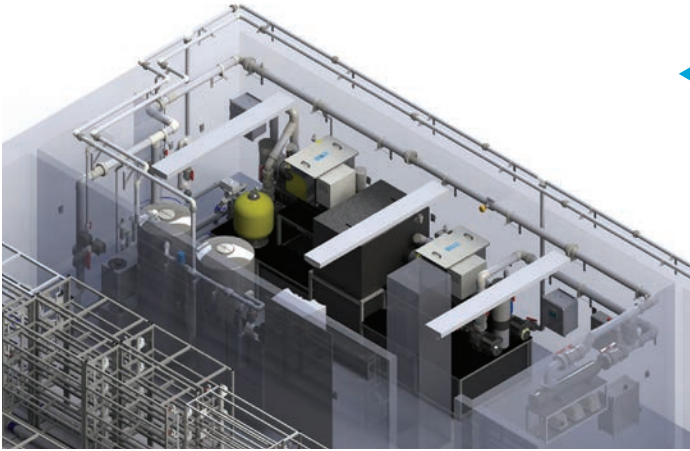




COMPLETE SYSTEMS PRODUCTS

- 12 Multi-Rack Facility Design/
Filtration Packages
- 14 Z-Hab Duo
- 15 Z-Hab Mini
- 16 Z-Hab
- 17 X-Hab
- 18 G-Hab
- 19 Mass Embryo Production Systems
- 20 Fish Farm
- 22 Mini Fish Farm
- 23 Quarantine & Holding Systems
- 24 Backyard Aquaponics System



◀ AQUATIC HABITATS MULTI-RACK FACILITY DESIGN

The Multi-Rack system is configured to your specifications, with as many racks as your research needs. We have been designing large-scale aquatic research facilities since 1997 and continue to lead the industry in quality of equipment and service. Couple our industry pioneering rack designs with our new cutting-edge filtration packages you will benefit from a robust, user-friendly system for many years to come.

- Z-Hab, X-Hab and G-Hab system are all available for multi-rack facility design
- Heavy-duty, powder coated 316L stainless steel construction provides corrosion resistance, durability and ease of maintenance.
- State-of-the-art Aquatic Habitats Filtration Packages

CALL FOR MORE INFORMATION AND PRICING.

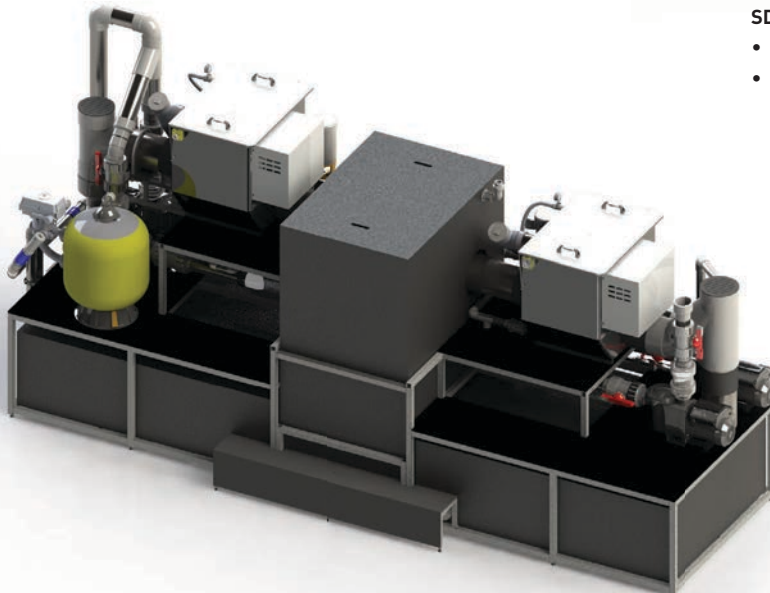
AQUATIC HABITATS FILTRATION PACKAGES

Pentair introduces its next generation filtration packages, innovative solutions designed to address the needs of the modern day aquatic lab. We have married our intimate knowledge of aquatic husbandry and state-of-the-art technology to deliver robust, flexible, user-friendly systems capable of providing the model environment for aquatic research.

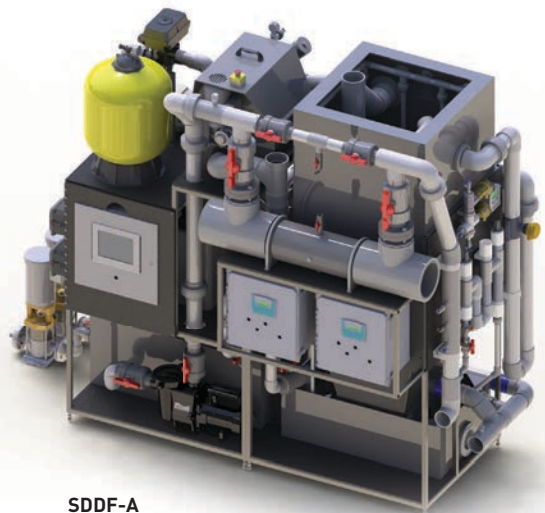
Optimal water quality is maintained using an oversized 5-stage filtration process featuring the most cutting edge technology on the market. Which includes Sparus™ Pumps with Constant Flow Technology™, rotary micro-screen drum filters and a programmable logic controller (PLC) customized to your specific system requirements. The modular design is flexible enough to be ramped up or down for situations like multi-phase projects or daisy-chained with additional packages for lab expansions.

