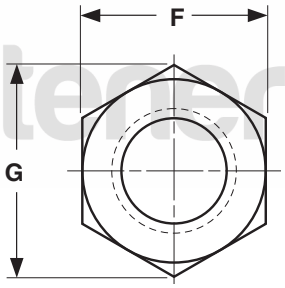
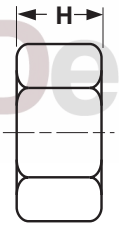
NUTS

DIN 934 Hex Nuts Steel





Fasteners By Design Inc.

METRIC - HEX NUTS, DIN 934

DIN 934

Nominal Size	Thread Pitch	F		H	
		Width Across Flats		Thickness	
		Max	Min	Max	Min
M2	0.4	4	3.82	1.6	1.35
M2.5	0.45	5	4.82	2	1.75
M3	0.5	5.5	5.32	2.4	2.15
M4	0.7	7	6.78	3.2	2.9
M5	0.8	8	7.78	4	3.7
M6	1	10	9.78	5	4.7
M8	1.25	13	12.73	6.5	6.14
M10	1.5	17	16.73	8	7.64
M12	1.75	19	18.67	10	9.64
M16	2	24	23.67	13	12.3
M20	2.5	30	29.16	16	14.9

Description	A Style 1, heat treated fastener with a metric thread pitch. Nuts M16 and smaller are chamfered on the top and the bearing surface. Nuts M20 and larger may be double chamfered, or have a washer face on one side and a chamfered surface on the opposite side.		
Applications/ Advantages	Class 6 nuts are to be used with screws and bolts of property class 6.8 or lower. They are commonly used with metric machine screws.	Class 8 nuts are for use with screws and bolts of property class 8.8 and lower. They are often used in automotive and electronic applications.	Class 10 nuts are intended for use with screws and bolts of property classes 10.9 and lower. They are widely used in farm equipment.
Material	Class 6 nuts shall be made of a steel which conforms to the following chemical composition-- ***Carbon***: 0.50% maximum; ***Phosphorus***: 0.060% maximum; ***Sulfur***: 0.150% maximum.	Class 8 nuts shall be made of a steel which conforms to the following chemical composition-- ***Carbon***: 0.58% maximum; ***Manganese***: 0.25% minimum; ***Phosphorus***: 0.060% maximum; ***Sulfur***: 0.150% maximum.	Class 10 nuts shall be made of a steel which conforms to the following chemical composition-- ***Carbon***: 0.58% maximum; ***Manganese***: 0.30% minimum; ***Phosphorus***: 0.048% maximum; ***Sulfur***: 0.058% maximum.
Heat Treatment	-	Class 8 nuts of diameter 18mm or greater shall be heat treated by quenching in a liquid medium from a temperature above the transformation temperature and tempering at a temperature of at least 425°C.	Class 10 nuts shall be heat treated by quenching in a liquid medium from a temperature above the transformation temperature and tempering at a temperature of at least 425°C.
Hardness	***Class 6***: ***Thru M16 Diam***: Rockwell B78.7 - C30; ***Diam M18 thru M39***: Rockwell B85 - C30	***Class 8***: ***Diam M1.6 thru M4:*** Rockwell B87.1 - C30; *Diam M5 thru M16:* Rockwell B91.5 - C30; *Diam M18 thru M39:* Rockwell C18 - 36.	***Class 10:*** Rockwell C26 - 36
Proof Load	***Diameters M1.6 thru M10:*** 600 N/mm^2 *Diameters M5 thru M7:* 670 N/mm^2 *Diameters M8 thru M10:* 680 N/mm^2 *Diameters M12 thru M16:* 700 N/mm^2 *Diameters M18 thru M36:* 720 N/mm^2	***Diameters M1.6 thru M4:*** 900 N/mm^2 *Diameters M5 thru M7:* 855 N/mm^2 *Diameters M8 thru M10:* 870 N/mm^2 *Diameters M12 thru M16:* 880 N/mm^2 ***Diameters M18 thru M36:*** 920 N/mm^2	***Diameters through M10:*** 1040 N/mm^2 ***Diameters M12 through M16:*** 1050 N/mm^2 *Diameters M18 through M39:* 1060 N/mm^2
Plating	DIN 934 Hex Nuts are commonly supplied in both plain and zinc finishes; see Appendix-A for more details.		

DIN 934 Hex Nuts Stainless

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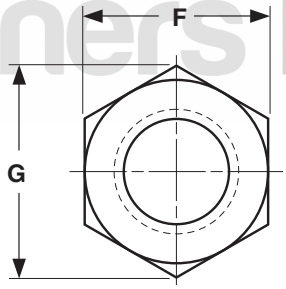

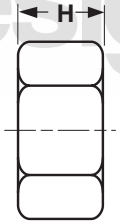

METRIC - Hex Nuts, DIN 934

DIN 934

Nominal Size	Thread Pitch	F		H	
		Width Across Flats		Thickness	
		Max	Min	Max	Min
M2	0.4	4	3.82	1.6	1.35
M2.5	0.45	5	4.82	2	1.75
M3	0.5	5.5	5.32	2.4	2.15
M4	0.7	7	6.78	3.2	2.9
M5	0.8	8	7.78	4	3.7
M6	1	10	9.78	5	4.7
M8	1.25	13	12.73	6.5	6.14
M10	1.5	17	16.73	8	7.64
M12	1.75	19	18.67	10	9.64
M16	2	24	23.67	13	12.3
M20	2.5	30	29.16	16	14.9

Description	A Style 1, heat treated fastener with a metric thread pitch. Nuts M16 and smaller are chamfered on the top and the bearing surface. Nuts M20 and larger may be either double chamfered, or have a washer face on one side and a chamfered surface on the opposite side.	
Applications/ Advantages	Stainless nuts are to be used with screws and bolts of property class 50 or lower. They are commonly used with metric machine screws.	Stainless nuts are to be used with screws and bolts of property class 80 or lower. They are commonly used with metric machine screws.
Material	A2 Stainless steel	A4 Stainless Steel
Hardness	Testing for product hardness is not required on stainless steel DIN 934 nuts.	
Proof Load	101,500 psi.	116,000
Plating	DIN 934 Stainless Hex Nuts are commonly supplied either plain or with Black Oxide finish; see Appendix-A for more details.	

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