



METRIC - CARRIAGE BOLTS, SHORT NECK

ISO 8678;
DIN 603;
JIS B 1171

Nominal Diameter	Pitch (mm)	O		C	P		A	B	H		L1	
		Square Width Across Flats		Square Width Across Corners	Square Depth		Head Diameter	Bearing Surface Diameter under Head	Head Height		Thread Length <=125	Thread Length >125 & <=200
		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-- <i>Carbon:</i> 0.55% maximum; <i>Phosphorus:</i> 0.05% maximum; <i>Sulfur:</i> 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