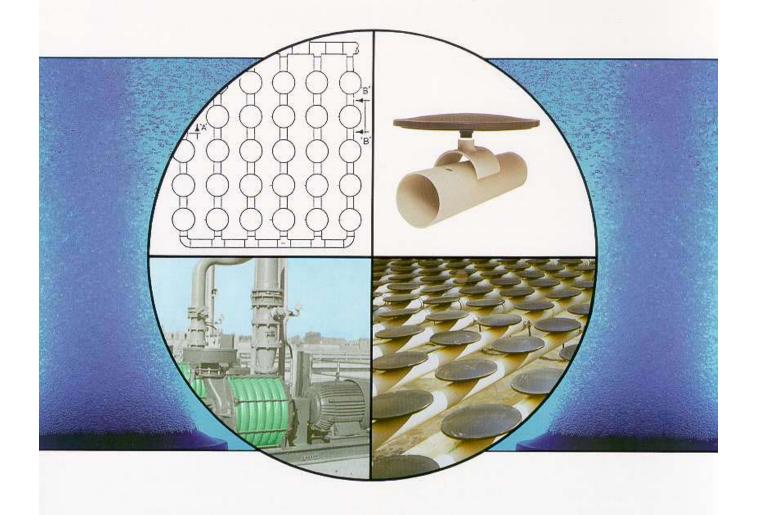
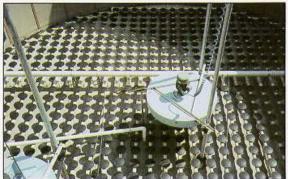
# AquaTec High Efficiency Aeration Systems

with "FlexAir" Diffusers



Not Just Hardware, But Total System Responsibility

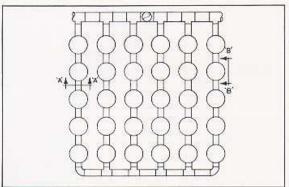
# Applications with AquaTec FlexAir Membrane Diffusers



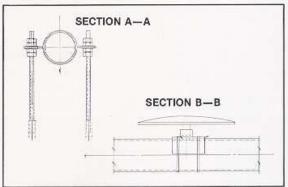
Typical SBR (Batch) Aeration System, three cycles per day



Large continuous aeration system



Typical piping layout



Typical tank floor mounting hardware

# Why Flexible Membrane Disc Aeration?

As energy costs continue to increase, the demand for a high-efficiency, non-clog, dependable aeration system is even greater. The need for a system that meets process requirements with the lowest operational expense and maintenance requirements has brought about the development of fine bubble flexible membrane diffusers (FMD). The "FlexAir" system overcomes the problems of excess liquid cooling effects, in-basin mechanical difficulties, ice formations, aerosol drift and foaming problems associated with mechanical aeration devices. The "FlexAir" diffuser's superior efficiency allows substantial power savings over most mechanical and coarse bubble diffused air systems. "FlexAir" system is efficient, yet requires no special cleaning methods utilizing chemicals or gases to maintain operational efficiency. The "FlexAir" diffuser's patented design ensures an efficient, dependable, maintenance free system to meet the needs of today and the future.

**The good news is...** The problems associated with the old methods are history. Modern space-age materials and manufacturing techniques make flexible membrane, fine bubble, disc-shaped diffusers the preferred aeration method of our time and flexible membrane diffusers are here to stay.

AquaTec FMD technology, which we call "FlexAir" diffusers, is the result of AquaTec's years of experience in municipal and industrial aeration system design. The AquaTec "FlexAir" Diffuser System is a superior design when compared to contemporary membrane diffuser designs. The people at AquaTec have been providing mechanical and diffused air aeration systems for over twenty six years. Experience produces "Know How."

# Advantages with AquaTec FlexAir Membrane Diffusers

#### Anti-Clog Design:

Excellent for SBR or any batch or continuous process where air supply must be shut off (or otherwise interrupted). Built in double "check valve" feature protects both diffusers and piping from backflow of liquids and solids.

