

# AQUANEERING

## The Leader in Aquatic Housing Solutions

Providing the lowest maintenance and highest water quality systems for your aquatic research.

### Aquaneering is:

*A uniquely talented team of people dedicated to manufacturing the highest quality aquatic housing systems in the world.*



### Sales staff

Aquaneering's sales staff are thoroughly knowledgeable in the aquacultural industry and work directly with our engineering team to provide you with recommendations and products that perfectly suit your needs. They are also your point of contact for questions that may arise during the use and ongoing needs of your Aquaneering system.

### Better by design

Our team of engineers have designed a group of modular systems to suit a wide range of applications. Should you require a unique system, our design team and engineering staff will work closely with you to develop the perfect system for your aquatic needs.

### Quality manufacturing

All Aquaneering aquatic housing racks are produced in house from the finest stainless steel. Recirculating systems include Aquaneering's Fluidized Bed Biofilter with over 20 years of proven service. All components are inspected throughout the process, with a final inspection prior to shipment. This ensures a quality, durable system that meets our high standards and will provide you with years of reliable service.



### Expert installation

The Aquaneering team will install your new system and get it up and running to your own satisfaction. We will instruct your personnel on the operation and maintenance of your new system. This is just another personal touch that sets Aquaneering apart.

### After sales service

Aquaneering is committed to your complete satisfaction. We stand 100% behind each and every product, and are always available to answer questions and help with problems, should they arise.



# AQUANEERING

INCORPORATED

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INCORPORATED

Superior Water Quality . . . Because Your Research Depends on it

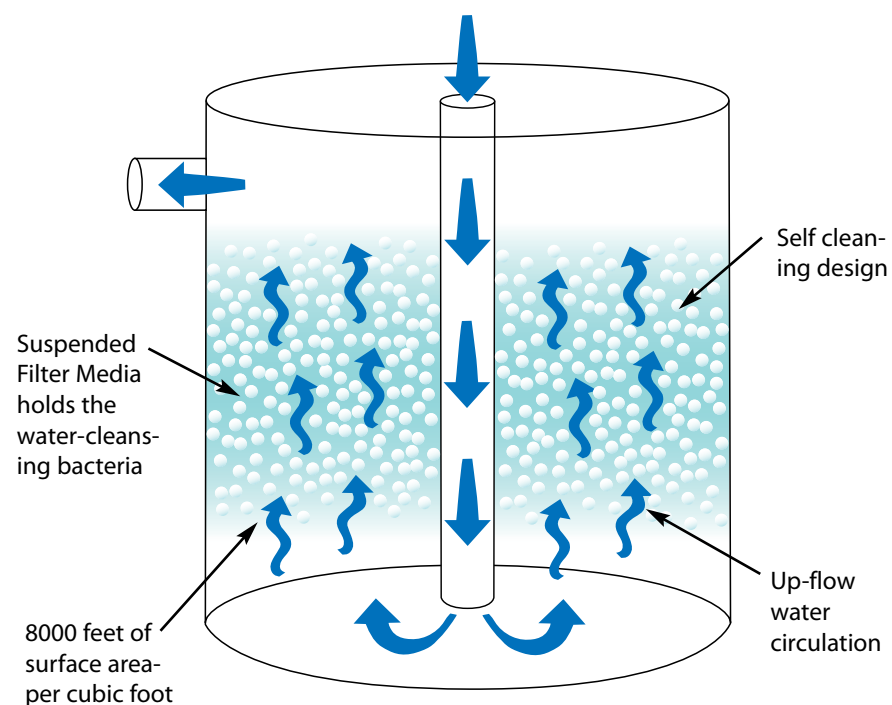
## Best for your aquatics research

Aquaneering offers an unmatched knowledge of highly advanced technologies pioneered and perfected within the aquaculture industry. Clean water and highly efficient low maintenance filtering and self monitoring systems are pre-requisites in industrial aquaculture and fishery applications – where the health of the fish is paramount. Applying these same highly efficient and proven technologies to the aquatic research field has been Aquaneering’s main focus over the last decade. With aquatic research systems installed throughout the world, aquatic researchers are benefiting from the unmatched technology, quality, aquatic experience and customer service that only Aquaneering can offer.

