



METRIC - CARRIAGE BOLTS, SHORT NECK

ISO 8678;
DIN 603;
JIS B 1171

Nominal Diameter	Pitch (mm)	O		C	P		A	B	H		L1	Thread Length <=125	Thread Length >125 & <=200
		Square Width Across Flats	Max	Min	Square Width Across Corners	Min	Max	Min	Head Diameter	Bearing Surface Diameter under Head			
mm		Max	Min	Min	Max	Min	Max	Min	Max	Min	Ref	Ref	
M6	1	6.48	5.88	7.64	3	2.4	14.2	12.2	3.6	3	18	-	
M8	1.25	8.58	7.85	10.2	3	2.4	18	15.8	4.8	4	22	28	
M10	1.5	10.58	9.85	12.8	4	3.2	22.3	19.6	5.8	5	26	32	
M12	1.75	12.7	11.82	15.37	4	3.2	26.6	23.8	6.8	6	30	36	
M16	2	16.7	15.82	20.57	5	4.2	35	31.9	8.9	8	38	44	
M20	2.5	20.84	19.79	25.73	5	4.2	43	39.9	10.9	10	46	52	
Tolerance on Length		12-16mm: ±0.9			20-30mm: ±1.05			35-50mm: ±1.25					
		55-80mm: ±1.5			90-120mm: ±1.75			130-160mm: ±2.0					

Description	A round head, self-anchoring bolt with a shorter square neck than a standard carriage bolt, and a metric thread pitch.
Applications/Advantages	Used in the same way as a standard carriage bolt but in sheet metal where a full-sized square neck would cause an obstruction on the nut side of the fastening.
Material	Class 4.8 carriage bolts shall be made from a carbon steel which conforms to the following chemical composition- Carbon: 0.55% maximum; Phosphorus: 0.05% maximum; Sulfur: 0.06% maximum.
Hardness	Rockwell B 71 - 99.5 (Vickers HV 130 - 250)
Yield Strength	340 N/mm ² minimum
Tensile Strength	420 N/mm ² minimum
Elongation	14% minimum
Plating	See Appendix-A for plating information