Low cost of ownership and labor savings provided by zero consumable filtration and minimal maintenance requirements. Say good-bye to changing filter pads and cartridges! Each PLC is equipped with SMS or email alarm capabilities and remote access via the web. All of this contained within a small footprint configured for easy access to all the system components.

- Automated Monitoring and Control
 - Water Quality
 - Drum Filter Backwash
 - Carbon Filter Backwash
- Zero Consumables
- Minimal Maintenance (6 month service intervals)



▶ PENTAIR

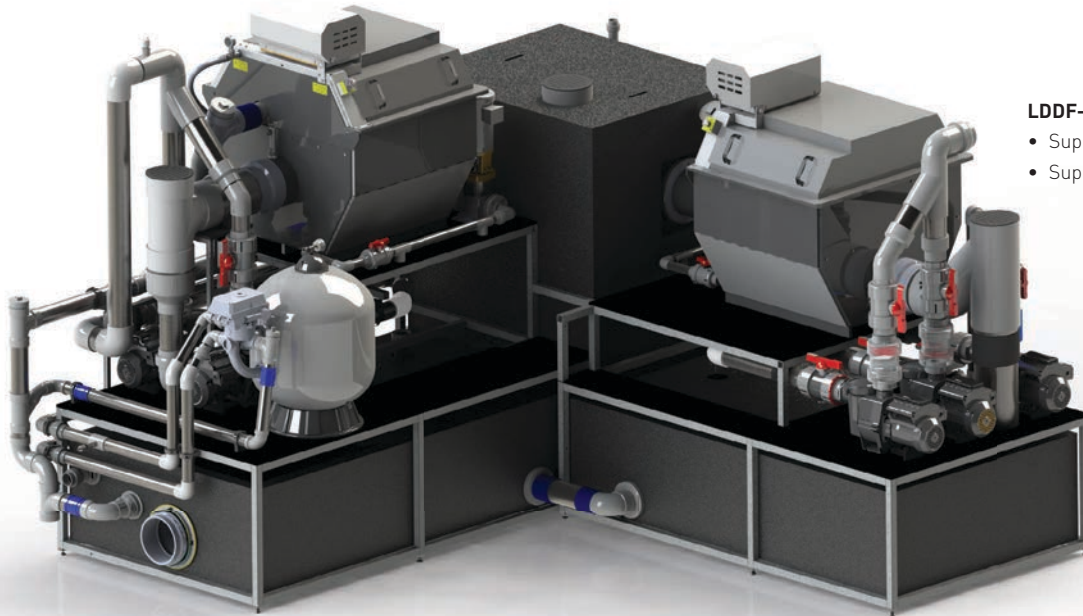


SDDF-A

- Supports up to 35,000 zebrafish
- Supports up to 1,440 *Xenopus laevis*

MDDF-A

- Supports up to 72,000 zebrafish
- Supports up to 2,880 *Xenopus laevis*



LDDF-A

- Supports up to 100,000 zebrafish
- Supports up to 4,000 *Xenopus laevis*

FEATURES

SPARUS™ PUMP WITH CONSTANT FLOW TECHNOLOGY™

Quiet, Energy Efficient and Smart

- Sparus Pumps with Constant Flow Technology (CFT) manage water circulation quietly and efficiently. The integrated Variable Frequency Drive automatically calculates and self-adjusts the speed of the motor to deliver the programmed flow rate
- Each Sparus with CFT pump features a digital communication port that allows for monitoring/control by PLC systems
- By utilizing the unique feature set of the Sparus with CFT and by monitoring pressure, the PLC system controller adjusts the speed of the pump to maintain a constant pressure. The result is consistent flow is maintained to aquaria when the flow to other racks of aquaria is shut off. Eliminates unexpected sharp increases in flow and provides consistent flow to aquaria as flow elsewhere on the system is adjusted.

MECHANICAL FILTRATION

Zero Consumables

- High-quality, self-cleaning rotary drum filter(s) provide highly efficient solids removal without the need for consumables. Say good-bye to replacing filter pads, cartridges or bags.

BIOLOGICAL FILTRATION

Self-Cleaning

- Moving bed bioreactors use a continuous flow action achieved by aeration and high density polyethylene biofilm carrier elements. The continuous flow action makes the media self-cleaning!

CHEMICAL FILTRATION

Polishing

- Activated carbon captures smaller suspended solids and adsorbs dissolved solids and other contaminants that may make their way into the system, ensuring optimal water quality and transmission of UV light

CALL FOR MORE INFORMATION AND PRICING

UV DISINFECTION

Eliminate Pathogens

- NSF UV Sterilizer outfitted with over temperature, lamp out, and UV intensity alarming capabilities are sized to provide a minimum UV dose of 110 mJ/cm², EOU. UV Lamp service interval of 12,000 hrs. Choose between stainless steel or heavy-wall UV-resistant polymer vessel.

AERATION AND DEGASSING

Optimize Dissolved Oxygen Levels

- Quiet linear piston pumps supply air through Sweetwater® Diffusers to strip CO₂ and maintain dissolved oxygen levels of the supply water to aquaria at optimal.

