



SeaNest



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Hi!



Espen Øvreeide



Trond Marøy

We have founded Estro AS to contribute to the development of efficient and environmentally friendly products for companies in growth. Following input from the aquaculture industry, we have developed The SeaNest, which will undoubtedly give your company a boost. The product promotes essential considerations such as HSE, environment, fish health and profitability.

We have considerable experience in developing industrial products, from idea to the finished product. Besides, we have broad experience and insight into both short and long term needs of the industry. We aim to provide service at the highest level and follow our customers carefully.

We are ready to accept your order or to answer any questions you may have.





Content:
(Combining 4 weights of 5Kg each, a total of 20 Kg)

1 SeaNest (in back)

1 Bag (Optional)

4 weights, weighting 5 Kg each, to a total of 20 Kg

5 pieces of rope, for locking weights in place

* The solution can contain a total of 8 weights, to a total of 40 Kg

* Weights can be delivered at an additional cost, cording to customer needs

Figure 1



PREPARE THE SEANEST FOR DEPLOYMENT

Figure 2



Before the first time deploying The SeaNest, you must install weights in the system. The number of kilos will depend on (among other things) water currents surrounding the fish farm. We recommend a total of 20 to 40 kg, evenly distributed. The manual shows the installation of 20 kilos.

Figure 3



Attach the included ropes, as shown in Figure 4. For a 20 kilos setup, use the three middle ropes (as shown in Figure 4). NB! They must be sufficiently tightened, with a knot in the middle and a knot on each end.

Figure 4



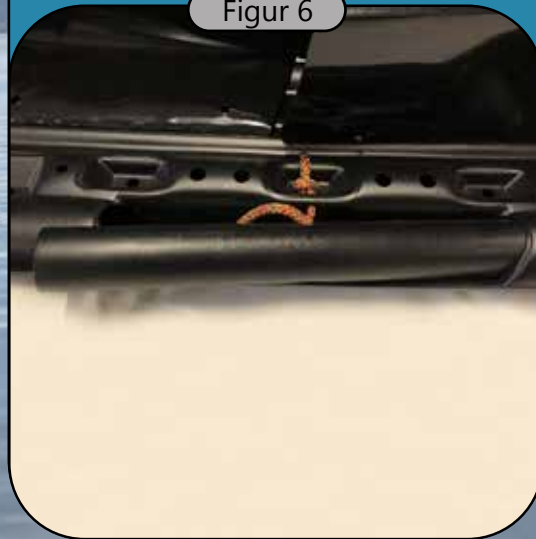
Move the weight lock to one side to be able to unlock it.

Figur 5



Remove the weight lock.

Figur 6



Place the steel weight.

Figur 7



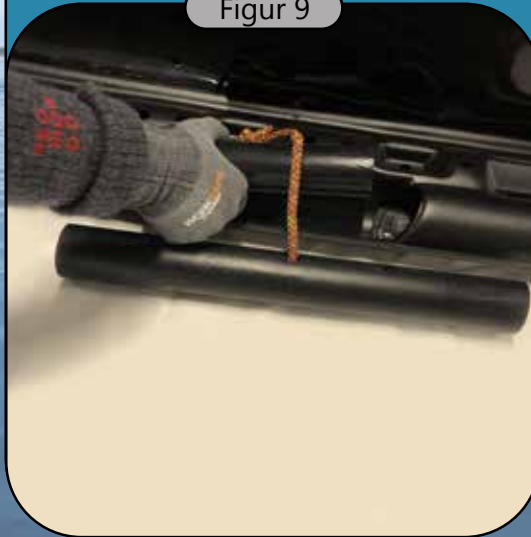
One steel weight slides to the right.

Figur 8



Next weight slides to the left.

Figur 9



Weight lock to be placed back and secured tight with the rope.

Figure 4 to 10 to be repeated on other side, so totally 4 steel weights are placed in the system.

