

Foreword

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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 8735 was prepared by Technical Committee ISO/TC 2, *Fasteners*.

This second edition cancels and replaces the first edition (ISO 8735:1987), which has been technically revised.

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Parallel pins with internal thread of hardened steel and martensitic stainless steel

1 Scope

This International Standard specifies the characteristics of parallel pins with internal thread of steel, through hardened or case hardened and martensitic 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 threads – Medium quality.*

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

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

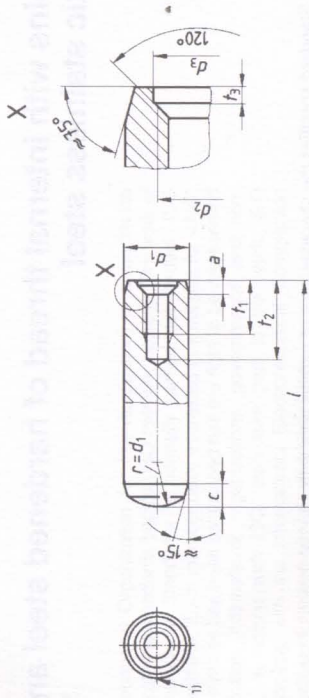
ISO 4042:²⁾ *Fasteners – Electroplated coatings.*

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

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

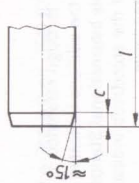
3 Dimensions

See figure 1 and table 1.



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

Type A: Pin with crown, through hardened steel and martensitic stainless steel



Type B: Flat pin, case hardened steel

NOTE — Other dimensions, see type A

Figure 1

Table 1 — Dimensions

Dimensions in millimetres

d ₁	d ₂	c	d ₃	P ³⁾	d ₄	f ₁	f ₂	f ₃	Dimensions in millimetres																		
									6	8	10	12	16	20	25	30	40	50									
16	18	20	22	24	26	28	30	32	35	40	45	50	55	60	65	70	75	80	85	90	95	100	120	140	160	180	200
nom.									min.																		
max.									Range																		
									of																		
									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.		Martensitic stainless steel C1 in accordance with ISO 3506-1
	Steel	Steel	
	St		
	Type A pin through hardened	Type B pin case hardened	
Material ¹⁾	Chemical composition limits (check analysis) %		
	C 0,95 to 1,1 Si 0,15 to 0,35 Mn 0,25 to 0,4 P 0,03 max. S 0,025 max. Cr 1,35 to 1,65	either C 0,06 to 0,13 Si 0,1 to 0,4 Mn 0,25 to 0,6 P 0,025 max. S 0,05 max. at the supplier's discretion	or C 0,15 max. Si 0,10 max. Mn 0,9 to 1,3 P 0,07 max. S 0,15 to 0,35 Pb 0,15 to 0,35
	Hardness: 550 HV30 to 650 HV30	Surface hardness: 600 HV1 to 700 HV1 Hardness at case depth 0,25 to 0,4 mm: 550 HV1 min.	
Surface	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.
	If pins are surface coated appropriate plating or coating processes should be employed to avoid hydrogen embrittlement. When pins are electroplated or phosphate-coated, they shall be suitably treated immediately after plating or coating to obviate detrimental hydrogen embrittlement, although freedom from hydrogen embrittlement is not absolutely guaranteed (see ISO 4042).		
Surface roughness	All tolerances shall apply prior to the application of a plating or coating.		
	$R_a \leq 0,8 \mu\text{m}$		
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

A through hardened steel parallel pin type A, with internal thread, with nominal diameter $d_1 = 6 \text{ mm}$ and nominal length $l = 30 \text{ mm}$ is designated as follows:

Parallel pin ISO 8735 – 6 × 30 – A – St

EXAMPLE 2

A martensitic stainless steel pin of grade C1, with internal thread, with nominal diameter $d_1 = 6 \text{ mm}$ and nominal length $l = 30 \text{ mm}$ is designated as follows:

Parallel pin ISO 8735 – 6 × 30 – C1

ICS 21.060.50

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

Price based on 5 pages



International Standard

8736

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Taper pins with internal thread, unhardened

Goupilles de position coniques à trou taraudé, non trempées

First edition — 1986-11-01

UDC 621.886.115

Descriptors: fasteners, pins (mechanics), taper pins, specifications, dimensions, designation.

ISO 8736-1986 (E)

Ref. No. ISO 8736-1986 (E)