TEMPERATURE CONTROL

Maintain Consistent Water Temperature for Animals

- Heater (Standard)- Submersible titanium heaters and automatic controller maintain system water temperature at set point + - 1°C (Ambient +5°C)
- Chiller (Optional)- Multiple options including chillers, heat exchangers and heat pumps are available for a variety of applications

WATER QUALITY CONTROL

Automated Monitoring and Dosing

- Conductivity and pH levels are continuously monitored by precise high-grade sensors. Buffer and salt solutions are automatically dosed using peristaltic pumps to maintain steady-state pH and conductivity
- PLC system controller automatically opens a solenoid valve to bleed off a user programmable percentage of system water per day to keep nitrates at non-stressful levels. System water is automatically replaced with virgin make-up water

PROGRAMMABLE LOGIC CONTROLLER

Versatile and Dependable

- Pentair PLCs operate with reliability, precision and responsiveness. Examples of water quality and system parameters you can control or monitor include dissolved oxygen, system temperature, pH conductivity, level, supply line pressure, carbon filter vessel pressure, total dissolved gas pressure (TGP) and pump speed. Each model has an easy-to-read touchscreen interface that will tell your system status at a glance. If an alarm condition is detected, the device will text or email multiple cellphones to alert staff—helping prevent catastrophic failures and loss of animals.

14 COMPLETE SYSTEMS

Z-Hab Duo

AQUATIC HABITATS Z-HAB DUO SYSTEMS

Double the capacity of the Z-Hab system while minimizing maintenance.

FEATURES

Superior Design and Engineering

- Oversized, 5-stage, state-of-the-art filtration ensures optimal water quality
- C351 programmable logic controller (PLC) control panel with low water level safety shut-off and alarm
- Heavy-duty, powder coated 316L stainless steel construction provides corrosion resistance, durability and ease of maintenance.

Convenience

- Filter and UV bypass allow service while system runs
- Automatic water exchange saves time and reduces labor

Flexibility

- Choose from five-shelf and six-shelf systems
- Ergonomic, autoclavable polycarbonate tanks (1.5-, 3.0- and 10.0-liter sizes), lids and baffles

Space Efficiency

- Housing life support and filtration, monitoring, controlling and alarming all in 16 ft²

Redundancy

- Two water pumps ensure flow to tanks should one fail
- Two UV reactors ensure disinfection of system water should one fail
- Each Z-Hab Duo System includes an unconditional 2-year warranty and 24/7 emergency support

SPECIFICATIONS

Water

- Culture volume 600 liters (158 gal)—576 liters (152 gal) as shown
- Zebrafish holding capacity @ 10 adult fish/liter: 6,000 fish—5,760 fish as shown
- Total water volume: 827 liters (218 gal)—804 liters (212 gal) as shown
- 6 culture tank water exchanges per hour

Electrical

- 120V/10.25 A/50 or 60 Hz
- 240V/5.1 A/50 or 60 Hz

Filtration

- 1st Stage: 120-micron filter pad
- 2nd Stage: Moving bed biological filtration (over 42 m² of surface area)
- 3rd Stage: 50-micron filter cartridge
- 4th Stage: Activated carbon adsorbs volatile organics and other contaminants
- 5th Stage: UV disinfection dose of 110 mJ/cm² at end of lamp life

Other

- Air pump and manifold provide supplemental aeration and degassing
- Titanium heater maintains temperature differential of 5° C
- Weight with water: 1,134 kg (2,500 lbs)

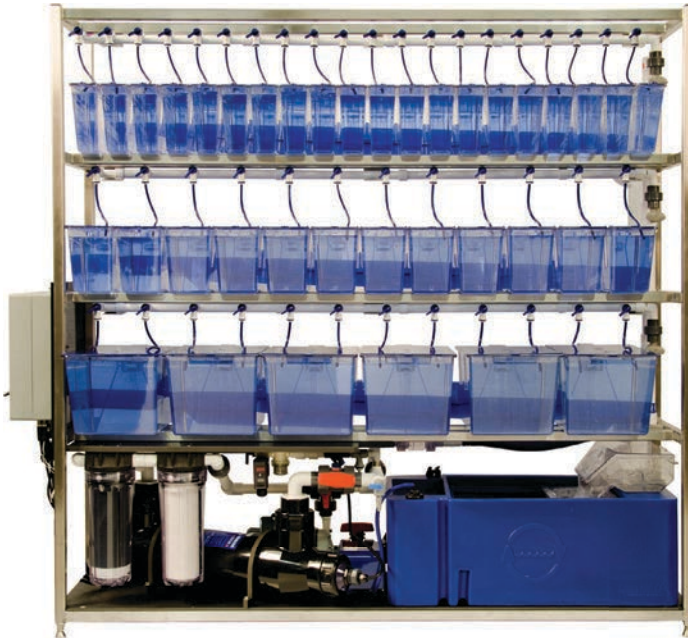
Options

- Automated water quality monitor/control/alarm system
- Breeder tanks
- Baby baffles for larval rearing
- Powder-coating

CALL FOR MORE INFORMATION AND PRICING.



Danio rerio



◀ AQUATIC HABITATS Z-HAB MINI SYSTEMS

The Z-Hab Mini benchtop system is ideal for labs that have no floor space and limited counter space. Each shelf holds six 10-liter, twelve 3-liter or twenty 1.5-liter tanks. Mix and match for added versatility!

Ask about our industry leading delivery time of 1 week or less*

*Certain limitations and restrictions apply

FEATURES

Superior Design

- Oversized, 5-stage, state-of-the-art filtration ensures optimal water quality
- Low water level safety shut-off and alarm with optional programmable logic controller (PLC) control panel
- Heavy-duty, powder coated 316L stainless steel construction provides corrosion resistance, durability and ease of maintenance.

