International Standard ISO 8744

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

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Grooved pins — Full-length taper grooved

Goupilles cannelées à cannelures progressives sur toute la longueur (débouchantes)

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

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8744 was prepared by Technical Committee ISO/TC 2, *Fasteners.*

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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1 Scope and field of application

This International Standard specifies the characteristics of full-length taper grooved pins which have three equally spaced grooves impressed longitudinally on their exterior surface, with metric dimensions and nominal diameter, d_1, from 1,5 to 25 mm inclusive.

The displaced material to each side of the grooves forming an expanded diameter d_2 which is larger than the nominal diameter d_1 will cause a positive locking fit when these grooved pins are forced into a drilled hole equal to the nominal diameter d_1 (see clause 4).

2 References

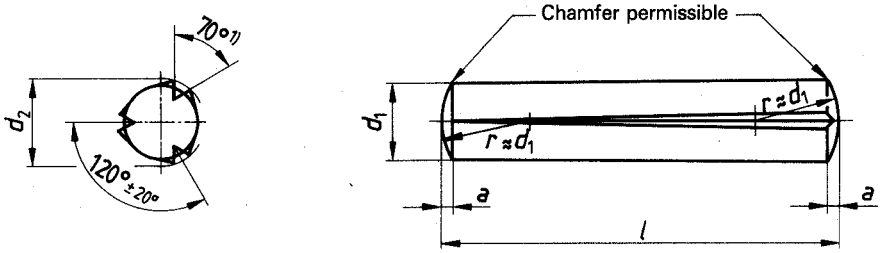
ISO 2081, *Metallic coatings — Electroplated coatings of zinc on iron or steel.*

ISO 3269, *Fasteners — Acceptance inspection.*

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

ISO 8749, *Pins and grooved pins — Shear test.*

3 Dimensions



Dimensions in millimetres

d_1 nom.	1,5	2	2,5	3	4	5	6	8	10	12	16	20	25
d_1 tol.	h9				h11								
a ≈	0,2	0,25	0,3	0,4	0,5	0,63	0,8	1	1,2	1,6	2	2,5	3
Minimum shear strength, double[2] kN	1,6	2,84	4,4	6,4	11,3	17,6	25,4	45,2	70,4	101,8	181	283	444
l[3] nom. / min. / max.	**Expanded diameter, d_2**[4),5)]												
	+ 0,05 / 0		± 0,05							± 0,10			
8 / 7,75 / 8,25	1,63			3,25	4,30								
10 / 9,75 / 10,25			2,70			5,30	6,30						
12 / 11,5 / 12,5				3,30				8,35					
14 / 13,5 / 14,5	1,60				4,35				10,40	12,40			
16 / 15,5 / 16,5		2,15				5,35							
18 / 17,5 / 18,5													
20 / 19,5 / 20,5				3,25			6,35						
22 / 21,5 / 22,5			2,65					8,40			16,55		
24 / 23,5 / 24,5													
26 / 25,5 / 26,5					4,30								
28 / 27,5 / 28,5						5,30			10,45	12,45			
30 / 29,5 / 30,5													
32 / 31,5 / 32,5				3,20							16,60		
35 / 34,5 / 35,5							6,30						
40 / 39,5 / 40,5								8,35					
45 / 44,5 / 45,5					4,25								
50 / 49,5 / 50,5						5,25			10,40	12,40			
55 / 54,25 / 55,75													
60 / 59,25 / 60,75												20,60	25,60
65 / 64,25 / 65,75							6,25	8,30					
70 / 69,25 / 70,75											16,55		
75 / 74,25 / 75,75									10,35				
80 / 79,25 / 80,75										12,30			
85 / 84,25 / 85,75													
90 / 89,25 / 90,75								8,25					
95 / 94,25 / 95,75											16,50		
100 / 99,25 / 100,75													
120 / 119,25 / 120,75									10,30				

1) The grooving angle 70° applies only to grooved pins made from steel as shown in clause 5. The grooving angle may be modified depending on resilience of material.

2) Applies only to grooved pins made from steel as shown in clause 5.

3) The range of commercial lengths is between the stepped lines.

4) The expanded diameter d_2 applies only to pins made from steel as shown in clause 5. For other materials, for example stainless steel, a reduction amount shall be subtracted from the given values and should be agreed between customer and supplier.

5) For testing d_2, a GO/NO GO ring gauge should be used.

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