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AKVA develops ocean net pens without polystyrene

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By Responsible Seafood Advocate

Aquaculture equipment manufacturer uses floating pipes instead

Norwegian aquaculture equipment manufacturer AKVA Group says that its ocean net pen product line is now free of polystyrene, a lightweight plastic foam used in a variety of consumer products and packaging.

“Some time ago, we launched a new flagship pen – the 500R and 500RS series. In addition to its large capacity, this had an innovative solution with waterproof bulkheads as a replacement for the traditional solution with polystyrene in the floating pipes,” said Arnstein Hosaas, R&D director at AKVA Group. “Now we have taken an extra step and will produce all new pens without polystyrene. It is replaced by sectioning the floating pipes in waterproof chambers.”

The pens consist of almost 100 percent HDPE material (high-density polyethylene) that the company says is more sustainable.

“The requirement for residual buoyancy in the event of pipe rupture is maintained, in the same way as the old solution with polystyrene. Waterproof chambers can in some cases increase safety in the event of an accident,” Hosaas added.



An ocean net pen built without polystyrene. Photo courtesy of AKVA Group.

Removing polystyrene also removes carbon emissions related to transport by car from the manufacturer to the installation site. Hosaas added that a fully loaded semi-trailer normally carries 30 metric tons (MT), but one loaded with polystyrene only weighs about 2.5 MT. Any manual

handling of the product is also problematic, he added.

“It is inevitable that pieces of polystyrene are lost in the process when traveling all the way from the manufacturer, via transport to the installation site, intermediate storage at the factory or assembly site, installation of polystyrene in floating pipes and last but not least when disassembling old pens,” he said.

The pens are easy to recycle and reuse or sort the polystyrene separately upon disassembly. AKVA previously developed net-pen walkways in recycled plastic.

“The entire aquaculture industry has a responsibility to make the right and important choices towards a greener future,” he said.

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