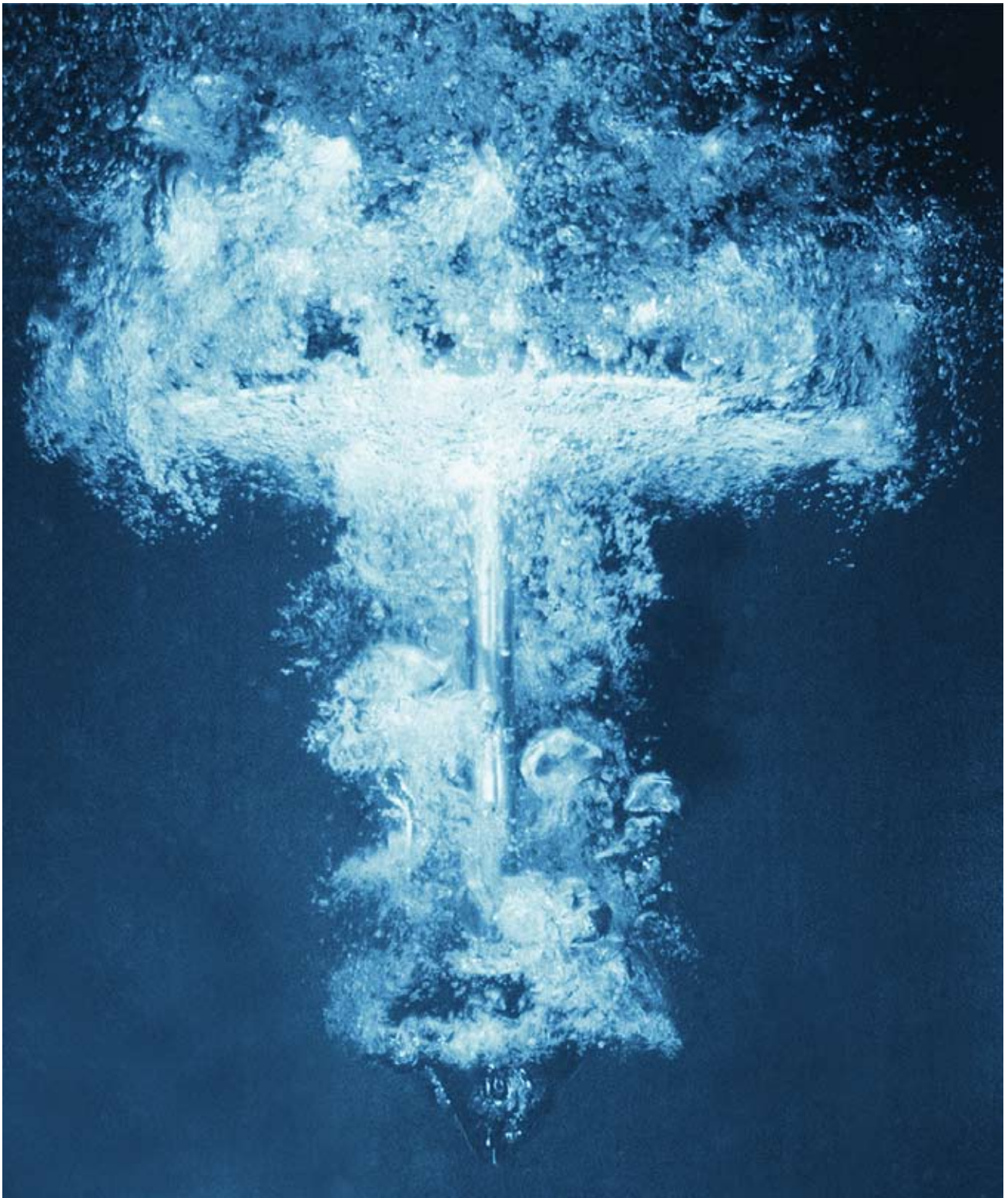


Enviroquip[®] Aeration & Aerobic Digestion Products

Exceptional quality, process expertise and service...



