

New cage decking system improves operator safety

Fusion Marine has developed a new modular fish farm cage decking system to provide a convenient working platform and improve operator safety

The anti-slip polyethylene decking has been developed for Fusion's Oceanflex range of cages, which are widely used by Scottish and Irish farmers, and can be supplied as a full peripheral system or as individual modules for workstation use.

Interest in the new decking is already being shown by the aquaculture industry, with Marine Harvest recently ordering 11 fully-decked 100m circumference Oceanflex cages for two West coast sites, and Fjord Seafood undergoing trials with one fully decked cage as part of an order for eight Oceanflex 90m cages

The decking can be retro-fitted onto existing cages or supplied with new cage systems and complies with all current health and safety requirements, providing a permanent working platform whilst still retaining the flexibility of the cage collar.

The self-draining decking is light and flexible and is secured onto the cage flotation circumference rings by a specially developed small diameter pipe mounting.



Fusion Marine Managing director Stephen Divers said: "We made a significant investment in developing this decking system, which will enable the aquaculture industry to comply with recent health and safety measures regarding floating fish farm structures. "Fusion Marine is committed to realistic and appropriate solutions for both fish stock and personnel security."

Neil Crawford, Purchasing and Projects Manager of Marine Harvest

Scotland, said: "Marine Harvest Scotland puts the health and safety of its staff at the top of the agenda.

"Having had a history of both using and encouraging development from suppliers of effective, safe and practical walkways on circular pens we are looking forward to this latest design from Fusion proving itself on some of our more exposed sites".

● See story on **page 2** on additional orders for the new system from Shetland.

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Barramundi fish farm installation

Barramundi is claimed to be one of the finest fish to eat, with a taste comparable to sea bass or Dover sole. But because of supply problems it is fish that seldom reaches the tables of UK consumers.

However, all this is about to change following the successful completion of a state-of-the-art indoor fish farm built in the New Forest by Aquabella Group plc. The farm has been constructed on a 3.5 acre site near Lymington and houses 48 indoor tanks with an array of water treatment facilities to ensure pristine growing conditions.

The fish are maintained at a constant temperature of around 28°C to ensure optimum growing conditions. The unit is now one of Europe's largest indoor fish farms and will initially produce 400 tonnes every year, although this figure is likely to increase over time.

The creation of such a large recirculation system was a major and complex job, and this is why Aquabella called in Fusion Marine to carry out the pipe fabrication and installation work. Over 1000m of different size PE pipes were used in the construction, which included integrating different recirculation systems within the farm. The pipe sizes used ranged in diameter from 50mm to 900mm, making this an extremely complex installation.



Shetland orders for new Fusion Marine decking system

Orders have soared for Fusion Marine's new cage decking system, with four Shetland aquaculture companies recently taking advantage of the extra safety and work convenience benefits it offers.

Shetland-based salmon farming companies Hjaltland, Hoganess Salmon, Scottish Sea Farms and Lakeland Unst, have all ordered new Oceanflex cages with the decking fitted, and are currently discussing the option of retrofitting the system onto existing cages.

Michael Smith of Hjaltland said:

"Operator safety is a priority of ours and this new decking system provides a safe and convenient working platform for our personnel."

The cages were assembled by Shetland company Norcage, who are Fusion's strategic partners in the Northern Isles.

Graham Forrest of Norcage said: "The decking has generated a lot of positive feedback from the companies concerned, who are expressing real interest in having it fitted onto all their cages."

New pontoons help communities enhance their potential

The construction of pontoons is a new area of operation for Fusion Marine with there being a huge amount of interest.

These pontoons made from recycled plastic provide a great way for estates, communities and hotels to provide easy marine access.

One recent order was successfully completed for Ben More Estate on Mull, which will enhance its business potential by opening up new leisure opportunities.

The 89m pontoon on the shore of Loch na Keal is ideal for landing small or medium sized vessels and provides mooring for inflatable dinghies and other tender craft.

