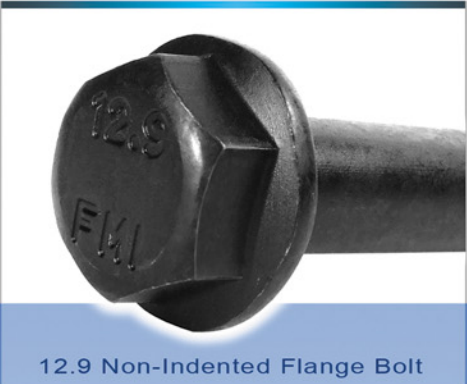




Gr. 8 Non-Indented Flange Bolt



10.9 Non-Indented Flange Bolt



12.9 Non-Indented Flange Bolt

NBS. Flange Bolts.



Gr. Alloy Non-Indented Flange Bolt



Gr. 8 12 Point Flange Bolt



Gr. Alloy 12 Point Flange Bolt



FMI® is TS-16949 & ISO-9001 certified.





Your **NBS** experience is what matters the most.

About Us



:Mission Statement

Precision Quality

NBS does not sacrifice quality in order to provide you with lower prices. We take quality to the next level by only buying from factories that are **ISO 9001** certified. In addition, NBS mainly imports **FMI®** flange bolts. Why? Because **FMI®** fasteners are recognized around the world for its **high quality & precision design**. And most importantly, our customers deserve the best.

Exceptional Service

For over a decade, NBS has imported **the most complete line of flange bolts in America**. More importantly, it has been a goal at NBS to provide our customers with the best **service and experience** possible. From friendly and highly experienced sales representatives to expanding networks across the United States, **your NBS experience is what matters the most**.

Innovation & Technology

At NBS, we are on the constant search for the best and most innovative fasteners in the world. Take for instance the **Non-Indented Head Flange Bolt**, an extremely **clean, precise, high quality** flange bolt produced using **FMI's®** highly advanced "*Direct Forming w/ Anti-rotation Knock-out*" technique. All of this to provide our customers with the best products in the world.

Custom Parts, Custom Price

Looking for that special part? No problem. Although NBS specializes in flange bolts, we can also import custom fasteners for you as well. Working closely with manufacturers (**ISO-9001 & TS-16949**), we have put together a team of highly experienced professionals that will guide you through every step of the production process. From blueprints to samples to fasteners, we are here to help you.





INDEX | Main Product Line

	<p>01 Serrated Hex Flange Bolt 02 Large Serrated Hex Flange Bolt</p>
	<p>03 Hex Flange Bolt</p>
	<p>04 Grain Bin Bolt</p>
	<p>05 12 Point Flange Screw</p>
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	<p>13 Hexagon Socket Flat Head Cap Screw</p>
	<p>14 Hexagon Socket Button Head Cap Screw</p>
	<p>15 Dowel Pin</p>



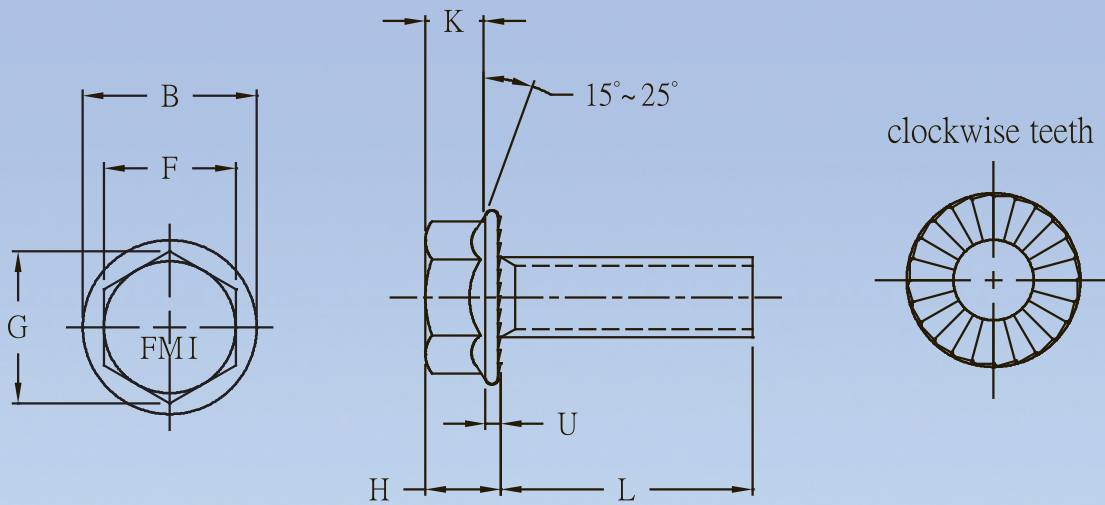
SERRATED HEX FLANGE BOLT(Full Thread)



IFI 111, Grade 2
Material: AISI 1015
Tensile Strength: Min 74,000 psi
Screw Threads: ANSI B1.1 UNC,UNF
Class of Thread: #8 through 3/4, 2A,3A

IFI 111, Grade 5
Material: AISI 1035
Tensile Strength: Min 120,000 psi
Core Hardness: HRC 25~34
Surface Hardness: HR30N MAX 54
Screw Threads: ANSI B1.1 UNC,UNF
Class of Thread: #8 through 3/4,2A,3A

IFI 111, Grade 8.2
Material: 10B21
Tensile Strength: Min 150,000 psi
Core Hardness: HRC 33~39
Surface Hardness: HR30N MAX 58.6
Screw Threads: ANSI B1.1 UNC,UNF
Class of Thread: #8 through 3/4, 2A,3A



Unit: Inch

Nominal Size of Screw	F		G		B	U	H	K
	Width Across Flats		Width Across Corners		Flange Diam	Flange Thickness	Head Height	Hex Height
	Max	Min	Max	Min	Max	Min	Max	Min
#8	0.2500	0.241	0.297	0.271	0.37	0.02	0.18	0.11
#10	0.3125	0.305	0.367	0.340	0.45	0.03	0.21	0.13
1/4	0.3750	0.367	0.433	0.409	0.56	0.04	0.28	0.17
5/16	0.5000	0.489	0.577	0.548	0.68	0.05	0.32	0.21
3/8	0.5625	0.551	0.650	0.618	0.81	0.06	0.39	0.25
7/16	0.6250	0.612	0.722	0.685	0.93	0.07	0.46	0.30
1/2	0.7500	0.736	0.866	0.825	1.07	0.08	0.51	0.34
5/8	0.9375	0.922	1.083	1.034	1.33	0.10	0.62	0.42
3/4	1.1250	1.100	1.299	1.234	1.59	0.11	0.73	0.51

LARGE SERRATED HEX FLANGE BOLT(Full Thread)



