



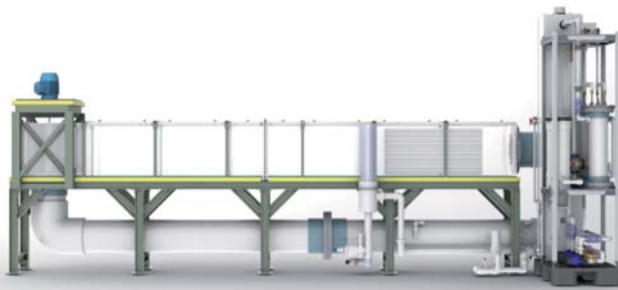
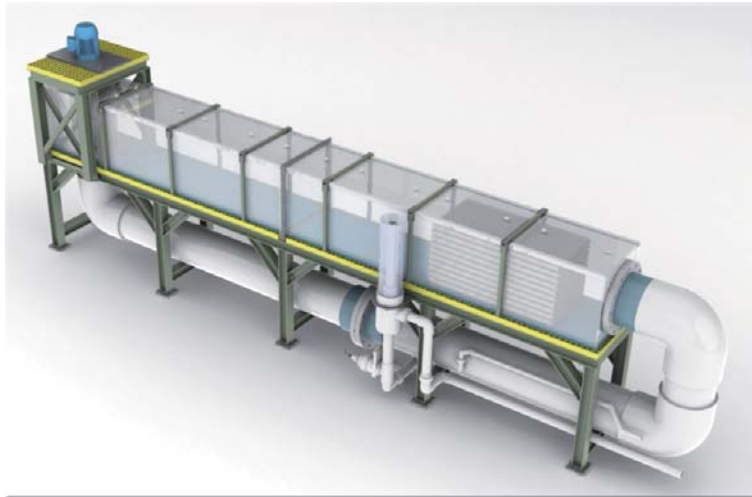
aquabioLab
by aquabioTech



Artificial Rivers and Flumes



Artificial River



Flume associated with REBF System



Flume with chilling system
(semi-open operation)

Specifications

- ❖ Flume is **made of acrylic** with the following **dimensions** : 50 cm deep, 50 cm wide, 487 cm long (16')
- ❖ The flume rests on a **seawater resistant fibreglass frame**.
- ❖ **Water current** within flume is driven by a variable speed electric drive 1 HP motor with speed controller, shaft and propeller.
Water returned through a 12" pipe ;
- ❖ Contains **collimator** to dampen cross-stream circulation
- ❖ A **Honeycomb core** (1/4 diam cells) eliminates turbulent flow at the water inlet and prevents fish from escaping the experimental area at the outlet
- ❖ **Velocity calibration** curve done with ADV probe
- ❖ **Mean velocity manually adjustable** from 5 to 50 cm/s through digital speed controller.
- ❖ **Anti-splash Nema4X box** for speed regulator

Options available

- ❖ **Adjustment of flume length** to fit available space
- ❖ **ADV probe**
- ❖ Addition of a **chiller with titanium heat exchanger** (semi-open system) to chill water down to 10°C (room at 20°C)
- ❖ **Connection to a closed REBF system**
This water filtration system is set on a plastic pallet and operates in parallel with own pump, plus one in back-up.
It features:
 - **Temperature range:** 25°C down to 10°C. Includes a **water heater** and a **titanium heat exchanger** to be linked to a **central glycol system**.
 - **biofiltration**, fine solid removal, degassing, aeration
 - **Holding capacity:** up to 6 kg fish
 - **Maximum food load:** 60 g dry food/day
 - **Enviro-Monitron** to measure and data log dissolved oxygen, pH, temperature. Can be linked to a Central Server for Internet access
 - A **peristaltic pump** controls the % of make-up water (v/v) in the system via the Monitron.
 - **Anti-splash Nema-4X**, CSA approved Power panel.



