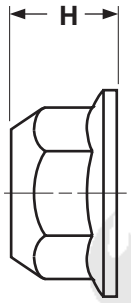
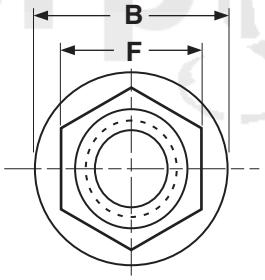
Nuts

METRIC

DIN 6923 Hex Flange
Class 8 & Class 10 Steel



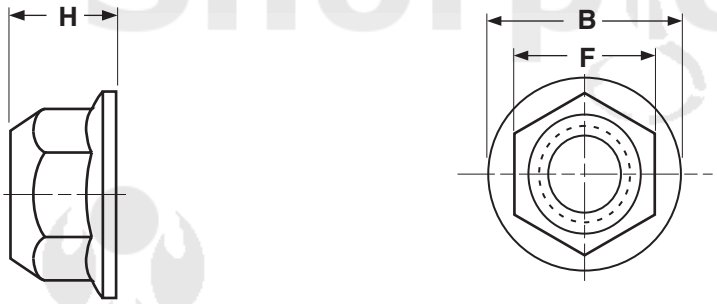


METRIC DIN 6923 HEX FLANGE NUTS

DIN 6923

Nominal Size	Thread Pitch	F		H		B
		Width Across Flats		Overall Height		Flange Diameter
		Max	Min	Max	Min	Max
M3	0.5	5.50	5.30	4.0	3.4	8.0
M4	0.7	7.00	6.78	4.65	4.2	10.0
M5	0.8	8.00	7.78	5.0	4.7	11.8
M6	1.0	10.00	9.78	6.0	5.7	14.2
M8	1.25	13.00	12.73	8.0	7.6	17.9
M10	1.5	15.00	14.73	10.0	9.6	21.8
M12	1.75	18.00	17.73	12.0	11.6	26

Description	A hex nut with an enlarged circular base flaring out from the bottom of the nut, and a metric thread pitch. The bearing surface of the flange is smooth.	
Applications/ Advantages	Class 8 nuts are intended for use with screws and bolts of property class 8.8 or lower. The flange design will span oversized or poorly aligned holes. The flange provides a more uniform bearing-stress to clamp-force ratio.	Class 10 nuts are intended for use with screws and bolts of property class 10.9 or lower. The flange design will span oversized or poorly aligned holes. The flange provides a more uniform bearing-stress to clamp-force ratio.
Material	***Class 8***	***Class 10***
	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 less than 18mm do not require heat treatment.	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	***Diameters M5 thru M16:*** Vickers HV 188 - 302	***Diameters M5 thru M20:*** Vickers HV 272 - 353
Proof Load	***Diameters M5 thru M6:*** 117,450 psi. ***Diameters M8 thru M10:*** 120,350 psi. ***Diameters M12 thru M16:*** 121,800 psi.	***Diameters M5 thru M10:*** 150,800 psi. ***Diameters M12 thru M16:*** 152,250 psi.
Plating	Available in various finishes, including to RoHS specifications.	



METRIC - DIN 6923 Hex Flange Nuts

DIN 6923

Nominal Size	Thread Pitch	F		H		B
		Width Across Flats		Overall Height		Flange Diameter
		Max	Min	Max	Min	Max
M3	0.5	5.50	5.30	4.0	3.4	8.0
M4	0.7	7.00	6.78	4.65	4.2	10.0
M5	0.8	8.00	7.78	5.0	4.7	11.8
M6	1	10.00	9.78	6.0	5.7	14.2
M8	1.25	13.00	12.73	8.0	7.6	17.9
M10	1.5	15.00	14.73	10.0	9.6	21.8
M12	1.75	18.00	17.73	12.0	11.6	26

Description	A hex nut with an enlarged circular base flaring out from the bottom of the nut, and a metric thread pitch. The bearing surface of the flange is smooth.	
Applications/ Advantages	Class A2-70 nuts are intended for use with screws and bolts of similar material in corrosive environments. The flange design will span oversized or poorly aligned holes. The flange provides a more uniform bearing-stress to clamp-force ratio.	Class A4-70 nuts are intended for use with screws and bolts of similar material where greater resistance to extreme temperatures and greater resistance to corrosion is desired. The flange design will span oversized or poorly aligned holes. The flange provides a more uniform bearing-stress to clamp-force ratio.
Material	***Class A2 70***	***Class A4 70***
	A2 Class 70 Stainless (comparable to 18-8)	A4 Class 70 Stainless (comparable to 316)
Proof Load	101,500 psi.	101,500 psi.
Plating	Stainless DIN 6923 nuts are typically provided without additional coating.	