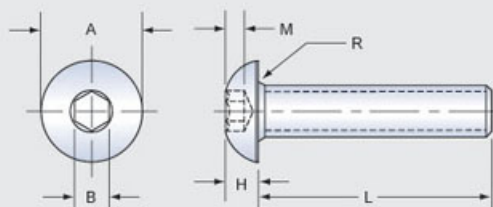


ASME B18.3 : Hexagon Socket Button Head Cap Screws



Dimensions (inch)

Norm Size	A	H	B nom	M min.	R min	R. S. Torque in-lb
#0	0.104 - 0.114	0.026 - 0.032	0.035	0.020	0.002	1.42
#1	0.129 - 0.139	0.033 - 0.039	0.050	0.028	0.003	2.52
#2	0.154 - 0.164	0.038 - 0.046	0.050	0.028	0.003	4.18
#3	0.176 - 0.188	0.044 - 0.052	1/16 0.062	0.035	0.004	6.33
#4	0.201 - 0.213	0.051 - 0.059	1/16 0.062	0.035	0.004	8.88
#5	0.226 - 0.238	0.058 - 0.066	5/64 0.078	0.044	0.005	13.1
#6	0.250 - 0.262	0.063 - 0.073	5/64 0.078	0.044	0.005	16.5
#8	0.298 - 0.312	0.077 - 0.087	3/32 0.094	0.052	0.006	30.1
#10	0.347 - 0.361	0.091 - 0.101	1/8 0.125	0.070	0.006	43.7
1/4	0.419 - 0.437	0.122 - 0.132	5/32 0.156	0.087	0.007	104
5/16	0.527 - 0.547	0.152 - 0.166	3/16 0.188	0.105	0.009	215
3/8	0.636 - 0.656	0.185 - 0.199	7/32 0.219	0.122	0.012	382
1/2	0.851 - 0.875	0.245 - 0.265	5/16 0.312	0.175	0.016	931
5/8	0.970 - 1.000	0.311 - 0.331	3/8 0.375	0.210	0.021	1722

Notes:

1. Thread Class : 3A UNRC and UNRF Series for screw size #0 through 5/8.
2. Length Tolerance : See Table 1.
3. R. S. Torque = Recommended Seating Torque.
4. Working Temperature : -50°C ~ +300°C.

Mechanical Properties

Norm. Size, D	D ≤ 1/2	D > 1/2
Hardness (HRC)	39-44	37-44
Tensile Strength (psi)	145,000 min.	135,000 min.
Decarburization and Carburization (See Page 34)	E = 3/4H1	E = 3/4H1

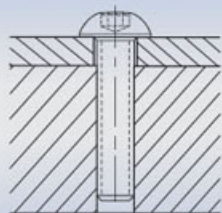
Table 1 Length Tolerance

Norm. Length	Norm. Size, Tolerances on Length	
	#0 Thru 3/8, incl.	1/2 Thru 5/8, incl.
Up to 1.00, incl.	-0.03	-0.03
Over 1.00 to 2.00, incl.	-0.04	-0.06
Over 2.00	-0.04	-0.06

■ Typical Application Fixture

Button socket cap screws are designed for applications that allow the head to protrude above the mating parts. The curved design of the button head is decorative and protects adjoining parts from scrapes or other damage. The greater under head area also protects mating parts from damage.

Due to the head design these parts should not be used in critical applications where high tensile strength is required.



■ Head Height Gauge

