Water Treatment

DRYDEN AQUA TECHNOLOGY SUSTAINABLE WATER QUALITY

AIR DIFFUSER

Simple, efficient & sustainable

Water Treatment without Chemicals

Product code	70000	70002	70005	70008	
Length	0.33m	1m	2m	3m	
Weight	0.5kg	1.5kg	3kg	4.5kg	
Air Flow	0.5-2m³/h	2-4m³/h	4-8m³/h	8-15m³/h	
					Depth
SOTR kg O_2/day	3.2	10	22	32	5m
SOTE	42.5	42	42	44	5m

Source: Clewatec independent laboratory test, 2023. Values at STP (20°C, zero DO, sea level). Depths 2–8m extrapolated using $SSOTE_{20}$ = 8.48 %/m (Dryden Aqua IFU).

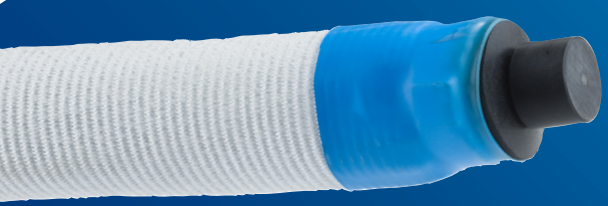
HIGH AIRFLOW, LOW PRESSURE LOSS

SELF-BALLASTED, UP TO 3M

EASY MAINTENANCE WITHOUT SHUTDOWN

The Dryden Aqua Air Diffuser is a high-performance, self-ballasted aeration system for tanks, lagoons, lakes, ponds and open water. It produces fine to medium bubbles (1-3mm) for efficient air to water oxygen transfer and strong vertical water movement. Its semi-flexible, glass-bead-ballasted design lies flat, at depths up to 3m without anchoring, and can be removed and cleaned while the system remains in operation.

Efficient, sustainable & effortless aeration!



MULTI-PURPOSE
Compatible with air, N_2 & CO_2

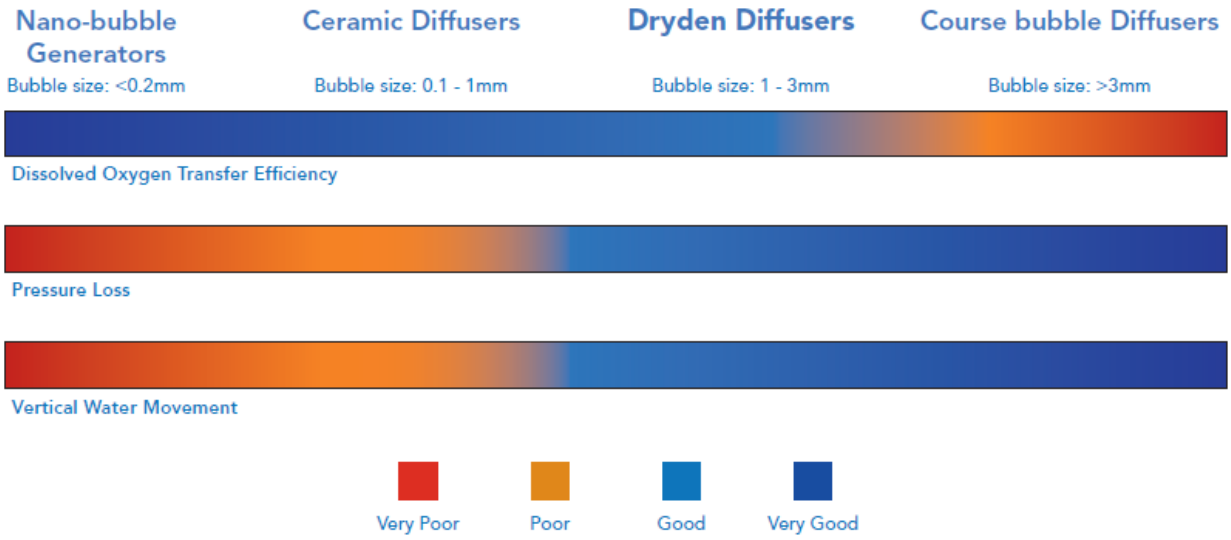
LONG SERVICE LIFE
> 10 years with correct maintenance

YouTube

www.drydenaqua.com

APPLICATION TYPE	RESIDENCE TIME	COMMENTS & DIMENSIONING GUIDELINES
AERATION AND WATER MOVEMENT		
Water Movement		1m³/h of air can move 10m³/h of water from 3m depth (by airlift pumping) — eliminates dead zones and dead areas in tanks and lagoons.
Particle resuspension		Keeping particles in suspension for full aerobic bacterial colonisation for faster digestion.
GAS STRIPPING / BALANCING GAS SATURATION LEVELS IN INTAKE WATER		
Gas pressure management		• Reduction of nitrogen partial pressure • Restoration of CO_2 partial pressure and stabilisation of pH • Blowing off of volatile organics (methane, hydrogen sulphide) • Raising dissolved oxygen partial pressures
THMs off-gassing (chlorinated systems)	60min	1m³/h of air per 1–2m³/h of water flow
CO_2, VOCs and pH balance	30min	0.5-1m³/h of air per 1m³/h of water flow
OXIDATION OF INTAKE WATER FOR IRON, MANGANESE & ARSENIC REMOVAL		
Iron / Mn / As removal	30min	0.5m³/h of air per 1m³/h of water flow. Mn:Fe ratio must be < 1:5 As:Fe ratio must be < 1:10 AFM®s is used for metals removal post-oxidation
AERATION FOR WASTE WATER TREATMENT		
General oxygen demand		24% higher SOTR and SOTE than best available technolgy brand disc diffusers of the same surface area
Performance		K_La_{20} - 9.02, $SOTR_{20}$ - 300grO_2/h, $SOTE_{20}$ - 31.4%
COD / BOD reduction		Up to 40% less air input required to maintain >2mg/l DO levels

The above values are guidelines only, Dryden Aqua has calculators for accurate dimensioning.



For full installation procedure, system sizing calculations, maintenance schedules, and application-specific design guidance, consult the Dryden Aqua Air Diffuser Instructions for Use (IFU) — downloadable from www.drydenaqua.com.

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