SLOVENSKI STANDARD
SIST EN 4113:2010

01-januar-2010

Nadomeġļa:
SIST EN 4113:2002

Aeronavtika - Objemke v obliki zanke (P-oblika) iz korozijsko odpornega jekla, z zaġļitno prevleko iz gume - Mere, mase

Aerospace series - Clamps, loop ("P" type) in corrosion resisting steel, passivated with rubber cushioning - Dimensions, masses

Luft- und Raumfahrt - Schellen in Schlaufenform (P-Form) aus korrosionsbeständigem Stahl, passiviert mit Profilgummi - Maße, Massen

Série aérospatiale - Colliers en "P" en acier résistant à la corrosion, passivés avec profilé en élastomère - Dimensions, masses

Ta slovenski standard je istoveten z: **EN 4113:2009**

ICS:

49.030.99	Drugi vezni elementi	Other fasteners

SIST EN 4113:2010 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 4113

October 2009

ICS 49.030.99

Supersedes EN 4113:2001

English Version

Aerospace series - Clamps, loop ("P" type) in corrosion resisting steel, passivated with rubber cushioning - Dimensions, masses

Série aérospatiale - Colliers en "P" en acier résistant à la corrosion, passivés avec profilé en élastomère - Dimensions, masses

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This European Standard was approved by CEN on 5 October 2009.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Contents

Page

Foreword

This document (EN 4113:2009) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

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of an identical text or by endorsement, at the latest by April 2010, and conflicting national standards shall be withdrawn at the latest by April 2010.

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1 Scope

This European Standard specifies the required characteristics of loop style clamps (“P” type) in corrosion resisting steel, passivated with various cushion materials.

These clamps are used for supporting aerospace pipe assemblies and electrical cable bundles.

For temperature range and environmental considerations see the various cushion material standards.

2 Normative references

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

EN 2261, *Aerospace series — Silicone rubber (VMQ) — Hardness 70 IRHD*

EN 2424:2008, *Aerospace series — Marking of aerospace products*

EN 2516, *Aerospace series — Passivation of corrosion resisting steels and decontamination of nickel base alloys*

EN 2566, *Aerospace series — Fluorocarbon rubber <FPM> — Hardness 70 — Characteristics*[1)]

EN 3078, *Aerospace series — P, Q and saddle clamps with rubber cushion — Technical specification*[1)]

EN 3488, *Aerospace series — Steel FE-PA3601 (X6CrNiTi18-10) — Air melted — Softened — Sheet and strip — a ≤ 6 mm — 500 MPa ≤ R_m ≤ 700 MPa*

EN 3825, *Aerospace series — Fluorosilicone rubber (FVMQ) — Hardness 60 IRHD*[1)]

EN 3826, *Aerospace series — Fluorosilicone rubber (FVMQ) — Hardness 70 IRHD*[1)]

EN 4115, *Aerospace series — Cushion, rubber for clamps — Dimensions, masses*

EN 10088 (all parts), *Stainless steels*

3 Required characteristics

3.1 Materials

According to Table 1.

Clamp: According to EN 3488 (alternative material 1.4541 according to EN 10088).

Cushion: According to EN 4115.

1) Published as ASD Prestandard at the date of publication of this standard.

Table 1 — Cushion materials

Cushion material code	Elastomer	Colour
S	Silicone VMQ EN 2261	rust
F	Fluorosilicone FVMQ EN 3826 [a]	blue
V	Fluorocarbon FPM EN 2566 [b]	brown

[a] Alternative EN 3825.

[b] Alternative Fluorocarbon rubber (FPM) – Hardness 75 IRHD (Class 60C7).

