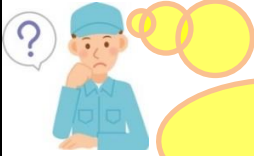


**【Question】**



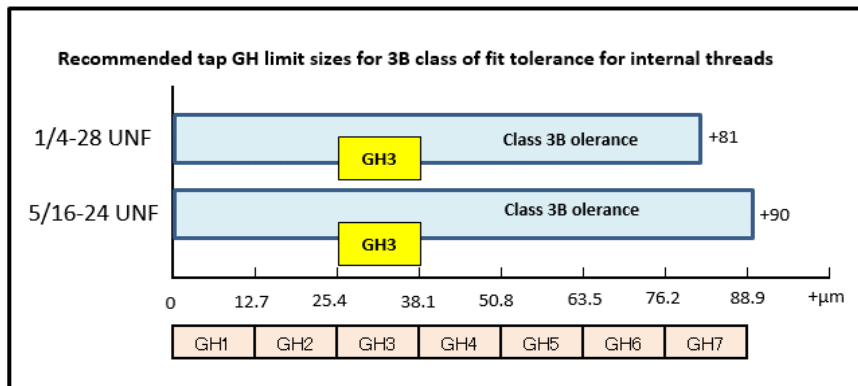
We are planning to work on aircraft parts and we will tap 1/4-28 UNJF 3B and 5/16-24 UNJF 3B internal threads. I understand that a UNJF internal thread can be machined with a standard tap, if the pilot hole diameter is adjusted to the specified internal diameter size per the UNJ specification. When using 1/4-28 UNF and 5/16-24 UNF taps for Unified 3B class of internal screw threads, what is the recommended limit size of the tap for a 3B class internal screw thread?

**【Answer】**

The limit size for taps used to machine Unified 3B class of threads is recommended by ANSI. This is not an absolute matter because the processing dimensional difference varies depending on the tapping conditions and the taps size and type. It is only to be used as a guide.



**【Description】**



- The position of 1/4-28 UNF and 5/16-24 UNF Class 3B internal thread tolerance area and the recommended GH3 tap limit size has the positional relationship as shown in the figure on the left.
- See the table below for the recommended tap limit sizes for internal thread sizes used in aircraft parts.

ANSI Standard External Thread 3B Class and Recommended GH Limit Size for Taps by Sizes.



Unified Coarse 3B Tap Recommended Limit				Unified Fine 3B Tap Recommended Limit			
Size	Limit	Size	Limit	Size	Limit	Size	Limit
—	—	—	—	No. 0-80UNF	GH1		
No. 1-64UNC	GH1	No.10-24UNC	GH3	No. 1-72UNF	GH1	No.10-32UNF	GH2
No. 2-56UNC	GH1	No.12-24UNC	GH3	No. 2-64UNF	GH1	No.12-28UNF	GH3
No. 3-48UNC	GH1	1/4-20 UNC	GH3	No. 3-56UNF	GH1	1/4-28 UNF	GH3
No. 4-40UNC	GH2	5/16-18 UNC	GH3	No. 4-48UNF	GH1	5/16-24 UNF	GH3
No. 5-40UNC	GH2	3/8 -16 UNC	GH3	No. 5-44UNF	GH1	3/8-24 UNF	GH3
No. 6-32UNC	GH2	7/16-14 UNC	GH3	No. 6-40UNF	GH2	7/16-20 UNF	GH3
No. 8-32UNC	GH2	1/2 -13 UNC	GH3	No. 8-36UNF	GH2	1/2-20 UNF	GH3