INNOVASEA

GAS MANAGEMENT TOWER

Innovasea's Gas Management Tower is an energy efficient degassing and oxygenation solution that optimizes dissolved oxygen levels to keep fish safe from harmful gases in land-based aquaculture systems.

The compact design combines Innovasea's X-Flow degasser and its patented Low-head Oxygenator to maximize production space. The solution delivers superior oxygen absorption efficiency while maintaining even total gas pressure of the water.

USE CASES

- RAS, partial RAS and flow-through systems that contain high levels of carbon dioxide.
- Land-based operations that require outdoor equipment installations
- Marine species production that needs oxygenation and degassing of salt water

BENEFITS

Safeguards against dangerous levels of carbon dioxide within an enclosed facility.

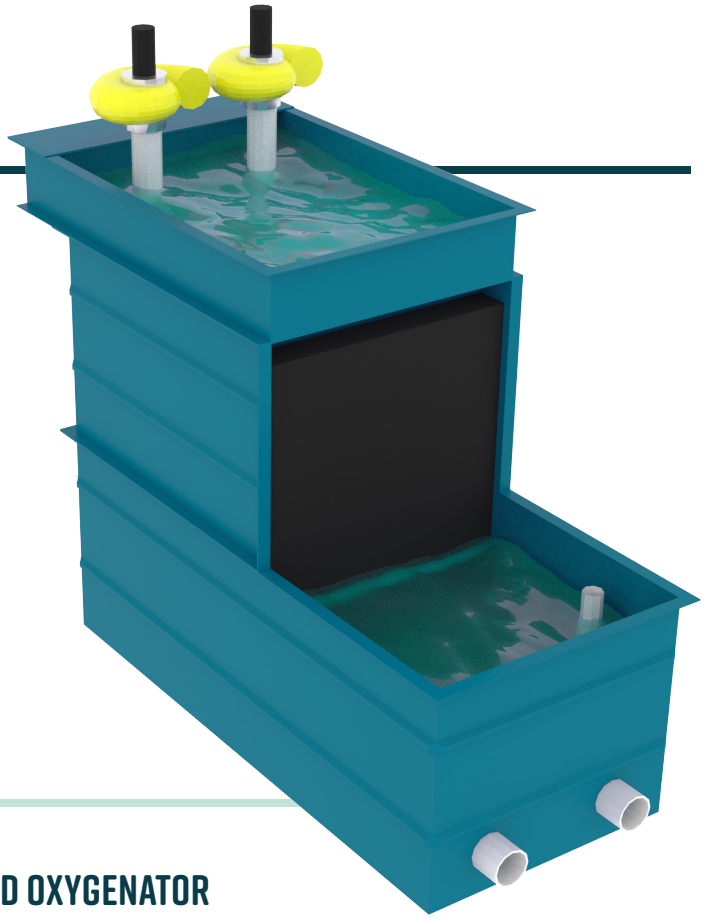
Multiple water treatment processes in a compact footprint.

Cross-flow design enables higher efficiency per pass and lower energy costs.

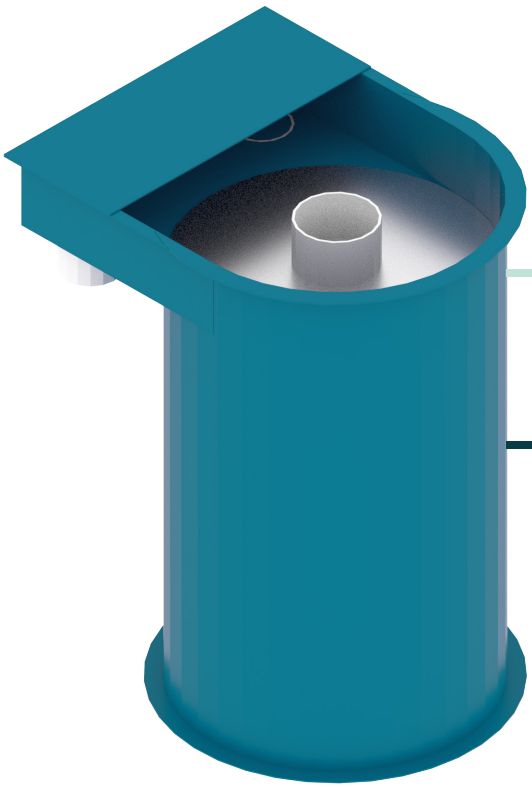
Accessible internal components make it easy to install and maintain.

Can be installed centrally or tank side to meet each farm's specific requirements.

X-FLOW DEGASSER



The X-Flow is a compact crossflow degasser that disperses water through a media bed to remove carbon dioxide. A fan is used to draw air across the media bed in a horizontal manner, allowing carbon dioxide to exhaust from the water and the building, reducing the total gas pressure. The X-Flow is often used as a stand-alone degassing solution before oxygenation occurs in RAS or partial RAS systems.



