

# Torsion Spring Series

## Selection to Match Your Needs

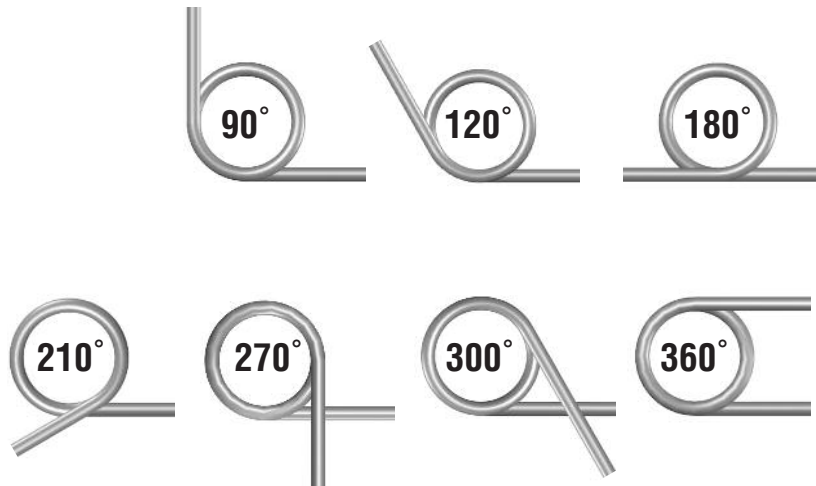


Lee Spring's Torsion Springs have been carefully designed to represent the most commonly used specifications in both inch and metric sizes.

The Torsion Spring selection is divided into seven categories by Free Position of Legs (90°, 120°, 180°, 210°, 270°, 300°, 360°) and both left-hand and right-hand wound springs are shown.

**Direction of Wind:**

Good design dictates that torsion springs should be used in the direction that winds the coil. When ordering, select either LTL (left-hand wound) or LTR (right-hand wound) for required application.



**Mandrel Size:**

Generally, torsion springs are used over a mandrel (shaft or arbor). The column "Suggested Mandrel Size", allows approximately a 10% clearance for the various deflections shown in examples below. If you require greater deflection, a reduction in mandrel size is suggested.

TORSION SPRINGS



Lee Spring can manufacture custom torsion springs to your specifications. Contact us today!

## General Notes

1. Lengths of legs are shown as "A" in sketches below.
2. It is to be noted that "R" (radius in inches) where force is applied is always 1/2 of "A" (Length of Leg). Dotted lines of legs show loaded position where values of "T" (Torque) will be achieved at "R" (Radius).
3. To translate torque values to direct load:

### Use Formula $P=T/R$

P = Load applied at Radius (R), T = Torque

#### Example: Part **LTL 012 A 01**

What is the load where R = .187?

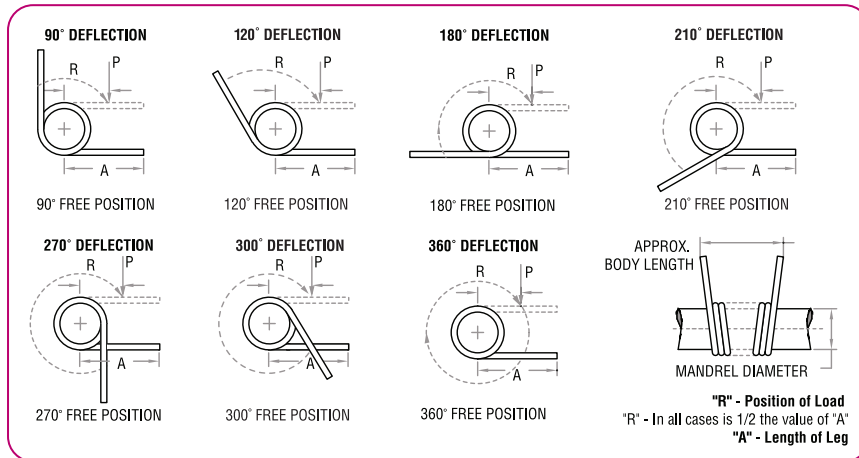
Using  $P = T/R = .050/.187 = .267\text{lbs.}$

4. To calculate torque values other than those listed, a direct proportion may be used.

#### Example: Part **LTL 012 A 01**

Torque shown in catalog listing is .050 inch-lbs. for 90° deflection (for Music Wire); therefore, torque at 45° deflection would be .025 inch-lbs.

5. Inspection of Load – Loads should always be checked at the Radius ("R" value).



## Tolerances on Outside Diameter

### Specifications

#### Material:

- Music Wire
- 302 Stainless Steel
- 316 Stainless Steel

#### Plating:

Zinc Plated .0002"  
(ASTM B-633)

Torsion springs of wire size 0.025" and less may be furnished using pre-coated wire at Lee Spring's discretion without supplemental zinc plating.

#### Passivation:

(ASTM A-967)  
(Mil. Spec. No. QQ-P-35)  
(Type 316 Stainless also ultrasonically cleaned)

**Tolerances on Torque:** ± 10%

Inches				Millimeters			
.093"	–	.125"	± .004"	2.36	–	3.17	± .10mm
.126"	–	.200"	± .005"	3.18	–	5.08	± .13mm
.201"	–	.300"	± .007"	5.09	–	7.62	± .18mm
.301"	–	.410"	± .010"	7.63	–	10.41	± .26mm
.411"	–	.500"	± .013"	10.42	–	12.70	± .33mm
.501"	–	.700"	± .015"	12.71	–	17.78	± .38mm
.701"	–	.875"	± .020"	17.79	–	22.23	± .51mm
.876"	–	1.125"	± .025"	22.24	–	28.58	± .64mm
1.126"	–	1.218"	± .030"	28.59	–	30.94	± .76mm
1.219"	–	1.250"	± .035"	30.95	–	31.75	± .89mm
1.251"	–	1.360"	± .040"	31.76	–	34.54	± 1.02mm
1.361"	–	1.520"	± .045"	34.55	–	38.60	± 1.14mm
1.521"	–	1.750"	± .050"	38.61	–	44.45	± 1.27mm
1.751"	–	2.000"	± .055"	44.46	–	50.80	± 1.40mm
Over 2.000"			± .060"	Over		50.80	± 1.52mm

## Tolerances on Free Position

From 3 to 10 total coils (Incl.) ± 10° • From 11 to 20 total coils (Incl.) ± 15°

# Torsion Spring Series

## Guide to using tables

**Lee Stock Number:**  
Lee Spring Part Number, add suffix M for Music Wire, S for Stainless Steel or S316 for Type 316 Stainless Steel.

**Wire Diameter:**  
Wire diameter of spring wire.

**Radius:**  
Suggested contact point for load and torque inspection, typically at 1/2 of A (length of leg).

**Length Of Leg:**  
The leg length measured from the body's centerline to end of leg.

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

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE @ 90° DEFLECTION (T) <small>(See Footnote)</small>		RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX. (L)		NUMBER OF COILS	PRICE GROUP		
	IN.	MM	IN.	MM	IN.-LB.	KG-MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM		Music Wire	302 Stainless*	316 Stainless
LTL028E 07 LTR028E 07	.873	9.47	.028	.71	.550	6.34	.500	12.70	1/4 (.250)	6.35	1.000	25.40	0.091	2.31	2.25	J	K	AB
LTL038G 01 LTR038G 01	.386	9.80	.038	.97	1.280	14.75	.625	15.88	17/64 (.266)	6.75	1.250	31.75	0.170	4.32	3.25	K	L	AD
LTL048J 01 LTR048J 01	.388	9.86	.048	1.22	2.750	31.68	.625	15.88			1.250	31.75	0.260	6.60	4.25	L	M	AG
LTL030F 07 LTR030F 07	.398	10.11	.030	.76	.680	7.83	.500	12.70			1.000	25.40	0.198	2.49	2.25	L	M	AC

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

**Torque @ 'X' Deflection (T):**  
Design torque load to rotate the spring to its maximum suggested deflection, noted by 'X' degrees to avoid loading overstress.

**Suggested Mandrel Size:**  
Suggested rod size to guide the inside of the spring, allowing for manufacturing tolerances and working to maximum deflection. Larger mandrel sizes may work with reduced working deflection.

**Body Length Approx.:**  
Overall length of the spring coil body.

**Number Of Coils:**  
Total coils in the spring.

### 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.

# TORSION SPRINGS: 90° FREE POSITION (INCH)

Music Wire (Plated\*\*) or 302 Stainless Steel\* (Passivated) or 316 Stainless Steel (Passivated Ultrasonically Cleaned),

LTL - Left Hand Wound; LTR - Right Hand Wound

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															M	S	S316	
LTL012A 01 LTR012A 01	.105	2.67	.012	.30	.050	.58	.188	4.76			0.375	9.53	0.054	1.37	3.25	G	J	Z
LTL015B 01 LTR015B 01	.111	2.82	.015	.38	.100	1.15	.250	6.35	1/16 (.063)	1.59	0.500	12.70	0.068	1.73	3.25	G	J	AA
LTL014A 01 LTR014A 01	.124	3.15	.014	.36	.075	.86	.250	6.35			0.500	12.70	0.065	1.65	3.25	G	J	AA
LTL012A 07 LTR012A 07	.146	3.71	.012	.30	.048	.55	.250	6.35			0.500	12.70	0.039	0.99	2.25	G	J	Z
LTL017C 01 LTR017C 01	.160	4.06	.017	.43	.125	1.44	.250	6.35	3/32 (.094)	2.38	0.500	12.70	0.077	1.96	3.25	G	J	AA
LTL015B 07 LTR015B 07	.171	4.34	.015	.38	.100	1.15	.250	6.35			0.500	12.70	0.049	1.24	2.25	G	J	AA
LTL014A 07 LTR014A 07	.172	4.37	.014	.36	.075	.86	.250	6.35			0.500	12.70	0.046	1.17	2.25	G	J	AA
LTL018C 01 LTR018C 01	.178	4.52	.018	.46	.150	1.73	.250	6.35	1/8 (.125)	3.18	0.500	12.70	0.080	2.03	3.25	G	J	AA
LTL020D 01 LTR020D 01	.191	4.85	.020	.51	.200	2.30	.375	9.53			0.750	19.05	0.090	2.29	3.25	G	J	AA
LTL021D 01 LTR021D 01	.200	5.08	.021	.53	.250	2.88	.375	9.53	9/64 (.141)	3.57	0.750	19.05	0.095	2.41	3.25	G	J	AA
LTL023D 01 LTR023D 01	.204	5.18	.023	.58	.330	3.80	.375	9.53			0.750	19.05	0.103	2.62	3.25	G	J	AA
LTL017C 07 LTR017C 07	.223	5.66	.017	.43	.125	1.44	.375	9.53			0.750	19.05	0.055	1.40	2.25	G	J	AA
LTL018C 07 LTR018C 07	.234	5.94	.018	.46	.150	1.73	.375	9.53	5/32 (.156)	3.97	0.750	19.05	0.058	1.47	2.25	G	J	AA
LTL025E 01 LTR025E 01	.236	5.99	.025	.64	.420	4.84	.375	9.53			0.750	19.05	0.110	2.79	3.25	G	J	AA
LTL021D 07 LTR021D 07	.261	6.63	.021	.53	.250	2.88	.500	12.70			1.000	25.40	0.068	1.73	2.25	G	J	AA
LTL020D 07 LTR020D 07	.267	6.78	.020	.51	.200	2.30	.500	12.70			1.000	25.40	0.065	1.65	2.25	G	J	AA
LTL028E 01 LTR028E 01	.267	6.78	.028	.71	.550	6.34	.500	12.70	3/16 (.188)	4.76	1.000	25.40	0.125	3.18	3.25	J	K	AB
LTL023D 07 LTR023D 07	.285	7.24	.023	.58	.330	3.80	.500	12.70			1.000	25.40	0.075	1.91	2.25	G	J	AA
LTL032F 01 LTR032F 01	.288	7.32	.032	.81	.875	10.08	.500	12.70			1.000	25.40	0.145	3.68	3.25	J	K	AC
LTL030F 01 LTR030F 01	.305	7.75	.030	.76	.680	7.83	.500	12.70			1.000	25.40	0.132	3.35	3.25	J	K	AC
LTL025E 07 LTR025E 07	.312	7.92	.025	.64	.420	4.84	.500	12.70	7/32 (.219)	5.56	1.000	25.40	0.081	2.06	2.25	J	K	AA
LTL035G 01 LTR035G 01	.316	8.03	.035	.89	1.070	12.33	.625	15.88			1.250	31.75	0.153	3.89	3.25	J	K	AC
LTL040H 01 LTR040H 01	.335	8.51	.040	1.02	1.500	17.28	.625	15.88			1.250	31.75	0.220	5.59	4.25	K	L	AD
LTL045H 01 LTR045H 01	.356	9.04	.045	1.14	2.150	24.77	.625	15.88	15/64 (.234)	5.95	1.250	31.75	0.245	6.22	4.25	L	M	AE

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless; "S316" for Type 316 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit [leespring.com](http://leespring.com); 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933). For Type 316 Stainless, the Torque and Deflection should be reduced approximately 65%–90% that of Type 302 Stainless version. Visit [leespring.com](http://leespring.com) for more information regarding any S316 Stainless product calculations.