3.2 Surface treatment

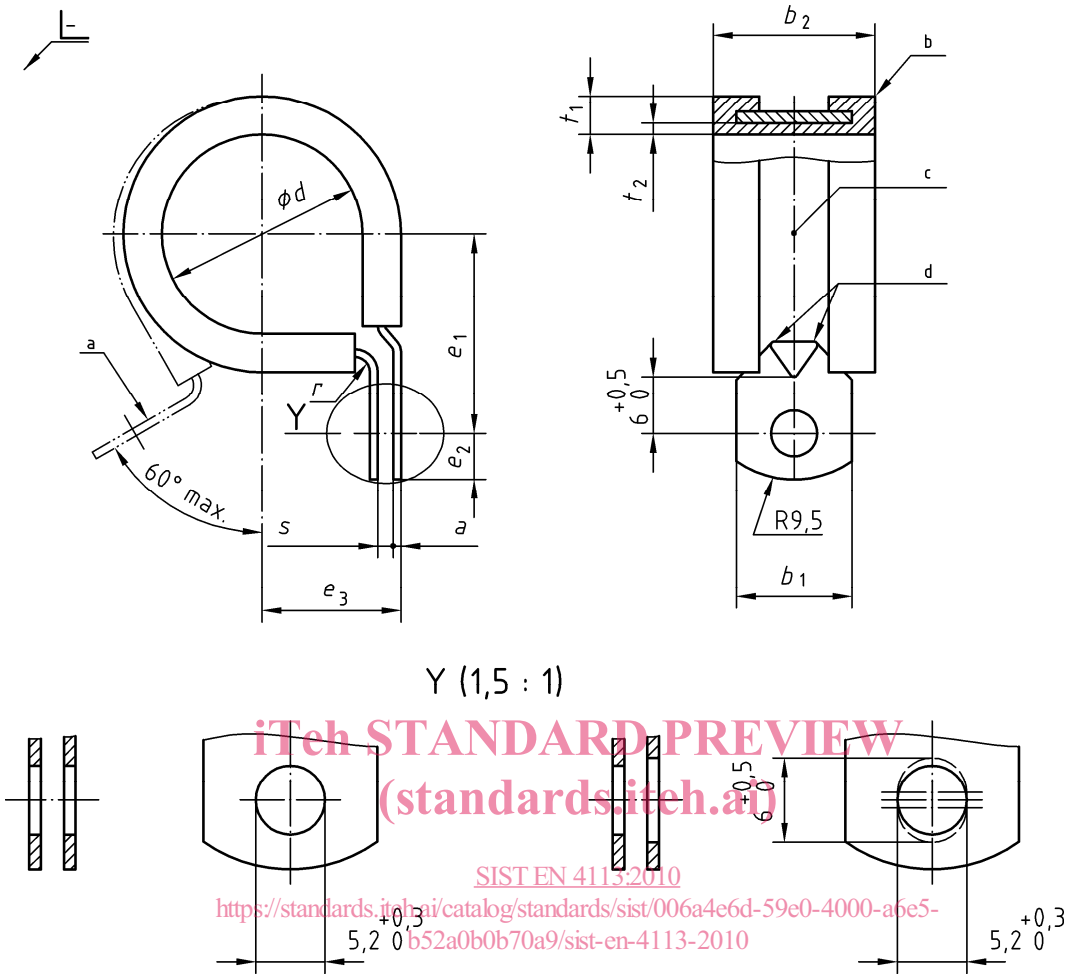
According to EN 2516.

3.3 Configuration – Dimensions – Masses

See Figures 1 to 2 and Table 2.

Rubber cushion dimensions, see EN 4115.

Dimensions in millimetres



a) Form with round hole in lower foot, code letter R

b) Form with slotted hole in lower foot, code letter H

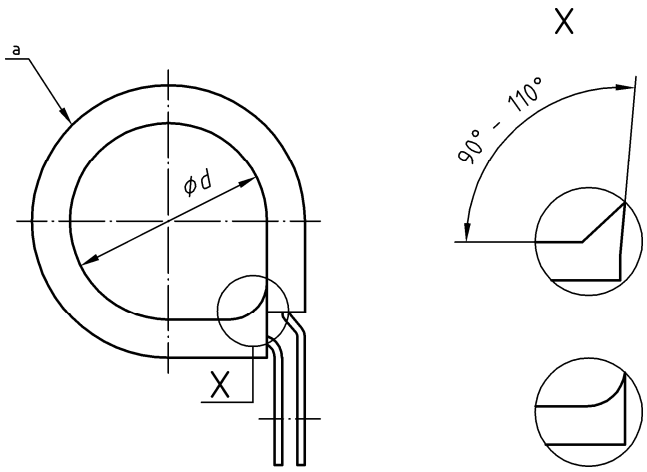
a Delivery position

b Rubber cushion and t_1 and t_2 according to EN 4115

c Area for marking

d Stiffening deformation on both sides as drawn, or central at the manufacturer's option

Figure 1 — Configuration of clamp with rubber cushion



[a] Rubber cushion according to EN 4115

NOTE Possible forms of cushion with alternative wedge according to EN 4115 (at manufacturer's option).

Figure 2 — Configuration of clamp with rubber cushion, wedge version (Form W)