The 2.2m wide pontoon is fully decked in recycled plastic, underlining Ben More Estate's commitment to the environment. This is further reinforced by the low visual impact of the pontoon, which was an essential element of the installation process, given that it is on a Site of



Special Scientific Interest (SSSI).

Buoyancy is provided by thick walled 315mm plastic flotation pipes and the flexible construction of the pontoon enables it to follow the contours of the 30m foreshore at low tide.

Another recent successful completion was a 50m pontoon for the Otter Ferry Community Association at Loch Fyne. The pontoon will boost the community by attracting yachts and other leisure craft.

Other recent pontoon orders for Fusion Marine include an installation at Loch Faskally near Pitlochry.

The previous wooden pontoon used by a lochside operator for fishing trips had been badly damaged following a drop in the water level due to Hydro operations. The owner was, therefore, looking for something more durable as a replacement.

Working to a tight timescale and under a contract to Reach Engineering,



Fusion Marine installed the 12m x 3m custom-built plastic pontoon, which has successfully withstood recent water level fluctuations due to its flexible nature.

Meanwhile, as Fusion News went to press, work was due to start on the installation of plastic T-shaped pontoon for the community in Easdale.

The 16m structure will be used to attract leisure craft and help boost local businesses.



New fish farm cage recycling service from Fusion Marine

Fusion Marine is offering fish farmers throughout the Highlands & Islands an innovative recycling and refurbishment service for redundant fish farm cages.

As fish farms move to upgrade their operations through the use of larger cages or the transfer of operations to more exposed sites, the refurbishment or recycling of their existing cage systems provides a cost-effective solution.

The disposal of cages that no longer serve their purpose can create a real headache for fish farmers, especially since most operate from remote sites.

But now Fusion Marine has adapted its technology to provide a service for recycling fish farm cages by using a mobile plastic shredding machine to grind up parts of the cage that can't be re-used.

Alternatively, the whole cage system can be shredded by the Fusion Marine mobile unit, providing a specialist disposal service for fish farmers throughout the Highlands & Islands.

Working with Axion Recycling as part of a project supported by the Waste & Resources Action Programme (WRAP), the Fusion Marine unit is capable of shredding a variety of other materials such as pipes and drums. The plastic granules produced are then easily transportable for recycling.

Stephen Divers, Fusion Marine managing director, says: "Many fish farmers are now looking to use larger and stronger cages and also to have safety decking fitted so as to meet health & safety guidelines.

"By recycling and upgrading old cages we can offer a cost-effective and environmentally friendly way by either disposing of cages, or extending their life – perhaps by another 20 years."



The benefits of sinker tubes

By Iain Forbes

Are sinker tubes good? Past experience tells us that the sinker tube concept can be troublesome, on the other hand it can be an extremely effective and worthwhile asset, not least for the bio-security of the stock and the way that cages and nets are worked.

The Fusion Marine sinker tube is constructed using a 200mm, thick-walled polyethylene pipe and internally weighted with chain or wire depending on conditions and site specific data. The sinker tube is suspended using suitable suspension methods such as rope or, as some customers prefer, chain at specific intervals around its circumference on the outer ring of the cage.

The sub-surface manufactured hardware should be net friendly and made from polyethylene, as experience highlights too many mechanical joints coupled with not enough weight can compromise the cage net with inevitable stock losses.

Regular maintenance and being familiar with the sinker tube is key to its success. It can even enhance the life expectancy of the net by way of less direct point loading

of weight.

Have we given the sinker tube a chance? It has been encouraging to see more of our customers working with the concept.

One of these is Mark Bridgewater of Lakeland Marine Farms, who has been working with Fusion Marine sinker tubes for a number of years.

He says: "We have found sinker tubes to be very useful in keeping the volume and the shape of the net, even in areas of strong tide or when the weather is bad. They are particularly effective in keeping the net tight, which prevents fish being damaged by rubbing."

