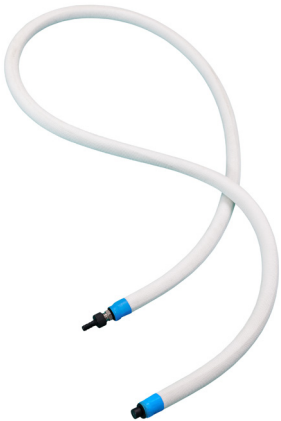


Water Treatment

Fine Bubble Air Diffusers

Product ID:

Name:	Dryden Aqua Air Diffusers
Usage:	Aeration, biological treatment, oxidation, destratification of reservoirs and lakes
Unique Features:	Fine bubble air diffusers, high energy yield, semi-flexible, self-ballasted, simple maintenance, high durability, high cost effectiveness



About Dryden Aqua Air Diffusers:

Dryden Aqua Air Diffusers are some of the best semi flexible fine bubble aeration system available in the market. They are 5 times more efficient than coarse bubble air diffusers in mixing action and aeration capacity, with an average bubble size of 1 mm. They usually connect to a circular ring main pipe with quick connections. The ring main pipe connects to a low pressure (around 1 bar) roots type or rotary vane air blower.

Dryden Aqua's Air Diffusers are very easy to install in tanks, plastic lined reservoirs or lagoons, and can be maintained while air blowers are operating and the water reservoir is full.

The Air Diffusers are equipped with an internal ballast and non return valve and will stay on the bottom without needing to be secured to the base.



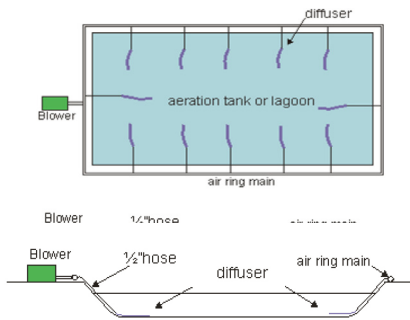
Main Benefits:

- Semi-flexible fine bubble aeration system with average size bubbles of 1mm making them 5 times more efficient than coarse bubble diffusers
- Available in 9 different lengths up to 3 m with air flow from 1 – 10 m³/h with < 0.2 Bar (< 3 psi) pressure differential
- Provides oxygen transfer up to 5 kg/kwh. 1 x 3 m air diffuser and 10 m³/h of air provide 1 kg of O₂/h. 1 x 3 m air diffuser is equal to 50 - 100 PE (population equivalents) for municipal wastewater treatment
- Semi flexible construction with its own internal ballast. Will stay on the bottom without the need to be anchored to the floor
- Very easy and quick to install in tanks, plastic lined reservoirs or lagoons
- Can be maintained while air- blowers are operating and water reservoir is full



Water Treatment

Fine Bubble Air Diffuser Applications

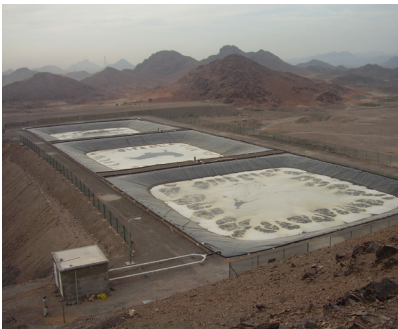


Recommended applications

- Activated Sludge & SBR Municipal & Industrial Biological treatment
- Agriculture Waste Water treatment
- De-stratification of lakes, lagoons and reservoirs
- Reduction of THM's in lagoons and reservoirs
- Aquaculture aeration
- Heavy metals Oxidation
- Extended diffused aeration of lagoon, lakes and wetlands

Basic design criteria

- De-stratification processes. Use 1 x 3 m diffusers or 10 m³ of air/h for every 1,000 m² of water surface area.
- Municipal Wastewater biological treatment. Use 1 x 3 m diffusers or 10 m³ of air/h for every 50 - 100 PE (Population Equivalent).
- Agricultural wastewater biological treatment. Use 1 x 3 m diffusers or 10 m³ of air/h for every 10 cattle and for every 20 swine.

