Think threads with YAMAWA

No. 101 **Recommended taps to Cut Magnesium Alloy** Cutting tap

【Consultation】

We received an order for digital camera parts processing. The material is a Magnesium Alloy. Please tell me which tap should be used on this material. Most of the sizes are M3 or less, and some are smaller than M2. Most of the screw threads are blind holes with a small difference between the pilot hole length and the screw effective length. In this situation, the tap needs to go as close as possible to the bottom of the hole.

【Answer】

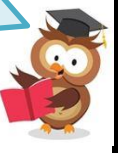
Magnesium Alloy is a material that is relatively easy to cut. You stated the blind holes are close to the bottom of the hole, so a Spiral Tap "AL-SP 1.5P" for Aluminum Material is generally recommended for Magnesium. However, if you need a tap less than a M2 thread or if you need to tap with a chamfer of 1.5P or less, the following short chamfer hand tap for Magnesium Alloy Castings, MG-HT is the recommended tap.

Short Chamfer Hand Taps for Magnesium Alloy Castings: MG-HT Number of threads in the chamfer = 1 thread on M1.4, M1.6, M1.7, M2, M2.5, M2.6 and M3 in Coarse Dimensions are available.

- The number of threads in the chamfer area are less than 1 and it will tap to the bottom of the hole. Blind Hole processing is possible with the MG-HT.
- Flute specifications are suitable for Magnesium Alloy and Aluminum Die Casting.

【Description】

The specific gravity of Magnesium is 1.7 and is extremely light compared to Aluminum at 2.7 and copper at 7.9. Magnesium is a material that can meet the needs for "Weight reduction." As a result, it is often used in parts for automobiles, computers, and mobile phones. Generally these parts are thin-walled for further weight reduction. In order to produce the correct “Fitting Length,” there is a demand for processing the screw to the final depth of the pilot hole. The MG-HT can be utilized for these applications because the number of threads in the chamfer area is less than one.



【Advice】

Magnesium Alloy is a material that can easily ignite into flames, so care must be taken when processing and storing chips.

Large pieces of Magnesium Alloys do not easily ignite when exposed directly to fire, but the chips of Magnesium Alloys discharged during cutting are extremely flammable and when ignited they burn at high temperatures. In addition, the Magnesium chips may explode if splashed with water during combustion. Therefore, it is necessary to carefully clean up chips and store them in containers made of non-combustible material that can be covered. Have prepare dry sand for fire extinguishing when processing Magnesium.