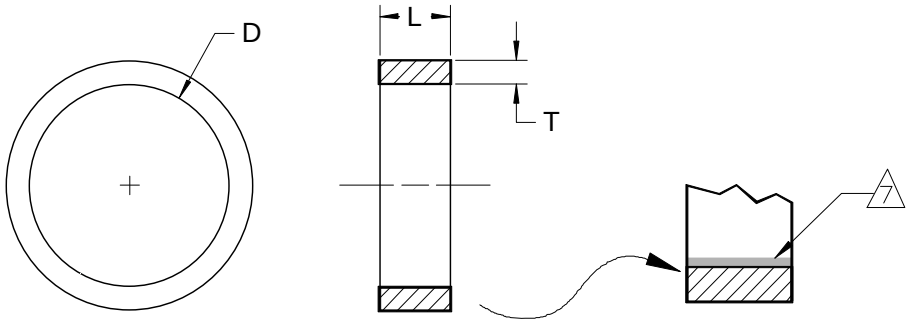
INTRINSIC

UniLok® Heat Shrinkable Rings



Product Description	D Minimum Supplied	D Maximum Recovered	T Supplied	L Supplied	Minimum Substrate Diameter (5)	Nominal Clamping Force (lbs) (6)
AHE0054-0012-0050	0.054	0.052	.0110 / .0130	.0475 / .0525	0.053	90
AHE0081-0009-0061	0.0808	0.0774	.0080 / .0100	.0590 / .0630	0.0787	90
AHE0094-0008-0040	0.094	0.0908	.0070 / .0090	.0380 / .0420	0.0923	50
AHE0094-0018-0078	0.094	0.0905	.0165 / .0189	.0750 / .0820	0.0921	210
AHE0094-0028-0030	0.094	0.09	.0270 / .0300	.0290 / .0320	0.0917	120
AHE0094-0033-0066	0.094	0.09	.0310 / .0350	.0630 / .0690	0.0917	290
AHE0108-0012-0076	0.1085	0.1044	.0108 / .0132	.0730 / .0790	0.1061	140
AHE0108-0014-0095	0.1085	0.1043	.0128 / .0152	.0920 / .0980	0.1061	210
AHE0110-0033-0033	0.11	0.105	.0310 / .0350	.0310 / .0350	0.107	150
AHE0110-0039-0077	0.11	0.105	.0370 / .0410	.0730 / .0810	0.107	390
AHE0126-0009-0062	0.126	0.121	.0078 / .0102	.0590 / .0650	0.123	90
AHE0126-0038-0040	0.126	0.12	.0360 / .0400	.0380 / .0420	0.122	210
AHE0126-0044-0088	0.126	0.12	.0420 / .0460	.0840 / .0930	0.122	520
AHE0141-0016-0078	0.141	0.1354	.0148 / .0172	.0750 / .0810	0.1377	200
AHE0141-0022-0090	0.141	0.1351	.0208 / .0232	.0870 / .0930	0.1375	300
AHE0156-0015-0190	0.156	0.15	.0130 / .0170	.1860 / .1940	0.1526	460

NOTES:

1 Ring material: heat-to-recover NiTi, Intrinsic Alloy H.

2 To prevent premature recovery, do not expose rings to temperatures above 113°F (45°C) prior to installation.

3 Rings begin to shrink at just over 113°F and are almost fully shrunk by 212°F (100°C). However, they require heating to 330°F (165°C) to build their full clamping force. Use a controlled heating method to insure the rings are heated to 330°F or higher. Rings can be supplied with temperature indicating paint spots that change color at 330°F. Add a "P" suffix to the part number if the paint is desired.

4 Do not heat rings above 572°F (300°C) during installation, or afterward, to avoid the possibility of stress relaxation.

5 To ensure consistent performance, the substrate should have the dimensions and rigidity to hold the installed ring diameter to this size, or larger. (For a minimum unresolved recovery of 1.5%)

6 This is a nominal radial clamping force for design purposes, equal to the ring-to-substrate contact area times the contact pressure. The actual force applied by a ring is a function of installation method, substrate material and geometry, and operating temperatures. The force decreases with decreasing temperature and with decreasing substrate diameter. Testing is required to qualify performance in specific applications.

7 "I" and "J" suffix rings have an insulating coating on the ring ID which is .0005" to .005" thick and may extend onto the end faces of the ring. Only ID coating is assured on "I" rings. The coating will extend at least halfway from the ID to the OD on the end faces of "J" rings. Coating adds to dimensions T & L. D is unchanged. Coating is used when installing rings by direct electrical resistance heating.

