



IXOM
WATERCARE

**THM & VOC
Removal Systems
Mini Presentation**



THM / VOC Removal- System Options

**Floating Spray Aeration
For Tanks and Clearwells**



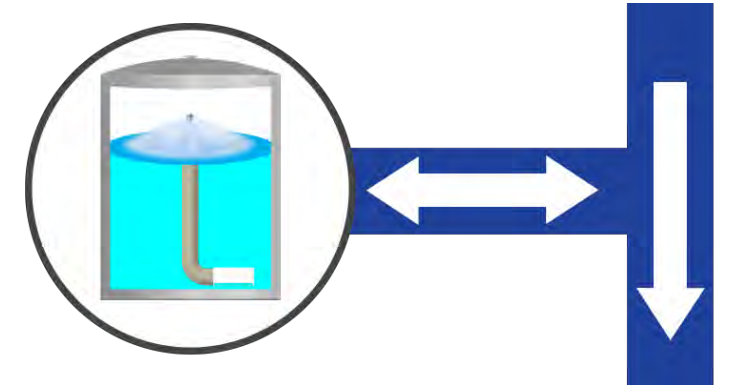
**Skid-Mounted Stations
For Use Along The Line**



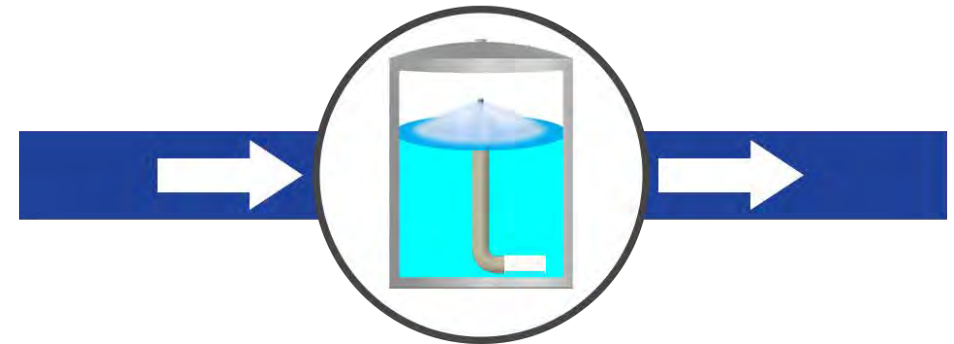
THM / VOC Removal- System Location

Separate Vs. Common Inlet/Outlet Tanks

- **Common:** Water can bypass without ever entering the tank.



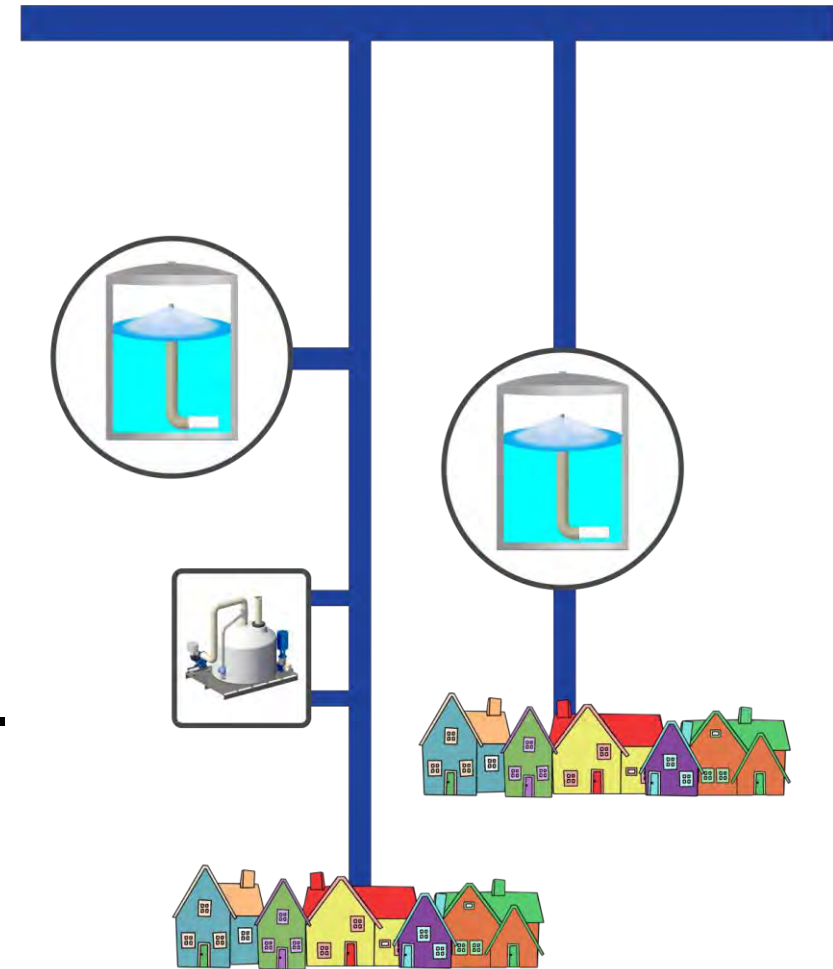
- **Separate:** Water must move through the tank to continue down the line.



