

Three-in-one ice outside the box



Falch Marine A.S of Svolvær (Norway), reports that it has worked with Sunwell, the slurry ice people, to develop a new system to add onto their existing Deepchill™ set up and this has reduced time through more automation, and improved quality which has added two-days' to retail shelf life.

Mr Erling Falch, general manager of Falch Marine says: "Our need was for one ice system that could supply ice to the boats to cool the fish at sea before it is delivered, then liquid slurry to store it after it is delivered and keep the temperature at 0°C, and finally thick slurry for packing the fish. We needed one system to fill all these requirements and we found that the Sunwell system could do every part of it. Sunwell could produce dry ice and store it in a tank. Other solutions could only produce ice slurry, not store dry ice. Also, Sunwell could deliver Deepchill™ of 60% (ice percentage in the Deepchill™) for packing in boxes." At the dock, Deepchill™ uses an

Automatic Computer Monitoring device, which also allows Falch Marine to sell Deepchill™ of any desired ice fraction (depending on species being caught or type of vessel) to non-fleet vessels. There is then a second discharge location at the receiving area where fish from the returning fishing vessels are unloaded into one-tonne receiving tanks, partially-filled, automatically, with a metered amount of very liquid Deepchill™ of 30% ice fraction. The fish is quickly cooled down to 0°C, and preserved there until it can be processed.

The final discharge location is in the fish-packing area where product is removed from the receiving tanks, weighed and placed into Styrofoam boxes. Thick Deepchill™ with a 60% ice fraction is pumped a distance of 50m to the Deepchill™ Filling Station and into the boxes. Falch Marine works mainly with cod and Deepchill™ is discharged into either end of the box, on the cod tails and top end of the body. The company

says it is not put on the main body of the cod, because the very sensitive cod skin would turn grey if it stayed in contact with ice during shipping.

To save space and increase capacity it was also possible to put part of the seawater ice-making production system in a boxed unit outside the plant. All in all, Falch, who added the extended system to his existing 60-tonne per day fish processing facilities, says "The cooling is more effective now. When we get the fish from the boats and we put it into deepchill™, it cools down immediately, so we've increased the quality. The fish is cooled down faster, so it maintains its quality for a longer period. So now when we market we can add on two more days (to the shelf life), and our buyers say the fish is maintaining its quality better.

"It is also more effective when we pack because we don't need to do the work manually, we simply fill the boxes automatically." The product is shipped by truck across Europe, the company says.

Swedes delighted to freeze for Kiwi vessels

Swedish company Searf reports it has installed a cargo hold refrigeration unit for the Sea Hawke, owned by the new Zealand's company Forty South Limited.

It replaces a fan coil refrigeration unit which had proved inadequate over the past few years for the trawler's 90 cubic metre cargo hold.

To get round low headroom in the hold the Searf system S 2000 will consist of a single layer of polymer pipes in the roof using up only 10cm of space.

The refrigeration is small enough to sit in the engine room and water for chilling will come from the existing seawater pump.

The trawler will also have what Searf calls "a flexible, robust secondary refrigeration system with small charges of

R 404 A to give temperature of zero degrees Centigrade in the hold without any fans, therefore avoiding to dry out the catch."

The owners expect to cut down ice consumption on board and the crew can cool off by getting air-conditioning in the wheelhouse and cabins if needed.

This is the second purchase by Forty South Limited from Searf – they put a system in the commercial trawler Pacific Explorer which they had bought from Peru and



refitted in Napier (NZ).

Forty South Limited operates 7 fishing vessels around the New Zealand coast.