INTERNATIONAL STANDARD

ISO 5620-2

First edition
1992-12-01

Shipbuilding and marine structures — Filling connection for drinking water tanks —

Part 2:
Components

Construction navale et structures maritimes — Raccordement de remplissage des réservoirs à eau potable —

Partie 2: Éléments constitutifs

Reference number
ISO 5620-2:1992(E)

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 5620-2 was prepared by Technical Committee ISO/TC 8, *Shipbuilding and marine structures.*

This first edition of ISO 5620-2 together with ISO 5620-1 cancel and replace the first edition of ISO 5620, of which they constitute a technical revision.

ISO 5620 consists of the following parts, under the general title *Shipbuilding and marine structures — Filling connection for drinking water tanks*:

— *Part 1: General requirements*

— *Part 2: Components*

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Shipbuilding and marine structures — Filling connection for drinking water tanks —

Part 2:
Components

1 Scope

ISO 5620 specifies the drinking water connection aboard ships for attachment of piping from another ship or from a land distribution system.

This part of ISO 5620 specifies the technical details of the components of the filling connection and lays down the designation of the main components such as flanges, securing bolts and gasket.

NOTE 1 Part 1 of ISO 5620 specifies the general requirements, the composition and the designation of the complete filling connection.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 5620. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 5620 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 630:1980, *Structural steels.*

ISO 683-1:1987, *Heat-treatable steels, alloy steels and free-cutting steels — Part 1: Direct-hardening unalloyed and low-alloyed wrought steel in form of different black products.*

ISO 1302:1992, *Technical drawings — Method of indicating surface texture.*

ISO 2341:1986, *Clevis pins with head.*

ISO 4016:1988, *Hexagon head bolts — Product grade C.*

ISO 4026:1977, *Hexagon socket set screws with flat point.*

ISO 5620-1:1992, *Shipbuilding and marine structures — Filling connection for drinking water tanks — Part 1: General requirements.*

3 Supply watering flange

The supply watering flange (flange A in ISO 5620-1) shall be used for the piping or hose line to the drinking water supply source.

3.1 Dimensions

The dimensions of the supply watering flange shall be as shown in figure 1.

3.2 Material

The supply watering flange shall be made of steel in accordance with ISO 630, grade Fe 360, as the minimum quality.

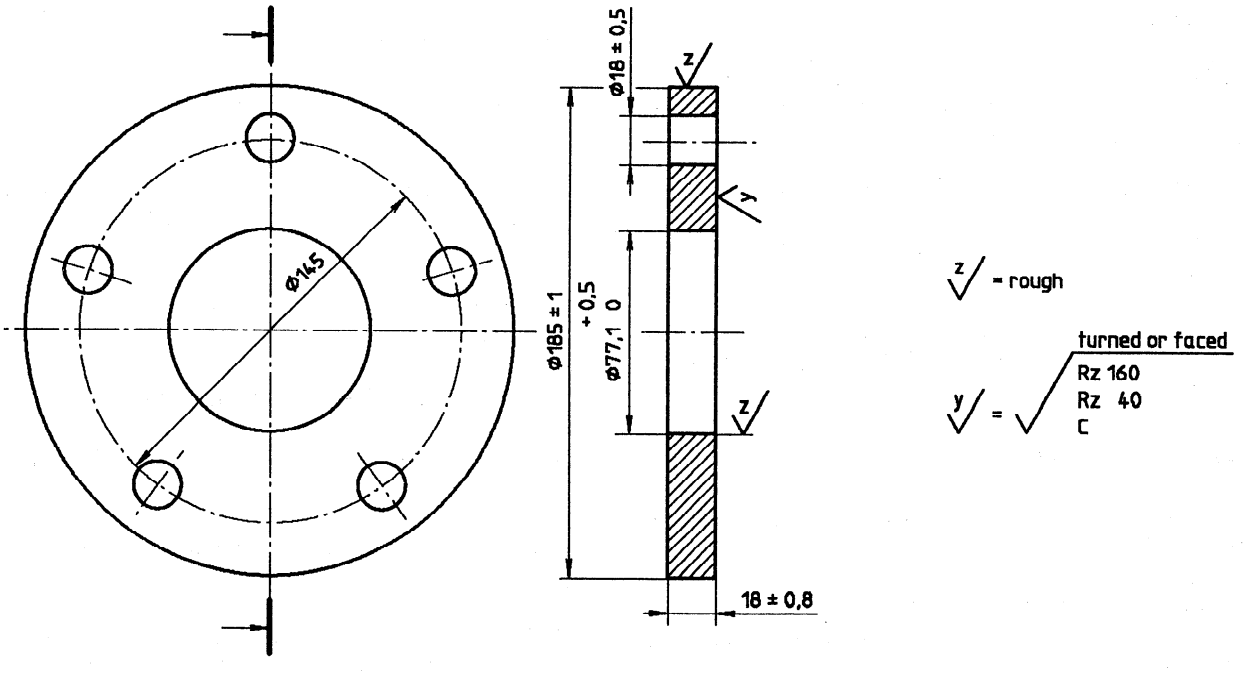
Alternatively ship-quality steel plate grade A may be used, provided that it has equivalent mechanical and welding properties.

