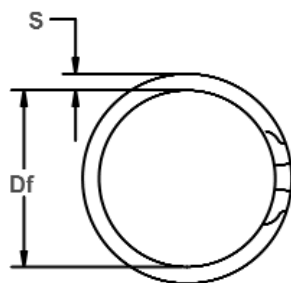


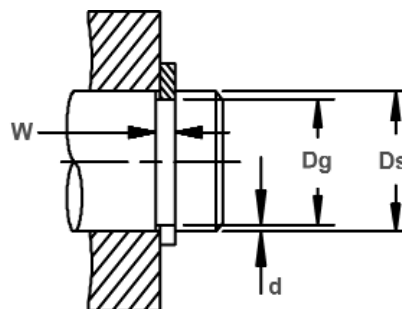
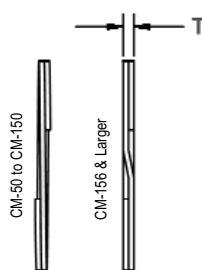
# **CM** Spiral Shaft Rings

## External, Medium Duty

These rings offer the greatest economy in price and size. They are able to handle approximately twice the thrust capacity of the CL series, and to be produced to military specifications if needed.

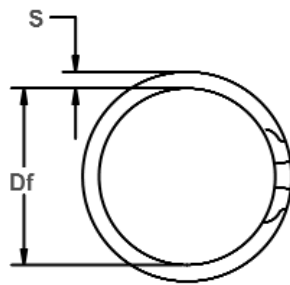


Free Diameter & Ring Measurements

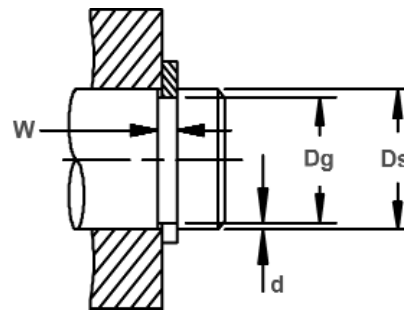
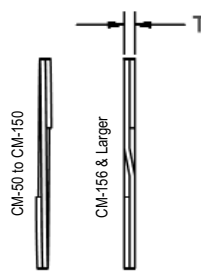


Shaft Diameter & Groove Dimensions

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	Tol.		
CM-50	.500	.474	+.002 -.002	.030		.013	.467		.025		.045		2000	460
CM-53	.531	.505		.030		.013	.498		.025		.045		2130	490
CM-55	.551	.525		.030		.013	.518		.025		.045		2210	510
CM-56	.562	.536		.030		.013	.529		.025		.045		2250	520
CM-59	.594	.569		.030		.013	.561		.025		.045		2380	550
CM-62	.625	.594		.030		.016	.585		.025		.055		2500	710
CM-65	.656	.625		.030		.016	.617		.025		.055		2630	740
CM-66	.669	.638		.030		.016	.629		.025		.055		2680	760
CM-68	.687	.656		.030		.016	.647		.025		.055		2750	780
CM-71	.718	.687		.030		.016	.679		.025		.055		2880	810
CM-75	.750	.719		.036		.016	.710		.031		.065		3360	850
CM-78	.781	.750		.036		.016	.741		.031		.065		3500	880
CM-81	.812	.781		.036		.016	.771		.031		.065		3640	920
CM-84	.843	.812		.036		.016	.803		.031		.065		3780	950
CM-87	.875	.838		.036		.019	.828		.031		.065		3920	1180
CM-90	.906	.869		.036		.019	.860		.031		.065		4060	1220
CM-93	.937	.900		.036		.019	.889		.031		.065		4200	1260
CM-96	.968	.925		.042		.021	.916		.037		.075		5180	1440
CM-98	.984	.941		.042		.021	.930		.037		.075		5260	1460
CM-100	1.000	.957		.042		.021	.946		.037		.075		5350	1480
CM-102	1.023	.980		.042		.021	.968		.037		.075		5470	1520
CM-103	1.031	.988		.042		.021	.978		.037		.075		5510	1530
CM-106	1.062	1.020		.042		.021	1.007		.037		.075		5680	1580
CM-109	1.093	1.051		.042		.021	1.040		.037		.075		5840	1620
CM-112	1.125	1.083		.042		.021	1.070		.037		.075		6020	1670
CM-115	1.156	1.114		.042		.021	1.102		.037		.075		6180	1720
CM-118	1.188	1.140		.048		.024	1.127		.043		.085		7380	2020
CM-121	1.218	1.170		.048		.024	1.159		.043		.085		7570	2070
CM-125	1.250	1.202		.048		.024	1.188		.043		.085		7770	2120
CM-128	1.281	1.233		.048		.024	1.221		.043		.085		7960	2170
CM-131	1.312	1.264		.048		.024	1.251		.043		.095		8150	2230
CM-134	1.343	1.295		.048		.024	1.282		.043		.095		8350	2280
CM-137	1.375	1.323		.048		.026	1.308		.043		.095		8540	2530
CM-140	1.406	1.354		.048		.026	1.340		.043		.095		8740	2580
CM-143	1.437	1.385		.048		.026	1.370		.043		.095		8930	2640
CM-146	1.468	1.416		.048		.026	1.402		.043		.095		9120	2700
CM-150	1.500	1.448		.048		.026	1.433		.043		.095		9320	2760



