

INTERNATIONAL STANDARD

**ISO
8733**

Second edition
1997-11-15

Parallel pins with internal thread, of unhardened steel and austenitic stainless steel

*Goupilles cylindriques à trou taraudé en acier non trempé et
en acier inoxydable austénitique*

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[ISO 8733:1997](#)

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ISO 8733:1997(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 8733 was prepared by Technical Committee ISO/TC 2, *Fasteners*.

This second edition cancels and replaces the first edition (ISO 8733:1986), which has been technically revised.

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Parallel pins with internal thread of unhardened steel and austenitic stainless steel

1 Scope

This International Standard specifies the characteristics of parallel pins with internal thread of unhardened steel and austenitic stainless steel with nominal diameters d_1 from 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 965-2:–¹⁾, *ISO general purpose metric screw threads – Tolerances – Part 2: Limits of sizes for general purpose bolt and nut thread – Medium quality.*

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

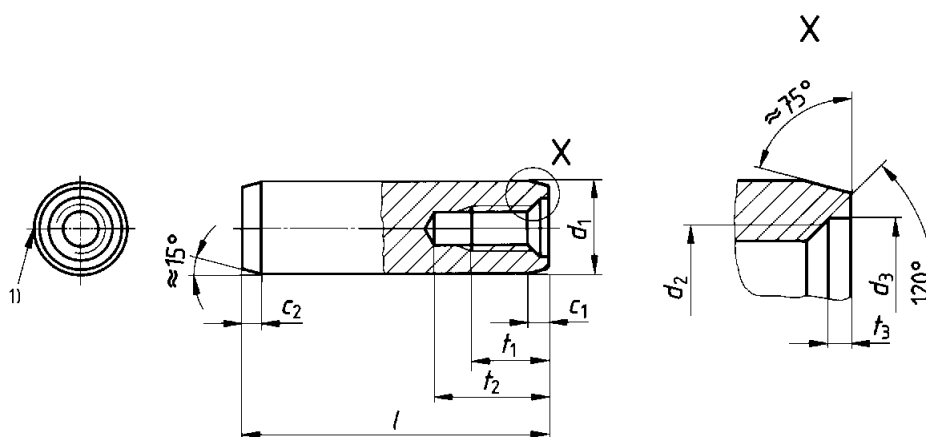
ISO 3506-1:1997, *Corrosion-resistant stainless steel fasteners – Part 1: Bolts, screws and studs.*

ISO 4042:–²⁾, *Fasteners – Electroplated coatings.*

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

3 Dimensions

See figure 1 and table 1.



1) Slight flat or small groove at the manufacturer's discretion

Figure 1

1) To be published. (Revision of ISO 965-2:1980)

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

Table 1 — Dimensions

Dimensions in millimetres

d_1	$m6^{1)}$	6	8	10	12	16	20	25	30	40	50
c_1	≈	0,8	1	1,2	1,6	2	2,5	3	4	5	6,3
c_2	≈	1,2	1,6	2	2,5	3	3,5	4	5	6,3	8
d_2		M4	M5	M6	M6	M8	M10	M16	M20	M20	M24
$P^{2)}$		0,7	0,8	1	1	1,25	1,5	2	2,5	2,5	3
d_3		4,3	5,3	6,4	6,4	8,4	10,5	17	21	21	25
t_1		6	8	10	12	16	18	24	30	30	36
t_2	min.	10	12	16	20	25	28	35	40	40	50
t_3		1	1,2	1,2	1,2	1,5	1,5	2	2	2,5	2,5
$j^{3)}$											
nom.	min.	max.									
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									
160	159,25	160,75									
180	179,25	180,75									
200	199,25	200,75									

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commercial

lengths

- 1) Other tolerances as agreed between customer and supplier.
- 2) P is the pitch of the thread.
- 3) 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

Screw thread	Metric screw thread with tolerance 6H in accordance with ISO 965-2.	
Material ¹⁾	Steel (St)	Austenitic stainless steel
	Hardness 125 HV30 to 245 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	$R_a \leq 0,8 \mu\text{m}$	
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 internal thread, with nominal diameter $d_1 = 6$ mm and a nominal length $l = 30$ mm is designated as follows:

Parallel pin ISO 8733 – 6 × 30 – St

EXAMPLE 2

An unhardened austenitic stainless steel pin of grade A1, with internal thread, with nominal diameter $d_1 = 6$ mm and nominal length $l = 30$ mm is designated as follows:

Parallel pin ISO 8733 – 6 × 30 – A1

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ICS 21.060.50

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

Price based on 3 pages
