

Tunnel Aquarium

A tunnel aquarium is an aquatic exhibit with a visitor passage beneath or through a water-filled display, using engineered viewing panels and supporting structures.

Design information to provide

- Tunnel shape and clear viewing dimensions
- Operating water depth and species
- Structural drawings and building loads
- Visitor route and emergency access
- Delivery route, lifting and assembly

Selection limits

Acrylic thickness, joints and supports require project-specific structural engineering; tunnel length alone cannot establish a safe design.

Installation and access

Agree foundations, supports, waterproofing, lifting and building access before fabrication. The quotation identifies engineering approvals, testing and commissioning responsibilities.

Maintenance planning

Use approved acrylic cleaning methods. Inspect joints and accessible supports, and request an assessment of scratches, leakage or damage before attempting repairs.

Supply and project terms

Equipment carries a one-year warranty. Equipment dispatch is within 15 working days after order confirmation; transport time is additional. The quotation defines coverage, included components and delivery responsibilities. Custom design, installation and commissioning follow a separately agreed project schedule.

This guide is a selection checklist, not a rated model datasheet. Confirm the final specifications, materials, utilities and approved drawing before placing an order.

<https://pureflowbio.com/tunnel-aquarium-publicaquarium-aquariumtunnel/>

Aquarium Design and Theming

Aquarium design and theming is the planning of an aquatic exhibit, including its viewing layout, habitat structures, equipment interfaces and operator access.

Design information to provide

- Display dimensions and viewing concept
- Species, salinity and water temperature
- Habitat structures and material compatibility
- Lighting, circulation and life support
- Maintenance access and structural constraints

Selection limits

Decoration must suit the species and water environment. It must also allow circulation, cleaning and inspection rather than conceal inaccessible equipment.

Installation and access

Approve the layout, structural interfaces, materials and service access before site work. Confirm which team supplies the tank, supports, lighting, treatment and theming.

Maintenance planning

Inspect habitat structures and fixings during routine servicing. Use material-compatible cleaning methods and keep drains, circulation paths and service covers accessible.

Supply and project terms

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<https://pureflowbio.com/aquarium-design-theming/>

Custom Acrylic Aquarium Tanks

Custom acrylic aquarium tanks are fabricated viewing vessels whose panel geometry, joints, supports and water-treatment connections are designed for a particular exhibit.

Design information to provide

- Internal dimensions, shape and water depth
- Acrylic grade, optical requirements and thickness
- Bonding details and engineered supports
- Freshwater or marine environment
- Drain, overflow and filtration interfaces
- Delivery route and installation access

Selection limits

There is no universal acrylic thickness or maximum tank size on this page. The full water load, material documentation and structural design need approval for each project.

Installation and access

Verify floor loading, support tolerances, delivery routes and lifting arrangements. Agree tank assembly, structural review, testing and life support connection responsibilities.

Maintenance planning

Follow the supplied acrylic cleaning instructions. Avoid unapproved abrasives or solvents; ask for an assessment before polishing scratches or repairing joints.

Supply and project terms

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<https://pureflowbio.com/custom-acrylic-aquarium-tanks/>

Koi and Ornamental Pond Filtration

A pond filtration system uses separate treatment stages to remove suspended solids, support biological conversion and manage circulation and water quality.

Design information to provide

- Pond working volume and water depth
- Fish load and daily feed
- Design flow and available pump head
- Water-quality concerns and treatment targets
- Filter location, water levels and waste drainage

Selection limits

Pond volume is only one design input. Feed, fish load, water conditions and the actual pump duty determine the treatment review.

Installation and access

Coordinate pond outlets, filter operating levels, pump head and waste drainage. Leave room to remove screens, media and service covers.

Maintenance planning

Check screens, backwash operation and pump strainers. Monitor water quality and maintain biological media according to the agreed operating procedure.

Supply and project terms

Equipment carries a one-year warranty. Equipment dispatch is within 15 working days after order confirmation; transport time is additional. The quotation defines coverage, included components and delivery responsibilities. Custom design, installation and commissioning follow a separately agreed project schedule.

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<https://pureflowbio.com/koi-ornamental-ponds/>

Fish Farm and Hatchery Systems

A fish farm or hatchery system coordinates tanks, water treatment, utilities and operating controls around the production process and animal requirements.

Design information to provide

- Species and production stages
- Daily feed and peak biomass
- Water source, salinity and temperature
- Working volume and recirculation flow
- Oxygen demand, utilities and backup plan
- Plant-room layout and expansion needs

Selection limits

A listed equipment flow is not a farm production capacity. Biomass, daily feed, water quality, oxygen demand and redundancy require a separate system design.

Installation and access

Agree the process layout, civil works, utility capacities, backup arrangements and commissioning responsibilities. Establish the startup procedure before stocking.

Maintenance planning

Maintain treatment stages and monitoring instruments to the operating plan. Keep records of feed, water quality, alarms and service work.

Supply and project terms

Equipment carries a one-year warranty. Equipment dispatch is within 15 working days after order confirmation; transport time is additional. The quotation defines coverage, included components and delivery responsibilities. Custom design, installation and commissioning follow a separately agreed project schedule.