Free Diameter & Ring Measurements



Shaft Diameter & Groove Dimensions

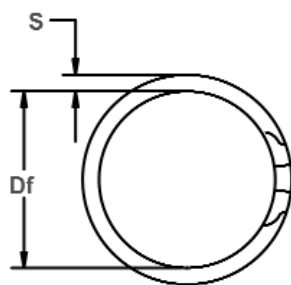
RING NO.	SHAFT DIAMETER (In.)	GROOVE SIZE					RING SIZE					THRUST LOAD (lbs.)	
		DIAMETER		WIDTH		DEPTH	FREE DIAMETER		THICKNESS		SECTION	RING Safety factor of 3	GROOVE Safety factor of 2
		Dg	Tol.	W	Tol.	d	Df	Tol.	T	Tol.	S		
CM-156	1.562	1.507		.056		.028	1.490		.049		.108	10100	3090
CM-157	1.575	1.520		.056		.028	1.503		.049		.108	10190	3120
CM-162	1.625	1.566		.056		.030	1.549		.049		.108	10510	3450
CM-168	1.687	1.628		.056		.030	1.610		.049		.118	10910	3580
CM-175	1.750	1.691	+.005 -.005	.056		.030	1.673		.049		.118	11310	3710
CM-177	1.771	1.708		.056		.032	1.690		.049		.118	11450	4010
CM-181	1.813	1.749		.056		.032	1.730	+.000 -.020	.049		.118	11720	4100
CM-187	1.875	1.808		.056		.034	1.789		.049		.128	12120	4510
CM-193	1.938	1.871		.056		.034	1.851		.049		.128	12530	4660
CM-196	1.969	1.902		.056		.034	1.882		.049		.128	12730	4730
CM-200	2.000	1.929		.056		.035	1.909		.049		.128	12930	4950
CM-206	2.062	1.992		.056		.035	1.971		.049		.128	13330	5100
CM-212	2.125	2.051		.056	+.004 -.000	.037	2.029		.049		.128	13740	5560
CM-215	2.156	2.082		.056		.037	2.060		.049		.138	13940	5640
CM-216	2.165	2.091		.056		.037	2.070		.049	+.003 -.003	.138	14000	5660
CM-218	2.188	2.113		.056		.037	2.092		.049		.138	14150	5720
CM-225	2.250	2.176		.056		.037	2.153		.049		.138	14550	5890
CM-231	2.312	2.234		.056		.039	2.211	+.000 -.025	.049		.138	14950	6370
CM-236	2.362	2.284		.056		.039	2.261		.049		.138	15270	6510
CM-237	2.375	2.297		.056		.039	2.273		.049		.138	15360	6550
CM-243	2.437	2.355		.056		.041	2.331		.049		.148	15760	7060
CM-250	2.500	2.418	+.006 -.006	.056		.041	2.394		.049		.148	16160	7250
CM-255	2.559	2.473		.056		.043	2.449		.049		.148	16550	7780
CM-256	2.562	2.476		.056		.043	2.452		.049		.148	16560	7790
CM-262	2.625	2.539		.056		.043	2.514		.049		.148	16970	7980
CM-268	2.688	2.597		.056		.045	2.572		.049		.158	17380	8550
CM-275	2.750	2.660		.056		.045	2.635		.049		.158	17780	8750
CM-281	2.813	2.722		.056		.045	2.696		.049		.168	18190	8950
CM-287	2.875	2.781		.056		.047	2.755		.049		.168	18590	9550
CM-293	2.937	2.843		.056		.047	2.817		.049		.168	18990	9760
CM-295	2.952	2.858		.056		.047	2.831	+.000 -.030	.049		.168	19090	9810
CM-300	3.000	2.904		.068		.048	2.877		.061		.168	24150	10180
CM-306	3.062	2.966		.068		.048	2.938		.061		.168	24650	10390
CM-312	3.125	3.027		.068	+.005 -.000	.049	3.000		.061		.178	25150	10820
CM-314	3.149	3.051		.068		.049	3.023		.061		.178	25350	10910
CM-318	3.187	3.089		.068		.049	3.061		.061		.178	25650	11040
CM-325	3.250	3.150		.068		.050	3.121		.061		.178	26160	11490

