



eVOQUA
WATER TECHNOLOGIES



DIAMOND™ MEMBRANE DIFFUSER S PLUS EDITION FOR ALL 9" FINE BUBBLE PODS OR HOLDERS

The new Diamond™ S Plus Edition membrane diffuser is a breakthrough in fine bubble membrane technology. The diffuser was specifically developed as an improvement to typical membrane diffusers, and to fit other manufacturer's pod or holder. Existing support plates and retainer rings can be reused.

Custom Formulated EPDM Material Provides:

- Wastewater specific compound with lower soluble oil content for longer life
- Tensile strength up to 50% greater than industry standard membranes

Featured Benefits:

- Lower life cycle costs
- Higher oxygen transfer efficiency
- Reduced headloss
- Longer service life



Retrofit Pods and Support Plates with the Diamond™ S Plus Membrane Diffuser

MEMBRANE EPDM MATERIAL PROPERTIES

Base Characteristics	Industry Standard	Diamond S Plus	Diamond S Benefit
Tensile Strength	1200 - 1450 PSI	2100+ PSI	>Ultimate strength directly related to life expectancy
Elongation at Failure	350% min	800% min	2X >Tear resistance
Durometer	55 +/-5	56+/-2	Superior material uniformity
Specific Gravity	1.25 or less	1.05	Less fillers
Ozone Resistance	Pass	Pass	Same
Extractable Oil	9-12%	<9%	Greater Stability, Longer Life
After Heat Aging Per ASTM D573-99 70 Hours @ 70° C (158°F) Temperature			
Tensile (loss)	-25% max	-12%	50% less degradation in strength
Elongation (loss)	-25% max	-5%	Retains 95% of tear resistance
Durometer (increase)	+10 pts	+1 pt	After time in service increase less operating pressure

MEMBRANE PERFORMANCE FEATURES

Feature	Industry Standard	Diamond S Plus	Diamond S Benefit
No. Air Discharge Aperatures	4850	5400+	Higher oxygen transfer at > SCFM Lower headloss
Membrane Thickness	0.080 - 0.100	0.080 - 0.165	Thick center reduces "ballooning" & more effective back flow prevention

The Diamond™ S Plus Membrane Diffuser includes a patented diamond platform which improves efficiency and lowers life cycle costs.

- Can be used to retrofit existing 9" ceramic or membrane installations of any industry standard 9" pod, including:
 - Aercor® Diffusers - ITT Industries, Inc.
 - Aqua-Aerobic Systems
 - Aquarius Technologies Inc.
 - Environmental Dynamics, International
 - Stamford Scientific International, Inc.
 - Sanitaire-Xylem, Inc.
 - USFilter®
- Can be part of a new DualAir® Diffuser piping system to replace aging hardware



Installation of a DualAir® Membrane Diffuser System



2607 N. Grandview Blvd, Suite 130, Waukesha, Wisconsin 53188

+1 (800) 524-6324 (toll-free) +1 (262) 547-0141 (toll) www.evoqua.com

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