THM / VOC Removal- System Location

Dead End Distribution

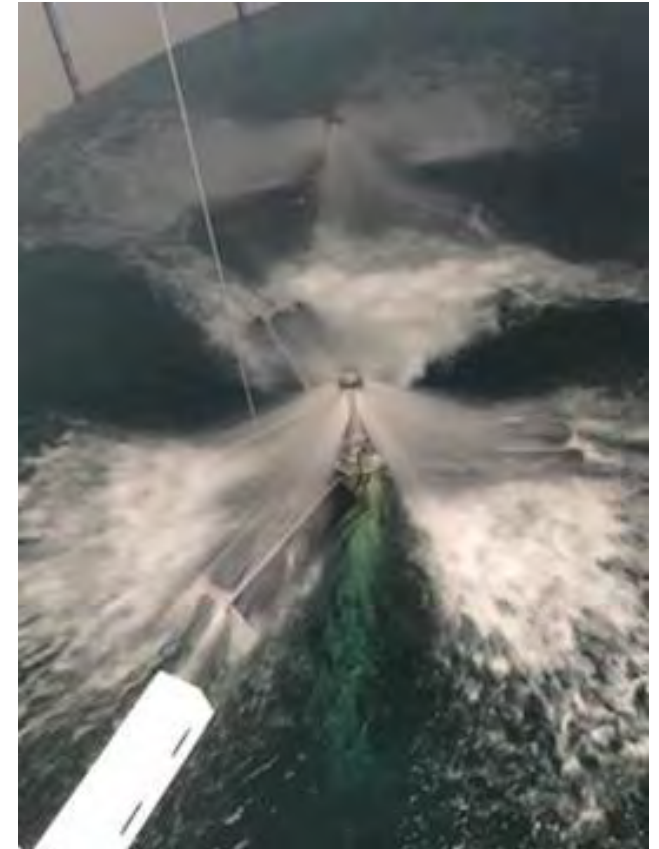
- THMs can spike in lesser used & higher water age dead end sections of distribution.
- Separate Inlet/Outlet vs. Common Inlet/Outlet tanks.
- In-Line THM Removal Stations. Maintains flow-through and fire protection.



THM / VOC Removal- In The Clearwell

Treatment at the clearwell can help down the line.

- THM removal at the clearwell can help the whole city system.
- Incoming THM levels are typically low and harder to remove.
- Due to high flow rates, it may be more cost effective to remove in distribution tanks.
- Sometimes chlorine is added later on in system defeating some of the benefits.



THM / VOC Removal- In The Tank



Mixer, Ventilation, Spray Aeration

- Active removal.
- Provides THM volatilization.
- Systems can be reliably designed to provide a desired removal rate.
- Multiple spray aeration units can be installed to treat higher volumes.
- Larger blowers can be installed at ground level.

SN SERIES- In-Tank Spray Aeration Components

- Floating Spray Aeration
- Tank Mixing
- Tank or Ground Mounted Ventilation System

**For all types of tanks & clearwells.
Scalable to treat higher volumes.**



SN SERIES- Equipment Models

SN1



**1.5
HP**

**0.075
MGD**

SN5



**5
HP**

**0.33
MGD**

SN10



**10
HP**

**0.90
MGD**

SN15



**15
HP**

**1.10
MGD**

SN SERIES- Collapsible Design

- No need to take the tank out of service.
- Fits through a 24" X 24" or larger hatch.
- Multiple spray aeration units can be installed through a single hatch.
- Simple tethering system is included.



