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**INTERNATIONAL STANDARD**

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**ISO 8733-1986 (E)**

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## **Parallel pins with internal thread, unhardened**

### **1 Scope and field of application**

This International Standard specifies the characteristics of unhardened parallel pins with internal thread, with metric dimensions and nominal diameters,  $d_1$ , from 6 to 50 mm inclusive.

### **2 References**

ISO 965, *ISO general purpose metric screw threads — Tolerances.*

ISO 2081, *Metallic coatings — Electroplated coatings of zinc on iron or steel.*

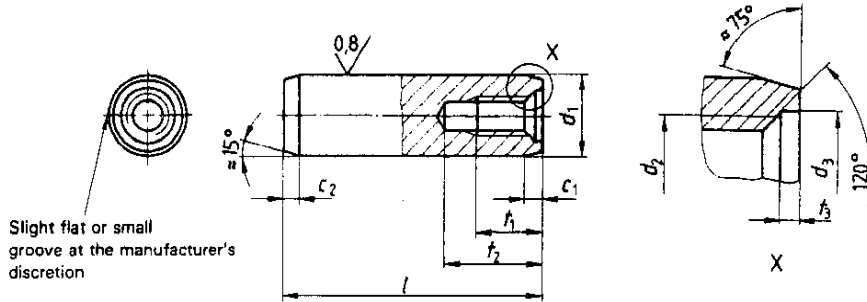
ISO 3269, *Fasteners — Acceptance inspection.*

ISO 4520, *Chromate conversion coatings on electroplated zinc and cadmium coatings.*

ISO 8733-1986 (E)

3 Dimensions

Surface roughness values in micrometres



Dimensions in millimetres

$d_1$	m6 <sup>1)</sup>	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
$p$ <sup>2)</sup>		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
$l_1$		6	8	10	12	16	18	24	30	30	36
$l_2$	min.	10	12	16	20	25	28	35	40	40	50
$l_3$		1	1,2	1,2	1,2	1,5	1,5	2	2	2,5	2,5
nom.	$f$ <sup>3)</sup> 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	Range									
30	29,5 30,5										
32	31,5 32,5										
35	34,5 35,5				of						
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						commercial				
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								lengths		
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										

- 1) Other tolerances as agreed between customer and supplier.
- 2)  $P$  = thread pitch.
- 3) For nominal lengths above 200 mm, steps of 20 mm.

## ISO 8733-1986 (E)

## 4 Specifications and reference international Standards

<b>Screw thread</b>	Metric screw thread with tolerance 6H to ISO 965.
<b>Material</b>	St = Free-cutting steel, hardness 125 to 245 HV. Other materials as agreed between customer and supplier.
<b>Surface finish</b>	Plain, i.e. pins to be supplied in natural finish treated with a rust-preventative lubricant, unless otherwise specified by agreement between customer and supplier.
	Preferred coatings are black oxide, phosphate coating or zinc plating with chromate conversion coating (see ISO 2081 and ISO 4520). Other coatings as agreed between customer and supplier. All tolerances shall apply prior to the application of a plating or coating.
<b>Workmanship</b>	Parts shall be uniform in quality and free of irregularities or detrimental defects. No burrs shall appear on any part of the pin.
<b>Acceptability</b>	The acceptance procedure is covered in ISO 3269.

## 5 Designation

Example for the designation of an unhardened steel parallel pin with internal thread, nominal diameter  $d_1 = 6$  mm and nominal length  $l = 30$  mm :

**Parallel pin ISO 8733 - 6 × 30 - St**