

Diamond™ Membrane Diffuser, "S Edition," for All 9" Fine Bubble Pods or Holders

The Diamond™ membrane diffuser, S Edition is a breakthrough in fine bubble membrane technology. The diffuser was specifically developed to address the shortcomings of typical membrane diffusers, and to fit any competitive pod or holder. Reuse your existing support plates and retainer.

Custom Formulated EPDM Material Provides:

- Wastewater specific compound with lower soluble oil content for longer life
- Tensile strength up to 50% greater than competition
- Diamond™ Diffuser's New Aperture Configuration Provides:
 - Lower life cycle costs
 - Higher oxygen transfer efficiency
 - Wider operating airflow range
 - Reduced headloss
 - Longer service life (up to 10 years)

The Diamond™ diffuser's "S" membrane enjoys the lowest install cost ever. Just drop it in your housing and enjoy diamond platform technology, improved efficiency and peace of mind.

- Can be used to retrofit existing 9" ceramic or membrane installations of any major manufacturer.

For more information, contact Walter Sandford at 262.521.8416 or e-mail: water.sandford@siemens.com



Diamond™ Diffuser



Competitive Pod and Support Plate with Diamond™ "S" Membrane

Data Sheet

Diamond™ Diffuser "S" Edition Membrane & Major Competitor Comparison

Membrane EPDM Material Properties

Base Characteristics	Major Competitor	Diamond™ "S"	Diamond™ "S" Benefit
Tensile Strength	1200 - 1450 PSI	2100+ PSI	>Ultimate strength directly related to life expectancy
Elongation at Failure	400% min	800% min	2X >Tear resistance
Durometer	55 +/-5	56+/-2	Superior material uniformity
Specific Gravity	1.08	1.05	Less fillers
Ozone Resistance	Pass	Pass	Same
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	10X less hardening results in less operating pressure

Membrane Performance Features

Feature	Major Competitor	Diamond™ "S"	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
Membrane seal ring	Round o-ring seats in square channel	Tapered square o-ring seals like a cork in square channel	Maintains seal in holder even if shrinkage results

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