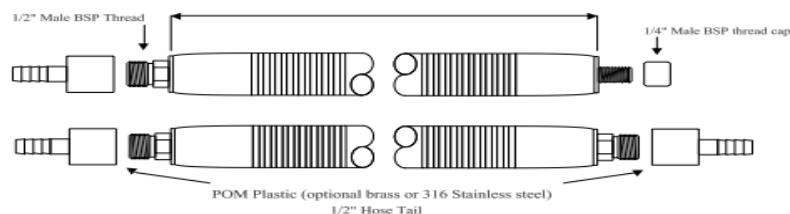


Air diffuser performance

- Oxygen transfer up to 5 kg/kwh
- Oxygen transfer, 1 - 2 kg of Oxygen/h for a 3 m long diffuser
- 10 m³/h of air per 3m diffuser = 50 to 100 PE (Population Equivalent)

Specification

- Tubular diffuser up to 3 m in length
- Air flow from 1 to 10 m³/h
- Oxygen transfer up to 5kg/kwh
- Less than 0.2 Bar (3psi) pressure differential
- Outer polyester jacket
- Internal glass bead ballast (self weighted)
- Plastic & stainless steel construction
- Simple installation
- Very easy maintenance



For detailed instruction please consult the Dryden Aqua Diffusers IFU (Information For Use) document which can be downloaded from the Dryden Aqua Website www.drydenaqua.com via the following link.

[https://www.drydenaqua.com/files/water/air-diffusers/pdf/AirDiffuserManual\(IFU\)June,2017.pdf](https://www.drydenaqua.com/files/water/air-diffusers/pdf/AirDiffuserManual(IFU)June,2017.pdf)

Water Treatment

Fine Bubble Air Diffusers



Agricultural wastewater treatment

- Slurry waste from cattle, swine, chicken
- 1 x 3 m air diffuser for every 10 cattle
- 1 x 3 m air diffuser for every 20 swine
- Effluent is much more effective for irrigation, less ammonium and more nitrate. Nitrogen will stay in the ground
- Simple installation below the floor of cattle sheds, on plastic membrane or clay lined lagoons



Parameter	Influent	Reduction
COD	5,500 mg/l	95 %
BOD	5,000 mg/l	99 %
Ammonium	1,500 mg/l	98 %
TSS	2,000 mg/l	98 %

Item No.	Description	Diffuser Weight kg	Air Flow m ³ /hr (+/- 20 %)	Oxygen Transfer kg of O ₂ /day per diffuser at different depths at 20 °C and 50 % O ₂ saturation		
				2 m	3 m	4 m
70000	0.33 m Diffuser	0.5	1	2 kg O ₂	2.5 kg O ₂	3 kg O ₂
70001	0.66 m Diffuser	1.0	2	4 kg O ₂	5.0 kg O ₂	6 kg O ₂
70002	1.00 m Diffuser	1.5	3	6 kg O ₂	7.5 kg O ₂	9 kg O ₂
70003	1.33 m Diffuser	2.0	4	8 kg O ₂	10 kg O ₂	12 kg O ₂
70004	1.66 m Diffuser	2.5	5	10 kg O ₂	12 kg O ₂	15 kg O ₂
70005	2.00 m Diffuser	3.0	6	12 kg O ₂	15 kg O ₂	18 kg O ₂
70006	2.33 m Diffuser	3.5	7	14 kg O ₂	17 kg O ₂	21 kg O ₂
70007	2.66 m Diffuser	4.0	8	16 kg O ₂	20 kg O ₂	24 kg O ₂
70008	3.00 m Diffuser with NRV	4.5	9	18 kg O ₂	22 kg O ₂	27 kg O ₂
70020	Dryden Aqua Weight for Air Diffuser 75mm x 75mm; 2 Connections 1/2"					
70021	Dryden Aqua Weight for Air Diffuser 75mm x 75mm; 5 Connections 1/2"					