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note on Page 5 under Finish

TORSION SPRINGS

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	IN.	MM	IN.	MM	IN.-LB.	KG-MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM		Music Wire	302 Stainless*	316 Stainless
																M	S	S316
LTL028E 07 LTR028E 07	.373	9.47	.028	.71	.550	6.34	.500	12.70	1/4 (.250)	6.35	1.000	25.40	0.091	2.31	2.25	J	K	AB
LTL038G 01 LTR038G 01	.386	9.80	.038	.97	1.280	14.75	.625	15.88	17/64 (.266)	6.75	1.250	31.75	0.170	4.32	3.25	K	L	AD
LTL048J 01 LTR048J 01	.388	9.86	.048	1.22	2.750	31.68	.625	15.88			1.250	31.75	0.260	6.60	4.25	L	M	AG
LTL030F 07 LTR030F 07	.398	10.11	.030	.76	.680	7.83	.500	12.70	9/32 (.281)	7.14	1.000	25.40	0.098	2.49	2.25	L	M	AC
LTL032F 07 LTR032F 07	.402	10.21	.032	.81	.875	10.08	.500	12.70			1.000	25.40	0.104	2.64	2.25	L	M	AC
LTL040H 07 LTR040H 07	.405	10.29	.040	1.02	1.500	17.28	.500	12.70			1.000	25.40	0.170	4.32	3.25	L	M	AD
LTL051J 01 LTR051J 01	.408	10.36	.051	1.30	3.100	35.72	1.000	25.40	17/64 (.266)	6.75	2.000	50.80	0.275	6.99	4.25	P	R	AL
LTL045H 07 LTR045H 07	.453	11.51	.045	1.14	2.150	24.77	.625	15.88	5/16 (.313)	7.94	1.250	31.75	0.191	4.85	3.25	P	R	AE
LTL048J 07 LTR048J 07	.460	11.68	.048	1.22	2.750	31.68	.625	15.88			1.250	31.75	0.204	5.18	3.25	P	R	AG
LTL035G 07 LTR035G 07	.468	11.89	.035	.89	1.070	12.33	.625	15.88	11/32 (.344)	8.73	1.250	31.75	0.114	2.90	2.25	P	R	AC
LTL054K 01 LTR054K 01	.484	12.29	.054	1.37	3.500	40.33	1.000	25.40			2.000	50.80	0.295	7.49	4.25	R	S	AM
LTL059K 01 LTR059K 01	.499	12.67	.059	1.50	4.500	51.85	1.000	25.40			2.000	50.80	0.320	8.13	4.25	U	W	AP
LTL051J 07 LTR051J 07	.517	13.13	.051	1.30	3.100	35.72	.625	15.88	3/8 (.375)	9.53	1.250	31.75	0.217	5.51	3.25	U	W	AL
LTL038G 07 LTR038G 07	.541	13.74	.038	.97	1.280	14.75	.625	15.88	13/32 (.406)	10.32	1.250	31.75	0.124	3.15	2.25	U	W	AD
LTL063L 01 LTR063L 01	.560	14.22	.063	1.59	5.500	63.37	1.000	25.40	25/64 (.391)	9.92	2.000	50.80	0.331	8.41	4.25	W	X	AR
LTL054K 07 LTR054K 07	.573	14.55	.054	1.37	3.500	40.33	.625	15.88	13/32 (.406)	10.32	1.250	31.75	0.230	5.84	3.25	W	X	AM
LTL070M 01 LTR070M 01	.593	15.06	.070	1.78	7.500	86.41	1.000	25.40			2.000	50.80	0.375	9.53	4.25	Y	Z	SPECIAL ORDER
LTL059K 07 LTR059K 07	.634	16.10	.059	1.50	4.500	51.85	1.000	25.40	15/32 (.469)	11.91	2.000	50.80	0.251	6.38	3.25	Y	Z	AP
LTL075M 01 LTR075M 01	.637	16.18	.075	1.91	9.203	106.03	1.000	25.40	7/16 (.438)	11.11	2.000	50.80	0.402	10.21	4.25	Z	AA	SPECIAL ORDER
LTL078N 01 LTR078N 01	.657	16.69	.078	1.98	10.450	120.40	1.000	25.40	29/64 (.453)	11.51	2.000	50.80	0.418	10.62	4.25	Z	AA	SPECIAL ORDER
LTL063L 07 LTR063L 07	.675	17.15	.063	1.59	5.500	63.37	1.000	25.40	15/32 (.469)	11.91	2.000	50.80	0.268	6.81	3.25	AA	AB	AS
LTL085N 01 LTR085N 01	.748	19.00	.085	2.16	12.861	148.18	1.250	31.75	33/64 (.516)	13.10	2.500	63.50	0.455	11.56	4.25	AA	AB	SPECIAL ORDER
LTL070M 07 LTR070M 07	.754	19.15	.070	1.78	7.500	86.41	1.000	25.40	17/32 (.531)	13.49	2.000	50.80	0.298	7.57	3.25	AA	AB	SPECIAL ORDER

TORSION SPRINGS



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LTL075M 07 LTR075M 07	.810	20.57	.075	1.91	9.203	106.03	1.000	25.40	19/32	15.08	2.000	50.80	0.319	8.10	3.25	AA	AB	SPECIAL ORDER
LTL078N 07 LTR078N 07	.835	21.21	.078	1.98	10.450	120.40	1.000	25.40	(.594)		2.000	50.80	0.332	8.43	3.25	AA	AB	
LTL105Q 01 LTR105Q 01	.848	21.54	.105	2.67	21.000	241.95	1.750	44.45	37/64	14.68	3.500	88.90	0.656	16.66	5.25	AC	AD	SPECIAL ORDER
LTL095P 01 LTR095P 01	.871	22.12	.095	2.41	17.148	197.57	1.500	38.10	39/64	15.48	3.000	76.20	0.509	12.93	4.25	AB	AC	SPECIAL ORDER
LTL085N 07 LTR085N 07	.952	24.18	.085	2.16	12.860	148.17	1.250	31.75			2.500	63.50	0.361	9.17	3.25	AB	AC	
LTL115R 01 LTR115R 01	.978	24.84	.115	2.92	28.000	322.60	2.000	50.80	11/16	17.46	4.000	101.60	0.719	18.26	5.25	AD	AE	SPECIAL ORDER
LTL125S 01 LTR125S 01	.989	25.12	.125	3.18	32.000	368.69	2.000	50.80			4.000	101.60	0.906	23.01	6.25	AE	AG	
LTL135T 01 LTR135T 01	1.102	27.99	.135	3.43	40.000	460.86	2.000	50.80	43/64	17.07	4.000	101.60	0.979	24.87	6.25	AG	AJ	SPECIAL ORDER
LTL095P 07 LTR095P 07	1.110	28.19	.095	2.41	17.140	197.48	1.500	38.10	13/16	20.64	3.000	76.20	0.404	10.26	3.25	AG	AJ	SPECIAL ORDER
LTL105Q 07 LTR105Q 07	1.342	34.09	.105	2.67	21.000	241.95	1.750	44.45	1 1/32	26.19	3.500	88.90	0.446	11.33	3.25	AG	AJ	SPECIAL ORDER
LTL125S 07 LTR125S 07	1.372	34.85	.125	3.18	32.000	368.69	2.000	50.80	(1.031)		4.000	101.60	0.656	16.66	4.25	AG	AJ	
LTL115R 07 LTR115R 07	1.450	36.83	.115	2.92	28.000	322.60	2.000	50.80	1 3/32	27.78	4.000	101.60	0.489	12.42	3.25	AG	AJ	SPECIAL ORDER
LTL135T 07 LTR135T 07	1.492	37.90	.135	3.43	40.000	460.86	2.000	50.80	1 1/8	28.58	4.000	101.60	0.709	18.01	4.25	AG	AJ	SPECIAL ORDER

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*Music Wire (Plated\*\*) or 302 Stainless Steel\* (Passivated) or 316 Stainless Steel (Passivated Ultrasonically Cleaned),*

*LTL - Left Hand Wound; LTR - Right Hand Wound*

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE @ 120° DEFLECTION (T) (See Footnote)		RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX.(L)		NUMBER OF COILS	PRICE GROUP		
	IN.	MM	IN.	MM	IN.-LB.	KG-MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM		Music Wire	302 Stainless*	316 Stainless
																M	S	S316
LTL016A 10 LTR016A 10	.190	4.83	.016	.41	.110	1.27	.375	9.53	1/8 (.125)	3.18	0.750	19.05	0.067	1.70	3.17	G	J	AA
LTL020B 10 LTR020B 10	.273	6.93	.020	.51	.180	2.07	.500	12.70	3/16 (.188)	4.76	1.000	25.40	0.083	2.11	3.17	J	K	AA
LTL024C 10 LTR024C 10	.362	9.19	.024	.61	.280	3.23	.500	12.70	1/4 (.250)	6.35	1.000	25.40	0.100	2.54	3.17	K	L	AA
LTL029C 10 LTR029C 10	.365	9.27	.029	.74	.470	5.42	.500	12.70			1.000	25.40	0.150	3.81	4.17	K	L	AB
LTL026C 10 LTR026C 10	.366	9.30	.026	.66	.380	4.38	.500	12.70			1.000	25.40	0.108	2.74	3.17	K	L	AA
LTL032C 10 LTR032C 10	.371	9.42	.032	.81	.690	7.95	.500	12.70			1.000	25.40	0.165	4.19	4.17	L	M	AC
LTL035C 10 LTR035C 10	.377	9.58	.035	.89	.960	11.06	.625	15.88	5/16 (.313)	7.94	1.250	31.75	0.181	4.60	4.17	L	M	AD
LTL042D 10 LTR042D 10	.467	11.86	.042	1.07	1.550	17.86	1.000	25.40			2.000	50.80	0.217	5.51	4.17	M	N	AE
LTL045D 10 LTR045D 10	.474	12.04	.045	1.14	2.030	23.39	1.000	25.40			2.000	50.80	0.233	5.92	4.17	M	N	AE
LTL038E 10 LTR038E 10	.547	13.89	.038	.97	1.210	13.94	.625	15.88			3/8 (.375)	9.53	1.250	31.75	0.158	4.01	3.17	P
LTL040E 10 LTR040E 10	.552	14.02	.040	1.02	1.480	17.05	.625	15.88	1.250	31.75			0.167	4.24	3.17	R	S	AE
LTL049E 10 LTR049E 10	.559	14.20	.049	1.24	2.450	28.23	1.000	25.40	2.000	50.80			0.253	6.43	4.17	R	S	AL
LTL055E 10 LTR055E 10	.564	14.33	.055	1.40	3.160	36.41	1.000	25.40	2.000	50.80			0.339	8.61	5.17	R	S	AP
LTL059E 10 LTR059E 10	.572	14.53	.059	1.50	4.150	47.81	1.000	25.40	1/2 (.500)	12.70	2.000	50.80	0.364	9.25	5.17	S	T	AR
LTL063E 10 LTR063E 10	.575	14.61	.063	1.59	4.540	52.31	1.000	25.40			2.000	50.80	0.448	11.38	6.17	T	U	AS
LTL072F 10 LTR072F 10	.749	19.02	.072	1.83	7.110	81.92	1.000	25.40			2.000	50.80	0.444	11.28	5.17	Y	Z	SPECIAL ORDER
LTL080F 10 LTR080F 10	.761	19.33	.080	2.03	9.390	108.19	1.250	31.75			2.500	63.50	0.573	14.55	6.17	AA	AB	
LTL085G 10 LTR085G 10	.926	23.52	.085	2.16	11.110	128.00	1.250	31.75	5/8 (.625)	15.88	2.500	63.50	0.524	13.31	5.17	AB	AC	SPECIAL ORDER
LTL092G 10 LTR092G 10	.940	23.88	.092	2.32	14.940	172.13	1.500	38.10			3.000	76.20	0.564	14.33	5.17	AB	AC	
LTL095G 10 LTR095G 10	.949	24.10	.095	2.41	17.630	203.12	1.500	38.10			3.000	76.20	0.586	14.88	5.17	AB	AC	
LTL105H 10 LTR105H 10	1.117	28.37	.105	2.67	21.280	245.18	1.750	44.45	3/4 (.750)	19.05	3.500	88.90	0.648	16.46	5.17	AC	AD	SPECIAL ORDER
LTL112H 10 LTR112H 10	1.132	28.75	.112	2.84	27.090	312.12	2.000	50.80			4.000	101.60	0.691	17.55	5.17	AD	AE	
LTL125H 10 LTR125H 10	1.148	29.16	.125	3.18	35.240	406.02	2.000	50.80			4.000	101.60	0.896	22.76	6.17	AE	AG	
LTL135H 10 LTR135H 10	1.162	29.51	.135	3.43	41.240	475.14	2.000	50.80			4.000	101.60	1.103	28.02	7.17	AG	AJ	

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless; "S316" for Type 316 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit leespring.com; 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933). For Type 316 Stainless, the Torque and Deflection should be reduced approximately 65%–90% that of Type 302 Stainless version. Visit leespring.com for more information regarding any S316 Stainless product calculations.

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note on Page 5 under Finish

TORSION SPRINGS



# TORSION SPRINGS: 180° FREE POSITION (INCH)

Music Wire (Plated\*\*) or 302 Stainless Steel\* (Passivated) or 316 Stainless Steel (Passivated Ultrasonically Cleaned),

LTL - Left Hand Wound; LTR - Right Hand Wound

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE @ 180° DEFLECTION (T) (See Footnote)		RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX.(L)		NUMBER OF COILS	PRICE GROUP		
	IN.	MM	IN.	MM	IN.-LB.	KG-MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM		Music Wire	302 Stainless*	316 Stainless
															M	S	S316	
LTL012A 02 LTR012A 02	.110	2.79	.012	.30	.050	.58	.188	4.76	1/16 (.063)	1.59	0.375	9.53	0.086	2.18	6.00	G	J	Z
LTL015B 02 LTR015B 02	.131	3.33	.015	.38	.100	1.15	.250	6.35	5/64 (.078)	1.98	0.500	12.70	0.107	2.72	6.00	G	J	AA
LTL014A 02 LTR014A 02	.133	3.38	.014	.36	.075	.86	.250	6.35			0.500	12.70	0.103	2.62	6.00	G	J	AA
LTL018C 02 LTR018C 02	.165	4.19	.018	.46	.150	1.73	.250	6.35	7/64 (.109)	2.78	0.500	12.70	0.150	3.81	7.00	G	J	AA
LTL012A 04 LTR012A 04	.167	4.24	.012	.30	.050	.58	.250	6.35			0.500	12.70	0.059	1.50	4.00	G	J	Z
LTL017C 02 LTR017C 02	.172	4.37	.017	.43	.125	1.44	.250	6.35			0.500	12.70	0.125	3.18	6.00	G	J	AA
LTL020D 02 LTR020D 02	.179	4.55	.020	.51	.200	2.30	.375	9.53			0.750	19.05	0.165	4.19	7.00	G	J	AA
LTL015B 04 LTR015B 04	.184	4.67	.015	.38	.100	1.15	.375	9.53	1/8 (.125)	3.18	0.750	19.05	0.075	1.91	4.00	G	J	AA
LTL021D 02 LTR021D 02	.186	4.72	.021	.53	.250	2.88	.375	9.53			0.750	19.05	0.173	4.39	7.00	G	J	AA
LTL023D 02 LTR023D 02	.191	4.85	.023	.58	.330	3.80	.375	9.53			0.750	19.05	0.190	4.83	7.00	G	J	AA
LTL014A 04 LTR014A 04	.194	4.93	.014	.36	.075	.86	.375	9.53	9/64 (.141)	3.57	0.750	19.05	0.075	1.91	4.00	G	J	AA
LTL018C 04 LTR018C 04	.217	5.51	.018	.46	.150	1.73	.375	9.53	5/32 (.156)	3.97	0.750	19.05	0.109	2.77	5.00	G	J	AA
LTL025E 02 LTR025E 02	.225	5.72	.025	.64	.420	4.84	.375	9.53			0.750	19.05	0.206	5.23	7.00	G	J	AA
LTL020D 04 LTR020D 04	.242	6.15	.020	.51	.200	2.30	.500	12.70	11/64 (.172)	4.37	1.000	25.40	0.125	3.18	5.00	G	J	AA
LTL021D 04 LTR021D 04	.248	6.30	.021	.53	.250	2.88	.500	12.70			1.000	25.40	0.127	3.23	5.00	G	J	AA
LTL017C 04 LTR017C 04	.249	6.32	.017	.43	.125	1.44	.375	9.53			0.750	19.05	0.090	2.29	4.00	G	J	AA
LTL028E 02 LTR028E 02	.249	6.32	.028	.71	.550	6.34	.500	12.70			1.000	25.40	0.235	5.97	7.00	J	K	AB
LTL023D 04 LTR023D 04	.259	6.58	.023	.58	.330	3.80	.500	12.70			1.000	25.40	0.145	3.68	5.00	G	J	AA
LTL032F 02 LTR032F 02	.270	6.86	.032	.81	.875	10.08	.500	12.70	1.000	25.40	0.265	6.73	7.00	J	K	AC		
LTL030F 02 LTR030F 02	.273	6.93	.030	.76	.680	7.83	.500	12.70	3/16 (.188)	4.76	1.000	25.40	0.248	6.30	7.00	J	K	AC
LTL035G 02 LTR035G 02	.304	7.72	.035	.89	1.070	12.33	.625	15.88	13/64 (.203)	5.16	1.250	31.75	0.290	7.37	7.00	J	K	AC
LTL025E 04 LTR025E 04	.305	7.75	.025	.64	.420	4.84	.500	12.70	7/32 (.219)	5.56	1.000	25.40	0.151	3.84	5.00	G	J	AA
LTL028E 04 LTR028E 04	.340	8.64	.028	.71	.550	6.34	.500	12.70	15/64 (.234)	5.95	1.000	25.40	0.175	4.45	5.00	J	K	AB
LTL040H 02 LTR040H 02	.349	8.86	.040	1.02	1.500	17.28	.625	15.88			1.250	31.75	0.374	9.50	8.00	K	L	AD

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless; "S316" for Type 316 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit [leespring.com](http://leespring.com); 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933). For Type 316 Stainless, the Torque and Deflection should be reduced approximately 65%–90% that of Type 302 Stainless version. Visit [leespring.com](http://leespring.com) for more information regarding any S316 Stainless product calculations.