## Technologically Superior

### The Aquaneering Fluidized Bed Filtration System

The most efficient filters provide enough surface area to allow the sustained growth of aggressive water-cleansing bacteria. The heart of the Aquaneering multi-stage filtration system – the fluidized bed bio filter – has 10 times the surface area of the average industry filter. This extremely large surface area allows 200 – 1000 different types of beneficial bacteria to grow, assuring a biologically stable ecology within the filter system. The bacteria population is larger than the amount of available food, which results in extreme “shock-loading” capabilities and allows the filter to nitrify large amounts of ammonia without any change in the overall water quality. With up-flow water circulation, the filter media acts as a fluid and will not short circuit or require maintenance as gravity and pressurized media filters do. These no maintenance filters run for years, and are the heart of the best filtration system available to aquatics researchers today.



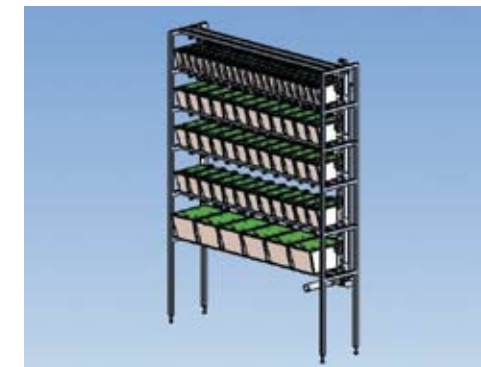
## to meet your aquatic research needs

### Modular Systems Requiring Central Filtration

#### ZAS Series

Single sided racks for use with Aquaneering central filtration system.

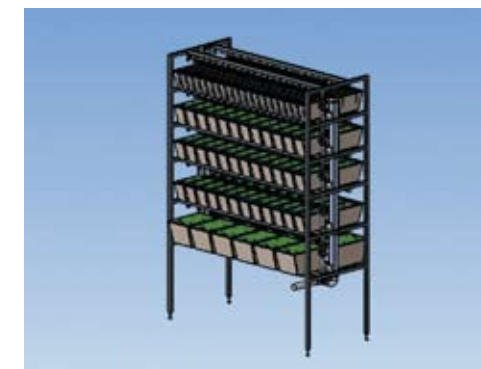
5 Shelf 50.5" Wide x 14.0" Deep x 82.0" Tall	ZAS550
6 Shelf 50.5" Wide x 14.0" Deep x 92.0" Tall	ZAS650
5 Shelf 60.0" Wide x 14.0" Deep x 82.0" Tall	ZAS560
6 Shelf 60.0" Wide x 14.0" Deep x 92.0" Tall	ZAS660
Configured with 1.4, 2.8, and 9.5 Liter Tanks	



#### ZAD Series

Double sided racks for use with Aquaneering central filtration system.

5 Shelf 50.5" Wide x 26.25" Deep x 82.0" Tall	ZAD550
6 Shelf 50.5" Wide x 26.25" Deep x 92.0" Tall	ZAD650
5 Shelf 60.0" Wide x 26.25" Deep x 82.0" Tall	ZAD560
6 Shelf 60.0" Wide x 26.25" Deep x 92.0" Tall	ZAD660
Configured with 1.4, 2.8, and 9.5 Liter Tanks	



### Modular Systems for Central Filtration OR Stand Alone

#### FG Series

Rack system with Glass Aquaria. Available in both stand alone and central filtration configurations. Standard or custom sizes are available.

Dimensions	Stand Alone	Modular
50" Wide x 24" Deep x 82" Tall	FG450	FGA450
60" Wide x 24" Deep x 82" Tall	FG460	FGA460
75" Wide x 24" Deep x 82" Tall	FG475	FGA475

10 Gallon, 20 Gallon, and 50 Gallon Glass Tanks

Or other standard Glass Aquaria Sizes

Options include Air Lines, Full Spectrum Lighting and Shelf mounted Electrical Outlets with in-use Covers.



#### FP Series

Rack system with molded Plastic Aquaria. Available in both stand alone and central filtration configurations. Standard or custom sizes are available.

