



CLoc® Fastener NASCAR Racing

Principles and Design

If only aerospace was as particular to weight as the racing industry. The Skybolt® Skytanium® CLoc® fasteners are a staple in NASCAR, most commonly seen in the rear deck side windows. With over 30 million miles on the track, we can truly say, we have been tested. Skybolt is in victory lane every Friday, Saturday, and Sunday, probably because every major team relies on Skybolt® fastening designs. We constantly innovate improvements in weight, strength, and performance.

Some helpful hints to remember about CLoc® Fasteners:

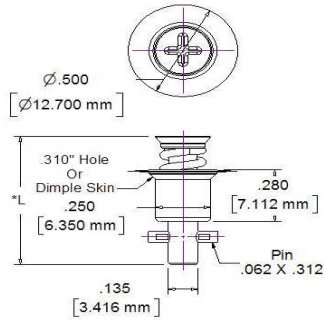
- 1) If you can install a POP rivet, you can install a CLoc® fastener with a couple of extra steps.
- 2) When locked, the Stud slot or wing always aligns with the receptacle mounting holes. Therefore, whatever angle you mount the Receptacle, the Stud (slot) will align with it when locked.
- 3) TOTAL THICKNESS is the summation of both the outside and inside panels plus allowances for gaskets, grommets, interference *or panels that do not lay flat together. Panel facing (panels do not lay flat together, and in most applications, they do not) can add greatly to charted values.*
- 4) The grip range for any CLoc® is .030. Unlike a Dzus stud, there is no spring to bend and any attempt to force the stud will over stress the crosspin.
- 5) Because of the restrictive grip range, Skybolt invented and developed the Adjustable Receptacle (SK213 and SK215/245 Series). These receptacles are the perfect fit for smaller shops that cannot justify huge inventories of various stud dash number.
- 6) Studs can be identified by a dash number on the head or by measuring the length and referring to a Skybolt chart.

ZG28S3 Series Lightweight Studs

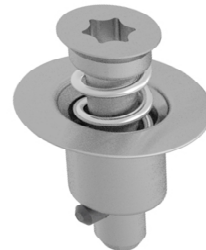




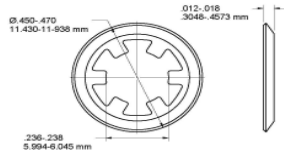
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ZG28S3



ZG28T3



SK2600-LWS

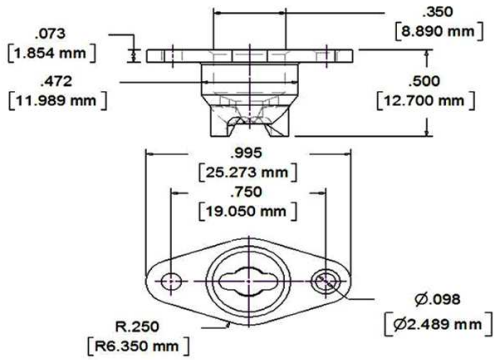
Stainless stud retainer. Use Skybolt SK-T26 Tool for installation.

