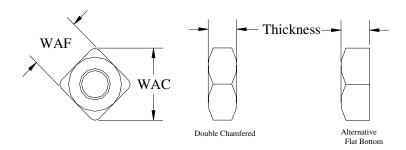


## **Earnest Technical Bulletin**

## **Grade 5 Square Nuts**

Earnest Machine products line of Grade 5 square nuts are made to the dimensional requirements specified in ASME/ANSI B18.2.2 (Rev 1987, R1999).



The physical and material properties of the nuts are made to the requirements of the Society of Automotive Engineers standard SAE J995 as specified for grade 5 hex nuts:

## **Grade 5 Square Nuts**

The physical and material properties are the same as the requirements of SAE J995 for Grade 5 Hex Nuts. Note that SAE J995 does not define the requirements for grade 5 square nuts, Earnest line of Grade 5 square nuts are made to the same material and physical requirements as specified for hex nuts.

Material: Steel with the following chemical composition requirements

Carbon Manganese Phosphorus Sulfur .55 max .30 min .05 max .15 max

Proof Load Strength: Sizes 1/4 to 1" Coarse Thread (UNC) 120,000 psi min

Sizes 1/4 to 1" Fine Thread (UNF) 109,000 psi min Sizes 1 1/8 to 2" Coarse Thread (UNC) 105,000 psi min Sizes 1 1/8 to 2" Fine Thread (UNF) 94,000 psi min

Hardness: Rc 32 max

## Dimensions per ASME/ANSI B18.2.2

Dia.	Width Across Flats			Width Across Corners		Thickness		
	Basic	Max	Min	Max	Min	Basic	Max	Min
1/4	7/16	.438	.425	.619	.554	7/32	.235	.203
5/16	9/16	.562	.547	.795	.721	17/64	.283	.249
3/8	5/8	.625	.606	.884	.802	21/64	.346	.310
7/16	3/4	.750	.728	1.061	.970	3/8	.394	.356
1/2	13/16	.812	.788	1.149	1.052	7/16	.458	.418
5/8	1	1.000	.969	1.414	1.300	35/64	.569	.525
3/4	1 1/8	1.125	1.088	1.591	1.464	21/32	.680	.632
7/8	1 5/16	1.312	1.269	1.856	1.712	49/64	.792	.740
1	1 1/2	1.500	1.450	2.121	1.961	7/8	.903	.847
1 1/8	1 11/16	1.688	1.631	2.386	2.209	1	1.030	.970
1 1/4	1 7/8	1.875	1.812	2.652	2.458	1 3/32	1.126	1.062
1 3/8	2 1/16	2.062	1.994	2.917	2.708	1 13/64	1.237	1.169
1 1/2	2 1/4	2.250	2.175	3.182	2.956	1 5/16	1.348	1.276