Dimensions	Stand Alone	Modular
50" Wide x 24" Deep x 82" Tall	FP350	FPA350
60" Wide x 24" Deep x 82" Tall	FP360	FPA360
75" Wide x 24" Deep x 82" Tall	FP375	FPA375

8 Gallon Tank 12.0" Wide x 21.0" Deep x 12.0" Tall

20 Gallon Tank 24.0" Wide x 21.0" Deep x 12.0" Tall

30 Gallon Tank 35.0" Wide x 21.0" Deep x 12.0" Tall

Options include Air Lines, Full Spectrum Lighting and Shelf mounted Electrical Outlets with in-use Covers.



# AQUANEERING has a full line of products designed

## Stand Alone Racks

### Model ZT350

(50.5" Wide x 16.0" Deep x 52.0" Tall)

Self contained tabletop rack with self cleaning polycarbonate tanks.

T-316L Stainless Steel construction with adjustable feet.

16 - 1.4 liter tanks with lids and baffles.

10 - 2.8 liter tanks with lids and baffles.

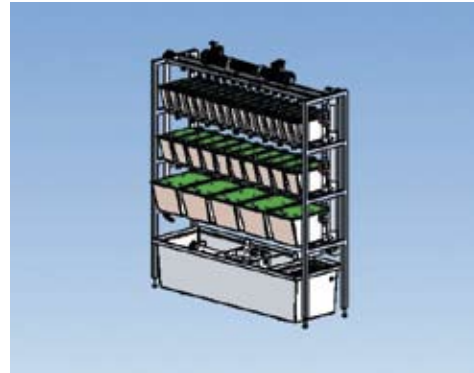
5 - 9.5 liter tanks with lids and baffles.

3 GPM Recirculation System.

No Maintenance Fluidized Bed Biofilter.

Carbon Finish Filter with High Output UV Sterilizer.

250-Watt Heater.



### Model ZS560

(60.0" Wide x 18.0" Deep x 82.0" Tall)

Self contained stand alone rack with self cleaning polycarbonate tanks.

T-316L Stainless Steel construction with adjustable feet.

20 - 1.4 liter tanks with lids and baffles.

36 - 2.8 liter tanks with lids and baffles.

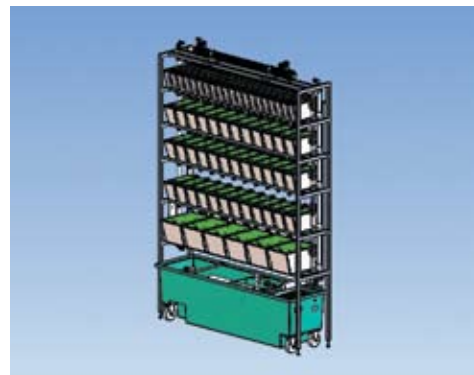
6 - 9.5 liter tanks with lids and baffles.

6 GPM Recirculation System.

No Maintenance Fluidized Bed Biofilter.

Carbon Finish Filter with High Output UV Sterilizer.

1000-Watt Digitally Controlled Heater.



### Model ZD560

(60.0" Wide x 26.25" Deep x 82.0" Tall)

Self contained double stand alone rack with self cleaning polycarbonate tanks.

T-316L Stainless Steel construction with adjustable feet.

40 - 1.4 liter tanks with lids and baffles.

72 - 2.8 liter tanks with lids and baffles.

12 - 9.5 liter tanks with lids and baffles.

12 GPM Recirculation System.

No Maintenance Fluidized Bed Biofilter.

Carbon Finish Filter with High Output UV Sterilizer.

1000-Watt Digitally Controlled Heater.



