



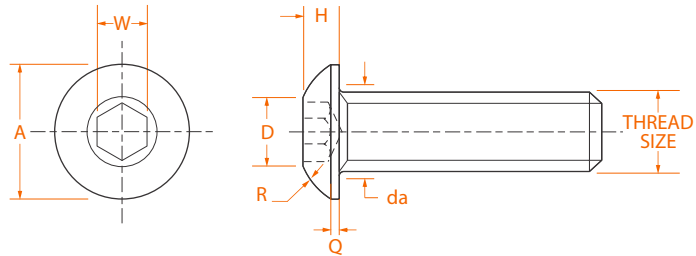
Low head streamline design. Use them in materials too thin to countersink; also for non-critical loading requiring heat treated screws

Equivalent Standards

ISO 7380, ASME B18.3.4M, BS 4168-4

Mechanical Properties

1. Material: ASTM F835M, EN ISO 898-1
2. Dimensions: B18.3.4M
3. Property Class: 12.9
4. Hardness: Rc 39-44
5. Tensile Stress: 1040MPa
6. Shear Stress: 630 Mpa
7. Yield Stress: 945 Mpa
8. Working temperature: -50°C to +300°C
9. Bearing surface: To be square with body within 2°.
10. Thread Class: 4g 6g
11. Min Elongation 9%
12. Length Tolrence +/- 0.25MM
13. Torques Calculated In Accordance With VDI 2230



Product Dimensions

Thread size nom.	Pitch	Head Diameter A max	Transition dia da max	Head Diameter D max	Head Height H max.	Q max	R ref.	Hex Socket Size W nom.
M3	0.50	5.70	3.60	3.31	1.65	.38	3.00	2.0
M4	0.70	7.60	4.70	3.93	2.20	.38	4.20	2.5
M5	0.80	9.50	5.70	4.50	2.75	.50	5.20	3.0
M6	1.00	10.50	6.80	5.90	3.30	.80	5.60	4.0
M8	1.25	14.00	9.20	7.00	4.40	.80	7.50	5.0
M10	1.50	17.50	11.20	8.20	5.50	.80	10.00	6.0
M12	1.75	21.00	13.70	10.50	6.60	.80	11.00	8.0

Recommended Tightening Torque

Unplated		Plated		Tensile Load kN
Nm	lbf.in	Nm	lbf.in	
1.4	12	1.1	9	5.28
3.4	30	2.6	22	9.22
6.8	60	5.1	45	14.90
11.0	97	8.3	73	21.10
28.0	248	21.0	186	38.40
55.0	486	41.0	363	60.90
95.0	840	71.0	630	88.50

General Note: Flat, countersunk head cap screws and button head cap screws are designed and recommended for moderate fastening applications: machine guards, hinges, covers, etc. They are not suggested for use in critical high strength applications where socket head cap screws should be used. Also due to their head configuration they may not meet the minimum ultimate tensile requirements for property class 12.9 as specified in EN ISO 898-1. They are nevertheless required to meet the other material and property requirements for property class 12.9.

Head Marking



Head markings may vary slightly depending on manufacturing practice. UNBRAKO, and UNB are recognized identifications for M5 diameter & larger.