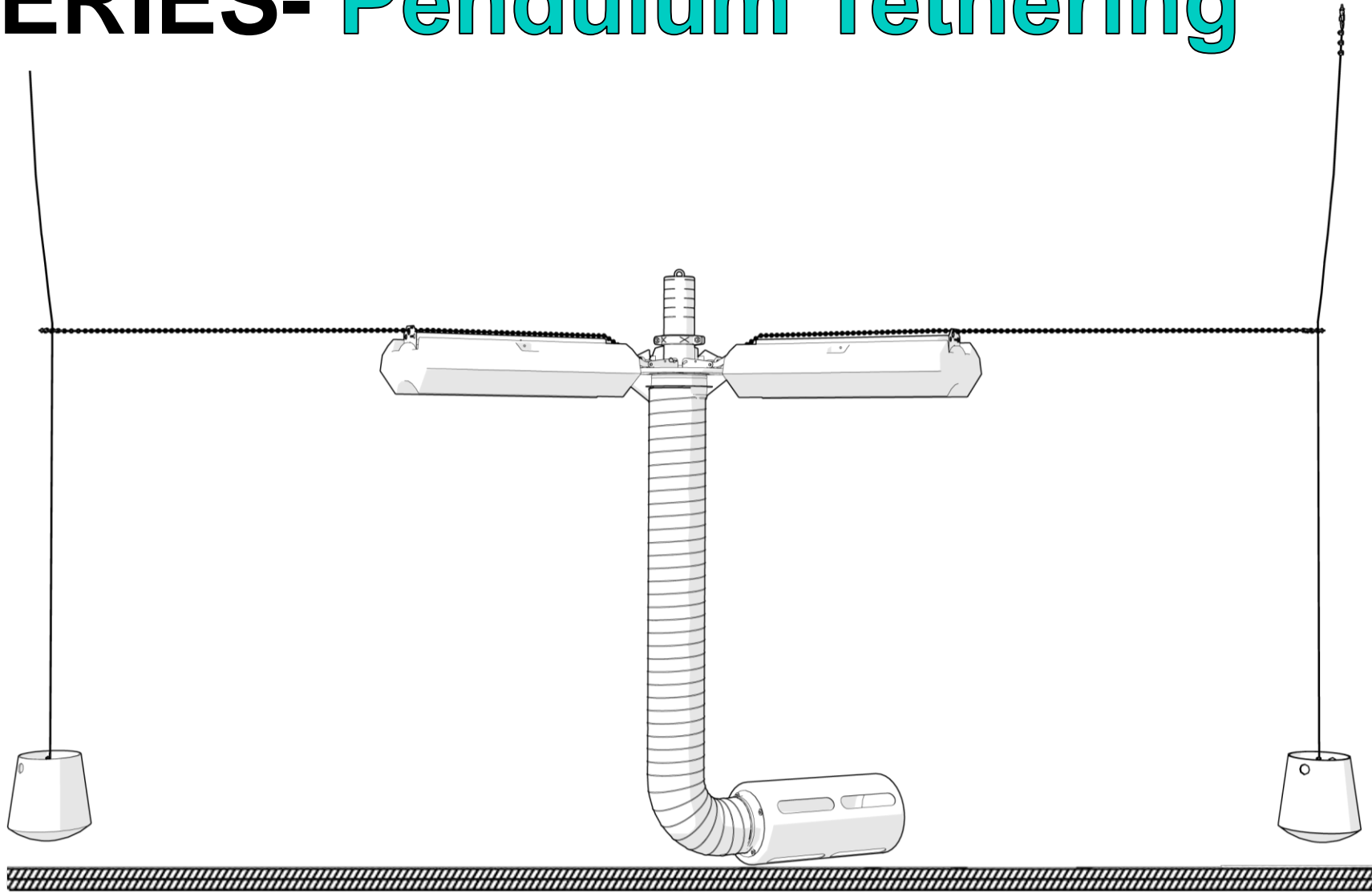
SN SERIES- In-Tank Spray Aeration

**100% Proven.
Performance Guaranteed.**

