Think threads with YAMAWA

No. 021 **How to select the correct tap class on Roll Taps** <Roll Taps>

【Question】

I have a problem using Roll Taps to create good internal threads. When I check the internal threads with a GP-6H gage, I find the gage fits tight and the threads are a little small. Can you please suggest how to select a suitable tolerance class of roll tap?

【Answer】

You can solve your problem by selecting a larger class of Roll Taps.

【Guide】

The G class system for the tolerance class of Roll Taps is defined in a similar format to that of an ANSI standard GH class and tolerance with incremental steps of 0.0005 inch (12.7µm). The type of workpiece material will determine the shape of the internal thread when roll tapping and the thread size may differ with the same tap in different materials. To produce the appropriate accuracy in internal screw threads, we offer 2 to 3 different tolerance classes for the same size Roll Taps.

Here is an example:
Normally, the recommended tolerance class for a N+RZ M5X0.8 roll tap for steels is a G6. If you check the threaded hole with a GP-6H gage and find that it measures tight, you can select a class G7 or G8 to solve the problem.
However, it should be noted that selecting a larger tolerance class of roll tap will result in a smaller minor diameter on the internal threads because of added material deformation. If

【Advice】

Please refer to the following reference chart below to select the correct G class of tap!

■Comparison of pitch tolerance zone between class 6H internal metric threads and the recommended Roll Taps G Class.