8 Dimensions are in inches.

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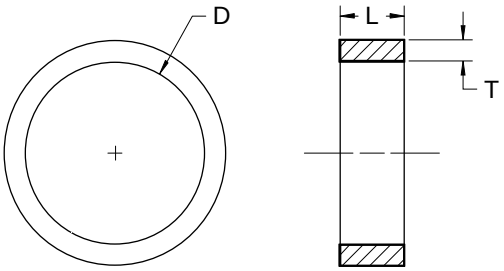
CAGE Code 08CE6

Product Document

UniLok, Rectangular Section,
Heat-To-Recover, English Units

UniLok® Heat Shrinkable Rings



Product Description	D Minimum Supplied	D Maximum Recovered	T Supplied	L Supplied	Minimum Substrate Diameter [5]	Nominal Clamping Force (lbs) [6]
AHE0156-0020-0190	0.156	0.15	.018 / .022	.186 / .194	0.1526	590
AHE0156-0025-0190	0.156	0.15	.023 / .027	.186 / .194	0.1526	720
AHE0156-0030-0190	0.156	0.15	.028 / .032	.186 / .194	0.1526	850
AHE0156-0035-0190	0.156	0.149	.033 / .037	.186 / .194	0.152	960
AHE0156-0040-0190	0.156	0.149	.038 / .042	.186 / .194	0.152	1070
AHE0156-0045-0190	0.156	0.149	.043 / .047	.186 / .194	0.152	1180
AHE0156-0050-0190	0.156	0.149	.048 / .052	.186 / .194	0.152	1280
AHE0157-0012-0040	0.157	0.151	.010 / .013	.038 / .042	0.1535	80
AHE0158-0022-0044	0.158	0.151	.021 / .024	.042 / .046	0.154	150
AHE0158-0047-0047	0.158	0.15	.045 / .050	.045 / .050	0.153	310
AHE0158-0055-0110	0.158	0.15	.052 / .058	.106 / .115	0.153	800
AHE0159-0009-0033	0.159	0.153	.008 / .010	.031 / .035	0.1554	50
AHE0188-0029-0060	0.188	0.179	.028 / .031	.057 / .063	0.182	270
AHE0189-0014-0040	0.189	0.182	.013 / .016	.038 / .042	0.185	90
AHE0189-0014-0080	0.189	0.182	.013 / .016	.076 / .084	0.185	180
AHE0189-0039-0262	0.189	0.1808	.037 / .041	.255 / .269	0.1841	1500
AHE0189-0057-0057	0.189	0.18	.054 / .060	.054 / .060	0.184	440
AHE0189-0066-0132	0.189	0.18	.063 / .069	.128 / .137	0.184	1160
AHE0210-0049-0115	0.21	0.2	.047 / .051	.110 / .120	0.204	810
AHE0212-0010-0070	0.212	0.204	.009 / .012	.067 / .074	0.207	120
AHE0212-0014-0070	0.212	0.204	.013 / .016	.067 / .074	0.207	160
AHE0213-0030-0038	0.213	0.204	.029 / .032	.036 / .040	0.2075	180
AHE0232-0019-0040	0.232	0.223	.018 / .021	.038 / .042	0.227	120
AHE0250-0049-0050	0.25	0.238	.047 / .051	.048 / .053	0.242	370
AHE0252-0010-0040	0.252	0.242	.009 / .012	.038 / .042	0.246	70
AHE0252-0010-0075	0.252	0.242	.009 / .012	.071 / .079	0.246	130
AHE0252-0010-0100	0.252	0.242	.009 / .012	.096 / .104	0.246	180
AHE0252-0010-0151	0.252	0.242	.009 / .012	.146 / .156	0.246	260
AHE0252-0019-0040	0.252	0.242	.017 / .020	.038 / .042	0.246	120
AHE0252-0025-0071	0.252	0.242	.024 / .026	.067 / .075	0.246	280
AHE0252-0035-0071	0.252	0.241	.034 / .037	.067 / .074	0.245	380
AHE0252-0076-0076	0.252	0.239	.072 / .079	.072 / .079	0.244	780
AHE0252-0088-0176	0.252	0.239	.084 / .093	.171 / .182	0.244	2060
AHE0261-0041-0195	0.261	0.249	.039 / .043	.190 / .200	0.253	1220

