

**Kõrgtugevast malmist torud, liitmikud,  
abiseadised ja nende ühendused  
gaasitorustike jaoks. Nõuded ja  
katsemeetodid**

Ductile iron pipes, fittings, accessories and their  
joints for gas pipelines - Requirements and test  
methods

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 969:2000 sisaldab Euroopa standardi EN 969:1995+A1:1998 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 969:2000 consists of the English text of the European standard EN 969:1995+A1:1998.</p> <p>This document is endorsed on 11.01.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>Käesolev Euroopa standard määrab kindlaks nõuded ja kaasnevad testimismeetodid, mida kohaldatakse torustike valmistamiseks kasutatavate kõrgtugevast malmist torude, armatuuri, abiseadmete ja nende ühenduste jaoks.</p>	<p><b>Scope:</b></p>
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**ICS** 23.040.10, 23.040.40

**Võtmesõnad:** gaasitorud, gaasitorustikud, katsetused, kvaliteeditagamise, kõrgtugev valumalm, mehaanilised karakteristikud, mõõtmed, mõõtmeterantsid, pinnakate, survetorud, tehnilised andmed, toruarmatuur, valumalm tooted, ühendamine

ICS 23.040.10; 23.040.40

Descriptors: Gas pipework, pipes, pipe fittings, cast iron.

English version

Ductile iron pipes, fittings, accessories  
and their joints for gas pipelines

Requirements and test methods

Tuyaux, raccords et accessoires en fonte ductile et leurs assemblages pour canalisations de gaz; prescriptions et méthodes d'essai

Rohre, Formstücke, Zubehörteile aus duktilem Gußeisen und ihre Verbindungen für Gasleitungen; Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 1995-07-13.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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## Foreword

This European Standard has been prepared by CEN/TC 203 'Cast iron pipes, fittings, accessories and their joints', the Secretariat of which is held by AFNOR.

It is one of a series of standards for cast iron products for pipelines for various applications and deals with the subjects covered by International Standards ISO 2531 and ISO 8179. The major differences are the presentation in one single standard and the addition of product performance specifications.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by February 1996 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## Introduction

In preparing this standard it was recognised that there may exist various National Regulations in the individual member states of Europe which may influence some of the requirements. This standard makes allowance for this by referring to National Regulations at relevant places.

## 1 Scope

This European Standard specifies the requirements and associated test methods applicable to ductile iron pipes, fittings, accessories and their joints for the construction of pipelines:

- to convey air or combustible gases (e.g. natural gas or town gas) at pressures up to 16 bar ;
- to be installed below or above ground

NOTE 1: A combustible gas is a gas or any fuel that is in gaseous state at a temperature of 15 ° C at a pressure of 1 bar.

NOTE 2: In this standard, all pressures are relative pressures expressed in bars (100kPa = 1 bar).

This standard specifies requirements for materials, dimensions and tolerances, mechanical properties and standard coatings of ductile iron pipes and fittings. It also gives performance requirements for all components including joints.

This standard covers pipes, fittings and accessories cast by any type of foundry process or manufactured by fabrication of cast components, as well as corresponding joints, in a size range extending from DN 40 to DN 600 inclusive.

This standard applies to pipes, fittings and accessories which are:

- manufactured with socketed, flanged or spigot ends for jointing by means of various types of gaskets which are not within the scope of this standard;
- normally delivered externally and internally coated;
- suitable for gas temperatures between - 15 ° C and 50 ° C.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 10002-1	1990	Metallic materials - Tensile testing - Part 1: Method of test (at ambient temperature)
EN 29002	1987	Quality systems - Model for quality assurance in production and installation

EN 45012	1989	General criteria for certification bodies operating quality system certification
prEN 1092-2	1993	Flanges and their joints - Part 2: Cast iron flanges - PN designated
ISO 2531	1991	Ductile iron pipes, fittings and accessories for pressure pipelines
ISO 6447	1983	Rubber seals - Joint rings used for gas supply pipes and fittings - Specification for material
ISO 6708	1980	Pipe components - Definition of nominal size
ISO 7268	1983	Pipe components - Definition of nominal pressure
ISO 7268/A1	1984	Pipe components - Definition of nominal pressure
ISO 7483	1991	Dimensions of gaskets for use with flanges to ISO 7005

### 3 Definitions

For the purposes of this standard, the following definitions apply.

**3.1 ductile iron :** Cast iron used for pipes, fittings and accessories in which graphite is present substantially in spheroidal form.

**3.2 pipe :** Casting of uniform bore, straight in axis, having either socket, spigot or flanged ends, except for flanged-socket pieces, flanged-spigot pieces and collars which are classified as fittings.

**3.3 fitting :** Casting other than a pipe which allows pipeline deviation, change of direction or bore. In addition flanged-socket pieces, flanged-spigot pieces and collars are also classified as fittings.

**3.4 accessory :** Any casting other than a pipe or fitting which is used in a pipeline, e.g.:

- glands and bolts for mechanical flexible joints (see 3.13);
- glands, bolts and locking rings for restrained flexible joints (see 3.14);
- pipe saddles for service cocks connection;
- adjustable flanges and flanges to be welded or screwed-on.

NOTE: Valves of all types are not covered by the term accessory.