Convenience

- Filter and UV bypass allow service while system runs
- Automatic water exchange saves time and reduces labor
- Central PLC control panel (optional)

Flexibility

- Two- to three-shelf models available
- Ergonomic, autoclavable polycarbonate tanks (1.5-, 3.0- and 10.0-liter sizes), lids and baffles
- Each Z-Hab Mini System includes an unconditional 2-year warranty and 24/7 emergency support

SPECIFICATIONS

Water

- Culture volume: 180 liters (48 gal)—126 liters (33 gal) as shown
- Zebrafish holding capacity @ 10 adult fish/liter: 1,800 fish—1,260 as shown
- Total water volume: 252.5 liters (67 gal)—98 liters (26 gal) as shown
- 6 tank water exchanges per hour

Electrical

- 120V/10.25 A/50 or 60 Hz
- 240V/5.1 A/50 or 60 Hz

Filtration

- 1st Stage: 120-micron filter pad
- 2nd Stage: Combined moving and submerged-bed biological filtration (over 32 m² of surface area)
- 3rd Stage: 50-micron filter cartridge
- 4th Stage: Activated carbon adsorbs volatile organics and other contaminants
- 5th Stage: UV disinfection dose of 110 mJ/cm² at end of lamp life

Other

- Air diffusers in biofilter provide supplemental aeration and degassing
- Titanium heater maintains temperature differential of 5° C
- Weight with water: 195 kg (430 lbs)

Options

- Automated water quality monitor/control/alarm system
- Individual photoperiod control for each shelf
- Total gas pressure monitor/controller

CALL FOR MORE INFORMATION AND PRICING



Danio rerio



Oryzias latipes

AQUATIC HABITATS Z-HAB SYSTEMS

The Z-Hab is one of our proven, time-tested zebrafish housing systems. Save time setting up and keeping track of your experiments compared with conventional fish-keeping systems. In fact, you can fit up to 120 tanks in the same footprint as three conventional 10-gallon glass aquaria!

Ask about our industry leading delivery time of 1 week or less*

*Certain limitations and restrictions apply

FEATURES

Superior Design and Engineering

- Oversized, 5-stage, state-of-the-art filtration ensures optimal water quality
- Standard controller with low water level safety shut-off and alarm (optional C351 programmable logic controller)
- Heavy-duty, powder coated 316L stainless steel construction provides corrosion resistance, durability and ease of maintenance.

Convenience

- Filter and UV bypass allow service while system runs
- Automatic water exchange saves time and reduces labor

Flexibility

- Choose from five-shelf and six-shelf systems
- Ergonomic, autoclavable polycarbonate tanks (1.5-, 3.0- and 10.0-liter sizes), lids and baffles
- Each Z-Hab System includes an unconditional 2-year warranty and 24/7 emergency support

SPECIFICATIONS

Water

- Culture volume 300 liters (79 gal)—222 liters (58.6 gal) as shown
- Zebrafish holding capacity @ 10 adult fish/liter: 3,000 fish—2,200 fish as shown
- Total water volume: 340 liters (90 gal)—285 liters (75 gal) as shown
- 6 tank water exchanges per hour

Electrical

- 120V/10.25 A/50 or 60 Hz
- 240V/5.1 A/50 or 60 Hz

Filtration

- 1st Stage: 120-micron filter pad
- 2nd Stage: Combined moving and submerged-bed biological filtration (over 90 m² of surface area)
- 3rd Stage: 50-micron filter cartridge
- 4th Stage: Activated carbon adsorbs volatile organics and other contaminants
- 5th Stage: UV disinfection dose of 110 mJ/cm² at end of lamp life

Other

- Air diffusers in biofilter provide supplemental aeration and degassing
- Titanium heater maintains temperature differential of 5° C
- Weight with water: 544 kg (1,200 lbs)

Options

- Automated water quality monitor/control/alarm system
- Individual photoperiod control for each shelf (5-shelf tall systems only)
- Total gas pressure monitor/controller
- Breeder tanks

CALL FOR MORE INFORMATION AND PRICING



Danio rerio

SEE OUR CHANNEL TO LEARN MORE!



Xenopus laevis

WE CAN DESIGN AND BUILD MULTI-RACK XENOPUS SYSTEMS.

SEE OUR  CHANNEL TO LEARN MORE!

◀ AQUATIC HABITATS X-HAB SYSTEMS

The X-Hab line is designed for *Xenopus* applications and accommodates a wide variety of tank sizes for various applications.

Ask about our industry leading delivery time of 1 week or less*

*Certain limitations and restrictions apply

FEATURES

- Ideal for *Xenopus* sp. frogs or other mid-sized aquatic animals
- Polycarbonate 40-liter tanks can be easily cage-washed or autoclaved
- Shelving improves overall environment, providing contrast for feeding, reducing algae growth, improving biosecurity and reducing maintenance time
- UV disinfection rate is among the highest in the industry, designed for a 12-month service interval
- Lab-grade racks are manufactured to conform to ASTM standards and include barrier protection for wet environments
- Low water level safety shut-off and alarm with optional programmable logic controller (PLC) control panel
- 5 tank water exchanges per hour
- NEW! Custom standpipe solution for automatic water cleaning (flood and flush)
- Each X-Hab System includes an unconditional 2-year warranty and 24/7 emergency support

SPECIFICATIONS

Electrical

- 120V/12.2 A/50 or 60 Hz
- 240V/6.1 A/50 or 60 Hz

Filtration

- 1st Stage: 120 microns
- 2nd Stage: Combined moving and submerged-bed biological filtration (over 90 m² of surface area)
- 3rd Stage: 50-micron cartridge filter
- 4th Stage: Activated carbon adsorbs volatile organics and other contaminants
- 5th Stage: UV disinfection dose of 110 mJ/cm² at end of lamp life (e.g., 12 months)

