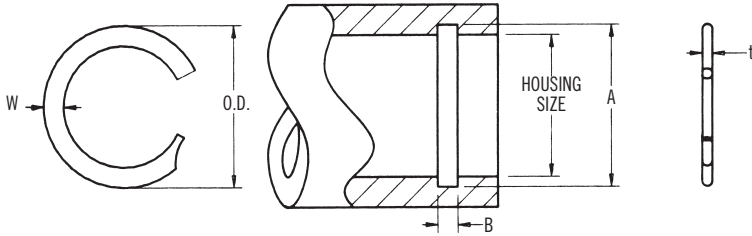


RETAINING RINGS



Light duty single coil retaining rings are installed in applications where light axial retainment is required. A single notched end is supplied for removal.

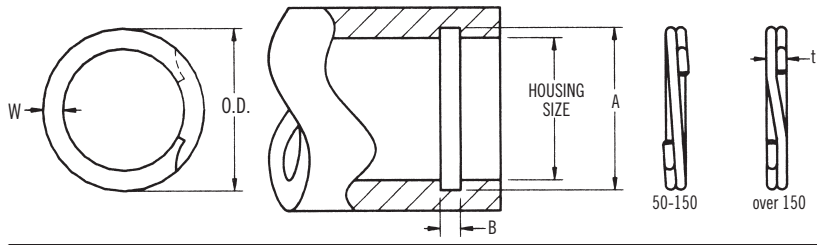
STOCK RETAINING RINGS - INTERNAL LIGHT DUTY

Catalog Number	Housing Size		Groove Size				Maximum Thrust Load Ring		Ring Specifications					
			(A)		(B)				O.D.		Thickness Coils (t)		Material Width (W)	
	in	mm	in	mm	in	mm	lb	N	in	mm	in	mm	in	mm
CI 50	0.500	12.70	0.528	13.41	0.022	0.56	1300	5782	0.531	13.49	0.018	0.46	0.045	1.14
CI 62	0.625	15.88	0.653	16.59	0.022	0.56	1630	7250	0.656	16.66	0.018	0.46	0.045	1.14
CI 68	0.687	17.45	0.715	18.16	0.022	0.56	1790	7962	0.719	18.26	0.018	0.46	0.045	1.14
CI 75	0.750	19.05	0.779	19.79	0.022	0.56	1950	8674	0.783	19.89	0.018	0.46	0.045	1.14
CI 81	0.812	20.62	0.854	21.69	0.026	0.66	2460	10942	0.862	21.89	0.021	0.53	0.065	1.65
CI 87	0.875	22.23	0.917	23.29	0.026	0.66	2660	11832	0.926	23.52	0.021	0.53	0.065	1.65
CI 93	0.937	23.80	0.979	24.87	0.026	0.66	2840	12632	0.989	25.12	0.021	0.53	0.065	1.65
CI 100	1.000	25.40	1.042	26.47	0.026	0.66	3030	13477	1.052	26.72	0.021	0.53	0.065	1.65
CI 106	1.062	26.97	1.106	28.09	0.031	0.79	3500	15568	1.117	28.37	0.025	0.64	0.088	2.24
CI 112	1.125	28.58	1.169	29.69	0.031	0.79	3710	16502	1.181	30.00	0.025	0.64	0.088	2.24
CI 118	1.187	30.15	1.231	31.27	0.031	0.79	3910	17392	1.242	31.55	0.025	0.64	0.088	2.24
CI 125	1.250	31.75	1.294	32.87	0.031	0.79	4120	18326	1.317	33.45	0.025	0.64	0.088	2.24
CI 131	1.312	33.32	1.356	34.44	0.031	0.79	4330	19260	1.369	34.77	0.025	0.64	0.088	2.24
CI 137	1.375	34.93	1.419	36.04	0.031	0.79	4530	20149	1.433	36.40	0.025	0.64	0.088	2.24
CI 143	1.437	36.50	1.481	37.62	0.031	0.79	4740	21084	1.496	38.00	0.025	0.64	0.088	2.24
CI 150	1.500	38.10	1.544	39.22	0.031	0.79	4950	22018	1.559	39.60	0.025	0.64	0.088	2.24
CI 156	1.562	39.67	1.619	41.12	0.039	0.99	6390	28423	1.637	41.58	0.031	0.79	0.118	3.00
CI 162	1.625	41.28	1.682	42.72	0.039	0.99	6650	29579	1.701	43.21	0.031	0.79	0.118	3.00
CI 168	1.687	42.85	1.744	44.30	0.039	0.99	6900	30691	1.763	44.78	0.031	0.79	0.118	3.00
CI 175	1.750	44.45	1.807	45.90	0.039	0.99	7160	31848	1.827	46.41	0.031	0.79	0.118	3.00
CI 181	1.812	46.02	1.869	47.47	0.039	0.99	7410	32960	1.890	48.01	0.031	0.79	0.118	3.00
CI 187	1.875	47.63	1.963	49.07	0.039	0.99	7670	34116	1.953	49.61	0.031	0.79	0.118	3.00
CI 193	1.937	49.20	1.994	50.65	0.039	0.99	7920	35228	2.016	51.21	0.031	0.79	0.118	3.00
CI 200	2.000	50.80	2.057	52.25	0.039	0.99	8180	36385	2.079	52.81	0.031	0.79	0.118	3.00
CI 212	2.125	53.98	2.201	55.91	0.039	0.99	8690	38653	2.226	56.54	0.031	0.79	0.158	4.01
CI 225	2.250	57.15	2.326	59.08	0.039	0.99	9200	40922	2.352	59.74	0.031	0.79	0.158	4.01
CI 237	2.375	60.33	2.451	62.26	0.039	0.99	9710	43190	2.478	62.94	0.031	0.79	0.158	4.01
CI 250	2.500	63.50	2.576	65.43	0.039	0.99	10220	45459	2.605	66.17	0.031	0.79	0.158	4.01
CI 262	2.625	66.68	2.701	68.61	0.039	0.99	10740	47772	2.731	69.37	0.031	0.79	0.158	4.01
CI 275	2.750	69.85	2.826	71.78	0.039	0.99	11250	50040	2.857	72.57	0.031	0.79	0.158	4.01
CI 287	2.875	73.03	2.951	74.96	0.039	0.99	11760	52308	2.983	75.77	0.031	0.79	0.158	4.01
CI 300	3.000	76.20	3.076	78.13	0.039	0.99	12270	54577	3.110	78.99	0.031	0.79	0.158	4.01
CI 312	3.125	79.38	3.217	81.71	0.044	1.12	16080	71524	3.251	82.58	0.039	0.99	0.188	4.78
CI 325	3.250	82.55	3.342	84.89	0.044	1.12	16720	74371	3.377	85.78	0.039	0.99	0.188	4.78
CI 337	3.375	85.73	3.467	88.06	0.044	1.12	17370	77262	3.504	89.00	0.039	0.99	0.188	4.78
CI 350	3.500	88.90	3.592	91.24	0.044	1.12	18010	80108	3.630	92.20	0.039	0.99	0.188	4.78
CI 362	3.625	92.08	3.717	94.41	0.044	1.12	18650	82955	3.766	95.66	0.039	0.99	0.188	4.78
CI 375	3.750	95.25	3.842	97.59	0.044	1.12	19300	85846	3.892	98.86	0.039	0.99	0.188	4.78
CI 387	3.875	98.43	3.967	100.76	0.044	1.12	19940	88693	4.009	101.83	0.039	0.99	0.188	4.78
CI 400	4.000	101.60	4.092	103.94	0.044	1.12	20580	91540	4.135	105.03	0.039	0.99	0.188	4.78

