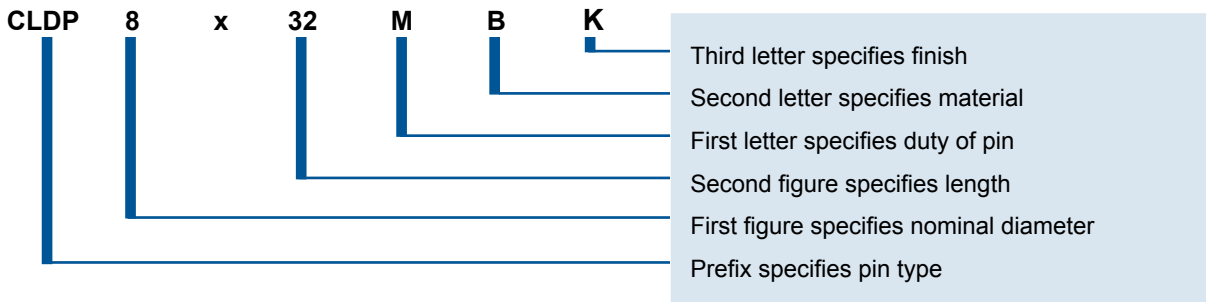


PIN DUTIES	PIN MATERIAL AND HARDNESS		FINISHES
<b>M</b> Standard	<b>B</b> High Carbon Steel SAE 1070-1095/CS 70	HV 420 TO 545	<b>K</b> Plain, oiled
<b>H</b> Heavy	<b>C</b> Chrome Stainless Steel SAE 51420	HV 460 TO 560	<b>P</b> Passivated, oiled
<b>L</b> Light	<b>D</b> Nickel Stainless Steel SAE 30302/30304	Work hardened	<b>R</b> Phosphate coated
	<b>W</b> Alloy Steel SAE 6150H	HV 423 to 544	<b>T</b> Zinc plated

### IDENTIFICATION CODE

Coiled pin 8 mm dia. x 32 mm Length Standard Duty/Carbon Steel/Plain Finish



### SPECIFICATIONS AND STANDARDS

- ⊙ **Standard Duty Pins** — ISO 8750, NASM10971, NASM51923, NAS1407, ASME B18.8.2, ASME B18.8.3M
- ⊙ **Heavy Duty Pins** — ISO 8748, NASM10971, NASM39086, NAS561, ASME B18.8.2, ASME B18.8.3M
- ⊙ **Light Duty Pins** — ISO 8751, NASM10971, NASM51987, NAS1407, ASME B18.8.2, ASME B18.8.3M

### NOTES

- ⊙ Standard specifications apply except where otherwise specified.
- ⊙ Light duty carbon steel pins are not produced in diameters smaller than .094 and 2.5 mm.
- ⊙ .031, .047, 1 mm diameter pins are only available in SAE 30302/30304 and 51420 materials.
- ⊙ Where appropriate, zinc plating conforms to ASTM B633 SC1, Type 1 and BS 1706.1990 Fe/Zn/5c.
- ⊙ Where appropriate, phosphate coating conforms to MIL-DTL-16232 Type Z, Class 1 and BS 3189 Fe/Zn/10ph.
- ⊙ The standard material for .625 in. and .750 in. and 16 mm and 20 mm diameter pins is SAE 6150H.
- ⊙ The standard finish for stainless steel pins is plain, oiled. Passivated pins are available at an additional cost.
- ⊙ Special materials and finishes, including oil-free pins, are available upon request.