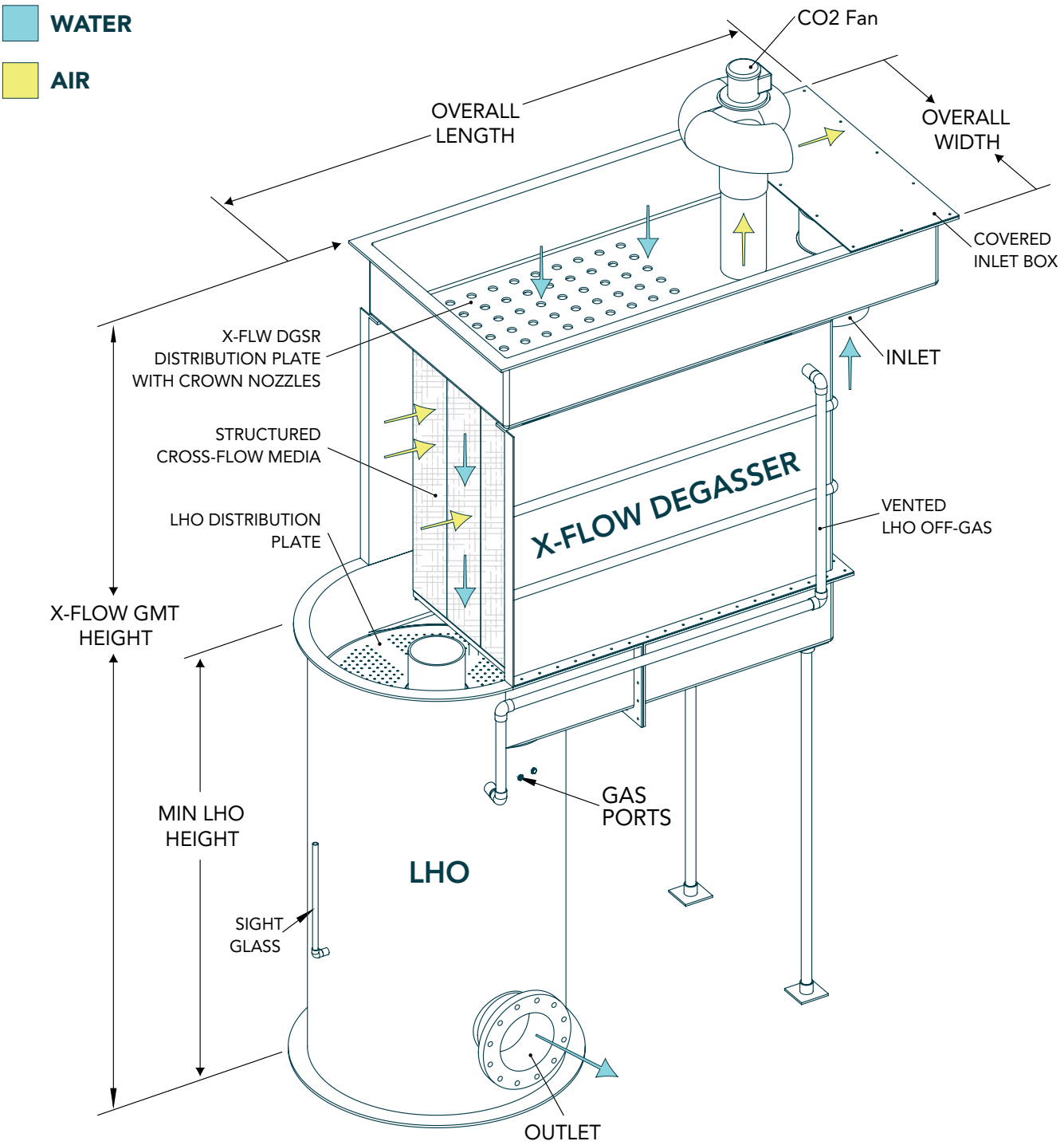
LOW-HEAD OXYGENATOR

Innovasea's Low Head Oxygenator is a patented, gravity-based solution that injects oxygen into the water while displacing carbon dioxide and nitrogen, achieving more than 100 percent oxygen saturation without the use of electricity. The LHO provides the precise level of oxygen desired while maximizing absorption efficiency. There are two types of LHOs: a round LHO for RAS and partial RAS applications, and a square LHO for raceway and flow-through systems.

PAIR WITH

- Integrate UV with LHO to reduce the energy required to improve water clarity
- Oxygen generators to add pure oxygen to the water
- Ceramic oxygen diffusers for short-term oxygen backup in emergency situations
- Fans and blowers enables airflow for CO_2 removal

SPECIFICATIONS



Gas Management Tower		GMT-024	GMT-036	GMT-048	GMT-060	GMT-072	GMT-084
Max Water Flow	gpm	250	625	975	1,700	2,175	2,525
	lpm	946	2,366	3,691	6,435	8,233	9,558
Max Air Flow min G:L 8 @ peak flow	cfm	284	710	1,108	1,932	2,472	2,869
Overall Length	in	83	121	127	161	167	173
Overall Width	in	34	46	58	70	82	94
GMT Height	in	146	146	154	156	164	160
Min height reqd for fan install	in	174	174	182	184	192	188

X-Flow Degasser

Width	in	24	36	48	60	72	84
Height	in	66	62	68	62	68	62
Inlet SCH 40 PVC	qty	1	1	1	2	2	2
	Ø in	6	10	12	12	12	14
CO_2 Fan	qty	1	1	1	2	2	2
	ttl hp	0.33	0.75	0.75	1.5	1.5	1.5

LHO

Diameter	in	24	36	48	60	72	84
Minimum Height	in	80	84	86	94	96	98
Outlet FRP Flange	Ø in	6	10	12	16	18	20

Weights*

All weights are estimated

Shipping	lbs	532	1,085	1,502	1,943	2,431	2,808
Operating	lbs	3,985	9,759	16,213	28,406	39,997	53,906

FURTHER INFORMATION

Visit us today at **www.innovasea.com**

INNOVASEA

About Innovasea

Innovasea designs the world's most technologically advanced aquatic solutions for fish tracking and fish farming – and builds them to withstand the toughest conditions. We partner with customers to fully understand their needs and solve their most pressing challenges. It's all driven by a commitment to make our ocean and freshwater ecosystems sustainable for future generations. **Today. Tomorrow. For life.**