



Aero-Lite[®] Threaded Fasteners



Delivering advanced technical capabilities and service

In 1992, we significantly improved fastener technology by introducing the close-tolerance lockbolt head design. Following this model, Aero-Lite® pin is an HFS innovation that sets a new standard for head flushness and grip accommodation in threaded fasteners. Extensive use of SPC discipline enables HFS to achieve superior lot-to-lot consistency, particularly with respect to flush head height and diameter. The system is backed by HFS' established delivery record. The aircraft industry's growing concern with aerodynamic flushness and cosmetic appearance of fastener patterns created the need for refinements of fastener head configurations and tolerances. That's why Howmet Fastening Systems developed the Aero-Lite® pin – a lightweight threaded fastening system that provides cost effectiveness users expect, with enhanced grip accommodation and improved head flushness not available from typical threaded fasteners. These superior capabilities enhance appearance and significantly reduce installation cost.

Aero-Lite® pin provides these benefits:

Shorter thread runout within 1 thread pitch.

Full-form thread adjacent to thread runout and pin shoulder provides complete thread engagement and improved mechanical property performance.

Maximized shank in bearing by controlling the thread-to-shank transition radius.

Maximized cross-sectional area at the point of highest stress.

The best value in threaded fasteners

For years, threaded pins from various suppliers were virtually identical. Variations from supplier to supplier or even from a single supplier's lot-to-lot required custom hole preparation for each batch, or caused objectionable skin flushness appearance. With the Aero-Lite® pin, there is an important difference. A difference that delivers better value at a competitive price.

The thread runout on the Aero-Lite® pin is matched to the mating collars, enabling the collars to assemble closer to the full shank of the pins. As a result, Aero-Lite® pins achieve additional grip accommodation in the minimum grip area.

Superior consistency of quality and delivery

The ultimate Aero-Lite® difference is consistent manufacturing and delivery quality – the quality that has made Howmet Fastening Systems an aerospace fastening engineering leader for decades.

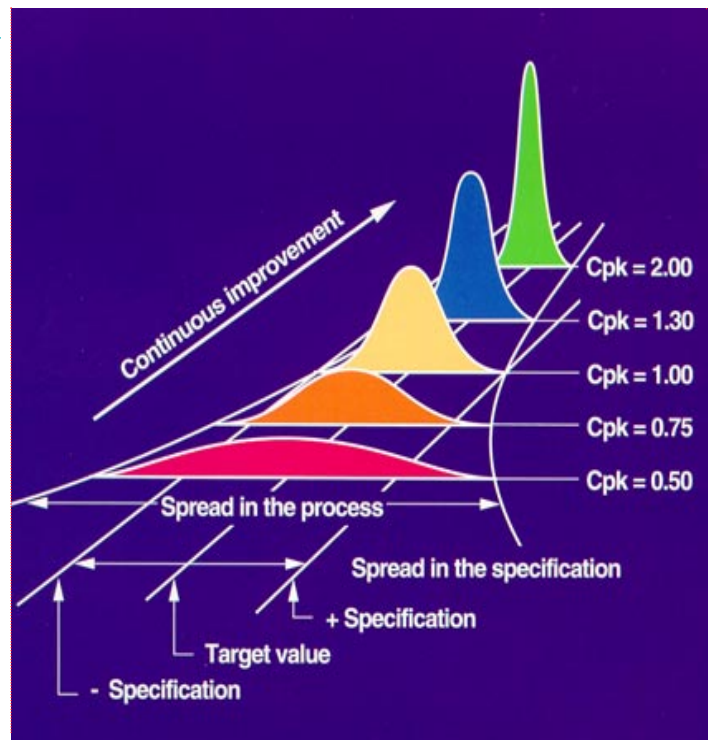




Aero-Lite® fasteners streamline the fastener

installation process, significantly improving productivity. Aero-Lite® pins' consistent lot-to-lot head dimensions minimize hole preparation time and eliminates or reduces rework. Appearance and aerodynamic quality of the structure is enhanced.

Aero-Lite® pins' shorter thread run-out and resulting ability to assemble closer to the full shank of the pins improves grip accommodation without affecting sheet clamp-up.



Installers won't need to adjust their countersinking tool from lot-to-lot. You'll also reduce the need to re-work, re-countersink or customize each hole. All of which significantly reduces installation time and cost.

Aero-Lite® pins are available in both close-tolerance flush head and protruding head designs to meet your threaded fastening needs. Our extensive expertise in close-tolerance lockbolt head technology enabled us to introduce this important feature in threaded fasteners, providing precise control of head height and diameter.

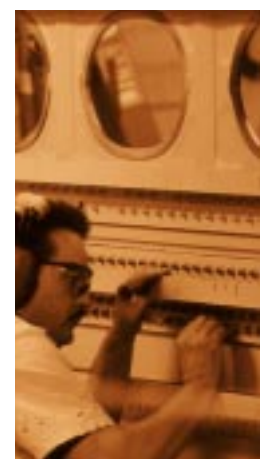
Cost effectiveness without compromise

By reducing thread runout, enhancing grip accommodation, improving consistency of lot to lot head dimensions and increasing structural flushness – all at no extra cost – Aero-Lite® fasteners offer you a far superior threaded fastening solution.

With Aero-Lite® fasteners, for the first time there is clearly a difference in threaded fastener performance, consistency, quality and service. Best of all, you get the Aero-Lite® fastening system's technical advantages for a price that's competitive with typical threaded fasteners. It's a far better value for your investment.

To learn more about how Aero-Lite® threaded fasteners provide the installation cost-reduction advantages you need in today's ultra-competitive aircraft market, visit our website at www.hfs.howmet.com. There you'll find detailed technical information to help you evaluate the benefits of Aero-Lite® fasteners for your specific application.

Aero-Lite® fasteners' technical performance superiority and consistent quality, combined with HFS' proven commitment to service, make Aero-Lite® threaded fastener the right choice for industry-leading airframers.





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