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## **Marine finfish farms — Open net cage — Design and operation**

*Exploitations de pisciculture marine — Cages à filets ouverts —  
Opération et conception*



Reference number  
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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 234, *Fisheries and aquaculture*.

## Introduction

This International Standard is developed to ensure that a net cage marine finfish farms are adequately designed, constructed, and maintained to meet the anticipated rigours of the marine environment in which they will be deployed to prevent escapes (unintended impacts) during every day operations and unforeseen events. The standard is to be applied by the farm operators on a site-specific basis. Aquaculture producers are recommended to ensure that the combination of technologies that they have selected for a site meets environmental and other operational considerations for that site. Equipment manufacturers can use this International Standard, methodology, and terminology so that their customers (farm operators) can have the opportunity to meet the requirements with this International Standard.

The physical rigours of the marine environment to which a net cage marine finfish farm can be subjected include tidal currents, wave action, storm surges, hurricanes, wind exposures, icing; equipment design (net cage structures, mooring systems, netting components, predator control, and site markers. Other factors influencing the integrity of a net cage marine finfish farm include qualifications of equipment manufacturers and suppliers, handling practices, inspection and maintenance, reporting and auditing, and stock loss and recovery planning.

Within marine aquaculture, an increasing degree of farming on high energy sites (strong tidal currents, wave action, storm surges, hurricanes, wind exposure, icing) is predicted. Further developments in equipment and technology for farming in cages on high energy sites can result in improved water quality and fish health. The use of high energy locations will necessitate improvements of cages, mooring systems, and feeding systems. It can also require larger boats for servicing, and calls for new techniques for installation and daily operations.

This international technical standard is intended to reduce technical and operational failures, consequently enhancing the sustainability of the industry. All precautions are recommended to be taken to prevent escapes (unintended impacts) from aquaculture installations as a result of improper specification of technical main components or improper operational use. This International Standard will offer one tool in a link of other guidelines needed for the aquaculture industry to be environmentally sustainable.