



# EnBio™

## Aeration System

### EnBio™ System

The EnBio hardware to implement the EnBio™ bacterial culture consists of the following components:

- EnBio™ injection metering pump
- EnBio™ bacterial culture
- EnBio™ aeration system (to add oxygen to the water)

### Metering Pump System

Using flexible programming capability, the 1100 Series EnBio™ Pumps dose sumps, tanks, cooling towers, oil water separators or other areas at the preset times. An easy, field programmed timer turns the pump on and off to ensure regular dosing of EnBio™ bacteria.

#### Pump system features

- ▲ Corrosion resistant FRP cabinet for mounting on wall or other location in demanding environments.
- ▲ Easy to program timer with pass code lockout for security.
- ▲ During normal operation, the timer runs on the same power source as the pump, simplifying system maintenance.
- ▲ Internal backup battery in timer maintains program even when main power source is disconnected or inoperative.
- ▲ Automatic battery-life monitoring technology ensures dosing accuracy throughout life of battery.
- ▲ No tools required for maintenance of pump assembly.
- ▲ Low battery indicator.

EnBio™ pump systems give great flexibility. Here's what they provide for customization of dispensing:

- ▲ Choice of days, time (AM or PM) and dose amounts (1 to 30 oz increments)
- ▲ Up to 24 dosing periods per day
- ▲ Capability to dose every day, weekdays, or weekends

But maybe the most important benefit gained by using the EnBio™ pumps is eliminating the chance for human error: they don't forget to add a dose! This can greatly enhance the performance of the treatment product and limit underdosing.

- |                  |   |
|------------------|---|
| Cabinetry        | ▲ Molded engineering resin (ABS) & (PP) |
| Flow rate        | ▲ 100cc (3.5 oz.)/ per minute           |
| Program duration | ▲ 7 days, daily variations possible     |
| Events           | ▲ 24 events possible per day            |
| Dispense amount  | ▲ 1 - 30 oz per event                   |
| Timer display    | ▲ Power saving LCD                      |



### Aeration

In order to keep your bacteria breathing properly you have to provide sufficient oxygen for the bacteria respiration.

#### Air Pump

EnBio™ air pumps are high volume diaphragm pumps designed for a variety of low-pressure applications such as tank, sump, treatment system and pond aeration.

EnBio™ pumps are compact, affordable, energy-efficient and very, very quiet (less than 38 decibels)! The pump design utilizes linear- motor theorem to reduce power consumption during full operation. Units are extremely quiet utilizing spectrum analysis technology in order to decrease any mechanical noise. No oil needed for lubrication making it easy to maintain.

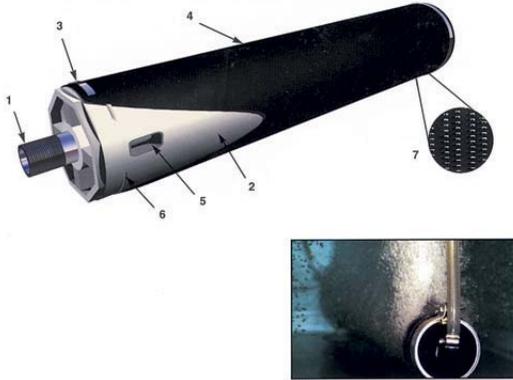


HK-120 pump

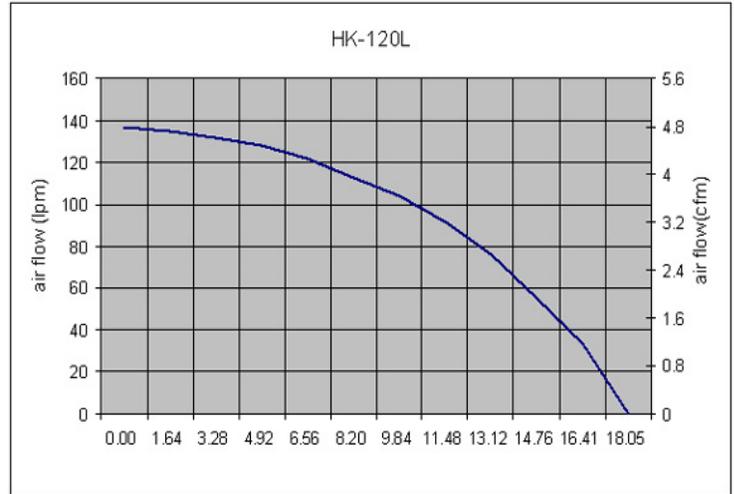
**Diffuser**

To disperse the air a diffuser device is required to reduce the air to small air bubbles instead of just pumping air in via the end of a hose. This way a greater oxygen transfer occurs with higher efficiency.

A single diffuser cylinder is provided and can provide aeration for air flows of 2-9 CFM. The membrane is a urethane construction.



**Pump curve**



The Aeration system includes the following items:

- HK-120 air pump
- Air diffuser
- Hose, 15' to connect pump to diffuser
- Fittings & clamps to secure hose
- (1) IOM manual

Model / Item	HK-25	HK-40	HK-60	HK-80	HK-100	HK-120
Rated Voltage (V)	AC 115 (AC 110/115/120 or AC 220/230/240)					
Power Supply Frequency (Hz)	56 / 60	56 / 60	56 / 60	56 / 60	56 / 60	56 / 60
Normal Pressure Bar (psi)	0.1 (1.42psi)	0.13 (1.85psi)	0.15 (2.13psi)	0.15 (2.13psi)	0.18 (2.56psi)	0.20 (2.84psi)
Rated Performance lpm (cfm)	21 (0.74)	51 (1.8)	68 (2.4)	86 (3.03)	105 (3.70)	121 (4.27)
Power (W)	17	40	63	85	116	126
Noise Level (dB)	32	35	38	38	40	42
Closed Pressure / Bar	0.26	0.38	0.46	0.54	0.45	0.54
Closed Pressure / psi	3.7	5.5	6.7	7.8	6.5	7.8
Weight (kg)	2.9 / 6.27	5.4 / 11.9	6.3 / 13.8	6.3 / 13.8	8.9 / 19.6	8.9 / 19.6