



ENGINEERED AERATION



FEATURING

FlexAIR[®] PRO

CoarsAIR



AERATION

FOR


LIFE

Aeration is a part of almost every wastewater treatment plant, but cheap products and unreliable suppliers have made life difficult for operators and engineers.

EDI supplies *aeration for life*™ meaning we support engineers from the first design, contractors with the easiest installation processes, and plant operators with the widest range of aftermarket parts, so treatment plants can trust their aeration again.

EDI has been revolutionizing wastewater aeration since 1975, and we are only getting started. We are relentlessly focused on making cutting-edge aeration easy for engineers to integrate, simple for operators to maintain, with a total lifecycle cost that makes it easy for municipalities or industrial clients to manage their environmental impact.



A photograph of a wastewater treatment plant. In the foreground, a large white pipe runs vertically, surrounded by several large red pipes. In the background, a worker in a light blue shirt and dark pants is standing on a platform, gesturing with his hands. The scene is brightly lit, possibly by sunlight, creating a hazy atmosphere.

YOUR WASTE AND OUR **MEMBRANES** HAVE GREAT CHEMISTRY.

Membranes make fine-bubble aeration possible amidst some of the harshest forms of wastewater humans have contrived. Well-made, reliable membranes reduce replacement times and ensure oxygen transfer meets expectations. Thanks to EDI engineering, you'll know you have the right membrane that will allow your plant to perform to expectations, for as long as you expect.

MEMBRANE	APPLICATIONS	TEMP RATING*	FlexAIR [®] PRO			FlexAIR [®] BASIC
			DISC	TUBE	PANEL	
EPDM	Light mix of industrial influent. All domestic waste.	≤104°C ≤220°F	●	●	●	●
Polyurethane (PU)	Oil & gas. Food processing. Animal byproducts. All domestic waste.	≤70°C ≤160°F		●	●	
High-Temperature Polyurethane (HTPU)	Oil & gas. Food processing. Animal byproducts. All domestic waste.	≤80°C ≤180°F		●	●	
Armor-Coated EPDM	Light mix of industrial influent. All domestic waste.	≤104°C ≤220°F	●	●	●	
Matrix™ PTFE-Embedded HTPU	High mix of industrial influent. Improved pressure stability. All domestic waste.	≤70°C ≤160°F	●			
Matrix Plus™ PTFE-Embedded HTPU	High mix of industrial influent. Improved pressure stability. All domestic waste.	≤80°C ≤180°F		●	●	
Specialty Polymers	Performance guarantees. Pulp & paper. Improved pressure stability. All domestic waste.	≤104°C ≤220°F	●	●	●	

* Shown as mean wall temperatures; for most products, the average of air and water temperatures.

TECHNOLOGY: Membranes

ADVANTAGES:

- Formulated to suit unique applications
- Precisely perforated in Columbia, MO
- Engineered by EDI aeration experts

COMPATIBILITY:

Membranes are built into the following **diffusers**:

- FlexAir[®] Pro fine-bubble panel, tube, disc or Streamline™ diffusers
- CoarsAir™ PermaCap coarse-bubble diffusers

...into the following **configurations**:

- Fixed Grid
- ModuleAir™ retrievable

...serving the following **applications**:

- Municipal wastewater
- Industrial wastewater

MORE OXYGEN, FEWER HEADACHES

In a world where <2mm bubbles are the norm, it takes a company like EDI to rethink how easy it can be to get the bubbles there in the first place.

FlexAIR[®] PRO
FINE BUBBLE DIFFUSERS



EDI helped start the **fine-bubble aeration revolution**, introducing fine bubble subsurface aeration that distributes air into water via very small (or fine) bubbles (<2mm) whose surface area enables oxygen to transfer to the surrounding water more efficiently.

It's time for the next aeration revolution: FlexAir Pro.

The next revolution focuses on untapped efficiencies in installation and durability, which dramatically reduce the cost of producing bubbles, meeting your regulatory limits, and running your plant.

How they work

Diffuser Options

Our FlexAir® Pro fine-bubble diffusers are optimized to specific circumstances:



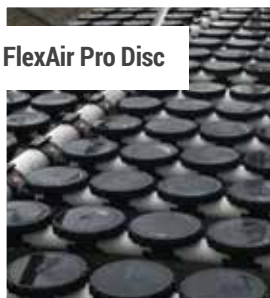
FlexAir Pro Panel

EDI's specially-perforated curvilinear panel diffusers are tube-mounted to avoid solids and support high-density installations of over 65% floor coverage.



FlexAir Pro Tube

Two options for FlexAir Pro tube diffusers both deliver efficient geometry for huge surface area, and simple O&M through easy membrane replacement.