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note on Page 5 under Finish



# TORSION SPRINGS: 180° FREE POSITION (INCH)

*Music Wire (Plated\*\*) or 302 Stainless Steel\* (Passivated) or 316 Stainless Steel (Passivated Ultrasonically Cleaned),*

*LTL - Left Hand Wound; LTR - Right Hand Wound*

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE @ 180° DEFLECTION (T) (See Footnote)		RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX.(L)		NUMBER OF COILS	PRICE GROUP		
	IN.	MM	IN.	MM	IN.-LB.	KG-MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM		Music Wire	302 Stainless*	316 Stainless
																M	S	S316
LTL038G 02 LTR038G 02	.363	9.22	.038	.97	1.280	14.75	.625	15.88			1.250	31.75	0.315	8.00	7.00	K	L	AD
LTL032F 04 LTR032F 04	.366	9.30	.032	.81	.875	10.08	.500	12.70	1/4 (.250)	6.35	1.000	25.40	0.192	4.88	5.00	J	K	AC
LTL045H 02 LTR045H 02	.377	9.58	.045	1.14	2.150	24.77	.625	15.88			1.250	31.75	0.415	10.54	8.00	L	M	AE
LTL030F 04 LTR030F 04	.395	10.03	.030	.76	.680	7.83	.500	12.70	9/32 (.281)	7.14	1.000	25.40	0.181	4.60	5.00	J	K	AC
LTL048J 02 LTR048J 02	.405	10.29	.048	1.22	2.750	31.68	.625	15.88			1.250	31.75	0.450	11.43	8.00	L	M	AG
LTL051J 02 LTR051J 02	.430	10.92	.051	1.30	3.100	35.72	1.000	25.40	19/64 (.297)	7.54	2.000	50.80	0.470	11.94	8.00	P	R	AL
LTL035G 04 LTR035G 04	.451	11.46	.035	.89	1.070	12.33	.625	15.88	21/64 (.328)	8.33	1.250	31.75	0.212	5.38	5.00	K	L	AD
LTL038G 04 LTR038G 04	.487	12.37	.038	.97	1.280	14.75	.625	15.88	23/64 (.359)	9.13	1.250	31.75	0.238	6.05	5.00	K	L	AD
LTL054K 02 LTR054K 02	.509	12.93	.054	1.37	3.500	40.33	1.000	25.40	11/32 (.344)	8.73	2.000	50.80	0.500	12.70	8.00	R	S	AM
LTL040H 04 LTR040H 04	.519	13.18	.040	1.02	1.500	17.28	1.000	25.40	3/8 (.375)	9.53	2.000	50.80	0.242	6.15	5.00	L	M	AE
LTL059K 02 LTR059K 02	.526	13.36	.059	1.50	4.500	51.85	1.000	25.40	23/64 (.359)	9.13	2.000	50.80	0.540	13.72	8.00	U	W	AP
LTL051J 04 LTR051J 04	.556	14.12	.051	1.30	3.100	35.72	1.000	25.40	25/64 (.391)	9.92	2.000	50.80	0.365	9.27	6.00	P	R	AL
LTL045H 04 LTR045H 04	.575	14.61	.045	1.14	2.150	24.77	1.000	25.40	27/64 (.422)	10.72	2.000	50.80	0.280	7.11	5.00	L	M	AE
LTL063L 02 LTR063L 02	.591	15.01	.063	1.59	5.500	63.37	1.000	25.40			2.000	50.80	0.580	14.73	8.00	W	X	AR
LTL048J 04 LTR048J 04	.619	15.72	.048	1.22	2.750	31.68	1.000	25.40	29/64 (.453)	11.51	2.000	50.80	0.292	7.42	5.00	P	R	AL
LTL070M 02 LTR070M 02	.625	15.88	.070	1.78	7.500	86.41	1.000	25.40	7/16 (.438)	11.11	2.000	50.80	0.640	16.26	8.00	Y	Z	SPECIAL ORDER
LTL054K 04 LTR054K 04	.654	16.61	.054	1.37	3.500	40.33	1.000	25.40	31/64 (.484)	12.30	2.000	50.80	0.390	9.91	6.00	S	T	AN
LTL075M 02 LTR075M 02	.672	17.07	.075	1.91	9.203	106.03	1.000	25.40	15/32 (.469)	11.91	2.000	50.80	0.689	17.50	8.00	Z	AA	SPECIAL ORDER
LTL059K 04 LTR059K 04	.681	17.30	.059	1.50	4.500	51.85	1.000	25.40			2.000	50.80	0.425	10.80	6.00	X	Y	AS
LTL078N 02 LTR078N 02	.693	17.60	.078	1.98	10.450	120.40	1.000	25.40	31/64 (.484)	12.30	2.000	50.80	0.716	18.19	8.00	Z	AA	SPECIAL ORDER
LTL075M 04 LTR075M 04	.757	19.23	.075	1.91	9.203	106.03	1.000	25.40	35/64 (.547)	13.89	2.000	50.80	0.612	15.54	7.00	AA	AB	SPECIAL ORDER
LTL063L 04 LTR063L 04	.767	19.48	.063	1.59	5.500	63.37	1.000	25.40			2.000	50.80	0.441	11.20	6.00	Y	Z	AT
LTL078N 04 LTR078N 04	.781	19.84	.078	1.98	10.450	120.40	1.000	25.40	9/16 (.563)	14.29	2.000	50.80	0.637	16.18	7.00	AA	AB	SPECIAL ORDER
LTL085N 02 LTR085N 02	.790	20.07	.085	2.16	12.861	148.18	1.250	31.75			2.500	63.50	0.780	19.81	8.00	AA	AB	

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless; "S316" for Type 316 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit leespring.com; 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933). For Type 316 Stainless, the Torque and Deflection should be reduced approximately 65%–90% that of Type 302 Stainless version. Visit leespring.com for more information regarding any S316 Stainless product calculations.

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note on Page 5 under Finish

# TORSION SPRINGS: 180° FREE POSITION (INCH)

Music Wire (Plated\*\*) or 302 Stainless Steel\* (Passivated) or 316 Stainless Steel (Passivated Ultrasonically Cleaned),

LTL - Left Hand Wound; LTR - Right Hand Wound

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE @ 180° DEFLECTION (T) (See Footnote)		RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX.(L)		NUMBER OF COILS	PRICE GROUP		
	IN.	MM	IN.	MM	IN.-LB.	KG-MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM		Music Wire	302 Stainless*	316 Stainless
															M	S	S316	
LTL070M 04 LTR070M 04	.810	20.57	.070	1.78	7.500	86.41	1.000	25.40	19/32 (.594)	15.08	2.000	50.80	0.500	12.70	6.00	Z	AA	SPECIAL ORDER
LTL085N 04 LTR085N 04	.891	22.63	.085	2.16	12.861	148.18	1.250	31.75	41/64 (.641)	16.27	2.500	63.50	0.694	17.63	7.00	AB	AC	SPECIAL ORDER
LTL095P 02 LTR095P 02	.920	23.37	.095	2.41	17.148	197.57	1.500	38.10	21/32 (.656)	16.67	3.000	76.20	0.872	22.15	8.00	AB	AC	SPECIAL ORDER
LTL105Q 02 LTR105Q 02	.982	24.94	.105	2.67	21.000	241.95	1.750	44.45	45/64 (.703)	17.86	3.500	88.90	1.050	26.67	9.00	AC	AD	SPECIAL ORDER
LTL095P 04 LTR095P 04	1.038	26.37	.095	2.41	17.148	197.57	1.500	38.10	49/64 (.766)	19.45	3.000	76.20	0.775	19.69	7.00	AB	AC	SPECIAL ORDER
LTL115R 02 LTR115R 02	1.043	26.49	.115	2.92	28.000	322.60	2.000	50.80	47/64 (.734)	18.65	4.000	101.60	1.150	29.21	9.00	AD	AE	SPECIAL ORDER
LTL125S 02 LTR125S 02	1.082	27.48	.125	3.18	32.000	368.69	2.000	50.80	49/64 (.766)	19.45	4.000	101.60	1.500	38.10	11.00	AE	AG	SPECIAL ORDER
LTL135T 02 LTR135T 02	1.189	30.20	.135	3.43	40.000	460.86	2.000	50.80	27/32 (.844)	21.43	4.000	101.60	1.620	41.15	11.00	AG	AJ	SPECIAL ORDER
LTL105Q 04 LTR105Q 04	1.248	31.70	.105	2.67	21.000	241.95	1.750	44.45	15/16 (.938)	23.81	3.500	88.90	0.840	21.34	7.00	AD	AE	SPECIAL ORDER
LTL115R 04 LTR115R 04	1.348	34.24	.115	2.92	28.000	322.60	2.000	50.80	1	25.40	4.000	101.60	0.920	23.37	7.00	AE	AG	SPECIAL ORDER
LTL125S 04 LTR125S 04	1.356	34.44	.125	3.18	32.000	368.69	2.000	50.80	(1.000)		4.000	101.60	1.125	28.58	8.00	AG	AJ	
LTL135T 04 LTR135T 04	1.491	37.87	.135	3.43	40.000	460.86	2.000	50.80	1 3/32 (1.094)	27.78	4.000	101.60	1.215	30.86	8.00	AJ	AK	SPECIAL ORDER

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless; "S316" for Type 316 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit [leespring.com](http://leespring.com); 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933). For Type 316 Stainless, the Torque and Deflection should be reduced approximately 65%–90% that of Type 302 Stainless version. Visit [leespring.com](http://leespring.com) for more information regarding any S316 Stainless product calculations.

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note on Page 5 under Finish

# TORSION SPRINGS: 210° FREE POSITION (INCH)

*Music Wire (Plated\*\*) or 302 Stainless Steel\* (Passivated) or 316 Stainless Steel (Passivated Ultrasonically Cleaned),*

*LTL - Left Hand Wound; LTR - Right Hand Wound*

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE @ 210° DEFLECTION (T) (See Footnote)		RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX.(L)		NUMBER OF COILS	PRICE GROUP		
	IN.	MM	IN.	MM	IN.-LB.	KG-MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM		Music Wire	302 Stainless*	316 Stainless
																M	S	S316
LTL016A 20 LTR016A 20	.188	4.78	.016	.41	.110	1.27	.375	9.53	1/8 (.125)	3.18	0.750	19.05	0.111	2.82	5.92	G	J	AA
LTL020B 20 LTR020B 20	.274	6.96	.020	.51	.180	2.07	.500	12.70	3/16 (.188)	4.76	1.000	25.40	0.138	3.51	5.92	J	K	AA
LTL024C 20 LTR024C 20	.360	9.14	.024	.61	.280	3.23	.500	12.70	1/4 (.250)	6.35	1.000	25.40	0.166	4.22	5.92	K	L	AA
LTL026C 20 LTR026C 20	.364	9.25	.026	.66	.380	4.38	.500	12.70			1.000	25.40	0.180	4.57	5.92	K	L	AA
LTL029C 20 LTR029C 20	.366	9.30	.029	.74	.510	5.88	.500	12.70			1.000	25.40	0.230	5.84	6.92	K	L	AB
LTL032C 20 LTR032C 20	.369	9.37	.032	.81	.660	7.60	.500	12.70			1.000	25.40	0.285	7.24	7.92	L	M	AC
LTL035C 20 LTR035C 20	.375	9.53	.035	.89	.920	10.60	.625	15.88	5/16 (.313)	7.94	1.250	31.75	0.312	7.92	7.92	L	M	AD
LTL038D 20 LTR038D 20	.461	11.71	.038	.97	1.190	13.71	.625	15.88			1.250	31.75	0.301	7.65	6.92	M	N	AE
LTL040D 20 LTR040D 20	.465	11.81	.040	1.02	1.460	16.82	.625	15.88			1.250	31.75	0.317	8.05	6.92	M	N	AE
LTL042D 20 LTR042D 20	.465	11.81	.042	1.07	1.510	17.40	1.000	25.40			2.000	50.80	0.375	9.53	7.92	P	R	AG
LTL045D 20 LTR045D 20	.471	11.96	.045	1.14	1.980	22.81	1.000	25.40	3/8 (.375)	9.53	2.000	50.80	0.401	10.19	7.92	P	R	AG
LTL049E 20 LTR049E 20	.556	14.12	.049	1.24	2.360	27.19	1.000	25.40			2.000	50.80	0.437	11.10	7.92	R	S	AL
LTL055E 20 LTR055E 20	.564	14.33	.055	1.40	3.310	38.14	1.000	25.40			2.000	50.80	0.545	13.84	8.92	S	T	AR
LTL059E 20 LTR059E 20	.569	14.45	.059	1.50	3.930	45.28	1.000	25.40			2.000	50.80	0.644	16.36	9.92	X	Y	AS
LTL063E 20 LTR063E 20	.578	14.68	.063	1.59	5.070	58.41	1.000	25.40	2.000	50.80	0.682	17.32	9.92	X	Y	AS		
LTL072F 20 LTR072F 20	.750	19.05	.072	1.83	7.400	85.26	1.000	25.40	1/2 (.500)	12.70	2.000	50.80	0.714	18.14	8.92	AA	AB	SPECIAL ORDER
LTL080F 20 LTR080F 20	.764	19.41	.080	2.03	10.470	120.63	1.250	31.75			2.500	63.50	0.793	20.14	8.92	AA	AB	
LTL085G 20 LTR085G 20	.927	23.55	.085	2.16	11.570	133.30	1.250	31.75	5/8 (.625)	15.88	2.500	63.50	0.843	21.41	8.92	AC	AD	SPECIAL ORDER
LTL092G 20 LTR092G 20	.936	23.77	.092	2.32	14.110	162.57	1.500	38.10			3.000	76.20	0.999	25.37	9.92	AC	AD	
LTL095G 20 LTR095G 20	.944	23.98	.095	2.41	16.650	191.83	1.500	38.10			3.000	76.20	1.037	26.34	9.92	AC	AD	
LTL105H 20 LTR105H 20	1.118	28.40	.105	2.67	22.240	256.24	1.750	44.45	3/4 (.750)	19.05	3.500	88.90	1.041	26.44	8.92	AC	AD	SPECIAL ORDER
LTL112H 20 LTR112H 20	1.126	28.60	.112	2.84	25.680	295.87	2.000	50.80			4.000	101.60	1.223	31.06	9.92	AD	AE	
LTL125H 20 LTR125H 20	1.148	29.16	.125	3.18	35.870	413.27	2.000	50.80			4.000	101.60	1.490	37.85	10.92	AE	AG	
LTL135H 20 LTR135H 20	1.160	29.46	.135	3.43	41.090	473.42	2.000	50.80			4.000	101.60	1.879	47.73	12.92	AG	AJ	

TORSION SPRINGS



### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless; "S316" for Type 316 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit leespring.com; 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933). For Type 316 Stainless, the Torque and Deflection should be reduced approximately 65%–90% that of Type 302 Stainless version. Visit leespring.com for more information regarding any S316 Stainless product calculations.

