

**Design and Performance of a Laboratory Scale Closed Seawater  
Recirculating System for Korean Rockfish *Sebastes schlegeli* Culture  
Part 1. Design of the Closed Seawater Recirculating System**

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Recirculating aquaculture systems consist of different treatment compartments that maintain water quality within the ranges of commonly recommended for fish culture. This paper presents the common considerations in designing different treatment compartments as well as the engineering criteria in designing closed recirculating aquaculture system including a circular tank for fish culture, a sedimentation basin and a foam fractionator for solids removal, two styrofoam bead filters for TAN removal, a sand filter for nitrate removal, and aerators. The main purpose is to outline a common procedure in designing of closed recirculating aquaculture system for marine fish culture.

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