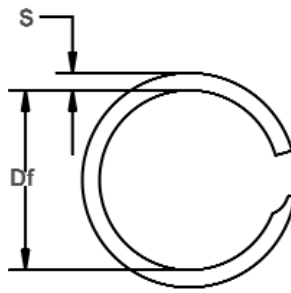


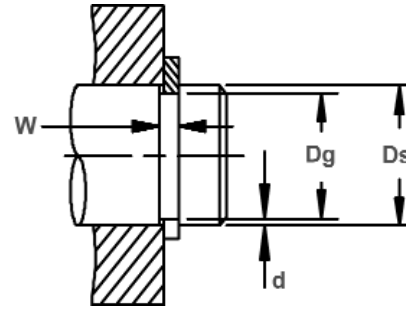
# CL Spiral Shaft Rings

## External, Light Duty

These single-turn retaining rings are ideal for light-duty applications, or where axial positioning is the primary function.

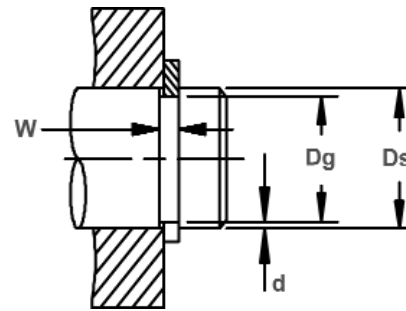
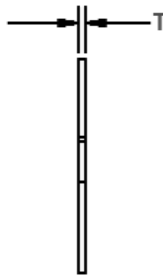
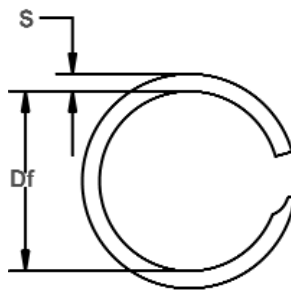


Free Diameter & Ring Measurements



Shaft Diameter & Groove Dimensions

RING NO.	SHAFT DIAMETER (In.)	GROOVE SIZE					RING SIZE					THURST LOAD (lbs.)	
		DIAMETER		WIDTH		DEPTH	FREE DIAMETER		THICKNESS		SECTION	RING Safety factor of 3 Pr	GROOVE Safety factor of 2 Pg
		Dg	Tol.	W	Tol.	d	Df	Tol.	T	Tol.	S		
CL-50	.500	.472		.022		.014	.467		.018		.045	1300	500
CL-56	.562	.534	+ .002	.022		.014	.529		.018		.045	1460	560
CL-62	.625	.597	- .002	.022		.014	.591		.018		.045	1630	620
CL-68	.687	.659		.022		.014	.652	+ .000	.018		.045	1790	680
CL-75	.750	.722		.022		.014	.715	- .013	.018		.045	1950	740
CL-81	.812	.770		.026		.021	.762		.021		.065	2460	1210
CL-87	.875	.833	+ .003	.026		.021	.825		.021		.065	2660	1300
CL-93	.937	.895	- .003	.026		.021	.886		.021	+ .0015	.065	2840	1390
CL-100	1.000	.958		.026	+ .002	.021	.949		.021	- .0015	.065	3040	1480
CL-106	1.062	1.018		.031	- .000	.022	1.008		.025		.088	3500	1650
CL-112	1.125	1.081		.031		.022	1.071		.025		.088	3710	1750
CL-118	1.187	1.143		.031		.022	1.132		.025		.088	3920	1850
CL-125	1.250	1.206	+ .004	.031		.022	1.194	+ .000	.025		.088	4120	1940
CL-131	1.312	1.268	- .004	.031		.022	1.255	- .015	.025		.088	4330	2040
CL-137	1.375	1.331		.031		.022	1.318		.025		.088	4540	2140
CL-143	1.437	1.393		.031		.022	1.379		.025		.088	4740	2240
CL-150	1.500	1.456		.031		.022	1.442		.025		.088	4950	2330
CL-156	1.562	1.505		.039		.029	1.488		.031		.118	6390	3200
CL-162	1.625	1.568		.039		.029	1.550		.031		.118	6650	3330
CL-168	1.687	1.630		.039		.029	1.612		.031		.118	6900	3460
CL-175	1.750	1.693	+ .005	.039		.029	1.674	+ .000	.031		.118	7160	3590
CL-181	1.812	1.755	- .005	.039		.029	1.736	- .020	.031		.118	7410	3710
CL-187	1.875	1.818		.039		.029	1.798		.031		.118	7670	3840
CL-193	1.937	1.880		.039		.029	1.859		.031		.118	7920	3970
CL-200	2.000	1.943		.039		.029	1.922		.031		.118	8180	4100
CL-206	2.062	1.986		.039		.038	1.963		.031		.158	8430	5540
CL-212	2.125	2.049		.039		.038	2.026		.031		.158	8690	5710
CL-218	2.187	2.111		.039		.038	2.087		.031		.158	8950	5870
CL-225	2.250	2.174		.039		.038	2.149		.031	+ .002	.158	9200	6040
CL-231	2.312	2.236		.039	+ .003	.038	2.211		.031	- .002	.158	9460	6210
CL-237	2.375	2.299		.039	- .000	.038	2.273		.031		.158	9720	6380
CL-243	2.437	2.361		.039		.038	2.335	+ .000	.031		.158	9970	6550
CL-250	2.500	2.424		.039		.038	2.397	- .025	.031		.158	10230	6720
CL-256	2.562	2.486	+ .006	.039		.038	2.458		.031		.158	10480	6880
CL-262	2.625	2.549	- .006	.039		.038	2.521		.031		.158	10740	7050
CL-268	2.687	2.611		.039		.038	2.582		.031		.158	10990	7220
CL-275	2.750	2.674		.039		.038	2.644		.031		.158	11250	7390
CL-281	2.812	2.736		.039		.038	2.706		.031		.158	11500	7550
CL-287	2.875	2.799		.039		.038	2.768		.031		.158	11760	7720
CL-293	2.937	2.861		.039		.038	2.830		.031		.158	12010	7890
CL-300	3.000	2.924		.039		.038	2.892		.031		.158	12270	8060
CL-306	3.062	2.970		.044		.046	2.938	+ .000	.039		.188	15760	9960
CL-312	3.125	3.033		.044		.046	3.001	- .030	.039		.188	16080	10160