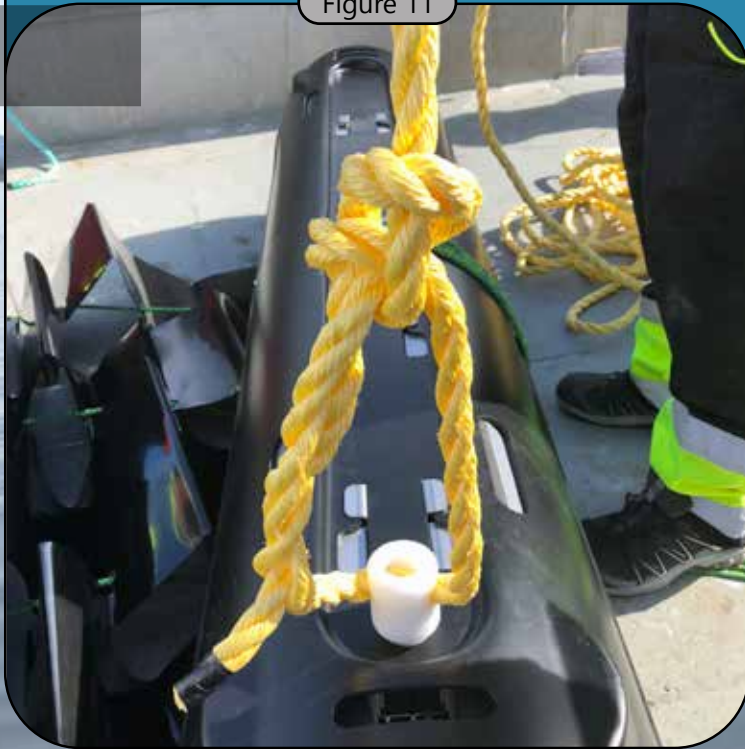
Figur 10



Deploying The SeaNest

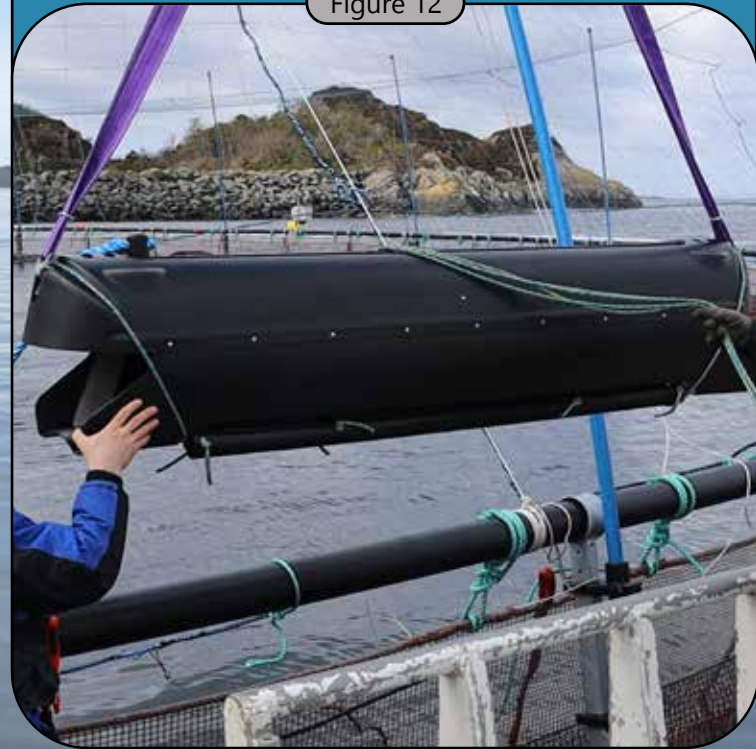
By using swivels for the anchoring, The SeaNest can easily follow the water currents in your Fish Farm during the deployment. The swivel uses an 18 mm rope.

Figure 11



When deploying, the SeaNest is fastened to the crane by the Crane Hooks on both sides, and can quickly be moved from Supply Ships into the Fish Farm.

