



## SAVE ENERGY WITH DIFFUSED AERATION SYSTEMS

### HOW TO IMPROVE AERATION AND STILL REDUCE OPERATING COST?

“State of the art” Fine Bubble Diffused Aeration Systems with higher Oxygen Transfer Efficiencies and lesser power consumption have brought revolutionary change in Aeration Technology & Systems. The systems have been perfected by scientific design and quality control.

### PRODUCT RANGE

EDI, USA make Diffused Aeration Systems offer a wide range of products suitable for a variety of applications.

#### Types of Diffusers :

- Flex Air** Magnum tubular Membrane Diffusers in fixed type and retrievable type arrangement.
- Flex Air** Disc type Diffusers
- Max Air** Coarse Bubble Diffusers
- Perma Cap** Disc type Coarse Bubble Diffusers

#### MOC of Membrane :

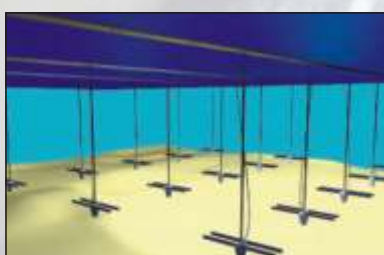
- EPDM
- Silicon based EPDM
- Pure Silicon
- Polyurethane
- High Temperature Polyurethane
- Teflon coated EPDM



### MEMBRANES / SYSTEM DESIGN & ENGINEERING



The Aeration / Mixing membrane systems designed and manufactured by **Environmental Dynamics Inc. (EDI) USA**, the world leaders in tubular diffusers & marketed by **Rieco Industries Ltd.** provide the highest level of system performance in terms of oxygen transfer efficiency, operating flexibility and minimum maintenance. These are individually engineered to meet the needs of the client.



At Rieco, we have a full fledged team of experienced design engineers, a well equipped R&D laboratory & efficient project execution team. We have to our credit, a rich experience in designing and execution of Environmental Pollution Control systems. This ability, combined with a quality product, offers you a total solution for your pollution control problem along with energy conservation.

# HIGH EFFICIENCY DIFFUSERS Vs SURFACE AERATORS

## FINE BUBBLE DIFFUSERS

## SURFACE AERATORS

|  |  |
|--|--|
| <b>I) Superior mixing</b><br>A. Full depth mixing for any depth<br>B. Full basin utilization with large number of energy points and full basin distribution<br>C. Act as hydraulic baffles to eliminate short-circuiting | A. Limited mixing below 12 ft depth<br>B. Limited energy locations-poor distribution<br>C. Limited energy points, channelized flow and less basin utilization. |
| <b>II) Major energy savings</b><br>A. Approx. 40% energy savings vs. splash draft type surface aerators<br>B. Low energy demand  | A. High energy cost<br>B. High energy demand   |
| <b>III) Maximum process flexibility</b><br>A. Can turn down or throttle entire system<br>B. Can throttle individual air laterals<br>C. Generally 50% to 100% spare blower capacity                                       | A. Loss of air when units are turned off<br>B. No throttling possible<br>C. No spare capacity  |
| <b>IV) Capital cost</b><br>A. If used in deep basins very economical<br>B. Shallow basins competitive<br>C. Payback period very short due to energy saving   | A. If used in deep basins very costly<br>B. Shallow basins competitive   |
| <b>V) Other Benefits</b><br>A. Reduced foaming<br>B. Reduced maintenance with no moving parts in aeration basin.<br>C. Compatible with any basin geometry  | A. Generates foam and nuisance aerosols.<br>B. Major maintenance of mechanical items in aeration basins.<br>C. Limitations for tank geometry                   |

| Unit Designation<br>dia X length<br>mm | Unit Airflow<br>Range<br>scfm | Unit Airflow<br>Range<br>NM <sup>3</sup> /hr | Design<br>Airflow Range<br>scfm | Design<br>Airflow Range<br>NM <sup>3</sup> /hr | Unit DWP<br>Range<br>Inches H <sub>2</sub> O | Appropriate<br>Openings / Unit |
|--|-------------------------------|--|---------------------------------|--|--|--------------------------------|
| 91x502                                 | 0-20                          | 0-34   | 2-8                             | 3.4-13.6                                       | 5.4-15.1                                     | 9,620                          |
| 91x762                                 | 0-30                          | 0-51   | 3-12                            | 5.1-20.4                                       | 5.4-14.1                                     | 15,175                         |
| 91x1003                                | 0-40                          | 0-68   | 4-16                            | 6.8-27.2                                       | 5.4-14.5                                     | 20,400                         |



## RIECO INDUSTRIES LTD.

1162/2, Shivajinagar, Behind Observatory, Pune - 411 005 (INDIA)

Phones : Direct : 91-20-25538457, 91-20-25535384, 25535215

Fax : 91-20-25533229

E-mail : rdhukerikar@rieco.com / sjhendre@rieco.com Website: www.rieco.com

### Regional Offices at :

**Mumbai** : 14, Nariman Bhavan, 227 Nariman Point, Mumbai - 400 021. (INDIA)

Phones : 022- 2202 6322, 2285 0939 / 40 Fax : 022-2202 5794

Email : sales\_mumbai@rieco.com

**New Delhi** : E-1, Jhandewala Extension, Rani Jhansi Road, (Near Delhi Press), New Delhi - 110 055. (INDIA)

Phones : 011-2362 8116, 2355 4029, Fax : 011-2362 8243

Email : sales\_delhi@rieco.com

**Kolkata** : 7A, Lala Lajpatrai Sarani, Kolkata - 700 020. (INDIA)

Phones : 033-2283 2007, 2283 2008 Fax : 033-2283 2004

Email : sales\_calcutta@rieco.com

**Chennai** : No. 31 & 32, 3rd Street, Kamaraja Colony, Kodambakkam, Chennai - 600 024. (INDIA)

Phones : 044-2375 0802, 2372 1274 / 1275, Fax : 044-2372 1274 / 1275

Email : sales\_chennai@rieco.com

