

On-board handling

Correct on-board handling is essential if quality of the final product is to meet with requirements of the UK market.

Unnecessary harsh treatment of the raw material should be avoided, because it causes various kinds of defects such as gaping and bruising. Volume in each haul should therefore be kept at reasonable amounts, the use of seawater to retrieve fish from the live-hold should be kept at a minimum, conveyor belts should be designed so that fish is not subjected to unnecessary drop and fish should never be thrown or dropped from great height into tubs.

Blood is a good nutrition for bacteria and reduces therefore shelf life of the catch; it also affects the colour of the fillets resulting in lower value products. Draining as much blood as possible from the flesh of the fish is therefore very important. Bleeding preferably needs to take place while the fish is still „alive“, in order to allow the heart to pump as much blood as possible out of the veins. The throat of the fish is cut as high up as possible, through the oesophagus and all the way through the jugulars on each side of the spine. It though should be avoided to cut through the spine.

If the catch is also gutted on-board, the belly is carefully slit all the way down to the cloacae, without damaging the entrails. A cut that is either too long or too short is considered a defect, because a cut that is too short makes it difficult to clean the fish properly and the ventricle can retain fluids that causes spoilage; a cut that is too long opens an access for microbes into the flesh, damages the appearance of the fillet and makes it difficult to feed the fish into a filleting machine. It is important not to damage the entrails because gastric secretions, half digested food, ruptured gall bladder and bowel can cause damage if the fish is not cleaned properly. It can also damage by-products such as liver, roes, milts etc. Remove all of the entrails without damaging the fish and then wash the fish thoroughly before chilling and storing in the hold. When removing the entrails, make sure not to cut into or tear up the flesh around the collarbone.

Washing tubs should have adequate throughput of fresh seawater, should not be overfilled with fish and each fish should spend enough time in the tub to bleed and be thoroughly cleaned. Under best available condition 3-5 minutes should be enough, but that time needs to be increased if seawater replacement is not quick enough or if the tub is overfilled.

Pre-chilling tanks are increasingly being used on-board vessels that supply the UK with container fish. These tanks are filled up with seawater and slurry ice, and each fish is kept in the tank for approximately 40 minutes. This enables fishermen to severally shorten the time it takes for the fish to reach optimum temperature, thus increasing the shelf life of the final product. It is important to wash the fish thoroughly before it enters the pre-chilling tank, as the pre-chilling tank is not supposed to replace the washing tub. When the fish comes out of the pre-chilling tank its core-temperature should be around 0°C. Then the fish is ready to be put on ice in tubs, down in the hold.



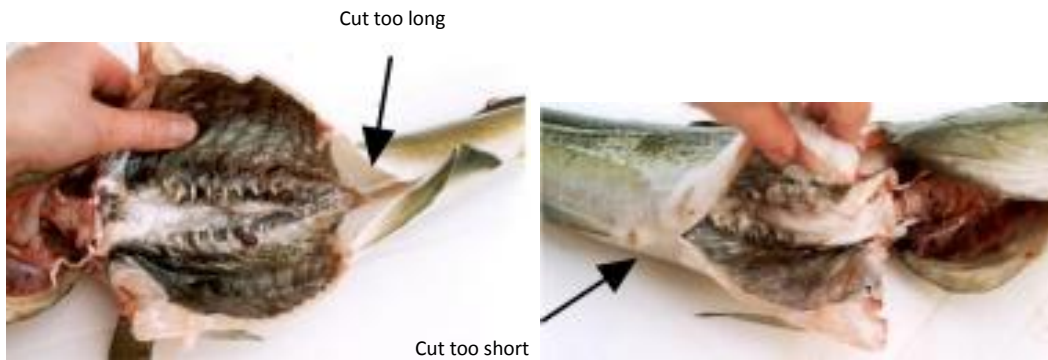
Cut the throat as high up as possible, clear from the bones and make sure both of the carotid arteries are severed.



The belly is carefully slit all the way down to the cloacae, without damaging the entrails. All of the entrails are then removed without causing damage to the flesh. It is particularly important to be careful not to rip the collarbone out of the socket.



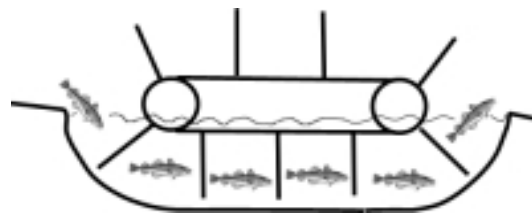
Make sure that all of the entrails are removed.



Slit the belly all the way to the cloacae, without cutting through the entrails.



Make sure to remove all of the entrails



Washing should be thorough, where the design of the tub needs to make sure that each fish spends enough time inside the tub.