

SLOTTED SPRING PINS (SPRING TENSION PINS)

Slotted spring pins consist of a single coil of spring steel or stainless steel with an open slot sufficiently wide to enable the pin to reduce in diameter as it is driven into a hole of appropriate size. The ends of the pin have a bevelled chamfer. They are designed for plain drilled holes but a countersink makes assembly easier, especially for the ISO 8752 type. Slotted pins are normally supplied in the heavy duty form to ISO 8752, but a light duty version can be supplied to ISO 13337.

As an alternative to ISO 8752, we can offer in some sizes JIS B 2808 (Japan Industry Standard). This has an expanded diameter relatively smaller in relation to the nominal diameter (hole size) which makes assembly easier as a countersink in the hole is not needed and the slot is narrower so does not entangle in bulk processing, such as plating or hopper-fed assembly machines.

It is possible to increase the shear strength of slotted pins by inserting a small diameter inside a large one. This should always be done by inserting the larger pin first, then inserting the smaller one, taking care that the slot is between 90° and 180° away from the slot in the larger pin. Suitable combinations for pins to ISO 8752 are:



Outer pin	Inner pin
3.5	2
5	3
6	3.5
8	5
10	6
12	7
14	8
16	10
20	12

MATERIALS

SPRING STEEL

CS70 / AISI 1070 / C67

STAINLESS STEEL A2

AISI 304

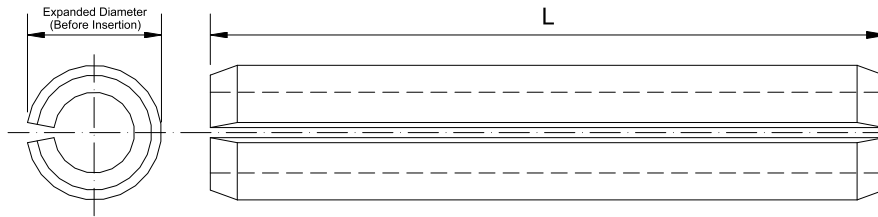
STANDARDS

ISO 8752	Heavy duty (stocked)
DIN 7346	Light duty slotted spring pin
ISO 13337	Light duty slotted spring pin
BS 7060	Equivalent to ISO 8752
DIN 1481	Equivalent to ISO 8752 but with plus only length tolerances
JIS B 2808	Equivalent to ISO 8752 but with reduced expanded diameter for easier assembly

FINISHES

Slotted spring pins are supplied in plain oiled finish. Steel pins may also be given a protective finish such as zinc or phosphate. Where electrolytically applied finishes are used it is essential to de-embrittle the pins immediately after plating. Since the de-embrittlement process is not completely reliable, non-electrolytic finishes should be used for safety-critical applications. Where pins are to be installed in plastic it is recommended that they are de-oiled before use to avoid embrittlement of the plastic.

SIZE RANGE – SLOTTED PINS*



Nominal Diameter, ISO 8752	1	1.5	2	2.5	3	3.5	4	5	6	7	8	10	12	14	16	20	
Available Materials	Carbon Steel, Stainless Steel A2													Carbon Steel Only			
Expanded Diameter Min	1.2	1.7	2.3	2.8	3.3	3.8	4.4	5.4	6.4	7.45	8.5	10.5	12.5	14.5	16.5	20.5	
Expanded Diameter Max	1.3	1.8	2.4	2.9	3.5	4.0	4.6	5.6	6.7	7.75	8.8	10.8	12.8	14.8	16.8	20.9	
Recommended Min Hole Size (H12)	1.0	1.5	2.0	2.5	3.0	3.5	4.0	5.0	6.0	7.0	8.0	10.0	12.0	14.0	16.0	20.0	
Hole Size (H12) Max	1.1	1.6	2.1	2.6	3.1	3.62	4.12	5.12	6.12	7.15	8.15	10.15	12.18	14.18	16.18	20.21	
Material Thickness	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1	1.2	1.2	1.5	2	2.5	3	3	4	
Minimum Double Shear Strengths tested to ISO 8749, kN (see also Page 37)																	
Carbon Steel	0.7	1.58	2.82	4.38	6.32	9.06	11.24	17.54	26.04	30.0	42.76	70.16	104.1	144.7	171	280	
Stainless Steel	0.4	0.98	1.81	2.84	4.07	5.80	7.25	10.75	16.17		26.46	42.14					
Lengths in mm																	
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6																	
8																	
10																	
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95																	
100																	
120																	
130																	
140																	
150																	
160																	
180																	
200																	
Length Tolerances	1 – 10 mm long ± 0.25					12 – 50 mm long ± 0.50					Over 50 mm long ± 0.75						

Selection kits are also available in carbon steel and A2 stainless steel

Nominal Diameter JIS B 2808	2	2.5	3	4	5
Material	Carbon Steel				
Expanded Diameter Min	2.15	2.65	3.15	4.20	5.20
Expanded Diameter Max	2.25	2.75	3.25	4.40	5.40
Recommended Min Hole Size	2.00	2.50	3.00	4.00	5.00
Hole Size Max	2.09	2.59	3.09	4.12	5.12
Material Thickness	0.40	0.50	0.60	0.80	1.00
Double Shear Strength tested to ISO 8749, KN	2.76	4.31	6.20	10.80	17.25

***Also stocked in inch sizes**

Other diameters to special order