





Boosting Threading Efficiency: Five Tips to Avoid Tap Breakage





FEATURED ARTICLE



BOOST THREADING EFFICIENCY

Utilize the knowledge of application specialists to increase thread quality, productivity and profitablity.

By EMUGE-FRANKEN USA

ne of the last critical processes when manufacturing parts, threading a hole necessitates careful tool selection and the right machining setup to prevent reworking and possibly scrapping a part. Manufacturers increasingly need to machine challenging, costly materials such as nickel-based alloys, heat-resistant super alloys and exotic materials that make the stakes even higher. These demanding materials have unique properties and application requirements that need to be factored in when selecting a tool.

Whether working with more common steels or newer, difficult-to-machine materials, manufacturers have a range of threading tool options that include application-specific and multi-purpose taps and thread mills. Traditionally used by shops as their threading go-to choice, taps can produce threaded holes with short cycle times and uniform quality while providing long tool life. Gaining popularity for good reason, thread milling maximizes process security and is flexible in terms of feed rates, thread size, programming approaches and, especially, the ability to control fit. The machinist can adjust thread size using different cutting strategies, which is advantageous on tight-tolerance threads.

The benefit of working closely with the cutting tool supplier or manufacturer for application advice cannot be overstated. In addition to selecting the best tool for the threading requirements, cutting tool experts can help dial into the optimal machining speeds and feeds. Advice on emulsions,



24 MARCH 2024



INTRODUCTIONS

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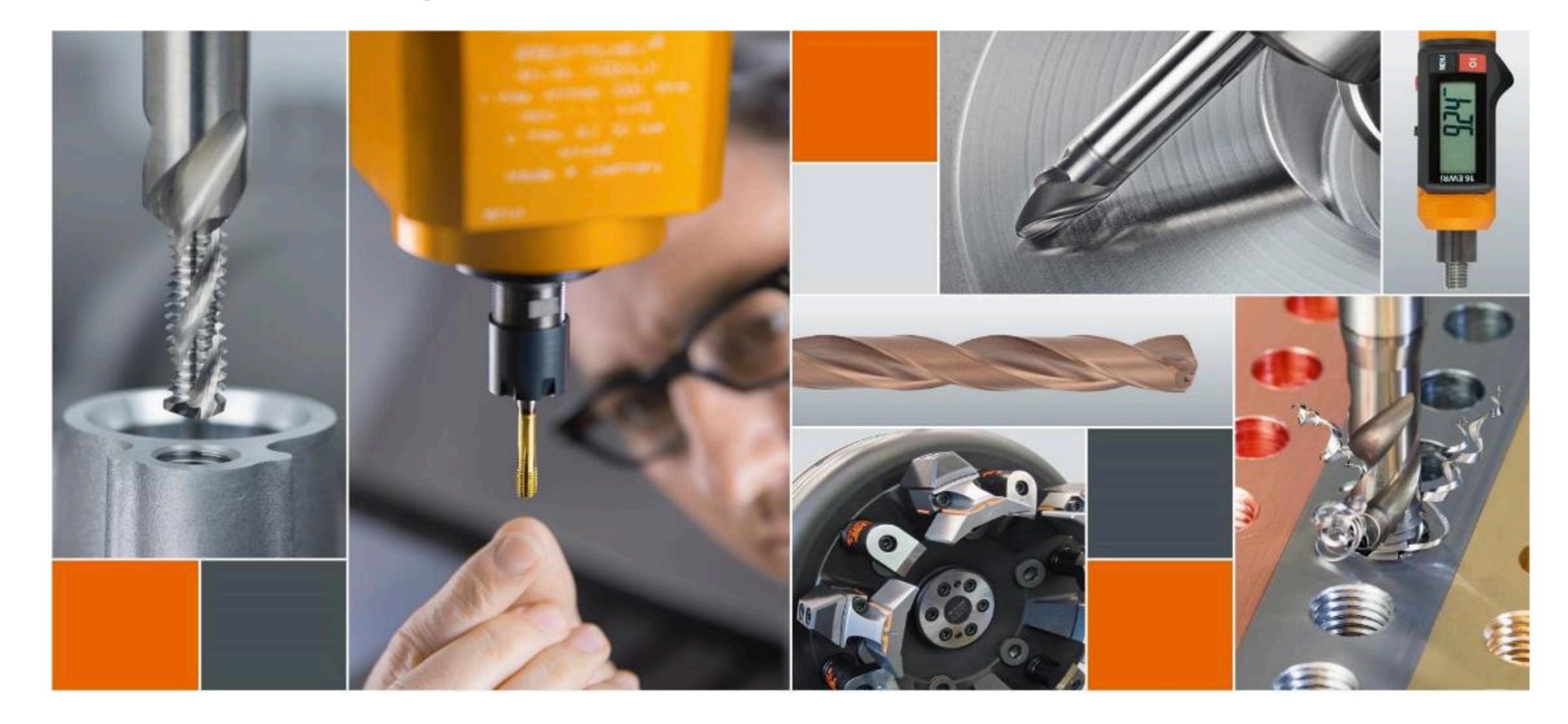
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QUESTIONS

Questions Submitted In Advance

What is the best choice of cutting fluid for tapping SS316?

Can you explain the dynamics of rigid tapping without using any type of special holder?

• When thread forming, how do you determine the best tap drill size/ percentage of thread to achieve the bet resulting thread form at the peak of the thread?

Live Q&A





QUESTIONS



Didn't get your question answered? Scan the QR code, or go to qr.ctemag.com/1rbul to ask a question, and receive a free drill size pocket card!



Live Q&A

Audience can submit questions in the Q&A section, which is next to the chat box.



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