SLOVENSKI STANDARD
SIST EN 4234:2015

01-oktober-2015

Nadomešča:
SIST EN 4234:2010

Aeronavtika - Objemke s polžastim gonilom - Mere, mase

Aerospace series - Clamps, worm drive - Dimensions, masses

Luft- und Raumfahrt - Schellen mit Schneckentrieb - Maße, Massen

Série aérospatiale - Colliers à vis tangente - Dimensions, masses

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Ta slovenski standard je istoveten z: EN 4234:2015

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ICS:

49.030.99	Drugi vezni elementi	Other fasteners

SIST EN 4234:2015 **en,fr,de**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 4234

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ICS 49.030.99

Supersedes EN 4234:2009

English Version

Aerospace series - Clamps, worm drive - Dimensions, masses

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European foreword

This document (EN 4234:2015) 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of an identical text or by endorsement, at the latest by January 2016, and conflicting national standards shall be withdrawn at the latest by January 2016.

This document supersedes EN 4234:2009.

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SIST EN 4234:2015

1 Scope

This European Standard specifies the characteristics of worm drive clamps designed for use with suitable rubber hoses to form joints in fluid system pipelines for aerospace applications.

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 2424, *Aerospace series — Marking of aerospace products*

EN 2465, *Aerospace series — Steel FE-PA3901 (X2CrNi18-9) — Softened — 450 MPa ≤ R_m ≤ 680 MPa — Bar for machining — 4 mm ≤ D_e ≤ 100 mm*

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

EN 3077, *Aerospace series — Clamps worm drive — Technical specification* [1)]

EN 3487, *Aerospace series — Steel FE-PA3601 (X6CrNiTi18-10) — Air melted — Softened — Bar for machining — a or D ≤ 250 mm — 500 MPa ≤ R_m ≤ 700 MPa*

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 10088 (all parts), *Stainless steels*

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3 Design

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The housing shall be firmly attached to the band.

NOTE Clamps of form N are only equipped with a stamped band and undrilled, round-headed screw.

4 Required characteristics

4.1 Configuration — Dimensions — Masses

The configuration shall correspond with Figure 1.

Details of form not defined are at the manufacturer's option.

Dimensions shall correspond with Figure 1 and Table 1 to Table 3.

Sharp edges are not permissible and the inner edges should be rounded or beaded.

1) Published as ASD-STAN Prestandard at the date of publication of this standard (http://www.asd-stan.org/).

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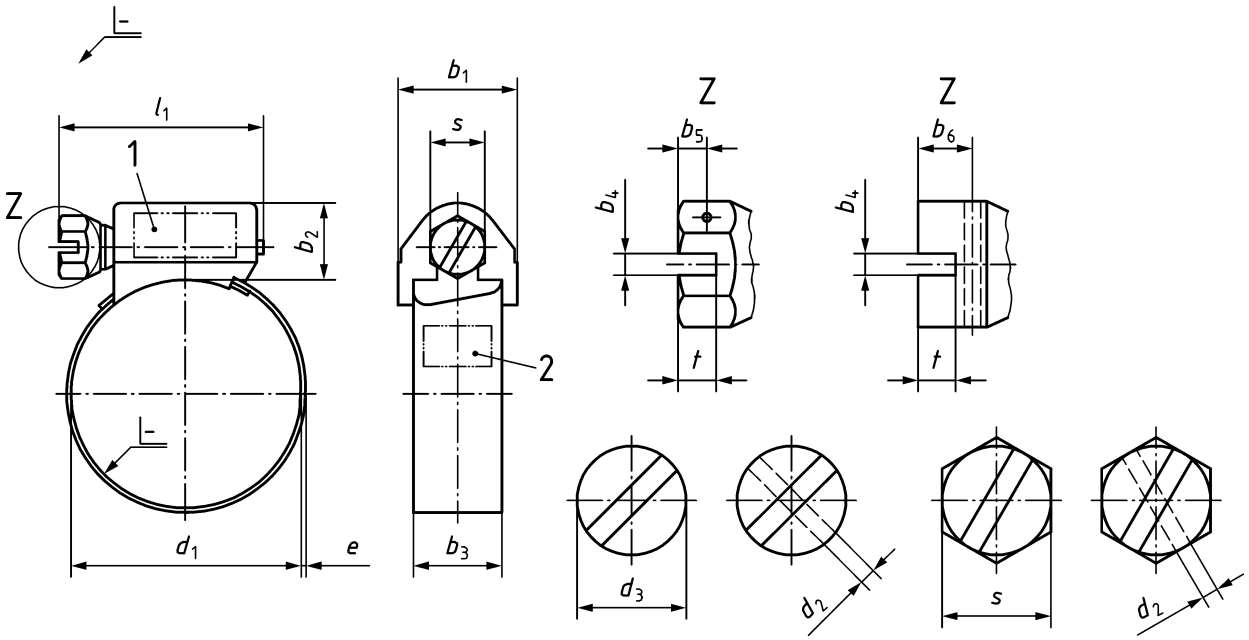