XR3

- 4-tier system with 16-L or 23-L tank options (twenty or sixteen tanks)
- *Xenopus laevis* capacity (1 adult/3 L): 100 (16-L tanks) or 112 (23-L tanks)
- *Xenopus tropicalis* capacity (1 adult/0.75 L): 420 (16-L tanks) or 480 (23-L tanks)

XR4

- 3-tier system with 40-liter tanks
- *Xenopus tropicalis* holding capacity @ 1 adult/0.75 liter: 477 frogs
- *Xenopus laevis* holding capacity @ 1 adult/3 liters: 117 frogs

XR5

- 2-tier system with 74-liter or 189-liter tank options (eight or four tanks)
- *Xenopus laevis* capacity (1 adult/3 L): 192 with 74-liter tanks or 252 with 189-liter tanks

Options

- Automated water quality monitor/control/alarm system
- Total gas pressure monitor/controller
- Heating and chilling options are available

CALL FOR MORE INFORMATION AND PRICING.

G-HAB SYSTEMS

With bigger tanks than the Z-Hab system, the G-Hab system is a nice fit for labs where larger species of fish are being used. Also a great choice for toxicology related studies in which plastic tanks may not be ideal.

FEATURES

Superior Design

- Oversized, 5-stage, state-of-the-art filtration ensures optimal water quality
- Low water level safety shut-off and alarm with optional programmable logic controller (PLC) control panel
- Aeration provided to each individual tank
- Heavy-duty, powder coated 316L stainless steel construction provides corrosion resistance, durability and ease of maintenance.

Convenience

- Filtration bypass allows service while system runs
- Automatic water exchange saves time and reduces labor

Flexibility

- 3-tier rack can accommodate 10-, 30- or 55-gallon glass tanks
- Central PLC control panel (optional)
- Each G-Hab System includes an unconditional 2-year warranty and 24/7 emergency support

SPECIFICATIONS

Water

- Culture volume: 680 liters (180 gal) as shown
- 4 tank water exchanges per hour
- Total water volume: 870 liters (230 gal) as shown
- Weight with water: 1,182 kg (2,600 lbs)

Electrical

- 115V/10 A/60 Hz
- 230V/5.1 A/50 Hz

Filtration

- 1st Stage: 120-micron filter pad
- 2nd Stage: Submerged-bed biological filtration
- 3rd Stage: 50-micron filter cartridge
- 4th Stage: Activated carbon adsorbs volatile organics and contaminants
- 5th Stage: UV disinfection dose of 110 mJ/cm² at end of lamp life

Options

- Automated water quality monitor/control/alarm system
- Total gas pressure monitor/controller
- Temperature control (heating and chilling)

CALL FOR MORE INFORMATION AND PRICING.



Astyanax mexicanus



MEPS® MASS EMBRYO PRODUCTION SYSTEM

Designed specifically for the production of large numbers of zebrafish embryos for drug screening, toxicology assays/experiments or propagation of fish.

Ask about our industry leading delivery time of 1 week or less*

*Certain limitations and restrictions apply

FEATURES

- Allows for the housing and maintenance of thousands of fish in a single tank, reducing labor required for husbandry and system maintenance
- Multiple spawning sites, adjustable to optimal depths and locations within the tank, maximize embryo production
- Optional light cycle dome with dimmable light cycle timer allows for the collection of embryos at any time of the day
- Carbon filter on incoming water line ensures optimal water quality, reduces possibility of chemical inhibition affecting spawning success and enhances embryo production
- Easily removable egg collection chambers facilitate accurate timing of fertilization with minimal disturbance to fish
- Available in two tank sizes that will fit in the footprint of any rack system
- Each Mass Embryo Production System includes an unconditional 2-year warranty and 24/7 emergency support

With the MEPS®, thousands of embryos per day can be attainable and sustainable. Factors affecting embryo production include line, age of fish, sex ratio, degree and quality of broodstock conditioning and management and system maintenance.

Flexibility

- Can be incorporated into any multiple rack system
- Can be connected to a filtration unit to operate as an independent system.
- Can be set up as a flow-through system

Options

- Light cycle dome for photoperiod control

MEPS® SPECIFICATIONS

- Volume: 295 L (78 gal) flooded & 242 L (64 gal) operating
- Total weight: 328 kg (723 lbs) flooded & 275 kg (610 lbs) operating
- Recommended stocking density of 1-g adult zebrafish: 2,000
- Recommended flowrates of 19 Lpm (5.0 gpm) for recirculating system applications & 7.6 Lpm (2.0 gpm) for flow-through applications
- Electrical: 120/240V, 50/60 Hz

MINI MEPS® SPECIFICATIONS

- Volume: 100 L (26.4 gal) flooded & 80 L (21.1 gal) operating
- Total weight: 123 kg (271 lbs) flooded & 103 kg (227 lbs) operating
- Recommended stocking density of 1-g adult zebrafish: 660
- Recommended flowrates of 6.3 Lpm (1.66 gpm) for recirculating system applications & 2.52 Lpm (0.67 gpm) for flow-through applications
- Electrical: 120/240V, 50/60 Hz

CALL FOR MORE INFORMATION AND PRICING.



MEPS® with optional light cycle dome.



Close-up of spawning sites.

