

Metal cutting cutting tool

Of metallic cutting cutting tool wear away to reach precautionary measures with damaged mechanism.

One, summarize metallic cutting cutting tool wear away and one of main factors that damaged is influence machining quality, the index such as quality of the exterior surface roughness that it affects work directly, precision, surface and manufacturing efficiency. As the development of science and technology, taller and taller to the performance demand of metallic cutting cutting tool, if high-speed steel already replaced data of hard alloy predominate gradually; Knife of pottery and porcelain also gets applied extensively. Because how this improves the service life of metallic cutting cutting tool, already made one of tasks that solve urgently currently. Fall in normal working requirement (include normal grinding), service life of common lathe tool is 5000~8000h; Establish milling cutter service life to be 3000~4000H about; Broach life is 1000~2000 H; The normal life of reamer is restricted to make an appointment with 500 H. The mean life of knife of be open to traffic of our country general has 1500h to control only, the life that establishes milling cutter has 800h only, broach is 400h left and right sides only, reamer also has 300~400d only. The damage of main shaft bearing of major lathe of visible our country is serious, the time that its reason uses as a result of main shaft bearing namely is too long cause.

2. Tatty reason:

1. The as acuteness as cutting blade generation attrition when cutting the attrition between bits and cutting blade to cut bits to enter grooving makes workpiece surface appears burr or the phenomenon that pull hair calls adhesive wear (Corollage).

2. The action of cutting force can make in the radial load of the generation when rough machining the tiny protruding stage of workpiece surface is excised to form channel mark to call cut (Scratch).

3. The formation of the tumour that accumulate bits because the form of the spare parts is complex and appearance is changeful and a few little protuberant thing can arise to say below the influence of the element such as six to one of each part dimension accumulate bits tumour " for ". These young protuberant other people are met block up the happening that the vibration that run normally and increased a machine tool of the machine tool reduced the performance characteristics of the machine tool to cause equipment trouble even thereby.

3. Prevent a method:

1. Type of logical choice razor blade chooses right bit stuff to reduce its wearability according to the hardness of different material in order to prolong its service life. (for example: Hard alloy can use the tool that makes all sorts of high accuracy bit.)

2. The exterior mass that the craft parameter with logical choice employs the craft parameter such as quantity of penetration of a cutting tool of reasonable feed, back and tool cutting edge angle to improve work makes efficiency with carrying a senior engineer. (the horn after the horn before using small feed to be helpful for reducing for example increases in order to decrease before rush and regressive distance)

3. Correct installation places cutting tool of type numerical control with use machine.

4. Strengthen job of daily care and maintenance.

Above these are small make up smallness relevant knowledge, the hope is helpful to you!