SK212 Series Fixed Depth Receptacle Combined Panel				SK213-1* and -2 Series Adjustable Depth Receptacle Combined Panel				Total Stud Length L				Flush Head ZG2800 Series Stud	
Thickness Decimal		Thickness Millimeter		Thickness (SK213-2) Decimal		Thickness (SK213-2) Millimeter		Decimal	Millimeter	Skytanium Phillips (2)	Skytanium #15 Torx (3)		
Min	Max	Min	Max	Min*	Max	Min	Max						
.10	.029	0.254	0.737	.020	.270	0.508	6.858	.610	15.494	ZG28S3-1	ZG28T3-1		
.030	.059	0.762	1.499	.020	.300	0.508	7.620	.640	16.256	ZG28S3-2	ZG28T3-2		
.060	.089	1.524	2.261	.050	.330	1.270	8.382	.670	17.018	ZG28S3-3	ZG28T3-3		
.090	.119	2.286	3.023	.080	.360	2.032	9.144	.700	17.780	ZG28S3-4	ZG28T3-4		
.120	.149	3.048	3.785	.110	.390	2.794	9.906	.730	18.542	ZG28S3-5	ZG28T3-5		
.150	.179	3.810	4.547	.140	.420	3.556	10.668	.760	19.304	ZG28S3-6	ZG28T3-6		
.180	.209	4.572	5.309	.170	.450	4.318	11.430	.790	20.066	ZG28S3-7	ZG28T3-7		
.210	.239	5.334	6.071	.200	.480	5.080	12.192	.820	20.828	ZG28S3-8	ZG28T3-8		
.240	.269	6.096	6.833	.230	.510	5.842	12.954	.850	21.590	ZG28S3-9	ZG28T3-9		
.270	.299	6.858	7.595	.260	.540	6.604	13.716	.880	22.352	ZG28S3-10	ZG28T3-10		
.300	.329	7.620	8.357	.290	.570	7.366	14.478	.910	23.114	ZG28S3-11	ZG28T3-11		
.330	.359	8.382	9.119	.320	.600	8.128	15.240	.940	23.876	ZG28S3-12	ZG28T3-12		
.360	.389	9.144	9.881	.350	.630	8.890	16.002	.970	24.638	ZG28S3-13	ZG28T3-13		
.390	.419	9.906	10.643	.380	.660	9.652	16.764	1.000	25.400	ZG28S3-14	ZG28T3-14		
.420	.449	10.668	11.405	.410	.690	10.414	17.526	1.030	26.162	ZG28S3-15	ZG28T3-15		
.450	.479	11.430	12.167	.440	.720	11.176	18.288	1.060	26.924	ZG28S3-16	ZG28T3-16		

* For SK213-1 Series Receptacles - Add .120 to min thickness (shorter barrel) Note: Cloc-Camloc grip charts are not identical for 2800 Series parts. Physical dimensions are identical. Note (2) ZG28S3 use stainless stud/Skytanium cup. (3) Skytanium stud/cup



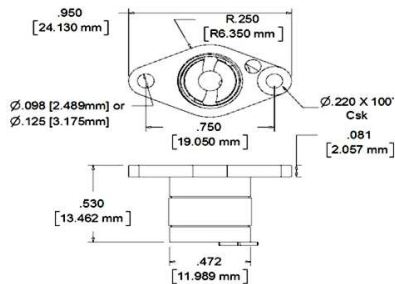
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SK212-12 Series

Standard Fixed Depth Receptacles

	Material	Finish	Rivet Size	Weight
SK212-12	Steel	Machined/Zinc	3/32	.0105/4.8g
SK212-12ACA	Alum380	Cast/None	3/32	.0040/1.9
SK212-12A	Alum6061	Machined/None	3/32	.0035/1.7
SK212-12A8CA	Alum380	Cast/None	1/8	.0040/1.9
SK212-12A8	Alum6061	Machined/None	1/8	.0035/1.7
SK212-12AC	Alum6061	Anti Chafe	1/8	.0040/1.8
SK212-12AC2	Alum6061	Anti Chafe	1/8	.0040/1.8
SK212-12S	Stain303	Machined/None	3/32	.0105/4.8



SK213 Adjustable Series

Standard Adjustable Depth Receptacles

	Material	Finish	Rivet Size	Weight	L
SK213-1	Skytanium	Machined/None	3/32	.0070/3.2	.410
SK213-1S	Stain303	Machined/None	3/32	.0155/7.1	.410
SK213-2	Skytanium	Machined/None	3/32	.0070/3.2	.530
SK213-2D	Skytanium	Machined/None	3/32csk	.0070/3.2	.530
SK213-26D	Skytanium	Machined/None	3/32csk	.0070/3.2	.530
SK213-28	Skytanium	Machined/None	1/8	.0070/3.2	.530
SK213-28D	Skytanium	Machined/None	1/8csk	.0070/3.2	.530

See Page 44 for Installation Tooling