20 COMPLETE SYSTEMS

Fish Farm, Automated



◀ FISH FARM™, AUTOMATED

Simple, reliable, low-maintenance

This Fish Farm™ can automatically remove fish waste every few hours, day and night, maintaining excellent water quality. You don't have any fish waste to handle or waste water to haul. In the basic system (**FF50MA**) the filter is washed by opening a valve for 20 seconds. The Pulse Auto Control Panel (**FF50ACP**) can be added at any time to automate filter cleaning and fish feeding and is recommended for heavy fish and feed loading. The basic system supports up to 50 lbs of fed fish; order the Bioreactor (**SL94** air pump included, add a **SL56** if ordering as a retrofit) to support up to 125 lbs of fish. The Precision AutoFeeder (**FF50AF**) coupled with the Auto Control Panel make a complete, self-sustaining life support system (five days at heavy feeding). A single energy-efficient, ultra-quiet air pump recirculates the water, delivers air to the diffuser and cleans the filter.

The innovative Pulse BioClarifier gently settles out fish waste, captures suspended particles and acts as a biofilter. Select the automatic Pulse wash cycle using two dials—one for time on, one for time off. It's simple! The 400-gallon tank self-cleans through a center drain and is equipped with a float valve that maintains tank water level. Request the UV sterilizer (**FF50AUV**) to keep water and filter clear of algae and to reduce fish pathogens.

The Fish Farm™ comes with a sturdy dome frame for hanging the Precision AutoFeeder and for supporting the net cover (included). Secure a tarp to the frame to exclude light or airborne pollutants. All options are easy to install as retrofits. Components assemble in about 1 hour. Made in USA. Note: All plumbing will be underground w/out stands.

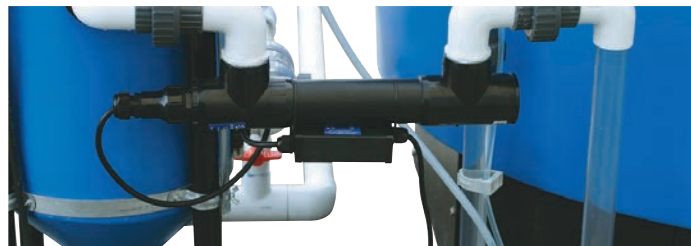
Operate several Fish Farm™ systems with one Pulse controller and large air pump.



Manual Controls (Standard)



FF50ACP Automation Option



FF50AUV



FF50AF

MODEL		SHIP WT (LBS)	EACH
FF50MA	BASIC SYSTEM W/MANUAL CONTROLS	290	\$4,308.48
FF50ACP	PULSE AUTO CONTROL PANEL	5	556.65
FF50AB3	BIOREACTOR	75	1,239.43
FF50AF	PRECISION AUTOFEEDER	10	405.15
FF50AUV	UV STERILIZER	15	378.91

Our Auto Fish Farm has been a great learning experience. The Pentair AES technical reps have been a readily available resource to help us with our Auto Fish Farm installation and operation. The trout we are raising in our basement are healthy and amazingly fast growing. The Auto Fish Farm is a balanced, easy-to-maintain system, and we are excited about adding another tank to our existing system.

Mike and Charlotte Henderson

FISH FARM™ II

The ultimate Fish Farm

Our Fish Farm™ II is a perfect system for producing up to 300 pounds of fish at one time. Avoid the usual high costs and problems associated with designing an untested system. It is perfectly suited for schools and individuals who wish to "get their feet wet" prior to going into the fish farming business.

The Fish Farm™ II features two 500-gallon polyethylene tanks with viewing windows and support stands, a complete filtration unit using a double-drain system to separate and remove solids and a moving bed bioreactor. An efficient compressor provides aeration and circulation. This eliminates electrical devices in the water for safety. With two tanks, it is possible to culture two species or two sizes of fish at the same time. Isolation valves allow separation of one or both of the tanks from the filter for cleaning or treatment. Maintenance requires as few as 15 minutes a day and 40 gallons of makeup/exchange water.

Assembly of the system is easy. Most components come preassembled, requiring only a screwdriver and less than 4 hours of labor. Flexible pipe joins the tanks to the filter. This allows some options for tank position to fit a variety of layouts. Complete instructions and a setup/operation video are included. Tanks are 70" D x 30" H. Weighs 620 lbs, ships via motor freight.

All accessories packages are available for various species, climate conditions and special applications. One-year warranty.

MODEL		EACH
FF400	FISH FARM II	\$6,345.65
ALR15	REPLACEMENT DIFFUSERS	13.50
PF2	REPLACEMENT FILTER MEDIA	29.00
SL88	REPLACEMENT AIR PUMP	508.99



HOLDING SYSTEM, 1,500-GALLON

Produce up to 700 pounds of fish at one time

You don't have to guess about equipment sizing or worry about losing fish with this system. We've designed and tested it to ensure that it is complete, easy to maintain and flexible; just supply water and a place for drainage! Our commercial system includes three 500-gal tanks, bead filter, biofilter, air and water pumps, UV sterilizer, sump, plumbing, feeders and mesh tank covers.

This system is great for quarantine or for holding fish for retail. Each tank has valves for adjusting its water level to full, half-full or empty. For example, you may want to lower a tank's level to half-full when treating diseased fish with medicine, halving the volume of water so that you only need half the medicine as a full tank. Because the plumbing is already in place underneath the tanks, you don't need to build it into your flooring.