FlexAir Pro Disc

EDI has elevated disc diffuser-based aeration for simpler O&M, flexibility and durability with a full range of membranes, diameters, and mounts. Learn more on the next page...

TECHNOLOGY:

FlexAir Pro
fine-bubble
diffusers

ADVANTAGES:

- Provides 6-7 lb O₂/hp-h (3.65-4.25 kg O₂/kW-h), maximizing oxygen transfer with minimal energy
- Range of diffusers enables customization to your needs
- Engineered by EDI experts
- Made in the USA and UK
- Available for quick shipping from Diffuser Express.

COMPATIBILITY:

FlexAir® Pro fine-bubble diffusers are compatible with the following **membranes**:

- All (see previous spread)

...into the following **configurations**:

- Fixed grid
- ModuleAir™ retrievable

...serving **applications** including:

- Municipal wastewater
- Industrial wastewater



FlexAIR[®] BASIC

FINE BUBBLE DIFFUSERS

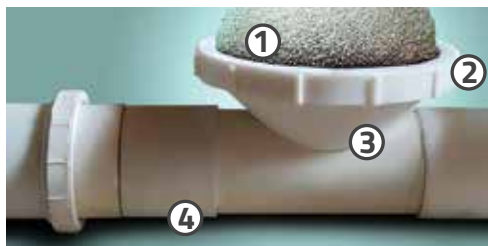
**HERE FOR YOU,
EVEN WHEN A
SPEC IS BASIC**

Despite the fact better options exist, some specifications are still written around solvent-welded 9" disc aeration. FlexAir Basic ensures you can meet the spec while reaping the benefits of working with EDI.

The density, installation, and O&M advantages of FlexAir® Pro haven't made specs for solvent-welded 9" disc systems extinct (yet).

Now, customers saddled with those specs can choose FlexAir® Basic, EDI's made-in-America (or the UK), high-quality answer.

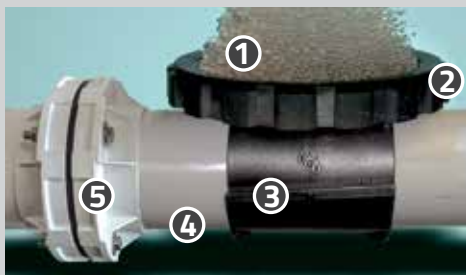
How it works



FlexAir Basic delivers efficient fine-bubble aeration with high quality parts and low capital cost, using:

- ① EPDM membranes
- ② 9" disc diameter
- ③ Solvent-welded mounting
- ④ 4" pipe diameter

For comparison's sake, EDI's FlexAir Pro disc systems deliver fine-bubble efficiency with increased flexibility, ease of install, and durability, thanks to:



- ① Full range of membrane options (with patented EZ-Seal for installation)
- ② Two disc diameters (9", 12")
- ③ Individual saddle mounts (ISM) or threaded mounts
- ④ Four pipe diameters (3", 4", 90mm, 110mm)
- ⑤ Tough, heavy-duty flange connection

...plus, to learn more about our SuperStruts, flip ahead two pages.

TECHNOLOGY:

FlexAir Basic solvent-welded 9" disc fine-bubble aeration

ADVANTAGES:

- High-efficiency aeration with low capital and operating costs
- Conforms to specifications for common solvent-welded disc aeration systems
- Made in Columbia, Missouri for those desiring Build America compliance
- Ships quickly with low minimums

COMPATIBILITY:

FlexAir® Basic 9" disc diffusers are compatible with the following **MEMBRANES**:

- EPDM

...into the following

CONFIGURATIONS:

- Fixed grid

...serving **APPLICATIONS** including:

- Municipal wastewater



**MAXIMUM
MIXING,
MINIMUM
MAINTENANCE**

CoarsAIR

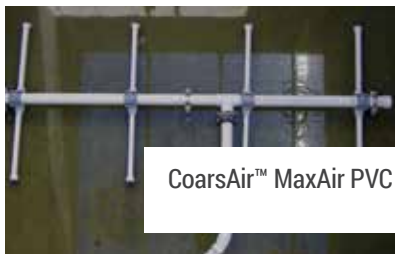
**COARSE-BUBBLE
DIFFUSERS**

Coarse bubble diffusers are suitable for almost any type of water and wastewater application.

EDI has demonstrated very effective coarse bubble diffuser system installations in aerobic digestion applications, mechanically-thickened sludge applications, auto-thermophilic aerobic digestion (ATAD), small or package plant systems, air stripping, etc.

