

# HYDROCOFFEE

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## Civitavecchia Fish Farm, Civitavecchia, Rome, Italy

This case study describes an application on a fish farm in Civitavecchia, near Rome. The main purpose of the application was to replace the UV treatment used to control Bacterial and Viral infections in the fish with treatment by Aquaklear. The Farm operates on sea water.



Figure 1: Civitavecchia Fish Farm

All of the incoming water on Route 1 was treated by a high power UV unit. Several other UV treatment devices were installed around the plant.

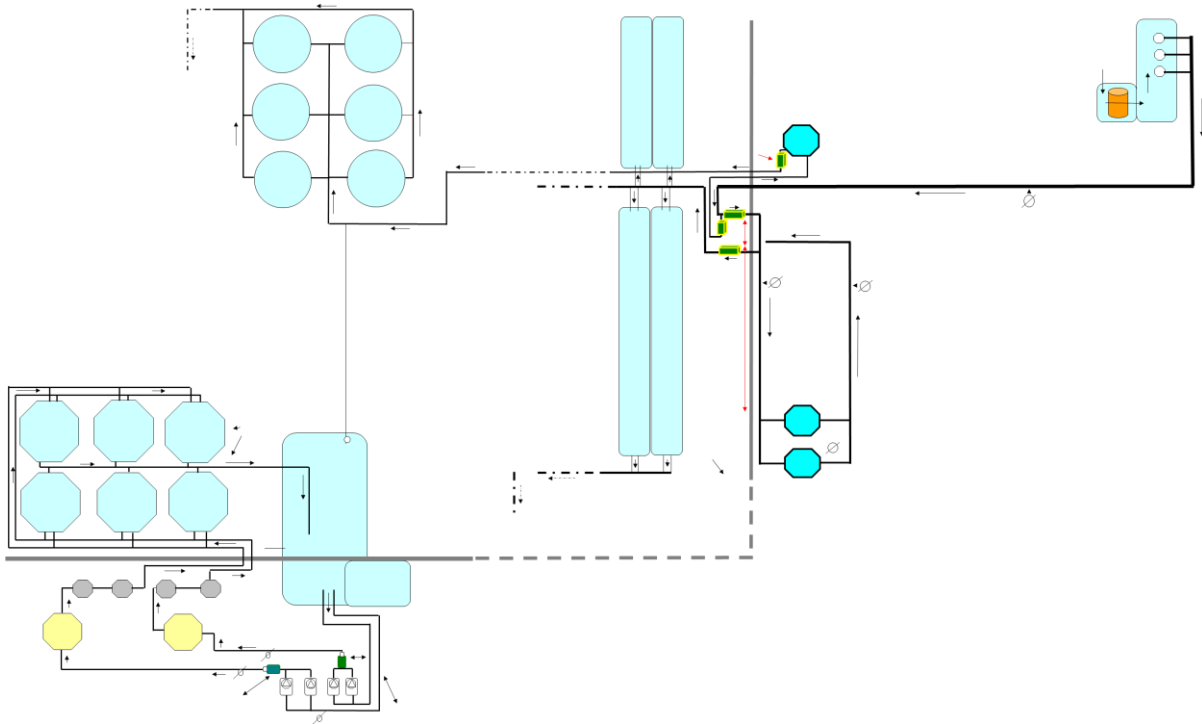


Figure 2: Diagram showing the location of some of the units

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Figure 3: Installed Agriflow units

The farm had the option of purchasing further UV equipment but chose Agriflow instead due to its lower running costs. The installation proceeded in two phases.

## Phase 1: Hatchery and Breeding Pools

The Hatchery was on a closed circuit loop which consisted of the six large hatchery tanks, two filters, two pump sets and storage tanks. The circuit was treated by four UV units. In Phase 1, this treatment was replaced by two Agriflow A60 units, placed before the filters.

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Figure 4: The Pump set feeding the hatchery, with an Agriflow A60 installed (left), and the breeding tanks (right)

The farm had six breeding tanks on an open circuit. Two Agriflow A100 units were installed, one before the filter and one after. The unit before the filter flocculated any particles to help the filter remove them, and the unit after the filter killed any microbes that had built up in the tank.

After a few months, the farm was satisfied with the results and moved to phase two.

## Phase 2: Main Hall



Figure 5: Tanks in the main hall

In order to treat all of the water incoming to the large main hall, two large sand filters were added in place. The large volume of water required very large pipe sizes (DN 300mm), and so the water was treated by two Custom Agriflow A300 units that were placed one on the entrance and one on the exit of these filters, in order to flocculate material and to kill bacteria.

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## Results

The UV treatment was turned off. It has now been two and a half years since the systems were installed and there has been a marked improvement in the health of the fish and no further problems with bacteria (or virus) infections. There has been an increase in the growth of the Avantorri fish and better results have been obtained than UV treatment.

Hydrocoffee has treated fish farms in Civitavecchia (Rome) and Rosignano Solvay (Livorno).