Multi-channel Flumes for Small-bodied Fish

A SET FOR 8 SWIMMING CHANNELS



A. Front section with view of Flow-Monitors



B. Laminar flow section (60 cm)



C. View of the 8 motors that create the water current, biofilters and thermoelectric modules

Specifications

- ❖ **Water velocity** controlled independently in each flume
- ❖ **Laminar flow** over a 60 cm long section
- ❖ **Range:** 0.15 to 10 cm per sec
- ❖ **Precision:**
0.15 to 0.99 cm/sec: ± 0.01 cm/sec;
1 to 10 cm/sec : ± 0.1 cm/sec
- ❖ **Working volume** per flume (portion where flow is laminar):
7.2 litres.
- ❖ **Water temperature range** is:
5-30°C at ambient temperature (20°C).
- ❖ An **in-line water heater** is included in each unit.
- ❖ Water is chilled via a **titanium heat exchanger** (to be linked to a central glycol refrigeration system).

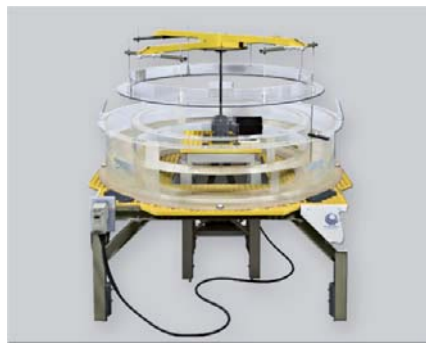
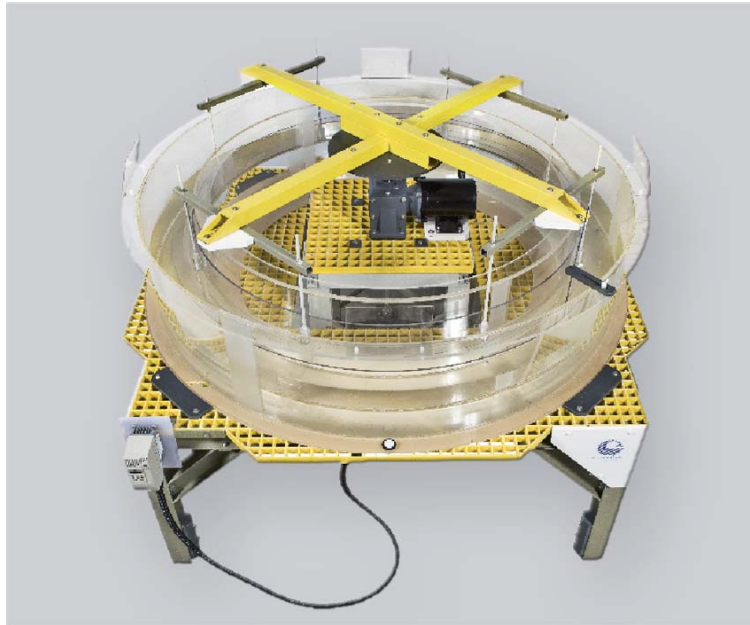
Eco-type REBF

Four Eco-type REBF (water recycling with biofiltration) modules are included, one common water recycling circuit for 2 flumes.

Eco-type REBF (water recycling with biofiltration) modules are for ecology-type studies (low fish density). This represent a maximum of **6 kg fish/m³ fed with 2% body weight** with a commercial dry diet. This corresponds to approximately **50 g of fish/channel**. The **biofilter** is pre-activated before delivery with a choice from active seawater or freshwater nitrifying bacteria.



Annular Flume



About this product

A **clear driving ring** is suspended over the channel. Its gentle circular movement creates a uniform current throughout the whole flume. System includes ring, motor and control.

Extreme care is devoted to assure that the equipment can be finely adjusted to level by users in client's laboratory.

Specifications

- ❖ Seawater resistant **fibreglass table** on which to rest the annular flume;
- ❖ **Sturdy and levelled support** for a motor and rod;
- ❖ **Dimensions**
 - **Outer diameter:** 1,80 m;
 - **Inner diameter:** 1,40 m;
 - **Channel depth:** 0,46 m;
 - **Speed:** 4 to 30 cm/s
(2 to 10 revolutions per minute)
- ❖ Flume comes with a **fibreglass table** with maximum adjustable height of 35 inches.

Options available

- ❖ Up to **4 evenly distributed plastic cores** can be inserted on the floor of the flume for studies on benthic fauna.
- ❖ **Connection to REBF System** for closed system operation and temperature control.