Other features include a bottom center drain, baffle to help create a circular water flow inside the tanks and mesh netting to cover each tank. Each tank has

a vibratory feeder (holds 1.75 liters of up to 6-mm food), digital timer, controller and adapters. Set up to 24 feedings per 24 hours from 1-59 seconds each.

We use top-quality, reliable components for each commercial system. You get a Sweetwater® air pump (SL190), Bead Filter and Sweetwater Low-Space Bioreactor (handles 4-9 lbs feed/day). The bead filter has its own air pump for backwashing. You can bypass the UV sterilizer (120 W, puts out 30,000 µWs/cm²) for service. We recommend operating the supplied water pump at 30-45 gpm. System is 115V/60 Hz or 230V/50 Hz (for export) and requires a minimum space of 25' L x 8' W x 5.3' H. Call us to learn more about our commercial system or for a quote on a larger package.

MODEL		EACH
FHS	1500 GAL. HOLDING SYSTEM	\$13,654.74

Note: This system is built to order.



22 COMPLETE SYSTEMS

The Mini Fish Farm

THE MINI FISH FARM™ ✓ DESIGNED HERE

#1 in the classroom

The Mini Fish Farm™ is a complete fish raising system. It includes a quiet, oilless air pump, a state-of-the-art clarifier, a biological filter employing moving bed technology, a 5'4" Dia. x 35" H polyethylene tank that can be ordered with or without a viewing window, an operational manual and a video that gives step-by-step set-up instructions and maintenance procedures. The entire system contains only 400 gallons of water, making heating, water changes and overall size and weight minimal. All electrical components are UL-approved and power consumption is a mere 60 watts. That's under \$4 per month!

Maintenance takes less than ten minutes per day and only two 5-gallon pails of water need to be emptied and replaced. The entire system fits in a 6' x 8' area and can fit through a 36" door. Extremely safe, there is no electricity in the water, and the system is virtually leakproof. Ships Motor Freight. One-year warranty. Made in USA.

OPTIONAL STAND-ALONE AQUAPONICS KIT

Use this aquaponics kit with the Mini Fish Farm™ to utilize fish effluent as fertilizer, all while supplementing biofiltration with plant uptake. Eighteen lettuce, herb or other leafy plants are partially suspended in the recirculated water, providing optimal nutrient uptake and aeration of roots without the use of gravel or perlite. This unit is modeled after a commercial aquaponics unit that produces 45,000 heads of lettuce per day. It requires no additional power. Kit includes black ABS tray with removable top for root inspection and harvesting (measures 4' long x 2' wide x 6" deep), aluminum stand, 18 net pots (2") with growing cubes and all plumbing/fittings for hookup to the Mini Fish Farm™, plus a comprehensive hydroponics manual. Ships Ground. The Aquaponics Refill Kit (CK50R) includes net pots, growing cubes and cable ties.

OPTIONAL FLOATING AQUAPONICS KIT ✓ DESIGNED HERE

Use this aquaponics kit with the Mini Fish Farm™. It consists of a unique aquaponics tray that allows the growth of lettuce, herbs, flowers and other crops in the same tank as the fish. This interaction between animals and plants provides the opportunity to study and observe a more natural eco-system. The tray is designed to float within the tank, covering one half of the water's surface. It is capable of growing up to 24" plants. Special screening protects plant roots from foraging fish and the design provides proper tray height above the water. Kit includes two heavy-duty ABS plastic trays, screening, twenty-four 2" net pots, twenty-four 3 1/4" net pots, zip ties, twenty-four Rockwool cubes and complete instructions. Ships Oversize. Made in the USA. The Aquaponics Refill Kit (CK50R) includes net pots, growing cubes and cable ties.

OPTIONAL TANK WINDOW KITS

The **FF50W-KIT** is 1' x 2' polycarbonate window kit with an actual viewing area of 9 3/4" x 21 3/4", and the **FW22-KIT** is 2' x 2' with a viewing area of 21 3/4" x 21 3/4". Order extra windows and we will automatically install them in your Mini Fish Farm™.

MODEL		SHIP WT (LBS)	EACH
THE MINI FISH FARM			
FF50-3	MINI FISH FARM (NO VIEWING WINDOW)	230	\$2772.43
FF50-3W1	MINI FISH FARM W/1' X 2' VIEWING WINDOW	230	2929.25
FF50-3W2	MINI FISH FARM W/2' X 2' VIEWING WINDOW	230	2977.70

