

**【Question】**



I am tapping in cast iron. I use FC-HT hand taps for cast iron for Metric threads, but now we received an order to make the Unified thread 3/8-16UNC. I'm going to use HT because FC-HT taps for Unified threads are not available. What effect does the nitride treatment added to FC-HT taps have? Can you add the nitride treatment to other taps?

**【Answer】**

Nitride treatment is a kind of surface treatments that increases the surface hardness of the taps and improves wear resistance. We can add the nitride treatment on standard HT taps. Since the tool life can be greatly improved, please contact our sales support center for more information.



**What is nitride treatment?**

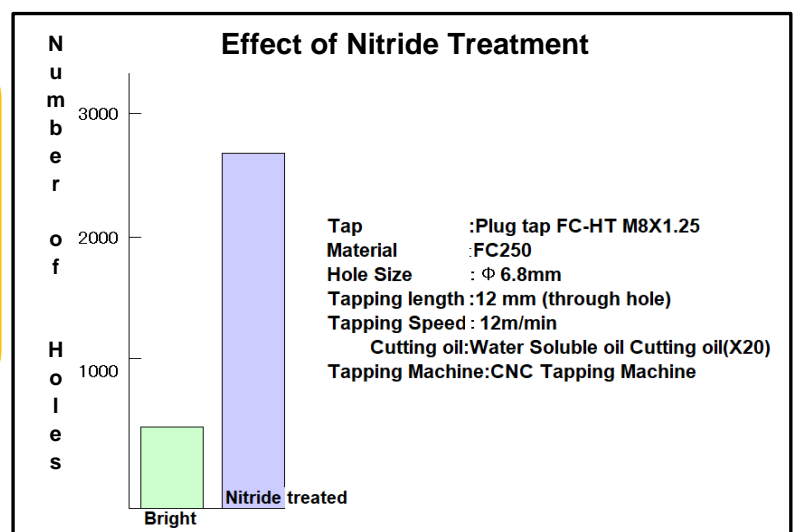
**【Description】**

We call the nitride treatment "NI treatment" which is an acronym for Nitride. The process involves penetrating the tool surface with nitrogen (N) and carbon (C), to combine with the elements in the tool making it a hard nitride. Hardness of the tool surface becomes between 1000 and 1300 HV. It is about 1.5 times harder than the untreated taps, which greatly improves the wear resistance of the tap.



**【Advice】**

The diagram on the right shows the results for FC250 with a FC-HT designed tap. Depending on with or without nitride treatment, the tool life is significantly different. As you can see on the results, the nitride treatment can greatly improve the tool life of taps for cast irons.



Nitride treatment is not only used for FC-HT hand taps for cast irons, but also for other taps where even a little wear on the cutting edge can greatly reduce the cutting performance, LA-HT hand tap for die-casting, AL+SP spiral fluted tap for aluminum and PL1 hand taps for plastics.