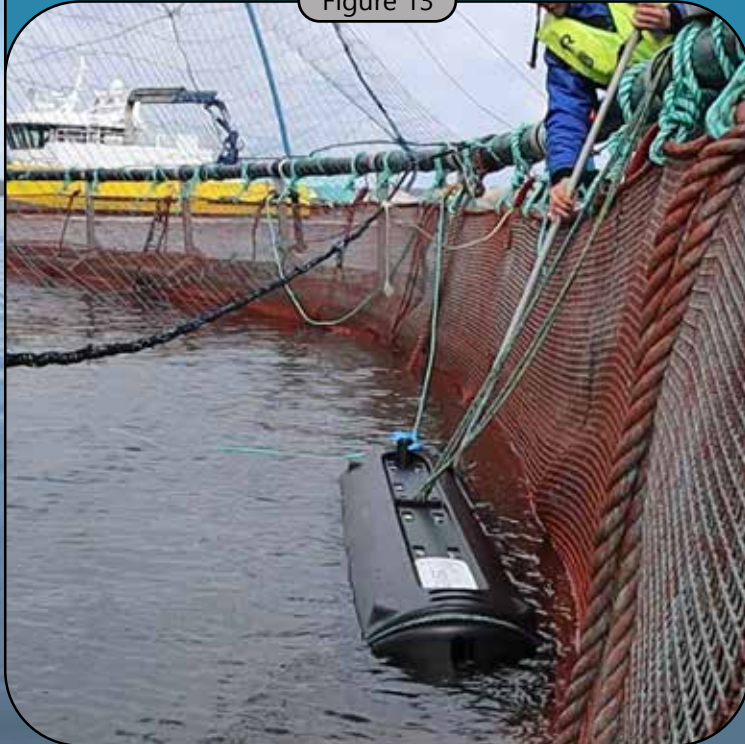
Figure 12



Deploying The SeaNest

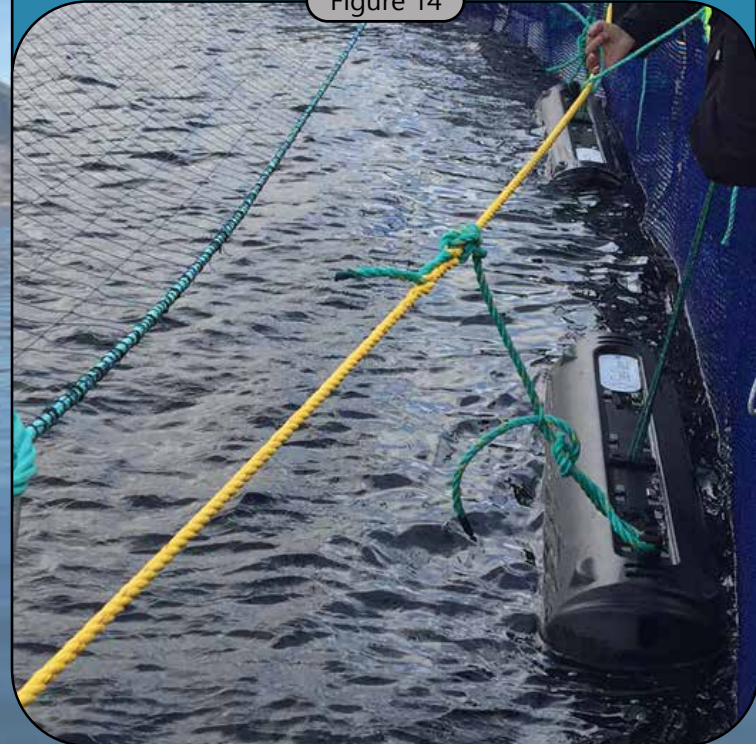
The Security Ropes are used to keep The SeaNest folded while deploying it. As soon as The SeaNest is in the Fish Farm, the Security Ropes can be loosened, folding out The SeaNest.

Figure 13



The rope from swivel is attached to the Security Ropes, and the system folds out. Prevent unfolding of The SeaNest by holding the Security Ropes after detaching the Crane Hooks.

Figure 14



Deploying The SeaNest

Pull The SeaNest to its desired position, before loosening the Security Ropes, so it unfolds into the water.

Figure 15



The SeaNest is correctly deployed when the knot at the end of The Security Ropes are pulled into The SeaNest.

Figure 16





Before removal of The SeaNest, deploy a new SeaNest in the Fish Farm. By doing so, you ensure that the lumpfish can obtain refuge when the “old” system is pulled up for cleaning and inspection.

To ensure the refuge of the lumpfish, deploy a new SeaNest before The SeaNest is pulled up for cleaning and inspection.

