

For unmatched performance against strip-out and vibration loosening in sheet metal applications, you can rely on Crimptite® fasteners by Infastech. Even after removal and reinsertion, they maintain their strong holding power for more solid assemblies and greater integrity in the finished product.



Standard Design Guidelines

Fastener Sizes: #6 – 5/16" (M3.5 – M8); smaller sizes available upon request

Head Styles: Hex washer or round washer

Thread Styles: Can be used with any thread style, including Taptite® self-tapping threads

Drive System: Can use any drive system, including TORX PLUS® Drive

Point Styles: Can be used with any point style, including Drilltite® self-drilling points

Material: Carbon or stainless steel

Finish: As specified

For more information on how Crimptite fasteners can benefit your assembly, please contact:



Decorah Operations

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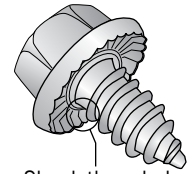
Infastech™, iForm™, Drilltite® and Elco® are registered trademarks of Infastech Intellectual Properties Pte Ltd. Crimptite®, and TORX PLUS® are registered trademarks of Acument Intellectual Properties, LLC. Avdel® is a registered trademark of Avdel UK Ltd. Taptite® is a registered trademark of Research Engineering & Manufacturing Inc.

Virtually Eliminate Strip-Out

Crimptite fasteners are engineered to minimize strip-out and provide maximum thread engagement, resulting in greater joint integrity.

Features

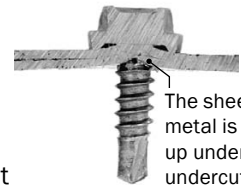
- Undercut washer head
- Shank is threaded into undercut area
- Serrated or smooth bearing surfaces available
- Available in a variety of head, thread, and point styles to meet the needs of your application



Shank threaded into undercut area, allowing maximum thread engagement

Benefits

- Provides higher drive-to-strip ratios than other sheet metal screws
- Increases resistance to strip-out
- Increases resistance to vibration loosening
- Provides reliable performance even after removal and reinsertion
- Lowers scrap, rework and in-place costs
- Allows use of lighter gauge sheet metals
- Can be used as repair screws where standard sheet metal screws have stripped out



The sheet metal is pulled up under the undercut head and held in tension.

Improving Quality and Lowering Costs

Many manufacturers have realized cost savings and increased product quality by switching to Crimptite fasteners.

For example, a manufacturer of air conditioning units originally used standard machine screws, but these would often strip out during assembly or fall out during shipping. The Crimptite fasteners they use today provide high resistance to strip-out and stay secure when the product is moved. The results are lower assembly and maintenance costs and increased product quality.

In high vibration environments, the performance of Crimptite fasteners is unmatched. One garage door manufacturer was able to switch to a lighter gauge steel through the use of Crimptite fasteners, saving money while avoiding strip-out problems. In a life-cycle test, the assembly withstood the equivalent of over 40 years use, well beyond required industry standards.

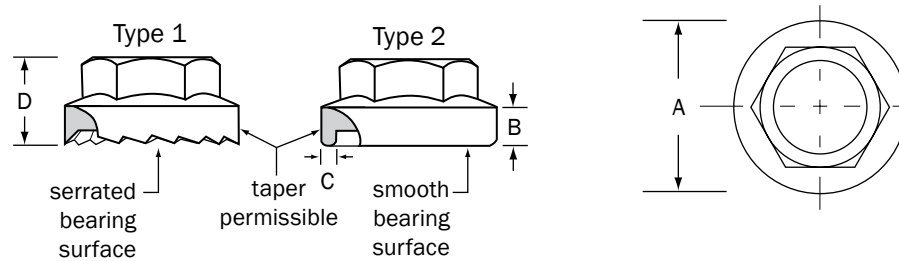


Crimptite fasteners are also excellent for grounding screw applications. The undercut head delivers the high clamp loads required to secure grounding connections, and can be used with or without wire clips.



Crimptite® Fasteners Dimensional Data – Inch Sizes

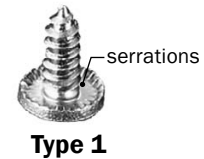
Screw Size	Width Across Flats	A Washer Diameter		B Washer Thickness	C Under Head Flat	D Overall Head Height
	Max.	Max.	Min.	Ref.	Ref.	Ref.
#6	.250	.340	.320	.065	.010	.154
#8	.250	.370	.350	.070	.020	.179
#10	.312	.445	.425	.085	.020	.203
1/4	.375	.550	.530	.105	.025	.299
5/16	.500	.728	.677	.118	.030	.345



Serrated or Smooth Bearing Surface Available

Crimptite fasteners with a serrated bearing surface have greater resistance to strip-out and greater rotational resistance, because the serrations lock into the application surface. They can also break paint on the application surface to allow a continuous ground.

Smooth surface Crimptite fasteners minimize surface scarring and damage. When used as a grounding screw, the smooth bearing surface reduces the tendency of wire ends and terminals to twist out of place as the screw is secured.



Type 1



Type 2

Crimptite Outperforms the Competition

In tests performed to determine the strip and seating torque of similar fasteners, Crimptite fasteners consistently showed higher strip-out torques and higher drive-to-strip ratios.

Performance Data

Fastener	Ave. Drive Torque (in. lbs.)	Ave. Strip Torque (in. lbs.)	Drive-to-Strip Ratio
#8-18 x 1/2"; hex head; type AB threads			
Crimptite w/serrations	6.8	78.9	1 to 11.5
Standard fastener w/serrations and helical knurled shoulder	7	48.7	1 to 6.9
#8-18 x 1/2"; hex head; type AB threads			
Crimptite w/serrations	7.5	80	1 to 10.6
Standard fastener w/serrations & undercut	7.2	56.7	1 to 7.9
#10-16 x 5/8"; hex head; type AB threads			
Crimptite w/serrations	14.3	114.5	1 to 8
Standard fastener w/serrations & undercut	14.6	51.2	1 to 3.5

Test results were achieved using standard test plates. For #8 fasteners: 0.025" top plate with 0.200" clearance hole; 0.035" bottom plate with 0.125" pilot hole. For #10 fasteners: 0.025" top plate with 0.224" clearance hole; 0.035" bottom plate with 0.147" pilot hole. Parts were driven with a hand-held airgun. Results measured using an analogic mainframe with digital readout and socket wrench sensor, accuracy ± 1%.

NOTE: Tests were performed under laboratory conditions. Actual assembly conditions can not be duplicated in our laboratories and test results should not be construed as representative thereof.



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