



◀ SWEETWATER CONES FOR OXYGEN OR OZONE

100% efficiency potential

Pentair Aquatic Eco-Systems Sweetwater cones are designed to optimize the saturation of gases in water, and gas transfer efficiencies of up to 100% are possible. Operation of the cone is simple: as water and gas (either pure oxygen, ozone or other gas) enter from the top at a relatively high velocity, the water shears and moves the bubbles downward. As the cone widens the velocity is reduced. The undissolved bubbles keep returning to the top, so only water without bubbles can exit the bottom. At higher pressures, the dissolved oxygen concentration may be increased significantly above saturation. For example, a Sweetwater cone operating at only 10 psi can deliver water with a dissolved oxygen concentration above 25 mg/L. Sweetwater cones may be operated at a pressure of up to 21 psi. No matter what concentration of dissolved oxygen is needed, Pentair AES has the right cone for your application. Please contact a Pentair AES technician for assistance with sizing and complete skid systems.



MODEL	FLOW RANGE	SUGGESTED FLOW METER*	GALLONS (APPROX.)	INLET/OUTLET	SHIP WT (LBS)	EACH
OY30F-1	73-130	MFR440	45	3"	65	\$1,421.00
OY60F-1	150-260	MFR4150	110	4"	100	1,849.35
OY110F-1	280-480	MFR4150**	195	5"	245	2,920.72
OY140F-1	350-600	MFR4150**	335	6"	290	3,672.55

*See Index for flow meters, flanges and valves. **Two required.

DIMENSIONS

	OY30F-1	OY60F-1	OY110F-1	OY140F-1
A	68"	85"	107"	129"
B	24"	34"	40"	48"
C	16"	16.5"	19.5"	22"
D	3.5"	4"	5.5"	6"
E	8"	9"	10"	11.5"

OXYGEN CAPACITY AT MAXIMUM FLOWRATES, VARIOUS TEMPERATURES AND PRESSURES, SALINITY 0, SEA LEVEL, INFLOW SAT. 100%, CONTACTOR SAT. 60%

	TEMP 50°F (10°)					TEMP 68°F (20°)					TEMP 86°F (30°)																							
	Gauge Pressure		Oxygen Capacity			Gauge Pressure		Oxygen Capacity			Gauge Pressure		Oxygen Capacity																					
	psi	bars	lbs/hr	kg/hr	D.O. mg/L	psi	bars	lbs/hr	kg/hr	D.O. mg/L	psi	bars	lbs/hr	kg/hr	D.O. mg/L																			
OY30F-1 130 gpm	10	0.7	3.2	1.5	61	2.6	1.2	49	2.1	1.0	39	15	1.0	3.8	1.7	70	3.1	1.4	56	2.5	1.1	45	20	1.4	4.4	2.0	80	3.5	1.6	64	2.8	1.3	51	
	OY60F-1 260 gpm	10	0.7	6.6	3.0	62	5.3	2.4	50	4.2	1.9	40	15	1.0	7.8	3.6	72	6.3	2.8	57	5.0	2.3	46	20	1.4	9.1	4.1	81	7.3	3.3	65	5.8	2.6	52
		OY110F-1 480 gpm	10	0.7	12.3	5.6	63	9.8	4.5	50	7.9	3.6	40	15	1.0	14.6	6.6	72	11.7	5.3	58	9.3	4.2	47	20	1.4	16.9	7.7	82	13.5	6.1	65	10.8	4.9
OY140F-1 600 gpm			10	0.7	15.4	7.0	63	12.3	5.6	50	9.9	4.5	40	15	1.0	18.3	8.3	72	14.6	6.6	58	11.7	5.3	47	20	1.4	21.2	9.6	82	17.0	7.7	66	13.6	6.1
	OY10 12 gpm		10	0.7	0.17	0.08	39	0.13	0.06	31	0.11	0.05	25	15	1.0	0.20	0.09	44	0.16	0.07	35	0.13	0.06	29	20	1.4	0.23	0.10	49	0.18	0.08	40	0.15	0.07
		OY18 25 gpm	10	0.7	0.50	0.23	52	0.40	0.18	41	0.32	0.15	33	15	1.0	0.60	0.27	59	0.48	0.22	47	0.38	0.17	38	20	1.4	0.69	0.31	67	0.55	0.25	53	0.44	0.20
OY35 65 gpm			10	0.7	1.5	0.7	59	1.2	0.6	47	1.0	0.4	39	15	1.0	1.8	0.8	68	1.5	0.7	54	1.2	0.5	44	20	1.4	2.1	1.0	76	1.7	0.8	61	1.4	0.6

	TEMP 50°F (10°)					TEMP 68°F (20°)					TEMP 86°F (30°)																							
	Gauge Pressure		Oxygen Capacity			Gauge Pressure		Oxygen Capacity			Gauge Pressure		Oxygen Capacity																					
	psi	bars	lbs/hr	kg/hr	D.O. mg/L	psi	bars	lbs/hr	kg/hr	D.O. mg/L	psi	bars	lbs/hr	kg/hr	D.O. mg/L																			
OY35P 65 gpm	10	0.7	1.5	0.7	59	1.2	0.6	47	1.0	0.4	38	15	1.0	1.8	0.8	68	1.5	0.7	54	1.2	0.5	44	20	1.4	2.1	1.0	76	1.7	0.8	61	1.4	0.6	49	
	OY75 90 gpm	10	0.7	2.2	1.0	60	1.8	0.8	48	1.4	0.6	39	15	1.0	2.6	1.2	69	2.1	0.9	55	1.7	0.8	45	20	1.4	3.0	1.4	78	2.4	1.1	63	1.9	0.9	50
		OY110 130 gpm	10	0.7	3.2	1.5	61	2.6	1.2	49	2.1	0.9	39	15	1.0	3.8	1.7	70	3.1	1.4	56	2.5	1.1	45	20	1.4	4.4	2.0	80	3.5	1.6	64	2.8	1.3
OY160 200 gpm			10	0.7	5.0	2.3	62	4.0	1.8	49	3.2	1.5	40	15	1.0	6.0	2.7	71	4.8	2.2	57	3.8	1.7	46	20	1.4	6.9	3.1	81	5.5	2.5	65	4.4	2.0
	OY250 300 gpm		10	0.7	7.6	3.5	62	6.1	2.8	50	4.9	2.2	40	15	1.0	9.1	4.1	72	7.3	3.3	57	5.8	2.6	46	20	1.4	10.5	4.8	81	8.4	3.8	65	6.7	3.0
		OY400 500 gpm	10	0.7	12.8	5.8	63	10.3	4.7	50	8.2	3.7	40	15	1.0	15.2	6.9	72	12.2	5.5	57	9.7	4.4	47	20	1.4	17.6	8.0	82	14.1	6.4	65	11.3	5.1

AES Multiply lbs/hr D.O. by 1,500 to estimate the lbs of fish that can be supported at 3% bodyweight (bw) feed per day (assumes oxygen/feed ratio of 0.5). 1 lb O₂ = 12.08 ft³ @ STP; 28 liters = 1 cubic foot; 1 kPa = .145 psi