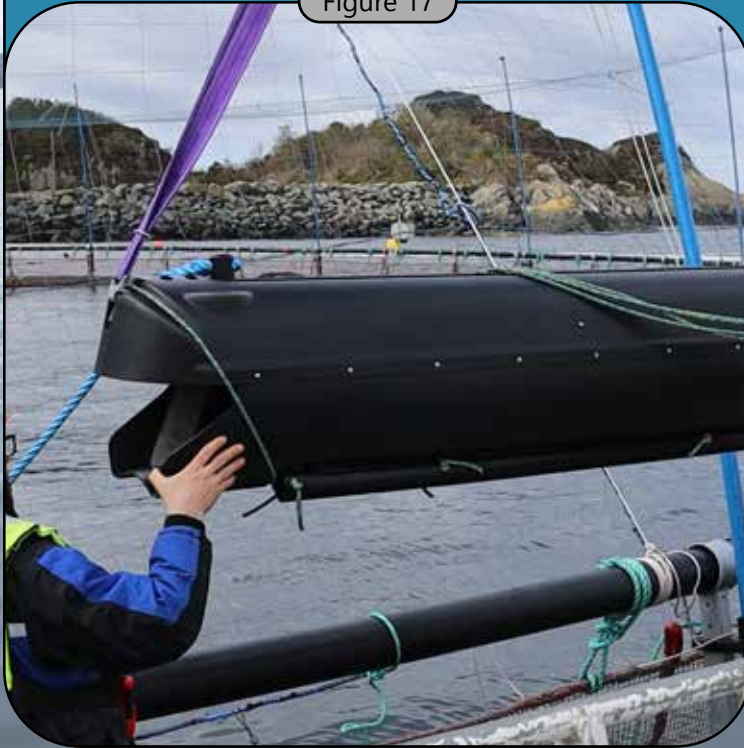
3

Withdrawing The SeaNest

Alt 1:

Withdraw The SeaNest using straps shown in Figure 17. Pull the straps below on both sides of The SeaNest.

Figure 17



Alt 2:

Straps fasten around the product, de sure that the straps are securely attached, by using this solution.

Figure 18

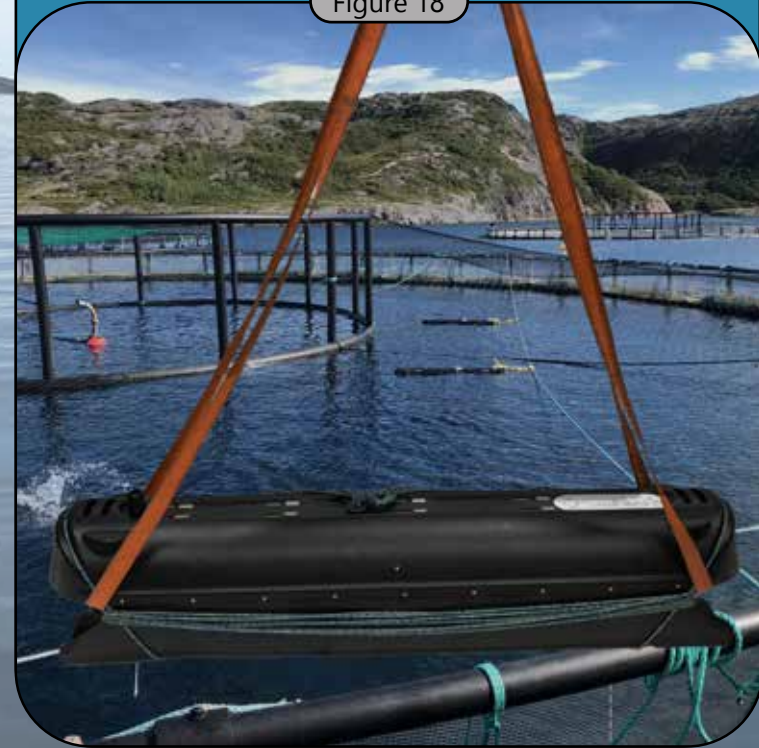
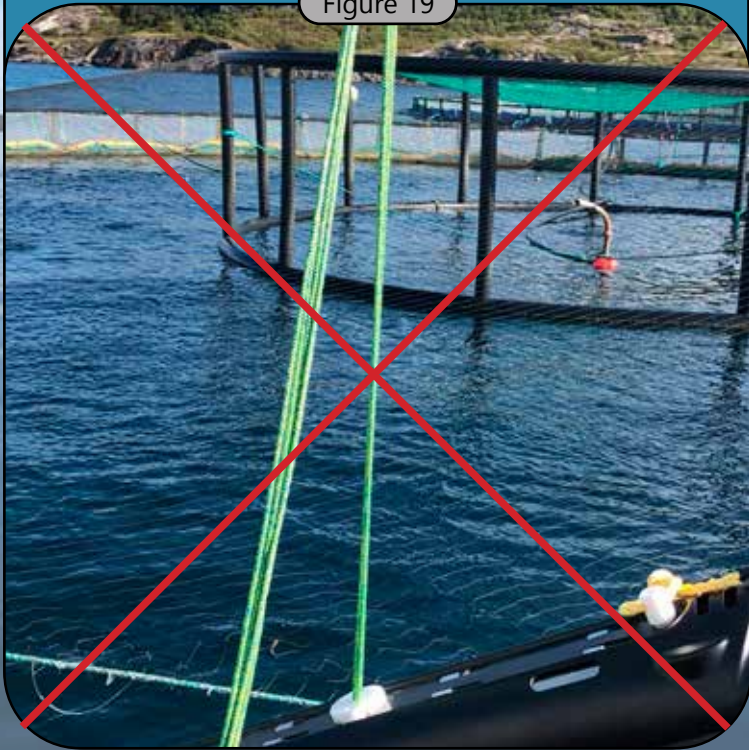