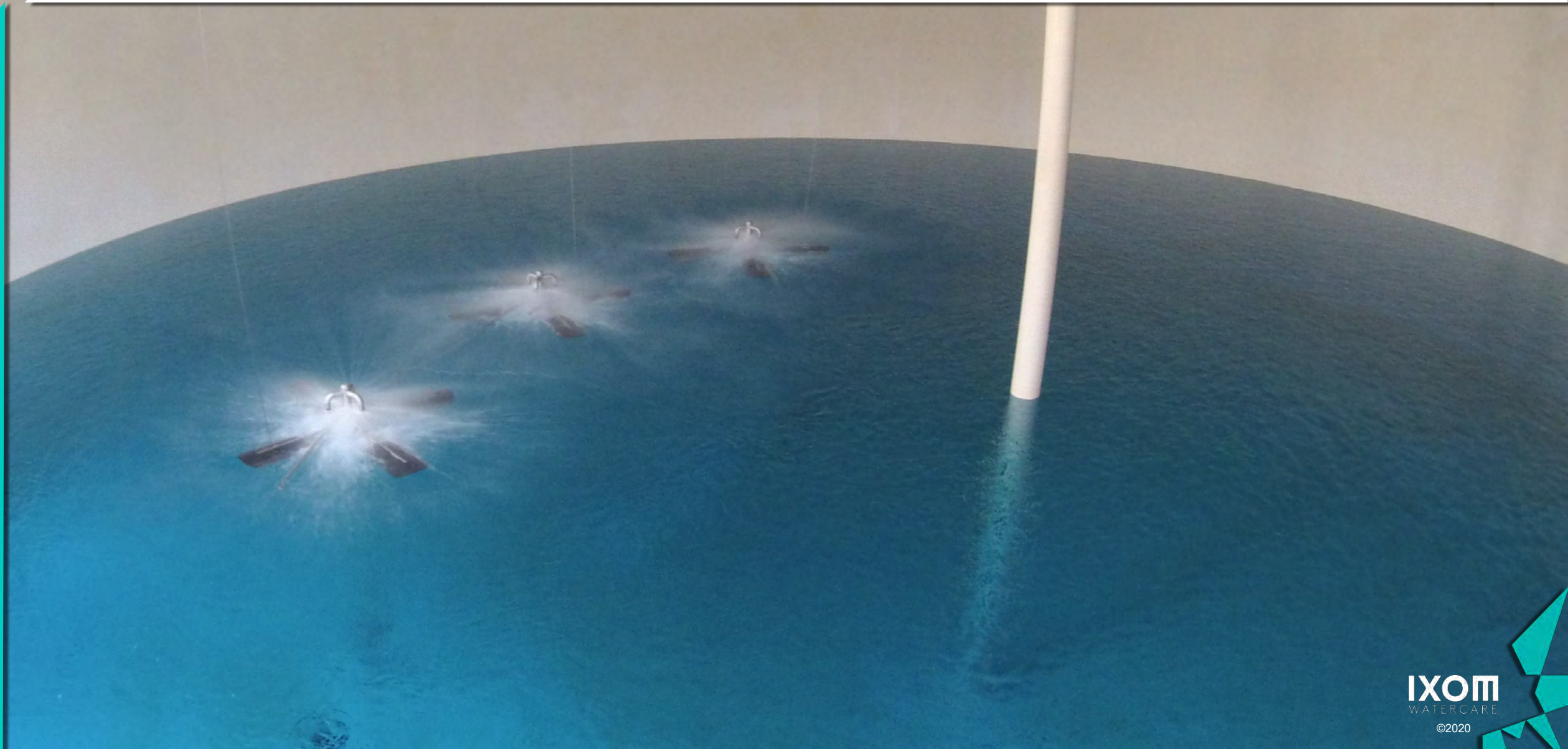
- No need to drain the tank.
- No disruption in service.
- Portable and scalable.
- Factory placement.