Groove Tolerances (Inches)

Ring Tolerances (Inches)

A	B	O.D.	t
CI 50 - CI 75 : ±.002	CI 50 - CI 150: +.002; -.000	CI 50 - CI 100: +.013; -.000	CI 50 - CI 150: ± .0015
CI 81 - CI 100: ±.003	CI 156 - CI 400: +.003; -.000	CI 106 - CI 150: +.015; -.000	CI 156 - CI 400: ± .0020
CI 106 - CI 150: ±.004		CI 156 - CI 200: +.020; -.000	
CI 156 - CI 200: ±.005		CI 212 - CI 300: +.025; -.000	
CI 212 - CI 400: ±.006		CI 312 - CI 400: +.030; -.000	

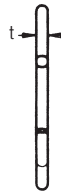
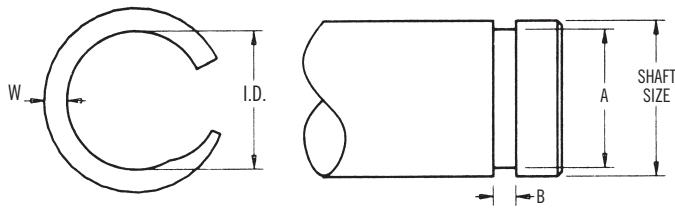


Medium duty multiple coil retaining rings are designed to handle medium thrust loads. When specified in advance these rings can meet Aerospace and Military standards.

