

APPLICATION

Land-based fish farming

Biosecurity measures are key factors in land-based fish farming in order to prevent the spread of pathogenic bacteria, fungi and viruses at both intake water and effluent water. Pathogens can create enormous problems in land-based fish farms, decimate fish stocks and decrease economic value. Disinfection is vital to secure good water quality and can be accomplished by a number of methods, including filtration, ozonation, chemical application, mechanical separation, chlorination, heat treatment, and ultraviolet (UV) radiation. UV radiation inactivates pathogens by damaging their DNA, a process called dimerization.

Disinfection by means of UV radiation is ideally suited for treating incoming and recirculated water in land-based fish farms and hatcheries as it uses no chemicals and does not create by-products which would harm the fish stock, or other aquatic life, on discharge. Another advantage is that the pH level is not altered by the UV radiation.

In order for the UV sterilizer to work effectively, the water passing through the UV sterilizer must be mechanically filtered to remove larger aquatic animals and debris. The Bernoulli Filter is an excellent pre-filter before the UV sterilizer, achieving filtration down to 100 micron.