Figure 19

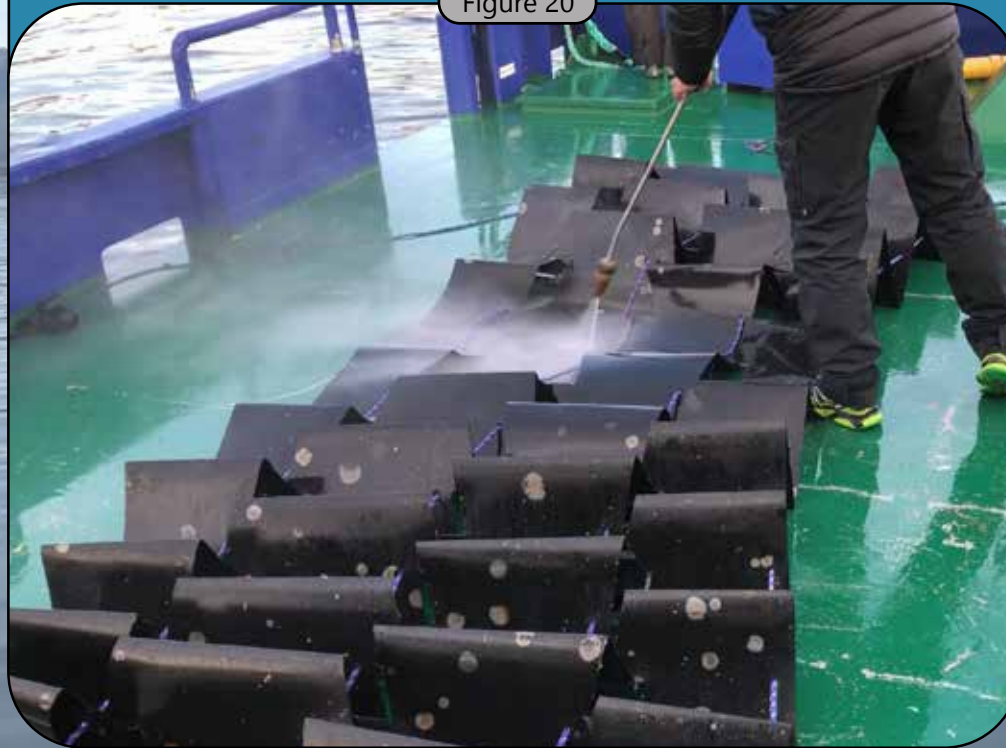


NB! Whatever alternative used to withdraw The SeaNest, under no circumstance, use the Security Ropes. By doing so, The SeaNest will fold as it is withdrawn, potentially harming the lumpfish in the process!

Cleaning:

The SeaNest can easily be cleaned using conventional pressure washers, without the potential for loose plastic or other debris.

Figure 20



Visual Inspection and Preparations for re-deployment

1. Control all ropes.
2. Control weights and ropes fastening these.
3. Make sure The SeaNest is not damaged.
4. Fold the system, preferably while it's laid out on the ground, and secure the ropes on the sides of the products (as shown in figure 21).
5. Control the swivels.
6. Secure the Security Ropes around The SeaNest (as shown in figure 22).
7. The SeaNest can be transported and stored until next deployment, without the need for cranes or other equipment.



Figure 21



Figure 22



SeaNest



SeaNest developed and patented by Estro AS

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