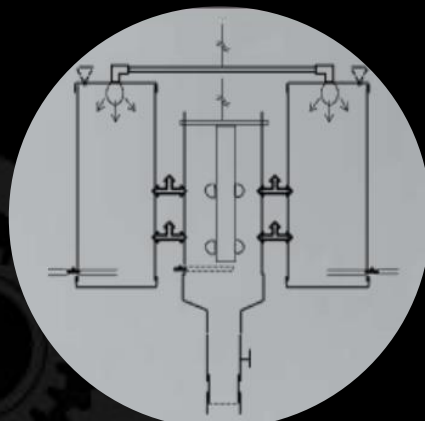


# TECH BRIEF

## All in One Artemia Hatching Unit



**Technical Problem:** Unavailability of an Artemia hatching model which facilitates hatching, harvesting and refining processes as a single unit. The solution is “All in One” (hatching, harvesting and refining) unit for Artemia hatching.

**Inventiveness:** This invention intends to develop an Artemia hatching unit with “All in One” concept to hatching and harvest Artemia. This supports all the biological activities in between inactive Artemia cysts to hatched Artemia nauplii within the hatching unit. The presently available hatching systems need separate space for incubation, harvesting and refining. The total invention consists of three main parts, hatching chambers, self-extraction chamber and refining unit. Crafting is accomplished by using water proof PVC plumbing items. Hatching chambers are cylindrical shaped compartments to provide space for the hatching of Artemia cysts. Self-extraction chamber serves as the automated harvesting unit while refining unit serves as the retaining and easier removal of Artemia as well.

**Market Applications:** Can be used as a tool for Artemia hatching in household, government and private institutes of fish breeding and larval rearing.

**Value Propositions:** Amongst the live feeds used in aquaculture Artemia (brine shrimp) is one of the best live feed available in the market due to convenient in use, long time storage ability, high nutritional value, ability of enrichment etc. Even though a simple technique is used for the brine shrimp hatching process, separation of nauplii from unhatched eggs and shell debris has been a time consuming event. Further ingestion of these contaminants may result many adverse effect to the fish and shrimp larvae resulting the mass mortality when feeding brine shrimp which are not properly harvested.

In the local context most of the aquaculture farms use conventional and time consuming technique to collect Artemia nauplii leaving significant risk to the hatched larvae. In the global context several techniques have been developed for effective Artemia hatching process, yet a proper harvesting method has not been developed. Therefore, developing an effective harvesting method/model for Artemia nauplii would be a timely important one to address the limitations of different Artemia harvesting models which had earlier developed.