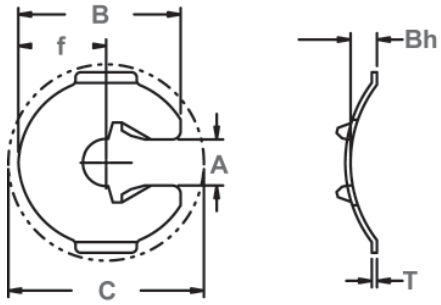
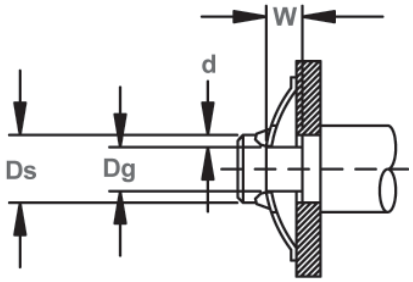
EL Shaft Rings

Radially Assembled, External Bowed Locking

Another variation of a bowed E ring is the EL. In addition to the bowed design for eliminating "play" in an assembly, it also features two prongs, which extend from the inner circumference to the open end locking the ring firmly into place.



Ring Measurements

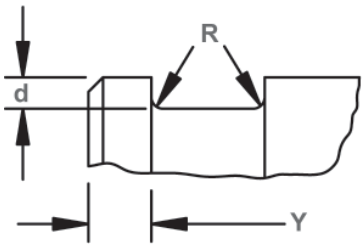


Shaft Diameter & Groove Dimensions

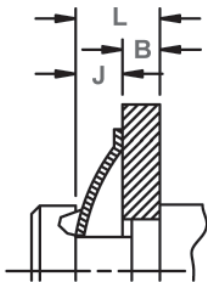
RING NO.	SHAFT DIAMETER			GROOVE SIZE					RING SIZE & WEIGHT									CLR. DIA.	îTHRUST LOAD (lbs.sq. corner abutment)	
				DIAMETER		WIDTH		DEPTH	LENGTH		THICKNESS***		BOW HEIGHT		GAP		WGHT. PER 1000 Pcs.	Released In Groove	Ring Safety Factor Of 3	Groove Safety Factor Of 3
	DEC	Tol.	FRACT	Dg	Tol.	W	TOL.	d	B	Tol.	T	Tol.	Bh	Tol.	A	Tol.	LBS.	C	Pr	Pg
EL-9	.092		3/32	.061	±.001	.035		.016	.307		.010		.050		.063		.23	.370	80	35
EL-12	.125	±.002	1/8	.082	±.0015	.035		.021	.307		.010	±.001	.050		.086	±.004	.19	.370	102	60
EL-18	.188		3/16	.124	±.002	.045	+.005	.032	.390	±.010	.015		.060	±.010	.130		.47	.480	203	140
EL-25	.250	±.003	1/4	.165		.055	-.000	.042	.500		.015	±.002	.070		.172	±.005	.77	.620	305	250
EL-31	.312		5/16	.228	±.003	.080		.042	.620		.015		.095		.234		1.3	.790	355	300
EL-37	.375		3/8	.270		.095		.052	.740		.020		.130		.280		2.2	.940	555	450

î BASED ON HOUSINGS/SHAFTS MADE OF COLD ROLLED STEEL. FOR AN EXPLANATION OF FORMULAS USED TO DERIVE THRUST LOAD AND OTHER PERFORMANCE DATA CONTACT THE ROTOR CLIP ENGINEERING DEPARTMENT. LARGER SIZES MAY BE AVAILABLE UPON REQUEST.

***For plated rings, add .002" to the listed maximum thickness.**



Exploded Groove Profile & Edge Margin (Y)
Maximum bottom radii (R) .005 for ring sizes
-9 thru -25; .010 for ring sizes -31 thru -37



Outer Grove Wall Location
Lmax=Bmin + Jmax
Lmin=Bmax + Jmin

RING NO.	DISTANCE OUTER GROOVE WALL TO FACE OF RETAINED PART		RESILIENT TAKE-UP OF TOLERANCES OF A&B	FORCE NEEDED TO FLATTEN RINGS	APPROX. AV RESILIENT RES. (lbs) WITHIN J MAX. & J MIN		f	EDGE MARGIN
	J MIN.	J MAX.	J MAX. - J MIN.	LBS.	IN-STALLED	FLAT-TENED	REF.	Y
EL-9	.030	.038	.008	30	9	3.5	.166	.031
EL-12	.030	.040	.010	30	8	3.0	.166	.043
EL-18	.039	.049	.010	60	20	5.5	.213	.064
EL-25	.045	.060	.015	60	15	7.0	.280	.085
EL-31	.070	.085	.015	60	6	4.0	.360	.084
EL-37	.080	.105	.025	80	19	7.0	.427	.105

HARDNESS RANGES: STAINLESS STEEL RINGS (PH 15-7MO)

RING TYPE	SIZE RANGE	SCALE	ROCKWELL HARDNESS
EL	9&12	15N	82.5-86*
	18-31	15N	82.5-86
	37	30N	63-69.5

HARDNESS RANGES: BERYLLIUM COPPER RINGS

RING TYPE	SIZE RANGE	SCALE	ROCKWELL HARDNESS
EL	9&12	15N	77-82*
	18-37	15N	77-82

HARDNESS RANGES: CARBON STEEL RINGS (SAE 1060-1090)

RING TYPE	SIZE RANGE	SCALE	ROCKWELL HARDNESS
EL	9&12	15N	83.5-86*
	18&25	15N	83.5-86
	31&37	30N	65-69.5

*HARDNESS CAN NOT BE CHECKED WITH ANY DEGREE OF ACCURACY DIRECTLY ON THESE RINGS.