STOCK RETAINING RINGS - INTERNAL MEDIUM DUTY														
Catalog Number	Housing Size		Groove Size				Maximum Thrust Load Ring		Ring Specifications					
			(A)		(B)				O.D.		Thickness Coils (t)		Material Width (W)	
	in	mm	in	mm	in	mm	lb	N	in	mm	in	mm	in	mm
AI 50	0.500	12.70	0.526	13.36	0.030	0.76	2000	8896	0.532	13.51	0.025	0.64	0.045	1.14
AI 62	0.625	15.88	0.651	16.54	0.030	0.76	2500	11120	0.658	16.71	0.025	0.64	0.045	1.14
AI 68	0.687	17.45	0.713	18.11	0.030	0.76	2750	12232	0.720	18.29	0.025	0.64	0.045	1.14
AI 75	0.750	19.05	0.782	19.86	0.036	0.91	3360	14945	0.790	20.07	0.031	0.79	0.065	1.65
AI 81	0.812	20.62	0.843	21.41	0.036	0.91	3640	16191	0.853	21.67	0.031	0.79	0.065	1.65
AI 87	0.875	22.23	0.912	23.16	0.036	0.91	3920	17436	0.922	23.42	0.031	0.79	0.065	1.65
AI 93	0.938	23.83	0.975	24.77	0.036	0.91	4200	18682	0.986	25.04	0.031	0.79	0.065	1.65
AI 100	1.000	25.40	1.043	26.49	0.042	1.07	4480	19927	1.054	26.77	0.037	0.94	0.075	1.91
AI 106	1.062	26.97	1.104	28.04	0.042	1.07	5680	25265	1.117	28.37	0.037	0.94	0.075	1.91
AI 112	1.125	28.58	1.167	29.64	0.042	1.07	6010	26732	1.180	29.97	0.037	0.94	0.075	1.91
AI 118	1.188	30.18	1.236	31.39	0.048	1.22	7380	32826	1.249	31.72	0.043	1.09	0.085	2.16
AI 125	1.250	31.75	1.298	32.97	0.048	1.22	7770	34561	1.312	33.32	0.043	1.09	0.085	2.16
AI 131	1.312	33.32	1.360	34.54	0.048	1.22	8150	36251	1.374	34.90	0.043	1.09	0.085	2.16
AI 137	1.375	34.93	1.427	36.25	0.048	1.22	8540	37986	1.442	36.63	0.043	1.09	0.095	2.41
AI 143	1.437	36.50	1.489	37.82	0.048	1.22	8930	39721	1.504	38.20	0.043	1.09	0.095	2.41
AI 150	1.500	38.10	1.552	39.42	0.048	1.22	9320	41455	1.567	39.80	0.043	1.09	0.095	2.41
AI 156	1.562	39.67	1.617	41.07	0.056	1.42	10100	44925	1.634	41.50	0.049	1.24	0.108	2.74
AI 162	1.625	41.28	1.684	42.77	0.056	1.42	10510	46748	1.701	43.21	0.049	1.24	0.108	2.74
AI 168	1.687	42.85	1.750	44.45	0.056	1.42	10910	48528	1.768	44.91	0.049	1.24	0.118	3.00
AI 175	1.750	44.45	1.813	46.05	0.056	1.42	11310	50307	1.834	46.58	0.049	1.24	0.118	3.00
AI 181	1.813	46.05	1.875	47.63	0.056	1.42	11720	52131	1.894	48.11	0.049	1.24	0.118	3.00
AI 187	1.875	47.63	1.942	49.33	0.056	1.42	12120	53910	1.960	49.78	0.049	1.24	0.118	3.00
AI 193	1.938	49.23	2.005	50.93	0.056	1.42	12530	55733	2.025	51.44	0.049	1.24	0.118	3.00
AI 200	2.000	50.80	2.071	52.60	0.056	1.42	12930	57513	2.091	53.11	0.049	1.24	0.128	3.25
AI 212	2.125	53.98	2.195	55.75	0.056	1.42	13740	61116	2.217	56.31	0.049	1.24	0.128	3.25
AI 225	2.250	57.15	2.324	59.03	0.056	1.42	14550	64718	2.347	59.61	0.049	1.24	0.138	3.51
AI 237	2.375	60.33	2.453	62.31	0.056	1.42	15350	68277	2.476	62.89	0.049	1.24	0.138	3.51
AI 250	2.500	63.50	2.582	65.58	0.056	1.42	16160	71880	2.606	66.19	0.049	1.24	0.148	3.76
AI 262	2.625	66.68	2.711	68.86	0.056	1.42	16970	75483	2.736	69.49	0.049	1.24	0.148	3.76
AI 275	2.750	69.85	2.841	72.16	0.056	1.42	17780	79085	2.865	72.77	0.049	1.24	0.158	4.01
AI 287	2.875	73.03	2.969	75.41	0.056	1.42	18590	82688	2.995	76.07	0.049	1.24	0.168	4.27
AI 300	3.000	76.20	3.096	78.64	0.068	1.73	24150	107419	3.122	79.30	0.061	1.55	0.168	4.27
AI 312	3.125	79.38	3.223	81.86	0.068	1.73	25150	111867	3.251	82.58	0.061	1.55	0.178	4.52
AI 325	3.250	82.55	3.350	85.09	0.068	1.73	26160	116360	3.379	85.83	0.061	1.55	0.178	4.52
AI 337	3.375	85.73	3.479	88.37	0.068	1.73	27160	120808	3.509	89.13	0.061	1.55	0.188	4.78
AI 350	3.500	88.90	3.606	91.59	0.068	1.73	28170	125300	3.636	92.35	0.061	1.55	0.188	4.78
AI 362	3.625	92.08	3.737	94.92	0.068	1.73	29180	129793	3.769	95.73	0.061	1.55	0.198	5.03
AI 375	3.750	95.25	3.862	98.09	0.068	1.73	30180	134241	3.894	98.91	0.061	1.55	0.198	5.03
AI 387	3.875	98.43	3.993	101.42	0.068	1.73	30680	136465	4.025	102.24	0.061	1.55	0.208	5.28
AI 400	4.000	101.60	4.124	104.75	0.068	1.73	32190	143181	4.157	105.59	0.061	1.55	0.218	5.54

