

## Triton for Malta

**Fusion Marine has successfully installed a cage system for a Mediterranean tuna farming operation.**

Five Triton cages were supplied to Malta Tuna Trading (MTT) in a move that confirms the growing popularity of Triton for offshore fish farming, particularly where large cages are required - such as for tuna and other large scale finfish farming operations.

Cage strength was a key factor in MTT's decision to opt for Triton, given that each cage is constructed from three thick-walled 450mm polyethylene pipes, designed to resist impact and reduce distortion in the stormy offshore conditions often found in the Mediterranean.

The MTT operation involves towing the cages hundreds of kilometres to the tuna fishing grounds. Once stocked, each cage can contain tuna worth well over a million euros, so it is vital that the cages can withstand even the severest of storms.

Joe Caruana of MTT says: "Triton are excellent cages for tuna farming. The high value of the stock more than justifies the extra investment required to ensure stock security. We tow our cages for long distances and they are obviously subject to huge stresses. But despite this, the cages need very little maintenance and they are very cost effective."

Stephen Divers, Fusion Marine managing



*MTT has been impressed by the performance of the Triton cages*

director, states: "The Triton cage development has been a significant investment on our part over the last four years to specifically offer solutions for the offshore farming of tuna and other species."

Meanwhile Murray Seafoods of Argyll has become the first Scottish salmon farming company to install the new Triton sea cage.

Murray Seafoods took delivery of

one Triton 450mm and two Oceanflex 315mm cages as part of a recent order.

Doug Shaw, production manager at Murray Seafoods, said: "I am very impressed with Triton. The cage offers a strength that is probably far more than we will ever need and we have even towed the cage at full speed without any change in shape. Triton offers numerous benefits, particularly with regard to strength and safety for both stock and personnel."

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## Australia expansion

Fusion Marine has forged a new relationship with Australian aquaculture specialist Ocean Tech Industries Pty Ltd to supply three-ring plastic cages for southern bluefin tuna, kingfish and Tasmanian salmon farming operations in southern Australia, Tasmania and New Zealand.

Oceanflex 315 and Triton 450 cage systems are seen as ideal for the exceptionally tough and demanding sea conditions found in Australia. The extra buoyancy and strength provided by these three-ring models are vital, given that the cages are often burdened with heavy anti-predator netting and other equipment.

Meanwhile, to further enhance Fusion Marine's on-site sales and technical support, its parent Fusion Group has set up a new company, Fusion Australia, based in Adelaide. Managed by Mike Raine, the new operation will allow Fusion Marine to react quickly to customer enquiries.

## Immense potential for offshore fish farming

With much attention recently being focused on the potential of using submersible systems for offshore aquaculture operations, there is still huge potential for surface or gravity cages in such demanding environments.

Giving a presentation at the recent 'Farming the Deep Blue' conference in Ireland, Fusion Marine's Iain Forbes outlined the success the company has had in developing offshore cage farming systems using polyethylene (HDPE) base pipes.

"Plastic cages offer many advantages such as ease of production and maintenance, and lower operational costs than submersible technology," said Iain. "Offshore fish farming has a good future and has many environmental benefits. It offers higher oxygen levels and better sanitary conditions for fish, with waste dispersal being much more efficient."



## Hydro installation underlines PE versatility

The versatility of polyethylene (PE) piping for use in hydro-electric schemes has been underlined following the completion of a major project in north-west Scotland.

Hydro-electric operators are now saying that PE is by far their preferred material for use in such projects.

Working under contract to RJ McLeod Ltd, Fusion Marine supplied and installed 1,100 metres of 900mm PE piping for a hydro scheme at Inverbain, Wester Ross.

The HPPE (high performance PE) pipe was used to connect a weir constructed on a hillside river to a pumping station below. The pipe sections were laid out on a temporary roadway bulldozed up the hillside and then joined together using a self-contained butt-fusion machine.

This butt-fusion technique involves the

insertion of a heated plate at the pipe-ends to 233 degrees C; the plates are then withdrawn allowing the pipe sections to be seamlessly joined together.

The piping was then buried and the roadway converted back to its natural condition so as to blend in with the environment.

According to Alan Macleod, Fusion Marine technical director, PE large diameter piping offers several advantages over more traditional steel or GRP pipe used in such schemes.

"Polyethylene is flexible and light which means the course of the pipe can follow a given path without the need for welding-in joint sections, which obviously saves on time and expense on any project," he says.



Nancy Lamb, standing, with Varinia Thompson

## Varinia joins team

Varinia Thompson is the latest addition to the Fusion Marine team, joining the company as accounts assistant.

Formerly a payroll and credit control executive with the Freedom of the Glen

hotel group, Varinia has a wealth of experience in all types of office administration and will assist accounting manager Nancy Lamb with the day-to-day running of the office.



The cages in place, with Mount Etna in the background

# Italy success

A cage installation at an exposed open sea site in southern Italy has been successfully completed.

Eight Oceanflex 315 cages along with nets and complete Stingray mooring system (comprising 250kg and 150kg anchors) were installed in autumn 2004 for Ifex based in Reggio, Calabria. Despite the winter being notable for the severity of its storms, the cage systems

survived intact. The cages were recently stocked with fish and are reported to be doing well.

“The Oceanflex range is heavy and very robust,” states managing director Stephen Divers.

“The client is extremely pleased with the installation, and three further projects are now underway in similar open sea locations.”

