



## **E10.9 USA Metric Heavy Hex Flange Bolts DFARS Compliant. Available in Class 10.9.**

Earnest Machine now offers USA made Metric Heavy Hex Flange Bolts, which are available in Property Class 10.9 with a Phos & Oil finish. E10.9 Metric USA Heavy Hex Flange Bolts are also DFARS compliant and diameters range from M8 to M16 with lengths ranging from 20mm to 70mm.

### **PRODUCT ATTRIBUTES**

DFARS Compliant to meet US government regulations

Built-in washer distributes clamping load over wider area

Diameters range from M8 to M16 and lengths range from 20mm to 70mm

### **MARKETS FOR E10.9 USA HEAVY 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  
E8 USA Hex Flange Screws  
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.**

## E10.9 USA METRIC HEAVY HEX FLANGE BOLTS

E10.9 USA Metric Heavy Hex Flange Bolts are manufactured in accordance with the latest revision of the following industry standards:

- ASME B18.2.3.9M** Dimensional Requirements
- ISO 898-1** Material and Strength Level
- ISO 261** Thread Requirements
- ISO 6157-1** Surface Discontinuities
- ISO 3269** Inspection and Quality Assurance

## THREADS

Threads are made to the requirements of ISO 261  
Coarse Threads Class 6g  
Thread acceptance per ASME B1.3, System 21

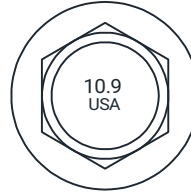
## PLATING

Phos & 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

### Property Class 10.9



### Chemical Composition

CARBON (C)		PHOSPHORUS (P)	SULFUR (S)	BORON (B)
Max	Min	Max	Max	Max
0.55	0.20	0.035	0.035	0.003

### Alloy

CLASS 10.9
Mn, Cr, Mo, Ni, V, B

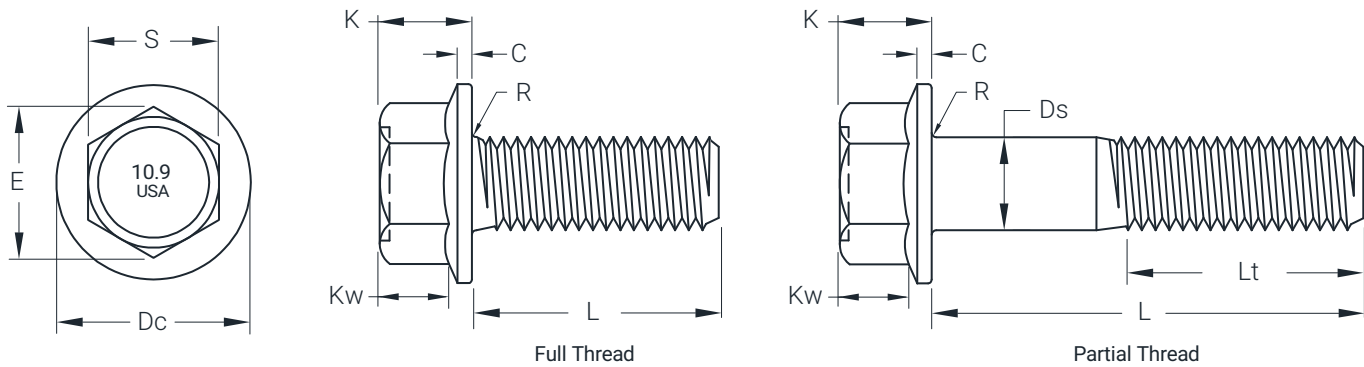
### Hardness

CLASS 10.9
HRC 32/39

### Tensile Strength

CLASS 10.9
1040 MPa min

## DIMENSIONS FOR E10.9 USA METRIC HEAVY HEX FLANGE BOLTS



SIZE	WIDTH ACROSS FLATS (S)		WIDTH ACROSS CORNERS (E)	FLANGE DIAMETER (Dc)	BODY DIAMETER (Ds)		HEIGHT OF HEAD (K)	FLANGE THICKNESS (C)	WRENCH HEIGHT (Kw)	FILLET (R)	THREAD LENGTH (LT)
	MAX	MIN	MIN	MAX	MAX	MIN	MAX	MIN	MIN	MIN	MIN
M8	13.0	12.57	14.08	18.0	8.0	7.78	8.1	1.2	3.6	0.4	22
M10	15.0	14.57	16.32	22.3	10.0	9.78	10.4	1.5	4.6	0.4	26
M12	18.0	17.57	19.68	26.6	12.0	11.73	11.8	1.8	5.2	0.6	30
M16	24.0	23.16	25.94	35.0	16.0	15.73	15.4	2.4	7.1	0.6	38

## E10.9 USA Heavy Hex Flange Bolts

### Class 10.9

SIZE	CLASS	THREAD	PITCH	FINISH	PART #
M8-1.25x20	ISO 10.9	Full	Coarse	Phos & Oil	487168
M8-1.25x25	ISO 10.9	Full	Coarse	Phos & Oil	487169
M8-1.25x30	ISO 10.9	Full	Coarse	Phos & Oil	487170
M8-1.25x35	ISO 10.9	Partial	Coarse	Phos & Oil	487171
M8-1.25x40	ISO 10.9	Partial	Coarse	Phos & Oil	487172

M10-1.50x20	ISO 10.9	Full	Coarse	Phos & Oil	487173
M10-1.50x25	ISO 10.9	Full	Coarse	Phos & Oil	487174
M10-1.50x30	ISO 10.9	Full	Coarse	Phos & Oil	487175
M10-1.50x40	ISO 10.9	Partial	Coarse	Phos & Oil	487176

M12-1.75x25	ISO 10.9	Full	Coarse	Phos & Oil	487177
M12-1.75x35	ISO 10.9	Full	Coarse	Phos & Oil	487179
M12-1.75x30	ISO 10.9	Full	Coarse	Phos & Oil	487178
M12-1.75x40	ISO 10.9	Full	Coarse	Phos & Oil	487180
M12-1.75x50	ISO 10.9	Partial	Coarse	Phos & Oil	487181

M16-2.0x35	ISO 10.9	Full	Coarse	Phos & Oil	487182
M16-2.0x40	ISO 10.9	Full	Coarse	Phos & Oil	487183
M16-2.0x50	ISO 10.9	Full	Coarse	Phos & Oil	487184
M16-2.0x60	ISO 10.9	Partial	Coarse	Phos & Oil	487185
M16-2.0x70	ISO 10.9	Partial	Coarse	Phos & Oil	487186