Grade 2

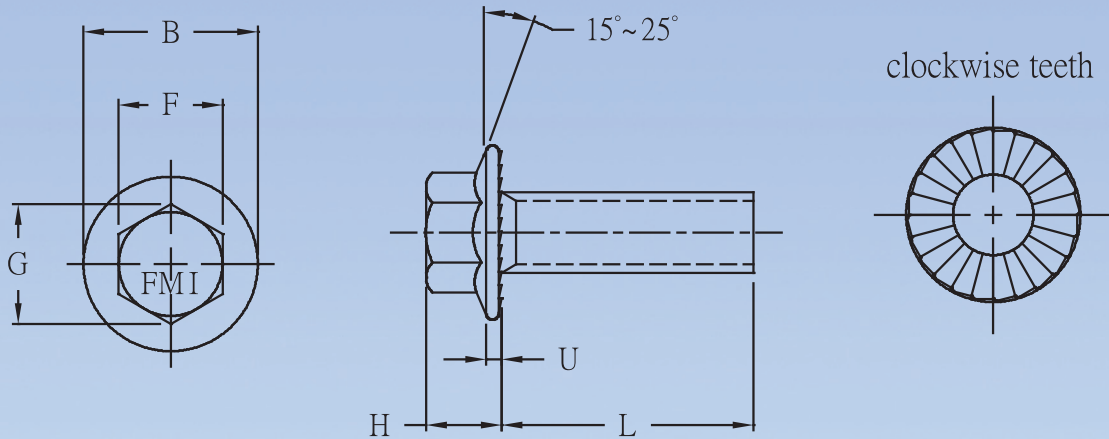
Material: AISI 1010
Tensile Strength: Min 74,000 psi
Screw Threads: ANSI B1.1 UNC,UNF
Class of Thread: 1/4 through 1/2, 2A,3A

Grade 5

Material: AISI 1035
Tensile Strength: Min 120,000 psi
Core Hardness: HRC 25~34
Surface Hardness: HR30N MAX 54
Screw Threads: ANSI B1.1 UNC,UNF
Class of Thread: 1/4 through 1/2, 2A,3A

Grade 8.2

Material: 10B21
Tensile Strength: Min 150,000 psi
Core Hardness: HRC 33~39
Surface Hardness: HR30N MAX 58.6
Screw Threads: ANSI B1.1 UNC,UNF
Class of Thread: 1/4 through 1/2, 2A,3A



Unit: Inch

Nominal Size of Screw	F		G		B	U	H
	Width Across Flats		Width Across Corners		Flange Diam	Flange Thickness	Head Height
	Max	Min	Max	Min	Max	Min	Max
1/4	0.375	0.367	0.433	0.409	0.625	0.04	0.280
5/16	0.500	0.489	0.577	0.548	0.820	0.05	0.345
3/8	0.562	0.551	0.650	0.628	0.915	0.06	0.390
7/16	0.625	0.612	0.722	0.685	1.131	0.07	0.460
1/2	0.750	0.736	0.866	0.825	1.205	0.08	0.510

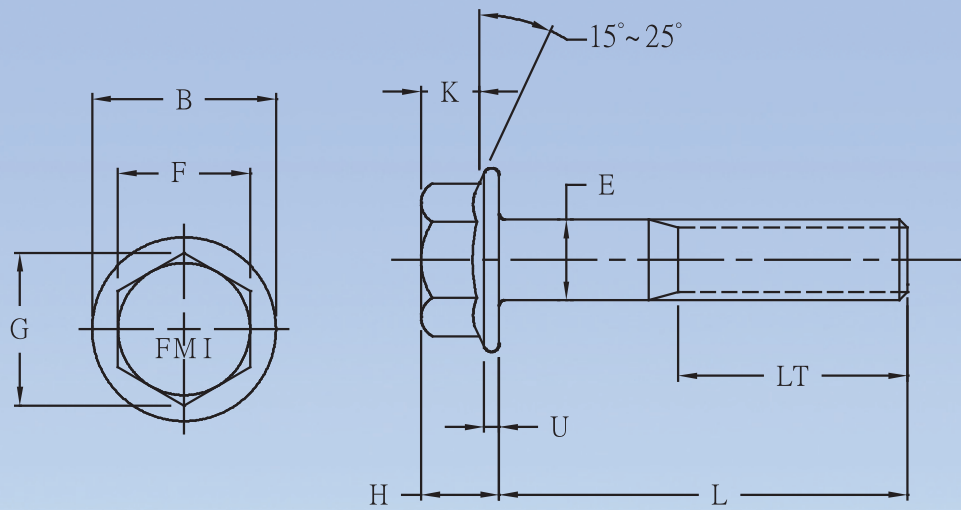
HEX FLANGE BOLT



IFI 111, Grade 5
Material: AISI 1035
Tensile Strength: Min 120,000 psi
Core Hardness: HRC 25~34
Surface Hardness: HR30N MAX 54
Screw Threads: ANSI B1.1 UNC,UNF
Class of Thread: #8 through 3/4, 2A,3A

IFI 111, Grade 8
Material: Alloy Steel AISI 4135
Tensile Strength: Min 150,000 psi
Core Hardness: HRC 33~39
Surface Hardness: HR30N MAX 58.6
Screw Threads: ANSI B1.1 UNC,UNF
Class of Thread: #8 through 3/4, 2A,3A

IFI 111, Alloy
Material: Alloy Steel AISI 4135
Tensile Strength: Min 180,000 psi
Core Hardness: HRC 39~45
Screw Threads: ANSI B1.1 UNC,UNF
Class of Thread: #8 through 3/4, 2A,3A



Unit: Inch

Nominal Size of Screw	E		F		G		B	U	H	K	LT
	Body Diam		Width Across Flats		Width Across Corners		Flange Diam	Flange Thickness	Head Height	Hex Height	Thread Length
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Basic
#8	0.1638	0.1587	0.2500	0.241	0.297	0.271	0.37	0.02	0.18	0.11	--
#10	0.1902	0.1843	0.3125	0.305	0.367	0.340	0.45	0.03	0.21	0.13	--
1/4	0.2500	0.2450	0.3750	0.367	0.433	0.409	0.56	0.04	0.28	0.17	0.750
5/16	0.3125	0.3065	0.5000	0.489	0.577	0.548	0.68	0.05	0.32	0.21	0.875
3/8	0.3750	0.3690	0.5625	0.551	0.650	0.618	0.81	0.06	0.39	0.25	1.000
7/16	0.4375	0.4305	0.6250	0.612	0.722	0.685	0.93	0.07	0.46	0.30	1.125
1/2	0.5000	0.4930	0.7500	0.736	0.866	0.825	1.07	0.08	0.51	0.34	1.250
5/8	0.6250	0.6170	0.9375	0.922	1.083	1.034	1.33	0.10	0.62	0.42	1.500
3/4	0.7500	0.7410	1.1250	1.100	1.299	1.234	1.59	0.11	0.73	0.51	1.750