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note on Page 5 under Finish

# TORSION SPRINGS: 270° FREE POSITION (INCH)

Music Wire (Plated\*\*) or 302 Stainless Steel\* (Passivated) or 316 Stainless Steel (Passivated Ultrasonically Cleaned),

LTL - Left Hand Wound; LTR - Right Hand Wound

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE @ 270° DEFLECTION (T) (See Footnote)		RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX.(L)		NUMBER OF COILS	PRICE GROUP		
	IN.	MM	IN.	MM	IN.-LB.	KG-MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM		Music Wire	302 Stainless*	316 Stainless
															M	S	S316	
LTL012A 03 LTR012A 03	.103	2.62	.012	.30	.050	.58	.188	4.76	1/16 (.063)	1.59	0.375	9.53	0.139	3.53	9.75	G	J	Z
LTL014A 03 LTR014A 03	.124	3.15	.014	.36	.075	.86	.250	6.35	5/64 (.078)	1.98	0.500	12.70	0.156	3.96	9.75	G	J	AA
LTL015B 03 LTR015B 03	.125	3.18	.015	.38	.100	1.15	.250	6.35			0.500	12.70	0.173	4.39	9.75	G	J	AA
LTL017C 03 LTR017C 03	.160	4.06	.017	.43	.125	1.44	.250	6.35	7/64 (.109)	2.78	0.500	12.70	0.188	4.78	9.75	G	J	AA
LTL018C 03 LTR018C 03	.160	4.06	.018	.46	.150	1.73	.250	6.35			0.500	12.70	0.228	5.79	10.75	G	J	AA
LTL012A 05 LTR012A 05	.171	4.34	.012	.30	.050	.58	.250	6.35			0.500	12.70	0.086	2.18	5.75	G	J	Z
LTL020D 03 LTR020D 03	.175	4.45	.020	.51	.200	2.30	.375	9.53			0.750	19.05	0.240	6.10	10.75	G	J	AA
LTL021D 03 LTR021D 03	.185	4.70	.021	.53	.250	2.88	.375	9.53	1/8 (.125)	3.18	0.750	19.05	0.247	6.27	10.75	G	J	AA
LTL023D 03 LTR023D 03	.187	4.75	.023	.58	.330	3.80	.375	9.53			0.750	19.05	0.280	7.11	10.75	G	J	AA
LTL015B 05 LTR015B 05	.200	5.08	.015	.38	.100	1.15	.375	9.53	9/64 (.141)	3.57	0.750	19.05	0.107	2.72	5.75	G	J	AA
LTL014A 05 LTR014A 05	.201	5.11	.014	.36	.075	.86	.375	9.53			0.750	19.05	0.100	2.54	5.75	G	J	AA
LTL025E 03 LTR025E 03	.220	5.59	.025	.64	.420	4.84	.375	9.53			0.750	19.05	0.304	7.72	10.75	G	J	AA
LTL028E 03 LTR028E 03	.245	6.22	.028	.71	.550	6.34	.500	12.70	11/64 (.172)	4.37	1.000	25.40	0.340	8.64	10.75	J	K	AB
LTL018C 05 LTR018C 05	.246	6.25	.018	.46	.150	1.73	.375	9.53			0.750	19.05	0.150	3.81	6.75	G	J	AA
LTL021D 05 LTR021D 05	.246	6.25	.021	.53	.250	2.88	.500	12.70			1.000	25.40	0.195	4.95	7.75	G	J	AA
LTL023D 05 LTR023D 05	.251	6.38	.023	.58	.330	3.80	.500	12.70			1.000	25.40	0.210	5.33	7.75	G	J	AA
LTL017C 05 LTR017C 05	.259	6.58	.017	.43	.125	1.44	.375	9.53	3/16 (.188)	4.76	0.750	19.05	0.120	3.05	5.75	G	J	AA
LTL032F 03 LTR032F 03	.264	6.71	.032	.81	.875	10.08	.500	12.70	11/64 (.172)	4.37	1.000	25.40	0.385	9.78	10.75	J	K	AC
LTL020D 05 LTR020D 05	.268	6.81	.020	.51	.200	2.30	.500	12.70	3/16 (.188)	4.76	1.000	25.40	0.160	4.06	6.75	G	J	AA
LTL030F 03 LTR030F 03	.271	6.88	.030	.76	.680	7.83	.500	12.70			1.000	25.40	0.365	9.27	10.75	J	K	AC
LTL035G 03 LTR035G 03	.312	7.92	.035	.89	1.070	12.33	.625	15.88	13/64 (.203)	5.16	1.250	31.75	0.425	10.80	10.75	K	L	AD
LTL028E 05 LTR028E 05	.329	8.36	.028	.71	.550	6.34	.500	12.70	15/64 (.234)	5.95	1.000	25.40	0.255	6.48	7.75	J	K	AB

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless; "S316" for Type 316 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit [leespring.com](http://leespring.com); 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933). For Type 316 Stainless, the Torque and Deflection should be reduced approximately 65%–90% that of Type 302 Stainless version. Visit [leespring.com](http://leespring.com) for more information regarding any S316 Stainless product calculations.

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note on Page 5 under Finish

# TORSION SPRINGS: 270° FREE POSITION (INCH)

*Music Wire (Plated\*\*) or 302 Stainless Steel\* (Passivated) or 316 Stainless Steel (Passivated Ultrasonically Cleaned),*

*LTL - Left Hand Wound; LTR - Right Hand Wound*

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE @ 270° DEFLECTION (T) (See Footnote)		RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX.(L)		NUMBER OF COILS	PRICE GROUP		
	IN.	MM	IN.	MM	IN.-LB.	KG-MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM		Music Wire	302 Stainless*	316 Stainless
																M	S	S316
LTL025E 05 LTR025E 05	.341	8.66	.025	.64	.420	4.84	.500	12.70	1/4 (.250)	6.35	1.000	25.40	0.206	5.23	6.75	G	J	AA
LTL032F 05 LTR032F 05	.354	8.99	.032	.81	.875	10.08	.500	12.70			1.000	25.40	0.290	7.37	7.75	J	K	AC
LTL038G 03 LTR038G 03	.355	9.02	.038	.97	1.280	14.75	.625	15.88			1.250	31.75	0.455	11.56	10.75	K	L	AD
LTL040H 03 LTR040H 03	.359	9.12	.040	1.02	1.500	17.28	.625	15.88			1.250	31.75	0.525	13.34	11.75	L	M	AE
LTL030F 05 LTR030F 05	.377	9.58	.030	.76	.680	7.83	.500	12.70	17/64 (.266)	6.75	1.000	25.40	0.280	7.11	7.75	J	K	AC
LTL045H 03 LTR045H 03	.382	9.70	.045	1.14	2.150	24.77	.625	15.88	1/4 (.250)	6.35	1.250	31.75	0.585	14.86	11.75	L	M	AE
LTL048J 03 LTR048J 03	.417	10.59	.048	1.22	2.750	31.68	.625	15.88	9/32 (.281)	7.14	1.250	31.75	0.630	16.00	11.75	P	R	AL
LTL035G 05 LTR035G 05	.436	11.07	.035	.89	1.070	12.33	.625	15.88	5/16 (.313)	7.94	1.250	31.75	0.315	8.00	7.75	K	L	AD
LTL051J 03 LTR051J 03	.439	11.15	.051	1.30	3.100	35.72	1.000	25.40	19/64 (.297)	7.54	2.000	50.80	0.660	16.76	11.75	P	R	AL
LTL038G 05 LTR038G 05	.477	12.12	.038	.97	1.280	14.75	.625	15.88	11/32 (.344)	8.73	1.250	31.75	0.342	8.69	7.75	K	L	AD
LTL040H 05 LTR040H 05	.512	13.00	.040	1.02	1.500	17.28	1.000	25.40	3/8 (.375)	9.53	2.000	50.80	0.360	9.14	7.75	L	M	AE
LTL054K 03 LTR054K 03	.514	13.06	.054	1.37	3.500	40.33	1.000	25.40	23/64 (.359)	9.13	2.000	50.80	0.700	17.78	11.75	S	T	AN
LTL059K 03 LTR059K 03	.537	13.64	.059	1.50	4.500	51.85	1.000	25.40	3/8 (.375)	9.53	2.000	50.80	0.765	19.43	11.75	X	Y	AS
LTL045H 05 LTR045H 05	.556	14.12	.045	1.14	2.150	24.77	1.000	25.40	13/32 (.406)	10.32	2.000	50.80	0.405	10.29	7.75	L	M	AE
LTL051J 05 LTR051J 05	.571	14.50	.051	1.30	3.100	35.72	1.000	25.40			2.000	50.80	0.510	12.95	8.75	P	R	AL
LTL063L 03 LTR063L 03	.600	15.24	.063	1.59	5.500	63.37	1.000	25.40	27/64 (.422)	10.72	2.000	50.80	0.820	20.83	11.75	X	Y	AS
LTL048J 05 LTR048J 05	.601	15.27	.048	1.22	2.750	31.68	1.000	25.40	7/16 (.438)	11.11	2.000	50.80	0.435	11.05	7.75	P	R	AL
LTL070M 03 LTR070M 03	.639	16.23	.070	1.78	7.500	86.41	1.000	25.40			2.000	50.80	0.893	22.68	11.75	X	Y	SPECIAL ORDER
LTL054K 05 LTR054K 05	.664	16.87	.054	1.37	3.500	40.33	1.000	25.40	31/64 (.484)	12.30	2.000	50.80	0.540	13.72	8.75	S	T	AN
LTL075M 03 LTR075M 03	.685	17.40	.075	1.91	9.203	106.03	1.000	25.40			2.000	50.80	0.956	24.28	11.75	Z	AA	SPECIAL ORDER
LTL059K 05 LTR059K 05	.699	17.75	.059	1.50	4.500	51.85	1.000	25.40	33/64 (.516)	13.10	2.000	50.80	0.585	14.86	8.75	X	Y	AS
LTL078N 03 LTR078N 03	.706	17.93	.078	1.98	10.450	120.40	1.000	25.40	31/64 (.484)	12.30	2.000	50.80	0.995	25.27	11.75	Z	AA	SPECIAL ORDER
LTL063L 05 LTR063L 05	.784	19.91	.063	1.59	5.500	63.37	1.000	25.40	37/64 (.578)	14.68	2.000	50.80	0.630	16.00	8.75	X	Y	AS
LTL085N 03 LTR085N 03	.805	20.45	.085	2.16	12.861	148.18	1.250	31.75			2.500	63.50	1.084	27.53	11.75	AA	AB	SPECIAL ORDER

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless; "S316" for Type 316 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit leespring.com; 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933). For Type 316 Stainless, the Torque and Deflection should be reduced approximately 65%–90% that of Type 302 Stainless version. Visit leespring.com for more information regarding any S316 Stainless product calculations.

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note on Page 5 under Finish



# TORSION SPRINGS: 270° FREE POSITION (INCH)

Music Wire (Plated\*\*) or 302 Stainless Steel\* (Passivated) or 316 Stainless Steel (Passivated Ultrasonically Cleaned),

LTL - Left Hand Wound; LTR - Right Hand Wound

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE @ 270° DEFLECTION (T) (See Footnote)		RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX.(L)		NUMBER OF COILS	PRICE GROUP		
	IN.	MM	IN.	MM	IN.-LB.	KG-MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM		Music Wire	302 Stainless*	316 Stainless
															M	S	S316	
LTL075M 05 LTR075M 05	.810	20.57	.075	1.91	9.203	106.03	1.000	25.40	19/32 (.594)	15.08	2.000	50.80	0.822	20.88	9.75	AB	AC	SPECIAL ORDER
LTL070M 05 LTR070M 05	.826	20.98	.070	1.78	7.500	86.41	1.000	25.40	39/64 (.609)	15.48	2.000	50.80	0.683	17.35	8.75	AA	AB	SPECIAL ORDER
LTL078N 05 LTR078N 05	.835	21.21	.078	1.98	10.450	120.40	1.000	25.40			2.000	50.80	0.855	21.72	9.75	AB	AC	
LTL095P 03 LTR095P 03	.937	23.80	.095	2.41	17.148	197.57	1.500	38.10	43/64 (.672)	17.07	3.000	76.20	1.211	30.76	11.75	AB	AC	SPECIAL ORDER
LTL085N 05 LTR085N 05	.952	24.18	.085	2.16	12.861	148.18	1.250	31.75	11/16 (.688)	17.48	2.500	63.50	0.914	23.22	9.75	AC	AD	SPECIAL ORDER
LTL115R 03 LTR115R 03	1.086	27.58	.115	2.92	28.000	322.60	2.000	50.80	25/32 (.781)	19.84	4.000	101.60	1.696	43.08	13.75	AD	AE	SPECIAL ORDER
LTL105Q 03 LTR105Q 03	1.090	27.69	.105	2.67	21.000	241.95	1.750	44.45	51/64 (.797)	20.24	3.500	88.90	1.339	34.01	11.75	AC	AD	SPECIAL ORDER
LTL095P 05 LTR095P 05	1.110	28.19	.095	2.41	17.148	197.57	1.500	38.10	53/64 (.828)	21.03	3.000	76.20	1.021	25.93	9.75	AD	AE	SPECIAL ORDER
LTL125S 03 LTR125S 03	1.189	30.20	.125	3.18	32.000	368.69	2.000	50.80	55/64 (.859)	21.83	4.000	101.60	1.969	50.01	14.75	AG	AJ	SPECIAL ORDER
LTL135T 03 LTR135T 03	1.301	33.05	.135	3.43	40.000	460.86	2.000	50.80	15/16 (.938)	23.81	4.000	101.60	2.126	54.00	14.75	AG	AJ	SPECIAL ORDER
LTL105Q 05 LTR105Q 05	1.342	34.09	.105	2.67	21.000	241.95	1.750	44.45	1 1/64 (1.016)	25.80	3.500	88.90	1.129	28.68	9.75	AE	AG	SPECIAL ORDER
LTL115R 05 LTR115R 05	1.435	36.45	.115	2.92	28.000	322.60	2.000	50.80	15/16 (.938)	23.81	4.000	101.60	1.236	31.39	9.75	AG	AJ	SPECIAL ORDER
LTL125S 05 LTR125S 05	1.516	38.51	.125	3.18	32.000	368.69	2.000	50.80	1 9/64 (1.141)	28.97	4.000	101.60	1.594	40.49	11.75	AJ	AK	SPECIAL ORDER
LTL135T 05 LTR135T 05	1.660	42.16	.135	3.43	40.000	460.86	2.000	50.80	1 1/4 (1.250)	31.75	4.000	101.60	1.721	43.71	11.75	AK	AL	SPECIAL ORDER

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless; "S316" for Type 316 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit leespring.com; 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933). For Type 316 Stainless, the Torque and Deflection should be reduced approximately 65%–90% that of Type 302 Stainless version. Visit leespring.com for more information regarding any S316 Stainless product calculations.

