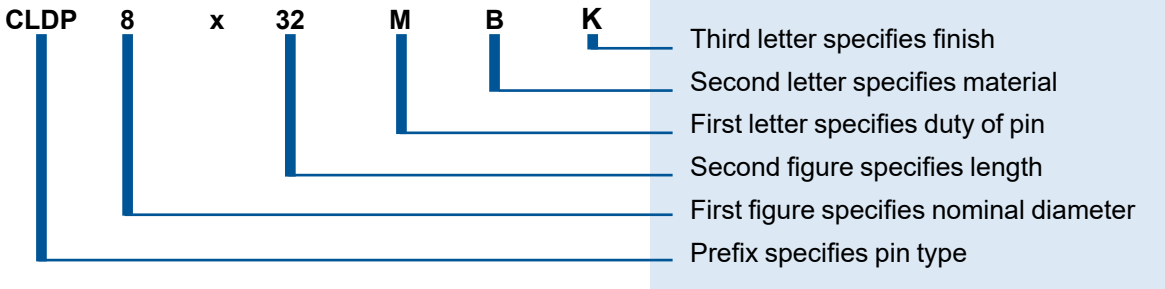




PIN DUTIES	MATERIAL	FINISHES
<b>M</b> Standard	<b>B</b> High Carbon Steel	<b>K</b> Plain, Oiled
<b>H</b> Heavy	<b>C</b> Chrome Stainless Steel	<b>T</b> Electroplated Zinc
<b>L</b> Light	<b>D</b> Nickel Stainless Steel	
	<b>W</b> Alloy Steel	

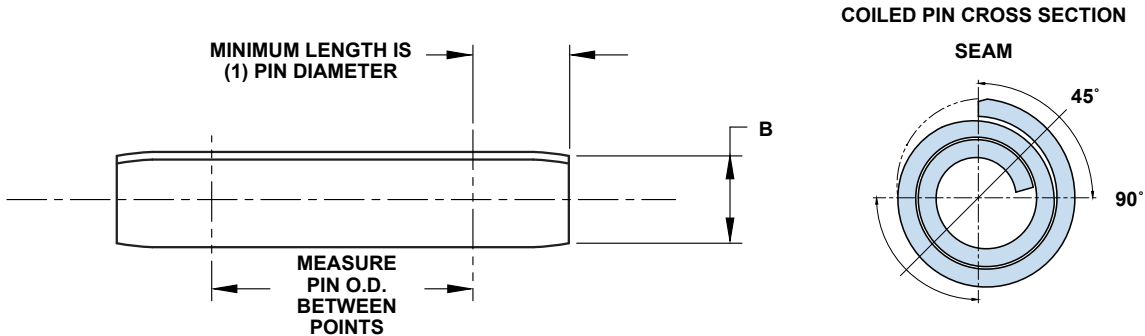
### Identification Code

Coiled Pin 8mm diameter x 32mm length standard duty/carbon steel/plain finish



### How to Measure the Diameter of a Coiled Spring Pin

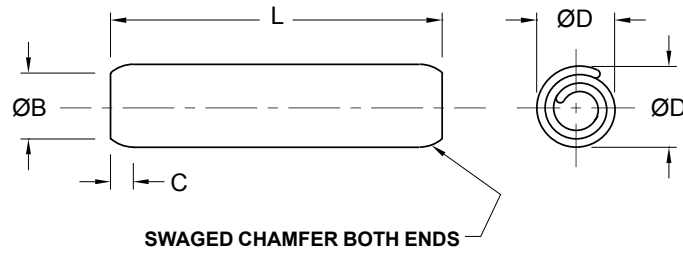
The outside diameter of a Coiled Pin is to be measured with a micrometer from the seam (0° point) through the 90° point. Diameter is to be measured a minimum of one pin diameter in length from the end of the pin.



