

# Proper Installation, Maintenance & Troubleshooting of Bubble Tubing™

If you are using The Bubble Snake there are no special instructions for use. Plug the Bubble Snake in to your airline and drop it in to the water; it sinks and starts bubbling immediately for quick and easy aeration!

If you are using long lengths of Bubble Tubing ensure the Bubble Tubing is not twisted or spiraling as it is placed in the pond or basin. To maintain an even airflow for effective aeration, mixing or de-icing it is best to unroll the tubing from the wrapped coil and lay it flat. Tubing that has coils, bends or twists in the line will lead to sub-par performance and reduce the life of your compressors. The most common issues in Bubble Tubing are related to improper installation which can lead to improper functioning. Twists in the airline can lead to restrictions that cause back-pressure on the compressor and will result in an uneven bubble flow.

Take any extra time you need when installing your tubing to ensure it is done right the first time.

The Right Way	The Wrong Way
<p data-bbox="181 863 808 934">Unroll the tubing to ensure the airline and keel are not twisted. Air has an unobstructed path.</p> 	<p data-bbox="808 863 1435 934">Pulling the tubing from the coil results in twisting! Twisted tubing results in poor operation.</p> 
<p data-bbox="181 1241 808 1312"><b>The Right Way</b></p>  <p data-bbox="469 1312 808 1656">Bubble Tubing is in a straight line. Tubing has no twists and runs in a straight line with airline and keel forming a straight line. By laying out your lengths of tubing prior to installation you will be guaranteed the most effective performance of your tubing.</p> <p data-bbox="181 1656 808 1774">Allowing the tubing to lay straight in sunlight for a brief period will also completely eliminate any product memory.</p>	<p data-bbox="808 1241 1435 1312"><b>The Wrong Way</b></p>  <p data-bbox="1094 1312 1435 1774">The Bubble Tubing is twisted and the airline and keel are passing over and under each other in a spiral. This will greatly reduce the aeration effectiveness of your tubing and cause excess back-pressure which may damage your air compressor. Do not install your tubing in this manner as it will not work properly. When installing tubing from a boat unroll it from the coil first and place it in the boat so there are no twists in it.</p>

## Connecting & Clamping Your Bubble Tubing

For leak free connections use 1/2" barbed PVC or brass connectors to couple lengths of tubing and clamp with stainless steel hose clamps. The plug at the end of your Bubble Tubing length should have a hose clamp for best results. Images shown are 1/2" tubing; 3/4" connections are similar. PVC connectors are shown but brass or steel may also be used.



Open plastic wrapped rolls carefully! Blades or knives can easily puncture the airline. If the airline becomes cut, cut the tubing on each side of the damage and use clamps and connectors to splice the ends together.



Use 1/2" PVC or brass connectors to connect Bubble Tubing to your airline. Use a cutter to separate the airline from the keel of the Bubble Tubing (a 1/2" deep cut will suffice) to allow the hose clamp to be tightened on the connector.



All joints between tubing should be secured tightly with hose clamps. When cutting the tubing to allow the clamp to fit make sure to cut into the keel edge of the tubing. Avoid cutting the airline with the blade. Be careful not to cut yourself!



The ends of the tubing should be plugged with a 1/2" PVC or brass plug which has been clamped with a hose clamp. Again, use a blade to cut a small separation between the airline and the solid core keel so your clamp will slide into the airline.

# Maintenance & Cleaning of Bubble Tubing™

If you are noticing that your Bubble Tubing™ lengths are releasing fewer and fewer bubbles then likely a biofilm is forming a coating that is restricting airflow by blocking the perforations.

**Bio-Purge** is our leading cleaning/maintenance product for underwater air diffusion systems including aeration discs and Bubble Tubing™. As with any aeration product, over time, air diffusers and bubble tubing benefit from a maintenance treatment to remove calcium deposits, or organic bio-film that may coat the surfaces and inhibit airflow.

**Bio-film develops slowly** covering the small holes designed to release micro-bubbles of air. Factors such as temperature, water quality, water hardness, pH and air pressure all effect if or when a bio-film may form, which explains why there are instances when no bio-film develops, or bio-film develops rapidly.

To counter this problem use Bio-Purge WD-3100 which is an environmentally friendly product to eliminate the bio-film or calcium deposits that may be hindering the efficiency of your aeration system. Similar in characteristics and effectiveness as such well known products as "CLR" yet designed for use in potable water. It is certified ANSI/NSF, and is a product currently used in municipal water treatment reservoirs, and is also recommended by Health Canada and the Ministry of Environment (MDDEP). Approved for use both in the US (CFR) and Canada. **Bio-Purge is safe for use in all aquatic environments.**

Bio-Purge replaces muriatic acid as an effective cleaner and de-clogger of air-stones. Cleaning diffusers or cleaning air-stones with diluted muriatic acid solutions is a thing of the past.

## Cleaning your diffuser discs, air stones or Bubble Tubing™

**Step 1:** Disconnect the main airline(s) that leads to your diffuser disc, air-stone or Bubble Tubing™.

**Step 2:** Pour in an appropriate amount of Bio-Purge liquid into the airline(s).

**Step 3:** Re-connect the main airline and turn on the compressor briefly to distribute the liquid into all of the diffuser discs, air-stones or Bubble Tubing.

**Step 4:** Turn off your compressor to allow the Bio-Purge to completely dissolve the bio-film. This will be anywhere from 15 minutes to 1 hour.

**Step 5:** Turn on your compressor. Your diffuser discs, air stones or Bubble Tubing will be cleaned from the inside-out and will be once again performing at their optimal level.

Bio-Purge comes in 4 liter format or for industrial applications, 15 and 45 gallon formats. Use within 6 months of purchase for best results. Contact us for more application details and advice, as every system is different.

Automated Bio-Purge delivery systems are available for large scale aeration applications which allow a Bio-Purge treatment to be performed quickly in applications involving hundreds of feet of Bubble Tubing or when large numbers of diffusers are involved.

# Automated Bio-Purge Dispensers for Small & Large Applications

For regular maintenance or regular supply using these handy devices can make the manual application of the liquid into the airline quicker and cleaner.



1.

Fully-automatic injection motor can automatically introduce the correct dosages of Bio-Purge to maintain clean tubing in industrial application



2.

A small, easy-to-use and inexpensive system is available for smaller applications.

Beyond cleaning diffusers and tubing, WD3100 is an excellent dispersant/bio-penetrant specifically formulated to control iron, scale, bio fouling, and other filter related problems in potable or industrial water systems. WD-3100 is a non-phosphate-based product that may be used in water systems to clear away oxidized metal build up, scale deposits, and when used in conjunction with a biocide, bacterial species from filter media.