GRAIN BIN BOLT



Grade 8.2

Material: 10B21

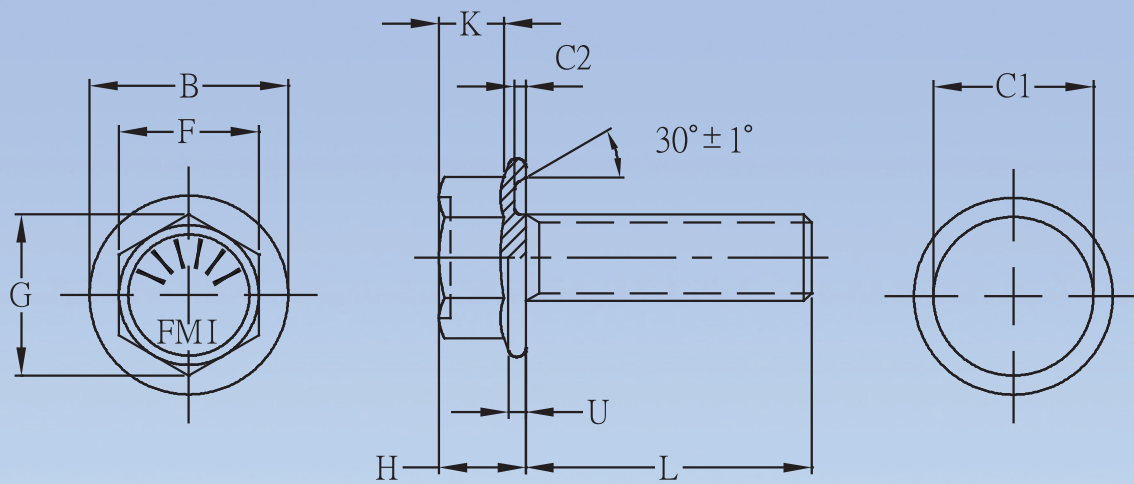
Tensile Strength: Min 150,000 psi

Core Hardness: HRC 33~39

Surface Hardness: HR30N MAX 58.6

Screw Threads: ANSI B1.1 UNC, UNF

Class of Thread: 5/16 through 7/16, 2A



Unit: Inch

Nominal Size of Screw	F		G		H		K	U		C1		C2		B
	Width Across Flats		Width Across Corners		Head Height		Hex Height	Flange Thickness		Under Cut Diam		Under Cut Depth		Flange Diam
	Max	Min	Max	Min	Max	Min	Min	Max	Min	Max	Min	Max	Min	Max
5/16	0.500	0.489	0.577	0.548	0.318	0.303	0.210	0.08	0.06	0.584	0.560	0.050	0.040	0.73
3/8	0.562	0.550	0.650	0.618	0.380	0.365	0.256	0.08	0.06	0.665	0.655	0.050	0.040	0.81
7/16	0.625	0.612	0.722	0.685	0.440	0.410	0.300	0.09	0.07	0.748	0.729	0.050	0.040	0.95

12 POINT FLANGE SCREW



IFI 115

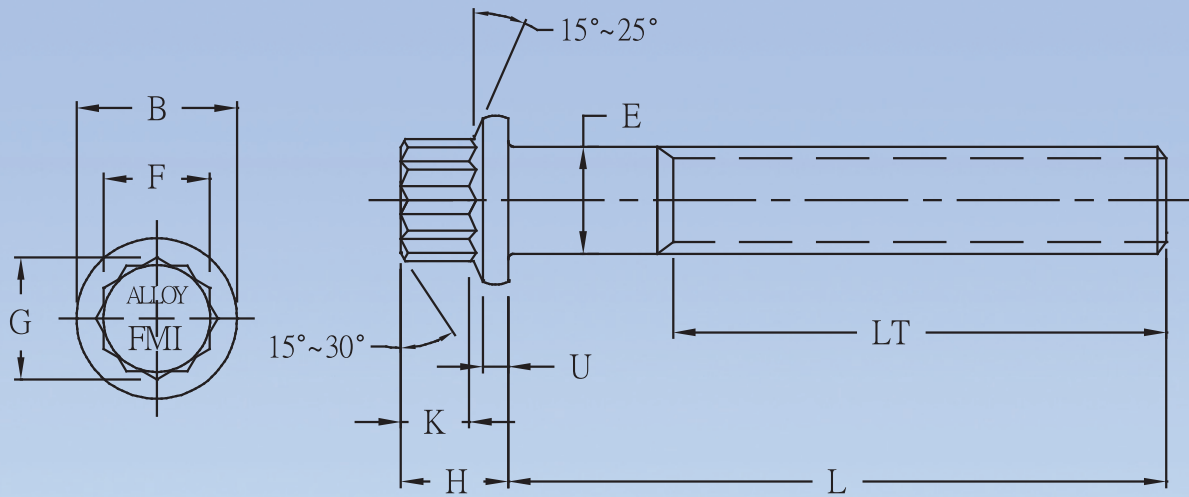
Material: Alloy Steel AISI 4135/4140

Wedge Tensile: Min 170,000 psi

Core Hardness: HRC 37~43

Screw Threads: ANSI B1.1 UNC, UNF

Class of Thread: 1/4 through 3/4, 2A, 3A



Unit: Inch

Nominal Size of Screw	E		B		F		G	H	K	U	LT
	Body Diam (Max Equal to Nom Size)		Flange Diam		Width Across Flats		Width Across Corners	Head Height	Wrench Height	Flange Thickness	Thread Length
	Max	Min	Max	Min	Max	Min	Min	Max	Min	Min	Basic
1/4	0.2500	0.2435	0.375	0.365	0.252	0.244	0.278	0.260	0.15	0.058	1.000
5/16	0.3125	0.3053	0.469	0.457	0.315	0.306	0.348	0.312	0.18	0.074	1.125
3/8	0.3750	0.3678	0.562	0.550	0.377	0.368	0.420	0.375	0.21	0.095	1.250
7/16	0.4375	0.4294	0.656	0.642	0.438	0.429	0.489	0.438	0.26	0.109	1.375
1/2	0.5000	0.4919	0.750	0.735	0.502	0.493	0.562	0.500	0.29	0.129	1.500
5/8	0.6250	0.6163	0.938	0.921	0.627	0.618	0.705	0.625	0.36	0.166	1.750
3/4	0.7500	0.7406	1.125	1.107	0.752	0.743	0.847	0.750	0.44	0.200	2.000

METRIC 12 POINT FLANGE SCREW



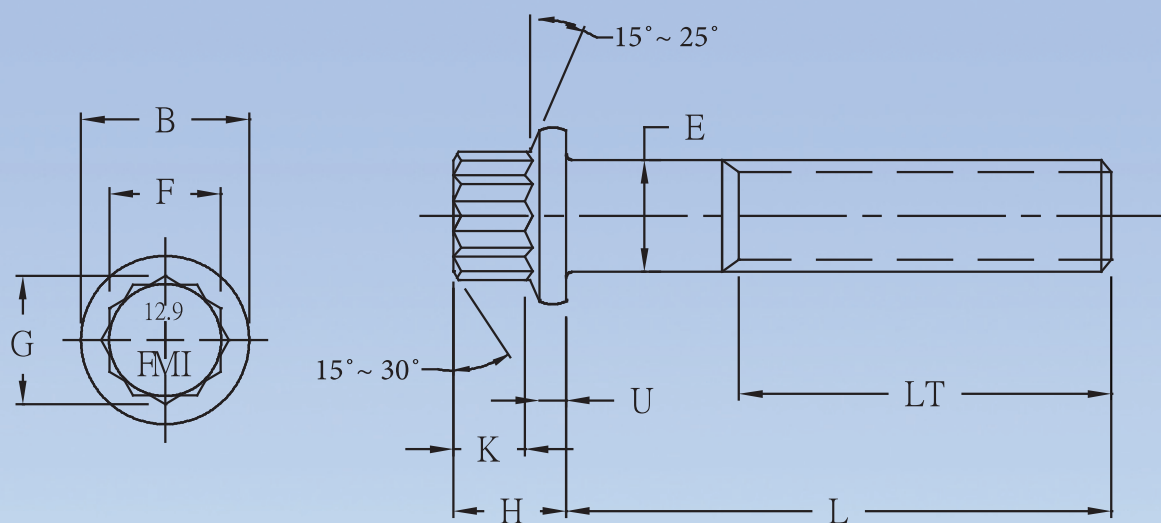
B18.2.5M Class 12.9

Material: Alloy Steel AISI 4135

Wedge Tensile : Min 1220 MPa

Core Hardness: HRC 39~44

Class of Thread: M6 through M16, 5g6g



Unit: mm

Nominal Size of screw	F		G	B		E		H		U		K	LT
	Width Across Flats		Width Across Corners	Flange Diam		Body Diam		Head Height		Flange Thickness		Wrench Height	Thread Length
	Max	Min	Min	Max	Min	Max	Min	Max	Min	Max	Min	Min	Basic
M6	6.05	5.95	6.70	9.95	9.77	6.00	5.79	6.00	5.82	2.70	2.45	3.12	18.00
M8	8.05	7.95	9.00	12.95	12.72	8.00	7.76	8.00	7.78	3.60	3.35	4.18	22.00
M10	10.05	9.93	11.20	15.95	15.69	10.00	9.73	10.00	9.78	4.50	4.13	5.28	26.00
M12	12.05	11.93	13.50	17.95	17.67	12.00	11.70	12.00	11.73	5.40	5.03	6.33	30.00
M14	14.05	13.92	15.80	20.95	20.67	14.00	13.68	14.00	13.73	6.30	5.93	7.43	34.00
M16	16.05	15.92	18.00	23.92	23.62	16.00	15.68	16.00	15.73	7.20	6.83	8.53	38.00