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note on Page 5 under Finish

# TORSION SPRINGS: 300° FREE POSITION (INCH)

*Music Wire (Plated\*\*) or 302 Stainless Steel\* (Passivated) or 316 Stainless Steel (Passivated Ultrasonically Cleaned),*

*LTL - Left Hand Wound; LTR - Right Hand Wound*

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE @ 300° DEFLECTION (T) (See Footnote)		RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX. (L)		NUMBER OF COILS	PRICE GROUP		
	IN.	MM	IN.	MM	IN.-LB.	KG-MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM		Music Wire	302 Stainless*	316 Stainless
																M	S	S316
LTL016A 30 LTR016A 30	.188	4.78	.016	.41	.110	1.27	.375	9.53	1/8 (.125)	3.18	0.750	19.05	0.155	3.94	8.67	G	J	AA
LTL020B 30 LTR020B 30	.273	6.93	.020	.51	.180	2.07	.500	12.70	3/16 (.188)	4.76	1.000	25.40	0.193	4.90	8.67	G	J	AA
LTL024C 30 LTR024C 30	.359	9.12	.024	.61	.280	3.23	.500	12.70	1/4 (.250)	6.35	1.000	25.40	0.232	5.89	8.67	J	K	AA
LTL026C 30 LTR026C 30	.364	9.25	.026	.66	.380	4.38	.500	12.70			1.000	25.40	0.251	6.38	8.67	J	K	AA
LTL029C 30 LTR029C 30	.367	9.32	.029	.74	.530	6.11	.500	12.70			1.000	25.40	0.309	7.85	9.67	J	K	AB
LTL032C 30 LTR032C 30	.371	9.42	.032	.81	.700	8.07	.500	12.70			1.000	25.40	0.373	9.47	10.67	K	L	AC
LTL035C 30 LTR035C 30	.377	9.58	.035	.89	.990	11.41	.625	15.88	5/16 (.313)	7.94	1.250	31.75	0.408	10.36	10.67	L	M	AD
LTL038D 30 LTR038D 30	.462	11.73	.038	.97	1.240	14.29	.625	15.88			1.250	31.75	0.405	10.29	9.67	L	M	AD
LTL040D 30 LTR040D 30	.463	11.76	.040	1.02	1.370	15.78	.625	15.88			1.250	31.75	0.467	11.86	10.67	L	M	AE
LTL042D 30 LTR042D 30	.464	11.79	.042	1.07	1.500	17.28	1.000	25.40	1/2 (.500)	12.70	2.000	50.80	0.532	13.51	11.67	N	P	AG
LTL045D 30 LTR045D 30	.470	11.94	.045	1.14	1.960	22.58	1.000	25.40			2.000	50.80	0.570	14.48	11.67	N	P	AG
LTL049E 30 LTR049E 30	.558	14.17	.049	1.24	2.540	29.26	1.000	25.40			3/8 (.375)	9.53	2.000	50.80	0.572	14.53	10.67	P
LTL055E 30 LTR055E 30	.564	14.33	.055	1.40	3.380	38.94	1.000	25.40	2.000	50.80			0.752	19.10	12.67	U	W	AS
LTL059E 30 LTR059E 30	.570	14.48	.059	1.50	4.120	47.47	1.000	25.40	2.000	50.80			0.865	21.97	13.67	X	Y	AT
LTL063E 30 LTR063E 30	.577	14.66	.063	1.59	4.970	57.26	1.000	25.40	2.000	50.80			0.917	23.29	13.67	X	Y	AT
LTL072F 30 LTR072F 30	.750	19.05	.072	1.83	7.520	86.64	1.000	25.40	5/8 (.625)	15.88	2.000	50.80	0.912	23.16	11.67	Y	Z	SPECIAL ORDER
LTL080F 30 LTR080F 30	.763	19.38	.080	2.03	10.240	117.98	1.250	31.75			2.500	63.50	1.173	29.79	13.67	AA	AB	
LTL085G 30 LTR085G 30	.927	23.55	.085	2.16	11.760	135.49	1.250	31.75	3/4 (.750)	19.05	2.500	63.50	1.162	29.51	12.67	AB	AC	SPECIAL ORDER
LTL092G 30 LTR092G 30	.938	23.83	.092	2.32	14.790	170.40	1.500	38.10			3.000	76.20	1.251	31.78	12.67	AB	AC	
LTL095G 30 LTR095G 30	.943	23.95	.095	2.41	16.290	187.68	1.500	38.10			3.000	76.20	1.393	35.38	13.67	AD	AE	
LTL105H 30 LTR105H 30	1.114	28.30	.105	2.67	21.040	242.41	1.750	44.45	3/4 (.750)	19.05	3.500	88.90	1.540	39.12	13.67	AG	AJ	SPECIAL ORDER
LTL112H 30 LTR112H 30	1.128	28.65	.112	2.84	26.940	310.39	2.000	50.80			4.000	101.60	1.643	41.73	13.67	AG	AJ	
LTL125H 30 LTR125H 30	1.145	29.08	.125	3.18	34.020	391.96	2.000	50.80			4.000	101.60	2.208	56.08	16.67	AJ	AK	
LTL135H 30 LTR135H 30	1.162	29.51	.135	3.43	43.290	498.76	2.000	50.80			4.000	101.60	2.520	64.01	17.67	AK	AL	

TORSION SPRINGS



### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless; "S316" for Type 316 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit leespring.com; 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933). For Type 316 Stainless, the Torque and Deflection should be reduced approximately 65%–90% that of Type 302 Stainless version. Visit leespring.com for more information regarding any S316 Stainless product calculations.

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note on Page 5 under Finish

# TORSION SPRINGS: 360° FREE POSITION (INCH)

Music Wire (Plated\*\*) or 302 Stainless Steel\* (Passivated) or 316 Stainless Steel (Passivated Ultrasonically Cleaned),

LTL - Left Hand Wound; LTR - Right Hand Wound

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE @ 360° DEFLECTION (T) (See Footnote)		RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX.(L)		NUMBER OF COILS	PRICE GROUP		
	IN.	MM	IN.	MM	IN.-LB.	KG-MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM		Music Wire	302 Stainless*	316 Stainless
																M	S	S316
LTL012A 06 LTR012A 06	.174	4.42	.012	.30	.050	.58	.250	6.35	1/8 (.125)	3.18	0.500	12.70	0.112	2.84	7.50	G	J	Z
LTL014A 06 LTR014A 06	.204	5.18	.014	.36	.075	.86	.375	9.53	9/64 (.141)	3.57	0.750	19.05	0.124	3.15	7.50	G	J	AA
LTL015B 06 LTR015B 06	.208	5.28	.015	.38	.100	1.15	.375	9.53			0.750	19.05	0.132	3.35	7.50	G	J	AA
LTL012A 08 LTR012A 08	.221	5.61	.012	.30	.050	.58	.375	9.53	5/32 (.156)	3.97	0.750	19.05	0.078	1.98	5.50	G	J	Z
LTL018C 06 LTR018C 06	.234	5.94	.018	.46	.150	1.73	.375	9.53	11/64 (.172)	4.37	0.750	19.05	0.200	5.08	9.50	G	J	AA
LTL017C 06 LTR017C 06	.235	5.97	.017	.43	.125	1.44	.375	9.53			0.750	19.05	0.167	4.24	8.50	G	J	AA
LTL020D 06 LTR020D 06	.254	6.45	.020	.51	.200	2.30	.500	12.70			1.000	25.40	0.215	5.46	9.50	G	J	AA
LTL015B 08 LTR015B 08	.271	6.88	.015	.38	.100	1.15	.500	12.70	3/16 (.188)	4.76	1.000	25.40	0.098	2.49	5.50	G	J	AA
LTL023D 06 LTR023D 06	.271	6.88	.023	.58	.330	3.80	.500	12.70			1.000	25.40	0.250	6.35	9.50	G	J	AA
LTL021D 06 LTR021D 06	.272	6.91	.021	.53	.250	2.88	.500	12.70			1.000	25.40	0.230	5.84	9.50	G	J	AA
LTL014A 08 LTR014A 08	.273	6.93	.014	.36	.075	.86	.375	9.53			0.750	19.05	0.091	2.31	5.50	G	J	AA
LTL017C 08 LTR017C 08	.303	7.70	.017	.43	.125	1.44	.500	12.70	7/32 (.219)	5.56	1.000	25.40	0.128	3.25	6.50	G	J	AA
LTL025E 06 LTR025E 06	.325	8.26	.025	.64	.420	4.84	.500	12.70	15/64 (.234)	5.95	1.000	25.40	0.275	6.99	9.50	G	J	AA
LTL028E 06 LTR028E 06	.355	9.02	.028	.71	.550	6.34	.500	12.70	1/4 (.250)	6.35	1.000	25.40	0.305	7.75	9.50	J	K	AB
LTL018C 08 LTR018C 08	.371	9.42	.018	.46	.150	1.73	.500	12.70	17/64 (.266)	6.75	1.000	25.40	0.117	2.97	5.50	J	K	AB
LTL032F 06 LTR032F 06	.382	9.70	.032	.81	.875	10.08	.500	12.70			1.000	25.40	0.345	8.76	9.50	J	K	AC
LTL030F 06 LTR030F 06	.410	10.41	.030	.76	.680	7.83	.500	12.70	19/64 (.297)	7.54	1.000	25.40	0.325	8.26	9.50	J	K	AC
LTL021D 08 LTR021D 08	.414	10.52	.021	.53	.250	2.88	.500	12.70			1.000	25.40	0.136	3.45	5.50	J	K	AB
LTL020D 08 LTR020D 08	.424	10.77	.020	.51	.200	2.30	.625	15.88	5/16 (.313)	7.94	1.250	31.75	0.130	3.30	5.50	J	K	AB
LTL023D 08 LTR023D 08	.451	11.46	.023	.58	.330	3.80	.625	15.88	21/64 (.328)	8.33	1.250	31.75	0.150	3.81	5.50	K	L	AC
LTL035G 06 LTR035G 06	.472	11.99	.035	.89	1.070	12.33	.625	15.88	11/32 (.344)	8.73	1.250	31.75	0.380	9.65	9.50	K	L	AD
LTL025E 08 LTR025E 08	.495	12.57	.025	.64	.420	4.84	.625	15.88	23/64 (.359)	9.13	1.250	31.75	0.162	4.11	5.50	J	K	AB
LTL040H 06 LTR040H 06	.508	12.90	.040	1.02	1.500	17.28	1.000	25.40	3/8 (.375)	9.53	2.000	50.80	0.470	11.94	10.50	L	M	AE
LTL038G 06 LTR038G 06	.514	13.06	.038	.97	1.280	14.75	.625	15.88			1.250	31.75	0.410	10.41	9.50	K	L	AD

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

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# TORSION SPRINGS: 360° FREE POSITION (INCH)

*Music Wire (Plated\*\*) or 302 Stainless Steel\* (Passivated) or 316 Stainless Steel (Passivated Ultrasonically Cleaned),*

*LTL - Left Hand Wound; LTR - Right Hand Wound*

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE @ 360° DEFLECTION (T) (See Footnote)		RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX.(L)		NUMBER OF COILS	PRICE GROUP		
	IN.	MM	IN.	MM	IN.-LB.	KG-MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM		Music Wire	302 Stainless*	316 Stainless
																M	S	S316
LTL045H 06 LTR045H 06	.549	13.94	.045	1.14	2.150	24.77	1.000	25.40	25/64 (.391)	9.92	2.000	50.80	0.530	13.46	10.50	L	M	AE
LTL028E 08 LTR028E 08	.592	15.04	.028	.71	.550	6.34	1.000	25.40	7/16 (.438)	11.11	2.000	50.80	0.182	4.62	5.50	P	R	AG
LTL048J 06 LTR048J 06	.595	15.11	.048	1.22	2.750	31.68	1.000	25.40			2.000	50.80	0.570	14.48	10.50	P	R	AL
LTL051J 06 LTR051J 06	.628	15.95	.051	1.30	3.100	35.72	1.000	25.40	29/64 (.453)	11.51	2.000	50.80	0.600	15.24	10.50	P	R	AL
LTL030F 08 LTR030F 08	.632	16.05	.030	.76	.680	7.83	1.000	25.40			2.000	50.80	0.195	4.95	5.50	P	R	AG
LTL032F 08 LTR032F 08	.637	16.18	.032	.81	.875	10.08	1.000	25.40	15/32 (.469)	11.91	2.000	50.80	0.208	5.28	5.50	S	T	AJ
LTL040H 08 LTR040H 08	.672	17.07	.040	1.02	1.500	17.28	1.000	25.40	1/2 (.500)	12.70	2.000	50.80	0.340	8.64	7.50	S	T	AJ
LTL054K 06 LTR054K 06	.694	17.63	.054	1.37	3.500	40.33	1.000	25.40	33/64 (.516)	13.10	2.000	50.80	0.690	17.53	11.50	U	W	AP
LTL059K 06 LTR059K 06	.709	18.01	.059	1.50	4.500	51.85	1.000	25.40			2.000	50.80	0.750	19.05	11.50	X	Y	AS
LTL035G 08 LTR035G 08	.743	18.87	.035	.89	1.070	12.33	1.000	25.40	35/64 (.547)	13.89	2.000	50.80	0.228	5.79	5.50	X	Y	AL
LTL045H 08 LTR045H 08	.751	19.08	.045	1.14	2.150	24.77	1.000	25.40	9/16 (.563)	14.29	2.000	50.80	0.382	9.70	7.50	X	Y	AL
LTL048J 08 LTR048J 08	.763	19.38	.048	1.22	2.750	31.68	1.000	25.40			2.000	50.80	0.408	10.36	7.50	X	Y	AL
LTL063L 06 LTR063L 06	.798	20.27	.063	1.59	5.500	63.37	1.000	25.40	19/32 (.594)	15.08	2.000	50.80	0.788	20.02	11.50	X	Y	AS
LTL063L 08 LTR063L 08	.830	21.08	.060	1.52	5.500	63.37	1.000	25.40	39/64 (.609)	15.48	2.000	50.80	0.570	14.48	8.50	X	Y	AS
LTL070M 06 LTR070M 06	.843	21.41	.070	1.78	7.500	86.41	1.000	25.40	5/8 (.625)	15.88	2.000	50.80	0.890	22.61	11.50	AB	AC	SPECIAL ORDER
LTL054K 08 LTR054K 08	.848	21.54	.054	1.37	3.500	40.33	1.000	25.40	41/64 (.641)	16.27	2.000	50.80	0.513	13.03	8.50	AB	AC	AP
LTL051J 08 LTR051J 08	.859	21.82	.051	1.30	3.100	35.72	1.000	25.40			2.000	50.80	0.434	11.02	7.50	AB	AC	AP
LTL038G 08 LTR038G 08	.861	21.87	.038	.97	1.280	14.75	1.000	25.40	5/8 (.625)	15.88	2.000	50.80	0.247	6.27	5.50	AC	AD	AR
LTL059K 08 LTR059K 08	.939	23.85	.059	1.50	4.500	51.85	1.000	25.40	45/64 (.703)	17.86	2.000	50.80	0.560	14.22	8.50	AC	AD	AS
LTL075M 06 LTR075M 06	.985	25.02	.075	1.91	9.203	106.03	1.000	25.40	47/64 (.734)	18.65	2.000	50.80	0.880	22.35	10.50	AC	AD	SPECIAL ORDER
LTL078N 06 LTR078N 06	1.015	25.78	.078	1.98	10.450	120.40	1.000	25.40	3/4 (.750)	19.05	2.000	50.80	0.897	22.78	10.50	AC	AD	SPECIAL ORDER
LTL085N 06 LTR085N 06	1.066	27.08	.085	2.16	12.861	148.18	1.250	31.75	25/32 (.781)	19.84	2.500	63.50	1.063	27.00	11.50	AD	AE	SPECIAL ORDER
LTL070M 08 LTR070M 08	1.116	28.35	.070	1.78	7.500	86.41	1.500	38.10	27/32 (.844)	21.43	3.000	76.20	0.665	16.89	8.50	AE	AG	SPECIAL ORDER
LTL095P 06 LTR095P 06	1.243	31.57	.095	2.41	17.148	197.57	1.500	38.10	7/8 (.875)	22.23	3.000	76.20	1.188	30.18	11.50	AE	AG	SPECIAL ORDER

