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A-BIOMASS: The weight is over!

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By Ace Aquatec

Take the guesswork out of harvest predictions with real-time millimeter accuracy for fish biomass estimation

> Ace Aquatec's A-BIOMASS is an advanced underwater camera
> designed to bring more efficiency and precision to biomass
> measurement and distribution.

Biomass estimation is the holy grail of fish farming. It is necessary to achieve efficient farming practices and healthy fish. Everything in the cage is a balance – optimizing feed, protecting the fish from danger and helping them to grow into healthy, premium quality products. Ace Aquatec has spent five years developing a state-of-the-art camera system utilizing the power of AI (artificial intelligence) to accurately measure fish dimensions without human intervention.

The **A-BIOMASS™** (https://aceaquatec.com/aquaculture-products/grow/a-biomass) is an advanced underwater camera designed to bring more efficiency and precision to biomass measurement and distribution. It has been built using the latest AI and camera technology and can be used for a range of fish species. Using the power of machine learning, A-BIOMASS™ can help you gain accurate insight into your pens without handling or manual intervention.

Accurate weight estimation can lead to a better understanding of total biomass, which can help inform your grading regimes, help with optimizing feed and growth rates and help your farm stay within its stocking density quota.

The A-BIOMASS™ underwater camera helps farms effectively monitor fish welfare, prevent mortalities, and provide transparency and traceability over the fish lifecycle and supply chain. Developed for the harshest environments, the marine grade system is lightweight at 8.5 kg and easy to deploy.

How it works

The A-BIOMASS™ system contains two stereoscopic cameras calibrated to take images synchronously. Through machine learning, AI identifies fish and critical points, such as tail and fins, to measure fish height, weight and length accurately. With access to the point cloud map, A-BIOMASS™ tracks multiple fish simultaneously, differentiating individuals from the shoal.

With a fully automated winch, we can ensure the camera is always watching your fish, providing optimal levels of good data in a short period of time. With fast internet capabilities, the surface box quickly transmits data to our portal. You can check information for multiple pens and sites, helping to optimize your production. It is easily deployed as a fixed installation or moved between cages.

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System features

- Fully automated AI cameras for measuring fish weights
- Intelligent automatic portal reporting
- High resolution and high frame rate support
- Only 8.5 kg – allowing single-person deployment
- Measurement accuracy in the millimeter range
- Full 4G mobile connectivity, with optional WiFi

Welfare-focused insights from grow-out to harvest

- Gives accurate data on average biomass and pen distribution to help you make informed decisions about your fish stocks
- Minimizes manual handling and exposure to anesthetics
- Real-time capture of biomass data provides increased sampling and greater accuracy over biomass estimations and harvest planning.

Click here to see what A-BIOMASS™ can do for you (https://urldefense.proofpoint.com/v2/url? u=https-3A__aceaquatec.com_aquaculture-2Dproducts_grow_a- 2Dbiomass&d=DwMGaQ&c=euGZstcaTDllvimEN8b7jXrwqOf- v5A_CdpgnVfiiMM&r=mBdwXyzk8gSlvUNctBt-

[PHVwhpe2pAu3MFKHltbllS8&m=_cvRUwKhrAQSLFnCTQxeNXFCVJwSiZyF20nT_xxb5-xIddaLBmejUzynDO-fE7aV&s=1vMNDJ54Zt-2_JgEGqnEf8ZECxHKmtCXsvK27-4Gmu4&e=)](). Author

ACE AQUATEC

Get in touch to learn more

[info@aceaquatec.com (mailto:info@aceaquatec.com)](mailto:info@aceaquatec.com)