METRIC HEX FLANGE BOLT (ISO 4162)



ISO 4162 Class 8.8

Material: 10B21/AISI 1035

Tensile Strength: Min 800 MPa

Core Hardness: HRC 22~32

Class of Thread: M5 through M16, 6g

ISO 4162 Class 10.9

Material: Alloy Steel AISI 4135

Tensile Strength: Min 1040 MPa

Core Hardness: HRC 32~39

Class of Thread: M5 through M16, 6g

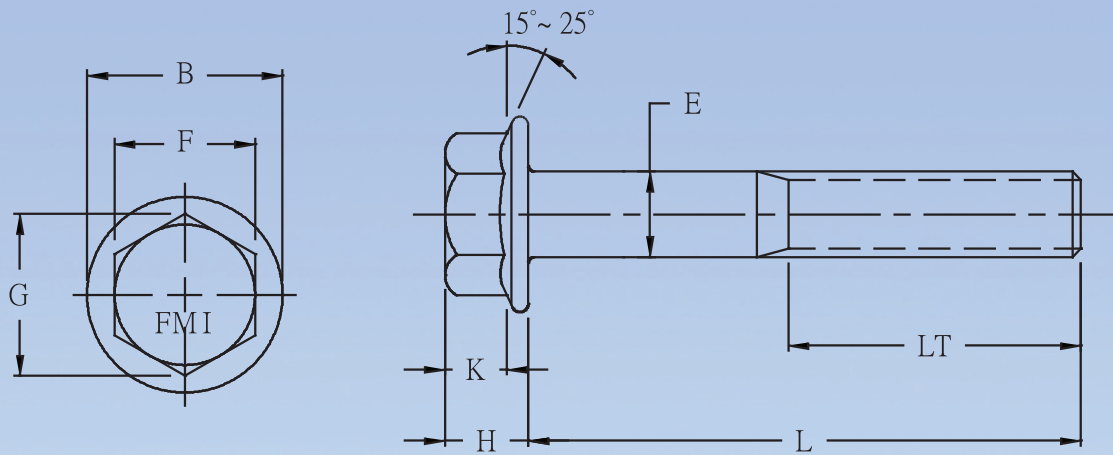
ISO 4162 Class 12.9

Material: Alloy Steel AISI 4135

Tensile Strength: Min 1220 MPa

Core Hardness: HRC 39~44

Class of Thread: M5 through M16, 6g



Unit: mm

Nominal Size of Screw	F		G	B	E		H	K	LT
	Width Across Flats		Width Across Corners	Flange Diam	Body Diam		Head Height	Hex Height	Thread Length
	Max	Min	Min	Max	Max	Min	Max	Min	Basic
M5	7.00	6.64	7.44	11.4	5.00	4.82	5.60	2.80	16.00
M6	8.00	7.64	8.56	13.6	6.00	5.82	6.80	3.40	18.00
M8	10.00	9.64	10.80	17.0	8.00	7.78	8.50	4.20	22.00
M10	13.00	12.57	14.08	20.8	10.00	9.78	9.70	5.70	26.00
M12	15.00	14.57	16.32	24.7	12.00	11.73	11.90	6.10	30.00
M14	18.00	17.57	19.68	28.6	14.00	13.73	12.90	7.10	34.00
M16	21.00	20.16	22.58	32.8	16.00	15.73	15.10	8.70	38.00

METRIC HEAVY HEX FLANGE BOLT (B18.2.3.9M)



B18.2.3.9M Class 8.8

Material: 10B21 / AISI 1035

Tensile Strength: Min 800 MPa

Core Hardness: HRC 22~32

Class of Thread: M5 through M16, 6g

B18.2.3.9M Class 10.9

Material: Alloy Steel AISI 4135

Tensile Strength: Min 1040 MPa

Core Hardness: HRC 32~39

Class of Thread: M5 through M16, 6g

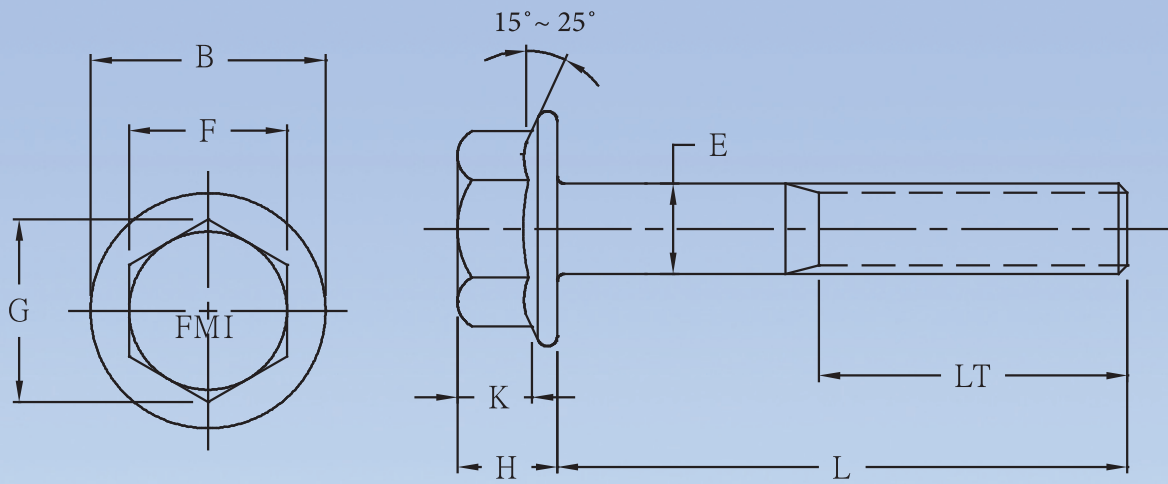
B18.2.3.9M Class 12.9

Material: Alloy Steel AISI 4135

Tensile Strength: Min 1220 MPa

Core Hardness: HRC 39~44

Class of Thread: M5 through M16, 6g



Unit: mm

Nominal Size of Screw	F		G		B	E		H	K	LT
	Width Across Flats		Width Across Corners		Flange Diam	Body Diam		Head Height	Hex Height	Thread Length
	Max	Min	Max	Min	Max	Max	Min	Max	Min	Basic
M5	8.00	7.64	9.24	8.56	11.80	5.00	4.82	5.80	2.80	16.00
M6	10.00	9.64	11.55	10.80	14.20	6.00	5.82	6.60	3.40	18.00
M8	13.00	12.57	15.01	14.08	18.00	8.00	7.78	8.10	4.20	22.00
M10	15.00	14.57	17.32	16.32	22.30	10.00	9.78	10.40	5.70	26.00
M12	18.00	17.57	20.78	19.68	26.60	12.00	11.73	11.80	6.10	30.00
M14	21.00	20.16	24.25	22.58	30.50	14.00	13.73	13.70	7.10	34.00
M16	24.00	23.16	27.71	25.94	35.00	16.00	15.73	15.40	8.70	38.00