Free Diameter & Ring Measurements

Shaft Diameter & Groove Dimensions

RING NO.	SHAFT DIAMETER (In.)	GROOVE SIZE					RING SIZE					THRUST LOAD (lbs.)	
		DIAMETER		WIDTH		DEPTH	FREE DIAMETER		THICKNESS		SECTION	RING Safety factor of 3	GROOVE Safety factor of 2
		Dg	Tol.	W	Tol.	d	Df	Tol.	T	Tol.	S		
CL-318	3.187	3.095		.044		.046	3.062		.039		.188	16400	10360
CL-325	3.250	3.158		.044		.046	3.125		.039		.188	16720	10570
CL-331	3.312	3.220		.044		.046	3.186		.039		.188	17040	10770
CL-337	3.375	3.283		.044		.046	3.248		.039		.188	17370	10970
CL-343	3.437	3.345		.044		.046	3.310		.039		.188	17690	11180
CL-350	3.500	3.408		.044		.046	3.372		.039		.188	18010	11380
CL-356	3.562	3.47		.044		.046	3.433		.039		.188	18330	11580
CL-362	3.625	3.533		.044		.046	3.496		.039		.188	18650	11790
CL-368	3.687	3.595		.044		.046	3.557		.039		.188	18970	11990
CL-375	3.750	3.658		.044		.046	3.620		.039		.188	19300	12190
CL-381	3.812	3.720		.044		.046	3.681		.039		.188	19620	12400
CL-387	3.875	3.783		.044		.046	3.743		.039		.188	19940	12600
CL-393	3.937	3.845		.044		.046	3.805		.039		.188	20260	12800
CL-400	4.000	3.908		.044		.046	3.867		.039		.188	20580	13010
CL-412	4.125	4.015		.052		.055	3.973		.046		.225	23850	16040
CL-425	4.250	4.140		.052		.055	4.097		.046		.225	24570	16520
CL-437	4.375	4.265		.052		.055	4.221		.046		.225	25290	17010
CL-450	4.500	4.390		.052		.055	4.345		.046		.225	26010	17500
CL-462	4.625	4.515		.052		.055	4.468		.046		.225	26740	17980
CL-475	4.750	4.640		.052		.055	4.592		.046		.225	27460	18470
CL-487	4.875	4.765		.052		.055	4.715		.046		.225	28180	18950
CL-500	5.000	4.890		.052		.055	4.839		.046		.225	28900	19440
CL-525	5.250	5.119		.067		.066	5.067		.061		.225	40240	24490
CL-550	5.500	5.363		.067		.069	5.309		.061		.225	42160	26830
CL-575	5.750	5.606		.067		.072	5.550		.061		.225	44080	29260
CL-600	6.000	5.850		.067		.075	5.792		.061		.225	45990	31810
CL-625	6.250	6.094		.067		.078	6.033		.061		.265	47910	34460
CL-650	6.500	6.338		.067		.081	6.275		.061		.265	49830	37220
CL-675	6.750	6.581		.067		.085	6.515		.061		.265	51740	40560
CL-700	7.000	6.825		.067		.088	6.757		.061		.265	53660	43540
CL-725	7.250	7.069		.067		.091	6.998		.061		.300	55580	46640
CL-750	7.500	7.313		.067		.094	7.240		.061		.300	57490	49830
CL-775	7.750	7.556		.067		.097	7.480		.061		.300	59410	53140
CL-800	8.000	7.800		.067		.100	7.722		.061		.300	61320	56550
CL-825	8.250	8.044		.082		.103	7.964		.076		.345	78790	60070
CL-850	8.500	8.288		.082		.106	8.205		.076		.345	81180	63690
CL-875	8.750	8.531		.082		.110	8.446		.076		.345	83570	68040
CL-900	9.000	8.775		.082		.113	8.687		.076		.345	85950	71890
CL-925	9.250	9.019		.082		.116	8.929		.076		.345	88340	75850
CL-950	9.500	9.263		.082		.119	9.170		.076		.345	90730	79910
CL-975	9.750	9.506		.082		.122	9.411		.076		.345	93120	84080
CL-1000	10.000	9.750		.082		.125	9.653		.076		.345	95500	88360