

ISO13337

Spring-type straight pins – Slotted, light duty

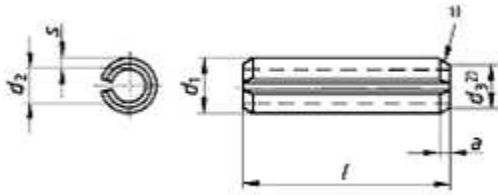


Table 1 — Dimensions

	nom.	2	2,5	3	3,5	4	4,5	5	6	8	10	
d_1	before mounting	max.	2,4	2,9	3,5	4,0	4,6	5,1	5,6	6,7	8,8	10,8
		min.	2,3	2,8	3,3	3,8	4,4	4,9	5,4	6,4	8,5	10,5
d_1	before mounting ¹⁾	1,9	2,3	2,7	3,1	3,4	3,9	4,4	4,9	7	8,5	
a		max.	0,4	0,45	0,45	0,5	0,7	0,7	0,7	0,9	1,8	2,4
		min.	0,2	0,25	0,25	0,3	0,5	0,5	0,5	0,7	1,5	2,0
s		0,2	0,25	0,3	0,35	0,5	0,5	0,5	0,75	0,75	1	
Minimum shear strength, double ²⁾ kN		1,5	2,4	3,5	4,6	8	8,8	10,4	18	24	40	

l^3												
nom.	min.	max.										
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										

1) For reference only.

2) Applies to steel and martensitic corrosion resistant steel products only. For austenitic stainless pins no double shear strength values are specified.

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

Table 2 — Requirements and reference International Standards

	Steel		Austenitic stainless steel	Martensitic stainless steel
	St		A	C
Material ¹⁾	Steel (St) at the supplier's discretion, either:		Chemical composition limits (check analysis) %	
	Plain carbon steel with $C \geq 0,64\%$ $Mn \geq 0,60\%$ (check analysis) Hardened and tempered to a Vickers hardness of 420 HV30 to 520 HV30 or austempered to a Vickers hardness of 500 HV30 to 560 HV30. or Silicon manganese steel with $C \geq 0,5\%$ $Si \geq 1,5\%$ $Mn \geq 0,7\%$ (check analysis) Hardened and tempered to a Vickers hardness of 420 HV30 to 560 HV30.		$C4 \leq 0,15$ $Mn \leq 2,00$ $Si \leq 1,50$ $Cr \ 16 \text{ to } 20$ $Ni \ 6 \text{ to } 12$ $P \leq 0,045$ $S \leq 0,03$ $Mo \leq 0,8$	$C \geq 0,15$ $Mn \leq 1,00$ $Si \leq 1,00$ $Cr \ 11,5 \text{ to } 14$ $Ni \leq 1,00$ $P \leq 0,04$ $S \leq 0,03$
Slot	Normal case	Form and width of slot at the discretion of the supplier.		
	Type N	Non-interlocking pins with a form and/or width of slot which guarantees no interlocking may be supplied by special agreement between customer and supplier.		
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.	
	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). All tolerances shall apply prior to the application of a plating or coating.			
Workmanship	Pins shall be free of irregularities or detrimental defects. No burrs shall appear on any part of the pin.			
Shear strength test	The test shall be in accordance with ISO 8749.			
Acceptability	The acceptance procedure is covered in ISO 3269.			
1) Other materials as agreed between customer and supplier.				