Flanges and their joints - Bolting - Part 1: Selection of bolting

Flanges and their joints - Bolting - Part 1: Selection of bolting



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1515-
1:2000 sisaldab Euroopa standardi EN
1515-1:1999 ingliskeelset teksti.

Käesolev dokument on jõustatud 16.06.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 1515-1:2000 consists of the English text of the European standard EN 1515-1:1999.

This document is endorsed on 16.06.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

Käsitlusala:

This European Standard covers the selection of bolting for PN and class designated flanges. It defines standards for dimensions, materials and technical conditions of delivery for bolts, stud bolts and nuts.

Scope:

This European Standard covers the selection of bolting for PN and class designated flanges. It defines standards for dimensions, materials and technical conditions of delivery for bolts, stud bolts and nuts.

ICS 21.060.10, 21.060.20, 23.040.60

Võtmesõnad:

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 1515-1

November 1999

Ref. No. EN 1515-1: 1999 E

ICS 21.060.10; 21.060.20; 23.040.60

English version

Flanges and their joints - Bolting

Part 1: Selection of bolting

Brides et leurs assemblages – Boulonnerie – Partie 1: Sélection de la boulonnerie Flansche und ihre Verbindungen – Schrauben und Muttern – Teil 1: Auswahl von Schrauben und Muttern

This European Standard was approved by CEN on 1999-09-25.

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.

The European Standards exist 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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

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

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

Contents

	Page
Foreword	2
1 Scope	2
2 Normative references	3
3 Selection of bolting types	4
4 Selection of bolting materials	4
5 Technical conditions of delivery	6
Annex A (normative): Stud bolts threaded full length	6
Annex B (informative): Equivalent bolting materials	7

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 74 "Flanges and their joints", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2000, and conflicting national standards shall be withdrawn at the latest by May 2000.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association. This European Standard is considered to be a supporting standard to those application and product standards which in themselves support an essential safety requirement of a New Approach Directive and which make reference to this European Standard.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

EN 1515 consists of two Parts:

Part 1: Selection of bolting

Part 2: Combination of flange and bolting materials for steel flanges, PN designated

1 Scope

This European Standard is applicable to the selection of bolting for PN designated flanges in accordance with EN 1092 series and Class designated flanges in accordance with EN 1759 series¹⁾.

It specifies standards for dimensions, materials and technical conditions of delivery for bolts, stud bolts and nuts.

The bolting of within standard is selected for the combined use with flanges from the EN 1092 series and EN 1759 series but not for general purpose.

¹⁾ prEN 1759-1 is in preparation whereas prEN 1759-3 and prEN 1759-4 are publicly available.

The selection of the materials is based on commonly used materials. It covers all pressure and temperature ranges of the general service of standard flanges.

For special applications other materials may be selected by the user.

In some cases, similar alloys have been included, which differ only by carbon contents (e.g. 0,25% or 0,42%), because of the different requirements of the national standards. When the new European Standards are produced, it is expected that the opportunity to rationalise these many grades, will result in a reduction of standardised grades.

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 1092	Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories - PN designated
prEN 1759-3	Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, class designated - Part 3: Copper alloy and composite flanges
prEN 1759-4	Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, class designated - Part 4: Alluminium alloy flanges
EN 10269	Steels and nickel alloys for fasteners with specified elevated and/or low temperature properties
EN 20898-1	Mechanical properties of fasteners - Part 1: Bolts, screws and studs (ISO 898-1: 1998)
EN 20898-2	Mechanical properties of fasteners - Part 2: Nuts with specified proof load values - Coarse thread (ISO 898-2: 1992)
EN 24014	Hexagon head bolts - Product grades A and B (ISO 4014 : 1988)
EN 24016	Hexagon head bolts - Product grade C (ISO 4016 : 1988)
EN 24032	Hexagon nuts, style 1 - Product grades A and B (ISO 4032 : 1986)
EN 24033	Hexagon nuts, style 2 - Product grades A and B (ISO 4033 : 1979)
EN 24034	Hexagon nuts - Product grade C (ISO 4034 : 1986)
EN ISO 3506-1	Mechanical properties of corrosion-resistant stainless steel fasteners - Part 1 : Bolts, screws and studs (ISO 3506-1 : 1997)
EN ISO 3506-2	Mechanical properties of corrosion-resistant stainless steel fasteners - Part 2 : Nuts (ISO 3506-2 : 1997)
ISO 261	ISO general purpose metric screw threads - General plan
ISO 965-2	ISO general purpose metric screw threads – Tolerances - Part 2: Limits of sizes for general purpose external and internal screw threads - Medium quality