Continuous Length Extension Springs

Adaptable Cut to Length Extension Springs

Lee Spring's Continuous Length Extension Springs are excellent for prototyping or when an extension spring needs to be configured quickly in the shop or on the road.

The Continuous Length Extension Spring is designed to be cut to length as needed. Keep a selection of Continuous Length Extension springs on hand and be ready to configure a spring at any time.

Continuous Length springs are available in 3 length configurations (12", 24", and 36" lengths) and in a wide range of outside diameter and stiffness combinations, matching Lee Spring's most popular stock extension springs.

Available in two material options, Music Wire and Type 302 Stainless Steel. Music Wire springs are provided with an oiled finish for light corrosion resistance.

How to Configure a Continuous Length Spring:

Step 1

Fold Spring 180˚ at desired length and cut. Cut shorter than needed by one-half the coil body diameter.

Step 2

Across from cut end, bend last coil up at 45˚ angle. To form double loop, bend last two coils up 45˚. Do not use heat!

Step 3

Twist cut end of loop into center of coil body. This may require pliers. You may have to twist past center to allow the loop to flex back.

Step 4

Cut end of newly formed loop to obtain any gap needed for mounting.

Lee Spring can manufacture custom continuous length extension springs to your specifications. Contact us today!

Continuous Length Extension Springs

Guide to using tables

Lee Stock Number: Lee Spring Part Number, add suffix M for Music Wire or S for Stainless Steel.

Outside Diameter: Spring outer diameter, parts listed in ascending order.

Initial Tension: Force that keeps the coils closed and which must be overcome before the coils start to move.

Stiffness: Factor used to calculate spring rate based on the final cut length.

Price Group: Reference for price list. **See fold-out section at rear of book.**

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		FREE LENGTH		INITIAL TENSION		APPROX. NUMBER OF COILS/IN.	STIFFNESS K	PRICE GROUP Music Wire	PRICE GROUP #302 Stainless
	IN.	MM	IN.	MM	IN.	MM	LB.	KG			M	S
LEC014A 12					12	305					AM	AM
LEC014A 24	0.125	3.18	0.014	0.36	24	610	0.12	0.054	71.4	42.1	AN	AN
LEC014A 36					36	914					AO	AR
LEC016A 12					12	305					AM	AM
LEC016A 24	0.125	3.18	0.016	0.41	24	610	0.20	0.091	62.5	75.9	AN	AN
LEC016A 36					36	914					AO	AR
LEC018A 12					12	305					AM	AM
LEC018A 24	0.125	3.18	0.018	0.46	24	610	0.30	0.136	55.5	128		AN

Wire Diameter: In ascending order of size, within each group of outside diameters.

Free Length: The overall length of the spring in the unloaded position.

Approx Number of Coils/In.: The number of coils in each inch of length.

Additional Information

- All Continuous Length Extension Springs are right hand wound.
- To determine the spring rate per inch of extension for the final cut spring, use the following formula:
  Rate = K / N
  where K = Stiffness Factor, N = Number of Coils per Inch Factor X Cut Body Length in Inches
- To determine the load at an extended length, multiply deflection by the spring rate and add the initial tension.

How to Determine Price

1. Select the spring you want by LEE STOCK NUMBER.
2. Read across to the last column PRICE GROUP to obtain the price code: when applicable, select the price code that corresponds to the material type required.
3. Refer to the PRICE GROUP in the appropriate pricing chart by spring type located in the back of this catalog for pricing up to 199 pieces of an item.
4. Prices subject to change without notice.

FREE SHIPPING AVAILABLE
See Price List in back of catalog for details.

Music Wire (Light Oil Coated) • 302 Stainless Steel (Natural)

