

GRADE 4.6



GRADE 8.8

FOUNDATION BOLT ASSEMBLIES

BS 7419 SQ SQ RND HEX

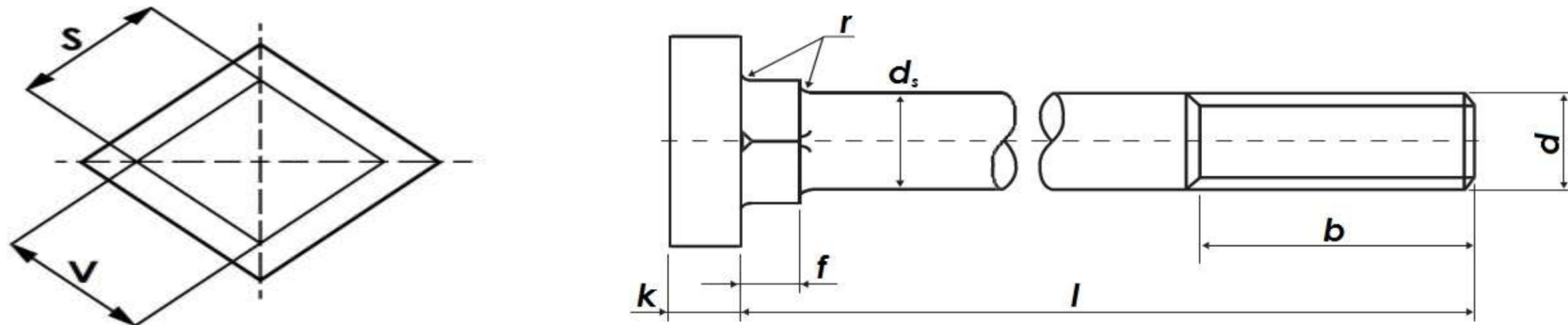
SELF-COLOUR & HOT DIPPED GALVANISED

Thread size D	pitch of thread p	T				DS		H		R	AF		S		sq	
		A		B		Max.	Min.	Max.	Min.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
		Max.	Min.	Max.	Min.											
M16	2.0	122.0	116	225	200	16.70	15.30	10.75	9.250	0.6	24.00	23.16	8.75	7.25	16.70	15.30
M20	2.5	127.5	120	225	200	20.84	19.16	13.40	11.60	0.8	30.00	29.16	10.75	9.25	20.84	19.16
M24	3.0	133.0	124	225	200	24.84	23.16	15.90	14.10	0.8	36.00	35.00	12.90	11.10	24.84	23.16
M30	3.5	140.5	130	225	200	30.84	29.16	19.75	17.65	1.0	46.00	45.00	15.90	14.10	30.84	29.16
M36	4.0	148.0	136	225	200	37.00	35.00	23.55	21.45	1.0	55.00	53.80	18.90	17.10	37.00	35.00
M42	4.5	155.5	142	225	200	43.00	41.00	27.05	24.95	1.2	65.00	63.10	22.05	19.95	43.00	41.00
M48	5.0	163.0	148	225	200	49.00	47.00	31.05	28.95	1.6	75.00	73.10	25.05	22.95	49.00	47.00
M56	5.5	172.5	156	225	200	57.20	54.80	36.25	33.75	2.0	85.00	82.80	29.05	26.95	57.20	54.80
M64	6.0	182.0	164	225	200	65.20	62.80	41.25	38.75	2.0	95.00	92.80	33.25	30.75	65.20	62.80

a FOR NOMINAL LENGTHS L < 600. b FOR NOMINAL LENGTHS L > 600.

CHARACTERISTIC	STANDARD	
General Requirements	BS 7419	
Threads	BS 3643 Parts 1 & 2 Tolerance class 8g	
Materials & Manufacture	BS EN ISO 898-1 Property classes 4.6 & 8.8	
Mechanical properties	BS EN ISO 898-1 Property classes 4.6 & 8.8	
Dimensions & Tolerances	BS 7419	
Finish / Coatings	Self-colour / Black	BS 7419
	Hot Dip Galvanised	ISO 1461
Product Marking	BS EN ISO 898-1	

BS 7419 TOLERANCE ON NOMINAL LENGTH		
NOMINAL LENGTH		TOLERANCE
OVER	UP TO AND INCLUDING	
250	315	± 5.20
315	400	± 5.70
400	500	± 6.30
500	625	± 6.80
625	800	± 7.20
800	1000	± 7.40
1000	1250	± 7.60



Nominal Dia	Stress Area Mm^2	Property Class 4.6			Property Class 8.8		
		Tensile Load min KN	Hardness Rockwell HRB		Tensile Load min KN	Hardness Rockwell HRC	
			Min	Max		Min	Max
M16	157	62.80	67	95	130	23	34
M20	245	98.00	67	95	203	23	34
M24	353	141.0	67	95	293	23	34
M30	561	224.0	67	95	466	23	34
M36	817	327.0	67	95	678	23	34

BS 7419 ULTIMATE TENSILE LOAD & HARDNESS

BS 7419 MACHINED TEST REQUIREMENTS

Tensile Strength Min N/mm^2	Elongation Min %	Reduction Area Min %	Hardness Rockwell HRC	
			Min	Max
830	12	52	23	34

For bolts > M36 testing would generally be on machined test pieces