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Ace Aquatec launches in-water portable prawn stunner to improve aquaculture welfare

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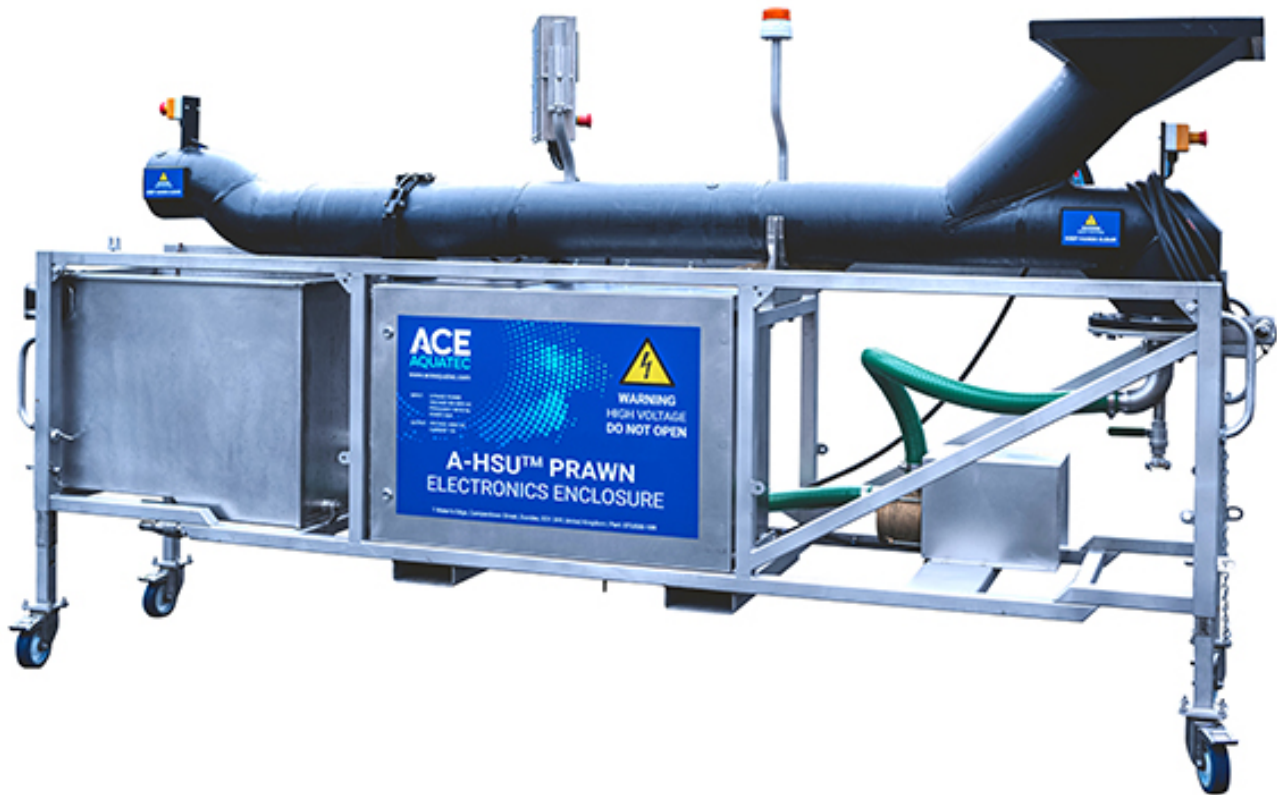
By Responsible Seafood Advocate

New technology can stun prawns in less than one second, improving animal welfare in aquaculture

Aquaculture technology specialist Ace Aquatec has unveiled its pioneering in-water portable prawn stunning system after completing successful trials on Pacific white shrimp (*Litopenaeus vannamei*) with Neomar, Förde Garnelen and Crusta Nova in Germany.

The new Prawn Humane Stunner Universal (A-HSU), developed in collaboration with scientists from the Silsoe Research Institute, uses Ace Aquatec's award-winning Humane Stunner Universal technology to stun the prawns unconscious in less than one second, minimizing their sensitivity to pain. This enables an immediate, humane and stress-free stunning process for prawns of all sizes and guarantees insensibility without compromising quality or shelf life.

“Effective, safe, and rapid, in-water electric stunning is an essential component of responsible aquaculture,” said Dr. Fabian Riedel, CEO and founder of Crusta Nova. “Crustaceans react strongly to being taken out of the water, which results in stress and can impact the quality of the product. This



Aquaculture technology specialist, Ace Aquatec, is launching the portable Humane Stunner Universal (A-HSU) for prawns after successful trials. Photo courtesy of Ace Aquatec.

portable system not only challenges the status quo of outdated slaughter methods for invertebrates, but also heralds a new era of improved standards, both in terms of harvesting and in better-quality end products.”

The process begins with prawns being pumped or brailled into the entrance chute, where they flow directly into the water of the stun tube. The electric field in the stun tube ensures that they lose consciousness immediately and are maintained in the fields to maintain long insensibility after removal from the water. The whole process takes 40 seconds from start to finish and means prawns are not removed from the water, which research has shown causes them to react badly and become stressed.




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“The recent trials of the A-HSU stunner in Germany saw improved outcomes for prawns, both in terms of the time taken to complete the stunning procedure and reduced exposure to pain in the process,” said Bert Wecker, CEO of Neomar and Förde Garnelen. “The implementation of this technology with an

intermediate ice slurry exposition afterward is a remarkable progression in fish welfare and quality.”

Tilapia producer: Stunning technology a major fish welfare advancement



One of the world’s largest farmed tilapia producers will introduce in-water controlled stunning at its processing facilities to improve fish welfare.



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With over 400 billion prawns farmed each year, the global shrimp industry is one of the most prominent sectors in aquaculture. But until recently there has been no requirement to stun farmed prawns prior to slaughter – as is required of other farmed animals – until the scope of the Animal Welfare (Sentience) Bill in the UK was extended to recognize lobsters, octopus and crabs and all other decapod crustaceans (e.g. prawns) and cephalopod mollusks as sentient beings.

The European Food Safety Authority (EFSA) also considers decapod crustaceans (e.g. prawns) to have the capability to experience pain, suffering, and distress. This means greater focus has been placed on the development of humane slaughter methods for these animals.

“We know that current slaughter practices, including boiling alive, chilling, dismembering, Co2, high-pressure processing, asphyxiation or immersion in ice slurry, are all harmful for shrimp welfare,” said Nathan Pyne-Carter, CEO of Ace Aquatec. “Thanks to the inclusion of decapod crustaceans in the Animal Welfare (Sentience) Act 2022, we’re now seeing retailers and producers approaching us to facilitate a humane electrical stunning process for these animals. The launch of our A-HSU for crustaceans will allow us to expand on our mission to elevate harvesting standards for all marine life, including invertebrate species.”

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