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<https://pureflowbio.com/fish-farms-hatcheries/>

Aquarium and Oceanarium Systems

An aquarium or oceanarium system combines the display vessel, life support equipment, circulation, utilities and monitoring needed for the agreed aquatic exhibit.

Design information to provide

- Exhibit concept, species and viewing requirements
- Tank dimensions and operating water depth
- Freshwater or marine conditions
- Life support duties and redundancy
- Building loads, access and plant-room layout
- Operator training and commissioning scope

Selection limits

Display volume does not establish animal carrying capacity. Treatment duty, species needs, water chemistry, operating practices and backup arrangements need joint review.

Installation and access

Coordinate structural supports, delivery routes, plant-room utilities and treatment connections. The project agreement defines civil works, installation and commissioning.

Maintenance planning

Inspect display surfaces and maintain each treatment component to its instructions. Review water-quality records and test the agreed alarm and backup arrangements.

Supply and project terms

Equipment carries a one-year warranty. Equipment dispatch is within 15 working days after order confirmation; transport time is additional. The quotation defines coverage, included components and delivery responsibilities. Custom design, installation and commissioning follow a separately agreed project schedule.

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<https://pureflowbio.com/aquariums-oceanariums/>

Media Filter Skids

A media filter skid is an assembled treatment arrangement built around the specified filtration media and hydraulic duty.

Design information to provide

- Design flow and available pressure
- Feed-water solids and treatment objective
- Media type and bed arrangement
- Backwash flow and waste route
- Electrical supply, controls and footprint

Selection limits

The supplied photographs show arrangement examples, not rated model datasheets. The selected media and vessel must be confirmed; no removal rating is inferred from the skid image.

Installation and access

Confirm the vessel and pipework ratings, pump duty and backwash discharge. The approved drawing defines equipment included on the skid.

Maintenance planning

Monitor the agreed pressure differential and cleaning triggers. Isolate and depressurize before servicing components.

Supply and project terms

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<https://pureflowbio.com/aquaculture-equipment-aquarium/media-filter-skids/>

Pressurized Mechanical Filters

A pressurized mechanical filter removes suspended material using a specified filter element or medium inside a vessel operating under pressure.

Design information to provide

- Operating flow and solids characteristics
- Required filtration opening or medium
- Maximum operating pressure and temperature
- Water chemistry and wetted materials
- Backwash or cleaning method and discharge

Selection limits

The vessel image does not establish its maximum working pressure, micron rating or flow capacity. Obtain the selected vessel and medium specifications before ordering.

Installation and access

Confirm vessel design documentation, rated pressure, supports and protective provisions. Do not operate an unverified vessel above its approved limits.

Maintenance planning

Isolate, drain and fully depressurize before opening. Inspect the filter medium, seals and instruments using the supplied maintenance procedure.

Supply and project terms

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<https://pureflowbio.com/aquaculture-equipment-aquarium/pressurized-mechanical-filters/>

Oxygen Contact Systems

An oxygen contact system brings oxygen gas into contact with water through the specified transfer arrangement, supported by flow control and dissolved-oxygen monitoring.

Design information to provide

- Peak oxygen demand and target dissolved oxygen
- Water flow, temperature and inlet dissolved oxygen
- Gas purity, supply pressure and available capacity
- Contact device and allowable water pressure
- Monitoring, interlocks and backup supply

Selection limits

An oxygen generator supplies gas; it does not itself establish the dissolved-oxygen transfer duty. Confirm the contact device and measured operating conditions separately.

Installation and access

Use compatible oxygen-service components and follow the approved gas and pressure-system instructions. The quotation defines the supply skid, contact device and control boundaries.

Maintenance planning

Inspect gas connections, valves and instrumentation. Confirm stable water flow and maintain the dissolved-oxygen sensors to their instructions.

Supply and project terms

Equipment carries a one-year warranty. Equipment dispatch is within 15 working days after order confirmation; transport time is additional. The quotation defines coverage, included components and delivery responsibilities. Custom design, installation and commissioning follow a separately agreed project schedule.

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<https://pureflowbio.com/aquaculture-equipment-aquarium/oxygen-contact-systems/>

Aquaculture Pumps

An aquaculture pump circulates water through tanks, pipework and treatment equipment at a duty defined by its pump curve and the installed system.

Design information to provide

- Required flow at the duty point
- Static lift and pipework or equipment losses
- Water type, temperature and solids
- Voltage, phase and frequency
- Suction arrangement and available space
- Backup duty and maintenance access

Selection limits

A maximum flow value cannot be used as the flow at every head. The selected pump curve, efficiency, materials and electrical data must be confirmed for the operating point.

Installation and access

Follow the pump instructions for suction pipework, priming and electrical protection. Verify the available suction conditions and avoid operation outside the approved curve.

Maintenance planning

Isolate power and water before servicing. Clean strainers, check seals and record unusual noise, vibration or current changes.

Supply and project terms

Equipment carries a one-year warranty. Equipment dispatch is within 15 working days after order confirmation; transport time is additional. The quotation defines coverage, included components and delivery responsibilities. Custom design, installation and commissioning follow a separately agreed project schedule.

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<https://pureflowbio.com/aquaculture-equipment-aquarium/aquaculture-pumps/>