SN SERIES- Pendulum Tethering



SN SERIES- Multiple Spray Aeration Units

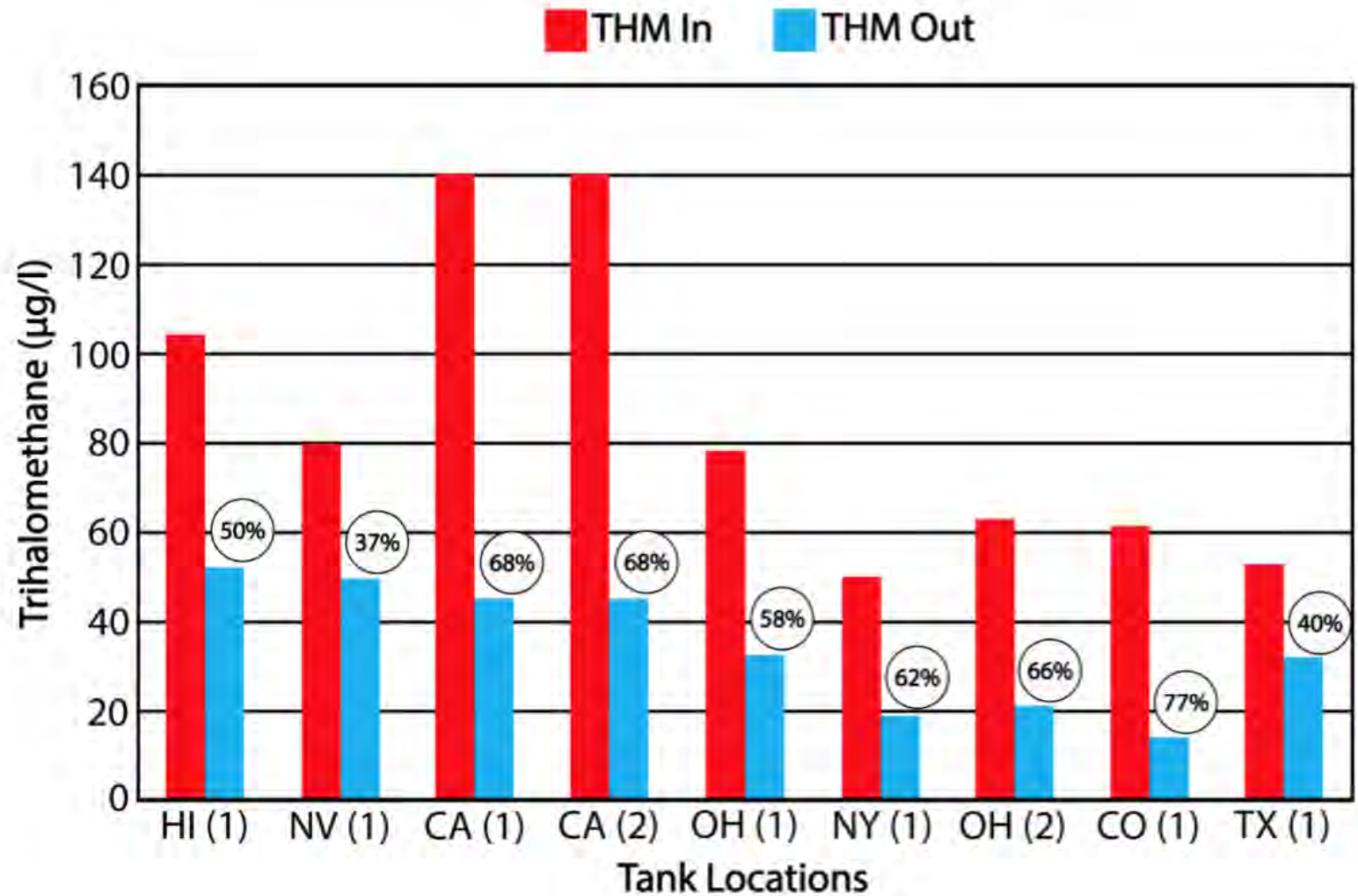


SN SERIES- Multiple Spray Aeration Units

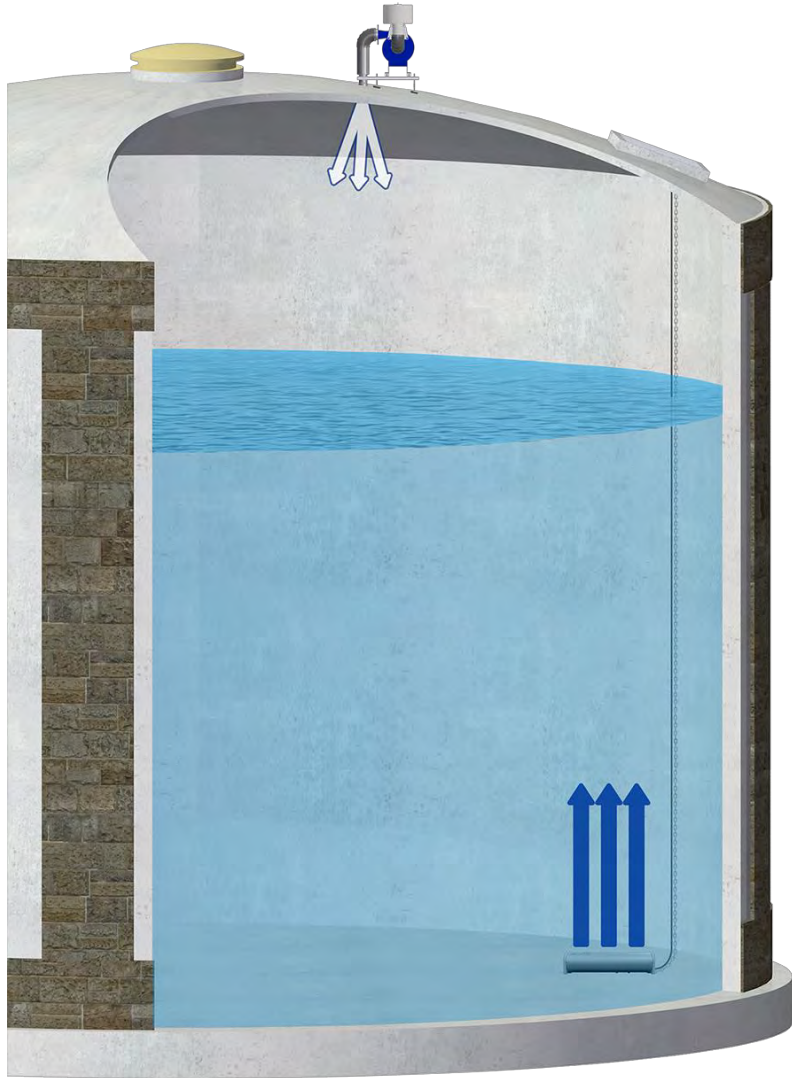


THM / VOC Removal- Proven Results

Spray aeration systems can be designed for virtually all reservoirs