



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



ADDITIONAL USA MADE PRODUCT WE SUPPLY

USA Hex Nuts E10.9 USA Metric Heavy Hex Flange Bolts KMC Clips and Clamps

Hex Serrated Flange Screws

ADDITIONAL HEX FLANGE PRODUCT WE SUPPLY

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



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
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

Specialty plating options available upon request

*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. ©2023 Earnest Machine Products

MATERIAL AND PHYSICAL PROPERTIES

Grade 8



Chemical Composition Limits

CARB	ON (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

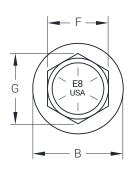
SAE J429 GRADE 8

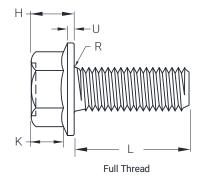
HRC 33/39

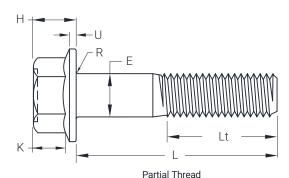
Tensile Strength

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