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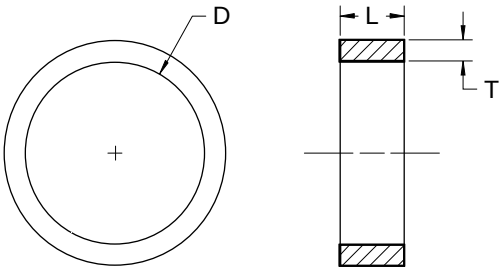
Heat-To-Recover, English Units

UniLok® Heat Shrinkable Rings



Product Description	D Minimum Supplied	D Maximum Recovered	T Supplied	L Supplied	Minimum Substrate Diameter [5]	Nominal Clamping Force (lbs) [6]
AHE0261-0064-0205	0.261	0.248	.061 / .067	.200 / .210	0.253	1870
AHE0300-0100-0315	0.3	0.284	.095 / .105	.307 / .323	0.29	4210
AHE0300-0126-0315	0.3	0.283	.120 / .132	.307 / .323	0.289	5020
AHE0313-0054-0050	0.313	0.298	.051 / .057	.048 / .053	0.303	410
AHE0315-0013-0080	0.315	0.302	.011 / .014	.076 / .084	0.307	180
AHE0315-0013-0189	0.315	0.302	.011 / .014	.183 / .195	0.307	400
AHE0315-0024-0047	0.315	0.302	.022 / .025	.045 / .050	0.307	180
AHE0315-0024-0185	0.315	0.302	.022 / .025	.179 / .191	0.307	730
AHE0315-0044-0088	0.315	0.301	.042 / .046	.084 / .093	0.306	600
AHE0315-0090-0095	0.315	0.301	.086 / .095	.090 / .100	0.307	1190
AHE0315-0110-0221	0.315	0.299	.105 / .116	.214 / .227	0.305	3220
AHE0320-0020-0080	0.32	0.307	.019 / .022	.076 / .084	0.312	260
AHE0320-0135-0310	0.32	0.304	.129 / .141	.303 / .317	0.31	5290
AHE0328-0022-0072	0.328	0.315	.021 / .024	.068 / .076	0.32	260
AHE0378-0015-0113	0.378	0.363	.014 / .017	.109 / .117	0.369	290
AHE0378-0015-0227	0.378	0.363	.014 / .017	.221 / .233	0.368	580
AHE0378-0028-0070	0.378	0.362	.027 / .030	.067 / .074	0.368	320
AHE0378-0053-0106	0.378	0.361	.050 / .056	.101 / .110	0.367	870
AHE0378-0064-0041	0.378	0.361	.061 / .067	.039 / .043	0.367	400
AHE0378-0113-0113	0.378	0.359	.108 / .119	.109 / .118	0.367	1760
AHE0378-0132-0265	0.378	0.359	.126 / .138	.258 / .271	0.366	4630
AHE0392-0015-0120	0.392	0.376	.014 / .017	.115 / .125	0.382	300
AHE0396-0015-0140	0.396	0.38	.014 / .017	.135 / .145	0.386	370
AHE0398-0040-0040	0.398	0.38	.038 / .042	.038 / .042	0.386	260
AHE0412-0076-0152	0.412	0.393	.072 / .080	.147 / .157	0.4	1720
AHE0415-0018-0085	0.415	0.398	.017 / .020	.081 / .089	0.404	260
AHE0417-0085-0085	0.417	0.399	.081 / .089	.081 / .089	0.406	1060
AHE0441-0132-0132	0.441	0.418	.126 / .138	.128 / .137	0.426	2400
AHE0455-0035-0090	0.455	0.436	.033 / .037	.086 / .095	0.443	510
AHE0471-0072-0090	0.471	0.45	.068 / .076	.086 / .095	0.458	990
AHE0494-0020-0172	0.494	0.474	.019 / .022	.167 / .177	0.481	580
AHE0505-0038-0076	0.505	0.484	.036 / .040	.072 / .080	0.491	470
AHE0505-0071-0141	0.505	0.482	.067 / .074	.136 / .146	0.49	1550
AHE0505-0086-0055	0.505	0.482	.082 / .090	.052 / .058	0.491	710

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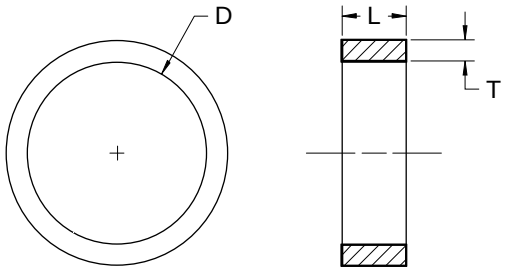