# STANDARD COILED PINS

## Inch Sizes

NOMINAL DIAMETER			.031	.039	.047	.052	.062	.078	.094	.109	.125	.156	.187	.219	.250	.312	.375	.500	.625	.750
			1/32		3/64		1/16	5/64	3/32	7/64	1/8	5/32	3/16	7/32	1/4	5/16	3/8	1/2	5/8	3/4
STANDARD DUTY DIAMETER	D	MAX.	.035	.044	.052	.057	.072	.088	.105	.120	.138	.171	.205	.238	.271	.337	.403	.535	.661	.787
		MIN.	.033	.041	.049	.054	.067	.083	.099	.114	.131	.163	.196	.228	.260	.324	.388	.516	.642	.768
HEAVY DUTY DIAMETER	D	MAX.	—	—	—	—	.070	.086	.103	.118	.136	.168	.202	.235	.268	.334	.400	.532	.658	.784
		MIN.	—	—	—	—	.066	.082	.098	.113	.130	.161	.194	.226	.258	.322	.386	.514	.640	.766
LIGHT DUTY DIAMETER	D	MAX.	—	—	—	—	.073	.089	.106	.121	.139	.172	.207	.240	.273	.339	.405	.537	—	—
		MIN.	—	—	—	—	.067	.083	.099	.114	.131	.163	.196	.228	.260	.324	.388	.516	—	—
CHAMFER	B DIA.	MAX.	.029	.037	.045	.050	.059	.075	.091	.106	.121	.152	.182	.214	.243	.304	.366	.488	.613	.738
	C LENGTH	REF.	.024	.024	.024	.024	.028	.032	.038	.038	.044	.048	.055	.065	.080	.095	.110	.125	.150	
RECOMMENDED HOLE SIZE		MAX.	.032	.040	.048	.053	.065	.081	.097	.112	.129	.160	.192	.224	.256	.319	.383	.510	.635	.760
		MIN.	.031	.039	.047	.051	.061	.077	.093	.108	.124	.155	.185	.217	.247	.308	.370	.493	.618	.743

Special diameters, lengths, duties and controlled chamfers made to order.

### MINIMUM DOUBLE SHEAR STRENGTH LBS.

NOMINAL DIAMETER			.031	.039	.047	.052	.062	.078	.094	.109	.125	.156	.187	.219	.250	.312	.375	.500	.625	.750
			1/32		3/64		1/16	5/64	3/32	7/64	1/8	5/32	3/16	7/32	1/4	5/16	3/8	1/2	5/8	3/4
CARBON/ALLOY STEEL																				
CHROME STAINLESS STEEL																				
STANDARD DUTY			90	135	190	250	330	550	775	1,050	1,400	2,200	3,150	4,200	5,500	8,700	12,600	22,500	35,000	50,000
HEAVY DUTY			—	—	—	—	475	800	1,150	1,500	2,000	3,100	4,500	5,900	7,800	12,000	18,000	32,000	48,000	70,000
LIGHT DUTY			—	—	—	—	205	325	475	650	825	1,300	1,900	2,600	3,300	5,200	—	—	—	—
NICKEL STAINLESS STEEL																				
STANDARD DUTY			65	100	145	190	265	425	600	825	1,100	1,700	2,400	3,300	4,300	6,700	9,600	17,500	—	—
HEAVY DUTY			—	—	—	—	360	575	825	1,150	1,700	2,400	3,500	4,600	6,200	9,300	14,000	25,000	—	—
LIGHT DUTY			—	—	—	—	160	250	360	500	650	1,000	1,450	2,000	2,600	4,000	—	—	—	—

Shear tests performed in accordance with ASME B18.8.2.

### STANDARD LENGTHS

NOMINAL DIAMETER ▶		.031	.039	.047	.052	.062	.078	.094	.109	.125	.156	.187	.219	.250	.312	.375	.500	.625	.750	
		1/32		3/64		1/16	5/64	3/32	7/64	1/8	5/32	3/16	7/32	1/4	5/16	3/8	1/2	5/8	3/4	
LENGTHS	.125 1/8																			
	.188 3/16																			
	.250 1/4																			
	.312 5/16																			
	.375 3/8																			
	.438 7/16																			
	.500 1/2																			
	.563 9/16																			
	.625 5/8																			
	.688 11/16																			
	.750 3/4																			
	.813 13/16																			
	.875 7/8																			
	.938 15/16																			
	1.000 1																			
	1.125 1-1/8																			
	1.250 1-1/4																			
	1.375 1-3/8																			
	1.500 1-1/2																			
	1.625 1-5/8																			
	1.750 1-3/4																			
	1.875 1-7/8																			
	2.000 2																			
	2.250 2-1/4																			
	2.500 2-1/2																			
	2.750 2-3/4																			
	3.000 3																			
	3.250 3-1/4																			
3.500 3-1/2																				
3.750 3-3/4																				
4.000 4																				
4.500 4-1/2																				
5.000 5																				

