

COMPLETE SYSTEMS PRODUCTS

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◀ 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. 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 | \$4,308.00 |
| FF50ACP | PULSE AUTO CONTROL PANEL | 5 | 556.69 |
| FF50AB3 | BIOREACTOR | 75 | 1,301.00 |
| FF50AF | PRECISION AUTOFEEDER | 10 | 405.19 |
| FF50AUV | UV STERILIZER | 15 | 397.89 |

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

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Fish Farm II / Holding System

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 | \$6,663.00 |
| ALR15 | REPLACEMENT DIFFUSERS | 14.19 |
| PF2 | REPLACEMENT FILTER MEDIA | 30.49 |
| SL88 | REPLACEMENT AIR PUMP | 534.39 |



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 | \$14,408.00 |

Note: This system is built to order.



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 5¼" 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.

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 3¼" net pots, zip ties, twenty-four Rockwool cubes and complete instructions. Ships Oversize. The Aquaponics Refill Kit (CK50R) includes net pots, growing cubes and cable ties.

REPLACEMENT TANK WINDOW KITS

The **FF50W-KIT** is 1' x 2' polycarbonate window kit with an actual viewing area of 9¾" x 21¾", and the **FW22-KIT** is 2' x 2' with a viewing area of 21¾" x 21¾".

| MODEL | | SHIP WT (LBS) | EACH |
|---------------------------|---------------------------------|---------------|-------------------|
| THE MINI FISH FARM | | | |
| FF50-3 | MINI FISH FARM (NO WINDOW) | 230 | \$2,911.00 |
| FF50-3W1 | MINI FISH FARM W/1' X 2' WINDOW | 230 | 3,076.00 |
| FF50-3W2 | MINI FISH FARM W/2' X 2' WINDOW | 230 | 3,127.00 |

OPTIONAL AQUAPONICS KITS

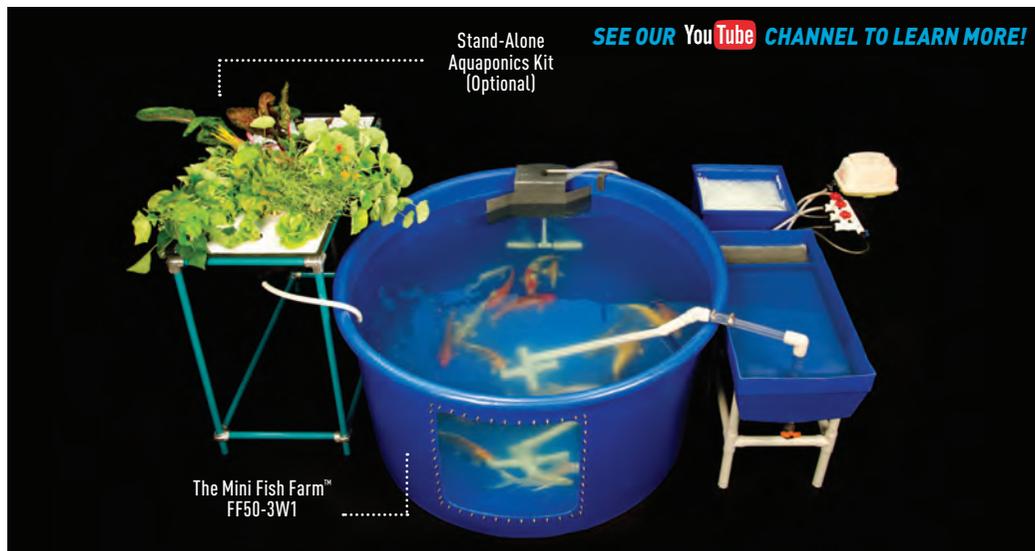
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|---------------|----------------------------|-----|---------------|
| FF50HT | STAND ALONE AQUAPONICS KIT | 60 | 698.59 |
| CK50 | FLOATING AQUAPONICS KIT | 30 | 190.39 |
| CK50R | AQUAPONICS REFILL KIT | 0.5 | 23.49 |

REPLACEMENT COMPONENTS

| | | | |
|------------------|----------------------------------|------|---------------|
| SL88 | 115V 60HZ LINEAR PISTON AIR PUMP | 23.5 | 534.39 |
| FF50W-KIT | 1' X 2' WINDOW KIT | 2.5 | 114.49 |
| FW22-KIT | 2' X 2' WINDOW KIT | 2.5 | 156.49 |
| ALR15 | 6" MEDIUM PORE DIFFUSER | 1 | 14.19 |
| ZPF2 | FILTER PAD (4½" X 18") | 0.35 | 8.49 |



Optional Floating Aquaponics Kit



Mini Fish Farm with Optional Stand-Alone Aquaponics Kit

The Mini Fish Farm™ FF50-3W1

Stand-Alone Aquaponics Kit (Optional)

SEE OUR YouTube CHANNEL TO LEARN MORE!