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AHE0505-0125-0072	0.505	0.479	.119 / .131	.068 / .076	0.488	1280
AHE0505-0152-0152	0.505	0.479	.146 / .158	.146 / .157	0.488	3140
AHE0505-0177-0354	0.505	0.479	.171 / .183	.346 / .361	0.488	8270
AHE0506-0020-0180	0.506	0.485	.019 / .022	.175 / .185	0.493	610
AHE0506-0020-0300	0.506	0.485	.019 / .022	.293 / .307	0.493	1040
AHE0537-0025-0200	0.537	0.515	.024 / .027	.194 / .206	0.523	840
AHE0537-0076-0152	0.537	0.512	.072 / .080	.147 / .157	0.521	1780
AHE0550-0050-1750	0.55	0.529	.048 / .053	1.730 / 1.770	0.538	14110
AHE0557-0025-0080	0.557	0.535	.024 / .027	.076 / .084	0.543	340
AHE0557-0046-0085	0.557	0.535	.044 / .048	.081 / .089	0.544	640
AHE0557-0046-1000	0.557	0.535	.044 / .048	.985 / 1.015	0.544	7470
AHE0557-0102-1750	0.557	0.532	.097 / .107	1.730 / 1.770	0.541	26630
AHE0580-0061-0170	0.58	0.552	.058 / .064	.165 / .175	0.561	1650
AHE0580-0079-0472	0.58	0.553	.075 / .083	.462 / .482	0.562	5780
AHE0614-0025-0160	0.614	0.589	.024 / .027	.155 / .165	0.598	680
AHE0614-0025-0200	0.614	0.589	.024 / .027	.194 / .206	0.598	840
AHE0614-0025-0750	0.614	0.588	.024 / .027	.736 / .764	0.597	3230
AHE0631-0022-0375	0.631	0.605	.021 / .024	.367 / .384	0.615	1410
AHE0631-0047-0095	0.631	0.604	.045 / .050	.090 / .099	0.614	730
AHE0631-0088-0177	0.631	0.602	.084 / .093	.171 / .182	0.613	2410
AHE0631-0107-0068	0.631	0.601	.102 / .112	.065 / .071	0.612	1100
AHE0631-0189-0189	0.631	0.6	.183 / .195	.184 / .195	0.612	4900
AHE0631-0189-0400	0.631	0.597	.183 / .195	.391 / .409	0.609	10350
AHE0631-0189-0450	0.631	0.597	.183 / .195	.441 / .459	0.609	11640
AHE0631-0221-0442	0.631	0.6	.215 / .227	.432 / .451	0.612	12900
AHE0661-0025-0320	0.661	0.633	.024 / .027	.313 / .327	0.643	1360
AHE0661-0076-0152	0.661	0.63	.072 / .080	.147 / .157	0.64	1820
AHE0706-0341-0300	0.7055	0.67	.337 / .345	.295 / .305	0.685	12450
AHE0757-0024-0090	0.757	0.726	.022 / .026	.086 / .095	0.737	370
AHE0757-0031-0200	0.757	0.726	.029 / .032	.194 / .206	0.737	1030
AHE0757-0031-0410	0.757	0.726	.029 / .032	.401 / .419	0.737	2110
AHE0758-0057-0114	0.758	0.726	.054 / .060	.109 / .118	0.737	1060
AHE0758-0085-0510	0.758	0.725	.081 / .089	.502 / .518	0.737	6860
AHE0758-0106-0212	0.758	0.723	.101 / .111	.206 / .218	0.736	3480

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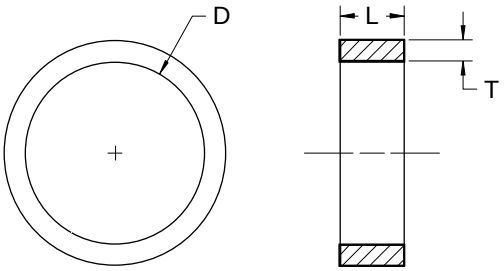

