INTERNATIONAL STANDARD

ISO 2338

Second edition
1997-11-01

Parallel pins, of unhardened steel and austenitic stainless steel

Goupilles cylindriques en acier non trempé et en acier inoxydable austénitique

Reference number
ISO 2338:1997(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 2338 was prepared by Technical Committee ISO/TC 2, *Fasteners.*

This second edition cancels and replaces the first edition (ISO 2338:1986), which has been technically revised.

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Parallel pins, of unhardened steel and austenitic stainless steel

1 Scope

This International Standard specifies the characteristics of parallel pins of unhardened steel and austenitic stainless steel, with nominal diameters d from 0,6 mm to 50 mm inclusive.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3269:1988, *Fasteners – Acceptance inspection.*

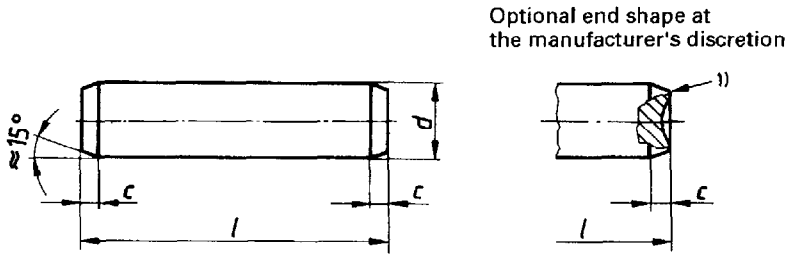
ISO 3506-1:1997, *Mechanical properties of corrosion-resistant stainless steel fasteners – Part 1: Bolts, screws and studs.*

ISO 4042:–[1], *Fasteners – Electroplated coatings.*

ISO 9717:1990, *Phosphate conversion coatings for metals – Method of specifying requirements.*

3 Dimensions

See figure 1 and table 1.



1) Radius and dimpled pin end permissible

Figure 1

1) To be published. (Revision of ISO 4042:1989)

Table 1 — Dimensions

Dimensions in millimetres

d m6/h8[1]			0,6	0,8	1	1,2	1,5	2	2,5	3	4	5	6	8	10	12	16	20	25	30	40	50
c ≈			0,12	0,16	0,2	0,25	0,3	0,35	0,4	0,5	0,63	0,8	1,2	1,6	2	2,5	3	3,5	4	5	6,3	8
l[2]																						
nom.	min.	max.																				
2	1,75	2,25																				
3	2,75	3,25																				
4	3,75	4,25																				
5	4,75	5,25																				
6	5,75	6,25																				
8	7,75	8,25																				
10	9,75	10,25																				
12	11,5	12,5																				
14	13,5	14,5																				
16	15,5	16,5																				
18	17,5	18,5																				
20	19,5	20,5																				
22	21,5	22,5																				
24	23,5	24,5																				
26	25,5	26,5																				
28	27,5	28,5																				
30	29,5	30,5																				
32	31,5	32,5																				
35	34,5	35,5																				
40	39,5	40,5																				
45	44,5	45,5																				
50	49,5	50,5																				
55	54,25	55,75																				
60	59,25	60,75																				
65	64,25	65,75																				
70	69,25	70,75																				
75	74,25	75,75																				
80	79,25	80,75																				
85	84,25	85,75																				
90	89,25	90,75																				
95	94,25	95,75																				
100	99,25	100,75																				
120	119,25	120,75																				
140	139,25	140,75																				
160	159,25	160,75																				
180	179,25	180,75																				
200	199,25	200,75																				

Range of commercial lengths

1) Other tolerances as agreed between customer and supplier.

2) For nominal lengths above 200 mm, steps of 20 mm.

4 Requirements and reference International Standards

See table 2.

Table 2 — Requirements and reference International Standards

Material[1)]	Steel (St)	Austenitic stainless steel
	Hardness 125 HV30 to 245 HV30	A1 in accordance with ISO 3506-1, hardness 210 HV30 to 280 HV30
Surface finish	Plain, i.e. pins to be supplied in natural finish treated with a protective lubricant, unless otherwise specified by agreement between customer and supplier.	Plain, i.e. pins to be supplied in natural finish.
	Preferred coatings are black oxide, phosphate coating or zinc plating with chromate conversion coating (see ISO 9717 and ISO 4042). Other coatings as agreed between customer and supplier. All tolerances shall apply prior to the application of a plating or coating.	
Surface roughness	For pins with tolerance class m6: $R_a \leq 0{,}8$ µm For pins with tolerance class h8: $R_a \leq 1{,}6$ µm	
Workmanship	Pins shall be free of irregularities or detrimental defects. No burrs shall appear on any part of the pin.	
Acceptability	The acceptance procedure is covered in ISO 3269.	
1) Other materials as agreed between customer and supplier.		

5 Designation

EXAMPLE 1
An unhardened steel parallel pin, with nominal diameter d = 6 mm, tolerance class m6 and nominal length l = 30 mm is designated as follows:

Parallel pin ISO 2338 – 6 m6 × 30 – St

EXAMPLE 2
An unhardened austenitic stainless steel pin of grade A1, with nominal diameter d = 6 mm, tolerance class m6 and nominal length l = 30 mm is designated as follows:

Parallel pin ISO 2338 – 6 m6 × 30 – A1

ICS 21.060.50

Descriptors: fasteners, steel products, pins (mechanics), straight pins, specifications, characteristics, dimensions, designation.

Price based on 3 pages