



Earnest Machine has expanded our line of Hex Flange Product to include USA Made Hex Flange Screws, which are DFARS compliant and are available in Grade 8. Earnest Machine stocks USA Made Hex Flange Screws in Phos & Oil with diameters ranging from 5/16" to 5/8".

PRODUCT ATTRIBUTES

DFARS Compliant to meet US government regulations

Built-in washer distributes clamping load over wider area

Diameters range from 5/16" to 5/8" and lengths range from 3/4" to 5"

MARKETS FOR E8 HEX FLANGE SCREWS

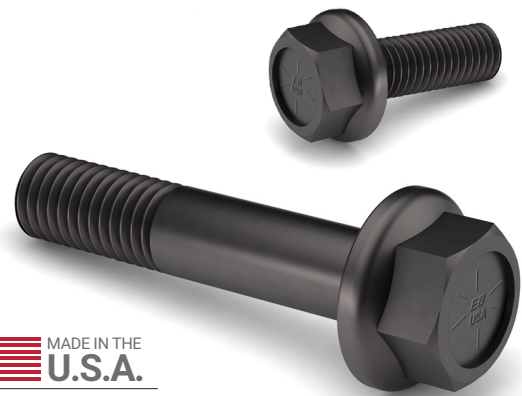
Heavy Truck
Construction Equipment
Agriculture Equipment
Automotive

THIS PRODUCT IS OFTEN CALLED...

Frame Bolt
Hex Flange Bolt
Flange Bolt
Hex Washer Head Bolt

AVAILABLE VALUE ADDED SERVICES

Bulk, full & broken case quantities
Secondary & rework services
Custom packaging services
Custom plating and coating



 **MADE IN THE U.S.A.**
DFARS COMPLIANT

ADDITIONAL USA MADE PRODUCT AND HEX FLANGE PRODUCT WE SUPPLY

USA Hex Nuts
E10.9 USA Metric Heavy Hex Flange Bolts
Hex Serrated Flange Screws
Stainless Steel Hex Serrated Flange Screws
Metric Hex Serrated Flange Screws
Hex Flange Nuts
DIN & JIS Hex Flange Nuts
Metric Stainless Steel Hex Flange Nuts
Hex Serrated Flange Lock Nuts
Stainless Steel Hex Serrated Flange Lock Nuts
DIN & JIS Hex Serrated Flange Lock Nuts
All Metal Hex Flange Lock Nuts
Metric All Metal Hex Flange Lock Nuts
Nylon Insert Hex Flange Lock Nuts
Metric Nylon Insert Flange Lock Nuts

BACKED BY THE EARNEST
Service
GUARANTEE

**The right part.
The right quantity.
On-time.
Every time.**

E8 USA HEX FLANGE SCREWS

E8 USA Hex Flange Screws are manufactured in accordance with the latest revision of the following industry standards:

- IFI-111** Dimensional Requirements
- ASME B18.2.1** Dimensional Requirements
- SAE J429** Material and Strength Level
- ASME B1.1** Thread Requirements
- ASTM F788** Surface Discontinuities
- ASME B18.18** Inspection and Quality Assurance

THREADS

Threads are made to the requirements of ASME B1.1 Unified Threads (UNC and UNF) Class 2A
Thread acceptance per ASME B1.3, System 21

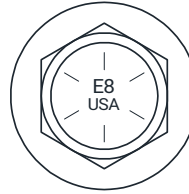
PLATING

Zinc Phosphate & Oil

*The specifications shown on this sheet are not intended to be used in the production of parts. Earnest Machine is not responsible or liable in any manner for any production errors and we certify the information present on this specification sheet is correct to the best of our knowledge. ©2022 Earnest Machine Products

