



DIN 6921 HEX FLANGE BOLTS											DIN 6921	
Nominal Size	Thread Pitch	E		F		G	D	H	U	B		
		Body Diameter		Width Across Flats		Width Across Corners	Total Head Height	Wrenching Height	Flange Edge Thickness	Flange Diameter		
		Max	Min	Max	Min	Min	Max	Min	Min	Max	Min	
M6	1	6	5.82	10	9.78	10.95	6.6	2.6	1.1	14.2	12.2	
M8	1.25	8	7.78	13	12.73	14.26	8.1	3.2	1.2	18	16.8	
M10	1.5	10	9.78	15	14.73	16.5	9.2	3.6	1.5	22.3	19.6	
M12	1.75	12	11.73	16	15.73	17.62	11.5	4.6	1.8	28.6	23.8	
Tolerance on Length		12 thru 16mm: ±0.35mm				20mm thru 30mm: ±0.42m			35 thru 50mm: ±0.5 mm			
		55 thru 80 mm: ±0.6 mm				90 thru 120 mm: ±0.7 mm			130 thru 180 mm: ±0.8 mm			

Description	A one-piece hex washer head bolt with a flat bearing surface, made of medium carbon or high-alloy steel.
Applications / Advantages	Primary use for Class 10.9 bolt is on truck chassis frames. The flange eliminates the need for a flat washer and helps compensate for a misaligned hole. When used with a proper class flange nut, the bolt system resists bolt slippage by distributing the clamp load over a wide area.
Material	Class 8.8 carbon steel chemical composition: Carbon- 0.15 - 0.55%; Phosphorous- 0.35% max; Sulphur- 0.35% max Class alloy steel 10.9 chemical composition: Carbon- 0.20 - 0.55%; Phosphorous- 0.35% max; Sulphur- 0.35% max
Tempering Temperature	425° C Minimum
Tensile Strength	Class 8.8: 800 N/mm ² min.; Class 10.9: 1040 N/mm ² min.
Rockwell Hardness	Class 8.8: Rockwell C22 - 32.; Class 10.9: Rockwell C32 - 39
Proof Stress	Class 8.8: 640 N/mm ² min.; Class 10.9: 940 N/mm ² min.
Elongation after Fracture	Class 8.8: 12 mm; Class 10.9: 9 mm
Plating	Parts are available in various finishes including black phosphate, zinc, or with a plain finish.