NOTES
<ul style="list-style-type: none"> <li>• Standard specifications apply except where otherwise specified.</li> <li>• All dimensions apply prior to plating.</li> <li>• Electroplated zinc is not available for pins greater than or equal to 8mm and .312" nominal diameter.</li> <li>• The standard finish for stainless steel pins is plain. Passivated pins are available at an additional cost.</li> <li>• Special sizes, duties, materials and finishes, including oil-free pins, are available upon request.</li> </ul>



# HEAVY DUTY COILED PINS – METRIC ISO 8748 • ASME B18.8.3M



NOMINAL DIAMETER		1.5	2	2.5	3	3.5	4	5	6	8	10	12	16	20
DIAMETER ØD	MAX.	1.71	2.21	2.73	3.25	3.79	4.30	5.35	6.40	8.55	10.65	12.75	16.90	21.00
	MIN.	1.61	2.11	2.62	3.12	3.64	4.15	5.15	6.18	8.25	10.30	12.35	16.40	20.40
CHAMFER	B DIA. MAX.	1.40	1.90	2.40	2.90	3.40	3.90	4.85	5.85	7.80	9.75	11.70	15.60	19.60
	C LENGTH REF.	0.50	0.70	0.70	0.90	1.00	1.10	1.30	1.50	2.00	2.50	3.00	4.00	4.50
RECOMMENDED HOLE SIZE	MAX.	1.60	2.10	2.60	3.10	3.62	4.12	5.12	6.15	8.15	10.15	12.18	16.18	20.21
	MIN.	1.50	2.00	2.50	3.00	3.50	4.00	5.00	6.00	8.00	10.00	12.00	16.00	20.00

Note: All dimensions apply prior to plating.

## MINIMUM DOUBLE SHEAR STRENGTH kN

NOMINAL DIAMETER		1.5	2	2.5	3	3.5	4	5	6	8	10	12	16	20
CARBON ALLOY STEEL		1.90	3.50	5.50	7.60	10	13.50	20	30	53	84	120	210	340
CHROME STAINLESS														
NICKEL STAINLESS		1.45	2.50	3.80	5.70	7.60	10	15.50	23	41	64	91	—	—

Note: Shear tests performed in accordance ASME B18.8.3M and ISO 8749.

## STANDARD LENGTHS

NOMINAL DIAMETER		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		*	*	*			*	*	*	*			
	22		*	*	*			*	*	*	*			
	24		*	*	*			*	*	*	*			
	26			*	*			*	*	*	*	*		
	28				*			*	*	*	*	*		
	30				*			*	*	*	*	*	*	
	32							*	*	*	*	*	*	
	35							*	*	*	*	*	*	*
	40							*	*	*	*	*	*	*
	45							*	*	*	*	*	*	*
	50							*	*	*	*	*	*	*
55									*	*	*	*	*	
60									*	*	*	*	*	
65									*	*	*	*	*	
70									*	*	*	*	*	
75									*	*	*	*	*	
80									*	*	*	*	*	
85										*	*	*	*	
90										*	*	*	*	
95										*	*	*	*	
100										*	*	*	*	

Nominal Pin Length		Length Tolerance	
Nominal Pin Size	ø1.5 - 10	ø12-20	
L ≤ 10	±0.25	N/A	
10 < L ≤ 50	±0.5	±0.5	
50 < L	±0.75	±0.75	

Pin Straightness Tolerance <sup>1</sup>		
Gage Hole Diameter		
<i>Specified Maximum Pin Diameter Plus:</i>		
Nominal Pin Length	Min.	Max.
L ≤ 24	0.18	0.2
24 < L ≤ 50	0.3	0.34
50 < L	0.42	0.48

Gage Length	
Nominal Pin Length	±0.15
L ≤ 24	25
24 < L ≤ 50	50
50 < L	75

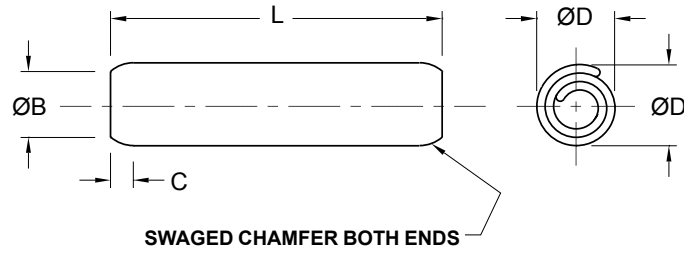
Interchangeable mm and Inch Pins		
mm Diameter	Inch Diameter	
2.0	.078	5/64
4.0	.156	5/32
8.0	.312	5/16
16.0	.625	5/8

Available in high carbon and stainless steels    Only available in alloy steel

\* Generally stocked size

<sup>1</sup> Pin must fall through the gage by its own weight.