3.3 Designation

A supply watering flange (flange A) that meets the requirements of this part of ISO 5620 shall be designated:

Flange ISO 5620-2 - A

Dimensions in millimetres
Surface texture in accordance with ISO 1302



NOTE — Positioning of holes shall be in accordance with ISO 5620-1.

Figure 1 — Dimensions of supply watering flange

4 Ship watering flange

4.1 Dimensions

The dimensions of the ship watering flange (flange B in ISO 5620-1) shall be as given in figure 2.

4.2 Material

The ship watering flange shall be made of steel in accordance with ISO 630, grade Fe 360, as the minimum quality.

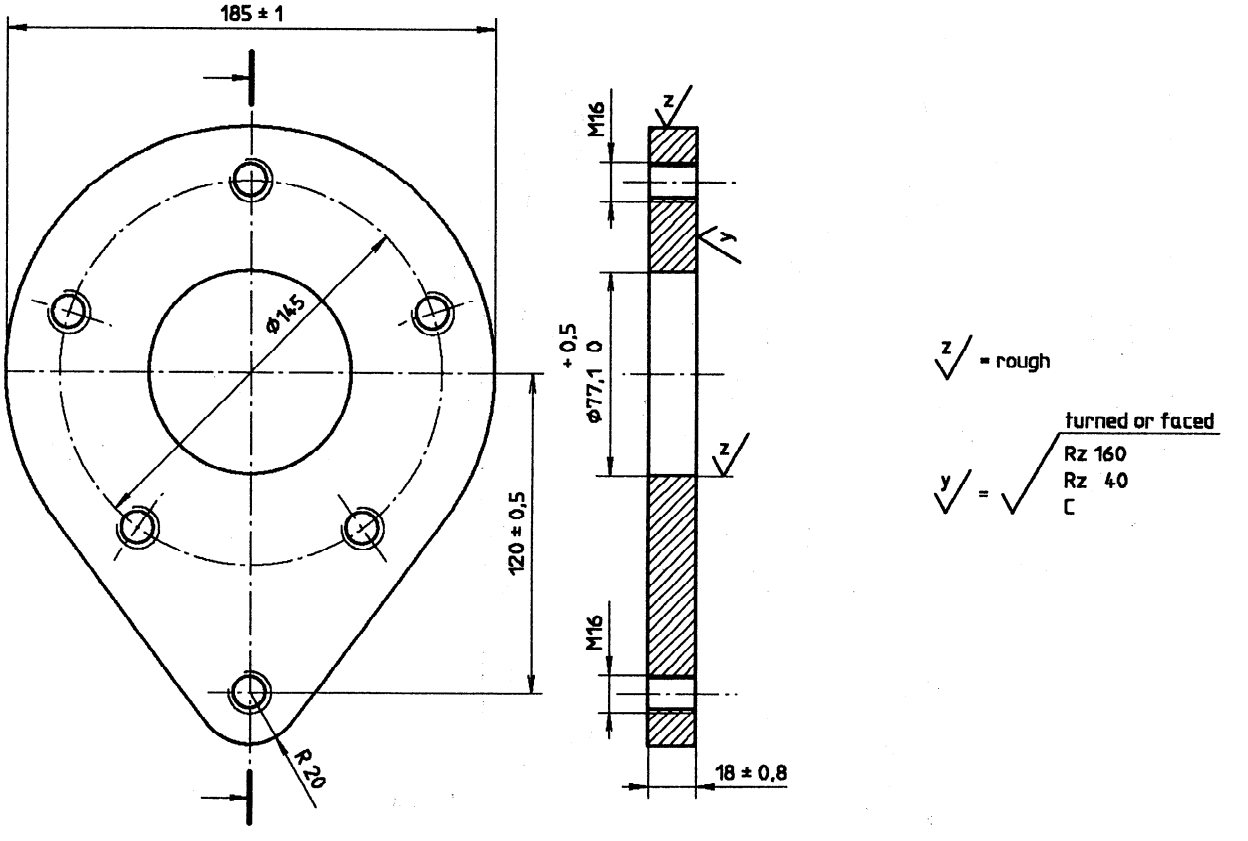
Alternatively ship-quality steel plate grade A may be used, provided that it has equivalent mechanical and welding properties.