#### Non-Corrosive Materials:

Special materials can be provided even for the worst wastewater problems especially in industrial applications. AquaTec offers stronger, heavier duty hardware that lasts.

#### Standard Connections:

No special "proprietary" fittings or hardware are required and many systems can be retrofitted by simple modifications.

#### Simple Installation:

Installation, inspection, maintenance and physical handling of AquaTec "FlexAir" diffusers are done by hand.

## **Optional Mountings:**

Full floor coverage, lift out headers, floating pipeline and various grid designs are available.

### Wide Range of Air Flow:

Air flow rates can be adjusted over a 300-400 percent range for power savings and process benefits.

#### **Lower Power Costs:**

Existing coarse bubble systems can often times be retrofitted with AquaTec "FlexAir" diffusers and show a "net" cash flow return to the purchaser. Power savings can help finance equipment cost.

#### **Superior Oxygen Transfers:**

Fine bubble size provides high interfacial area and results in clean water oxygen transfer efficiency as high as 50% in some tank/system configurations.

#### Anti-Rupture Design:

Nearly all membrane diffusers except the AquaTec "FlexAir" diffusers can be "blown off" or "ruptured" by accidental surges.

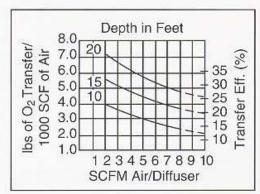
#### Less Maintenance:

Scheduled maintenance and/or cleaning is not normally required.

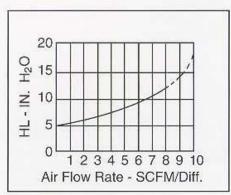
#### Available Now:

Standard materials in our inventory will suit most applications. Complete design, furnish and install services can be provided. Auxiliary equipment, blowers, controls and piping available if required.

# **Typical Performance Characteristics...**



Oxygen Transfer Curve



Head Loss Curve

# AquaTec is Committed to Your Satisfaction...

#### Experience...

AquaTec, Inc. since 1972, is an innovative and successful company specializing in developing energy efficient aerobic and anaerobic treatment systems. Our experience increases satisfaction for our customers.

#### Capability...

AquaTec is backed by a professional management staff which includes engineers, technicians, manufacturers and specialty contractors. We can assist you with selection of process, system design, equipment, or even turnkey design construction if you desire.

#### Service...

AquaTec not only offers equipment and related application technologies, but we can assist you with proper design and operation of your facility as well. Helping you perform effectively and efficiently is our objective.

## Availability...

For more information call (815) 654-1500, write AquaTec, Inc., 1235 Shappert Drive, Rockford, IL 61115 or contact the representative below.

#### A partial list of clients served by AquaTec:

A.E. Staley Manufacturing Co. Abbott Labs Alto Dairy American Maize, Inc. Amoco Chemical Company Archer Daniels Midland Corp. Arco Oil Company Badger Paper, Inc. Beatrice, Inc.

Bergstrom Paper

Campbell Soup Company
Dean Foods, Inc.
Del Monte Corp.
E.J. Brach Candy Co.
Foremost Foods
Illinois Power Company
James River Pulp and Paper
Joan of Arc Company
Kraft, Inc.
Larsen Canning Company

Libby, McNeil and Libby Mobil Chemical Company National Starch Nekoosa Papers Ocean Spray Cranberry Co. Pet, Inc. The Quaker Oats Company U.S. Gypsum, Inc. Waste Management, Inc.

#### We are represented by:

Patented in the U.S.A.





1235 Shappert Drive

Rockford, Illinois 61115

(815) 654-1500

Fax (815) 654-0038

The information contained in this publication is presented only for general information. Any data, dimensions, suggestions, or recommendation printed or implied are for purpose of concept illustration or estimating only. AquaTec, Inc. will not assume any liability or responsibility for the use of the information contained herein. Any specific application requirement must be referred to AquaTec, Inc. for review and recommendation.