

SOCKET HEAD CAP SCREWS - ISO METRIC



Applicable or Similar Specifications:

Product: BS 4168
 DIN 912
 ISO 4762
 Grade: BS 6104 Grade: 12.9
 ISO 8981 Grade: 12.9

Thread size (B Max.)	Pitch	A Max.	da Max.	H Max.	W Nom	SEE NOTE 2 L	Length of thread d T (REF)	Max Tightening Torques					
								Unplated		Induced Load		kN	lbf.
								Nm	lbf.in	Nm	lbf.in.		
M3	0.50	5.50	3.60	3.00	2.5	20	18	2.1	18.6	1.6	14.2	3.99	890
M4	0.70	7.00	4.70	4.00	3.0	25	20	4.6	40.7	3.5	31.0	6.75	1510
M5	0.80	8.50	5.70	5.00	4.0	25	22	9.5	84.1	7.1	62.8	11.10	2480
M6	1.00	10.00	6.80	6.00	5.0	30	24	16.0	142.0	12.0	106.0	15.60	3480
M8	1.25	13.00	3.20	8.00	6.0	35	28	39.0	345.0	29.0	257.0	28.70	6400
M10	1.50	16.00	11.20	10.00	8.0	40	32	77.0	682.0	58.0	513.0	45.70	10200
M12	1.75	18.00	13.70	12.00	1.0	50	36	135.0	1200.0	101.0	894.0	66.70	14900
(M14)	2.00	21.00	15.70	14.00	12.0	55	40	215.0	1900.0	161.0	1420.0	91.30	20400
M16	2.00	24.00	17.70	16.00	14.0	60	44	330.0	2920.0	248.0	2190.0	126.00	28100
(M18)	2.50	27.00	20.20	18.00	14.0	65	48	455.0	4030.0	341.0	3020.0	153.00	34100
M20	2.50	30.00	22.40	20.00	17.0	70	52	650.0	5750.0	488.0	4320.0	197.00	44000
(M22)	2.50	33.00	24.40	22.00	17.0	70	56	870.0	7700.0	652.0	5770.0	245.00	54700
M24	3.00	36.00	26.40	24.00	19.0	80	60	1100.0	9740.0	825.0	7300.0	284.00	63400
M27	3.00	40.00	30.40	27.00	19.0	90	66	1650.0	14600	1238.0	11000	374.00	83400
M30	3.50	45.00	33.40	30.00	22.0	100	72	2250.0	19900	1688.0	15000	454.00	10100

ALL DIMENSIONS IN MILLIMETRES. SIZES IN BRACKETS ARE NON-PREFERRED STANDARDS.

MECHANICAL PROPERTIES

Material	Unbrako High Grade Alloy Steel	
Heat Treatment	Rc 40-43	
Screw Size	≤M16	>M16
Tensile Strength	1300 N/mm ²	1250 N/mm ²
Yield Strength	1170 N/mm ²	1124 N/mm ²
Shear Strength	780 N/mm ²	750 N/mm ²
Min. Elongation	9%	9%

NOTES:

- Thread and Grip Lengths are shown on Pages 8 & 9.
- Screws with lengths equal or shorter than listed in column 'L' will be threaded to head.
- Thread Class: 4g 6g
- da: Transition Diameter
- Working Temperature: -50°C +300°C
- Torques calculated in accordance with VDI 2230 "Systematic calculation of high duty bolted joints" with $\sigma = 0.2 = 1080 \text{ N/mm}^2$ and $\mu = 0.125$ for plain finish and $\mu = 0.094$ for plated.