and any desired trihalomethane reduction result.



THM / VOC Removal- In The Tank



Mixer Only

- Passive removal.
- Solution by dilution.
- Less stagnation.
- Use less chlorine.

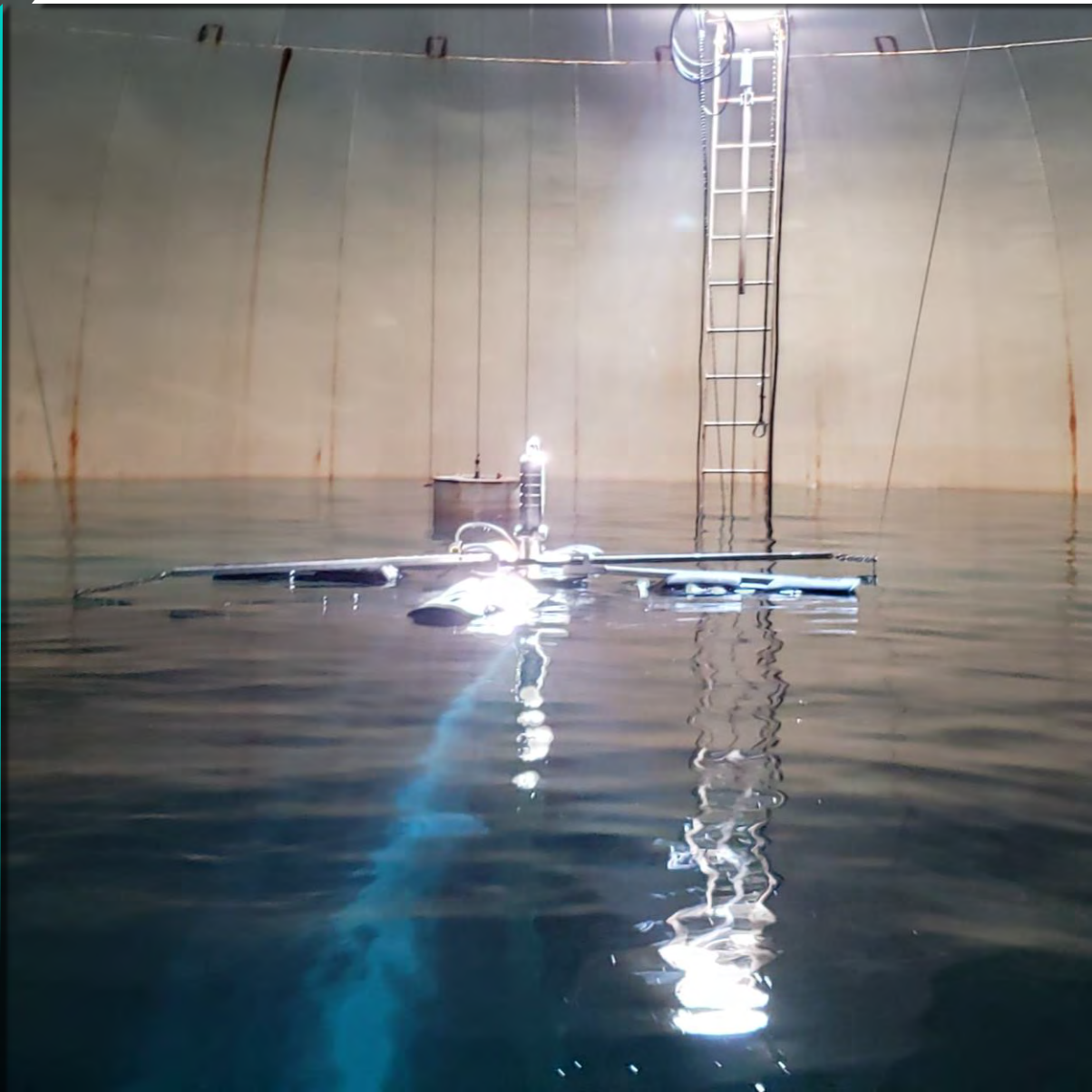
Add Ventilation

- Evacuate the headspace to reduce THM vapor saturation.