# CM Spiral Shaft Rings

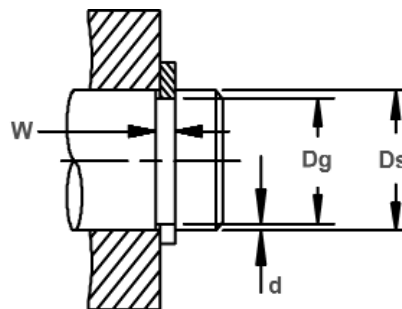
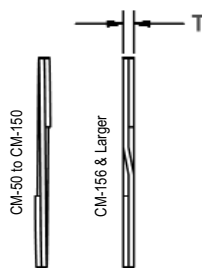
## External, Medium Duty

These rings offer the greatest economy in price and size.

They are able to handle approximately twice the thrust capacity of the CL series, and to be produced to military specifications if needed.

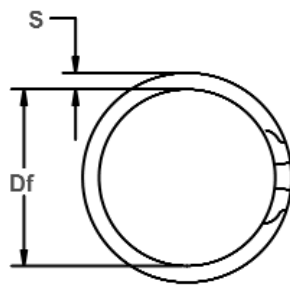


Free Diameter & Ring Measurements

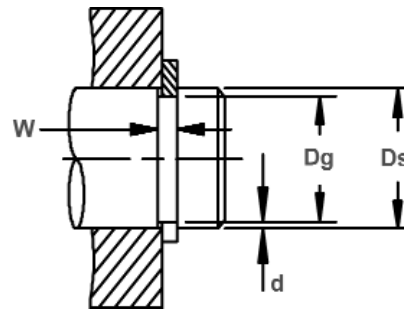
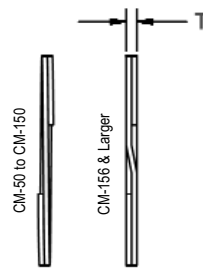


Shaft Diameter & Groove Dimensions

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
		Ds	Dg Tol.	W Tol.	d	Df Tol.	T Tol.	S Tol.					
CM-331	3.312	3.208		.068	.052	3.180		.061		.188		26660	12170
CM-334	3.343	3.239		.068	.052	3.210	+ .000	.061		.188		26910	12290
CM-337	3.375	3.271		.068	.052	3.242	- .030	.061		.188		27170	12410
CM-343	3.437	3.331		.068	.053	3.301		.061		.188		27660	12880
CM-350	3.500	3.394		.068	.053	3.363		.061		.188		28170	13110
CM-354	3.543	3.433		.068	.055	3.402		.061		.198		28520	13770
CM-356	3.562	3.452		.068	.055	3.422		.061		.198		28670	13850
CM-362	3.625	3.515		.068	.055	3.483		.061		.198		29180	14090
CM-368	3.687	3.575		.068	.056	3.543		.061		.198		29680	14600
CM-374	3.740	3.628		.068	.056	3.597		.061		.198		30100	14800
CM-375	3.750	3.638		.068	.056	3.606		.061		.198		30180	14840
CM-381	3.812	3.700		.068	.056	3.668		.061	+ .003	.198		30680	15090
CM-387	3.875	3.757		.068	.059	3.724		.061	- .003	.208		31190	16160
CM-393	3.938	3.820		.068	.059	3.784		.061		.208	+ .005	31700	16420
CM-400	4.000	3.876	+ .006	.068	.062	3.842		.061		.218	- .005	32200	17530
CM-406	4.063	3.939	- .006	.068	.062	3.906		.061		.218		32700	17810
CM-412	4.125	4.000		.068	.062	3.967		.061		.218		33200	18080
CM-413	4.134	4.010		.068	.062	3.975		.061		.218		33270	18120
CM-418	4.188	4.058		.068	.065	4.022	+ .000	.061		.218		33710	19240
CM-425	4.250	4.120		.068	.065	4.084	- .040	.061		.228		34210	19530
CM-431	4.312	4.182		.068	.065	4.147		.061		.228		34710	19810
CM-433	4.331	4.200		.068	.065	4.164		.061		.228		34860	19900
CM-437	4.375	4.245		.068	.065	4.208		.061		.228		35210	20100
CM-443	4.437	4.307		.068	.065	4.271		.061		.228		35710	20390
CM-450	4.500	4.364		.068	.068	4.326		.061		.238		36220	21630
CM-456	4.562	4.422		.079	.070	4.384		.072		.250		43340	22570
CM-462	4.625	4.485		.079	.070	4.447		.072		.250		43940	22890
CM-468	4.687	4.547		.079	.070	4.508		.072		.250		44530	23190
CM-472	4.724	4.584		.079	.070	4.546		.072		.250		44880	23370
CM-475	4.750	4.610		.079	.070	4.571		.072	+ .004	.250		45130	23500
CM-481	4.812	4.672		.079	.070	4.633		.072	- .004	.250		45720	23810
CM-487	4.875	4.735		.079	.070	4.695		.072		.250		46310	24120
CM-493	4.937	4.797		.079	.070	4.757		.072		.250		46900	24430
CM-500	5.000	4.856		.079	.072	4.816		.072		.250		47500	25450
CM-511	5.118	4.974		.079	.072	4.934		.072		.250		48620	26050
CM-512	5.125	4.981		.079	.072	4.939		.072		.250		48690	26080



