
**Small craft — Watertight or quick-
draining recesses and cockpits**

*Petits navires — Cavités et cockpits étanches ou rapidement
autovideurs*





COPYRIGHT PROTECTED DOCUMENT

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols	5
5 General	6
5.1 Loading and measurement conditions.....	6
5.2 Requirements for watertight and quick-draining recesses.....	6
6 Watertightness requirements	6
6.1 Watertightness requirements for watertight recesses.....	6
6.2 Watertightness requirements for quick-draining recesses.....	7
7 Requirements for companionway sills	7
7.1 Companionway sills.....	7
7.2 Quick-draining recess with a reduced risk of flooding.....	8
7.3 Sill height measurement.....	8
7.4 Minimum companionway sill height for quick-draining recesses.....	8
8 Height of recess bottom above waterline for quick-draining recesses	8
9 Quick-draining recesses — Single bottom recess drainage	9
9.1 Drainage general requirements.....	9
9.2 Drain requirements.....	9
9.2.1 Number and dimensions.....	9
9.2.2 Special provisions.....	9
9.2.3 Installation.....	10
9.3 Drainage calculation requirements.....	10
9.3.1 Drainage calculation principle and assessment methods.....	10
9.3.2 Simplified drainage assessment method.....	11
10 Quick-draining recesses — Multi-bottom recess drainage	12
10.1 Drainage general requirements.....	12
10.2 Drainage calculations.....	12
10.3 Drainage requirements for a foot basin.....	13
11 Owner's manual	14
11.1 General recommendation for use.....	14
11.2 Recommendation for use from Table 4 — Companionway opening.....	14
Annex A (normative) Full calculation method for draining time	16
Annex B (informative) Technical background — Source of the calculations used	24
Annex C (informative) Examples of “quick-draining” recesses	30
Bibliography	32

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).

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).

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

For an explanation of the voluntary nature of standards, 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 [Foreword - Supplementary information](#).

This document was prepared by Technical Committee ISO/TC 188, *Small craft*.

This second edition cancels and replaces the first edition (ISO 11812:2001), which has been technically revised.

The main changes compared to the previous edition are as follows:

- systematic usage of the general term "recess" instead of "cockpit";
- introduction of the concept of recess open to the sea and recess with reduced risk of flooding;
- clarification of requirements;
- clarification of requirements on engine ventilation openings installed in recesses;
- implementation of multi-bottom recesses or recesses with a foot-basin in the main core of the standard;
- deletion of "major head losses" (friction in drain pipes) as their effect was very small, but this made the calculation much more complex;
- improved data for "minor head losses" (local losses) to correspond to common practice;

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Small craft — Watertight or quick-draining recesses and cockpits

1 Scope

This document specifies watertightness, draining time and sill heights requirements for watertight and quick-draining recesses and cockpits in small craft of up to 24 m load line length (see Reference [1]).

Recesses located in elevated parts of the craft are covered by this document.

This document does not specify requirements for the size, the shape and the location of recesses or cockpits. It only considers draining by gravity, and not by pumping or other methods.

It only considers normal operation of the craft, but unattended craft recess issues are out of scope.

This document does not guarantee that the water contained in a watertight or quick-draining recess or cockpit will not affect the stability and buoyancy of the craft, which are covered by ISO 12217 (all parts):2015.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 8666:2016¹⁾, *Small craft — Principal data*

ISO 9093-1:1994¹⁾, *Small craft — Seacocks and through-hull fittings — Part 1: Metallic*

ISO 9093-2:2002¹⁾, *Small craft — Seacocks and through-hull fittings — Part 2: Non-metallic*

ISO 12216:2020, *Small craft — Windows, portlights, hatches, deadlights and doors — Strength and watertightness requirements*

ISO 12217-1:2015, *Small craft — Stability and buoyancy assessment and categorization — Part 1: Non-sailing boats of hull length greater than or equal to 6 m*

ISO 12217-2:2015, *Small craft — Stability and buoyancy assessment and categorization — Part 2: Sailing boats of hull length greater than or equal to 6 m*

ISO 12217-3:2015, *Small craft — Stability and buoyancy assessment and categorization — Part 3: Boats of hull length less than 6 m*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

1) Under revision.