SN SERIES- In-Tank Spray Aeration



SN SERIES- In-Tank Spray Aeration



Ventilation Options- F4 Blowers

Tank Mounted



Ground Mounted



Ventilation Options- F8 / F11 Blowers



Ventilation Ducting- F8 / F11 Blowers



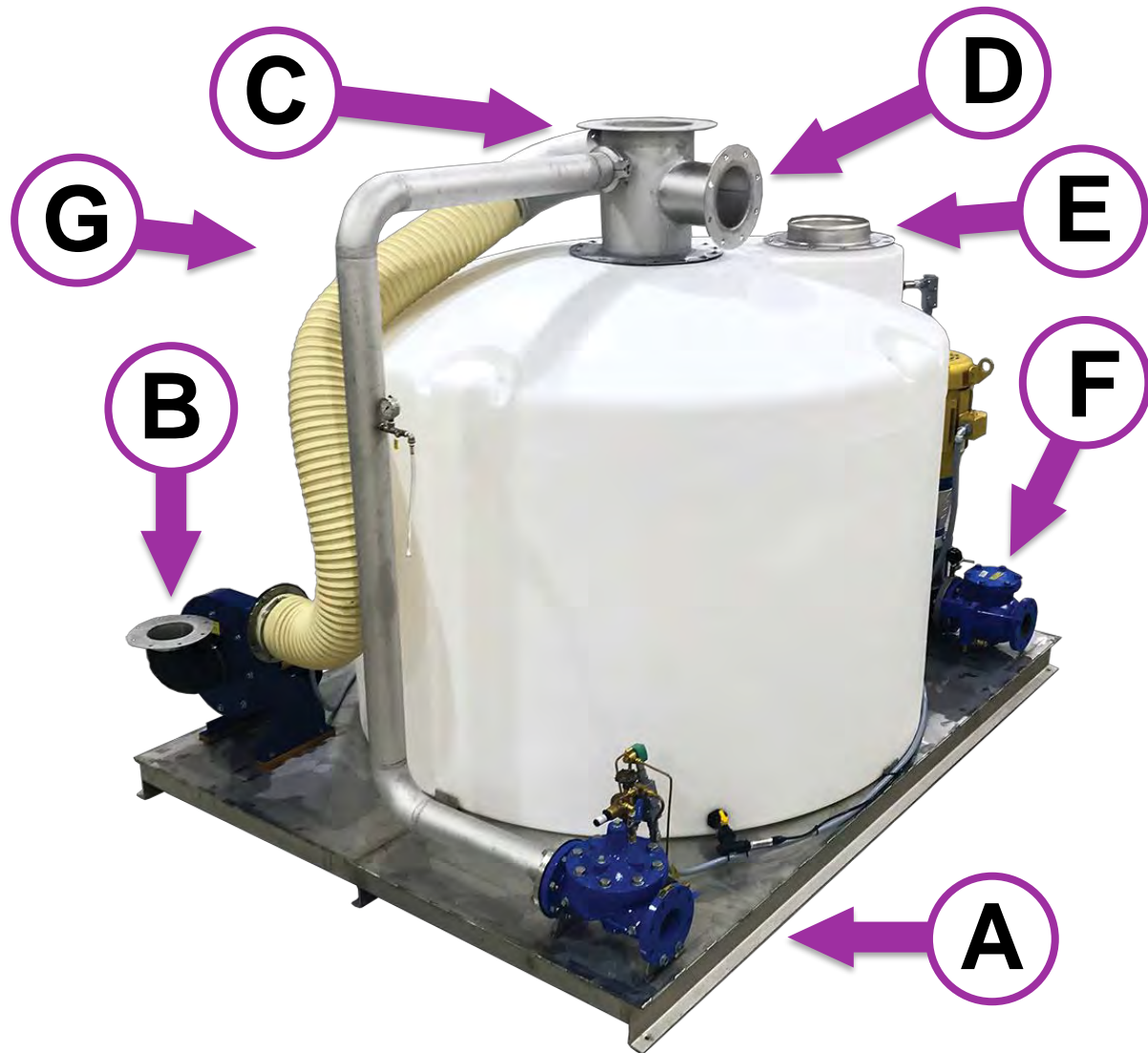
THM / VOC Removal- In-Line Stations

For use in remote areas of the water distribution system.