How they work

Diffuser Options



CoarsAir™ MaxAir PVC



CoarsAir™ MaxAir SS
(also known as CoarsAir™ Wide-Band)



CoarsAir™ HexAir



CoarsAir™ PermaCap

TECHNOLOGY:

CoarsAir™
coarse-bubble
diffusers

ADVANTAGES:

- Energy-efficient mixing using existing air supply
- Engineered by EDI aeration experts
- Reliable, flexible, easy-to-install and maintain diffuser options
- Specialized for single-drop mixing, airflow, temperature, and more
- Available for quick shipping from Diffuser Express

COMPATIBILITY:

CoarsAir™ coarse bubble diffusers are compatible with the following

CONFIGURATIONS:

- Fixed grid
- ModuleAir™ retrievable

...and serve many
APPLICATIONS,
particularly:

- Municipal wastewater
- Industrial wastewater

We'll never give up on the idea that fixed grids can be better.

EDI's aeration engineers have the experience and tools to optimize fixed grids for quicker install and more reliable performance.

Since EDI's floor-mounted fixed grids don't move, they support the highest-density municipal and industrial applications.

SUPERSTRUT™ YOUR STUFF.

FIXED GRID CONFIGURATION

Our exclusive SuperStrut™ illustrates how EDI optimizes fixed grids, in this case for installing disc diffusers. Relative to traditional wiggle-wire supports, a SuperStrut is stronger, non-corrosive, and takes 40% less time to install.



TECHNOLOGY:

Fixed Grid Configuration

ADVANTAGES:

- EDI's aeration engineers optimize designs for maximum long-term value and reliability
- Offers full range of membranes, diffusers, and materials for drop pipes, headers and laterals.
- SuperStrut™ adjusts quickly, replacing time-consuming wiggle-wire install for disc diffuser systems.
- Joints subject to wear and replacement replaced with no-slip joints.

COMPATIBILITY:

Fixed Grid configurations are compatible with:

- All EDI membranes
- FlexAir® Pro fine-bubble panel, tube, disc or Streamline™ diffusers
- CoarsAir™ coarse-bubble diffusers

...and are useful for

APPLICATIONS including:

- Municipal
- Industrial



When accessibility for inspection and maintenance is the priority...

and reactors cannot be drained, the ModuleAir™ retrievable diffuser system is the solution.

O&M MADE EASY. MODULEAIR™

CONFIGURATIONS

Floating retrieval lines enable the self-contained assemblies to be craned out for inspection and maintenance. Dedicated supply lines and ballasts are built right into the assemblies, as is the pipe on which diffusers are directly mounted.

MODULEAIR™ OPTIONS

- Specially engineered for your application
- Span up to 45 ft (13.7 m)
- Stainless steel or PVC pipe



TECHNOLOGY:

ModuleAir™
Retrievable
Configurations

ADVANTAGES:

- Easily craned out of full basins for inspection and maintenance using floating retrieval lines.
- EDI aeration engineers design for max long-term value and reliability.
- Each retrievable module integrates diffusers mounted to a ballasted central pipe fed by an air supply line.
- Lift and level at a desired elevation with available integrated legs.


COMPATIBILITY:

ModuleAir™ configurations are compatible with:

- All EDI membranes
- FlexAir® Pro fine-bubble disc, tube, or panel diffusers
- CoarsAir™ coarse-bubble diffusers

And are useful **APPLICATIONS** including:

- Industrial applications, particularly high-intensity applications or reactors which cannot be drained.
- Municipal applications



We can provide the aeration you need,
whether you serve 1700 or 17 million.

TREAT YOUR TOWN RIGHT. MUNICIPAL

APPLICATIONS

In urban centers around the globe, residents flush their toilets or run their showers trusting that somewhere, someone has made a wise decision about how to treat their wastewater. Chances are, you might be that person, and at EDI, **we work hard to make your decision easier.**

With a wide range of products and services to keep your municipal plant running most efficiently, we are proud to be the aeration of choice for scores of municipal plants around the world.

TECHNOLOGY:

Municipal aeration applications

ADVANTAGES:

- Engineered by EDI's aeration experts to optimize oxygen transfer with low capital and O&M costs
- Install and maintenance by EDI's SiteWorks™ offers single point of responsibility, keeping you in compliance
- Built in Columbia, Missouri
- Integrates into existing tanks and plants

COMPATIBILITY:

Municipal applications can be served by:

- All EDI membranes
- FlexAir® Pro fine-bubble disc, tube, panel, or EDI-exclusive Streamline™ diffusers
- All CoarsAir™ coarse-bubble diffusers

Using **CONFIGURATIONS** including:

- Fixed grid
- ModuleAir™ retrievable



As industries evolve, so must the wastewater aeration they rely on.

YES, WE TREAT THAT. INDUSTRIAL

APPLICATIONS

When the specific demands of industrial treatment sends other aeration systems running for cover, **EDI is ready.**

Our aeration systems have been used to treat high-strength wastewater from industries including:

- Chemical
- Flue gas desulfurization
- Landfill leachates
- Petroleum
- Pharmaceuticals
- Pulp & paper
- Dairy & cheese
- Food processing
- Meat & protein
- Sugar
- Wineries, breweries, and distilleries
- ...and many more.