Special lengths made to order

Pin Length		Length Tolerance	
Nominal Pin Size		ø1/32 to 3/8	ø1/2 to 3/4
Up to 2.000	2"	±0.010	±0.025
Over 2.000 to 3.000	2" to 3"	±0.015	±0.025
Over 3.000	3"	±0.025	±0.025

Pin Length		† Straightness Tolerance	
Up to 1.000	1"	.007	
Over 1.000 to 2.000	1" to 2"	.010	
Over 2.000	2"	.013	

Interchangeable Inch and mm Pins		
Inch Diameter	mm Diameter	
.031 1/32	0.8	
.039	1.0	
.047 3/64	1.2	
.078 5/64	2.0	
.156 5/32	4.0	
.312 5/16	8.0	
.625 5/8	16.0	

Available in Standard Duty and Stainless Steel materials only    Available in all duties    Available in Standard Duty and Heavy Duty only

† Pin must fall through a hole gauge in length equal to the next one-inch increment over the pin length with a hole equal to the maximum specified pin diameter plus the straightness tolerance by its own weight.

# STANDARD COILED PINS

## Metric Sizes

NOMINAL DIAMETER			0.8	1	1.2	1.5	2	2.5	3	3.5	4	5	6	8	10	12	16	20
STANDARD DUTY DIAMETER	D	MAX.	0.91	1.15	1.35	1.73	2.25	2.78	3.3	3.84	4.4	5.5	6.5	8.63	10.8	12.85	17.0	21.1
		MIN.	0.85	1.05	1.25	1.62	2.13	2.65	3.15	3.67	4.2	5.25	6.25	8.3	10.35	12.4	16.45	20.4
HEAVY DUTY DIAMETER	D	MAX.	—	—	—	1.71	2.21	2.73	3.25	3.79	4.3	5.35	6.4	8.55	10.65	12.75	16.9	21.0
		MIN.	—	—	—	1.61	2.11	2.62	3.12	3.64	4.15	5.15	6.18	8.25	10.3	12.35	16.4	20.4
LIGHT DUTY DIAMETER	D	MAX.	—	—	—	1.75	2.28	2.82	3.35	3.87	4.45	5.5	6.55	8.65	—	—	—	—
		MIN.	—	—	—	1.62	2.13	2.65	3.15	3.67	4.2	5.2	6.25	8.3	—	—	—	—
CHAMFER	B DIA. C LENGTH	MAX.	0.75	0.95	1.15	1.4	1.9	2.4	2.9	3.4	3.9	4.85	5.85	7.8	9.75	11.7	15.6	19.6
		REF.	0.3	0.3	0.4	0.5	0.7	0.7	0.9	1.0	1.1	1.3	1.5	2.0	2.5	3.0	4.0	4.5
RECOMMENDED HOLE SIZE	MAX. MIN.		0.84	1.04	1.24	1.6	2.1	2.6	3.1	3.62	4.12	5.12	6.15	8.15	10.15	12.18	16.18	20.21
			0.8	1.0	1.2	1.5	2.0	2.5	3.0	3.5	4.0	5.0	6.0	8.0	10.0	12.0	16.0	20.0

Special materials, diameters, duties and controlled chamfer lengths made to order.

