

INTRODUCTION TO SPRING PINS

This specification sheet serves as an introduction to the Spring Pin Family, to provide a base understanding of the various fastening options available. To identify the ideal fastening strategy for your need, contact DRIV-LOK. Our Enginomics team will craft a custom solution designed to maximize performance, safety, quality and savings.

DESCRIPTION.

Tubular slotted spring pins are manufactured by progressive roll forming flat strips of high carbon steel or heat treatable 420 stainless steel. After forming, the pins are deburred to remove sharp edges, then heat treated to a spring temper. High-carbon (1070-1095) steel spring pins are hardened to Rc 46-53 and 420 stainless steel spring pins are hardened to Rc 43-52.

FUNCTION.

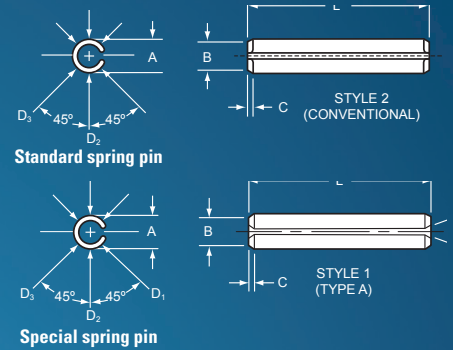
Spring pins are manufactured to an oversize dimension so that when the pin is inserted into a hole, radial forces are generated

against the hole wall holding the spring pin securely in place.

STANDARD SPRING PINS.

Standard spring pins are manufactured to ASME B18.8.2. Standard finishes for high carbon steel spring pins are either light oil or zinc. Standard stainless steel spring pins are passivated.

Spring pins will meet thousands of demanding industrial applications. Shown below are just a few of the possible uses for these rugged, self-locking pins. Be sure to contact DRIV-LOK, Inc. if you require engineering assistance for your application.



STANDARD SPRING PIN APPLICATIONS.

 Dowel applications	 Used as a spacer	 To prevent shaft rotation	 Knob-to-shaft
 Hinge in light gauge metal	 Cotter pin	 Stop pin	 T-handle

SPRING PIN HARDNESS TESTING.

<ol style="list-style-type: none"> 1. Grind a flat surface approximately .0015" deep on curved surface of the pin (opposite the gap) on pins 3/16" diameter and above, and .001" deep on pins below 3/16" diameter. 2. Grind a flat surface approximately .004" deep opposite and parallel to the first grinding – at the gap section. 	<ol style="list-style-type: none"> 3. Place surfaced pin gap side down on face plate anvil of Rockwell Tester. 4. Enter surfaced section opposite gap and use: a Superficial Tester 15N with N Brale Penetrator for diameters up to 1/8, a Penetrator C Brale 60 Kg for 1/8 to 5/16, and a Penetrator C Brale 150 Kg for pins 5/16 and over.
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SPRING PINS

STANDARD SPRING PIN DIMENSIONS.

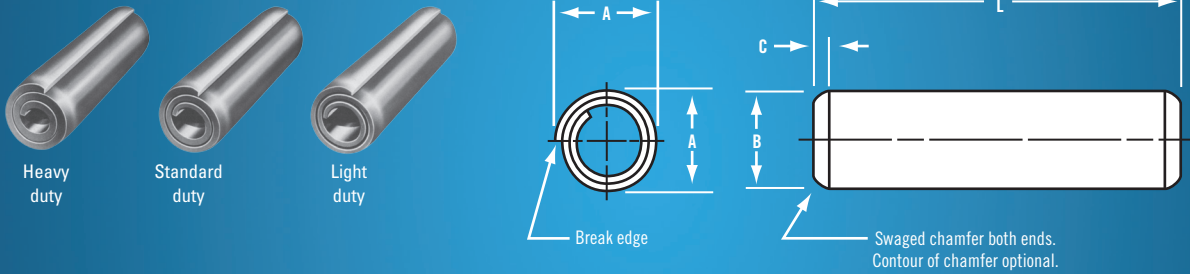
Nominal	A		B Max	C		Stock thickness	Recommended hole size		Minimum double shear strength (lbs)
	Minimum $\frac{1}{3} (D_1+D_2+D_3)$	Maximum (Go ring range)		Minimum	Maximum		Minimum*	Maximum	
1/16 (.062)	.066	.069	.059	.007	.028	.015	.063	.065	430
5/64 (.078)	.083	.086	.075	.008	.032	.018	.079	.081	800
3/32 (.094)	.099	.103	.091	.008	.038	.022	.095	.097	1,150
1/8 (.125)	.131	.135	.122	.008	.044	.028	.125	.129	1,875
5/32 (.156)	.162	.167	.151	.010	.048	.032	.157	.160	2,750
3/16 (.187)	.194	.199	.182	.011	.055	.040	.188	.192	4,150
1/32 (.219)	.226	.232	.214	.011	.065	.048	.219	.224	5,850
1/4 (.250)	.258	.264	.245	.012	.065	.048	.250	.256	7,050
5/16 (.312)	.321	.330	.306	.014	.080	.062	.313	.318	10,800
3/8 (.375)	.385	.395	.368	.016	.095	.077	.375	.382	16,300
7/16 (.437)	.448	.459	.430	.017	.095	.077	.438	.445	19,800
1/2 (.500)	.513	.524	.485	.025	.110	.094	.500	.510	27,100

SPRING PIN LENGTH: TOLERANCE:

Up to and including 1"	±.015
Over 1" through 2"	±.020
Over 2" through 3"	±.030
Over 3" through 4"	±.035
Over 4"	±.040

*Minimum hole sizes are rounded up to 3 decimal places.

COILED PINS



DIMENSIONS OF COILED TYPE SPRING PINS.

Nominal size or basic pin diameter [Note (1)]	A						B	C	Recommended hole size		Double shear load, min., lb.		
	Pin diameter						Chamfer				Standard duty	Heavy duty	Light duty
	Standard duty		Heavy duty		Light duty		Dia.	Length	Material				
	Max. Note 2	Min. Note 3	Max. Note 2	Min. Note 3	Max. Note 2	Min. Note 3	Max	Ref	Max	Ref	Carbon steel	Carbon steel	Carbon steel
1/8 .125	.138	.131	.136	.130	.139	.131	.121	.044	.129	.124	1,400	2,000	825
5/32 .156	.171	.163	.168	.161	.172	.163	.152	.048	.160	.155	2,200	3,100	1,300
3/16 .188	.205	.196	.202	.194	.207	.196	.182	.055	.192	.185	3,150	4,500	1,900
1/32 .221	.238	.228	.235	.226	.240	.228	.214	.065	.224	.217	4,200	5,900	2,600
1/4 .250	.271	.260	.268	.258	.273	.260	.243	.065	.256	.247	5,500	7,800	3,300

NOTES:

1. Where specifying nominal size in decimals, zeros preceding the decimal shall be omitted.
2. Maximum diameter shall be checked by GO ring gage.
3. Minimum diameter shall be checked by NO GO ring gage.