*Special sizes, duties, materials and finishes, including oil-free pins, are available upon request.*



NOMINAL DIAMETER		.062	.078	.094	.109	.125	.156	.187	.219	.250	.312	.375	.437	.500	.625	.750
		1/16	5/64	3/32	7/64	1/8	5/32	3/16	7/32	1/4	5/16	3/8	7/16	1/2	5/8	3/4
DIAMETER ØD	MAX.	.070	.086	.103	.118	.136	.168	.202	.235	.268	.334	.400	.466	.532	.658	.784
	MIN.	.066	.082	.098	.113	.130	.161	.194	.226	.258	.322	.386	.450	.514	.640	.766
CHAMFER	B DIA. MAX.	.059	.075	.091	.106	.121	.152	.182	.214	.243	.304	.366	.427	.488	.613	.738
	C LENGTH REF.	.028	.032	.038	.038	.044	.048	.055	.065	.065	.080	.095	.095	.110	.125	.150
RECOMMENDED HOLE SIZE	MAX.	.065	.081	.097	.112	.129	.160	.192	.224	.256	.319	.383	.446	.510	.635	.760
	MIN.	.062	.078	.094	.109	.125	.156	.187	.219	.250	.312	.375	.437	.500	.625	.750

Note: All dimensions apply prior to plating.

## MINIMUM DOUBLE SHEAR STRENGTH LBS.

NOMINAL DIAMETER		.062	.078	.094	.109	.125	.156	.187	.219	.250	.312	.375	.437	.500	.625	.750
		1/16	5/64	3/32	7/64	1/8	5/32	3/16	7/32	1/4	5/16	3/8	7/16	1/2	5/8	3/4
CARBON CHROME STAINLESS		475	800	1,150	1,500	2,000	3,100	4,500	5,900	7,800	12,000	18,000	23,500	32,000	48,000	70,000
NICKEL STAINLESS		360	575	825	1,150	1,700	2,400	3,500	4,600	6,200	9,300	14,000	18,000	25,000	—	—

Note: Shear tests performed in accordance with ASME B18.8.2.

## STANDARD LENGTHS

NOMINAL DIAMETER		.062	.078	.094	.109	.125	.156	.187	.219	.250	.312	.375	.437	.500	.625	.750
		1/16	5/64	3/32	7/64	1/8	5/32	3/16	7/32	1/4	5/16	3/8	7/16	1/2	5/8	3/4
LENGTH	.187 3/16	*	*													
	.250 1/4	*	*	*												
	.312 5/16	*	*	*		*										
	.375 3/8	*	*	*		*										
	.437 7/16	*	*	*		*	*									
	.500 1/2	*	*	*		*	*	*								
	.562 9/16	*	*	*		*	*	*	*							
	.625 5/8	*	*	*		*	*	*	*	*						
	.687 11/16										*					
	.750 3/4		*	*		*	*	*	*	*	*					
	.812 13/16															
	.875 7/8			*		*	*	*	*	*	*					
	.937 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														*	*	

Interchangeable Inch and mm Pins	
Inch Diameter	mm Diameter
.078 5/64	2.0
.156 5/32	4.0
.312 5/16	8.0
.625 5/8	16.0

Available in high carbon and stainless steels      Only available in alloy steel

\* Generally stocked size

<sup>1</sup> 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.

*Special sizes, duties, materials and finishes, including oil-free pins, are available upon request.*

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Coiled Spring Pins



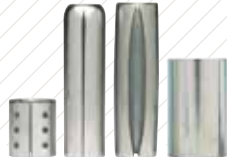
Slotted Spring Pins



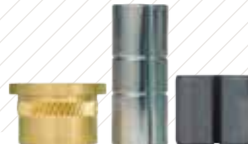
Solid Pins



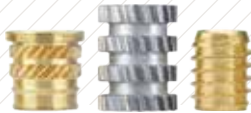
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Bushings



Spacers & Rolled  
Tubular Components



Compression  
Limiters



Threaded Inserts  
for Plastics



Railroad Nuts



Disc Springs



Precision Shims &  
Thin Metal Stampings



Precision Washers



Parts Feeding  
Technology



Pin Installation  
Technology



Insert Installation  
Technology



Compression Limiter  
Installation Technology

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