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
		Ds	Dg Tol.	W Tol.	d	Df Tol.	T Tol.	S Tol.					
CM-525	5.250	5.107		.079	.072	5.064	.072	.250				49880	26720
CM-537	5.375	5.228		.079	.074	5.187	.072	.250				51060	28120
CM-550	5.500	5.353		.079	.074	5.308	.072	.250				52250	28770
CM-551	5.511	5.364	+.007 -.007	.079	.074	5.320	+.000 -.050	.250	+.005 -.005			52360	28830
CM-562	5.625	5.478		.079	.074	5.433		.250				53440	29420
CM-575	5.750	5.597		.079	.077	5.550	.072	.250				54630	31300
CM-587	5.875	5.722		.079	.077	5.674	.072	.250				55810	31980
CM-590	5.905	5.752		.079	.077	5.705	.072	.250				56100	32140
CM-600	6.000	5.847		.079	.077	5.798	.072	.250				57000	32660
CM-612	6.125	5.953		.094	.086	5.903	.086	.312				69500	37230
CM-625	6.250	6.078		.094	.086	6.026	.086	.312				70920	37990
CM-629	6.299	6.127		.094	.086	6.076	.086	.312				71480	38290
CM-637	6.375	6.203		.094	.086	6.152	.086	.312				72340	38750
CM-650	6.500	6.328		.094	.086	6.274	.086	.312				73760	39510
CM-662	6.625	6.443		.094	.091	6.390	+.000 -.060	.312	+.004 -.004			75180	42620
CM-675	6.750	6.568		.094	.091	6.513		.312				76600	43420
CM-687	6.875	6.693		.094	.091	6.638	.086	.312				78010	44220
CM-700	7.000	6.818		.094	.091	6.761	.086	.312				79430	45030
CM-712	7.125	6.933		.094	.096	6.877	.086	.312				80850	48350
CM-725	7.250	7.058		.094	.096	6.999	.086	.312				82270	49200
CM-737	7.375	7.183		.094	.096	7.125	.086	.312				83690	50050
CM-750	7.500	7.308	+.008 -.008	.094	.096	7.250	+.000 -.070	.312	+.006 -.006			85110	50890
CM-762	7.625	7.423		.094	.101	7.363		.312				86520	54440
CM-775	7.750	7.548		.094	.101	7.486	.086	.312				87940	55330
CM-787	7.875	7.673		.094	.101	7.611	.086	.312				89360	56220
CM-800	8.000	7.798		.094	.101	7.734	.086	.312				90780	57110
CM-825	8.250	8.038		.094	.106	7.972	.086	.375				93620	61820
CM-850	8.500	8.288		.094	.106	8.220	.086	.375				96450	63690
CM-875	8.750	8.528		.094	.111	8.459	.086	.375				99290	68650
CM-900	9.000	8.778		.094	.111	8.707	.086	.375				102130	70620
CM-925	9.250	9.018		.094	.116	8.945	.086	.375				104960	75850
CM-950	9.500	9.268		.094	.116	9.194	.086	.375				107800	77900
CM-975	9.750	9.508		.094	.121	9.432	.086	.375				110640	83390
CM-1000	10.000	9.758		.094	.121	9.680	.086	.375				113470	85530
CM-1025	10.250	9.998		.094	.126	9.918	.086	.375				116310	91290
CM-1050	10.500	10.248		.094	.126	10.166	.086	.375				119150	93520
CM-1075	10.750	10.488		.094	.131	10.405	.086	.375				121990	99540
CM-1100	11.000	10.738		.094	.131	10.653	.086	.375				124820	101860