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Ships and marine technology — Metal valves for use in flanged pipe — Face-to-face and centre-to-face dimensions

Navires et technologie maritime — Vannes en métal pour tuyaux à brides — Dimensions face-à-face et face-à-axe

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Foreword

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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 8, *Ships and marine technology*, Subcommittee SC 3, *Piping and machinery*.

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Introduction

This International Standard establishes face-to-face and centre-to-face dimensions for metal marine valves to permit a degree of dimensional interchangeability in ships and marine piping.

It is intended for use in selecting valves in piping for ships and marine services.

This International Standard specifies face-to-face and centre-to-face dimensions of valves for ships and marine services including supplementary series of special valves under Standards for ships, other than those specified in ISO 5752:1982 for variety of types and series of general industrial valves.

The tables of face-to-face dimensions in this International Standard and those specified in ISO 5752:1982 represent a considerable rationalization of international practices for metallic valves to be used worldwide in the shipbuilding and marine services. The pressure/temperature ratings for the different types of valves are those to be specified in the valve product standards for the types of valve and materials used.

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Ships and marine technology — Metal valves for use in flanged pipe — Face-to-face and centre-to-face dimensions

1 Scope

This International Standard specifies the basic series of face-to-face or centre-to-face dimensions for two-way metal valves used in flanged pipe systems for ship and marine services. Each series of face-to-face or centre-to-face dimensions can be used as required with flanges of mating dimensions conforming to ISO 7005-1, ISO 7005-2, and ISO 7005-3 or other national standards.

The range of pressure ratings, in "K" values, is 5 - 10 - 16 - 20 - 30 - 40 and those specified in ISO 5752.

The range of nominal sizes, in "DN" or "A" values, is 15 - 20 - 25 - 32 - 40 - 50 - 65 - 80 - 100 - 125 - 150 - 200 - 250 - 300 - 350 - 400 - 450 - 500 - 550 - 600 - 650 - 700 - 750 - 800 - 900 - 1 000 - 1 200.

NOTE For information, pressure ratings at room temperature (cold ratings up to 120 °C) of K-series flanges are approximately as follows.

Pressure class	5K	10K	16K	20K	30K	40K
Pressure rating (RT)	0,7 MPa	1,4 MPa	2,2 MPa	3,4 MPa	5,1 MPa	6,8 MPa

Pressure rating can differ by valve materials, sizes, and types. Reference shall be made to relevant product standards. For details of pressure temperature ratings of K-series flanges, refer to JIS Standards in the bibliography of this International Standard. JIS F7300 specifies a comprehensive guide for selection of valves listed in Tables 1 to 5.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5752, *Metal valves for use in flanged pipe systems — Face-to-face and centre-to-face dimensions*

ISO 7005-1, *Pipe flanges — Part 1: Steel flanges for industrial and general service piping systems*

ISO 7005-2, *Metallic flanges — Part 2: Cast iron flanges*

ISO 7005-3, *Metallic flanges — Part 3: Copper alloy and composite flanges*

ISO 8277, *Ships and marine technology — Pipework and machinery — Information transfer*

3 Terms and definitions

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

3.1
nominal size (DN: A)
alphanumeric designation of size for components of a pipework system, which is used for reference purposes

Note 1 to entry: It comprises the letters DN or A followed by a dimensionless whole number which is indirectly related to the physical size, in millimetres, of the bore or outside diameter of the end connections.

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