Groove Tolerances (Inches)		Ring Tolerances (Inches)	
A	B	O.D.	t
AI 50 - AI 75 : ±.002	AI 50 - AI 112: +.003; -.000	AI 50 - AI 100: +.013; -.000	AI 50 - AI 150: ± .002
AI 81 - AI 100: ±.003	AI 118 - AI 287: +.004; -.000	AI 106 - AI 150: +.015; -.000	AI 156 - AI 400: ± .003
AI 106 - AI 150: ±.004	AI 300 - AI 400: +.005; -.000	AI 156 - AI 200: +.020; -.000	
AI 156 - AI 200: ±.005		AI 212 - AI 300: +.025; -.000	
AI 212 - AI 400: ±.006		AI 312 - AI 400: +.030; -.000	





Light duty single coil retaining rings are installed in applications where light axial retention is required. A single notched end is supplied for removal.

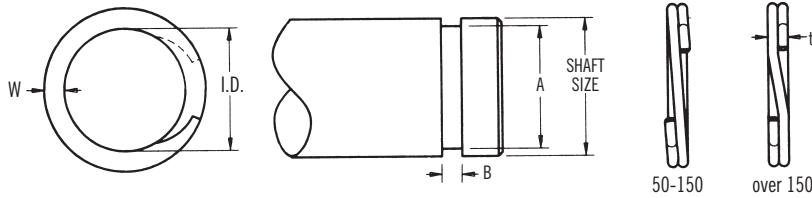
STOCK RETAINING RINGS - EXTERNAL LIGHT DUTY

Catalog Number	Shaft Size		Groove Size				Maximum Thrust Load Ring		Ring Specifications					
			(A)		(B)				I.D.		Thickness Coils (t)		Material Width (W)	
	in	mm	in	mm	in	mm	lb	N	in	mm	in	mm	in	mm
CE 50	0.500	12.70	0.472	11.99	0.022	0.56	1300	5782	0.467	11.86	0.018	0.46	0.045	1.14
CE 62	0.625	15.88	0.597	15.16	0.022	0.56	1630	7250	0.591	15.01	0.018	0.46	0.045	1.14
CE 68	0.687	17.45	0.659	16.74	0.022	0.56	1790	7962	0.652	16.56	0.018	0.46	0.045	1.14
CE 75	0.750	19.05	0.722	18.34	0.022	0.56	1950	8674	0.715	18.16	0.018	0.46	0.045	1.14
CE 81	0.812	20.62	0.770	19.56	0.026	0.66	2460	10942	0.762	19.35	0.021	0.53	0.065	1.65
CE 87	0.875	22.23	0.833	21.16	0.026	0.66	2660	11832	0.825	20.96	0.021	0.53	0.065	1.65
CE 93	0.937	23.80	0.895	22.73	0.026	0.66	2840	12632	0.886	22.50	0.021	0.53	0.065	1.65
CE 100	1.000	25.40	0.958	24.33	0.026	0.66	3030	13477	0.949	24.10	0.021	0.53	0.065	1.65
CE 106	1.062	26.97	1.018	25.86	0.031	0.79	3500	15568	1.008	25.60	0.025	0.64	0.088	2.24
CE 112	1.125	28.58	1.081	27.46	0.031	0.79	3710	16502	1.071	27.20	0.025	0.64	0.088	2.24
CE 118	1.187	30.15	1.143	29.03	0.031	0.79	3910	17392	1.132	28.75	0.025	0.64	0.088	2.24
CE 125	1.250	31.75	1.206	30.63	0.031	0.79	4120	18326	1.194	30.33	0.025	0.64	0.088	2.24
CE 131	1.312	33.32	1.268	32.21	0.031	0.79	4330	19260	1.255	31.88	0.025	0.64	0.088	2.24
CE 137	1.375	34.93	1.331	33.81	0.031	0.79	4530	20149	1.318	33.48	0.025	0.64	0.088	2.24
CE 143	1.437	36.50	1.393	35.38	0.031	0.79	4740	21084	1.379	35.03	0.025	0.64	0.088	2.24
CE 150	1.500	38.10	1.456	36.98	0.031	0.79	4950	22018	1.442	36.63	0.025	0.64	0.088	2.24
CE 156	1.562	39.67	1.505	38.23	0.039	0.99	6390	28423	1.488	37.80	0.031	0.79	0.118	3.00
CE 162	1.625	41.28	1.568	39.83	0.039	0.99	6650	29579	1.550	39.37	0.031	0.79	0.118	3.00
