



**SLOVENSKI STANDARD**  
**oSIST prEN ISO 11812:2023/oprA1:2023**  
**01-september-2023**

---

**Mala plovila - Vodotesni prostori ter prostori in kabine s hitrim odvajanjem vode -  
Dopolnilo A1 (ISO 11812:2020/DAM 1:2023)**

Small craft - Watertight or quick-draining recesses and cockpits - Amendment 1 (ISO 11812:2020/DAM 1:2023)

Kleine Wasserfahrzeuge - Wasserdichte und schnell-lenzende Plichten - Änderung 1  
(ISO 11812:2020/DAM 1:2023)

Petits navires - Cavités et cockpits étanches ou rapidement autovideurs - Amendement 1  
(ISO 11812:2020/DAM 1:2023)

**Ta slovenski standard je istoveten z: EN ISO 11812:202X/prA1**

---

**ICS:**

47.080

Čolni

Small craft

**oSIST prEN ISO 11812:2023/oprA1:2023 en,fr,de**



# DRAFT AMENDMENT ISO 11812:2020/DAM 1

ISO/TC 188

Secretariat: SIS

Voting begins on:  
2023-06-08

Voting terminates on:  
2023-08-31

---

---

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

### AMENDMENT 1

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

AMENDEMENT 1

ICS: 47.080

iTeh STANDARD PREVIEW  
(standards.iteh.ai)

[oSIST prEN ISO 11812:2023/oprA1:2023](https://standards.iteh.ai/catalog/standards/sist/eafa1dbb-9b96-45f9-a51a-1b0e578cf502/osist-pren-iso-11812-2023-opra1-2023)

<https://standards.iteh.ai/catalog/standards/sist/eafa1dbb-9b96-45f9-a51a-1b0e578cf502/osist-pren-iso-11812-2023-opra1-2023>

This document is circulated as received from the committee secretariat.

THIS DOCUMENT IS A DRAFT CIRCULATED FOR COMMENT AND APPROVAL. IT IS THEREFORE SUBJECT TO CHANGE AND MAY NOT BE REFERRED TO AS AN INTERNATIONAL STANDARD UNTIL PUBLISHED AS SUCH.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STANDARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.

RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

**ISO/CEN PARALLEL PROCESSING**



Reference number  
ISO 11812:2020/DAM 1:2023(E)

© ISO 2023

# iTeh STANDARD PREVIEW (standards.iteh.ai)

[oSIST prEN ISO 11812:2023/oprA1:2023](https://standards.iteh.ai/catalog/standards/sist/eafa1dbb-9b96-45f9-a51a-1b0e578cf502/osist-pren-iso-11812-2023-opra1-2023)

<https://standards.iteh.ai/catalog/standards/sist/eafa1dbb-9b96-45f9-a51a-1b0e578cf502/osist-pren-iso-11812-2023-opra1-2023>



## **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2023

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](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

## 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 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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

ISO 11812:2020 was prepared by Technical Committee ISO/TC 188, *Small craft*.

This amendment 1 to ISO 11812:2020 was prepared by ISO/TC 188, *Small craft*.

The main changes between this document and ISO 11812:2020.

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](http://www.iso.org/members.html).



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

## AMENDMENT 1

### Clause 2

Replace first 2 references with the following:

ISO 8666:2020, *Small craft — Principal data*

ISO 9093:2020, *Small craft — Seacocks and through-hull fittings*

### Clause 3

Replace definition 3.10 with the following:

#### 3.10

##### **recess open to the sea**

recess (3.6) where the aft and/or side boundaries are open to the outside of the craft so to not retain water in the recess, with:

— a *recess retention height* (3.21) equal to zero; or

draining section area ( $m^2$ ) of the recess greater than or equal to  $[0,05 V_C]$  ratio with  $V_C$  in ( $m^3$ ).

Note 1 to entry: Figure C.1 c) gives an example of a recess open to the sea.

Replace definition 3.21 with the following:

#### 3.21

##### **recess retention height**

$h_C$

height of a horizontal plane, measured from the recess bottom, below which the sum of open areas ( $m^2$ ) leading to the outside of the craft is greater than  $A_C/(LHBH)$  where  $A_C$  is the area of the recess bottom, with all closing appliances closed when measuring the sum of these open areas.

Further, drains smaller than 25 mm in diameter or equal area shall not be part of this sum.

### Clause 7.2

Replace 2<sup>nd</sup> indent with the following:

— the recess is open to the sea, as specified in 3.10 of this document;

**ISO 11812:2020/DAM 1:2023(E)***Clause 7.3*

Delete 1<sup>st</sup> paragraph and insert its content as a note after 2<sup>nd</sup> paragraph:

NOTE The sill height is the lowest height of the companionway, as specified in 3.28.

*Clause 7.4*

Replace 1<sup>st</sup> paragraph with the following:

Minimum companionway sill height for quick draining recesses shall comply with requirements specified in Table 5.

Replace 2<sup>nd</sup> sentence with the following:

These requirements shall not apply to quick-draining recesses with a reduced risk of flooding.

Replace note of Table 5 with the following:

NOTE The above requirements can be raised by other International Standards such as ISO 12217:2015 (all parts).

iTeh STANDARD PREVIEW  
(standards.iteh.ai)

*Clause 8*

Replace 1<sup>st</sup> paragraph with the following:

For quick-draining recesses, minimum recess bottom height,  $H_{B \text{ min}}$ , above reference waterline, shall comply with requirements specified in Table 6.

