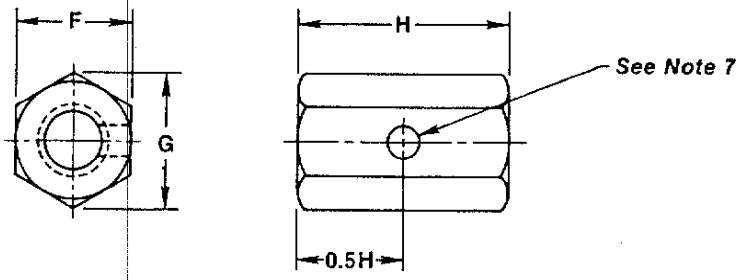
HEX COUPLING NUTS

IFI Note:

1. IFI-128 is a standard developed through the procedures of Industrial Fasteners Institute. IFI-128 was first published in 1978 and reaffirmed, without technical change, in 1986.



Dimensions of Hex Coupling Nuts

Nom Size or Basic Major Dia of Thread		F			G		H		
		Width Across Flats			Width Across Corners		Thickness		
		Basic	Max	Min	Max	Min	Basic	Max	Min
1/4	0.2500	3/8	0.375	0.365	0.433	0.416	3/4	0.76	0.74
5/16	0.3125	1/2	0.500	0.489	0.577	0.557	15/16	0.95	0.93
3/8	0.3750	9/16	0.562	0.551	0.650	0.628	1-1/8	1.13	1.11
7/16	0.4375	11/16	0.688	0.675	0.794	0.769	1-5/16	1.32	1.30
1/2	0.5000	3/4	0.750	0.736	0.866	0.839	1-1/2	1.51	1.49
9/16	0.5625	7/8	0.875	0.861	1.010	0.981	1-11/16	1.70	1.67
5/8	0.6250	15/16	0.938	0.922	1.083	1.051	1-7/8	1.89	1.86
3/4	0.7500	1-1/8	1.125	1.088	1.299	1.240	2-1/4	2.27	2.22
7/8	0.8750	1-5/16	1.312	1.269	1.516	1.447	2-5/8	2.65	2.60
1	1.0000	1-1/2	1.500	1.450	1.732	1.653	3	3.03	2.97
1-1/8	1.1250	1-11/16	1.688	1.631	1.949	1.859	3-3/8	3.40	3.34
1-1/4	1.2500	1-7/8	1.875	1.812	2.165	2.066	3-3/4	3.78	3.71
1-3/8	1.3750	2-1/16	2.062	1.994	2.382	2.273	4-1/8	4.16	4.09
1-1/2	1.5000	2-1/4	2.250	2.175	2.598	2.480	4-1/2	4.54	4.46
1-5/8	1.6250	2-9/16	2.562	2.481	2.959	2.828	4-7/8	4.91	4.83
1-3/4	1.7500	2-3/4	2.750	2.662	3.175	3.035	5-1/4	5.29	5.21
1-7/8	1.8750	2-15/16	2.938	2.844	3.392	3.242	5-5/8	5.67	5.58
2	2.0000	3-1/8	3.125	3.025	3.608	3.448	6	6.04	5.95
2-1/4	2.2500	3-1/2	3.500	3.388	4.041	3.862	6-3/4	6.80	6.70
2-1/2	2.5000	3-7/8	3.875	3.750	4.474	4.275	7-1/2	7.55	7.44
2-3/4	2.7500	4-1/4	4.250	4.112	4.907	4.688	8-1/4	8.31	8.19
3	3.0000	4-5/8	4.625	4.475	5.340	5.101	9	9.06	8.94
3-1/4	3.2500	5	5.000	4.838	5.773	5.515	9-3/4	9.81	9.68
3-1/2	3.5000	5-3/8	5.375	5.200	6.206	5.928	10-1/2	10.57	10.43
3 3/4	3.7500	5-3/4	5.750	5.562	6.639	6.340	11-1/4	11.32	11.17
4	4.0000	6-1/8	6.125	5.925	7.072	6.754	12	12.08	11.92
4-1/4	4.2500	6-1/2	6.500	6.288	7.506	7.168	12-3/4	12.83	12.67
4-1/2	4.5000	6-7/8	6.875	6.650	7.939	7.581	13-1/2	13.58	13.42
4-3/4	4.7500	7-1/4	7.250	7.012	8.372	7.994	14-1/4	14.34	14.16
5	5.0000	7-5/8	7.625	7.375	8.805	8.408	15	15.09	14.91
5-1/4	5.2500	8	8.000	7.738	9.238	8.821	15-3/4	15.85	15.65
5-1/2	5.5000	8-3/8	8.375	8.100	9.671	9.234	16-1/2	16.60	16.40
5-3/4	5.7500	8-3/4	8.750	8.462	10.104	9.647	17-1/4	17.35	17.15
6	6.0000	9-1/8	9.125	8.825	10.537	10.060	18	18.11	17.89
See Note					3				

HEX COUPLING NUTS

NOTES:

1. All dimensions are in inches.

2. **Top Surfaces of Nuts.** Nuts shall be double chamfered. The diameter of chamfer circle shall be equal to the maximum width across flats within a tolerance of minus 15 percent.

The length of chamfer at hex corners shall be from 5 to 15 percent of the basic thread diameter. The surface of chamfer may be slightly convex or rounded.

3. **Corner Fill.** A rounding or lack of fill at junction of hex corners with chamfer shall be permissible provided the width across corners is within specified limits at and beyond a distance equal to 17.5 percent of the basic thread diameter from the chamfered faces.

4. **Concentricity of Tapped Hole.** Axis of tapped hole shall be concentric with axis of nut body within a tolerance equal to 3 percent (6 percent FIM) of the maximum width across flats.

5. **Countersink.** Tapped hole may be countersunk on both faces.

6. **Threads.** Threads shall be Unified coarse or 8 thread series (UNC or 8 UN series), Class 2B, in accordance with ANSI/ASME B1.1, page A-26.

7. In some applications it may be desirable to assure that the threaded parts joined by a coupling nut are each engaged to approximately one-half nut thickness. As a visual inspection aid, a hole drilled through one side of the nut is recommended. The hole should be located at mid nut thickness, and have a diameter of 0.2 to 0.4 times nominal nut size for sizes 2½ in. and smaller, and 1 in., for sizes 2¾ in. and larger. Nuts shall be furnished without a hole, unless specially ordered by the purchaser.

8. **Material.** Unless otherwise specified, chemical and mechanical properties of steel nuts shall conform with ASTM A563, Grade A, page B-108. Other materials shall be as agreed upon by manufacturer and purchaser.

9. For wrench openings, refer to Appendix III, ANSI/ASME B18.2.2, page D-20.