




SPECIFICATIONS

Diffuser	 1 base	 Single-assembled	 Two-assembled
Length in (cm)	14.1 (35.8)	16 (40.6)	29.5 (74.9)
Width in (cm)	4.5 (11.4)	4.5 (11.4)	4.5 (11.4)
Height in (cm)	1.3 (3.3)	1.3 (3.3)	1.3 (3.3)
Weight lb (kg)	2.6 (1.2)	3.1 (1.4)	5.9 (2.7)
Diffuser Area in (cm)		12 ¹ / ₈ x 2 ³ / ₈ (31 x 6)	24 ¹ / ₄ x 2 ³ / ₈ (62 x 6)
Recommended Flow Rate LPM (scfh)		up to 3 (6.5)	up to 6 (12.7)
Maximum Flow Rate @ 50PSI (3.5bar) LPM (scfh)		9 (19)	18 (38)

Overall	Gas Inlet Connection:	5/16 in or 8 mm tube O.D. Use rigid tubing (i.e., nylon) or a push-in adaptor fitting.
	O-ring size:	-009
	O-ring material:	EPDM
	Maximum number of Unsupported Base Units in a diffuser assembly:	3
	Maximum Operating Pressure:	50 psi (3.5 bar)
	Bubbling Pressure:	25 ± 2.5psi (1.7 ± 0.2 bar)

WARRANTY AND CONDITIONS

Point Four Systems Inc. warrants its TRAC-LOCK diffuser components against defects in materials and manufacturing for a period of one (1) year from the date of purchase. Failures resulting from defects in materials or manufacturing, as determined by Point Four Systems Inc. will be repaired or replaced under warranty.

Point Four Systems Inc.'s obligations under warranty are conditional upon:

- equipment is installed, used, and maintained in accordance with Point Four Systems Inc.'s written instructions, specifications, and safeguards.
- defect(s) are not the result of misuse, neglect, accident, or user modification.
- the purchaser reporting to Point Four Systems Inc. any defect within seven (7) days of its occurrence. Point Four Systems Inc. may request that the equipment in question be returned to Point Four Systems Inc.'s premises at the purchaser's cost within two (2) weeks of notification. Point Four Systems Inc. may also require a written report by the purchaser of the circumstances during which the defect occurred.
- the purchaser accepts the warranty as set out.

LIMITS OF LIABILITY

Point Four Systems Inc.'s obligations exclude any liability whatsoever for claims by the purchaser, user or any other persons or parties:

- in respect of merchantability or fitness for a particular purpose.
- for any special, indirect, incidental, or consequential damages resulting from the use, or as a result of the malfunction of the equipment.
- for personal injury or any medical or disability claims or for compensation arising therefrom.

This warranty with its conditions, limitations, and exclusions is accepted by the purchaser as the only authorized and applicable warranty and that there are no other warranties or conditions, oral or written, expressed or implied.

Manufactured by:

Point Four Systems Inc.

Making your water better!

103 - 16 Fawcett Road, Coquitlam, BC, V3K 6X9

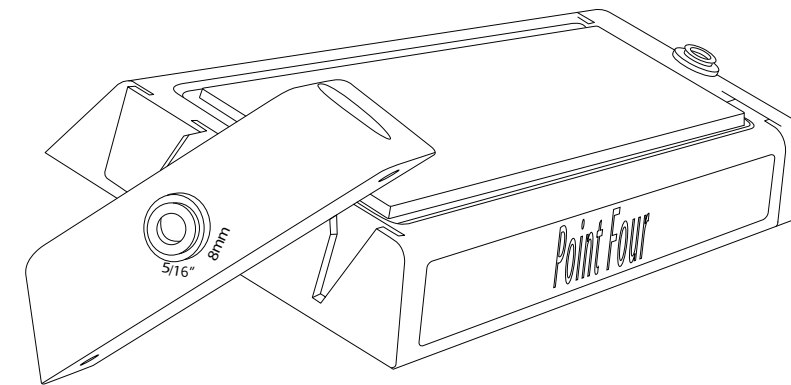
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Making your water better!
Oxygenation & Water Management

THE
TRAC ▼ LOCK™
DIFFUSER



WARNING USING OXYGEN

Oil, grease, and other hydrocarbons become highly combustible when combined with pure oxygen and should never be used on any part of an oxygen distribution system.

If using oxygen, all components must be **CLEAN FOR OXYGEN SERVICE.**

SAFETY PRECAUTIONS

Do not pressurize diffusers unless submerged.

Do not exceed 50psi (3.5 bar) differential pressure.

If an adjustable pressure regulator is used, use a pressure release valve in the gas supply line.

IMPORTANT:

To reduce the risk of injury, always wear clean gloves when assembling or disassembling TRAC-LOCK components.

Assemble and disassemble units on a flat surface such as a table or workbench, to avoid damage to the TRAC-LOCK components.

Never allow diffuser components to come into contact with oil or grease.

ASSEMBLY INSTRUCTIONS

- Determine the number of base units that are required for the assembly. Do not exceed 3 bases per assembly without additional support. See Note Below

- Place one of the units to be joined at the edge of a flat surface, with the mating edge overhanging.

- Ensure that the locking wedges are properly aligned and carefully insert the male bayonet into the female socket.

