



NOTHING PERFORMS BETTER

# PREVAILING TORQUE GUIDE

INCH SIZES		PREVAILING TORQUE		INSTALLATION VALUES <sup>(1)</sup>					
Nominal Diameter (inch)	Thread Pitch (TPI)	IFI-100/1-7 Removal <i>minimum</i> (Ft Lbs)	Security Locknut <sup>(2)</sup> (Ft Lbs)	Grade 5			Grade 8		
				Clamp Load (Lbs)	Dry Tightening Torque <sup>(3)</sup> (Ft Lbs)	Lubricated Tightening Torque <sup>(4)</sup> (Ft Lbs)	Clamp Load (Lbs)	Dry Tightening Torque <sup>(3)</sup> (Ft Lbs)	Lubricated Tightening Torque <sup>(4)</sup> (Ft Lbs)
3/8	16	0.3	2	6,013	38	28	7,517	47	35
1/2	13	0.6	4	10,998	92	69	13,747	115	86
1/2	20	0.6	4	12,334	103	77	15,418	128	96
5/8	11	1.0	6	17,501	182	137	21,877	228	171
5/8	18	1.0	6	19,719	205	154	24,648	257	193
3/4	10	1.7	10	25,870	323	243	32,338	404	303
3/4	16	1.7	10	28,719	359	269	35,898	449	337
7/8	9	2.5	15	35,693	521	390	44,617	651	488
7/8	14	2.5	15	39,225	572	429	49,031	715	536
1	8	3.3	20	46,817	780	585	58,521	975	732
1	14	3.3	20	52,300	872	654	65,375	1,090	817
1-1/8	7	4.2	24	59,003	1,106	830	73,754	1,383	1,037
1-1/8	12	4.2	24	65,841	1,235	926	82,301	1,543	1,157
1-1/4	7	5.0	26	74,827	1,559	1,169	93,534	1,949	1,461
1-1/4	12	5.0	26	82,503	1,719	1,289	103,129	2,149	1,611
1-3/8	6	5.8	30	89,227	2,045	1,534	111,534	2,556	1,917
1-3/8	12	5.8	30	101,044	2,316	1,737	126,305	2,894	2,171
1-1/2	6	7.5	33	108,471	2,712	2,034	135,589	3,390	2,542
1-1/2	12	7.5	33	121,462	3,037	2,277	151,827	3,796	2,847

The values presented in these tables are representative and have been compiled for the user's benefit. The estimated torque calculations are only offered as a guide. Use of its content by anyone is the sole responsibility of that person and they assume all risk. Due to many variables that affect the torque-tension relationship like, length of fastener joined with the nut, surface texture, lubrication, nicked threads, non-parallel mating surfaces, thread pitch diameter, etc, the best way to determine the correct torque is through experimentation under actual joint and assembly conditions.

- 1) Installation torque and clamp load are calculated using the proof load for the class bolt and nut specified multiplied by 0.75 for a factor of safety and multiplied by 0.85 to account for material removal for the locking mechanism. Proof load used for Grade 5 calculation is 120,000 Lbs/in<sup>2</sup>. Proof load used for Grade 8 calculation is 150,000 Lbs/in<sup>2</sup>.
- 2) The value shown is the approximate installation and removal prevailing torque for the Security Locknut. The prevailing torque will vary less than 75% from the value shown from the first to the fifth installation and beyond.
- 3) Calculated using formula: Nominal diameter x Clamp Load (from note 1) x Friction factor (dimensionless value of 0.20 for dry installation).
- 4) Calculated using formula: Nominal diameter x Clamp load (from note 1) x Friction factor (dimensionless value of 0.15 for lubricated installation).