- Flow is never impeded to the users.
- For a "looped" area, one skid unit is required for each side of the loop.
- The system treats virtually all water that flows to the users, and can be designed for virtually any GPM and MGD in the affected region.



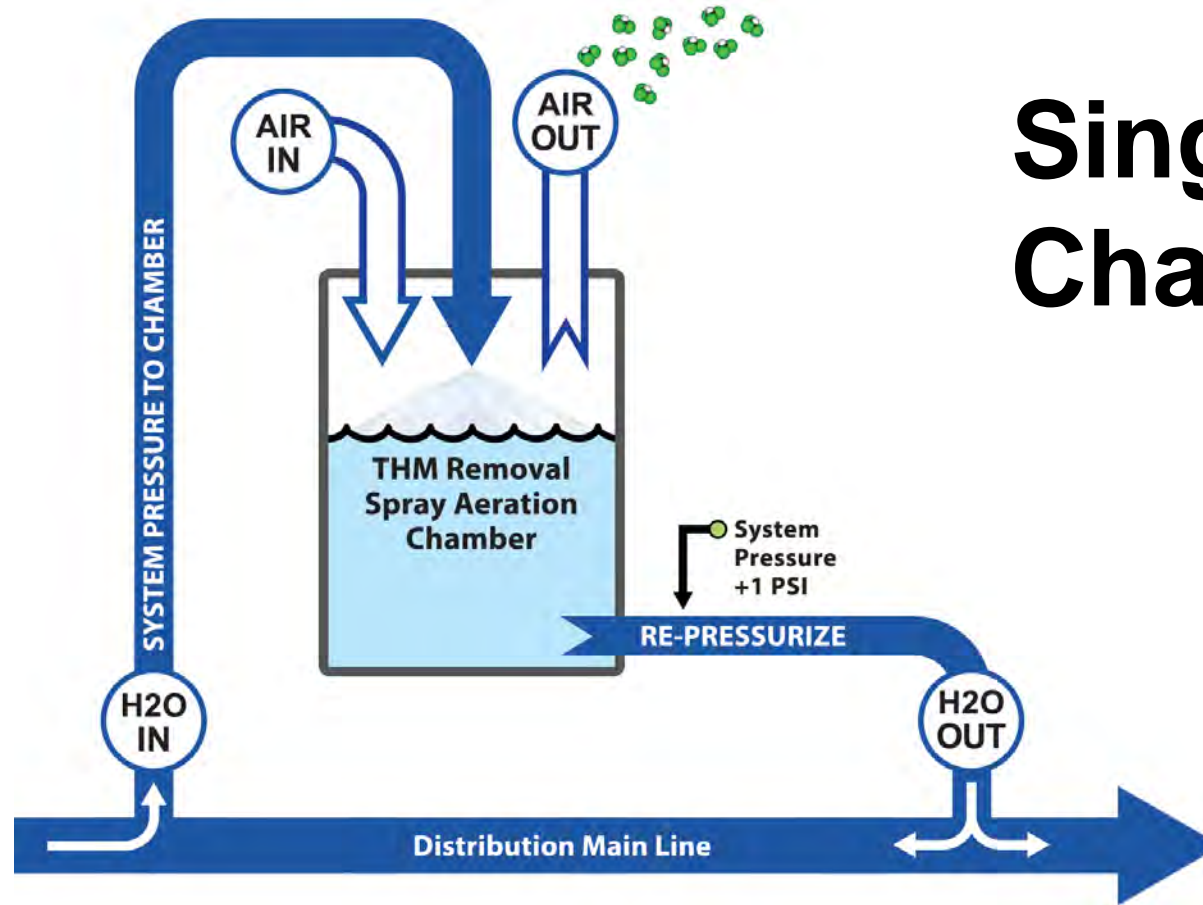
THM / VOC Removal- In-Line Stations



- A** Inlet uses system pressure to power spray aeration.
- B** Blower Intake
- C** Air-Water Interface
- D** Overflow
- E** Air Exhaust
- F** Outlet Pump
- G** Control Panel included (not shown)

THM / VOC Removal- In-Line Stations

Configurations



Single Chamber

THM / VOC Removal- In-Line Stations



THM / VOC Removal- In-Line Stations

Customer Responsibilities

- Construct a pad and enclosure.
- Perform electrical and water main tie-ins.



Potable Placement & Service Crews





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GridBee mixers are certified
to NSF/ANSI Standard 61-G

NSF