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

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TORSION SPRINGS



# TORSION SPRINGS: 360° FREE POSITION (INCH)

Music Wire (Plated\*\*) or 302 Stainless Steel\* (Passivated) or 316 Stainless Steel (Passivated Ultrasonically Cleaned),

LTL - Left Hand Wound; LTR - Right Hand Wound

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE @ 360° DEFLECTION (T) (See Footnote)		RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX.(L)		NUMBER OF COILS	PRICE GROUP		
	IN.	MM	IN.	MM	IN.-LB.	KG-MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM		Music Wire	302 Stainless*	316 Stainless
																M	S	S316
LTL075M 08 LTR075M 08	1.348	34.24	.075	1.91	9.203	106.03	1.750	44.45	1 1/64 (1.016)	25.80	3.500	88.90	0.638	16.21	7.50	AG	AJ	SPECIAL ORDER
LTL105Q 06 LTR105Q 06	1.369	34.77	.105	2.67	21.000	241.95	1.750	44.45	1 1/32 (1.031)	26.19	3.500	88.90	1.418	36.02	12.50	AG	AJ	SPECIAL ORDER
LTL078N 08 LTR078N 08	1.390	35.31	.078	1.98	10.450	120.40	1.750	44.45	1 3/64 (1.047)	26.59	3.500	88.90	0.663	16.84	7.50	AJ	AK	SPECIAL ORDER
LTL085N 08 LTR085N 08	1.412	35.86	.085	2.16	12.860	148.17	2.000	50.80	1 5/64 (1.078)	27.38	4.000	101.60	0.808	20.52	8.50	AJ	AK	SPECIAL ORDER
LTL115R 06 LTR115R 06	1.465	37.21	.115	2.92	28.000	322.60	2.000	50.80	1 3/32 (1.094)	27.78	4.000	101.60	1.553	39.45	12.50	AJ	AK	SPECIAL ORDER
LTL125S 06 LTR125S 06	1.605	40.77	.125	3.18	32.000	368.69	2.000	50.80	1 7/32 (1.219)	30.96	4.000	101.60	1.938	49.23	14.50	AK	AL	SPECIAL ORDER
LTL095P 08 LTR095P 08	1.648	41.86	.095	2.41	17.140	197.48	2.000	50.80	1 1/4 (1.250)	31.75	4.000	101.60	0.902	22.91	8.50	AK	AL	SPECIAL ORDER
LTL135T 06 LTR135T 06	1.755	44.58	.135	3.43	40.000	460.86	2.000	50.80	1 21/64 (1.328)	33.73	4.000	101.60	2.093	53.16	14.50	AL	AM	SPECIAL ORDER
LTL105Q 08 LTR105Q 08	1.797	45.64	.105	2.67	21.000	241.95	2.000	50.80	1 3/8 (1.375)	34.93	4.000	101.60	1.102	27.99	9.50	AL	AM	SPECIAL ORDER
LTL115R 08 LTR115R 08	1.941	49.30	.115	2.92	28.000	322.60	2.000	50.80	1 31/64 (1.484)	37.70	4.000	101.60	1.208	30.68	9.50	AL	AM	SPECIAL ORDER
LTL125S 08 LTR125S 08	1.968	49.99	.125	3.18	32.000	368.69	2.000	50.80	1 33/64 (1.516)	38.50	4.000	101.60	1.562	39.67	11.50	AL	AM	SPECIAL ORDER
LTL135T 08 LTR135T 08	2.141	54.38	.135	3.43	40.000	460.86	2.125	53.98	1 21/32 (1.656)	42.07	4.250	107.95	1.688	42.88	11.50	AL	AM	SPECIAL ORDER

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

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**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit leespring.com; 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933). For Type 316 Stainless, the Torque and Deflection should be reduced approximately 65%–90% that of Type 302 Stainless version. Visit leespring.com for more information regarding any S316 Stainless product calculations.

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note on Page 5 under Finish

# TORSION SPRINGS: 90° FREE POSITION (METRIC)

*Music Wire (Plated\*\*) or Stainless Steel (Passivated), LTML - Left Hand Wound; LTMR - Right Hand Wound*

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE (T)		DEFLECTION TO RATED TORQUE	RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX. (L)		NUMBER OF COILS	PRICE GROUP	
	MM	IN.	MM	IN.	N-MM	IN.-LB.	DEG(°)	MM	IN.	MM	IN.	MM	IN.	MM	IN.		Music Wire	302 Stainless*
LTML040A 01 LTMR040A 01	2.8	.110	.40	.016	9.97	.088	68	8.0	.315	1.5	.059	16	.630	2.0	.079	4.25	G	J
LTML040A 07 LTMR040A 07	2.8	.110	.40	.016	9.97	.088	36	8.0	.315	1.5	.059	16	.630	1.2	.047	2.25	G	J
LTML050B 01 LTMR050B 01	3.5	.138	.50	.020	17.90	.159	64	10.0	.394	2.0	.079	20	.787	2.5	.098	4.25	G	J
LTML050B 07 LTMR050B 07	3.5	.138	.50	.020	17.90	.159	34	10.0	.394	2.0	.079	20	.787	1.5	.059	2.25	G	J
LTML040C 01 LTMR040C 01	3.8	.150	.40	.016	9.97	.088	96	8.0	.315	2.5	.098	16	.630	2.0	.079	4.25	G	J
LTML040C 07 LTMR040C 07	3.8	.150	.40	.016	9.97	.088	51	8.0	.315	2.5	.098	16	.630	1.2	.047	2.25	G	J
LTML060D 01 LTMR060D 01	4.2	.165	.60	.024	31.94	.283	63	11.0	.433	2.5	.098	22	.866	3.0	.118	4.25	G	J
LTML060D 07 LTMR060D 07	4.2	.165	.60	.024	31.94	.283	34	11.0	.433	2.5	.098	22	.866	1.8	.071	2.25	G	J
LTML050E 01 LTMR050E 01	4.5	.177	.50	.020	17.90	.159	86	10.0	.394	3.0	.118	20	.787	2.5	.098	4.25	G	J
LTML050E 07 LTMR050E 07	4.5	.177	.50	.020	17.90	.159	45	10.0	.394	3.0	.118	20	.787	1.5	.059	2.25	G	J
LTML075F 01 LTMR075F 01	5.0	.197	.75	.030	58.84	.521	59	12.5	.492	3.0	.118	25	.984	3.8	.148	4.25	G	J
LTML075F 07 LTMR075F 07	5.0	.197	.75	.030	58.84	.521	31	12.5	.492	3.0	.118	25	.984	2.3	.089	2.25	G	J
LTML040G 01 LTMR040G 01	5.8	.228	.40	.016	9.97	.088	153	8.0	.315	4.0	.157	16	.630	2.0	.079	4.25	G	J
LTML040G 07 LTMR040G 07	5.8	.228	.40	.016	9.97	.088	81	8.0	.315	4.0	.157	16	.630	1.2	.047	2.25	G	J
LTML060H 01 LTMR060H 01	6.2	.244	.60	.024	31.94	.283	99	11.0	.433	4.0	.157	22	.866	3.0	.118	4.25	G	J
LTML060H 07 LTMR060H 07	6.2	.244	.60	.024	31.94	.283	52	11.0	.433	4.0	.157	22	.866	1.8	.071	2.25	G	J
LTML050J 01 LTMR050J 01	7.0	.276	.50	.020	17.90	.159	139	10.0	.394	5.0	.197	20	.787	2.5	.098	4.25	G	J
LTML050J 07 LTMR050J 07	7.0	.276	.50	.020	17.90	.159	74	10.0	.394	5.0	.197	20	.787	1.5	.059	2.25	G	J
LTML100J 01 LTMR100J 01	7.0	.276	1.00	.039	136.12	1.205	61	17.5	.689	4.0	.157	35	1.378	5.0	.197	4.25	G	J
LTML100J 07 LTMR100J 07	7.0	.276	1.00	.039	136.12	1.205	32	17.5	.689	4.0	.157	35	1.378	3.0	.118	2.25	G	J
LTML075K 01 LTMR075K 01	7.5	.295	.75	.030	58.84	.521	94	12.5	.492	5.0	.197	25	.984	3.8	.148	4.25	G	J
LTML075K 07 LTMR075K 07	7.5	.295	.75	.030	58.84	.521	50	12.5	.492	5.0	.197	25	.984	2.3	.089	2.25	G	J
LTML060L 01 LTMR060L 01	8.2	.323	.60	.024	31.94	.283	134	11.0	.433	6.0	.236	22	.866	3.0	.118	4.25	J	K
LTML060L 07 LTMR060L 07	8.2	.323	.60	.024	31.94	.283	71	11.0	.433	6.0	.236	22	.866	1.8	.071	2.25	G	J

TORSION SPRINGS

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit [leespring.com](http://leespring.com); 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933).

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note Page 5 under Finish.

# TORSION SPRINGS: 90° FREE POSITION (METRIC)

Music Wire (Plated\*\*) or Stainless Steel (Passivated), LTML - Left Hand Wound; LTMR - Right Hand Wound

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE (T)		DEFLECTION TO RATED TORQUE	RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX. (L)		NUMBER OF COILS	PRICE GROUP	
	MM	IN.	MM	IN.	N-MM	IN.-LB.	DEG(°)	MM	IN.	MM	IN.	MM	IN.	MM	IN.		Music Wire	302 Stainless*
LTML125M 01 LTMR125M 01	8.5	.335	1.25	.049	255.09	2.258	57	20.0	.787	5.0	.197	40	1.575	6.3	.246	4.25	K	L
LTML125M 07 LTMR125M 07	8.5	.335	1.25	.049	255.09	2.258	30	20.0	.787	5.0	.197	40	1.575	3.8	.148	2.25	J	K
LTML100N 01 LTMR100N 01	9.0	.354	1.00	.039	136.12	1.205	81	17.5	.689	6.0	.236	35	1.378	5.0	.197	4.25	K	L
LTML100N 07 LTMR100N 07	9.0	.354	1.00	.039	136.12	1.205	43	17.5	.689	6.0	.236	35	1.378	3.0	.118	2.25	J	K
LTML150P 01 LTMR150P 01	10.0	.394	1.50	.059	425.51	3.767	53	22.5	.886	6.0	.236	45	1.772	7.5	.295	4.25	L	M
LTML150P 07 LTMR150P 07	10.0	.394	1.50	.059	425.51	3.767	28	22.5	.886	6.0	.236	45	1.772	4.5	.177	2.25	L	M
LTML075Q 01 LTMR075Q 01	10.5	.413	0.75	.030	58.84	.521	135	12.5	.492	8.0	.315	25	.984	3.8	.148	4.25	P	R
LTML075Q 07 LTMR075Q 07	10.5	.413	0.75	.030	58.84	.521	72	12.5	.492	8.0	.315	25	.984	2.3	.089	2.25	L	M
LTML125R 01 LTMR125R 01	11.5	.453	1.25	.049	255.09	2.258	80	20.0	.787	8.0	.315	40	1.575	6.3	.246	4.25	R	S
LTML125R 07 LTMR125R 07	11.5	.453	1.25	.049	255.09	2.258	42	20.0	.787	8.0	.315	40	1.575	3.8	.148	2.25	P	R
LTML200S 01 LTMR200S 01	13.0	.512	2.00	.079	978.56	8.663	50	30.0	1.181	8.0	.315	60	2.362	10.0	.394	4.25	U	W
LTML200S 07 LTMR200S 07	13.0	.512	2.00	.079	978.56	8.663	27	30.0	1.181	8.0	.315	60	2.362	6.0	.236	2.25	U	W
LTML100T 01 LTMR100T 01	14.0	.551	1.00	.039	136.12	1.205	132	17.5	.689	10.0	.394	35	1.378	5.0	.197	4.25	W	X
LTML100T 07 LTMR100T 07	14.0	.551	1.00	.039	136.12	1.205	70	17.5	.689	10.0	.394	35	1.378	3.0	.118	2.25	U	W
LTML150U 01 LTMR150U 01	15.0	.591	1.50	.059	425.51	3.767	85	22.5	.886	10.0	.394	45	1.772	7.5	.295	4.25	Y	Z
LTML150U 07 LTMR150U 07	15.0	.591	1.50	.059	425.51	3.767	45	22.5	.886	10.0	.394	45	1.772	4.5	.177	2.25	W	X
LTML125V 01 LTMR125V 01	16.5	.650	1.25	.049	255.09	2.258	119	20.0	.787	12.0	.472	40	1.575	6.3	.246	4.25	Z	AA
LTML125V 07 LTMR125V 07	16.5	.650	1.25	.049	255.09	2.258	63	20.0	.787	12.0	.472	40	1.575	3.8	.148	2.25	Y	Z
LTML200W 01 LTMR200W 01	18.0	.709	2.00	.079	978.56	8.663	73	30.0	1.181	12.0	.472	60	2.362	10.0	.394	4.25	AA	AB
LTML200W 07 LTMR200W 07	18.0	.709	2.00	.079	978.56	8.663	39	30.0	1.181	12.0	.472	60	2.362	6.0	.236	2.25	AA	AB
LTML150X 01 LTMR150X 01	20.0	.787	1.50	.059	425.51	3.767	116	22.5	.886	15.0	.591	45	1.772	7.5	.295	4.25	AB	AC
LTML150X 07 LTMR150X 07	20.0	.787	1.50	.059	425.51	3.767	62	22.5	.886	15.0	.591	45	1.772	4.5	.177	2.25	AB	AC
LTML200Y 01 LTMR200Y 01	27.0	1.063	2.00	.079	978.56	8.663	114	30.0	1.181	20.0	.787	60	2.362	10.0	.394	4.25	AE	AG
LTML200Y 07 LTMR200Y 07	27.0	1.063	2.00	.079	978.56	8.663	60	30.0	1.181	20.0	.787	60	2.362	6.0	.236	2.25	AC	AD

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit [leespring.com](http://leespring.com); 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933).

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note Page 5 under Finish.

