

Hardware for furniture - Tapered pressure tubes for self-supporting gas springs for the height adjustment of seating - Test methods and requirements for strength and durability

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 16955:2017 sisaldab Euroopa standardi EN 16955:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 16955:2017 consists of the English text of the European standard EN 16955:2017.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 12.04.2017.	Date of Availability of the European standard is 12.04.2017.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 97.140

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

Hardware for furniture - Tapered pressure tubes for self-supporting gas springs for the height adjustment of seating
- Test methods and requirements for strength and durability

Quincaillerie d'ameublement - Tubes coniques sous pression pour vérins à gaz autoportants pour l'ajustement de la hauteur de siège - Méthodes et exigences d'essai pour la résistance et la durabilité

Möbelbauteile - Konische Druckrohre für selbsttragende Gasfedern zur Höhenverstellung von Sitzmöbeln - Prüfmethoden und Anforderungen für die Festigkeit und Dauerhaltbarkeit

This European Standard was approved by CEN on 15 February 2017.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

European foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Strength classes for pressure tubes.....	4
5 Test apparatus.....	5
5.1 Material testing machine.....	5
5.2 Testing equipment for magnetic powder flaw test.....	5
6 Test.....	5
6.1 General.....	5
6.2 Strength and durability.....	5
6.2.1 Sampling.....	5
6.2.2 Test procedure	5
6.2.3 Evaluation and requirement.....	7
7 Test report.....	7
8 Marking of the pressure tube	8
Annex A (normative) Product information.....	9
A.1 General.....	9
A.2 Provisions	9
A.3 Marking on the gas spring.....	9
A.4 Gas spring activation.....	9
A.5 Connection between pressure tube and the seat mechanism.....	9
A.6 Holding cone on the seat mechanism.....	10
Annex B (informative) Guide for choosing the correct strength class	11
B.1 General.....	11
B.2 User weight.....	11
B.3 Dimension u	11
B.4 Choosing the correct gas spring.....	11
B.5 Recommendations for gas springs outside specifications in Table B.1.....	12

European foreword

This document (EN 16955:2017) has been prepared by Technical Committee CEN/TC 207 “Furniture”, the secretariat of which is held by UNI.

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 October 2017, and conflicting national standards shall be withdrawn at the latest by October 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies test methods and requirements for the strength and durability of tapered pressure tubes for self-supporting gas springs for the height adjustment of seating.

Annex A (normative) contains product information.

Annex B (informative) contains a guide for choosing the correct strength class.

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.

EN ISO 4288, *Geometrical product specifications (GPS) - Surface texture: Profile method - Rules and procedures for the assessment of surface texture (ISO 4288)*

EN ISO 7500-1:2016, *Metallic materials - Verification of static uniaxial testing machines - Part 1: Tension/compression testing machines - Verification and calibration of the force-measuring system (ISO 7500-1)*

EN ISO 9934-2, *Non-destructive testing - Magnetic particle testing - Part 2: Detection media (ISO 9934-2)*

ISO 1099, *Metallic materials — Fatigue testing — Axial force-controlled method*

3 Terms and definitions

Not applicable.

4 Strength classes for pressure tubes

The determination of the strength classes is based on characteristics given in Table 1. The dimension u of the seating is given in Figure 1.

Table 1 — Strength classes for pressure tubes

Strength class ^a	Alternate bending moment	Largest distance between load bearing structure of the seat and centre of the column
	M Nm	u mm
2	±190	≤ 340
3	±210	≤ 370
4	±240	≤ 400
^a Due to increased requirements, strength class 1 is not part of this European Standard.		