4.3 Designation

A ship watering flange (flange B) that meets the requirements of this part of ISO 5620 shall be designated:

Flange ISO 5620-2 - B

Dimensions in millimetres
Surface texture in accordance with ISO 1302



NOTE — Positioning of holes shall be in accordance with ISO 5620-1.

Figure 2 — Dimensions for ship watering flange

5 Ship watering blind flange

5.1 Dimensions

The dimensions of the ship watering blind flange (flange C in ISO 5620-1) shall be as given in figure 3.

5.2 Material

The ship watering blind flange shall be made of steel in accordance with ISO 630, grade Fe 360, as the minimum quality.

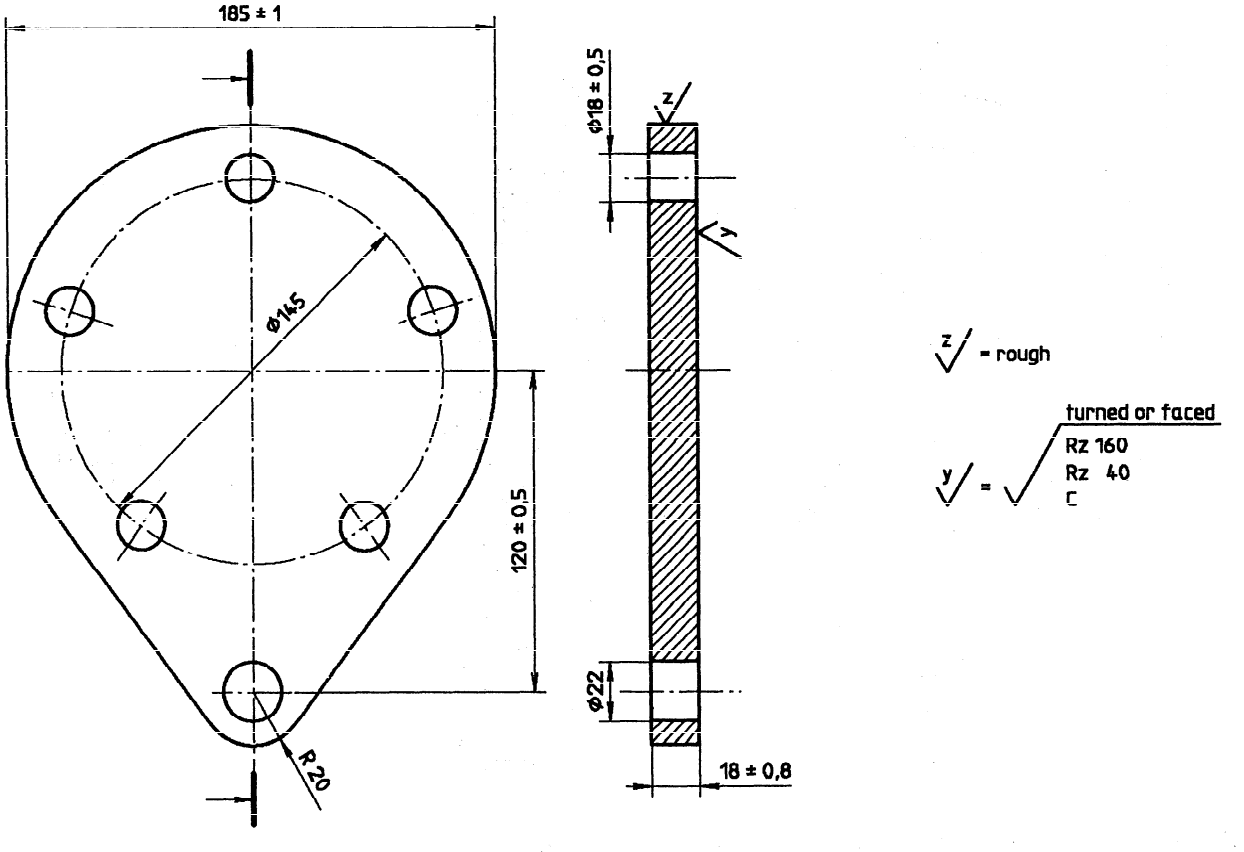
Alternatively ship-quality steel plate grade A may be used, provided that it has equivalent mechanical and welding properties.

