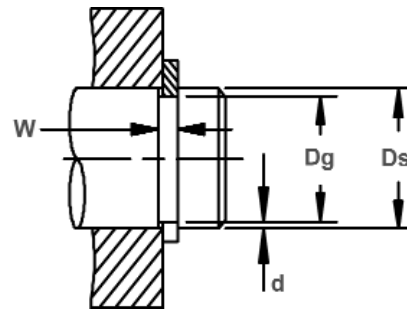
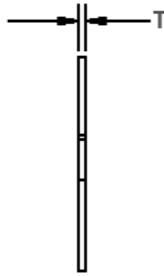
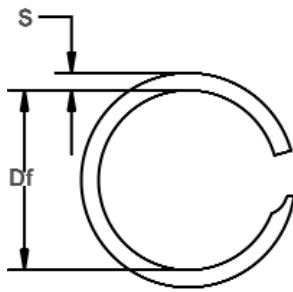


CL Spiral Shaft Rings

External, Light Duty

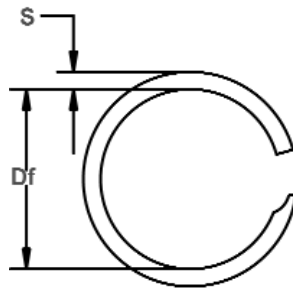
These single-turn retaining rings are ideal for light-duty applications, or where axial positioning is the primary function.



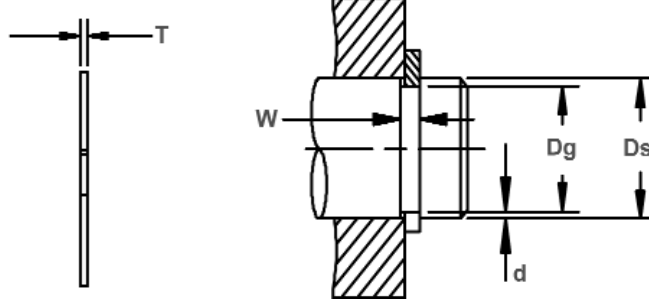
Free Diameter & Ring Measurements

Shaft Diameter & Groove Dimensions

RING NO.	SHAFT DIAMETER	GROOVE SIZE					RING SIZE						THURST LOAD (lbs.)		
		DIAMETER		WIDTH		DEPTH	FREE DIAMETER			THICKNESS		SECTION		RING Safety factor of 3	GROOVE Safety factor of 2
		(In.)	Dg	Tol.	W	Tol.	d	Df	Tol.	T	Tol.	S	Tol.	Pr	Pg
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	+.002	.021	.886		.021	+.0015	.065		2840	1390	
CL-100	1.000	.958		.026	-.000	.021	.949		.021	-.0015	.065		3040	1480	
CL-106	1.062	1.018		.031		.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	+.004	6390	3200	
CL-162	1.625	1.568		.039		.029	1.550		.031		.118	-.004	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	+.005	15760	9960	
CL-312	3.125	3.033		.044		.046	3.001	-.030	.039		.188	-.005	16080	10160	



Free Diameter & Ring Measurements



Shaft Diameter & Groove Dimensions

RING NO.	SHAFT DIAMETER	GROOVE SIZE					RING SIZE						THRUST LOAD (lbs.)		
		DIAMETER		WIDTH		DEPTH	FREE DIAMETER			THICKNESS		SECTION		RING Safety factor of 3	GROOVE Safety factor of 2
		(In.)	Dg	Tol.	W	Tol.	d	Df	Tol.	T	Tol.	S	Tol.		
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	+ .006	.044	- .000	.046	3.372	+ .000	.039		.188		18010	11380	
CL-356	3.562	3.47	- .006	.044		.046	3.433	- .030	.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	+ .005	23850	16040	
CL-425	4.250	4.140		.052		.055	4.097		.046		.225	- .005	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	+ .000	.046		.225		26010	17500	
CL-462	4.625	4.515		.052		.055	4.468	- .035	.046		.225		26740	17980	
CL-475	4.750	4.640		.052		.055	4.592		.046	+ .002	.225		27460	18470	
CL-487	4.875	4.765	+ .007	.052		.055	4.715	- .002	.046		.225		28180	18950	
CL-500	5.000	4.890	- .007	.052		.055	4.839		.046		.225		28900	19440	
CL-525	5.250	5.119		.067	+ .004	.066	5.067		.061		.225		40240	24490	
CL-550	5.500	5.363		.067	- .000	.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	+ .000	.061		.225		45990	31810	
CL-625	6.250	6.094		.067		.078	6.033	- .045	.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	+ .008	.067		.097	7.480		.061		.300		59410	53140	
CL-800	8.000	7.800	- .008	.067		.100	7.722	+ .000	.061		.300		61320	56550	
CL-825	8.250	8.044		.082		.103	7.964	- .060	.076		.345		78790	60070	
CL-850	8.500	8.288		.082		.106	8.205		.076		.345	+ .004	81180	63690	
CL-875	8.750	8.531		.082		.110	8.446		.076		.345	- .008	83570	68040	
CL-900	9.000	8.775		.082	+ .005	.113	8.687		.076		.345		85950	71890	
CL-925	9.250	9.019		.082	- .005	.116	8.929	+ .000	.076		.345		88340	75850	
CL-950	9.500	9.263		.082		.119	9.170	- .070	.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	