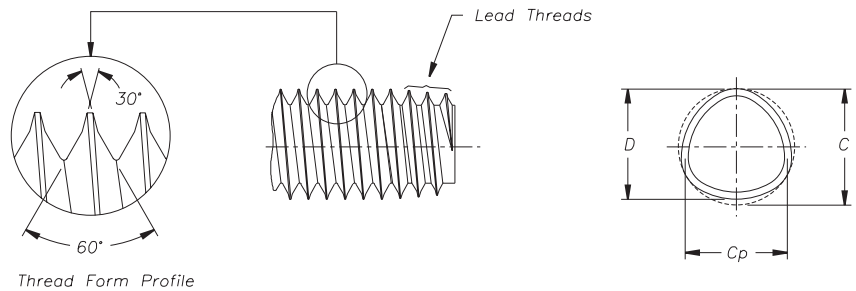


POWERLOK® All Metal Locking Screws



FOR BETTER FASTENING AT LOWEST IN-PLACE COST

- Enhanced locking ability
- Continuous locking action
- Resistant to high temperatures
- Reusable
- No special taps

Enhanced locking ability – “POWERLOK® TRILOBULAR™ self locking screws are a unique concept in locking screws.” Made from high strength steel, hardened and tempered to an optimum strength-toughness serviceability, the POWERLOK® screw achieves enhanced locking ability through the combination of a novel 60°-30° thread form and a TRILOBULAR™ thread body section. A significant mechanical advantage of this design is that the locking action is developed at the outermost radius of the torque arm of the screw body, whereas other locking screws develop their effective resistance at lesser radius points on thread flanks, down even to the thread root surface. The deeper geometry of the POWERLOK® thread, along with a slight increase in the thread major diameter over equivalent size machine screw, adds to the effective stripping resistance of the fastener. In addition, the centralization of the POWERLOK® lobes in the nut member thread allows the 30° thread crest on the fastener to flex elastically under clamp load, simulating the live action of spring washers.

Continuous locking action – POWERLOK® screws do not have to be seated to lock, as the locking thread feature extends the entire length of the fastener. They resist vibration at any point along their body length. POWERLOK® fasteners are excellent adjusting screws. The locking action is instantaneous and, unlike chemical locking agents, no reaction or curing time is required.

Resistant to high temperatures – POWERLOK® screws do not lose their action or efficiency in high temperature environments. Non-metallic additives featured with many lock screws lose much or all of their developed force or deteriorate with a time under the influence of temperatures of 200°F or higher. POWERLOK®, being an all-metal locking fastener, is unaffected by these or higher operating temperatures.

POWERLOK® - Metric Standards

NOMINAL SIZE OF SCREW	DIMENSIONS THREAD BODY (millimeters)				POINT DIAMETER OF CIRCUMSCRIBING CIRCLE CP MAX.
	DIAMETER OF CIRCUMSCRIBING CIRCLE C		MEASUREMENT ACROSS CENTER D		
	MAX.	MIN.	MAX.	MIN.	
M3.5 x .6	3.69	3.59	3.57	3.47	3.50
M4 x .7	4.22	4.10	4.08	3.96	4.00
M5 x .8	5.26	5.13	5.10	4.97	5.00
M6 x 1	6.30	6.15	6.10	5.95	6.00
M8 x 1.25	8.35	8.20	8.10	7.95	8.00
M10 x 1.5	10.40	10.25	10.10	9.95	10.00
M12 x 1.75	12.45	12.30	12.10	11.95	12.00

POWERLOK® - Inch Standards

NOMINAL SIZE OF SCREW	DIMENSIONS THREAD BODY (inches)				POINT DIAMETER OF CIRCUMSCRIBING CIRCLE CP MAX.
	DIAMETER OF CIRCUMSCRIBING CIRCLE C		MEASUREMENT ACROSS CENTER D		
	MAX.	MIN.	MAX.	MIN.	
4-40	0.1170	0.1120	0.1120	0.1070	0.112
5-40	0.1310	0.1250	0.1260	0.1200	0.125
6-32	0.1470	0.1410	0.1410	0.1350	0.138
8-32	0.1725	0.1665	0.1665	0.1605	0.164
10-24	0.2050	0.1980	0.1970	0.1900	0.190
10-32	0.1995	0.1925	0.1935	0.1865	0.190
12-24	0.2310	0.2240	0.2230	0.2160	0.216
1/4-20	0.2695	0.2615	0.2595	0.2515	0.250
5/16-18	0.3315	0.3235	0.3205	0.3125	0.312
3/8-16	0.3945	0.3865	0.3820	0.3740	0.375
7/16-14	0.4595	0.4515	0.4455	0.4375	0.437
1/2-13	0.5235	0.5155	0.5080	0.5000	0.500

Length Tolerance - Inch - Per ANSI B18.6.3

Nominal Screw Length	Nominal Screw Size	
	#4-#12	1/4"-1/2"
	Tolerance on Length	
To 1/2" Inclusive	+0, -.020	+0, -.030
Over 1/2" to 1" Inclusive	+0, -.030	+0, -.030
Over 1" to 2" Inclusive	+0, -.060	+0, -.060
Over 2"	+0, -.090	+0, -.090

Length Tolerance - Metric - Per ANSI B18.6.7M

Nominal Screw Length	Tolerance on Length
	mm
to 3mm incl.	± 0.2
over 3 to 10mm	± 0.3
over 10 to 16mm	± 0.4
over 16 to 50mm	± 0.5
over 50mm	± 1.0