METRIC HEX FLANGE BOLT (B18.2.3.4M)



B18.2.3.4M Class 8.8

Material: 10B21 / AISI 1035

Tensile Strength: Min 800 MPa

Core Hardness: HRC 22~32

Class of Thread: M5 through M16, 6g

B18.2.3.4M Class 10.9

Material: Alloy Steel AISI 4135

Tensile Strength: Min 1040 MPa

Core Hardness: HRC 32~39

Class of Thread: M5 through M16, 6g

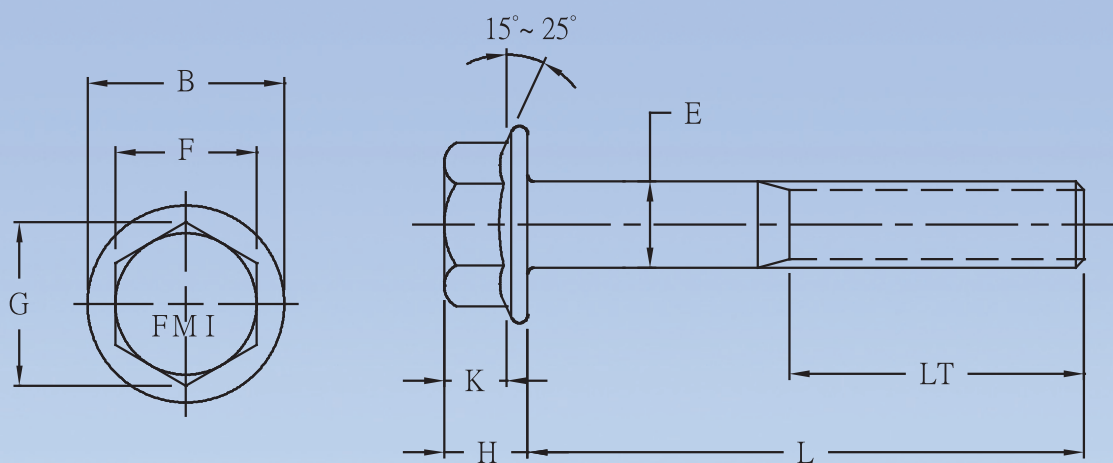
B18.2.3.4M Class 12.9

Material: Alloy Steel AISI 4135

Tensile Strength: Min 1220 MPa

Core Hardness: HRC 39~44

Class of Thread: M5 through M16, 6g



Unit: mm

Nominal Size of Screw	F		G		B	E		H	K	LT
	Width Across Flats		Width Across Corners		Flange Diam	Body Diam		Head Height	Hex Height	Thread Length
	Max	Min	Max	Min	Max	Max	Min	Max	Min	Basic
M5	7.00	6.64	8.08	7.44	11.4	5.00	4.82	5.60	2.80	16.00
M6	8.00	7.64	9.24	8.56	13.6	6.00	5.82	6.90	3.40	18.00
M8	10.00	9.64	11.55	10.80	17.0	8.00	7.78	8.50	4.20	22.00
M10	13.00	12.57	15.01	14.08	20.8	10.00	9.78	9.70	5.70	26.00
M12	15.00	14.57	17.32	16.32	24.7	12.00	11.73	12.10	6.10	30.00
M14	18.00	17.57	20.78	19.68	28.6	14.00	13.73	12.90	7.10	34.00
M16	21.00	20.16	24.25	22.58	32.8	16.00	15.73	15.20	8.70	38.00

METRIC HEX FLANGE BOLT (DIN 6921)



DIN 6921 Class 8.8

Material: 10B21 / AISI 1035

Tensile Strength: Min 800 MPa

Core Hardness: HRC 22~32

Class of Thread: M5 through M16, 6g

DIN 6921 Class 10.9

Material: Alloy Steel AISI 4135

Tensile Strength: Min 1040 MPa

Core Hardness: HRC 32~39

Class of Thread: M5 through M16, 6g

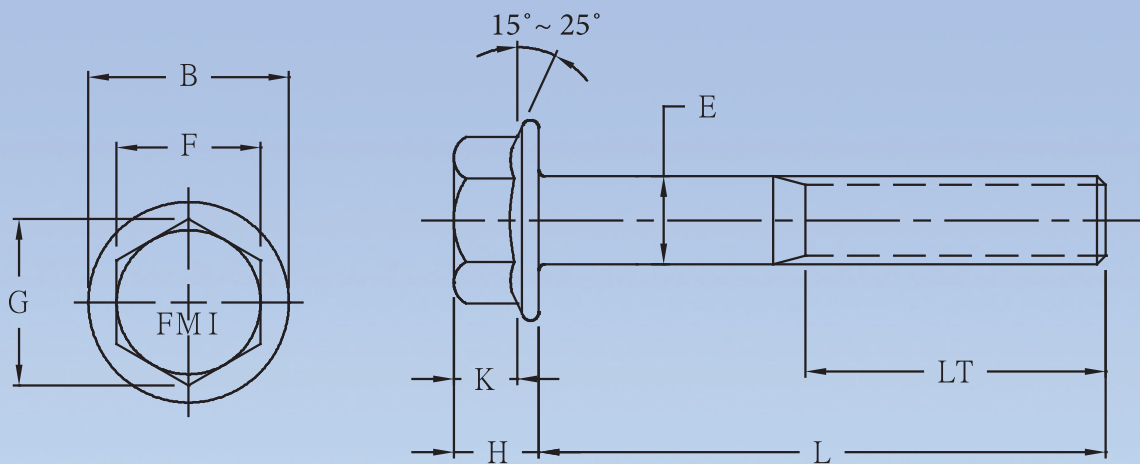
DIN 6921 Class 12.9

Material: Alloy Steel AISI 4135

Tensile Strength: Min 1220 MPa

Core Hardness: HRC 39~44

Class of Thread: M5 through M16, 6g



Unit: mm

Nominal Size of screw	F		G	B	E		H	K	LT
	Width Across Flats		Width Across Corners	Flange Diam	Body Diam		Head Height	Hex Height	Thread Length
	Max	Min	Min	Max	Max	Min	Max	Min	Basic
M5	8.00	7.78	8.71	11.80	5.00	4.82	5.40	2.80	16.00
M6	10.00	9.78	10.95	14.20	6.00	5.82	6.60	3.40	18.00
M8	13.00	12.73	14.26	18.00	8.00	7.78	8.10	4.20	22.00
M10	15.00	14.73	16.50	22.30	10.00	9.78	9.20	5.70	26.00
M12	16.00	15.73	17.62	26.60	12.00	11.73	11.50	6.10	30.00
M14	18.00	17.73	19.86	30.50	14.00	13.73	12.80	7.10	34.00
M16	21.00	20.67	23.15	35.00	16.00	15.73	14.40	8.70	38.00

METRIC HEX FLANGE BOLT(EN1665)