TORSION SPRINGS

# TORSION SPRINGS: 180° FREE POSITION (METRIC)

*Music Wire (Plated\*\*) or Stainless Steel (Passivated), LTML - Left Hand Wound; LTMR - Right Hand Wound*

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE (T)		DEFLECTION TO RATED TORQUE	RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX. (L)		NUMBER OF COILS	PRICE GROUP	
	MM	IN.	MM	IN.	N-MM	IN.-LB.	DEG(°)	MM	IN.	MM	IN.	MM	IN.	MM	IN.		Music Wire	302 Stainless*
LTML040A 02 LTMR040A 02	2.8	.110	.40	.016	9.97	.088	192	8.0	.315	1.5	.059	16	.630	5.2	.205	12.00	G	J
LTML040A 04 LTMR040A 04	2.8	.110	.40	.016	9.97	.088	48	8.0	.315	1.5	.059	16	.630	1.6	.063	3.00	G	J
LTML050B 02 LTMR050B 02	3.5	.138	.50	.020	17.90	.159	181	10.0	.394	2.0	.079	20	.787	6.5	.256	12.00	G	J
LTML050B 04 LTMR050B 04	3.5	.138	.50	.020	17.90	.159	45	10.0	.394	2.0	.079	20	.787	2.0	.079	3.00	G	J
LTML040C 02 LTMR040C 02	3.8	.150	.40	.016	9.97	.088	272	8.0	.315	2.5	.098	16	.630	5.2	.205	12.00	G	J
LTML040C 04 LTMR040C 04	3.8	.150	.40	.016	9.97	.088	68	8.0	.315	2.5	.098	16	.630	1.6	.063	3.00	G	J
LTML060D 02 LTMR060D 02	4.2	.165	.60	.024	31.94	.283	179	11.0	.433	2.5	.098	22	.866	7.8	.307	12.00	G	J
LTML060D 04 LTMR060D 04	4.2	.165	.60	.024	31.94	.283	45	11.0	.433	2.5	.098	22	.866	2.4	.094	3.00	G	J
LTML050E 02 LTMR050E 02	4.5	.177	.50	.020	17.90	.159	242	10.0	.394	3.0	.118	20	.787	6.5	.256	12.00	G	J
LTML050E 04 LTMR050E 04	4.5	.177	.50	.020	17.90	.159	60	10.0	.394	3.0	.118	20	.787	2.0	.079	3.00	G	J
LTML075F 02 LTMR075F 02	5.0	.197	.75	.030	58.84	.521	167	12.5	.492	3.0	.118	25	.984	9.8	.384	12.00	J	K
LTML075F 04 LTMR075F 04	5.0	.197	.75	.030	58.84	.521	42	12.5	.492	3.0	.118	25	.984	3.0	.118	3.00	G	J
LTML040G 02 LTMR040G 02	5.8	.228	.40	.016	9.97	.088	432	8.0	.315	4.0	.157	16	.630	5.2	.205	12.00	J	K
LTML040G 04 LTMR040G 04	5.8	.228	.40	.016	9.97	.088	108	8.0	.315	4.0	.157	16	.630	1.6	.063	3.00	G	J
LTML060H 02 LTMR060H 02	6.2	.244	.60	.024	31.94	.283	278	11.0	.433	4.0	.157	22	.866	7.8	.307	12.00	J	K
LTML060H 04 LTMR060H 04	6.2	.244	.60	.024	31.94	.283	70	11.0	.433	4.0	.157	22	.866	2.4	.094	3.00	G	J
LTML050J 02 LTMR050J 02	7.0	.276	.50	.020	17.90	.159	391	10.0	.394	5.0	.197	20	.787	6.5	.256	12.00	J	K
LTML050J 04 LTMR050J 04	7.0	.276	.50	.020	17.90	.159	98	10.0	.394	5.0	.197	20	.787	2.0	.079	3.00	J	K
LTML100J 02 LTMR100J 02	7.0	.276	1.00	.039	136.12	1.205	172	17.5	.689	4.0	.157	35	1.378	13.0	.512	12.00	K	L
LTML100J 04 LTMR100J 04	7.0	.276	1.00	.039	136.12	1.205	43	17.5	.689	4.0	.157	35	1.378	4.0	.157	3.00	J	K
LTML075K 02 LTMR075K 02	7.5	.295	.75	.030	58.84	.521	265	12.5	.492	5.0	.197	25	.984	9.8	.384	12.00	K	L
LTML075K 04 LTMR075K 04	7.5	.295	.75	.030	58.84	.521	66	12.5	.492	5.0	.197	25	.984	3.0	.118	3.00	J	K
LTML060L 02 LTMR060L 02	8.2	.323	.60	.024	31.94	.283	378	11.0	.433	6.0	.236	22	.866	7.8	.307	12.00	K	L
LTML060L 04 LTMR060L 04	8.2	.323	.60	.024	31.94	.283	94	11.0	.433	6.0	.236	22	.866	2.4	.094	3.00	J	K

TORSION SPRINGS

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit [leespring.com](http://leespring.com); 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933).

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note Page 5 under Finish.

# TORSION SPRINGS: 180° FREE POSITION (METRIC)

Music Wire (Plated\*\*) or Stainless Steel (Passivated), LTML - Left Hand Wound; LTMR - Right Hand Wound

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE (T)		DEFLECTION TO RATED TORQUE	RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX. (L)		NUMBER OF COILS	PRICE GROUP	
	MM	IN.	MM	IN.	N-MM	IN.-LB.	DEG(°)	MM	IN.	MM	IN.	MM	IN.	MM	IN.		Music Wire	302 Stainless*
LTML125M 02 LTMR125M 02	8.5	.335	1.25	.049	255.09	2.258	160	20.0	.787	5.0	.197	40	1.575	16.3	.640	12.00	K	L
LTML125M 04 LTMR125M 04	8.5	.335	1.25	.049	255.09	2.258	40	20.0	.787	5.0	.197	40	1.575	5.0	.197	3.00	J	K
LTML100N 02 LTMR100N 02	9.0	.354	1.00	.039	136.12	1.205	229	17.5	.689	6.0	.236	35	1.378	13.0	.512	12.00	K	L
LTML100N 04 LTMR100N 04	9.0	.354	1.00	.039	136.12	1.205	57	17.5	.689	6.0	.236	35	1.378	4.0	.157	3.00	J	K
LTML150P 02 LTMR150P 02	10.0	.394	1.50	.059	425.51	3.767	151	22.5	.886	6.0	.236	45	1.772	19.5	.768	12.00	M	N
LTML150P 04 LTMR150P 04	10.0	.394	1.50	.059	425.51	3.767	38	22.5	.886	6.0	.236	45	1.772	6.0	.236	3.00	L	M
LTML075Q 02 LTMR075Q 02	10.5	.413	0.75	.030	58.84	.521	382	12.5	.492	8.0	.315	25	.984	9.8	.384	12.00	M	N
LTML075Q 04 LTMR075Q 04	10.5	.413	0.75	.030	58.84	.521	96	12.5	.492	8.0	.315	25	.984	3.0	.118	3.00	L	M
LTML125R 02 LTMR125R 02	11.5	.453	1.25	.049	255.09	2.258	226	20.0	.787	8.0	.315	40	1.575	16.3	.640	12.00	P	R
LTML125R 04 LTMR125R 04	11.5	.453	1.25	.049	255.09	2.258	57	20.0	.787	8.0	.315	40	1.575	5.0	.197	3.00	L	M
LTML200S 02 LTMR200S 02	13.0	.512	2.00	.079	978.56	8.663	142	30.0	1.181	8.0	.315	60	2.362	26.0	1.024	12.00	P	R
LTML200S 04 LTMR200S 04	13.0	.512	2.00	.079	978.56	8.663	35	30.0	1.181	8.0	.315	60	2.362	8.0	.315	3.00	L	M
LTML100T 02 LTMR100T 02	14.0	.551	1.00	.039	136.12	1.205	372	17.5	.689	10.0	.394	35	1.378	13.0	.512	12.00	R	S
LTML100T 04 LTMR100T 04	14.0	.551	1.00	.039	136.12	1.205	93	17.5	.689	10.0	.394	35	1.378	4.0	.157	3.00	P	R
LTML150U 02 LTMR150U 02	15.0	.591	1.50	.059	425.51	3.767	239	22.5	.886	10.0	.394	45	1.772	19.5	.768	12.00	W	X
LTML150U 04 LTMR150U 04	15.0	.591	1.50	.059	425.51	3.767	60	22.5	.886	10.0	.394	45	1.772	6.0	.236	3.00	R	S
LTML125V 02 LTMR125V 02	16.5	.650	1.25	.049	255.09	2.258	337	20.0	.787	12.0	.472	40	1.575	16.3	.640	12.00	Z	AA
LTML125V 04 LTMR125V 04	16.5	.650	1.25	.049	255.09	2.258	84	20.0	.787	12.0	.472	40	1.575	5.0	.197	3.00	R	S
LTML200W 02 LTMR200W 02	18.0	.709	2.00	.079	978.56	8.663	206	30.0	1.181	12.0	.472	60	2.362	26.0	1.024	12.00	AB	AC
LTML200W 04 LTMR200W 04	18.0	.709	2.00	.079	978.56	8.663	52	30.0	1.181	12.0	.472	60	2.362	8.0	.315	3.00	X	Y
LTML150X 02 LTMR150X 02	20.0	.787	1.50	.059	425.51	3.767	328	22.5	.886	15.0	.591	45	1.772	19.5	.768	12.00	AC	AD
LTML150X 04 LTMR150X 04	20.0	.787	1.50	.059	425.51	3.767	82	22.5	.886	15.0	.591	45	1.772	6.0	.236	3.00	Y	Z
LTML200Y 02 LTMR200Y 02	27.0	1.063	2.00	.079	978.56	8.663	323	30.0	1.181	20.0	.787	60	2.362	26.0	1.024	12.00	AE	AG
LTML200Y 04 LTMR200Y 04	27.0	1.063	2.00	.079	978.56	8.663	81	30.0	1.181	20.0	.787	60	2.362	8.0	.315	3.00	AC	AD

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit [leespring.com](http://leespring.com); 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933).

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note Page 5 under Finish.

TORSION SPRINGS

# TORSION SPRINGS: 270° FREE POSITION (METRIC)

*Music Wire (Plated\*\*) or Stainless Steel (Passivated), LTML - Left Hand Wound; LTMR - Right Hand Wound*

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE (T)		DEFLECTION TO RATED TORQUE	RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX. (L)		NUMBER OF COILS	PRICE GROUP	
	MM	IN.	MM	IN.	N-MM	IN.-LB.	DEG(°)	MM	IN.	MM	IN.	MM	IN.	MM	IN.		Music Wire	302 Stainless*
LTML040A 03 LTMR040A 03	2.8	.110	.40	.016	9.97	.088	140	8.0	.315	1.5	.059	16	.630	4.0	.157	8.75	G	J
LTML040A 05 LTMR040A 05	2.8	.110	.40	.016	9.97	.088	44	8.0	.315	1.5	.059	16	.630	1.6	.063	2.75	G	J
LTML050B 03 LTMR050B 03	3.5	.138	.50	.020	17.90	.159	132	10.0	.394	2.0	.079	20	.787	5.0	.197	8.75	G	J
LTML050B 05 LTMR050B 05	3.5	.138	.50	.020	17.90	.159	42	10.0	.394	2.0	.079	20	.787	2.0	.079	2.75	G	J
LTML040C 03 LTMR040C 03	3.8	.150	.40	.016	9.97	.088	198	8.0	.315	2.5	.098	16	.630	4.0	.157	8.75	G	J
LTML040C 05 LTMR040C 05	3.8	.150	.40	.016	9.97	.088	62	8.0	.315	2.5	.098	16	.630	1.6	.063	2.75	G	J
LTML060D 03 LTMR060D 03	4.2	.165	.60	.024	31.94	.283	130	11.0	.433	2.5	.098	22	.866	6.0	.236	8.75	G	J
LTML060D 05 LTMR060D 05	4.2	.165	.60	.024	31.94	.283	41	11.0	.433	2.5	.098	22	.866	2.4	.094	2.75	G	J
LTML050E 03 LTMR050E 03	4.5	.177	.50	.020	17.90	.159	176	10.0	.394	3.0	.118	20	.787	5.0	.197	8.75	G	J
LTML050E 05 LTMR050E 05	4.5	.177	.50	.020	17.90	.159	55	10.0	.394	3.0	.118	20	.787	2.0	.079	2.75	G	J
LTML075F 03 LTMR075F 03	5.0	.197	.75	.030	58.84	.521	121	12.5	.492	3.0	.118	25	.984	7.5	.295	8.75	G	J
LTML075F 05 LTMR075F 05	5.0	.197	.75	.030	58.84	.521	38	12.5	.492	3.0	.118	25	.984	3.0	.118	2.75	G	J
LTML040G 03 LTMR040G 03	5.8	.228	.40	.016	9.97	.088	315	8.0	.315	4.0	.157	16	.630	4.0	.157	8.75	G	J
LTML040G 05 LTMR040G 05	5.8	.228	.40	.016	9.97	.088	99	8.0	.315	4.0	.157	16	.630	1.6	.063	2.75	G	J
LTML060H 03 LTMR060H 03	6.2	.244	.60	.024	31.94	.283	203	11.0	.433	4.0	.157	22	.866	6.0	.236	8.75	G	J
LTML060H 05 LTMR060H 05	6.2	.244	.60	.024	31.94	.283	64	11.0	.433	4.0	.157	22	.866	2.4	.094	2.75	G	J
LTML050J 03 LTMR050J 03	7.0	.276	.50	.020	17.90	.159	286	10.0	.394	5.0	.197	20	.787	5.0	.197	8.75	J	L
LTML050J 05 LTMR050J 05	7.0	.276	.50	.020	17.90	.159	90	10.0	.394	5.0	.197	20	.787	2.0	.079	2.75	G	J
LTML100J 03 LTMR100J 03	7.0	.276	1.00	.039	136.12	1.205	125	17.5	.689	4.0	.157	35	1.378	10.0	.394	8.75	J	K
LTML100J 05 LTMR100J 05	7.0	.276	1.00	.039	136.12	1.205	39	17.5	.689	4.0	.157	35	1.378	4.0	.157	2.75	J	K
LTML075K 03 LTMR075K 03	7.5	.295	.75	.030	58.84	.521	193	12.5	.492	5.0	.197	25	.984	7.5	.295	8.75	K	L
LTML075K 05 LTMR075K 05	7.5	.295	.75	.030	58.84	.521	61	12.5	.492	5.0	.197	25	.984	3.0	.118	2.75	J	K
LTML060L 03 LTMR060L 03	8.2	.323	.60	.024	31.94	.283	275	11.0	.433	6.0	.236	22	.866	6.0	.236	8.75	K	L
LTML060L 05 LTMR060L 05	8.2	.323	.60	.024	31.94	.283	87	11.0	.433	6.0	.236	22	.866	2.4	.094	2.75	J	K

TORSION SPRINGS

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit [leespring.com](http://leespring.com); 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933).

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note Page 5 under Finish.