CE 168	1.687	42.85	1.630	41.40	0.039	0.99	6900	30691	1.612	40.94	0.031	0.79	0.118	3.00
CE 175	1.750	44.45	1.693	43.00	0.039	0.99	7150	31803	1.674	42.52	0.031	0.79	0.118	3.00
CE 181	1.812	46.02	1.755	44.58	0.039	0.99	7410	32960	1.736	44.09	0.031	0.79	0.118	3.00
CE 187	1.875	47.63	1.818	46.18	0.039	0.99	7670	34116	1.798	45.67	0.031	0.79	0.118	3.00
CE 193	1.937	49.20	1.880	47.75	0.039	0.99	7920	35228	1.859	47.22	0.031	0.79	0.118	3.00
CE 200	2.000	50.80	1.943	49.35	0.039	0.99	8180	36385	1.922	48.82	0.031	0.79	0.118	3.00
CE 212	2.125	53.98	2.049	52.04	0.039	0.99	8690	38653	2.026	51.46	0.031	0.79	0.158	4.01
CE 225	2.250	57.15	2.174	55.22	0.039	0.99	9200	40922	2.149	54.58	0.031	0.79	0.158	4.01
CE 237	2.375	60.33	2.299	58.39	0.039	0.99	9710	43190	2.273	57.73	0.031	0.79	0.158	4.01
CE 250	2.500	63.50	2.424	61.57	0.039	0.99	10220	45459	2.397	60.88	0.031	0.79	0.158	4.01
CE 262	2.625	66.68	2.549	64.74	0.039	0.99	10740	47772	2.521	64.03	0.031	0.79	0.158	4.01
CE 275	2.750	69.85	2.674	67.92	0.039	0.99	11250	50040	2.644	67.16	0.031	0.79	0.158	4.01
CE 287	2.875	73.03	2.799	71.09	0.039	0.99	11760	52308	2.768	70.31	0.031	0.79	0.158	4.01
CE 300	3.000	76.20	2.924	74.27	0.039	0.99	12270	54577	2.892	73.46	0.031	0.79	0.158	4.01
CE 312	3.125	79.38	3.033	77.04	0.044	1.12	16080	71524	3.001	76.23	0.039	0.99	0.188	4.78
CE 325	3.250	82.55	3.158	80.21	0.044	1.12	16720	74371	3.125	79.38	0.039	0.99	0.188	4.78
CE 337	3.375	85.73	3.283	83.39	0.044	1.12	17370	77262	3.248	82.50	0.039	0.99	0.188	4.78
CE 350	3.500	88.90	3.408	86.56	0.044	1.12	18010	80108	3.372	85.65	0.039	0.99	0.188	4.78
CE 362	3.625	92.08	3.533	89.74	0.044	1.12	18650	82955	3.496	88.80	0.039	0.99	0.188	4.78
CE 375	3.750	95.25	3.658	92.91	0.044	1.12	19300	85846	3.620	91.95	0.039	0.99	0.188	4.78
CE 387	3.875	98.43	3.783	96.09	0.044	1.12	19940	88693	3.743	95.07	0.039	0.99	0.188	4.78
CE 400	4.000	101.6	3.906	99.26	0.044	1.12	20580	91540	3.867	98.22	0.039	0.99	0.188	4.78

Groove Tolerances (Inches)

Ring Tolerances (Inches)

A	B	I.D.	t
CE 50 - CE 75 : ±.002	CE 50 - CE 150: +.002; -.000	CE 50 - CE 75 : +.000; -.013	CE 50 - CE 150: ±.0015
CE 81 - CE 100: ±.003	CE 156 - CE 400: +.003; -.000	CE 81 - CE 100: +.000; -.015	CE 156 - CE 400: ±.0020
CE 106 - CE 150: ±.004		CE 106 - CE 150: +.000; -.020	
CE 156 - CE 200: ±.005		CE 156 - CE 200: +.000; -.025	
CE 212 - CE 400: ±.006		CE 212 - CE 400: +.000; -.030	



Medium duty multiple coil retaining rings are designed to handle medium thrust loads. When specified in advance these rings can meet Aerospace and Military standards.