EN1665 Class 8.8

Material: 10B21 / AISI 1035

Tensile Strength: Min 800 MPa

Core Hardness: HRC 22~32

Class of Thread: M5 through M16, 6g

EN1665 Class 10.9

Material: Alloy Steel AISI 4135

Tensile Strength: Min 1040 MPa

Core Hardness: HRC 32~39

Class of Thread: M5 through M16, 6g

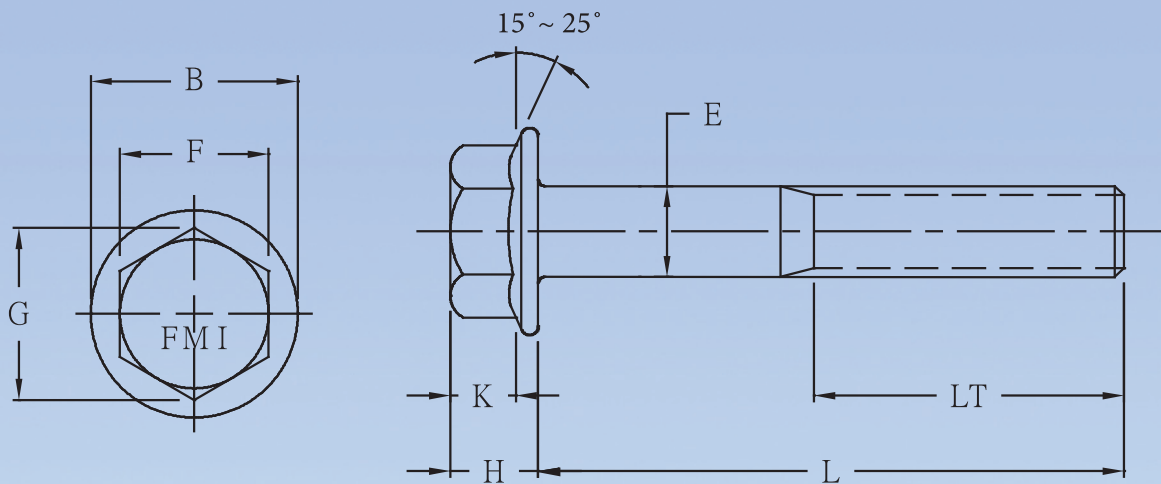
EN1665 Class 12.9

Material: Alloy Steel AISI 4135

Tensile Strength: Min 1220 MPa

Core Hardness: HRC 39~44

Class of Thread: M5 through M16, 6g



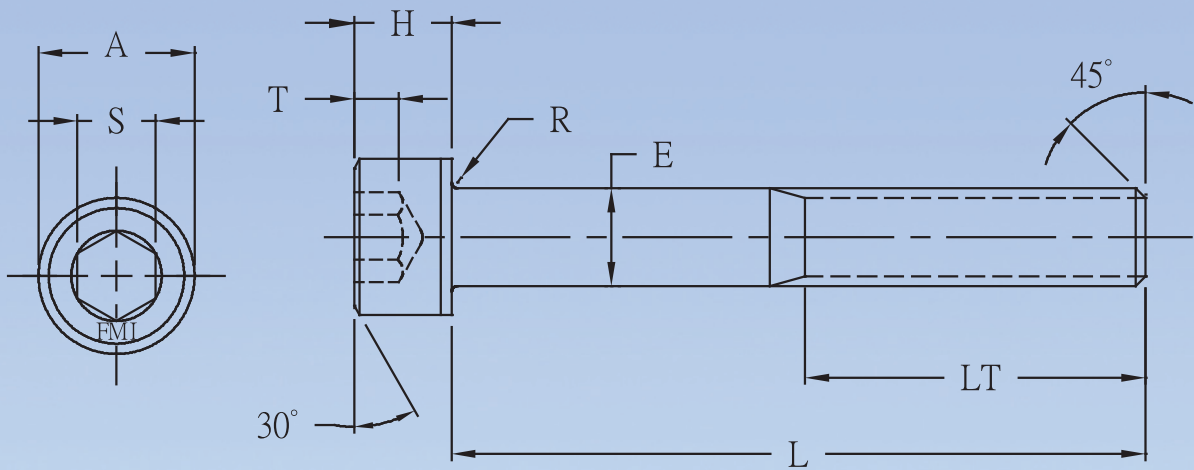
Unit: mm

Nominal Size of screw	F		G	B	E		H	K	LT
	Width Across Flats		Width Across Corners	Flange Diam	Body Diam		Head Height	Hex Height	Thread Length
	Max	Min	Min	Max	Max	Min	Max	Min	Basic
M5	8.00	7.78	8.71	11.80	5.00	4.82	5.80	2.80	16.00
M6	10.00	9.78	10.95	14.20	6.00	5.82	6.60	3.40	18.00
M8	13.00	12.73	14.26	18.00	8.00	7.78	8.10	4.20	22.00
M10	16.00	15.73	17.62	22.30	10.00	9.78	10.40	5.70	26.00
M12	18.00	17.73	19.86	26.60	12.00	11.73	11.80	6.10	30.00
M14	21.00	20.67	23.15	30.50	14.00	13.73	13.70	7.10	34.00
M16	24.00	23.67	26.51	35.00	16.00	15.73	15.40	8.70	38.00

HEXAGON SOCKET HEAD CAP SCREW



According to: ASME B18.3
 Material: Alloy Steel AISI 4135
 Wedge Tensile: Min 180,000psi
 Core Hardness: HRC 39~45
 Surface Treatment: Plain
 Screw Threads: ANSI B1.1 UNC, UNF
 Class of Thread: #4 through 3/4, 3A



Unit: Inch

Nominal Size of screw	A		H		E		S		T	LT
	Head Diam		Head Height		Body Diam		Hexagon Socket Size		Key Engagement	Thread Length
	Max	Min	Max	Min	Max	Min	Nom.	Min	Min	
#4	0.183	0.176	0.112	0.108	0.1120	0.1075	3/12	0.094	0.051	0.75
#6	0.226	0.218	0.138	0.134	0.1380	0.1329	7/64	0.109	0.064	0.75
#8	0.270	0.262	0.164	0.159	0.1640	0.1585	9/64	0.141	0.077	0.88
#10	0.312	0.303	0.190	0.185	0.1900	0.1840	5/32	0.156	0.090	0.88
1/4	0.375	0.365	0.250	0.244	0.2500	0.2435	3/16	0.188	0.120	1.00
5/16	0.469	0.457	0.312	0.306	0.3125	0.3053	1/4	0.250	0.151	1.12
3/8	0.562	0.550	0.375	0.368	0.3750	0.3678	5/16	0.312	0.182	1.25
7/16	0.656	0.642	0.438	0.430	0.4375	0.4294	3/8	0.375	0.213	1.38
1/2	0.750	0.735	0.500	0.492	0.5000	0.4919	3/8	0.375	0.245	1.50
5/8	0.938	0.921	0.625	0.616	0.6250	0.6163	1/2	0.500	0.307	1.75
3/4	1.125	1.107	0.750	0.740	0.7500	0.7406	5/8	0.625	0.370	2.00

