

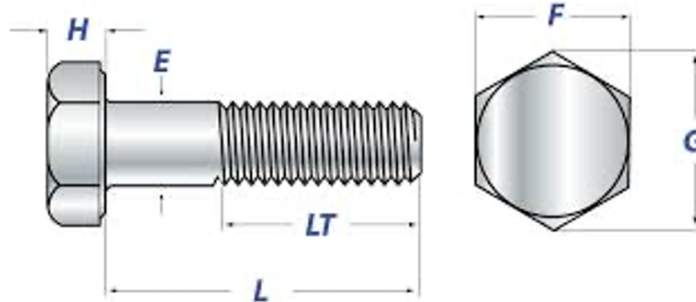


## PRODUCT DATA SHEET

USA/CA: [brightonBEST.com](http://brightonBEST.com) Europe: [brightonBEST.org](http://brightonBEST.org) AU: [brightonBEST.com.au](http://brightonBEST.com.au) NZ: [brightonBEST.co.nz](http://brightonBEST.co.nz) Brazil: [brightonBEST.com.br](http://brightonBEST.com.br)

### Hex Head Cap Screws - Inch Series

#### 1.0 Dimensions: ASME B18.2.1



Nominal Size or Basic Product Diameter	E		F		G		H		LT	
	Body Diameter		Width Across Flats		Width Across Corners		Head Height		Thread Length	
	Max	Min	Max	Min	Max	Min	Max	Min	For Screw Lengths 6 Inches and Shorter	For Screw Lengths Over 6 Inches
	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
1/4	0.2500	0.2450	0.438	0.428	0.505	0.488	0.163	0.150	0.750	1.000
5/16	0.3125	0.3065	0.500	0.489	0.577	0.557	0.211	0.195	0.875	1.125
3/8	0.3750	0.3690	0.562	0.551	0.650	0.628	0.243	0.226	1.000	1.250
7/16	0.4375	0.4305	0.625	0.612	0.722	0.698	0.291	0.272	1.125	1.375
1/2	0.5000	0.4930	0.750	0.736	0.866	0.840	0.323	0.302	1.250	1.500
9/16	0.5625	0.5545	0.812	0.798	0.938	0.910	0.371	0.348	1.375	1.625
5/8	0.6250	0.6170	0.938	0.922	1.083	1.051	0.403	0.378	1.500	1.750
3/4	0.7500	0.7410	1.125	1.100	1.299	1.254	0.483	0.455	1.750	2.000
7/8	0.8750	0.8660	1.312	1.285	1.516	1.465	0.563	0.531	2.000	2.250
1	1.0000	0.9900	1.500	1.469	1.732	1.675	0.627	0.591	2.250	2.500
1-1/8	1.1250	1.1140	1.688	1.631	1.949	1.859	0.718	0.658	2.500	2.750
1-1/4	1.2500	1.2390	1.875	1.812	2.165	2.066	0.813	0.749	2.750	3.000
1-3/8	1.3750	1.3630	2.062	1.994	2.382	2.273	0.878	0.810	3.000	3.250
1-1/2	1.5000	1.4880	2.250	2.175	2.598	2.480	0.974	0.902	3.250	3.500
1-3/4	1.7500	1.7380	2.625	2.538	3.031	2.893	1.134	1.054	3.750	4.000
2	2.0000	1.9880	3.000	2.900	3.464	3.306	1.263	1.175	4.250	4.500
2-1/4	2.2500	2.2380	3.375	3.262	3.897	3.719	1.423	1.327	----	5.000
2-1/2	2.5000	2.4880	3.750	3.625	4.330	4.133	1.583	1.479	----	5.500

**Notes:** Thread Class Of Fit: Plain: 2A. Zinc Plated: 2A before zinc plating and after zinc plating must meet 3A GO & 2A NO GO thread ring gage condition.

Disclaimer: The above is a compilation of data, from various industry standards. BBI has taken every effort to present the data accurately. However BBI cannot be held liable for any claim traceable to any errors typographical or otherwise contained herein.



## PRODUCT DATA SHEET

USA/CA: brightonBEST.com Europe: brightonBEST.org AU: brightonBEST.com.au NZ: brightonBEST.co.nz Brazil: brightonBEST.com.br

### Hex Head Cap Screws - Inch Series

#### 2.0 Mechanical Properties (For Full Size Screw Testing):

##### 2.1 Steel - SAE J429

Classification		Rockwell Hardness	Proof Load Strength	Tensile Strength Minimum	Grade Marking
Grade	Nominal Size				
2	1 / 4 thru 3 / 4 (6 inch & shorter)	B80 to B100	55,000 psi	74,000 psi	None
	1 / 4 thru 3 / 4 (longer than 6 inch)	B70 to B100	33,000 psi	60,000 psi	
	Over 3 / 4 thru 1-1/2	B70 to B100	33,000psi	60,000 psi	
5	1 / 4 thru 1	C25 to C34	85,000 psi	120,000 psi	3 Radial Lines 120 degrees apart
	Over 1 thru 1 -1/2	C19 to C30	74,000 psi	105,000 psi	
8	1 / 4 thru 1-1/2	C33 to C39	120,000 psi	150,000 psi	6 Radial Lines 60 degrees apart

Notes: Mechanical properties for sizes above 1 -1/2 " derived from SAE J429 or ASTM A354 for appropriate grades. The screws will also have manufacturer's marking on the head in addition to the grade marking as mentioned in the table.

##### 2.2 Stainless Steel - ASTM F593

Classification		Condition	Tensile Strength ksi	Yield Strength ksi	Rockwell Hardness	Grade Marking
Type	Nominal Size					
304 (18-8)	1 / 4 to 5 / 8 incl	CW1	100 to 150	65	B95 to C32	F593C
	3 / 4 to 1 -1 / 2 incl	CW2	85 to 140	45	B80 to C32	F593D
316	1 / 4 to 5 / 8 incl	CW1	100 to 150	65	B95 to C32	F593G
	3 / 4 to 1 -1 / 2 incl	CW2	85 to 140	45	B80 to C32	F593H

(1ksi = 1000 psi)

Notes : The screws will also have manufacturer's marking on the head in addition to the grade marking as mentioned in the table. Screws will be Passivated.

#### 3.0 Surface Finish: Plain / Zinc. Zinc plating details given in table below.

##### 3.1 Zinc Plating

Properties	Zinc	Zinc Yellow	Zinc Yellow
Type	Trivalent (Cr+3)	Hexavalent (Cr+6)	Trivalent (Cr+3)
Color	Clear	Yellow	Yellow
Minimum Coating Thickness	0.0001" / 3 Microns or 0.0002" / 5 Microns	0.0001 " /3 Microns or 0.0002" / 5 Microns	0.0001 " /3 Microns or 0.0002" / 5 Microns
Specification	ASTM F1941 / F1941M. Fe/Zn 3AN or Fe/Zn 5AN ASTM B633. SC1. (0.0002" or 5 microns) Type III.	ASTM F1941 / F1941M. Fe/Zn 3C or Fe/Zn 5C	ASTM F1941 /F1941M Fe/Zn 3CN or Fe/Zn 5CN