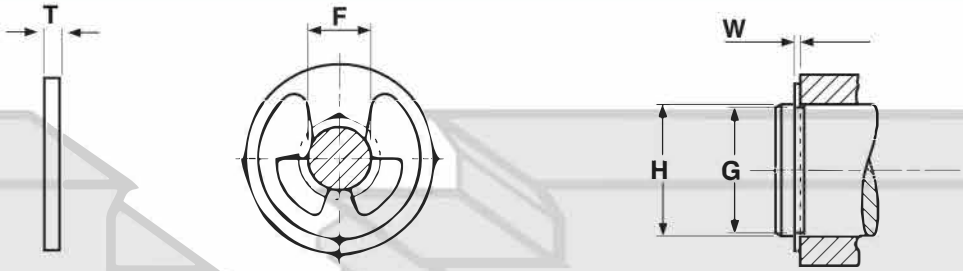
Retaining Rings — E Rings — Carbon Spring Steel & Stainless Steel



Type E Retaining Rings

Carbon Spring Steel		Stainless Steel		H	G	W	F	T
Kanebridge Part Number	Waldes Part Number	Kanebridge Part Number	Waldes Part Number	Shaft	Groove Diameter	Groove Width	Free Diameter	Thickness
6REBP	5133-6STPP	6RESS	5133-6H	0.062	0.052	0.012	0.051	0.010
9REBP	5133-9STPP	9RESS	5133-9H	0.094	0.074	0.020	0.073	0.015
12REBP	5133-12STPP	12RESS	5133-12H	0.125	0.095	0.020	0.094	0.015
-	-	14RESS	5133-14H	0.140	0.105	0.029	0.102	0.025
14RSEBP	X5133-14STPP	14RSESS	X5133-14H	0.140	0.102	0.020	0.100	0.015
15REBP	5133-15STPP	15RESS	5133-15H	0.156	0.116	0.029	0.114	0.025
17RSEBP	X5133-17STPP	17RSESS	X5133-17H	0.172	0.127	0.029	0.125	0.025
18REBP	5133-18STPP	18RESS	5133-18H	0.188	0.147	0.029	0.145	0.025
-	-	18RSESS	X5133-18H	0.188	0.125	0.029	0.122	0.025
21RSEBP	X5133-21STPP	21RSESS	X5133-21H	0.219	0.188	0.029	0.185	0.025
25REBP	5133-25STPP	25RESS	5133-25H	0.250	0.210	0.029	0.207	0.025
31RSEBP	X5133-31STPP	31RSESS	X5133-31H	0.312	0.250	0.029	0.243	0.025
37REBP	5133-37STPP	37RESS	5133-37H	0.375	0.303	0.039	0.300	0.035
43REBP	5133-43STPP	43RESS	5133-43H	0.438	0.343	0.039	0.337	0.035
50REBP	5133-50STPP	50RESS	5133-50H	0.500	0.396	0.046	0.392	0.042
62REBP	5133-62STPP	62RESS	5133-62H	0.625	0.485	0.046	0.480	0.042
74RSEBP	X5133-74STPP	74RSESS	X5133-74H	0.750	0.625	0.056	0.616	0.050
-	-	75RESS	5133-75H	0.750	0.580	0.056	0.574	0.050
87REBP	5133-87STPP	87RESS	5133-87H	0.875	0.675	0.056	0.668	0.050
98RSEBP	X5133-98STPP	98RSESS	X5133-98H	0.984	0.835	0.056	0.822	0.050
118RSEBP	X5133-118STPP	-	X5133-118H	1.188	1.079	0.068	1.066	0.062

Description	A semi-circular stamping with two ends which are set further apart than both internal and external rings. The two ends have flared "prongs" which are substantially wider than the other parts of the ring. A center prong extends from the inside perimeter of the ring, halfway between the two ends. The three prongs, when radially installed, make contact with the bottom of the groove.	
Applications/ Advantages	Designed for radial (vertical) installation into machined grooves on shafts of varying diameter. E-rings require a deeper groove, but provide exceptional thrust loadings when compared to fasteners of the same size and weight. Steel rings can be safely used within a temperature range of -100°F to 500°F. Stainless steel rings are corrosion resistant & can be used in higher heat applications from -100°F to 900°F.	
Material	***Steel***	***Stainless***
	Carbon spring steel SAE 1060 - 1090	Precipitation Hardened Alloy 15% Chromium, 7% Nickel, 2% Molybdenum
Heat Treatment	Retaining rings are heat treated using the austempering method. Rings are uniformly heated to temperatures over 1500° F. They are then isothermally quenched in a molten salt bath at 600° F for 35 minutes. This results in parts with a bainite structure characterized by good mechanical properties.	
Hardness	Size 6: Rockwell 15N 84.5 - 87 (Hardness cannot be checked with any degree of accuracy on this size) ***Sizes 9 - S14:*** Rockwell 15N 84.5 - 87 ***Sizes 14 - S31:*** Rockwell 30N 66.5 - 71 ***Sizes 37 & over:*** Rockwell C 47 - 52	Size 6: Rockwell 15N 82.5 - 86 (Hardness cannot be checked with any degree of accuracy on this size) ***Sizes 9 - S14:*** Rockwell 15N 82.5 - 86 ***Sizes 14 - S31:*** Rockwell 30N 63 - 69.5 ***Sizes 37 & over:*** Rockwell C 44 - 51
Tensile Strength	-	225,000 psi. minimum
Finish	See Appendix-A for information on the coating of retaining rings.	