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		FREE LENGTH		INITIAL TENSION		APPROX. NUMBER OF COILS/IN.	STIFFNESS K	PRICE GROUP	
											Music Wire	#302 Stainless
	IN.	MM	IN.	MM	IN.	MM	LB.	KG			M	S
LEC014A 12	0.125	3.18	0.014	0.36	12	305	0.12	0.054	71.4	42.1	AM	AM
LEC014A 24					24	610					AN	AN
LEC014A 36					36	914					AO	AR
LEC016A 12	0.125	3.18	0.016	0.41	12	305	0.20	0.091	62.5	75.9	AM	AM
LEC016A 24					24	610					AN	AN
LEC016A 36					36	914					AO	AR
LEC018A 12	0.125	3.18	0.018	0.46	12	305	0.30	0.136	55.5	128.5	AM	AM
LEC018A 24					24	610					AN	AN
LEC018A 36					36	914					AO	AR
LEC020A 12	0.125	3.18	0.020	0.51	12	305	0.40	0.181	50.0	207.3	AM	AM
LEC020A 24					24	610					AN	AN
LEC020A 36					36	914					AO	AR
LEC022A 12	0.125	3.18	0.022	0.56	12	305	0.45	0.204	45.4	321.6	AM	AM
LEC022A 24					24	610					AN	AN
LEC022A 36					36	914					AO	AR
LEC018C 12	0.250	6.35	0.018	0.46	12	305	0.10	0.045	55.5	12.6	AN	AN
LEC018C 24					24	610					AO	AP
LEC018C 36					36	914					AP	AU
LEC022C 12	0.250	6.35	0.022	0.56	12	305	0.20	0.091	45.4	29.6	AN	AN
LEC022C 24					24	610					AO	AP
LEC022C 36					36	914					AP	AU
LEC026C 12	0.250	6.35	0.026	0.66	12	305	0.40	0.181	38.4	61.0	AN	AN
LEC026C 24					24	610					AO	AP
LEC026C 36					36	914					AP	AU
LEC029C 12	0.250	6.35	0.029	0.74	12	305	0.55	0.249	34.4	98.3	AN	AN
LEC029C 24					24	610					AO	AP
LEC029C 36					36	914					AP	AU
LEC031C 12	0.250	6.35	0.031	0.79	12	305	0.70	0.318	32.2	131.9	AN	AN
LEC031C 24					24	610					AO	AP
LEC031C 36					36	914					AP	AU
LEC034C 12	0.250	6.35	0.034	0.86	12	305	0.85	0.386	29.4	198.9	AN	AN
LEC034C 24					24	610					AO	AP
LEC034C 36					36	914					AP	AU
LEC037C 12	0.250	6.35	0.037	0.94	12	305	1.00	0.454	27.0	290.9	AN	AN
LEC037C 24					24	610					AO	AP
LEC037C 36					36	914					AP	AU
LEC041C 12	0.250	6.35	0.041	1.04	12	305	1.05	0.476	24.3	464.3	AN	AN
LEC041C 24					24	610					AO	AP
LEC041C 36					36	914					AP	AU
LEC026D 12	0.375	9.53	0.026	0.66	12	305	0.22	0.100	38.4	16.1	AO	AP
LEC026D 24					24	610					AP	AT
LEC026D 36					36	914					AS	AX
LEC031D 12	0.375	9.53	0.031	0.79	12	305	0.30	0.136	32.2	34.0	AO	AP
LEC031D 24					24	610					AP	AT
LEC031D 36					36	914					AS	AX
LEC034D 12	0.375	9.53	0.034	0.86	12	305	0.50	0.227	29.4	50.6	AO	AP
LEC034D 24					24	610					AP	AT
LEC034D 36					36	914					AS	AX
LEC037D 12	0.375	9.53	0.037	0.94	12	305	0.70	0.318	27.0	72.8	AO	AP
LEC037D 24					24	610					AP	AT
LEC037D 36					36	914					AS	AX

SPECIAL INSTRUCTIONS FOR CONTINUOUS LENGTH SPRINGS

STOCK NUMBERS: Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless.
PRICING: See Inside Back Cover for pricing up to 199; 200+ pieces contact Lee Spring.
CALCULATIONS: Spring Stiffness and Initial Tension are for Music Wire. For Type 302 Stainless, multiply figures shown by 5/6 (.833).

SPECIALTY STOCK PARTS: CONTINUOUS LENGTH EXTENSION SPRINGS

Music Wire (Light Oil Coated) • 302 Stainless Steel (Natural)