STOCK RETAINING RINGS - EXTERNAL MEDIUM DUTY														
Catalog Number	Shaft Size		Groove Size				Maximum Thrust Load Ring		Ring Specifications					
			(A)		(B)				I.D.		Thickness Coils (t)		Material Width (W)	
	in	mm	in	mm	in	mm	lb	N	in	mm	in	mm	in	mm
AE 50	0.500	12.70	0.474	12.04	0.030	0.76	2000	8896	0.467	11.86	0.025	0.64	0.045	1.14
AE 62	0.625	15.88	0.594	15.09	0.030	0.76	2500	11120	0.585	14.86	0.025	0.64	0.055	1.40
AE 68	0.687	17.45	0.656	16.66	0.030	0.76	2750	12232	0.647	16.43	0.025	0.64	0.055	1.40
AE 75	0.750	19.05	0.719	18.26	0.036	0.91	3360	14945	0.710	18.03	0.031	0.79	0.065	1.65
AE 81	0.812	20.62	0.781	19.84	0.036	0.91	3640	16191	0.771	19.58	0.031	0.79	0.065	1.65
AE 87	0.875	22.23	0.838	21.29	0.036	0.91	3920	17436	0.828	21.03	0.031	0.79	0.065	1.65
AE 93	0.937	23.80	0.900	22.86	0.036	0.91	4200	18682	0.889	22.58	0.031	0.79	0.065	1.65
AE 98	0.984	24.99	0.941	23.90	0.042	1.07	5260	23396	0.930	23.62	0.037	0.94	0.075	1.91
AE 100	1.000	25.40	0.957	24.31	0.042	1.07	5350	23797	0.946	24.03	0.037	0.94	0.075	1.91
AE 102	1.023	25.98	0.980	24.89	0.042	1.07	5470	24331	0.968	24.59	0.037	0.94	0.075	1.91
AE 106	1.062	26.97	1.020	25.91	0.042	1.07	5680	25265	1.007	25.58	0.037	0.94	0.075	1.91
AE 112	1.125	28.58	1.083	27.51	0.042	1.07	6010	26732	1.070	27.18	0.037	0.94	0.075	1.91
AE 118	1.188	30.18	1.140	28.96	0.048	1.22	7380	32826	1.127	28.63	0.043	1.09	0.085	2.16
AE 125	1.250	31.75	1.202	30.53	0.048	1.22	7770	34561	1.188	30.18	0.043	1.09	0.085	2.16
AE 131	1.312	33.32	1.264	32.11	0.048	1.22	8150	36251	1.251	31.78	0.043	1.09	0.095	2.41
AE 137	1.375	34.93	1.323	33.60	0.048	1.22	8540	37986	1.308	33.22	0.043	1.09	0.095	2.41
AE 143	1.437	36.50	1.385	35.18	0.048	1.22	8930	39721	1.370	34.80	0.043	1.09	0.095	2.41
AE 150	1.500	38.10	1.448	36.78	0.048	1.22	9320	41455	1.433	36.40	0.043	1.09	0.095	2.41
AE 156	1.562	39.67	1.507	38.28	0.056	1.42	10100	44925	1.490	37.85	0.049	1.24	0.108	2.74
AE 162	1.625	41.28	1.566	39.78	0.056	1.42	10510	46748	1.549	39.34	0.049	1.24	0.108	2.74
AE 168	1.687	42.85	1.628	41.35	0.056	1.42	10910	48528	1.610	40.89	0.049	1.24	0.118	3.00
AE 175	1.750	44.45	1.691	42.95	0.056	1.42	11310	50307	1.673	42.49	0.049	1.24	0.118	3.00
AE 181	1.813	46.05	1.749	44.42	0.056	1.42	11720	52131	1.730	43.94	0.049	1.24	0.118	3.00
AE 187	1.875	47.63	1.808	45.92	0.056	1.42	12120	53910	1.789	45.44	0.049	1.24	0.128	3.25
AE 196	1.969	50.01	1.902	48.31	0.056	1.42	12730	56623	1.882	47.80	0.049	1.24	0.128	3.25
AE 200	2.000	50.80	1.929	49.00	0.056	1.42	12930	57513	1.909	48.49	0.049	1.24	0.128	3.25
AE 212	2.125	53.98	2.051	52.10	0.056	1.42	13740	61116	2.029	51.54	0.049	1.24	0.128	3.25
AE 225	2.250	57.15	2.176	55.27	0.056	1.42	14550	64718	2.153	54.69	0.049	1.24	0.138	3.51
AE 231	2.312	58.72	2.234	56.74	0.056	1.42	14950	66498	2.211	56.16	0.049	1.24	0.138	3.51
AE 237	2.375	60.33	2.297	58.34	0.056	1.42	15350	68277	2.273	57.73	0.049	1.24	0.138	3.51
AE 250	2.500	63.50	2.418	61.42	0.056	1.42	16160	71880	2.394	60.81	0.049	1.24	0.148	3.76
AE 262	2.625	66.68	2.539	64.49	0.056	1.42	16970	75483	2.514	63.86	0.049	1.24	0.148	3.76
AE 275	2.750	69.85	2.660	67.56	0.056	1.42	17780	79085	2.635	66.93	0.049	1.24	0.158	4.01
AE 287	2.875	73.03	2.781	70.64	0.056	1.42	18590	82688	2.755	69.98	0.049	1.24	0.168	4.27
AE 300	3.000	76.20	2.904	73.76	0.068	1.73	24150	107419	2.877	73.08	0.061	1.55	0.168	4.27
AE 312	3.125	79.38	3.027	76.89	0.068	1.73	25150	111867	3.000	76.20	0.061	1.55	0.178	4.52
AE 325	3.250	82.55	3.150	80.01	0.068	1.73	26160	116360	3.121	79.27	0.061	1.55	0.178	4.52
AE 337	3.375	85.73	3.271	83.08	0.068	1.73	27160	120808	3.242	82.35	0.061	1.55	0.188	4.78
AE 350	3.500	88.90	3.394	86.21	0.068	1.73	28170	125300	3.363	85.42	0.061	1.55	0.188	4.78
AE 362	3.625	92.08	3.515	89.28	0.068	1.73	29180	129793	3.483	88.47	0.061	1.55	0.198	5.03
AE 375	3.750	95.25	3.638	92.41	0.068	1.73	30180	134241	3.606	91.59	0.061	1.55	0.198	5.03
AE 387	3.875	98.43	3.757	95.43	0.068	1.73	31190	138733	3.724	94.59	0.061	1.55	0.208	5.28
AE 400	4.000	101.6	3.876	98.45	0.068	1.73	32190	143181	3.842	97.59	0.061	1.55	0.218	5.54

