

BUILDING

# Cost-effective fish farming systems

IS OUR BUSINESS



[aquatec-solutions.com](http://aquatec-solutions.com)





## Aquatec-Solutions supplies Optimized and Environmental sound fish farming systems for both salt and fresh water fish



### Our goals

To be the preferred sparring partner and supplier to the fish-farming industry.

Total supplier from components to full scale re-circulation systems.

Meeting all customers requirements.

Maintain a leading position through constant product development and testing.

Optimized and cost effective production systems.

Professional authorised dealers to secure on site service.

### FLOW THROUGH SYSTEM

The "Flow through" system is the traditional way of production.

#### FLOW THROUGH FACTS

- Open to disease from intake water
- Temperature depend fully on intake water
- Low efficiency on salt treatment
- Well known technology
- When establishing new flow through farm, investment / kg production capacity is circa the same as a new re-circulation system.
- Very high cost both in investment and running costs to sterilise intake water.
- If heating – very high heating costs
- Site placement depends on large amount water availability

#### FLOW THROUGH BENEFITS

- Possible full oxygen level control
- Possible full system monitoring
- When using existing facility – no investment

### RE-USE SYSTEM

Re-use gives you a fast track to increased production. DOUBLE YOUR PRODUCTION at low costs, and have your system fully prepared for expanding your fish farm to a fully re-circulated system at a later stage. By re-using your present available water intake 1 or 2 times, you can in most cases double your production in your existing fish tanks. Re-use systems designed in the right way, is the first step to Re-circulations and the gateway to all the benefits available in modern fish farming.

#### RE-USE FACTS

- Temperature depend fully on intake water
- Relative high cost both in investment and running cost to sterilise intake water
- Low efficiency on salt treatment
- Well known technology
- When establishing a new re-use farm, investment / kg production capacity is circa the same as converting existing tanks to re-circulation.
- If heating – very high heating costs
- Site placement depends on large amount water availability

#### RE-USE BENEFITS

- Full oxygen level control
- Full system monitoring
- Low manpower need
- Low investment
- Low energy costs
- Reduced water usage by 50 - 66%

### RE-CIRCULATION SYSTEM

Re-circulation gives you unlimited possibilities. PRODUCE FISH AT ANY LOCATION as long you have access to minimal water supply. Example: 1000 ton production per year – water usage 0,25 litre/second.

INCREASE YOUR PRODUCTION BY 4-6 TIMES in your existing tanks, and cut your production costs by 30 – 50 % and profit from all the BENEFITS in Re-circulation technology. Re-circulation gives you all opportunities to supply your customers FISH FREE OF DISEASE AND CHEMICAL RESIDUES – and that is what customers want.

#### RE-CIRCULATION FACTS

- Intake water = 0,5 - 25% / day of total volume of fish tanks
- Investment same or lower per kg produced fish – compared to flow through and re-use.
- When adding salt, concentration is easy kept for many days – due to low water change.
- Possible to increase temperature to 19 degrees Cel. in order to cure IPN outbreak
- The low amount of intake water, makes it affordable to sterilise 100%.
- The low amount of effluence makes it easy to handle and to comply with environmental legislations.
- Production planning becomes easy, as there is no dependence on weather conditions.
- Oxytetracycline have no negative influence on biofilters.
- More than 20 years of experience with re-circulation – secures well proven technology
- Free choice of site placement – need no river.
- Compared with Flow Through and Re-use, the production cost in Re-circulation are 30 – 50% lower.

