

【Consultation】


We are producing internal threads on plastic injection molds in sizes from M3 to M12 by using YAMAWA carbide taps N-CT FC with a 3P chamfer. The work piece material is SKD 61 pre-hardened steel with a hardness of 50 HRC. Do you have any other type of carbide taps you would recommend for this material? We are using machining centers with synchronous feed system to tap.



Mold: Image

【Answer】

The carbide hand taps you are currently using are for cast iron. In the past, we only had 2 types of carbide hand taps, N-CT LA for light alloys and N-CT FC for cast iron. At that time, the best choice was our N-CT FC taps. Recently, we added some new lineups of carbide taps for different applications. The best choice in carbide hand taps for high hardness steels is our EH-HT which is shown in the picture below.



YAMAWA carbide hand tap for high hardness steels
EH-CT


【Advice】

- EH-CT is the best carbide hand taps for high hardness steel materials such as SKS 3, SKD 11 and SKD 61 with a hardness of 45 to 55 HRC.
- The tip diameter of EH-CT taps is designed to be as close to the maximum minor diameter of the 6H internal threads as possible and is larger than standard taps. If the internal thread class is specified as "6H or class 2", please open the bored holes as close to the maximum minor diameter of the thread tolerance as possible.
- The chamfer length of EH-CT taps is 5 threads, please set the depth of the bored holes deeper than the chamfer length of the tap.
If the tap starts to reverse when the chips are accumulated in the bottom of the bored hole, the chamfered threads of EH-CT may be chipped.
- We recommend a cutting speed 4 m/min or under when using EH-CT.



YAMAWA carbide hand taps UH-CT
for ultra high hardness steels

For materials that exceed 55 HRC, we recommend the UH-CT carbide hand tap for ultra-high hardness steel. For details, please look at "Bag Full of Wisdom when you are in trouble No. 075 Tapping 60HRC ultra-hard materials".