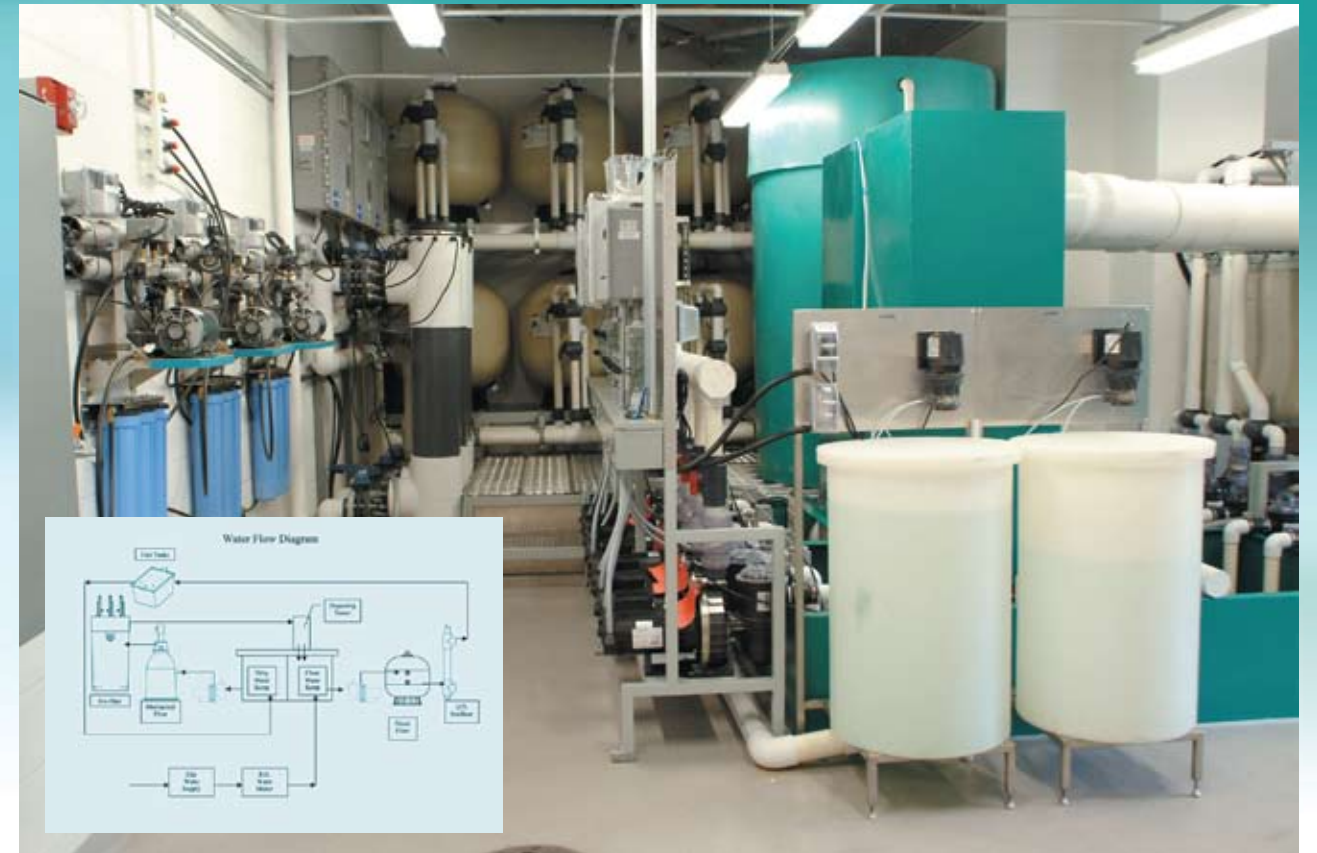
## Light Enclosure Accessory

All models above are available with Aquaneering's light enclosure. The roll up door of black ABS plastic retracts into the hood and out of the way, leaving unobstructed passageways for lab personnel. Fiber-optic lighting keeps electricity outside of the enclosure for both lab personnel safety and reliable temperature control without the need for additional water cooling equipment.

ZLH350 for model ZT350

ZLH560 for model ZS560

ZLHD560 for model ZD560



## Multi-Phase Filtering System

From stand alone to multi-rack applications, all technological elements of the Aquaneering aquatic filtering systems have been proven efficient and reliable through years of use and innovation in the aquaculture industry. The critical system components are industrial grade, and have been adapted to the aquatics research industry to provide the highest levels of efficiency, redundancy, ease of use and piece of mind available in aquatic research systems.



## Control system

Automated pH and Salinity controls utilize industrial grade meters and probes. The units will control the pH and Salinity accurately, with set points easily changed by intuitive programming built into the meters. Chemical feed pumps are provided with solution barrels for your size system.



## Alarm system

Aquaneering's monitoring systems ensure the highest level of protection by alerting you if one of the separate controls is not functioning properly. The alarm parameters can be programmed with multi level notification to alert the lab technicians prior to the lab manager.



