

**Spring Nuts Cont.**

**Flat Type Steel Spring Nuts**

A one piece, self-locking fastener made of spring steel. The perimeter of the nut is rectangular in shape. Some variations have an arched base and/or corners which are trimmed or turned.



- Conforms to SAE J891
- For Material thickness .017"-.024" Rockwell 30N (40-50HRC)
- For Material thickness .025"-.039" Rockwell 45N (40-50HRC)
- Tinnerman® is a registered trademark of Tinnerman Patent Engineered Products. Listed spring nuts are not manufactured by or connected with the producers of Tinnerman® Nuts.

Part No.	Tinnerman No.	Screw Size	Length	Width	Thickness	Maximum Torque	Tensile Strength
0147949	C7000-10-4	#10	0.75"	0.50"	0.031"	35 in-lb	672 lb
0147950	C7000-1024-4	#10-24	0.63"	0.38"	0.022"	14 in-lb	274 lb
0147951	C7000-4-4	#4	0.38"	0.25"	0.022"	9 in-lb	300 lb
0147952	C7000-6-4	#6	0.50"	0.31"	0.025"	12 in-lb	425 lb
0147953	C7000-632-4	#6-32	0.44"	0.28"	0.017"	6 in-lb	156 lb
0147955	C700-832-4	#8-32	0.50"	0.31"	0.017"	8 in-lb	189 lb

**Handle Nuts**

**Handle Nuts**



Thread - Coarse			
Diameter	Thread Size	Plain	Zinc
		Part No.	Part No.
1/4"	20	11105389	-
5/16"	18	11105390	-
3/8"	16	11105391	11122040
7/16"	20	-	11122041
1/2"	13	11105392	11122042
5/8"	11	11105393	-
5/8"	13	-	11122043
3/4"	10	11105394	11122044

**Flat Washers**

**USS Flat Washers**

USS and SAE washers are designed for cap screws and other threaded products. SAE washers offer a tighter screw fit, have a smaller outside diameter, and are thinner than similar size USS washers.



Nominal Size	Inner Diameter	Outer Diameter	Plain	Zinc	Yellow Zinc	Hot Dipped Galvanized
			Part No.	Part No.	Part No.	Part No.
3/16"	0.250"	0.562"	33001	33002	-	-
1/4"	0.312"	0.734"	33003	33004	96004	33180
5/16"	0.375"	0.875"	33005	33006	96005	33181
3/8"	0.438"	1.000"	33007	33008	96006	33182
7/16"	0.500"	1.250"	33009	33010	96018	33183
1/2"	0.562"	1.375"	33011	33012	96007	33184
9/16"	0.625"	1.469"	33013	33014	96019	-
5/8"	0.688"	1.750"	33015	33016	96008	33185
3/4"	0.812"	2.000"	33017	33018	96009	33186
7/8"	0.938"	2.250"	33019	33020	96010	33187
1"	1.062"	2.500"	33021	33022	96011	33188
1-1/8"	1.250"	2.750"	33023	33024	96012	-
1-1/4"	1.375"	3.000"	33025	33026	96013	33189
1-3/8"	1.500"	3.250"	33027	33028	96014	-
1-1/2"	1.625"	3.500"	33029	33030	96015	33190
1-5/8"	1.750"	3.750"	33031	33032	96020	-
1-3/4"	1.875"	4.000"	33033	33034	96016	-
1-7/8"	2.000"	4.250"	33035	33036	-	-
2"	2.125"	4.500"	33037	33038	96017	-
2-1/4"	2.375"	4.750"	33039	33040	-	-
2-1/2"	2.625"	5.000"	33041	33042	96023	-
2-3/4"	2.875"	5.250"	33043	33044	-	-
3"	3.125"	5.500"	33045	33046	-	-

**USS Flat Washers Made in USA**

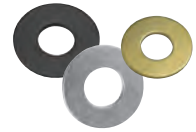
USS and SAE washers are designed for cap screws and other threaded products. SAE washers offer a tighter screw fit, have a smaller outside diameter, and are thinner than similar size USS washers.