Key

1 Field 1 for marking

2 Field 2 for marking

The band is serrated or not according the manufacturer.

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Figure 1

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Table 1 — Dimensions

Dimensions in millimetres

Form	b_1 max.	b_2 max.	b_3	b_4 min.	b_4 max.	b_5	b_6	d_2 $^{+0,3}_{0}$	d_3 h13	e ± 0,05	l_1 max.	s h12	t
L	16	11,3	12 ± 0,15	1,6	1,9	3,6 ± 0,1	4 ± 0,1	1,2	8	0,7	30	7	2,75 ± 0,25
M [a] 10/16 to 16/27	10,9	8,9	8 ± 0,15	1	1,2	2,7 ± 0,1	$3^{+0,3}_{0}$		6		20,8		1,35 ± 0,27
M [a] 23/35 to 380/400	12	10				$2,6^{+0,2}_{0}$			7		22		$1,6^{0}_{-0,2}$
N	7,5	7,3	$5^{+0,12}_{0}$	0,9	1	—	—	—	4	0,4	13	—	$1,2^{+0,2}_{0}$

[a] Alternative tolerances for M ≤ Ø 27; $e = 0,6 \pm 0,05$.

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Table 2 — Clamp ranges and masses

Size code	d_1		Mass [a]			Size code	d_1		Mass [a]	
	min.	max.	N	L	M		min.	max.	L	M
	mm		g/piece				mm		g/piece	
011	7	11	3,6	—	—	**190**	170	190	55,0	39,4
014	9	14	3,8			**200**	180	200	56,0	
016	10	16	—		7,9	**210**	190	210	58,0	
019	10	19	4,0		—	**220**	200	220	60,0	
022	12 [b]	22	—	24,0	8,5	**230**	210	230	62,0	
027	16	27		25,0	10,6	**240**	220	240	63,0	44,5
035	23	35		25,5	14,6	**250**	230	250	64,0	
045	25	45		28,0	14,3	**260**	240	260	66,0	
050	32	50		29,0	16,6	**270**	250	270	68,0	
060	40	60		31,0	17,9	**280**	260	280	70,0	49,5
070	50	70		33,0	19,3	**290**	270	290	72,0	
080	60	80		35,0	20,6	**300**	280	300	74,0	
090	70	90		38,0	21,9	**310**	290	310	75,0	
100	80	100		40,0	24,7	**320**	300	320	76,0	54,5
110	90	110		41,0	26,1	**330**	310	330	77,0	
120	100	120		44,0	27,1	**340**	320	340	79,0	
130	110	130		45,0	30,7	**350**	330	350	80,0	
140	120	140		47,0		**360**	340	360	82,0	59,5
150	130	150		49,0	34,8	**370**	350	370	83,0	
160	140	160		50,0		**380**	360	380	84,0	
170	150	170		52,0		**390**	370	390	85,0	
180	160	180		54,0		**400**	380	400	86,0	64,5

[a] Calculated on the basis of a density of 7,85 kg/dm^3.

[b] For form L: $d_{1min.} = 14$.

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Table 3 — Configuration

Details of form	Code	
Locking wire hole	H	(with locking wire hole)
	—	(without locking wire hole)
Shape of head	R	(round)
	S	(hexagonal)

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4.2 Materials and surface treatment

See Table 4.

Table 4 — Materials and surface treatment

Material – Corrosion resisting steel			Surface treatment	Code
Band	**Housing**	**Screw**		
According to EN 3488 [a]	According to EN 3488 [a]	According to EN 3487 [a]	passivated according to EN 2516	–
		According to EN 2465 [a]	passivated according to EN 2516	A
		According to EN 3487 [a]	without	B
		According to EN 2465 [a]	without	C

[a] Alternative material according to EN 10088.

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4.3 Tightening torque

Form L: max. 6 N·m.

Form M: max. 2,5 N·m.

Form N: max. 0,8 N·m.

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