# TORSION SPRINGS: 270° FREE POSITION (METRIC)

Music Wire (Plated\*\*) or Stainless Steel (Passivated), LTML - Left Hand Wound; LTMR - Right Hand Wound

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE (T)		DEFLECTION TO RATED TORQUE	RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX. (L)		NUMBER OF COILS	PRICE GROUP	
	MM	IN.	MM	IN.	N-MM	IN.-LB.	DEG(°)	MM	IN.	MM	IN.	MM	IN.	MM	IN.		Music Wire	302 Stainless*
LTML125M 03 LTMR125M 03	8.5	.335	1.25	.049	255.09	2.258	117	20.0	.787	5.0	.197	40	1.575	12.5	.492	8.75	K	L
LTML125M 05 LTMR125M 05	8.5	.335	1.25	.049	255.09	2.258	37	20.0	.787	5.0	.197	40	1.575	5.0	.197	2.75	G	J
LTML100N 03 LTMR100N 03	9.0	.354	1.00	.039	136.12	1.205	167	17.5	.689	6.0	.236	35	1.378	10.0	.394	8.75	J	K
LTML100N 05 LTMR100N 05	9.0	.354	1.00	.039	136.12	1.205	52	17.5	.689	6.0	.236	35	1.378	4.0	.157	2.75	G	J
LTML150P 03 LTMR150P 03	10.0	.394	1.50	.059	425.51	3.767	110	22.5	.886	6.0	.236	45	1.772	15.0	.591	8.75	L	M
LTML150P 05 LTMR150P 05	10.0	.394	1.50	.059	425.51	3.767	35	22.5	.886	6.0	.236	45	1.772	6.0	.236	2.75	J	K
LTML075Q 03 LTMR075Q 03	10.5	.413	.75	.030	58.84	.521	279	12.5	.492	8.0	.315	25	.984	7.5	.295	8.75	M	N
LTML075Q 05 LTMR075Q 05	10.5	.413	.75	.030	58.84	.521	88	12.5	.492	8.0	.315	25	.984	3.0	.118	2.75	L	M
LTML125R 03 LTMR125R 03	11.5	.453	1.25	.049	255.09	2.258	165	20.0	.787	8.0	.315	40	1.575	12.5	.492	8.75	M	N
LTML125R 05 LTMR125R 05	11.5	.453	1.25	.049	255.09	2.258	52	20.0	.787	8.0	.315	40	1.575	5.0	.197	2.75	L	M
LTML200S 03 LTMR200S 03	13.0	.512	2.00	.079	978.56	8.663	103	30.0	1.181	8.0	.315	60	2.362	20.0	.787	8.75	N	P
LTML200S 05 LTMR200S 05	13.0	.512	2.00	.079	978.56	8.663	33	30.0	1.181	8.0	.315	60	2.362	8.0	.315	2.75	M	N
LTML100T 03 LTMR100T 03	14.0	.551	1.00	.039	136.12	1.205	271	17.5	.689	10.0	.394	35	1.378	10.0	.394	8.75	P	R
LTML100T 05 LTMR100T 05	14.0	.551	1.00	.039	136.12	1.205	85	17.5	.689	10.0	.394	35	1.378	4.0	.157	2.75	M	N
LTML150U 03 LTMR150U 03	15.0	.591	1.50	.059	425.51	3.767	175	22.5	.886	10.0	.394	45	1.772	15.0	.591	8.75	P	R
LTML150U 05 LTMR150U 05	15.0	.591	1.50	.059	425.51	3.767	55	22.5	.886	10.0	.394	45	1.772	6.0	.236	2.75	M	N
LTML125V 03 LTMR125V 03	16.5	.650	1.25	.049	255.09	2.258	245	20.0	.787	12.0	.472	40	1.575	12.5	.492	8.75	S	T
LTML125V 05 LTMR125V 05	16.5	.650	1.25	.049	255.09	2.258	77	20.0	.787	12.0	.472	40	1.575	5.0	.197	2.75	M	N
LTML200W 03 LTMR200W 03	18.0	.709	2.00	.079	978.56	8.663	151	30.0	1.181	12.0	.472	60	2.362	20.0	.787	8.75	Y	AA
LTML200W 05 LTMR200W 05	18.0	.709	2.00	.079	978.56	8.663	47	30.0	1.181	12.0	.472	60	2.362	8.0	.315	2.75	X	W
LTML150X 03 LTMR150X 03	20.0	.787	1.50	.059	425.51	3.767	239	22.5	.886	15.0	.591	45	1.772	15.0	.591	8.75	X	Y
LTML150X 05 LTMR150X 05	20.0	.787	1.50	.059	425.51	3.767	75	22.5	.886	15.0	.591	45	1.772	6.0	.236	2.75	W	X
LTML200Y 03 LTMR200Y 03	27.0	1.063	2.00	.079	978.56	8.663	235	30.0	1.181	20.0	.787	60	2.362	20.0	.787	8.75	AB	AC
LTML200Y 05 LTMR200Y 05	27.0	1.063	2.00	.079	978.56	8.663	74	30.0	1.181	20.0	.787	60	2.362	8.0	.315	2.75	Z	AA

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit [leespring.com](http://leespring.com); 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933).

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note Page 5 under Finish.

TORSION SPRINGS



# TORSION SPRINGS: 360° FREE POSITION (METRIC)

*Music Wire (Plated\*\*) or Stainless Steel (Passivated), LTML - Left Hand Wound; LTMR - Right Hand Wound*

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE (T)		DEFLECTION TO RATED TORQUE	RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX. (L)		NUMBER OF COILS	PRICE GROUP	
	MM	IN.	MM	IN.	N-MM	IN.-LB.	DEG(°)	MM	IN.	MM	IN.	MM	IN.	MM	IN.		Music Wire	302 Stainless*
LTML040A 06 LTMR040A 06	2.8	.110	.40	.016	9.97	.088	104	8.0	.315	1.5	.059	16	.630	2.8	.110	6.50	G	J
LTML040A 08 LTMR040A 08	2.8	.110	.40	.016	9.97	.088	40	8.0	.315	1.5	.059	16	.630	1.2	.047	2.50	G	J
LTML050B 06 LTMR050B 06	3.5	.138	.50	.020	17.90	.159	98	10.0	.394	2.0	.079	20	.787	3.5	.138	6.50	G	J
LTML050B 08 LTMR050B 08	3.5	.138	.50	.020	17.90	.159	38	10.0	.394	2.0	.079	20	.787	1.5	.059	2.50	G	J
LTML040C 06 LTMR040C 06	3.8	.150	.40	.016	9.97	.088	147	8.0	.315	2.5	.098	16	.630	2.8	.110	6.50	G	J
LTML040C 08 LTMR040C 08	3.8	.150	.40	.016	9.97	.088	57	8.0	.315	2.5	.098	16	.630	1.2	.047	2.50	G	J
LTML060D 06 LTMR060D 06	4.2	.165	.60	.024	31.94	.283	97	11.0	.433	2.5	.098	22	.866	4.2	.165	6.50	G	J
LTML060D 08 LTMR060D 08	4.2	.165	.60	.024	31.94	.283	37	11.0	.433	2.5	.098	22	.866	1.8	.071	2.50	G	J
LTML050E 06 LTMR050E 06	4.5	.177	.50	.020	17.90	.159	131	10.0	.394	3.0	.118	20	.787	3.5	.138	6.50	G	J
LTML050E 08 LTMR050E 08	4.5	.177	.50	.020	17.90	.159	50	10.0	.394	3.0	.118	20	.787	1.5	.059	2.50	G	J
LTML075F 06 LTMR075F 06	5.0	.197	.75	.030	58.84	.521	90	12.5	.492	3.0	.118	25	.984	5.3	.207	6.50	G	J
LTML075F 08 LTMR075F 08	5.0	.197	.75	.030	58.84	.521	35	12.5	.492	3.0	.118	25	.984	2.3	.089	2.50	G	J
LTML040G 06 LTMR040G 06	5.8	.228	.40	.016	9.97	.088	234	8.0	.315	4.0	.157	16	.630	2.8	.110	6.50	G	J
LTML040G 08 LTMR040G 08	5.8	.228	.40	.016	9.97	.088	90	8.0	.315	4.0	.157	16	.630	1.2	.047	2.50	G	J
LTML060H 06 LTMR060H 06	6.2	.244	.60	.024	31.94	.283	151	11.0	.433	4.0	.157	22	.866	4.2	.165	6.50	G	J
LTML060H 08 LTMR060H 08	6.2	.244	.60	.024	31.94	.283	58	11.0	.433	4.0	.157	22	.866	1.8	.071	2.50	G	J
LTML050J 06 LTMR050J 06	7.0	.276	.50	.020	17.90	.159	213	10.0	.394	5.0	.197	20	.787	3.5	.138	6.50	G	J
LTML050J 08 LTMR050J 08	7.0	.276	.50	.020	17.90	.159	82	10.0	.394	5.0	.197	20	.787	1.5	.059	2.50	G	J
LTML100J 06 LTMR100J 06	7.0	.276	1.00	.039	136.12	1.205	93	17.5	.689	4.0	.157	35	1.378	7.0	.276	6.50	G	J
LTML100J 08 LTMR100J 08	7.0	.276	1.00	.039	136.12	1.205	36	17.5	.689	4.0	.157	35	1.378	3.0	.118	2.50	G	J
LTML075K 06 LTMR075K 06	7.5	.295	.75	.030	58.84	.521	143	12.5	.492	5.0	.197	25	.984	5.3	.207	6.50	G	J
LTML075K 08 LTMR075K 08	7.5	.295	.75	.030	58.84	.521	55	12.5	.492	5.0	.197	25	.984	2.3	.089	2.50	G	J
LTML060L 06 LTMR060L 06	8.2	.323	.60	.024	31.94	.283	205	11.0	.433	6.0	.236	22	.866	4.2	.165	6.50	J	K
LTML060L 08 LTMR060L 08	8.2	.323	.60	.024	31.94	.283	79	11.0	.433	6.0	.236	22	.866	1.8	.071	2.50	J	K

TORSION SPRINGS

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

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**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933).

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note Page 5 under Finish.

# TORSION SPRINGS: 360° FREE POSITION (METRIC)

Music Wire (Plated\*\*) or Stainless Steel (Passivated), LTML - Left Hand Wound; LTMR - Right Hand Wound

LEE STOCK NUMBER	OUTSIDE DIAMETER		WIRE DIAMETER		TORQUE (T)		DEFLECTION TO RATED TORQUE	RADIUS (R)		SUGGESTED MANDREL SIZE		LENGTH OF LEG (A)		BODY LENGTH APPROX. (L)		NUMBER OF COILS	PRICE GROUP	
	MM	IN.	MM	IN.	N-MM	IN.-LB.	DEG(°)	MM	IN.	MM	IN.	MM	IN.	MM	IN.		Music Wire	302 Stainless*
LTML125M 06 LTMR125M 06	8.5	.335	1.25	.049	255.09	2.258	87	20.0	.787	5.0	.197	40	1.575	8.8	.344	6.50	J	K
LTML125M 08 LTMR125M 08	8.5	.335	1.25	.049	255.09	2.258	33	20.0	.787	5.0	.197	40	1.575	3.8	.148	2.50	J	K
LTML100N 06 LTMR100N 06	9.0	.354	1.00	.039	136.12	1.205	124	17.5	.689	6.0	.236	35	1.378	7.0	.276	6.50	J	K
LTML100N 08 LTMR100N 08	9.0	.354	1.00	.039	136.12	1.205	48	17.5	.689	6.0	.236	35	1.378	3.0	.118	2.50	J	K
LTML150P 06 LTMR150P 06	10.0	.394	1.50	.059	425.51	3.767	82	22.5	.886	6.0	.236	45	1.772	10.5	.413	6.50	J	K
LTML150P 08 LTMR150P 08	10.0	.394	1.50	.059	425.51	3.767	31	22.5	.886	6.0	.236	45	1.772	4.5	.177	2.50	J	K
LTML075Q 06 LTMR075Q 06	10.5	.413	0.75	.030	58.84	0.521	207	12.5	.492	8.0	.315	25	.984	5.3	.207	6.50	J	K
LTML075Q 08 LTMR075Q 08	10.5	.413	0.75	.030	58.84	0.521	80	12.5	.492	8.0	.315	25	.984	2.3	.089	2.50	J	K
LTML125R 06 LTMR125R 06	11.5	.453	1.25	.049	255.09	2.258	123	20.0	.787	8.0	.315	40	1.575	8.8	.344	6.50	J	K
LTML125R 08 LTMR125R 08	11.5	.453	1.25	.049	255.09	2.258	47	20.0	.787	8.0	.315	40	1.575	3.8	.148	2.50	J	K
LTML200S 06 LTMR200S 06	13.0	.512	2.00	.079	978.56	8.663	77	30.0	1.181	8.0	.315	60	2.362	14.0	.551	6.50	L	M
LTML200S 08 LTMR200S 08	13.0	.512	2.00	.079	978.56	8.663	30	30.0	1.181	8.0	.315	60	2.362	6.0	.236	2.50	K	L
LTML100T 06 LTMR100T 06	14.0	.551	1.00	.039	136.12	1.205	201	17.5	.689	10.0	.394	35	1.378	7.0	.276	6.50	L	M
LTML100T 08 LTMR100T 08	14.0	.551	1.00	.039	136.12	1.205	77	17.5	.689	10.0	.394	35	1.378	3.0	.118	2.50	K	L
LTML150U 06 LTMR150U 06	15.0	.591	1.50	.059	425.51	3.767	130	22.5	.886	10.0	.394	45	1.772	10.5	.413	6.50	P	R
LTML150U 08 LTMR150U 08	15.0	.591	1.50	.059	425.51	3.767	50	22.5	.886	10.0	.394	45	1.772	4.5	.177	2.50	N	P
LTML125V 06 LTMR125V 06	16.5	.650	1.25	.049	255.09	2.258	182	20.0	.787	12.0	.472	40	1.575	8.8	.344	6.50	S	T
LTML125V 08 LTMR125V 08	16.5	.650	1.25	.049	255.09	2.258	70	20.0	.787	12.0	.472	40	1.575	3.8	.148	2.50	S	T
LTML200W 06 LTMR200W 06	18.0	.709	2.00	.079	978.56	8.663	112	30.0	1.181	12.0	.472	60	2.362	14.0	.551	6.50	X	Y
LTML200W 08 LTMR200W 08	18.0	.709	2.00	.079	978.56	8.663	43	30.0	1.181	12.0	.472	60	2.362	6.0	.236	2.50	W	X
LTML150X 06 LTMR150X 06	20.0	.787	1.50	.059	425.51	3.767	178	22.5	.886	15.0	.591	45	1.772	10.5	.413	6.50	X	Y
LTML150X 08 LTMR150X 08	20.0	.787	1.50	.059	425.51	3.767	68	22.5	.886	15.0	.591	45	1.772	4.5	.177	2.50	W	X
LTML200Y 06 LTMR200Y 06	27.0	1.063	2.00	.079	978.56	8.663	175	30.0	1.181	20.0	.787	60	2.362	14.0	.551	6.50	AC	AC
LTML200Y 08 LTMR200Y 08	27.0	1.063	2.00	.079	978.56	8.663	67	30.0	1.181	20.0	.787	60	2.362	6.0	.236	2.50	AB	AB

### SPECIAL INSTRUCTIONS FOR TORSION SERIES

**STOCK NUMBERS:** Add "M" to end of Stock Number for Music Wire; "S" for Type 302 Stainless.

**PRICING:** See Inside Back Cover for up to 199 pricing. To price or order up to 1000 pcs., visit [leespring.com](http://leespring.com); 1000+ pcs. contact Lee Spring.

**CALCULATIONS:** Torque shown is for Music Wire. For Type 302 Stainless, multiply figures shown by (0.933).

\*Note: Type 302 may be substituted with Type 304 at Lee Spring's discretion. \*\*Wires 0.025" and less are Instrument Torsion, see note Page 5 under Finish.

TORSION SPRINGS