5.3 Designation

A ship watering blind flange (flange C) that meets the requirements of this part of ISO 5620 shall be designated:

Flange ISO 5620-2 - C

Dimensions in millimetres
Surface texture in accordance with ISO 1302



NOTE — Positioning of holes shall be in accordance with ISO 5620-1.

Figure 3 — Dimensions of ship watering blind flange

6 Securing bolt

6.1 Dimensions

The dimensions of the securing bolt (code letter D in ISO 5620-1) shall be as given in figure 4. Where semi-finished products are used, a clevis pin according to ISO 2341 - A - 20 × 85 - St shall be used.

6.2 Material

The securing bolt shall be made of non-corrodible steel in accordance with ISO 683-1, grade H as the minimum quality.

6.3 Designation

A securing bolt (code letter D) that meets the requirements of this part of ISO 5620 shall be designated:

Bolt ISO 5620-2 - D

7 Gasket

7.1 Dimensions

The dimensions of the gasket (code letter E in ISO 5620-1) shall be as given in figure 5.

7.2 Material

Gaskets shall be made of seawater-resistant elastomer material, which is acceptable for drinking water.

7.3 Designation

A gasket (code letter E) that meets the requirements of this part of ISO 5620 shall be designated:

Gasket ISO 5620-2 - E

8 Stud-bolts

Stud-bolts M16 of non-corrodible steel of grade H in accordance with ISO 683-1, as the minimum quality, shall be used and fitted in the watering flange.

Alternatively hexagon socket set screws with a flat point in accordance with ISO 4026 or normal hexagon bolts in accordance with ISO 4016, both made of non-corrodible steel, may be used.

9 Nuts

Hexagon cap nuts M16 shall be used. They shall be made of non-corrodible steel grade H in accordance with ISO 683-1, as the minimum quality.

Alternatively ordinary hexagon nuts M16 may be used, provided that they are of same material.

10 Padlock

The hinged locking shall have a width of approximately 30 mm, with its diameter approximately 8 mm.

The internal components of the padlock shall be of non-corrodible metallic materials (for instance brass).

All other components of the padlock may be made of steel.

The padlock should have an eye serving for the connection of the securing chain.

11 Securing chain

Securing chains shall be made of non-corrodible steel.