Replace 2<sup>nd</sup> paragraph with the following:

For a single-bottom recess,  $H_B$  shall be measured at the centre of the surface of the bottom.

Replace 3<sup>rd</sup> paragraph with the following:

For a multi-bottom recess,  $H_B$  shall be measured at the centre of the surface of the lowest bottom.

Replace note of Table 6 with the following:

NOTE Greater heights than these minimum values can be required to fulfil the maximum acceptable draining time according to Clauses 9 and 10.

*Clause 9.1*

Insert the following sentence at the end of Clause 9:

Where a foot basin is replaced by a horizontal opening, requirements of Clause 10.3 shall apply instead of Clause 9.



*Clause 9.2*

Replace last sentence of 1<sup>st</sup> paragraph with the following:

The simplified drainage assessment method of 9.3.2 shall be used if the following conditions are fulfilled:

- the minimum passage dimension inside any part of these devices has at least a section of 125 mm<sup>2</sup> (or a diameter of 12 mm), and
- the total entry cross-section is at least 1,5 times the internal cross-section of the drain.

Otherwise the drainage assessment shall be performed according to the full calculation method of Annex A or a test method.

To be used as drains, centreboard housings and other types of apertures where fitted shall comply with the following conditions:

- they are designed for this purpose, and
- they fulfil the other relevant requirements of Clause 9.

*Clause 9.3.1*

Replace 1<sup>st</sup> paragraph with the following:

The drainage calculation principle of this document for quick-draining recesses shall be based on a maximum draining time approach.

Replace 3<sup>rd</sup> paragraph with the following:

The draining time shall be the time elapsed to empty the recess between the retention height,  $h_C$ , and 0,1 m of the remaining water height.

Replace 2<sup>nd</sup> indent of 5<sup>th</sup> paragraph with the following:

- and full calculation method, as defined in Annex A, which gives more accurate results;

Replace last paragraph with the following:

If the draining section of the recess is greater than or equal to 0,05  $V_C$ , this recess shall not require a draining time assessment.

*Clause 9.3.2*

Replace 1<sup>st</sup> paragraph with the following:

The following calculation method shall apply to single level bottom recesses.

## ISO 11812:2020/DAM 1:2023(E)

### Clause 10.1

Insert the following sentence at the end of Clause 10.1:

In multi-bottom recess, when recess bottom level adjacent to the companionway is not the highest recess bottom level, then requirements of draining calculations shall be made according to of Clause 10.3.2.

### Clause 10.2

Replace content of 10.2 with the following:

#### 10.2.1 Draining calculation requirements

To calculate the draining time of multi-bottom recess, the following step by step method shall apply:

Step 1 – Calculate the total volume,  $V_C$ , of the multi-bottom recess.

Step 2 – Calculate  $t_{\max}$  related to  $V_C$  using Formula (1).

Step 3 – Calculate the time  $t_{\text{ref}1}$  to drain the volume  $V_1$  from  $h_C$  to the highest bottom level.

Step 4 – Define the sub-volumes  $V_n$  to drain for each remaining drainage system.

Step 5 – Calculate the draining times  $t_{\text{ref}n}$  of each sub-volume  $V_n$  (see Formulas in Clause A.3).

Where one of these sub-volumes  $V_n$  is open to the sea, no drainage calculation is required and  $t_{\text{ref}n} = 0$ .

Step 6 – Calculate the sum of  $t_{\text{ref}n}$ ; when considering multiple sub-volumes draining at the same time, the longest draining time obtained shall be used in the draining time sum.

The maximum time elapsed to empty a multi-bottom recess from the retention height  $h_C$  to a level of 0,1 m of remaining water height shall be less than  $t_{\max}$  calculated in step 1 of this process.

The remaining water height shall be calculated in the last sub-volume to drain.

#### 10.2.2 Example of draining calculation application

Figure 3a provides an example of assessment for a multi-bottom level recess arrangement, where:

- the volume  $V_C$  is split into sub-volumes  $V_1$ ,  $V_2$ ,  $V_3$ ,  $V_4$  and  $V_5$  according to the respective bottom levels;
- $t_{\text{ref}1}$ ,  $t_{\text{ref}2}$ ,  $t_{\text{ref}3}$ ,  $t_{\text{ref}4}$ , and  $t_{\text{ref}5}$  are the draining time of the respective sub-volumes  $V_1$ ,  $V_2$ ,  $V_3$ ,  $V_4$  and  $V_5$ ;
- the longest draining time sum from  $[t_{\text{ref}1}+t_{\text{ref}2}+t_{\text{ref}3}]$  or  $[t_{\text{ref}1}+t_{\text{ref}4}+t_{\text{ref}5}]$  shall be less than  $t_{\max}$ .

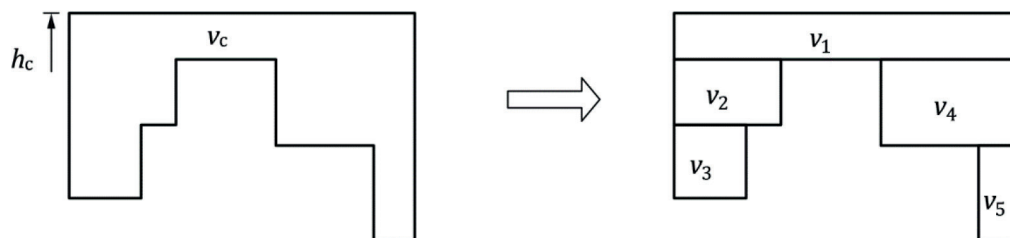


Figure 3a — Side view example of multi-bottom recess arrangement assessment