Case Study

Fusion Marine recently supplied six Oceanflex cages to Gran Canaria for Procria, a sister company of ADSA of Gran Canaria who are part of the Tinamenor group in Spain.

Six sinker tubes were also supplied with the cages and they have worked so well that ADSA have since placed an order for another nine tubes.

Workboat for Irish Mussel farmer



Irish mussel farmer Colin Whooley has taken delivery of a new design of serviceboat from Fusion Marine.

Colin, whose mussel farm is situated in Roaring Water Bay in south-west Ireland,

opted for the TUF Tender S450 workboat because of its toughness. The 4.5m PE craft will be used for sampling the growing mussels and also collecting spat from rocks.

Inevitably, this means the craft will often be scraping against rocks or mussel encrusted lines, making it important that it can withstand such pressure.

"I was looking for a small but tough workboat and this craft from Fusion Marine fits the bill perfectly," states Colin.

The craft, which has a 700kg capacity, is also perfect for boating ponds and fishing reservoirs as the longevity and robustness means that little maintenance is required.

Recycled plastic products for a vast range of outdoor uses

Case study

Fusion Marine has supplied over 60 picnic tables as part of its new drive into developing a recycled plastics business.

A number of other parks and recreation areas are also showing interest in the range of furniture made from recycled plastic. There has been particular interest from licensed businesses looking to set up outdoor smoking areas following the introduction of the indoor smoking ban in Scotland.

Fusion has also received enquiries for items such as road bollards, fencing and pathways.

A full catalogue of the Fusion Marine recycled plastic range is available.

Environmentally friendly, versatile and suitable for a wide variety of uses, Fusion Marine has diversified its manufacturing capability to provide a range of recycled plastic products for outdoor and indoor applications.

Fusion Marine is a specialist in a wide range of bespoke recycled plastic materials. These can be used to manufacture outdoor furniture, walkways, fences, bridges, waymarking posts and other structures traditionally made of wood. These can be used by the agricultural industry, parks, nature reserves and other recreational users.

"The sheer durability and long-life of these recycled plastic products makes them much more cost-effective in the long term, than wooden alternatives," states Alan Macleod, Fusion Marine technical director.

"Not only are recycled plastic products tougher and better value, but they are



also helping the environment too," he says.

Available in a range of colours, all products can be manufactured and supplied to meet customer requirements.

Advantages of using recycled plastic include its lightness, durability, resistance to chemicals and ease of cleaning. Recycled plastic is low-maintenance, rot proof and can come in a variety of surface textures.



Cobia job

Fusion Marine has supplied four cages for a pilot Cobia grow-out operation in Martinique. Cage nets and a mooring system were also installed.

Two engineers from Fusion Marine travelled to Martinique and managed to complete the installation in a very short timescale. The client is very impressed by the cage system, which is operating well.

Boat for British Waterways



British Waterways has ordered from Fusion Marine a Nordic Seahunter for use on the Caledonian Canal.

The Nordic Seahunter is a rotationally moulded plastic craft that can be linked together with other units to create a larger working platform. The craft can work as a single unit, or in multiple units

linked together to form a powered barge, pontoon or storage raft.

British Waterways chief engineer Ian Macleod said: "It is an excellent multi-purpose boat that offers a good stable working platform. The boat will be used on a number of maintenance tasks."

Each 5.6m x 2m double-hulled unit can be equipped with an outboard motor and different types of ladders, railings and other accessories and formats. It has several fastening holes in its hull and can carry up to 3,700kg of payload.

Cage upgrade for Canada

Neil Blackadder from Fusion Marine travelled to Vancouver Island, Canada, to refurbish some old 120m cages for Stolt Seafarms. He converted the first seven cages into Oceanflex cages and also trained-up a local agent.

Four cages were upgraded in the second phase of the project, which was carried out by the agent and included the construction of a sinker tube. The customer is reported to be extremely happy with the performance of the cages, which are now situated at a farm in the Broughton Archipelago.



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