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Aquaponics System

AQUAPONICS SYSTEM 800 ✓ DESIGNED HERE NEW!

The Pentair Aquaponics System 800 utilizes an integrated design to deliver a controlled and balanced growing environment for both fish and plants. This system* features a mix of state-of-the-art equipment and a full complement of Sweetwater® filtration and aeration equipment for an efficient, reliable and user-friendly package.

Two 400 gallon polyethylene tanks can support a maximum of 375 pounds of fish biomass at one time in the system and provide nutrients to at least 60 plants. This is a robust fish and plant production capacity within a small footprint of 10' x 17'. It is possible due to the use of a newly designed bead filtration skid system and a Sweetwater Low-Space Bioreactor to maintain optimal water quality. The bead filtration system features a pump, filter, UV sterilizer, valves and rugged Schedule 80 PVC plumbing. All specialty components and equipment are included, except standard PVC pipe (available from your local hardware store.) The filtration/pumping system ships pre-plumbed on its own pallet. To finalize assembly, follow the detailed instruction manual to connect the filtration system to all other components including tanks, using your locally-sourced PVC pipe.

With an expected feed conversion ratio of 1.5 and greater than 90% survival for fish and plants the producer could achieve 750 pounds of fish production and 650 units of leafy greens annually. That equates to 1,000 fish fillets each year for a small household!

Bead Filtration System

- Taurus™ 110 Energy Efficient Aquaculture-Duty Centrifugal Pump
- Sweetwater Bead Filter for removal of solids
- SMART UV® Sterilizer inactivates potentially-harmful micro-organisms such as bacteria and algae
- Rugged Schedule 80 PVC plumbing and true union Asahi valves
- Bypass lines to facilitate filter or lamp replacement

Sweetwater Low-Space Bioreactor

- Fully automatic, self-adjusting and continuously self-cleaning. Utilizes moving bed bioreactor technology to control ammonia and nitrite.

Plant Trays

- Two 36-inch x 36-inch plant trays supported by a powdered coated stainless steel stand

Aeration

- Sweetwater Air Diffusers provides supplemental oxygen to the fish tanks, grow trays and low-space bioreactor
- Sweetwater Linear Diaphragm Pump powers the air diffusers and airlifts

Tanks

- Circular tanks result in concentrated solids exiting through a center drain to filtration
- External standpipes set tank water level and eliminate unnecessary plumbing from remaining in fish tank

Visit PentairAES.com to check out the shopping list of items you should consider to manage and operate the system.

| MODEL | | EACH |
|--------|-----------------------|--------------|
| 440096 | AQUAPONICS SYSTEM 800 | \$ 13,900.00 |



◀ 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 bio-rings 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 | \$670.29 | — |
| HS122A | HOLDING SYSTEM, 122 GAL | 807.69 | — |
| HS235A | HOLDING SYSTEM, 235 GAL | 1339.00 | — |
| HS523A | HOLDING SYSTEM, 523 GAL | 2153.00 | — |
| PF2 | REPLACEMENT PARTICULATE FILTER | 30.49 | 27.44 |
| AZ16027 | REPLACEMENT BIO-FILTER, 24" | 8.09 | 7.28 |

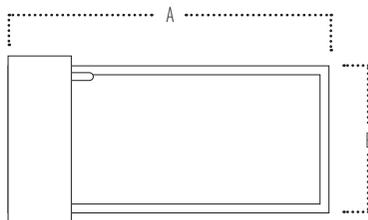
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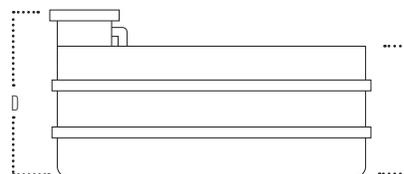
IN

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" |