HEXAGON SOCKET FLAT HEAD CAP SCREW



According to: ASME B18.3

Material: Alloy Steel AISI 4135

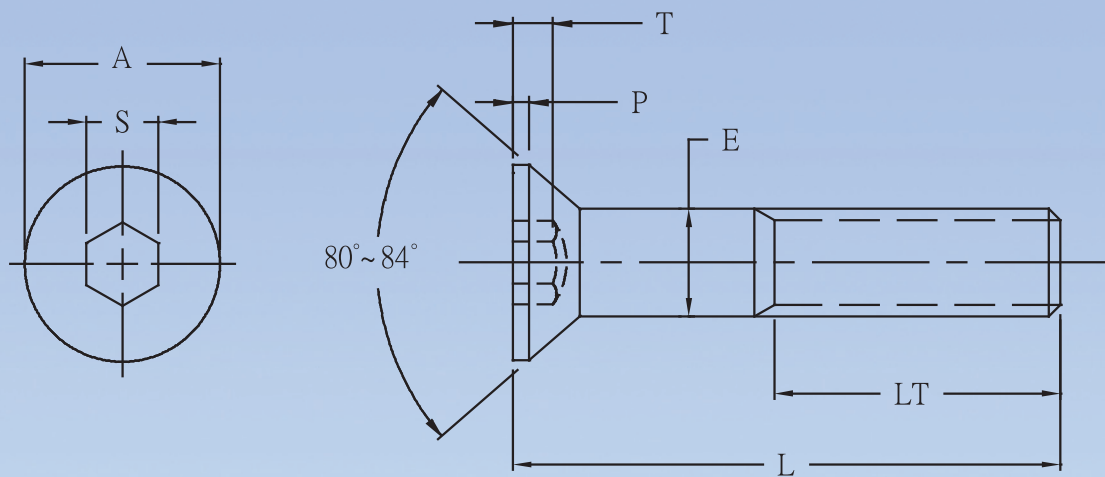
Tensile Strength: Min 145,000psi

Core Hardness: HRC 39~44

Surface Treatment: Plain

Screw Threads: ANSI B1.1 UNC,UNF

Class of Thread: #4 through 3/4, 3A



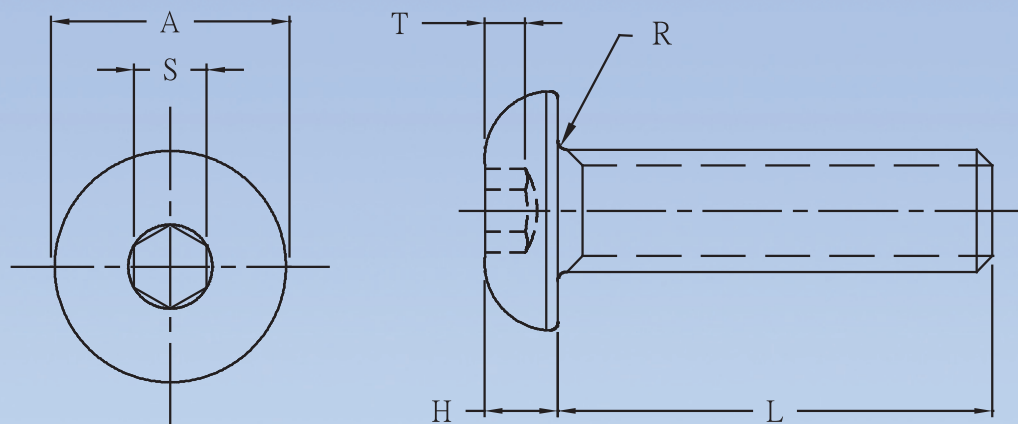
Unit: Inch

Nominal Size of Screw	A		P		E		S		T	LT
	Head Diameter		Protrusion		Body Diameter		Hexagon Socket Size		Key Engagement	Thread Length
	Theoretical Sharp	Abs								
	Max	Min	Max	Min	Max	Min	Nom	Min	Min	
#4	0.255	0.218	0.049	0.036	0.1120	0.1075	1/16	0.062	0.055	0.75
#6	0.307	0.263	0.052	0.037	0.1380	0.1329	5/64	0.078	0.066	0.75
#8	0.359	0.311	0.055	0.039	0.1640	0.1585	3/32	0.094	0.076	0.88
#10	0.411	0.359	0.058	0.041	0.1900	0.1840	1/8	0.125	0.087	0.88
1/4	0.531	0.480	0.064	0.043	0.2500	0.2435	5/32	0.156	0.111	1.00
5/16	0.656	0.600	0.070	0.047	0.3125	0.3053	3/16	0.188	0.135	1.12
3/8	0.781	0.720	0.076	0.050	0.3750	0.3678	7/32	0.219	0.159	1.25
7/16	0.844	0.781	0.092	0.063	0.4375	0.4294	1/4	0.250	0.159	1.38
1/2	0.938	0.872	0.119	0.087	0.5000	0.4919	5/16	0.312	0.172	1.50
5/8	1.188	1.112	0.135	0.096	0.6250	0.6163	3/8	0.375	0.220	1.75
3/4	1.438	1.355	0.150	0.105	0.7500	0.7406	1/2	0.500	0.220	2.00

HEXAGON SOCKET BUTTON HEAD CAP SCREW



According to: ASME B18.3
 Material: Alloy Steel AISI 4135
 Tensile Strength: Min 145,000psi
 Core Hardness: HRC 39~44
 Surface Treatment: Plain
 Screw Threads: ANSI B1.1 UNC, UNF
 Class of Thread: #4 through 5/8, 3A



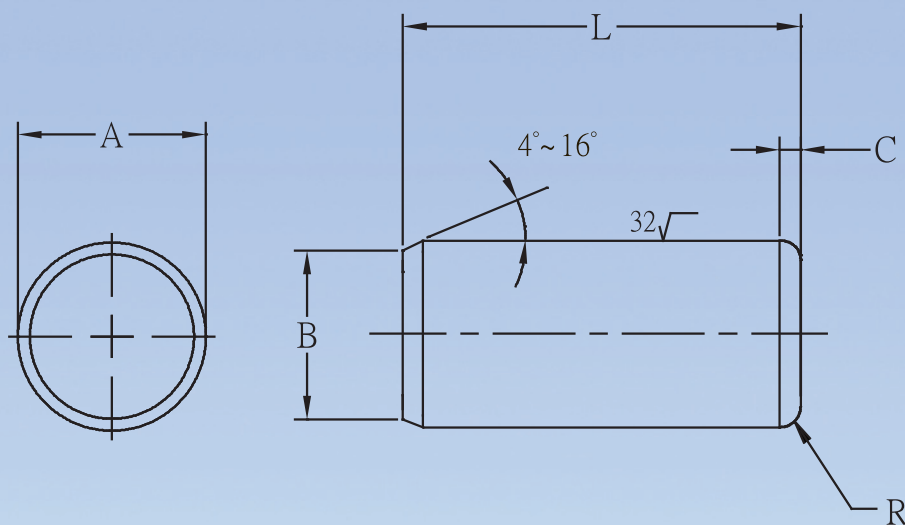
Unit: Inch

Nominal Size of Screw	A		H		S		T	L
	Head Diam		Head Height		Hexagon Socket Size		Key Engagement	Maximum Standard Length
	Max	Min	Max	Min	Nom		Min	Nom
#4	0.213	0.201	0.059	0.051	1/16	0.062	0.035	1/2
#6	0.262	0.250	0.073	0.063	5/64	0.078	0.044	5/8
#8	0.312	0.298	0.087	0.077	3/32	0.094	0.052	3/4
#10	0.361	0.347	0.101	0.091	1/8	0.125	0.070	1
1/4	0.437	0.419	0.132	0.122	5/32	0.156	0.087	1
5/16	0.547	0.527	0.166	0.152	3/16	0.188	0.105	1
3/8	0.656	0.636	0.199	0.185	7/32	0.219	0.122	1-1/4
1/2	0.875	0.851	0.265	0.245	5/16	0.312	0.175	2
5/8	1.000	0.970	0.331	0.311	3/8	0.375	0.210	2

DOWEL PINS



According to: ANSI B18.8.2
Through Hardened: HRC 50~58 Core
Case Hardened: HRC 47~58 Core
Surface Hardness: Min HRC 60