The advantage

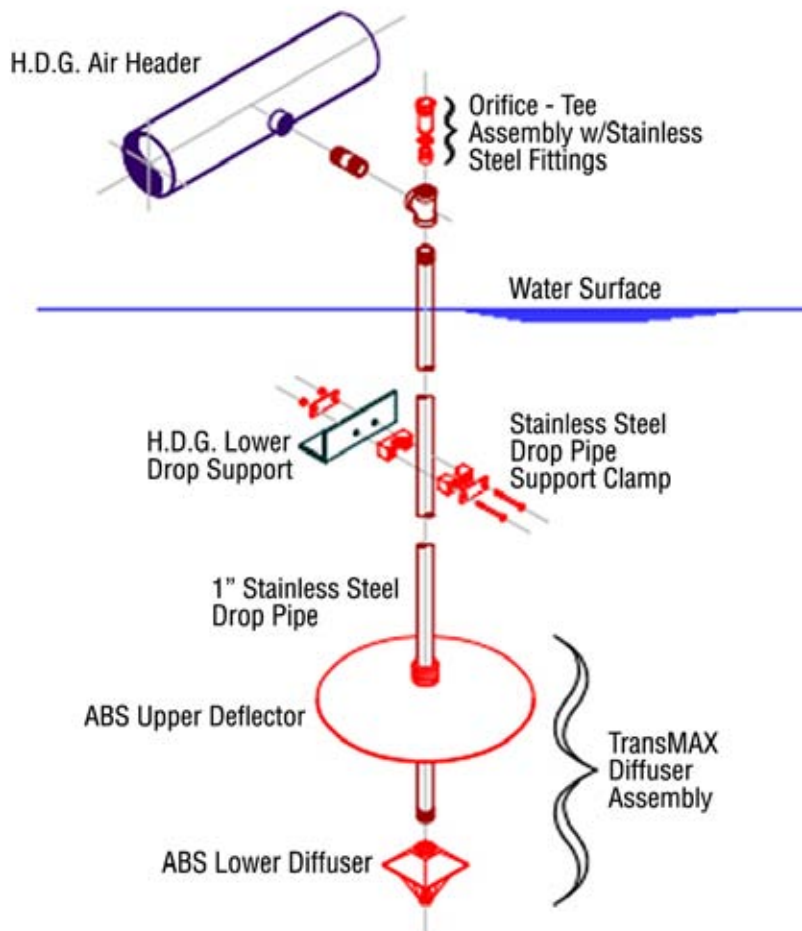
We continue to lead the competition in the field of coarse and medium bubble aeration in water and wastewater treatment applications. Since 1968 our MS diffuser has provided superior service in hundreds of coarse bubble applications. In 1989 we introduced and patented the TransMAX® medium bubble diffuser with even greater oxygen transfer efficiencies than the successful MS diffuser. For over 35 years we have set the industry standard for exceptional quality, process expertise, and service in over 600 successful U.S. installations.

Truly Non-clogging

Our MS and TransMAX® air diffusers are accepted by engineers and operators as truly non-clogging diffusers. Clogging is eliminated by separating the air metering orifice from the diffuser and locating the orifice above the liquid level in the basin. Thus, no liquids or solids are ever in contact with the orifice restriction, the point at which other diffusers most frequently clog. Enviroquip was the first in the industry to provide this unique patented feature.

Advantages of the above-water orifice:

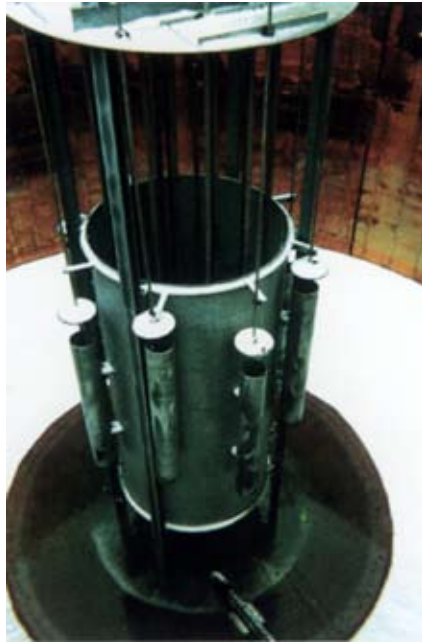
- No solids contact with the orifice
- Air flow uninhibited through complete length of the pipe
- No moving parts
- No swivel joints required to service the orifice
- Full access to orifice assembly above the water surface
- Non-clogging orifice eliminates need for redundant diffusers.
- Ability to cycle air on and off without fouling or plugging the diffusers
- Blowers operate at the same discharge pressure over the life of the equipment, ensuring uniform air distribution.