MATERIAL AND PHYSICAL PROPERTIES

Grade 8



Chemical Composition

CARBON (C)		PHOSPHORUS (P)	SULFUR (S)
Max	Min	Max	Max
0.55	0.25	0.025	0.025

Alloy

SAE J429 GRADE 8
Mn, Cr, Mo, Ni, V, B

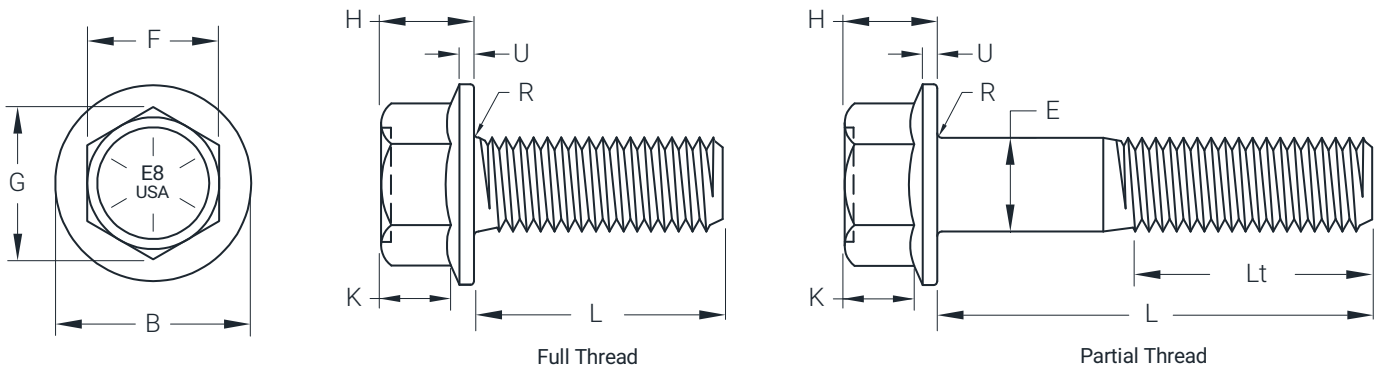
Hardness

SAE J429 GRADE 8
HRC 33/39

Tensile Strength

SAE J429 GRADE 8
150,000 psi min

DIMENSIONS FOR USA E8 USA HEX FLANGE SCREWS



SIZE	WIDTH ACROSS FLATS (F)		WIDTH ACROSS CORNERS (G)		FLANGE DIAMETER (B)	BODY DIAMETER (E)		HEIGHT OF HEAD (H)	FLANGE THICKNESS (U)	WRENCH HEIGHT (K)	FILLET (R)	THREAD LENGTH (Lt)
	MAX	MIN	MAX	MIN	MAX	MAX	MIN	MAX	MIN	MIN	MIN	MIN
5/16	0.500	0.489	0.577	0.548	0.68	0.3125	0.3065	0.32	0.05	0.21	0.015	0.875
3/8	0.562	0.551	0.650	0.618	0.81	0.3750	0.3690	0.39	0.06	0.25	0.015	1.000
1/2	0.750	0.736	0.866	0.825	1.07	0.5000	0.4930	0.51	0.08	0.34	0.015	1.250
5/8	0.937	0.922	1.083	1.034	1.33	0.6250	0.6170	0.62	0.10	0.42	0.020	1.500

E8 USA Hex Flange Screws

Grade 8

SIZE	GRADE	THREAD	PITCH	FINISH	PART #
5/16-18x3/4	GR 8	Full	Coarse	Phos & Oil	487101
5/16-18x1	GR 8	Full	Coarse	Phos & Oil	487102
5/16-18x1 1/4	GR 8	Full	Coarse	Phos & Oil	487103
5/16-18x1 1/2	GR 8	Partial	Coarse	Phos & Oil	487104