Groove Tolerances (Inches)		Ring Tolerances (Inches)	
A	B	I.D.	t
AE 50 - AE50: ±.002	AE 50 - AE 112: +.003; -.000	AE 50 - AE 100: +.000; -.013	AE 50 - AE 150: ± .002
AE 62 - AE 102: ±.003	AE 118 - AE 187: +.004; -.000	AE 102 - AE 150: +.000; -.015	AE 156 - AE 400: ± .003
AE 106 - AE 150: ±.004	AE 300 - AE 400: +.005; -.000	AE 156 - AE 212: +.000; -.020	
AE 156 - AE 200: ±.005		AE 225 - AE 262: +.000; -.025	
AE 212 - AE 400: ±.006		AE 275 - AE 337: +.000; -.030	

SPEC TO ORDER: WWW.ASRAYMOND.COM OR SEE PHONE & FAX NUMBERS ON BACK COVER



Internal Retaining Rings (Circlip style)



- Carbon spring steel
- Heat treated
- Black oil finish

INTERNAL RETAINING RINGS (CIRCLIP STYLE)				
Part No.	Housing Diameter (in)	Groove Diameter (in)	Thickness (in)	Packaged Quantity
J5025	1/4	0.268	0.015	50
J5031	5/16	0.330	0.015	50
J5037	3/8	0.397	0.025	50
J5043	7/16	0.461	0.025	50
J5050	1/2	0.530	0.035	50
J5056	9/16	0.596	0.035	50
J5062	5/8	0.665	0.035	50
J5068	11/16	0.732	0.035	50
J5075	3/4	0.796	0.035	50
J5081	13/16	0.862	0.042	50
J5087	7/8	0.931	0.042	50
J5093	15/16	1.000	0.042	50
J50100	1	1.066	0.042	50
J50106	1 1/16	1.130	0.050	50
J50112	1 1/8	1.197	0.050	50
J50125	1 1/4	1.330	0.050	50
J50131	1 5/16	1.396	0.050	50
J50137	1 3/8	1.461	0.050	50
J50143	1 7/16	1.528	0.050	50
J50150	1 1/2	1.594	0.050	50
J50156	1 9/16	1.658	0.062	25
J50162	5/8	1.725	0.062	25
J50175	1 3/4	1.858	0.062	25
J50187	1 7/8	1.989	0.062	25
J50200	2	2.122	0.062	25

External Retaining Rings (Circlip style)



- Carbon spring steel
- Heat treated
- Black oil finish

EXTERNAL RETAINING RINGS (CIRCLIP STYLE)				
Part No.	Shaft Diameter (in)	Groove Diameter (in)	Thickness (in)	Packaged Quantity
A5112	1/8	0.117	0.010	50
A5118	3/16	0.175	0.015	50
A5125	1/4	0.230	0.025	50
A5131	5/16	0.290	0.025	50
A5137	3/8	0.352	0.025	50
A5143	7/16	0.412	0.025	50
A5150	1/2	0.468	0.035	50
A5156	9/16	0.530	0.035	50
A5162	5/8	0.588	0.035	50
A5168	11/16	0.646	0.042	50
A5175	3/4	0.704	0.042	50
A5181	13/16	0.762	0.042	50
A5187	7/8	0.821	0.042	50
A5193	15/16	0.882	0.042	50
A51100	1	0.940	0.042	25
A51106	1 1/16	0.998	0.050	25
A51112	1 1/8	1.059	0.050	25
A51118	1 3/16	1.118	0.050	25
A51125	1 1/4	1.176	0.050	25
A51131	1 5/16	1.232	0.050	25
A51137	1 3/8	1.291	0.050	10
A51143	1 7/16	1.350	0.050	10
A51150	1 1/2	1.406	0.050	10
A51156	1 9/16	1.468	0.050	10
A51163	1 5/8	1.529	0.062	10
A51175	1 3/4	1.650	0.062	10
A51187	1 7/8	1.769	0.062	10
A51200	2	1.886	0.062	10
A51225	2 1/4	2.120	0.078	10
A51250	2 1/2	2.360	0.078	10