Product Description	D Minimum Supplied	D Maximum Recovered	T Supplied	L Supplied	Minimum Substrate Diameter [5]	Nominal Clamping Force (lbs) [6]
AHE0758-0129-0082	0.758	0.722	.123 / .135	.078 / .086	0.735	1600
AHE0758-0227-0227	0.758	0.719	.221 / .233	.221 / .234	0.734	7080
AHE0758-0265-0531	0.758	0.719	.259 / .271	.520 / .541	0.734	18620
AHE0804-0337-0377	0.804	0.762	.332 / .342	.371 / .383	0.779	16080
AHE0884-0031-0250	0.884	0.848	.029 / .032	.244 / .256	0.861	1300
AHE0884-0031-0526	0.884	0.848	.029 / .032	.516 / .536	0.861	2760
AHE0884-0066-0133	0.884	0.846	.063 / .070	.128 / .137	0.86	1440
AHE0884-0124-0248	0.884	0.843	.118 / .130	.241 / .254	0.858	4740
AHE0884-0150-0095	0.884	0.842	.144 / .156	.090 / .100	0.857	2150
AHE0884-0150-0394	0.884	0.842	.144 / .156	.385 / .402	0.857	8900
AHE0884-0265-0265	0.884	0.84	.259 / .271	.256 / .274	0.857	9620
AHE0884-0309-0619	0.884	0.84	.303 / .315	.607 / .631	0.857	25320
AHE0957-0049-0382	0.957	0.917	.047 / .051	.373 / .390	0.931	3130
AHE1010-0035-0115	1.01	0.968	.033 / .037	.110 / .120	0.983	680
AHE1010-0035-0601	1.01	0.968	.033 / .037	.589 / .612	0.983	3610
AHE1010-0076-0152	1.01	0.966	.072 / .080	.146 / .157	0.982	1880
AHE1010-0141-0283	1.01	0.964	.135 / .147	.276 / .290	0.98	6180
AHE1010-0141-0400	1.01	0.963	.135 / .147	.391 / .409	0.98	8720
AHE1010-0303-0303	1.01	0.96	.297 / .309	.296 / .310	0.979	12560
AHE1010-0354-0707	1.01	0.96	.348 / .360	.694 / .720	0.98	33060
AHE1130-0200-0100	1.13	1.076	.194 / .206	.096 / .104	1.095	3000
AHE1130-0200-0200	1.13	1.076	.194 / .206	.194 / .206	1.095	6000
AHE1136-0200-0100	1.136	1.082	.194 / .206	.096 / .104	1.101	3000
AHE1235-0035-0275	1.235	1.183	.033 / .037	.269 / .281	1.201	1650
AHE1302-0025-0197	1.302	1.247	.024 / .027	.191 / .203	1.266	850
AHE1514-0028-0400	1.514	1.452	.027 / .030	.391 / .409	1.474	1930
AHE1514-0060-0200	1.514	1.45	.057 / .063	.194 / .206	1.473	2030
AHE1690-0110-0250	1.69	1.616	.105 / .116	.244 / .256	1.642	4560
AHE1749-0046-0382	1.749	1.677	.044 / .048	.373 / .390	1.703	3010
AHE1780-0319-0899	1.78	1.693	.316 / .324	.889 / .909	1.723	43000
AHE2019-0115-0710	2.019	1.933	.109 / .121	.697 / .723	1.964	13500
AHE2170-0230-0145	2.17	2.072	.224 / .236	.140 / .150	2.107	5310
AHE2306-0060-0870	2.306	2.209	.057 / .063	.863 / .877	2.243	8950
AHE2335-0086-0086	2.335	2.235	.082 / .090	.082 / .090	2.27	1250
AHE2390-0040-0500	2.39	2.3	.038 / .042	.490 / .510	2.335	3460

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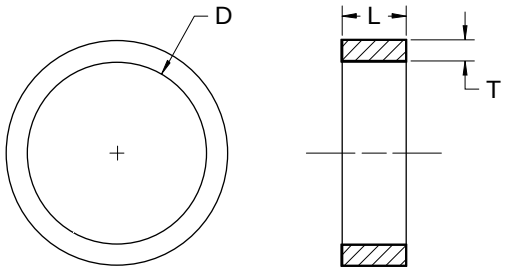

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AHE2568-0090-0090	2.568	2.459	.086 / .095	.086 / .095	2.497	1380
AHE2654-0048-0382	2.654	2.545	.046 / .050	.374 / .390	2.584	3170
AHE2775-0065-0140	2.775	2.665	.062 / .068	.135 / .145	2.706	1560
AHE3870-0081-0081	3.87	3.719	.075 / .086	.077 / .085	3.776	1120

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