## Polycraft for Marine Harvest

Marine Harvest has taken delivery of an FFB personnel carrier for an exposed fish farm site at the entrance of Loch Ewe. According to Marine Harvest’s Strav McDonagh, the Polycraft is essential to the site’s success.

“The site is one of these places that has its moments with regards to weather, and we have been very impressed with the boat so far. It will play a key role in the success of the farm.”

Scottish Seafarms has ordered two of

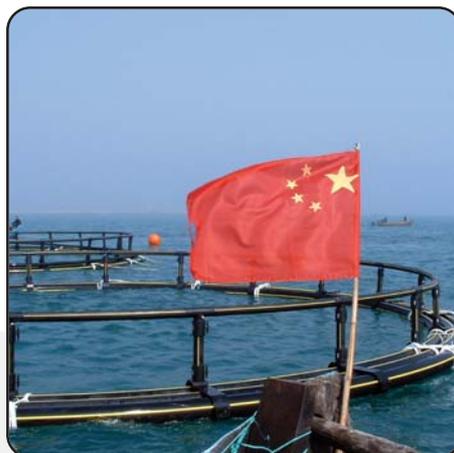
the FFB4 tender versions, and according to Fusion Marine’s Iain Forbes, other orders are flowing in thick and fast.

“There has been an excellent level of interest in the Polycraft, which has shown itself to be an extremely versatile and durable vessel,” he says.

Fusion has forged a relationship with Caley Marina Ltd of Inverness for Polycraft, with Fusion supplying the hull and Caley providing many of the fittings, including engines.

## First order for China

Pictured here are the first ever Fusion cages delivered to China. The Aquaflex cages were supplied by sister company AWT Fusion Marine in Malaysia, and are being used by an educational establishment in China for research and demonstration purposes.



## Pontoon installations

Pontoons are being increasingly used as a cost-effective option for providing access facilities for boats.

Fusion Marine recently installed a pontoon at Rahoy and is currently in the process of supplying two others. The first is for Ben More Estates on Mull and involves an 84m long structure, with handrails plus a 10x4m hammerhead at the end. The decking is manufactured from recycled plastic and the structure is anchored with a concrete bridgehead.

The second structure is for the Otterferry Community Association and is 50m long, incorporating 400mm piping for flotation, and featuring a hardwood deck.

## Feed pipe orders

After successfully completing two site installations for Akvasmart UK at Mid Strome, Loch Carron, and at Aird, Loch Torridon, Fusion Marine has secured two more contracts for the company.

The work at Portree on the Isle of Skye and at Geasgil on Mull for Panfish were for the installation of all the feeder pipe from the feed exchange units to the fish cages. In both cases, 3,600m of 90mm feeder piper was used.

Fusion Marine engineers carried out all the butt-welding, extrusion welding and electrofusion welding, along with the fabrication work.

Dave North of Fusion Marine said: “We have proved once again that with our flexibility we can offer more than one service to the fish farming industry.”

# Recycled plastic boardwalk helps conserve fragile sand dune system

The large sand dune system that stretches for several miles north of Aberdeen is a fragile habitat that is easily eroded. A network of wooden boardwalks allows public access whilst keeping erosion to a minimum, but a common problem with such pathways is that they often have a short life expectancy.

This is why Aberdeenshire Council decided to install a 250m section of boardwalk made from tough recycled plastic at Balmedie Country Park. Supplied by Fusion Marine, the slatted boardwalk leads through the sand dunes to a viewing platform that allows disabled access.

The brown-coloured walkway blends in well with the natural environment and the versatility of recycled plastic means that its route follows natural contours and bends.

Advantages of using recycled plastic include its durability, resistance to chemicals and ease of cleaning. Recycled plastic is low-maintenance, rot-proof and can come in a variety of surface textures. It is also lightweight, crackproof and UV resistant. In addition, recycled plastic structures do not require any preservative treatment or painting, and because the material is inert it will not leach any chemicals into water or soil. Recycled plastic products can be fully recycled again at the end of their lifespan.



## Factory machine for Polycraft

A new large diameter pipe butt-welding machine has recently been installed at Fusion Marine's factory in Barcaldine for the manufacture of its highly successful Polycraft range of workboat.

The new installation gives Fusion Marine the capability to completely manufacture Polycrafts on site, with each craft tailored to meet specific customer requirements.

The machine, which will be operated by technician Gareth Lamb, is also suitable for the fabrication of large diameter pipe fittings up to 710mm for a variety of other industry applications. Other staff will also be trained to operate the machine.

## Terns benefit from nesting rafts

Terns are particularly vulnerable at nesting time, with predation by animals and disturbance by people a real problem. Common terns used to breed at the Herts & Middlesex Wildlife Trust's reserve at Broadwater in the Colne Valley, and in a

bid to attract the birds back, the Trust has just installed two nesting rafts made by Fusion Marine from recycled plastic.

The 3x3m square rafts feature vertical edges to discourage predation from mink and are covered in gravel to mimic the natural nesting habitat of terns.

The recycled plastic construction means that the rafts are environmentally-friendly and are durable with little maintenance required.

"We are currently using wooden rafts on other reserves but we were attracted to recycled plastic because it fitted our sustainability criteria as well as being tough and long-lasting," says Rob Hopkins, Reserves Officer South for the Trust.

Fusion Marine is a specialist in a wide range of bespoke recycled plastic walkways, fences, bridges and waymarking posts – ideal for conservation organisations and for other recreational uses.

● As Fusion News went to press, four pairs of terns were incubating eggs on the rafts.



The raft getting towed to its mooring site