The securing chain should have at one end an S-shaped hook for fastening the chain at the securing bolt: on the other end it should have a securing ring for padlock connection.

Common small chains without quality requirements may be used, for instance knotted link chains as shown in figure 6.

Dimensions in millimetres
Surface texture in accordance with ISO 1302

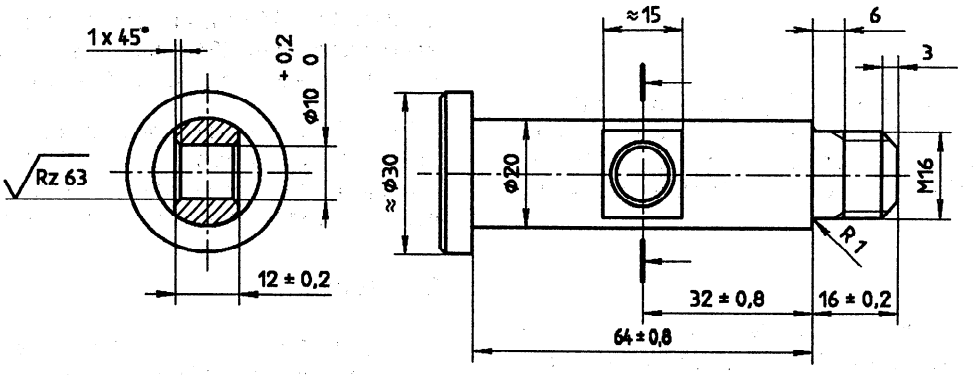


Figure 4 — Dimensions of securing bolt

Dimensions in millimetres

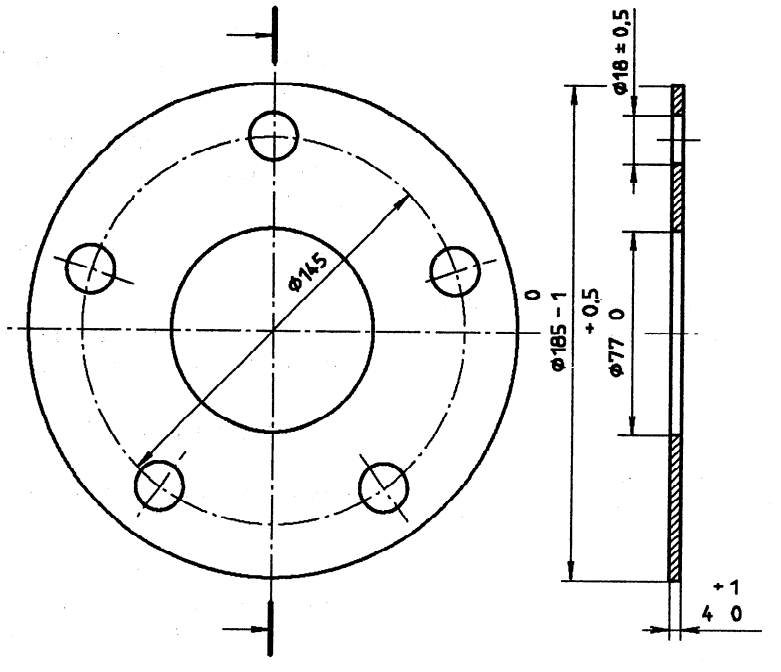


Figure 5 — Dimensions of gasket

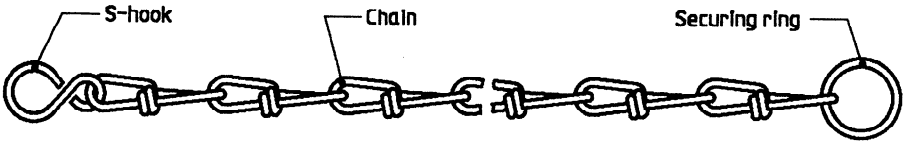


Figure 6 — Example for securing chain

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Descriptors: shipbuilding, ships, water supply, potable water, tanks (containers), piping, water pipelines, pipe joints, connecting joints, components, specifications, dimensions, designation.

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