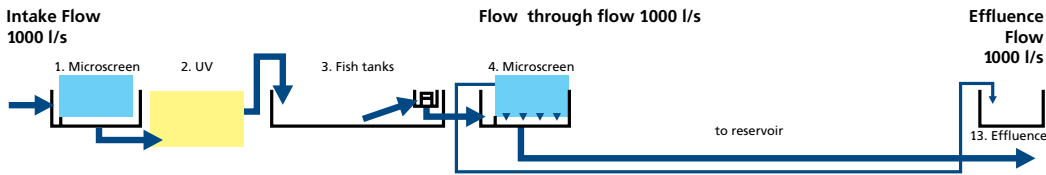
#### RE-CIRCULATION BENEFITS

- Low investment
- Full disease control
- Full temperature control
- Full salinity level control
- Full water quality control
- Full smoltification control
- Full oxygen level control
- Full effluence control
- Full freedom of site location
- Full production year round
- Full system monitoring
- Full management support
- Low production costs
- Low or no mortality
- Low or no medicine usage
- Low feed conversion
- High growth rates
- Low manpower need
- Low risk profile
- Low salt usage
- Low energy costs
- Low maintenance costs
- Low or no heating costs
- Reduced water usage by 99,97%
- Environmentally sound production

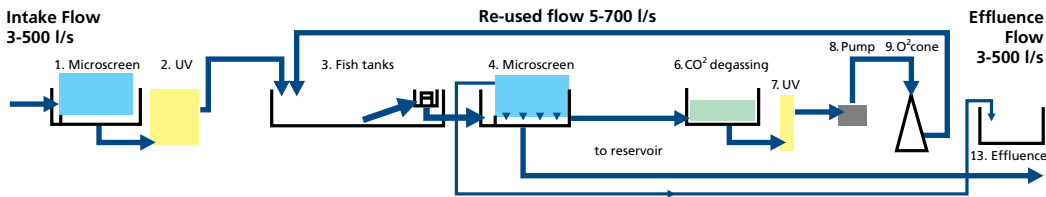


# Four ways of fish farming...

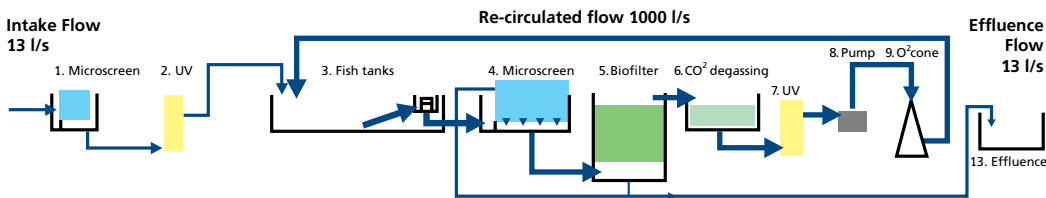
## FLOW THROUGH (FT)



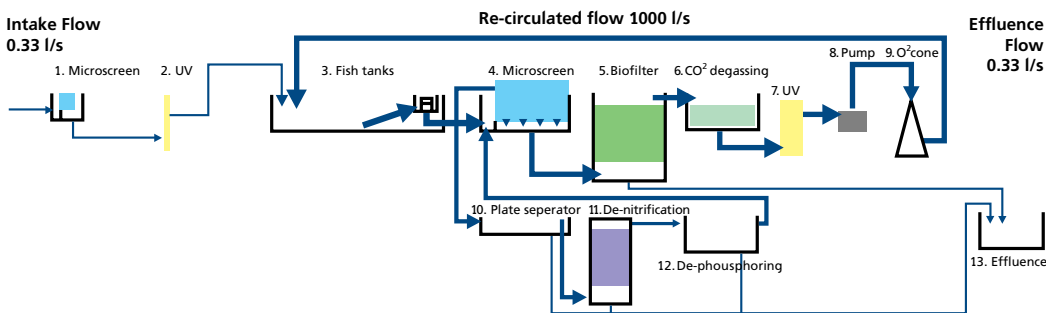
## RE-USE SYSTEM (RU)



## BASIC RE-CIRCULATED SYSTEM (BRC)



## CLOSED RE-CIRCULATED SYSTEM (CRC)



### EXPLANATION:

1. Intake water mechanical filtration
2. Intake water UV filtration
3. Fish tank
4. In-line mechanical filtration

5. Biological filtration
6. Degassing CO<sub>2</sub> stripping
7. In-line UV filtration
8. Main pumps
9. Oxygenation,
10. Sludge Plateseparator

11. De-Nitrification
  12. De-phosphours system
  13. Effluence treatment.
- High water flow  
 Low water flow



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