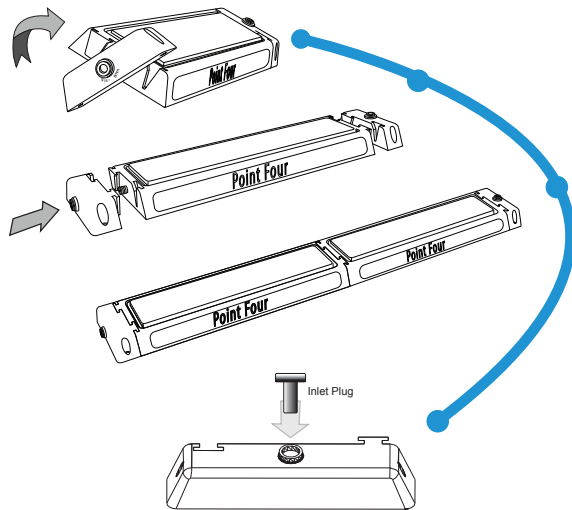
- Rotate the parts, engaging the dovetails. Stop when you feel the locking tabs snap into place.

- Continue to add diffuser bases until the desired number have been added.

- Add an end set to complete the assembly and push an Inlet Plug into one of the inlets not to be used

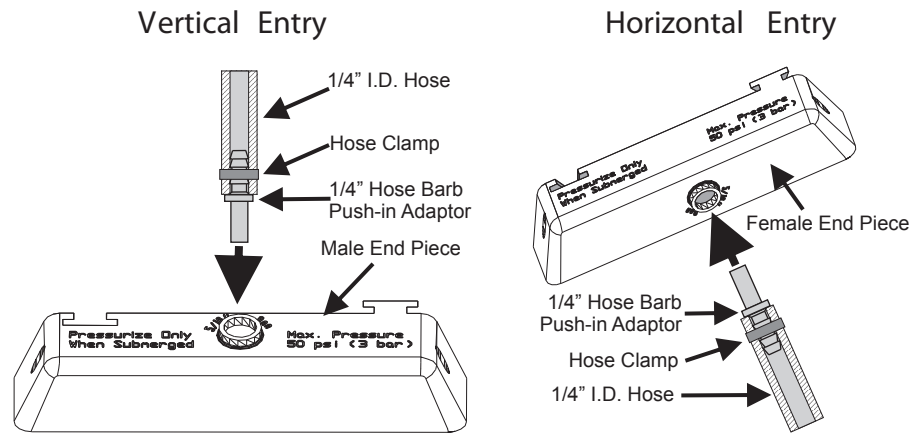
- Connect the assembled diffuser to the gas supply, insert a 5/16 in (8 mm) O. D. tube into the gas inlet fitting. To eliminate the possibility of leaks, ensure that the tube end is squarely cut and firmly seated in the fitting.

- *Note: If 3 or more units are connected together, the assembly must be supported underneath by a rigid plate to avoid undue stress on the locking wedges. If you are unsure of how to properly install or require further assistance, please contact Point Four Systems Inc. Or your local distributor.



INSTRUCTIONS FOR ADAPTOR/INLET PLUG INSTALLATION

- Using a hose clamp, attach a 1/4 in (6mm) I.D. hose to the adaptor hose barb.
- Insert the smooth portion of the adaptor into the push-in fitting on the male end piece until it hits the "stop" on the inside of the fitting.



INSTALLATION

To avoid bubble coalescence, place the diffuser horizontally and do not obstruct the diffuser surface.

Placing the diffuser at the outside wall of the tank, perpendicular to the wall, will maximize oxygen absorption efficiency.

If necessary, secure diffuser to a flat surface using Velcro strips, or bolts. If using bolts, do not over-tighten them.

Any number of complete diffuser units may be connected to a common gas supply line. It is strongly recommended to use a back pressure compensated regulator to control the flow of gas to the diffuser.

Supply pressure must not exceed 50 psi (3.4 bar). Use a preset pressure regulator, or an adjustable pressure regulator with a 50 psi pressure relief valve.

MAINTENANCE AND CARE

Methods of cleaning

The only required maintenance is to periodically clean the ceramic surface when it becomes fouled. Fouling of the ceramic manifests itself by a noticeable decrease in flow at a given gas supply pressure.

- General Cleaning: scrub the ceramic surface with a hard bristle brush, or hose with a jet of water to remove slime and loose deposits.

- Cleaning When Plugged: dry the diffuser and sand the surface with coarse grit (#40) sandpaper until the top "skin" has been removed. In most cases this will clear the diffuser, if not repeat the sanding or try acid clean.

- Acid Cleaning: use acid cleaning when sanding is inadequate to clean the diffuser surface. Dry the diffuser and place it on a level surface. Using window putty, or a similar material, create a 1/4" (6 mm) dam around the perimeter of the ceramic plate. Pour a 10% solution of muriatic acid (HCl) into the dam and allow it to soak into the ceramic surface. Continue to add acid until the ceramic is covered to a 1/8" (3 mm) depth. Leave ceramic to soak for 12 hours. Rinse ceramic thoroughly with clean water and bubble diffuser for at least 15 minutes to remove residual acid and ensure that the ceramic has been cleared. It may be necessary to repeat the procedure if the ceramic is not completely cleaned on the first attempt.

Disinfection

Soak the entire diffuser in disinfectant. This may stain the ceramic but will not affect the performance.

Appropriate Handling

- Never allow diffusers to become contaminated with oil.
- Avoid physical shock.
- When taken out of service, diffusers must be blown out and stored dry.
- Do not allow diffuser to freeze.