Nominal Size	Inner Diameter	Outer Diameter	Plain	Zinc
			Part No.	Part No.
3/16"	0.250"	0.562"	0159653	0159676
1/4"	0.312"	0.734"	0159654	0159677
5/16"	0.375"	0.875"	0159655	0159678
3/8"	0.438"	1.000"	0159656	0159679
7/16"	0.500"	1.250"	0159657	0159680
1/2"	0.562"	1.375"	0159658	0159681
9/16"	0.625"	1.469"	0159659	0159682
5/8"	0.688"	1.750"	0159660	0159683
3/4"	0.812"	2.000"	0159661	0159684
7/8"	0.938"	2.250"	0159662	0159685
1"	1.062"	2.500"	0159663	0159686
1-1/8"	1.250"	2.750"	0159664	0159687
1-1/4"	1.375"	3.000"	0159665	0159688
1-3/8"	1.500"	3.250"	0159666	0159689
1-1/2"	1.625"	3.500"	0159667	0159690
1-5/8"	1.750"	3.750"	0159668	0159691
1-3/4"	1.875"	4.000"	0159669	0159692
1-7/8"	2.000"	4.250"	0159670	0159693
2"	2.125"	4.500"	0159671	0159694
2-1/4"	2.375"	4.750"	0159672	0159695
2-1/2"	2.625"	5.000"	0159673	0159696
2-3/4"	2.875"	5.250"	0159674	0159697
3"	3.125"	5.500"	0159675	0159698

**SAE Flat Washers**

USS and SAE washers are designed for cap screws and other threaded products. SAE washers offer a tighter screw fit, have a smaller outside diameter, and are thinner than similar size USS washers.



Nominal Size	Inner Diameter	Outer Diameter	Plain	Zinc	Yellow Zinc
			Part No.	Part No.	Part No.
#2	0.094"	0.250"	-	33062	-
#4	0.125"	0.312"	33065	33066	-
#5	0.145"	0.286"	-	33068	-
#6	0.156"	0.375"	33069	33070	96050
#8	0.188"	0.438"	33071	33072	96051
#10	0.219"	0.500"	33073	33074	96052
#12	0.250"	0.562"	33075	33076	96053
1/4"	0.281"	0.625"	33077	33078	96054
5/16"	0.344"	0.688"	33079	33080	96055
3/8"	0.406"	0.812"	33081	33082	96056
7/16"	0.469"	0.922"	33083	33084	96048
1/2"	0.531"	1.062"	33085	33086	96057
9/16"	0.594"	1.156"	33087	33088	96049
5/8"	0.656"	1.312"	33089	33090	96058
3/4"	0.812"	1.469"	33091	33092	96059
7/8"	0.938"	1.750"	33093	33094	96060
1"	1.062"	2.000"	33095	33096	96061
1-1/8"	1.250"	2.250"	33097	33098	96062
1-1/4"	1.375"	2.500"	33099	33100	96063
1-3/8"	1.500"	2.750"	33101	33102	96064
1-1/2"	1.625"	3.000"	33103	33104	96065

**SAE Flat Washers Made in USA**

USS and SAE washers are designed for cap screws and other threaded products. SAE washers offer a tighter screw fit, have a smaller outside diameter, and are thinner than similar size USS washers.



Nominal Size	Inner Diameter	Outer Diameter	Plain	Zinc
			Part No.	Part No.
#6	0.156"	0.375"	0159699	0159717
#8	0.188"	0.438"	0159700	0159718
#10	0.219"	0.500"	0159701	0159719
#12	0.250"	0.562"	0159702	0159720
1/4"	0.281"	0.625"	0159703	0159721
5/16"	0.344"	0.688"	0159704	0159722
3/8"	0.406"	0.812"	0159705	0159723
7/16"	0.469"	0.922"	0159706	0159724
1/2"	0.531"	1.062"	0159707	0159725
9/16"	0.594"	1.156"	0159708	0159726
5/8"	0.656"	1.312"	0159709	0159727
3/4"	0.812"	1.469"	0159710	0159728
7/8"	0.938"	1.750"	0159711	0159729
1"	1.062"	2.000"	0159712	0159730
1-1/8"	1.250"	2.250"	0159713	0159731
1-1/4"	1.375"	2.500"	0159714	0159732
1-3/8"	1.500"	2.750"	0159715	0159733
1-1/2"	1.625"	3.000"	0159716	0159734