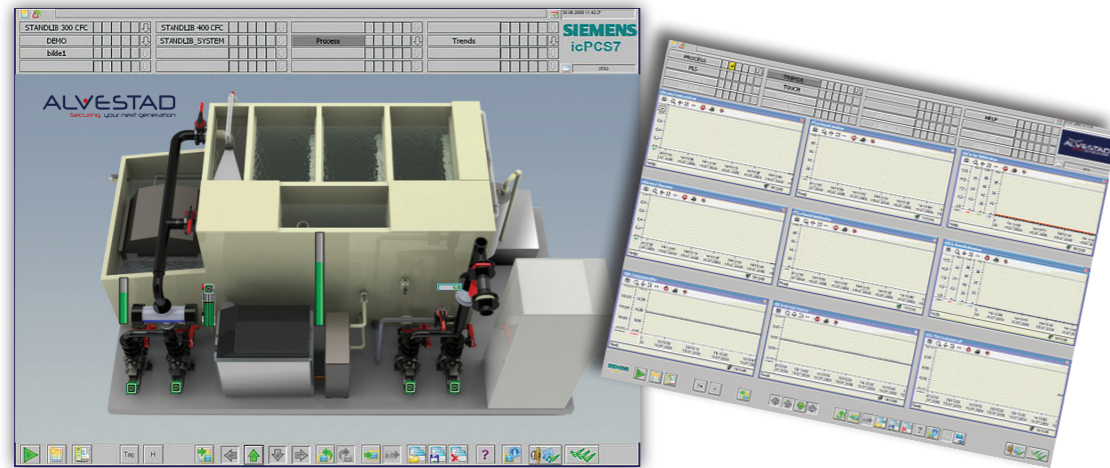


## Display system based on the platform Simatic PCS7.



In cooperation with Siemens and SINTEF, Alvestad AS has developed a complete Process Control System, electric/control system for KUBE® 8000. The system may be tailor made according to the customer's requirements and consists of a computer with the display system PCS7 for monitoring/control from a control room, a Touch panel for local control inside the facility and a PLC in which the logics for the process control of the system is placed. The system is so-called self monitoring and may be run without continuous monitoring. If an alarm or an error occurs, the system notifies the responsible person by sending an SMS to one or several mobile phones.

### Programmable Logical Control (PLC)

To ensure that all processes and water quality parameters remain stable, a reliable monitoring and control system is needed. KUBE®hatch has an integrated system for optimal quality assurance in which all system information is transmitted to a PLC system. The PLC is connected to a touch screen in vicinity of the hatchery for daily operations. All the information is also transferred to a computer where data can be logged, and from the computer, the operator can monitor the production, control the flow, temperature and quality of the water.

When the environment around the fish is stable without any marked fluctuations in temperature, pH, and other stress factors such as for example daily work operations, the fry will exploit more of the yolk nutrition for growth and development.



### Support:

Siemens Service offers assistance from qualified personnel on short notice. Service forms a part of Siemens' global network. This means access to competence and possibilities to provide assistance all over the world. Our engineers all over the world are on duty all the year, day and night.



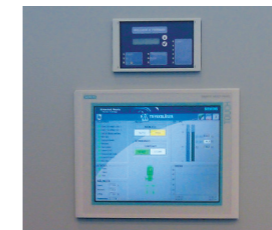
### SMS-Alarm:

In case of alarm or problems in the operation, the control system will send SMS and call up the operator on call. One may enter several mobile phone numbers and it is also possible to control the system from a mobile phone.



### UPS:

In case of a power failure, the PLC receives power from a UPS with a battery bank so that one secures monitoring and control of the measuring and set points until the power is restored.



### Touch-panel:

Local control of the system is carried out from a touch panel placed in the vicinity of the KUBE®8000. The majority of the electric components are found in the terminal box. This simplifies the maintenance and especially the cleaning.



### Trending

The control system logs and saves all system data from KUBE®. You may zoom in on each individual diagram/trend curve from the overview screen for the trends.