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		FREE LENGTH		INITIAL TENSION		APPROX. NUMBER OF COILS/IN.	STIFFNESS K	PRICE GROUP	
											Music Wire	#302 Stainless
	IN.	MM	IN.	MM	IN.	MM	LB.	KG			M	S
LEC039D 12					12	305					AO	AP
LEC039D 24	0.375	9.53	0.039	0.99	24	610	0.80	0.363	25.6	91.5	AP	AT
LEC039D 36					36	914					AS	AX
LEC041D 12					12	305					AO	AP
LEC041D 24	0.375	9.53	0.041	1.04	24	610	0.90	0.408	24.3	113.8	AP	AT
LEC041D 36					36	914					AS	AX
LEC045D 12					12	305					AO	AP
LEC045D 24	0.375	9.53	0.045	1.14	24	610	1.20	0.544	22.2	171.2	AP	AT
LEC045D 36					36	914					AS	AX
LEC049D 12					12	305					AO	AP
LEC049D 24	0.375	9.53	0.049	1.24	24	610	1.50	0.680	20.4	249.6	AR	AT
LEC049D 36					36	914					AS	AX
LEC052D 12					12	305					AO	AP
LEC052D 24	0.375	9.53	0.052	1.32	24	610	1.75	0.794	19.2	325.5	AR	AT
LEC052D 36					36	914					AT	AY
LEC055D 12					12	305					AO	AP
LEC055D 24	0.375	9.53	0.055	1.40	24	610	2.00	0.907	18.1	418.9	AR	AT
LEC055D 36					36	914					AT	AY
LEC058D 12					12	305					AO	AP
LEC058D 24	0.375	9.53	0.058	1.47	24	610	2.50	1.134	17.2	532.9	AR	AT
LEC058D 36					36	914					AT	AY
LEC034E 12					12	305					AP	AS
LEC034E 24	0.500	12.70	0.034	0.86	24	610	0.30	0.136	29.4	19.8	AS	AW
LEC034E 36					36	914					AU	AZA
LEC037E 12					12	305					AP	AS
LEC037E 24	0.500	12.70	0.037	0.94	24	610	0.40	0.181	27.0	28.3	AS	AW
LEC037E 36					36	914					AU	AZA
LEC041E 12					12	305					AP	AS
LEC041E 24	0.500	12.70	0.041	1.04	24	610	0.50	0.227	24.3	43.8	AS	AW
LEC041E 36					36	914					AU	AZA
LEC045E 12					12	305					AP	AS
LEC045E 24	0.500	12.70	0.045	1.14	24	610	0.70	0.318	22.2	65.3	AS	AW
LEC045E 36					36	914					AU	AZA
LEC049E 12					12	305					AP	AS
LEC049E 24	0.500	12.70	0.049	1.24	24	610	0.88	0.399	20.4	94.3	AS	AW
LEC049E 36					36	914					AU	AZA
LEC055E 12					12	305					AP	AS
LEC055E 24	0.500	12.70	0.055	1.40	24	610	1.30	0.590	18.1	155.8	AT	AX
LEC055E 36					36	914					AW	AZB
LEC063E 12					12	305					AR	AS
LEC063E 24	0.500	12.70	0.0625	1.59	24	610	2.00	0.907	15.8	273.3	AT	AX
LEC063E 36					36	914					AW	AZB
LEC067E 12					12	305					AR	AS
LEC067E 24	0.500	12.70	0.067	1.70	24	610	3.50	1.588	14.9	372.3	AT	AY
LEC067E 36					36	914					AW	AZC
LEC075E 12					12	305					AR	AU
LEC075E 24	0.500	12.70	0.075	1.91	24	610	5.00	2.268	13.3	618.3	AT	AZ
LEC075E 36					36	914					AX	AZD
LEC049G 12					12	305					AW	AY
LEC049G 24	0.750	19.05	0.049	1.24	24	610	0.59	0.268	20.4	25.1	AZ	AZC
LEC049G 36					36	914					AZB	AZG

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Music Wire (Light Oil Coated) • 302 Stainless Steel (Natural)

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		FREE LENGTH		INITIAL TENSION		APPROX. NUMBER OF COILS/IN.	STIFFNESS K	PRICE GROUP	
											Music Wire	#302 Stainless
	IN.	MM	IN.	MM	IN.	MM	LB.	KG			M	S
LEC055G 12	0.750	19.05	0.055	1.40	12	305	0.80	0.363	18.1	40.9	AW	AY
LEC055G 24					24	610					AZ	AZC
LEC055G 36					36	914					AZB	AZG
LEC063G 12	0.750	19.05	0.0625	1.59	12	305	1.20	0.544	15.8	70.4	AW	AY
LEC063G 24					24	610					AZ	AZD
LEC063G 36					36	914					AZB	AZH
LEC069G 12	0.750	19.05	0.069	1.75	12	305	1.60	0.726	14.5	107.7	AX	AZA
LEC069G 24					24	610					AZ	AZD
LEC069G 36					36	914					AZB	AZJ
LEC075G 12	0.750	19.05	0.075	1.91	12	305	2.00	0.907	13.3	154.3	AX	AZA
LEC075G 24					24	610					AZA	AZE
LEC075G 36					36	914					AZD	AZJ
LEC085G 12	0.750	19.05	0.085	2.16	12	305	2.80	1.270	11.7	266.3	AX	AZA
LEC085G 24					24	610					AZA	AZE
LEC085G 36					36	914					AZD	AZJ
LEC093G 12	0.750	19.05	0.093	2.36	12	305	3.50	1.588	10.7	395.7	AY	AZA
LEC093G 24					24	610					AZA	AZF
LEC093G 36					36	914					AZE	AZK
LEC105G 12	0.750	19.05	0.105	2.67	12	305	6.00	2.722	9.5	651.2	AY	AZB
LEC105G 24					24	610					AZB	AZG
LEC105G 36					36	914					AZE	AZL
LEC112G 12	0.750	19.05	0.112	2.84	12	305	8.00	3.629	8.9	871.0	AY	AZB
LEC112G 24					24	610					AZB	AZG
LEC112G 36					36	914					AZF	AZL
LEC085JK 12	1.125	28.58	0.085	2.16	12	305	1.89	0.857	11.7	69.6	AZ	AZD
LEC085JK 24					24	610					AZD	AZJ
LEC085JK 36					36	914					AZG	AZO
LEC105JK 12	1.125	28.58	0.105	2.67	12	305	3.40	1.542	9.5	164.7	AZA	AZE
LEC105JK 24					24	610					AZE	AZL
LEC105JK 36					36	914					AZJ	AZP
LEC125JK 12	1.125	28.58	0.125	3.18	12	305	5.51	2.499	8.0	351.0	AZC	AZG
LEC125JK 24					24	610					AZH	AZM
LEC125JK 36					36	914					AZL	AZQ

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