



SeaStation

Fish Pens for Open Ocean Aquaculture



OceanSpar provides highly engineered products and services to the marine and freshwater aquaculture industries. We take a systems approach to aquaculture infrastructure, delivering solutions that integrate fish pen systems with feeding, harvesting, and maintenance equipment. Our innovative fish pen designs and extensive engineering experience allow us to offer a variety of standard and custom solutions to fit your aquaculture needs in any off-shore, near-shore or freshwater environment.

SeaStation Benefits

- Strength and durability for deep water and/or high current sites
- Easy integration with feeding, harvesting and cleaning equipment
- Longer fish pen and net life for lower total cost of ownership
- Stable volume (taut netting) for better fish health and lower operating costs
- Submersible for better site aesthetics and low surface energy impact

The Challenge

For aquaculture companies operating in an open ocean environment, assembling a cost-effective yet robust grow-out infrastructure is an important step to success. Off-shore, exposed environments demand deep water capabilities, survivability in extreme storm events, and efficient feeding, harvesting and maintenance operations.

Why SeaStation

OceanSpar's SeaStation line of off-shore fish pen solutions is the only technology proven capable of handling the demands of off-shore aquaculture operations. We have the engineering expertise and experience to help you design a secure, efficient and successful grow-out operation. Our SeaStation fish pen systems are customized to the unique site and species characteristics of your business and many of our dozens of SeaStation installations worldwide have been in continuous operation for over eight years, greatly reducing long-term operating costs. SeaStation fish pens are the secure, economical solution for open ocean aquaculture.



OceanSpar Solutions & Services

SeaStation

Pens for Open Ocean Aquaculture

For Sites With:

- Deeper Water (over 25 meters)
- Moderate Capacity (600 to 6,000 m³)
- Moderate to High Current
- Extreme Storm Events
- Large or Unlimited Fetch

AquaSpar

Pens for Marine & Freshwater Aquaculture

For Sites With:

- Moderate Depth (15-30 meters)
- Large Capacity (5,000 to 40,000 m³)
- Moderate to High Current
- Large Jump Space Requirements
- Moderate Fetch

Aquaculture Engineering Services

- Site Assessments
- Fish Pen Grid Systems
- Operations Integration
(Feeding, Harvesting, Cleaning)
- Telemetry Integration
(Environment, Video, Physiology)
- Fish Barrier Nets
- Multi-Function Buoy Systems
- Proprietary Finite Element Analysis (FEA)
for Modeling Ocean Systems

Other Engineering Services

- Marine Security Barriers
- Linear Mooring
- Anchoring Systems

SeaStation Features

Class III Semi-Rigid Fish Pen

Design

- Operates fully submerged or floating
- Durable for excellent heavy weather performance (survived Cat 4 hurricane)
- Taut netting and rigid structure enables stable volume and towing
- Proven track record (10+ years, 30+ installations)
- Integrated nursery nets and maintenance equipment

Fish Health & Security

- Stable volume reduces fish stress
- Adaptable for automated mort removal
- Taut netting and electric shark repellent reduce predation
- Rapid water exchange for environmental safety
- Ability to avoid red tide and eutrophication

Site & Species Adaptability

- Supports polyculture grow-out
- Tailored models for flatfish or roundfish (benthic version possible)
- Sub thermocline model with controlled ascent to manage decompression
- Available in a wide variety of mesh sizes and strengths
- Anchoring options include grid system, single and multi-point mooring

Stocking, Feeding & Harvesting Operations

- Central spar simplifies stocking and feeding
- Adaptable to many different harvest techniques
- Ability to surface 50% of pen volume for harvesting
- Ability to collapse volume for easier harvesting
- Integrated nursery nets

Cleaning & Maintenance Operations

- Ability to surface 50% of pen volume for cleaning
- Ability to flip pen for 100% surface cleaning (reduced dive time)
- Taut netting for ease of cleaning and use of automated cleaners
- Durable construction for lower maintenance costs
- Adaptable for automated mort removal

About OceanSpar

OceanSpar provides highly engineered products and services to the marine and freshwater aquaculture industries. Our patented fish pen solutions and engineering services help aquaculture companies create secure fish containment systems, customized to specific site characteristics and operating needs. As your marine and freshwater aquaculture partner, OceanSpar offers solutions across a broad range of farm sites, fish species and environmental requirements.

OceanSpar LLC

755 Winslow Way East, Suite 300
Bainbridge Island, WA 98110 USA
(206) 319 3685
info@OceanSpar.com
www.OceanSpar.com