OPTIONAL AQUAPONICS KITS

FF50HT	STAND ALONE AQUAPONICS KIT	60	698.58
CK50	FLOATING AQUAPONICS KIT	30	181.32
CK50R	AQUAPONICS REFILL KIT	0.5	23.46

OPTIONAL TANK WINDOW KITS

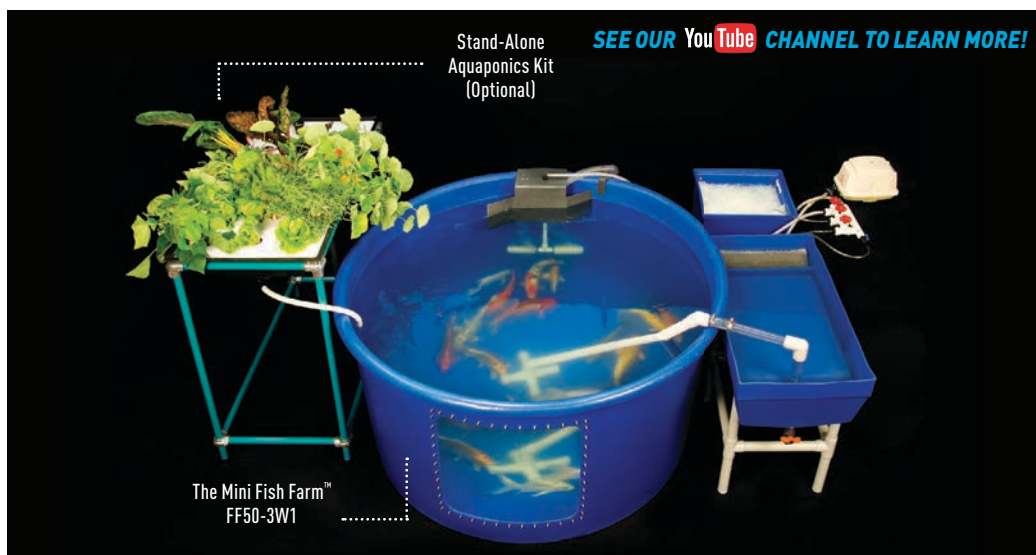
FF50W-KIT NEW	1' X 2' WINDOW KIT	2.5	109.00
FW22-KIT NEW	2' X 2' WINDOW KIT	2.5	149.00

REPLACEMENT COMPONENTS

SL88	115V 60HZ LINEAR PISTON AIR PUMP	23.5	508.99
ALR15	6" MEDIUM PORE DIFFUSER	1	13.50
ZPF2	FILTER PAD (4 1/2" X 18")	0.35	8.09



Optional Floating Aquaponics Kit



Mini Fish Farm with
Optional Stand-Alone
Aquaponics Kit

The Mini Fish Farm™
FF50-3W1

QUARANTINE AND HOLDING SYSTEMS

New, thicker gel coat and stronger than ever

A complete tank and filter system that can be used for a multitude of applications. Use it for holding sick fish, for retailing koi and goldfish in a pond shop, etc.—the applications are endless. Each system includes an imported fiberglass tank, a top-mounting filter with multiple filtration chambers and a UL-listed submersible pump. The top filter chamber includes brushes and filter pads for removing debris and two biological chambers filled with ceramic biorings for high surface area. The chambers can also be filled with carbon or other chemical media. Tanks are nestable and ship via motor freight. Air pumps sold separately.



HS81A

MODEL		EACH	4+
HS81A	HOLDING SYSTEM, 81 GAL	\$638.40	—
HS122A	HOLDING SYSTEM, 122 GAL	769.23	—
HS235A	HOLDING SYSTEM, 235 GAL	1,275.38	—
HS523A	HOLDING SYSTEM, 523 GAL	2,050.33	—
PF2	REPLACEMENT PARTICULATE FILTER	29.00	26.69
AZ16027	REPLACEMENT BIO-FILTER, 24"	7.70	7.25

Crating charges not included in price.



TECHNICIAN PROFILE

Marco G. Pistrin

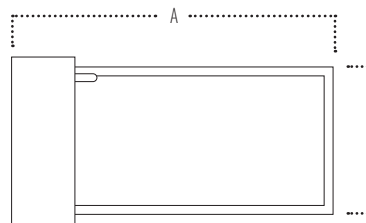
Marco holds a bachelor's degree in agricultural science from the University of British Columbia, Canada, and a master's degree in aquaculture from Wageningen University, The Netherlands. His graduate work focused primarily on intensive RAS technology, membrane and periphyton filtration, with direct application to salmonid, cichlid, cyprinid and clariid aquaculture. He is also a Registered Professional Biologist and a Project Management Professional with a strong environmental consultancy and OH&S background.



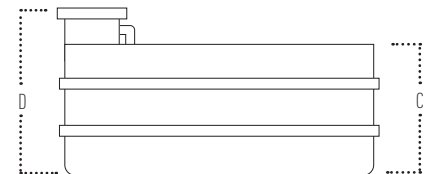
IN

Overhead view of top filter chamber.

OUT



Top View



Side View

	A	B	C	D
HS81A	48"	30"	15"	21"
HS122A	60"	30"	18"	33"

	A	B	C	D
HS235A	72"	36"	24"	33"
HS523A	96"	48"	30"	36"

BACKYARD AQUAPONICS SYSTEM

The perfect aquaponics system for everyone from the advancing hobbyist to the beginning commercial grower. We have successfully grown over one hundred varieties of produce in this system throughout our initial testing period and it has proven itself to be robust and problem-free.

The kit includes all major components needed to construct the aquaponics system as shown*. System uses 747 total watts (\$53.78/mo @ \$0.10/kWh). Provides 1,176 planting sites on 6" centers, and 864 planting sites on 8" centers. System size can be even be doubled to better suit your needs.

System includes:

- 4 x 830-gal fish culture tanks.
- Complete filtration system.
- All major plumbing.
- Aeration equipment.
- Energy-efficient centrifugal water pump.
- Enough liner to build four 24' x 4' x 12" growing troughs.

Visit [YouTube.com/AquaticEcoTV](https://www.youtube.com/AquaticEcoTV) and see the system in action.

*Excluding wood boards and brackets used to build the plant troughs and polystyrene rafts (found at your local hardware store). Net cup and media choices will depend on the customer and are also not included.

CALL FOR MORE INFORMATION AND PRICING.



SEE OUR [YouTube](https://www.youtube.com/AquaticEcoTV) CHANNEL TO LEARN MORE!



You can grow a variety of produce at one time in the grow beds.



Water is filtered before being delivered to grow beds.



Nutrients for the system are provided by fish in these tanks.