
International Standard



5996

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Cast iron gate valves

Robinets-vannes en fonte

First edition — 1984-12-15

UDC 621.646.5

Ref. No. ISO 5996-1984 (E)

Descriptors : valves, flanged valves, gate valves, cast iron products, specifications, dimensions, materials, designation, marking.



Documents

Document Sharing Hub
Price based on 9 pages

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 5996 was prepared by Technical Committee ISO/TC 153, *Valves*.

Cast iron gate valves

0 Introduction

The purpose of this International Standard is the establishment of the basic requirements for cast iron gate valves with bolted bonnet connections and flanged ends.

1 Scope

This International Standard specifies requirements for hand-wheel or actuator-operated cast iron gate valves for general application including the following features:

- inside screw stem (non-rising) or outside screw stem (rising);
- wedge or parallel obturator;
- single or double obturator;
- metallic or elastomeric obturator seatings;
- metallic or elastomeric body seatings;
- ferrous metal and/or copper alloy trims;
- bolted bonnet connection;
- flanged ends.

2 Field of application

2.1 This International Standard covers valves of the following nominal sizes, DN:

40; 50; 65; 80; 100; 125; 150; 200; 250; 300; 350; 400; 450; 500 (550); 600 (650); 700; 750; 800; 900; 1000.

2.2 This International Standard applies to valves of the following nominal pressures, ISO PN:

- 1; 1,6; 2,5; 4; 6 and 10 in isomorphic series in flake graphite cast iron, and
- 10; 16; 20 and 50 in flake graphite cast iron, and
- 10; 16; 20; 25; 40 and 50 in spheroidal cast iron.

3 References

- ISO 185, *Classification of grey cast iron*.¹⁾
- ISO 1083, *Spheroidal graphite or nodular graphite cast iron*.
- ISO 5208, *Industrial valves — Pressure testing for valves*.²⁾
- ISO 5209, *General purpose industrial valves — Marking*.
- ISO 5210/1, *Multi-turn valve actuator attachment — Part 1: Flange dimensions*.
- ISO 5752, *Metal valves for use in flanged pipe systems — Face-to-face and centre-to-face dimensions*.
- ISO 7005/2, *Metallic flanges — Part 2: Iron flanges*.²⁾
- ISO 7268, *Pipe components — Definition of nominal pressure*.

4 Pressure/temperature ratings

Pressure/temperature ratings in accordance with ISO 7005/2 shall apply.

1) At present at the stage of draft. (Revision of ISO/R 185-1961.)

2) At present at the stage of draft.

5 Design

5.1 Face-to-face dimensions

The figures shown in tables 1 and 2 apply to unlined valves and include the raised faces of the flanges.

Table 1 — Face-to-face dimensions for isomorphic series flake graphite cast iron gate valves, ISO PN1 to ISO PN10

DN	ISO PN1	ISO PN1,6	ISO PN2,5	ISO PN4	ISO PN6	ISO PN10	Flange mating dimensions
	Face-to-face dimensions mm						
40						140	ISO PN10 in accordance with ISO 7005/2
50						150	
65						170	
80						180	
100						190	
125						200	
150						210	
200					230		
250					250		
300					270		
350				290			
400				310			
450				330			
500				350			
600			390				
700			430				
800		470					
900	510						
1 000	550						
Basic series in accordance with ISO 5752	14						