TransMAX Diffuser Assembly

Deep Basin Aeration

We use shear tubes, draft tubes, and Multi-Eductor Draft Tubes (MEDT) to efficiently and economically aerate deep basins of side water depths 20 to 40 feet. Diffusers are mounted within an open-ended cylindrical tube at a submergence of only 12-16 feet. The tube extends above and below the air discharge point, operating as a submerged airlift pump. The result is exceptional mixing and improved oxygen transfer at a reduced horsepower requirement.



MEDT Installation - 31-ft. Deep Basin



Shear Tube Installation - 24-ft. Deep Basin

Advantages of deep basin aeration using Enviroquip's shear and draft tubes systems:

- Economically converts anaerobic digesters and Imhoff tanks to aerobic digesters
- Reduces land usage
- Smaller surface area reduces heat loss in cold weather, and is less expensive to cover
- Reduces blower discharge pressure, 8 psig or less with many systems

Exceptional Mixing

The Enviroquip® systems can be used to achieve exceptional mixing in all wastewater applications. Even polymer-thickened sludges are mixed by our shear and draft tube systems by accelerating the sludge to 4 to 6 fps velocity.

Advantages of exceptional mixing:

- Lengthens contact time between air and liquid resulting in a higher alpha value.
- Breaks polymer bonds to reduce viscosity and facilitate sludge handling operations.
- Enables sludges with concentrations of up to 8% to be handled in holding basins and aerobic digesters.
- Reduces odor problems caused by accumulations of settled solids.
- Eliminates dead zones.



Draft Tube Installation - Mixing 4% Solids

Maintenance

Zero In-basin Maintenance

Advantages of our diffuser systems:

- A truly non-clogging diffuser
 - No replacement of units
 - No swivel joints
 - No gas cleaning
- Fabricated from ABS plastic, a non-corrosive and UV resistant material, and stainless steel drop pipes
- A maintenance free aeration system
 - No lubrication
 - No icing and spray in cold climates
 - No parts replacement due to mechanical wear

Process Expertise

We are recognized as an expert in aerobic digestion process design. Our years of experience have led to patented and effective processes that allow us to guarantee the desired results.

- **PAD[®]-G Pre-thickened Aerobic Digestion with Gravity Thickening**

Integrated operation of the gravity sludge thickener and the aerobic digesters. This process achieves up to 2.0% solids and simultaneously enhances the digestion process.

- **PAD[®]-M Pre-thickened Aerobic Digestion with Mechanical Thickening**

Mechanical thickeners such as a gravity belt thickener, rotary drum thickener, or centrifuge thicken sludges to as much as 5% prior to digestion. Our expertise ensures that the process is properly designed to handle the high solids loading and take advantage of all the benefits provided by pre-thickening.

- **PAD[®]-K Pre-thickened Aerobic Digestion Kubota[®] Membrane Thickening**

Our newest digestion process utilizing our flat-plate membrane systems to pre-thicken up to 3.5% solids while digestion is occurring. The effluent from the membranes can be taken directly to disinfection and discharged.

The PAD[®]-K Pro version of our digestion-membrane thickening system can produce sludge up to 5% solids to enhance the efficiency of sludge hauling or dewatering operations.

In addition, our aeration equipment has been used in numerous other applications including:

- Conventional Aeration Basins
- Extended Air Basins
- SBRs
- Open Channels
- Rapid Mix Basins
- Chlorine Contact Tanks
- Aerated Grit Chambers
- Digestion prior to Heat Treatment or Sludge Dryers