3/8-16x3/4	GR 8	Full	Coarse	Phos & Oil	487105
3/8-16x1	GR 8	Full	Coarse	Phos & Oil	487106
3/8-16x1 1/4	GR 8	Full	Coarse	Phos & Oil	487107
3/8-16x1 1/2	GR 8	Full	Coarse	Phos & Oil	487108
3/8-16x1 3/4	GR 8	Partial	Coarse	Phos & Oil	487109
3/8-16x2	GR 8	Partial	Coarse	Phos & Oil	487110
3/8-16x2 1/4	GR 8	Partial	Coarse	Phos & Oil	487111
3/8-16x2 1/2	GR 8	Partial	Coarse	Phos & Oil	487112

1/2-13x1	GR 8	Full	Coarse	Phos & Oil	487113
1/2-13x1 1/4	GR 8	Full	Coarse	Phos & Oil	487114
1/2-13x1 1/2	GR 8	Full	Coarse	Phos & Oil	487115
1/2-13x1 3/4	GR 8	Full	Coarse	Phos & Oil	487116
1/2-13x2	GR 8	Partial	Coarse	Phos & Oil	487117
1/2-13x2 1/4	GR 8	Partial	Coarse	Phos & Oil	487118
1/2-13x2 1/2	GR 8	Partial	Coarse	Phos & Oil	487119
1/2-13x2 3/4	GR 8	Partial	Coarse	Phos & Oil	487120
1/2-13x3	GR 8	Partial	Coarse	Phos & Oil	487121
1/2-13x3 1/4	GR 8	Partial	Coarse	Phos & Oil	487122
1/2-13x3 1/2	GR 8	Partial	Coarse	Phos & Oil	487123
1/2-13x4	GR 8	Partial	Coarse	Phos & Oil	487124
1/2-13x4 1/2	GR 8	Partial	Coarse	Phos & Oil	487125
1/2-13x5	GR 8	Partial	Coarse	Phos & Oil	487126

1/2-20x1 1/4	GR 8	Full	Fine	Phos & Oil	487127
1/2-20x1 1/2	GR 8	Full	Fine	Phos & Oil	487128
1/2-20x1 3/4	GR 8	Full	Fine	Phos & Oil	487129
1/2-20x2	GR 8	Partial	Fine	Phos & Oil	487130
1/2-20x2 1/4	GR 8	Partial	Fine	Phos & Oil	487131
1/2-20x2 1/2	GR 8	Partial	Fine	Phos & Oil	487132
1/2-20x3	GR 8	Partial	Fine	Phos & Oil	487133
1/2-20x4	GR 8	Partial	Fine	Phos & Oil	487134

Grade 8

SIZE	GRADE	THREAD	PITCH	FINISH	PART #
5/8-11x1 1/4	GR 8	Full	Coarse	Phos & Oil	487135
5/8-11x1 1/2	GR 8	Full	Coarse	Phos & Oil	487136
5/8-11x1 3/4	GR 8	Full	Coarse	Phos & Oil	487137
5/8-11x2	GR 8	Full	Coarse	Phos & Oil	487138
5/8-11x2 1/4	GR 8	Full	Coarse	Phos & Oil	487139
5/8-11x2 1/2	GR 8	Full	Coarse	Phos & Oil	487140
5/8-11x2 3/4	GR 8	Partial	Coarse	Phos & Oil	487141
5/8-11x3	GR 8	Partial	Coarse	Phos & Oil	487142
5/8-11x3 1/2	GR 8	Partial	Coarse	Phos & Oil	487143
5/8-11x4	GR 8	Partial	Coarse	Phos & Oil	487144
5/8-11x4 1/2	GR 8	Partial	Coarse	Phos & Oil	487145
5/8-11x5	GR 8	Partial	Coarse	Phos & Oil	487146

5/8-18x1 1/2	GR 8	Full	Fine	Phos & Oil	487148
5/8-18x2	GR 8	Full	Fine	Phos & Oil	487149
5/8-18x2 1/2	GR 8	Full	Fine	Phos & Oil	487150
5/8-18x3	GR 8	Partial	Fine	Phos & Oil	487151
5/8-18x4	GR 8	Partial	Fine	Phos & Oil	487152