TECHNOLOGY:

Industrial aeration applications

ADVANTAGES:

- Range of membranes, diffusers and configurations optimized for high-strength and/or harsh contaminants
- Engineered by specialized EDI experts to meet regulatory limits
- Install and maintenance by EDI's SiteWorks™ offers single point of responsibility
- Built in Columbia, Missouri

COMPATIBILITY:

Industrial applications can be served by:

- All membranes, including EDI-exclusive Matrix™ and Matrix Plus™
- All FlexAir® Pro fine-bubble disc, tube, panel, or EDI-exclusive Streamline™ diffusers
- All CoarsAir™ coarse-bubble diffusers

Using configurations including:

- Fixed grid
- ModuleAir™ retrievable for tanks that cannot be drained

A man in a blue short-sleeved shirt, dark grey overalls, and a blue baseball cap is pushing a blue hand truck. The hand truck is loaded with three cardboard boxes. The boxes have a logo that looks like a stylized 'e' or 'd' with a flame-like shape. The worker is walking on a concrete floor. In the background, there are several large white pipes with black gaskets. The overall scene is a warehouse or industrial setting.

FAST. COST-EFFECTIVE. RELIABLE.

Now you don't have to
choose between them.

Parts aren't considerate enough to fail on a schedule.

At EDI, we know what it's like to run a treatment plant. When you need a part, it's not usually optional or at a convenient time.

Our aftermarket parts team provides fast turnaround on a broad range of American- or British-made aeration parts for all major brands, delivered fast to keep your plant running smoothly.

How it works

Head to wastewater.com/parts for a catalog of parts for all major brands of aeration diffusers.

- Aercor
- Aqua-Aerobic
- Aquarius
- Ecologix
- EnviroQuip
- Gummi-Jaeger
- Wilo GVA
- OTT
- Parkson
- Xylem/Sanitaire
- SSI
- Suprathec

AERATION PARTS

How it performs

"[EDI] products are very well constructed, which resolves failure issues that we used to face with other products."
-Crane Enterprises, Inc.

"We have used [EDI parts] for over ten years now. They always have what I need and they ship my orders quickly—thank you!" -Ted, WWTP Operator

TECHNOLOGY:

Aftermarket aeration parts

ADVANTAGES:

- Quick turnaround, with many parts shipped in three business days
- Quality parts made in Columbia, Missouri or Maidstone, UK
- Competitive pricing means you often pay less for the replacement than the original

A photograph of a construction worker wearing a white hard hat, a blue hard hat, a yellow safety vest, and yellow gloves, working on a series of large black pipes. The worker is using a tool to work on the pipes. In the background, there is a technical drawing overlay showing a cross-section of a pipe and a plan view of a pipe layout. The text "WHEN YOU NEED YOUR SITE TO WORK" is overlaid on the right side of the image.

WHEN YOU NEED YOUR SITE TO WORK

Treatment plants are often-complex facilities full of technologies whose failure means environmental calamity. Trust their installation and maintenance to the pros who know them best.

You learn a few things installing 3,000 systems.

Experienced SiteWorks™ field service professionals are experts at installing and maintaining aeration systems. Work with SiteWorks to get the most out of your equipment, from day one, and through its entire life.

How it works

Across North America, you can contract SiteWorks to install your brand-new EDI aeration system, maintain your age-old existing system from another brand, and anything in between.



How it performs

Duckett Creek, Missouri

Our relationship with the Duckett Creek Sanitary District began in 1994. EDI's initial upgrade helped the 5 MGD (19,000 m3/day) plant near St. Charles, Missouri comply with their SOUR (Specific Oxygen Uptake Rate), saving them over \$60,000 USD in energy and operating costs annually.

Today, SiteWorks continues to deliver on our *Aeration for Life™* promise through replacement parts and system upgrades, as Duckett Creek has doubled the plant's capacity and seen superior DO results.

Full story available at wastewater.com/duckett-creek

SERVICE:

SiteWorks on-site wastewater equipment installation and maintenance

ADVANTAGES:

- Experienced professionals deliver fast, reliable install and maintenance
- Services all brands, enabling single-source maintenance programs
- Single point of responsibility for EDI and Nexom equipment

Aeration is a part of almost every wastewater treatment plant, but cheap products and unreliable suppliers have made life difficult for operators and engineers.

EDI supports engineers, contractors, and operators from first design to long-term parts and service, so treatment plants can trust their

AERATION FOR LIFE™



Get specs, design support, or ready-to-use products from **wastewater.com** or our representative in your area:

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Columbia, Missouri, USA 65202
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 EOSI

 NAPIER-REID

 Nexom®

Axius Water companies