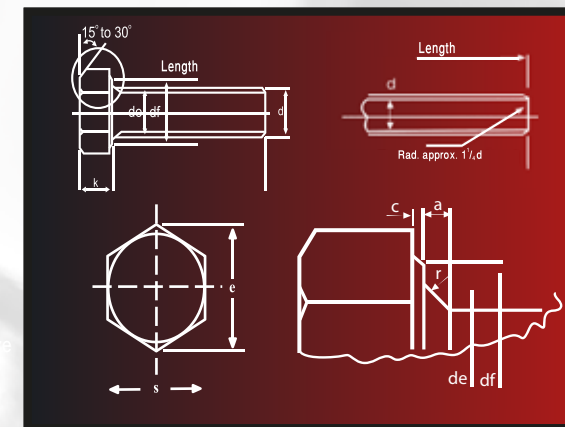


Non- Pre Load Bolt Assemblies as EN 15048-1&2

Hex Bolt

Bolt Drawing

BS EN 15048 Fully threaded setscrew dimensions. Classes 8.8 & 10.9												
Nominal size and Thread dia. d	Pitch of thread p (Coarse pitch series)	Plain portion a max	Width across flats s		Width across corners e min	Diameter of washer face df min	Depth of washer face c		Radius under head r min	Transition diameter r_{de} max	Thickness of head k	
			max	min			max	min			max	Min
M12	1.75	5.25	18.00	17.57	19.85	16.47	0.60	0.15	0.60	13.70	7.68	7.32
M16	2.00	6.00	24.00	23.16	26.16	22.00	0.80	0.20	0.60	17.70	10.29	9.71
M20	2.50	7.50	30.00	29.16	32.95	27.70	0.80	0.20	0.80	22.40	12.85	12.15
M24	3.00	9.00	36.00	35.00	39.55	33.25	0.80	0.20	0.80	26.40	15.35	14.65
M30	3.50	10.50	46.00	45.00	50.85	42.75	0.80	0.20	1.00	33.40	19.12	18.28
M36	4.00	12.00	55.00	53.00	60.78	51.11	0.80	0.20	1.00	39.40	22.92	22.08



Product Characteristics	Standard	
Fully threaded setscrews		
General requirements	ISO 4017	
Material & manufacture	ISO 898-1 CLASSES 8.8 & 10.9	
Finish /coatings	Zinc electroplated	BS 7371-3 or BS EN ISO 4042
	Hot dip galvanized	BS 7371-6 or BS EN ISO 10684
Mechanical Properties	ISO 898-1 Classes 8.8 & 10.9	
Dimensions & tolerances	ISO 4017	
Threads	ISO 965-2 class 6G	

BS EN 15048 Mechanical properties. Grade 8.8 setscrews					
Bolt thread dia	Tensile strength	Proof load	Elongation	Hardness Rockwell HRC	
	N/mm ² min	N/mm ² min	% min	min	Max
M12	800.00	48.90	12.00	22.00	32.00
M16	800.00	91.00	12.00	22.00	32.00
M20	830.00	147.00	12.00	23.00	34.00
M22	830.00	182.00	12.00	23.00	34.00
M24	830.00	212.00	12.00	23.00	34.00
M27	830.00	275.00	12.00	23.00	34.00
M30	830.00	337.00	12.00	23.00	34.00
M36	830.00	490.00	12.00	23.00	34.00

BS EN 15048 Assemblies also require a charpy impact test to en 10045-1

Marking