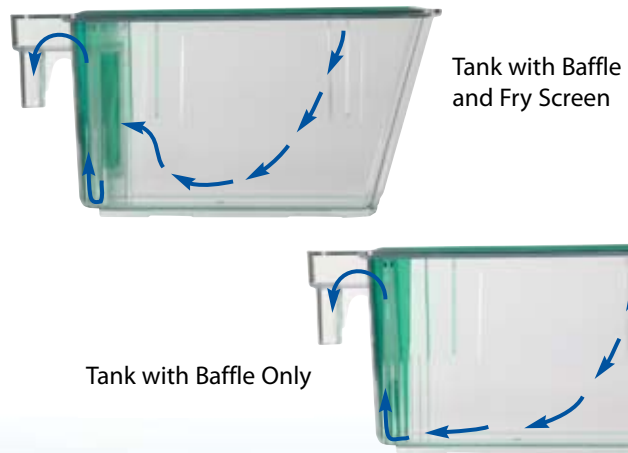
## Automation

Aquaneering is the leader in automation on aquaculture filtration systems. Automatic backwash mechanical filters can be specified to eliminate filter pads, reducing labor.

# Aquatic Housing

## The Tank

The Aquaneering system features durable, self-cleaning tanks, molded in six different sizes. The stackable, polycarbonate tanks feature a subtle “V” that is formed into the tank floor, channeling solids to the rear of the tank. The removable baffle forces water to flow along the tank bottom, carrying the solids up and out of the overflow port. A second slot is provided to install a fry screen without eliminating the baffle. The Aquaneering tanks are compatible with other rear-draining recirculating tanks.



Tank with Baffle and Fry Screen

Tank with Baffle Only

## New Large Species Tanks

Perfect for your larger fish, Aquaneering produces a line of tanks in 8, 20, and 30 gallon sizes. Molded of clear PETG plastic, they provide a durable option to fragile acrylic or glass tanks. These versatile tanks are available with custom lids and can be configured with either Rear Drains or Standpipes to suit the needs of your particular species of Aquatic Animals. The large corner radius and external perimeter lip allows for easy Dip Netting of fish with minimal stress.



## Rack

The Aquaneering system features a tubular stainless steel welded rack. The open frame design allows maximum visibility without sacrificing structural integrity. The on board water delivery and drainage system are easily



removable for cleaning and maintenance. Water flow is precisely metered by individual valves, allowing a variety of flow rates to individual tanks. Drain troughs and piping are constructed from clear PVC for convenient monitoring of wastewater flows.

## Multi-phase Filtration – Stand alone Systems

The Aquaneering system employs a four-stage filtration system to provide the cleanest recirculated water in the industry.

- 1 The first stage is a Dacron pad particulate filter, trapping particles greater than 10 microns, and can be easily removed for washing or disposal.
- 2 Water is then pumped into the fluidized bed biological filter. High pressure water, from the quiet, reliable submerged pump, is forced into the bottom of the fluidized bed, suspending and mixing the filter media to prevent channeling and insure full utilization of the entire surface area. This unique filtration design provides over 4000 sq. ft. of surface area on which biological conversion of harmful ammonia can occur. With 10 times more surface area than the industry standard, the Aquaneering aquatics system boasts undetectable levels of ammonia and waste content.
- 3 Water then flows into the second sump chamber, which contains a microprocessor controlled, 1000-watt heater to maintain a comfortable environment throughout the rack. Dual carbon filters lay submerged in the second sump chamber, and a dedicated submersible pump draws water through and pressurizes the rack supply lines.
- 4 On the main supply line is an in-line UV sterilizing lamp that provides a minimum of 100,000 microwatts/second/cm<sup>2</sup> at our flow rate of 6 water changes per hour.



## Systems designed to meet your needs

Efficiently designed aquatic housing systems allows excellent usability for stand alone and multiple rack configurations. Aligned in rows and attached to a central filtration system, Aquaneering Aquatic systems make up some of the largest aquatic research rooms in the world.



## Central Custom Systems

Aquaneering in-house engineers design custom filtration room systems to meet and exceed the needs of each multi-rack research facility. Either designing for existing buildings or buildings that are still in the planning stages, designers work closely with customers and architects to help guarantee the best system to meet the researcher's goals and needs.

