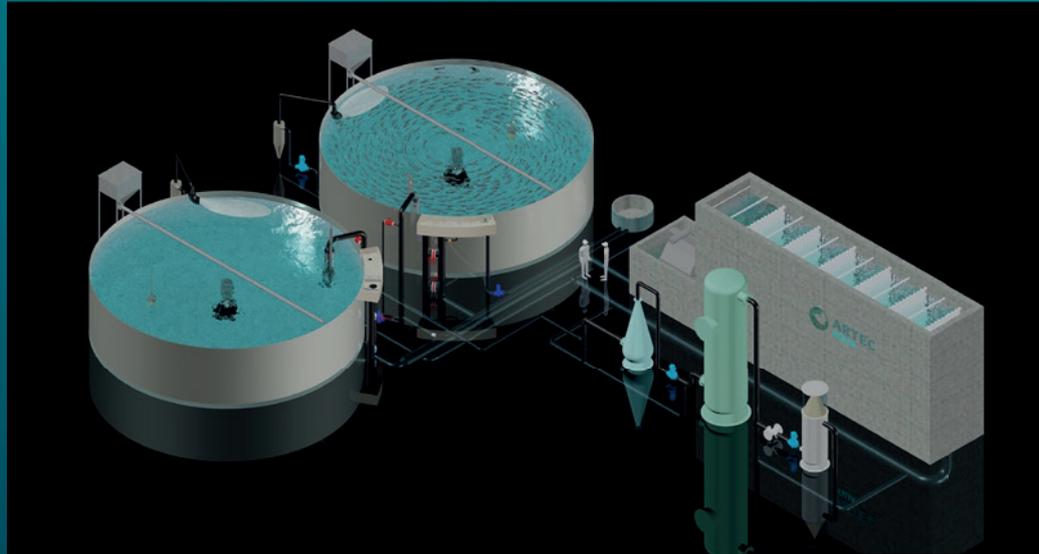


Recirculating – RAS systems

New recirculation concept – tested and well-documented



RECIRCULATION CONCEPT

Artec Aqua AS has developed a recirculation concept for the Norwegian market. The Norwegian Institute for Water Research (NIVA) has carried out tests of water quality and fish health, and the University of Nordland (UiN) has carried out stress measurements. The report from NIVA and UiN shows that the concept gives good water quality and recorded stress levels among the lowest measured in onshore fish farming.

BENEFITS:

- A breakthrough for well-functioning and documented recirculating systems
- Our water treatment solutions are mostly based on part-stream technology
- No need to pump large volumes of water through the system
- Saves investment and operating costs compared with other recirculation concepts
- The biofilter, which is at the core of the recirculating system, is an Artec Aqua concept, primarily used in the Moving Bed Biofilm Reactor

Recirculating aquaculture systems (RAS)

SIMPLER CONVERSION FROM FLOW-THROUGH SYSTEMS

With part-stream technology, facilities wanting to switch from flow-through to recirculating systems can utilise existing distribution systems. Conversion to this concept requires considerably less investment compared with the alternative. An additional bonus is the energy-saving effect.



R&D Manager Victor Fiveland: Artec Aqua AS

R&D MANAGER VIKTOR FIVELAND:

'The report shows some fantastic results, almost better than expected. In this case, our concept has been proven. Products and processes can always be improved, however, and we will continue to focus on possible improvements and further development.'

RESEARCHER OLE-KRISTIAN HESS-ERGA, the Norwegian Institute for Water Research (NIVA)

'Artec Aqua has done a thorough job of documenting its concept. The tests show good results, and the recirculation concept can be used in commercial smolt production under the same terms as a conventional flow-through system.'

OPERATIONS MANAGER EINAR JAKOBSEN, MAINSTREAM NORWAY, LEINES BRANCH.

'It has been easy and straightforward to operate the recirculation section during the project. It has been as simple as operating the conventional flow-through tanks, which have served as references.'

The conclusions of the ReCirk Pilot project are presented on our website. Artec Aqua's recirculating system is compared with a conventional flow-through system.

You can read an excerpt from the report here: <http://www.artec-aqua.com>

THE REPORT ADDRESSES THE FOLLOWING, among other things:

- ReCirk Pilot
- Water quality in general
- Microbial characterisation
- Particle characterisation
- Blood parameters
- Metals
- Stress mapping
- Production data



Inspection during the test, with representatives of Mainstream Norway, the University College of Narvik (HiN), NIVA and Artec Aqua.