Unit: Inch

Nominal Size or Basic Diameter	A						B		C	R
	Pin Diam						Point Diam		Crown Height	Crown Radius
	Standard Series Pins			Oversize Series Pins			Max	Min	Max	Min
	Basic	Max.	Min.	Basic	Max.	Min.				
1/16	0.0627	0.0628	0.0626	0.0635	0.0636	0.0634	0.058	0.048	0.020	0.008
5/64	0.0783	0.0784	0.0782	0.0791	0.0792	0.0790	0.074	0.064	0.026	0.010
3/32	0.0938	0.0941	0.0939	0.0948	0.0949	0.0947	0.089	0.079	0.031	0.012
1/8	0.1252	0.1253	0.1251	0.1260	0.1261	0.1259	0.120	0.110	0.041	0.016
3/16	0.1877	0.1878	0.1876	0.1885	0.1886	0.1884	0.180	0.170	0.062	0.023
1/4	0.2502	0.2503	0.2501	0.2510	0.2511	0.2509	0.240	0.230	0.083	0.031
5/16	0.3127	0.3128	0.3126	0.3135	0.3136	0.3134	0.302	0.290	0.104	0.039
3/8	0.3752	0.3753	0.3751	0.3760	0.3761	0.3759	0.365	0.350	0.125	0.047
7/16	0.4377	0.4378	0.4376	0.4385	0.4386	0.4384	0.424	0.409	0.146	0.055
1/2	0.5002	0.5003	0.5001	0.5010	0.5011	0.5009	0.486	0.471	0.167	0.063
5/8	0.6252	0.6253	0.6251	0.6260	0.6261	0.6259	0.611	0.595	0.208	0.078
3/4	0.7502	0.7503	0.7501	0.7510	0.7511	0.7509	0.735	0.715	0.250	0.094
7/8	0.8752	0.8753	0.8751	0.8760	0.8761	0.8759	0.860	0.840	0.293	0.109
1	1.0002	1.0003	1.0001	1.0010	1.0011	1.0009	0.980	0.960	0.333	0.125



FAQ's | And Answers.

Q1. How long has NBS been in business?

Q2. What items does NBS primarily carry?

Q3. How can I learn more about NBS and the products they carry?

Q4. Why does NBS carry **FMI®** fasteners?

Q5. How is the Non-Indented Head Flange Bolt better than a regular flange bolt?

Q6. Does the Non-Indented Head Flange Bolt meet IFI specifications?

Q1. How long has NBS been in business?

NBS was established in 1997 and for over a decade, has been importing flange bolts & other fasteners into the United States.

Q2. What items does NBS primarily carry?

NBS specializes in importing high quality flange bolts (metric too!) and carries the most complete line of flange bolts in the United States.

Q3. How can I learn more about NBS and the products they carry?

To learn more about NBS, please visit us at www.nbsfasteners.com or give us a call.

Q4. Why does NBS carry **FMI®** fasteners?

NBS carries **FMI®** flange bolts & fasteners because:

1. They are internationally recognized for their extremely high quality & precise design.
2. **FMI®** fasteners are highly advanced & are produced using the latest technologies.
3. At NBS, we believe that our customers deserve the best fasteners.

Q5. How is the Non-Indented Head Flange Bolt better than a regular flange bolt?

The Non-Indented Head Flange Bolt is superior to ordinary flange bolts in quality and design. Unlike other flange bolts, the Non-Indented Heads have full length, sharp corners and a maximized head surface area. This not only provides a better grip between bolt and wrench, it maximizes the total grip & traction available, preventing slipping and worn corners.

Q6. Does the Non-Indented Head Flange Bolt meet IFI specifications?

Yes. All **FMI®** products, including the Non-Indented Head Flange Bolt, meet all IFI specs.



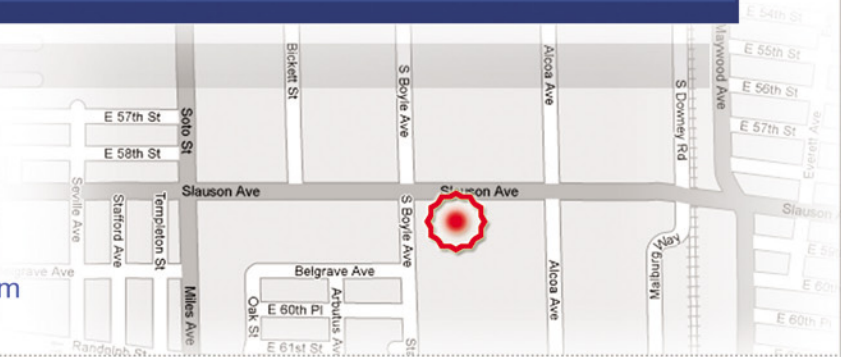
LOCATION | Extended Networks

California - HQ

NBS - Los Angeles

3100 E. Slauson Ave
Vernon, CA 90058
TEL: 323-923-1627
FAX: 323-923-1628

Sliang@nbsfasteners.com
www.nbsfasteners.com

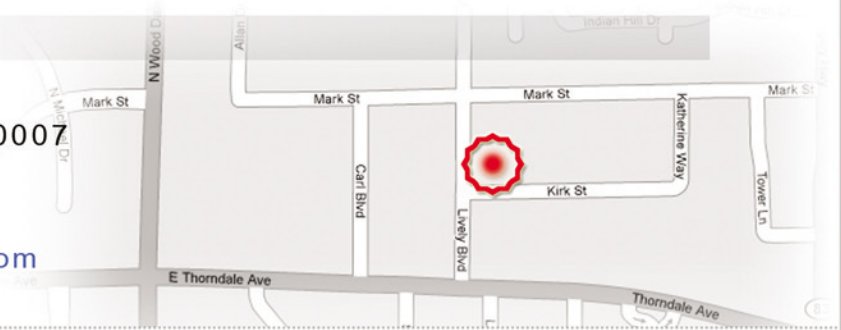


Illinois

NBS - Chicago

1109 Kirk St.
Elk Grove Village, IL 60007
TEL: 847-860-8856
FAX: 847-860-8857

Jstraus@nbsfasteners.com
www.nbsfasteners.com

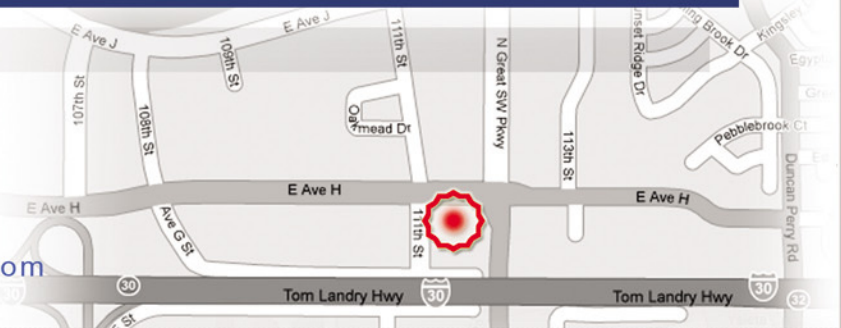


Texas

NBS - Dallas

1216 Ave. H East
Arlington, TX 76011
TEL: 817-633-1179
FAX: 817-633-1149

Tkinsey@nbsfasteners.com
www.nbsfasteners.com



Texas

NBS - El Paso

9600 Joe Rodriguez Dr. #6
El Paso, TX 79927
TEL: 915-859-4369
FAX: 915-859-3123

Alma@nbsfasteners.com
www.nbsfasteners.com

