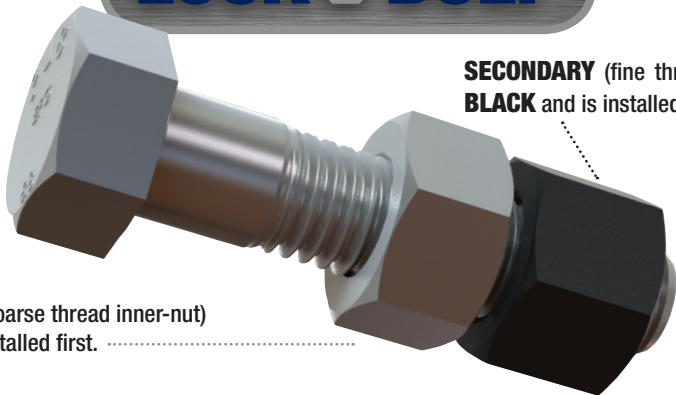


P E R F E C T  
**LOCK BOLT™**



**SECONDARY** (fine thread lock-nut) is **BLACK** and is installed last.

**PRIMARY** (coarse thread inner-nut)

This nut is installed first. ....

## **Perfect Lock Bolt™ Nuts Must Be Installed As Follows:**

Each nut has a different thread pitch and must be installed as described to prevent Self-loosening.

The **PRIMARY** inner-nut (coarse thread) is installed first.

The **SECONDARY** outer nut (fine thread) is installed last. Installation instructions for proper application of the PLB

fastener system can be found in each box of fasteners and at [www.perfectlockbolt.com](http://www.perfectlockbolt.com).

**Caution:** The Black nut must be installed last and must only be tightened 1/3 or 2 flats of a turn past finger tight. **Exceeding these tightening specifications may cause damage to fastener, resulting in application failure.**

## UN INCH BOLTS

Bolt Size	TPI	Max Clamp Load (lbs)		Max Tightening Torque (ft-lbs) Clean & Dry	
		Grade 5	Grade 8	Grade 5	Grade 8
1/4	20	2847	4023	8	12
	40	*	*	**	**
3/8	16	6883	9725	30	43
	32	*	*	**	**
1/2	13	12570	17762	73	104
	26	*	*	**	**
5/8	11	19987	28242	146	206
	22	*	*	**	**
3/4	10	29508	41696	258	365
	20	*	*	**	**
7/8	9	40687	57492	415	587
	18	*	*	**	**
1	8	53356	75395	622	880
	16	*	*	**	**
1¼	7	75005	120378	1094	1756
	14	*	*	**	**
1½	6	108696	174451	1902	3053
	12	*	*	**	**

## METRIC BOLTS

Bolt Size	Pitch	Max Clamp Load (kN)		Max Tightening Torque (N-m) Clean & Dry	
		Class 8.8	Class 10.9	Class 8.8	Class 10.9
M8	1.25	22.3	33.3	24.9	37.3
	0.625	*	*	**	**
M10	1.5	35.3	52.7	49.4	73.8
	0.75	*	*	**	**
M12	1.75	51.2	76.6	86.0	129
	0.875	*	*	**	**
M16	2.0	95.0	142	213	318
	1.0	*	*	**	**
M20	2.5	154	222	431	621
	1.25	*	*	**	**
M24	3.0	222	320	745	1074
	1.5	*	*	**	**
M30	3.5	352	508	1480	2133
	1.75	*	*	**	**
M36	4.0	513	740	2587	3727
	2.0	*	*	**	**

\* THE FINE THREAD NUT (BLACK NUT) SHOULD NEVER BE USED TO CREATE A CLAMP LOAD.

\*\* THE FINE THREAD NUT (BLACK NUT) SHOULD BE TIGHTENED 1/3 OR TWO FLATS OF A TURN PAST FINGER-TIGHT.

**Caution:** All specifications are for reference purposes only and the use of these specifications by anyone is voluntary. In developing this information, Perfect Lock Bolt America Inc. has made a concerted effort to present the contents accurately. Extreme caution should be used when calculating torque/tension values and relationships; torque is only an indirect indication of tension. **Exceeding these specifications can result in costly equipment failure and/or personal injury.**