

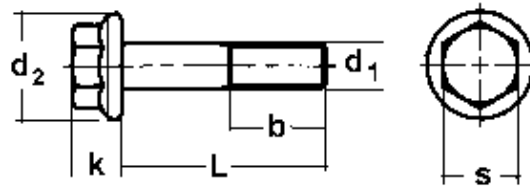


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**WDS Unified Grade 8 Hexagon Flange Bolts**  
**IFI -111 SAE 429 Specifications**



**IFI - 111 (SAEJ429)**

<b>d1</b>	<b>d2</b> min	<b>k</b>	<b>s -</b>		<b>b</b> L ≤ 6in	<b>b</b> L ≥ 6 in.	<b>l</b> ≤ <sup>1A</sup>
			<b>basic</b>	<b>max</b>			
<b>1/4</b>	0.480	0.170	3/8	0.3750	0.750	1.000	0.750
<b>5/16</b>	0.600	0.210	1/2	0.5000	0.875	1.125	1.125
<b>3/8</b>	0.730	0.250	9/16	0.5625	1.000	1.250	1.250
<b>7/16</b>	0.850	0.300	5/8	0.6250	1.125	1.375	1.500
<b>1/2</b>	0.980	0.340	3/4	0.7500	1.250	1.500	1.500
<b>9/16</b>	1.100	0.380	13/16	0.8125	1.375	1.625	1.750
<b>5/8</b>	1.230	0.420	15/16	0.9375	1.500	1.750	2.000
<b>3/4</b>	1.470	0.510	1 1/8	1.1250	1.750	2.000	2.250

**Mechanical Properties**

**Grade 8 UNC Hex Flange Bolts**

<b>Bolt Diameter</b>	<b>Grade</b>	<b>Proof Load lb</b>	<b>Tightening Torque (ft lb) Plain Finish</b>	<b>Tightening Torque (ft lb) Plated Finish</b>	<b>Minimum Tensile Strength (lb)</b>	<b>Approximate Shear* Load (lb)</b>
<b>1/4</b>	8	3800	13.2	10.5	4750	2850
<b>5/16</b>	8	6300	26	21	7850	4710
<b>3/8</b>	8	9300	46	37	11600	6960
<b>7/16</b>	8	12800	74	60	15900	9540
<b>1/2</b>	8	17000	113	90	21300	12780
<b>9/16</b>	8	21800	162	130	27300	16380
<b>5/8</b>	8	27100	225	180	33900	20340
<b>3/4</b>	8	40100	395	316	50100	30060
<b>7/8</b>	8	55400	636	509	69300	41580
<b>1</b>	8	72700	962	929	90900	54540

-also see UNF next page-



## WDS Unified Grade 8 Hexagon Flange Bolts

### IFI -111 SAE 429 Specifications

#### Mechanical Properties

##### Grade 8 UNF Hex Flange Bolts

Bolt Diameter	Grade	Proof Load lb	Tightening Torque (ft lb) Plain Finish	Tightening Torque (ft lb) Plated Finish	Minimum Tensile Strength (lb)	Approximate Shear* Load (lb)
1/4	8	4350	13.2	10.5	5450	3270
5/16	8	6950	26	21	8700	5220
3/8	8	10500	46	37	13200	7920
7/16	8	14200	74	60	17800	10680
1/2	8	19200	113	90	24000	14400
9/16	8	24400	162	130	30400	18240
5/8	8	30700	225	180	38400	23040
3/4	8	44800	395	316	56000	33600
7/8	8	61100	636	509	76400	45840
1	8	79600	962	762	99400	59640