### MINIMUM DOUBLE SHEAR STRENGTH KN

NOMINAL DIAMETER			0.8	1	1.2	1.5	2	2.5	3	3.5	4	5	6	8	10	12	16	20
CARBON/ALLOY STEEL CHROME STAINLESS STEEL																		
STANDARD DUTY			0.4	0.6	0.9	1.45	2.5	3.9	5.5	7.5	9.6	15	22	39	62	89	155	250
HEAVY DUTY			—	—	—	1.9	3.5	5.5	7.6	10	13.5	20	30	53	84	120	210	340
LIGHT DUTY			—	—	—	0.8	1.5	2.3	3.3	4.5	5.7	9	13	23	—	—	—	—
NICKEL STAINLESS STEEL																		
STANDARD DUTY			0.3	0.45	0.65	1.05	1.9	2.9	4.2	5.7	7.6	11.5	16.8	30	48	67	—	—
HEAVY DUTY			—	—	—	1.45	2.5	3.8	5.7	7.6	10	15.5	23	41	64	91	—	—
LIGHT DUTY			—	—	—	0.65	1.1	1.8	2.5	3.4	4.4	7	10	18	—	—	—	—

Shear tests performed in accordance with ASME B18.8.3M, BS 7054 and ISO 8749.

### STANDARD LENGTHS

NOMINAL DIAMETER ►		0.8	1	1.2	1.5	2	2.5	3	3.5	4	5	6	8	10	12	16	20	
LENGTHS	4																	
	5																	
	6																	
	8																	
	10																	
	12																	
	14																	
	16																	
	18																	
	20																	
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55																		
60																		
65																		
70																		
75																		
80																		
85																		
90																		
95																		
100																		
120																		

**Special lengths made to order**

Interchangeable mm and Inch Pins	
mm	Inch
0.8	.031 1/32
1.0	.039
1.2	.047 3/64
2.0	.078 5/64
4.0	.156 5/32
8.0	.312 5/16
16.0	.625 5/8

Pin Length	Length Tolerance	
Nominal Pin Size	∅0.8 - 10	∅12 - 20
Up to 50, inclusive	±0.25	±0.5
Over 50	±0.5	±0.5

Pin Length	† Straightness Tolerance
Up to 24, inclusive	0.2
Over 24 to 50 inclusive	0.34
Over 50	0.48

Available in Standard Duty and Stainless Steel materials only Available in all duties Available in Standard Duty and Heavy Duty only

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† Pin must fall through a hole gauge in length equal to the next 25 mm increment over the pin length with a hole equal to the maximum specified pin diameter plus the straightness tolerance by its own weight.

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Fax. +1 (1) 860.774.2048

**Spirol West Inc.**  
1950 Compton Avenue, Unit 111  
Corona, California 92881-6471  
Tel. +1 (1) 951.273.5900  
Fax. +1 (1) 951.273.5907

**Spirol International Corporation  
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321 Remington Road  
Stow, Ohio 44224  
Tel. +1 (1) 330.920.3655  
Fax. +1 (1) 330.920.3659

**Spirol Distribution**  
(For Distributor Customers)  
30 Rock Avenue  
Danielson, Connecticut 06239  
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Canada N8W 5B1  
Tel. +1 (1) 519.974.3334  
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Carretera a Laredo KM 16.5 Interior E  
Col. Moisés Saenz  
Apodaca, N.L. 66613 México  
ó Apdo. Postal 151 de Apodaca, N.L.  
Tel. +52 (01) 81 8385 4390  
Fax. +52 (01) 81 8385 4391

**Europe Spirol Industries, Ltd.**  
Princewood Road  
Corby, Northants  
England NN17 4ET  
Tel. +44 (0) 1536 444800  
Fax. +44 (0) 1536 203415  
(UK Distributors: Tel. 0800 3890034)

**Spirol SAS**  
Rue Henri Rol Tanguy  
Z.A. Les Naux  
51450 Bétheny - Reims  
France  
Tel. +33 (0) 3 26 36 31 42  
Fax. +33 (0) 3 26 09 19 76

**Spirol GmbH**  
Briener Strasse 9  
80333 Munich  
Germany  
Tel. +49 (0) 931 454 670 74  
Fax. +49 (0) 931 454 670 75

**Asia Pacific Spirol International Engineered  
Fastener Trading Co. Ltd.**  
No. 11 Xi Ya Rd. North  
Section A, 1F, Building 14  
Wai Gao Qiao Free Trade Zone  
Shanghai, China 200131  
Tel. +86 (0) 21 5046-1451/1452  
Fax. +86 (0) 21 5046-1540

e-mail: [info@spirol.com](mailto:info@spirol.com)

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