



**Mazzei**<sup>®</sup>

**MAZZEI  
AIRJECTION<sup>®</sup>  
WASTEWATER  
AERATION  
SYSTEM**

Do More  
With Less!



## The More You Know

If you're in the industrial or municipal wastewater treatment industry, determining the true value and total cost of ownership of a new or retrofit treatment system requires certain questions be answered. How reliably and efficiently will it perform? Not just on Day 1, but on Day 1000? What will be the frequency and cost of maintenance and repair? What will be the size of the basins, ponds and overall footprint?

The more you know about Mazzei's wastewater treatment solutions, the more you'll appreciate why Mazzei AirJection® is becoming the choice of engineers, operators and C level managers including CFOs. Our AirJection® systems work the way a system should: efficiently, effectively and reliably with minimum oversight.



## AirJection System Outperforms The Competition

It should come as no surprise that traditional surface aeration affects only the surface. That allows anaerobic bacteria to proliferate beneath the surface and produce unpleasant odors. Nothing “gets to the bottom” of pond or basin water treatment like the Mazzei AirJection System, which circulates water through the patented, high-efficiency Mazzei® Injectors, delivering dissolved oxygen from the bottom up for complete aeration. Unlike compressed air diffusion systems, AirJection's efficiency increases with depth, allowing for deeper ponds with smaller footprints. In the presence of sludge and solids, bubble diffuser transfer rates suffer, whereas Mazzei AirJection alpha values, which start at 0.9, remain virtually unaffected. And without the need for blowers, AirJection operates silently, too. AirJection reduces the negative impacts of cold weather on activated sludge basins at levels where surface aerators have limited performance potential.



## Just What You Need

Why buy a pre-packaged “one-fits-all” system? Whatever your wastewater treatment needs, Mazzei's computerized system design and experienced representatives can quickly recommend the system you need for your specific aeration applications, including:

- ▶ Basin or pond aeration
- ▶ Activated sludge aeration—BOD reduction
- ▶ Odor control
- ▶ Post-treatment aeration
- ▶ Pure oxygen injection
- ▶ Sewer main aeration
- ▶ Sludge digestion
- ▶ Retrofit/supplemental aeration





**Mazzei® Injectors**  
Various sizes and models to meet performance requirements



**Mass Transfer Multiplier™ Nozzles**  
Various sizes to match the application



## **Total Cost of Ownership**

When weighing your options, the capital cost of design and implementation is just one of the criteria. Smart engineers and C level managers also consider:

### **Performance**

Effective top-to-bottom mixing minimizes odor broadcasting. And with a typical alpha of 0.9, AirJection is far more efficient than other technologies – an advantage that only increases with depth.

### **Footprint**

Efficiency at greater depth allows for deeper tanks that save valuable space.

### **Maintenance**

Fewer moving parts and superior technology mean minimal fouling and down time.

### **System Integration**

Flexible and easy drop-in installations can be retrofitted to any system.

### **Support**

Whether you have a question during installation or long after the sale, our experienced and responsive support team is ready to help.



## **The Patented Mazzei® Injector**

Mazzei systems begin with our patented Venturi injectors with internal mixing vanes. Mazzei Injectors are so efficient that they operate effectively with only a minimal pressure differential between the inlet and outlet sides to initiate a vacuum at the suction port. Made of strong, chemical-resistant PVDF or stainless steel, Mazzei Injectors deliver proven performance. And with no moving parts, they offer years of trouble-free operation.



### **Why Mazzei**

Since 1978, Mazzei has distinguished itself by an ability to evaluate problems and develop innovative solutions in the wastewater treatment industry. When you need a system and a supplier that both deliver long-lasting service and value, there's only one name you need to remember: Mazzei.



Contact us today.

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