Metric Internal Retaining Rings (Circlip style)



- Meets DIN 472 specifications
- Carbon spring steel
- Heat treated
- Black oil finish

METRIC INTERNAL RETAINING RINGS (CIRCLIP STYLE)				
Part No.	Housing Diameter	Groove Diameter (mm)	Thickness (mm)	Packaged Quantity
J10	M10	10.4	1.00	50
J12	M12	12.5	1.00	50
J14	M14	14.6	1.00	50
J15	M15	15.7	1.00	50
J16	M16	16.8	1.00	50
J18	M18	19.0	1.00	50
J19	M19	20.0	1.00	50
J20	M20	21.0	1.00	50
J22	M22	23.0	1.00	50
J24	M24	25.2	1.20	50
J25	M25	26.2	1.20	50

Metric External Retaining Rings (Circlip style)

- Meets DIN 471 specifications
- Carbon spring steel
- Heat treated
- Black oil finish

METRIC INTERNAL RETAINING RINGS (CIRCLIP STYLE)				
Part No.	Housing Diameter	Groove Diameter (mm)	Thickness (mm)	Packaged Quantity
A4*	M4	3.7	0.40	50
A6*	M6	5.6	0.70	50
A8*	M8	7.4	0.80	50
A10	M10	9.3	1.00	50
A12	M12	11.0	1.00	50
A14	M14	12.9	1.00	50
A15	M15	13.8	1.00	50
A16	M16	14.7	1.00	50
A18	M18	16.5	1.20	50
A20	M20	18.5	1.20	50
A22	M22	20.5	1.20	50
A25	M25	23.2	1.20	25

*Lug for sizes 3 to 9

"E" Retaining Rings (Circlip style)



- Carbon spring steel
- Heat treated
- Black oil finish

"E" RETAINING RINGS (CIRCLIP STYLE)				
Part No.	Housing Diameter (in)	Groove Diameter (in)	Thickness (in)	Packaged Quantity
E3309	3/32	0.074	0.015	50
E3312	1/8	0.095	0.015	50
E3314	9/64	0.105	0.025	50
E3315	5/32	0.116	0.025	50
E3318	3/16	0.147	0.025	50
EX3321	7/32	0.188	0.025	50
E3325	1/4	0.210	0.025	50
EX3331	5/16	0.250	0.025	50
E3337	3/8	0.303	0.035	50
E3343	7/16	0.343	0.035	50
E3350	1/2	0.396	0.042	50
E3362	5/8	0.485	0.042	25
E3375	3/4	0.580	0.050	25
E3387	7/8	0.675	0.050	25
EX3398	1	0.835	0.050	25

Metric "E" Retaining Rings (Circlip style)

- Meets DIN 6799 specifications
- Carbon spring steel
- Heat treated
- Black oil finish

METRIC INTERNAL RETAINING RINGS (CIRCLIP STYLE)				
Part No.	Shaft Diameter	Groove Diameter (mm)	Thickness (mm)	Packaged Quantity
RA1.2	M1.70	1.2	0.30	50
RA1.5	M2.25	1.5	0.40	50
RA1.9	M2.75	1.9	0.50	50
RA2.3	M3.50	2.3	0.60	50
RA3.2	M4.50	3.2	0.60	50
RA4	M6.00	4.0	0.70	50
RA5	M7.00	5.0	0.70	50
RA6	M8.00	6.0	0.70	50
RA7	M9.50	7.0	0.90	50
RA8	M10.5	8.0	1.00	50
RA9	M12.0	9.0	1.10	50
RA10	M13.0	10.0	1.20	50
RA12	M15.5	12.0	1.30	50

X-Washers Retaining Rings



- Steel
- 360° closure
- Zinc plated

"E" RETAINING RINGS (CIRCLIP STYLE)				
Part No.	Shaft Diameter (in)	Thickness (in)	Thickness (in)	Packaged Quantity
31490	5/64	1/64	0.025	100
31491	3/32	3/64	0.055	100
31492	1/8	3/64	0.055	100
31493	5/32	1/16	0.065	100
31494	3/16	1/16	0.065	50
31495	7/32	0.075	0.075	50
31496	1/4	0.075	0.075	50
31497	5/32	0.075	0.075	50

Retaining Ring Tools



RETAINING RING TOOLS		
Part No.	Description	Unit
19332	Ring Tool	1.000

- Metal construction
- Unique push-button conversion from internal to external
- Vinyl handles
- Installs internal ring sizes 3/8" through 2" & external ring sizes 1/4" through 2"
- Includes straight tips: .036", .047" & .070"
- Includes 90 degree tips: .036" & .047"

