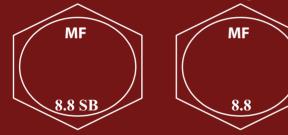


## Non Pre-Load Bolt Assemblies BS EN 15048-1&2

BS EN 15048 Fully threaded setscrew dimensions. Classes 8.8 & 10.9													
Nominal size and Thread	Pitch of thread p	Plain portion a	Width across flats s		Width across corners e	Diameter of washer face df	Depth of washer face c		Radius under head r	Transition diameter de	Thickness of head k		
dia. <i>d</i>	Coarse pitch series )	max	max	min	min	min	max	min	min	max	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	19.1 <b>2</b>	18.28	
M36	4.00	12.00	55.00	53.00	60.79	51.11	0.80	0.20	1.00	39.40	22.92	22.08	

BS EN 15048 Head Marking



Bolt thread dia	Tensile strength	Proof load	Elongation	Hardness Rockwell HRC			
	N/mm <sup>2</sup>	N/mm <sup>2</sup>	% min	min	max		
	min	min					
M12	800.00	660.00	12.00	23.00	34.00		
M16 830.00		660.00	12.00	23.00	34.00		
M20 830.00		660.00	12.00	23.00	34.00		
M22 830.00		660.00	12.00	23.00	34.00		
M24	830.00	660.00	12.00	23.00	34.00		
M27	830.00	660.00	12.00	23.00	34.00		
M30 830.00		660.00	12.00	23.00	34.00		
M36	830.00	660.00	12.00	23.00	34.00		
BS EN 1	5048 Assembl	ies also requi	re a charpy imp	act test to EN	10045-1		
Product C	haracterist	ics	Standard				
Fully threa	ded setscrev	vs					
General re	quirements		ISO 4017				
Material 8	manufactur	·e	ISO 898-1 CLASSES 8.8 & 10.9				
Finish Zinc elect		roplated	BS 7371-3 or BS EN ISO 4042				
/coatings	Hot dip g	alvanized	BS 7371-6 or BS EN ISO 10684				
Mechanica	l properties		ISO 898-1 Classes 8.8 & 10.9				
Dimensio	ns & tolerand	ces	ISO 4017				
Threads			ISO 965-2 class 6G				

DC EN 1E040 Mash

