







## The material with commonly used milling cutter? what does milling cutter type have?

The material with commonly used milling cutter:

(1) adds up to golden tool steel. Use as the alloy tool steel of milling cutting tool basically has CrW5.

(2) high-speed steel. The 2<sup>nd</sup> that the bending strength of high-speed steel is general hard alloy 3 times, a few times concussion toughness is taller than hard alloy also, the hardness after heat treatment is 63 ~ 69HRC, the highest temperature that high-speed steel allows is 500 ~ 600 °C, cutting speed is 16 ~ 35m/min commonly, have good cutting performance, apply to make all sorts of milling cutter, among them, by contain Gao Fan of cobaltic, tall carbon to contain cobalt, contain cobalt to exceed hard model the milling cutter that high-speed steel makes, special apply to alloy of alloy of treatment high temperature, high strength steel, stainless steel, titanium to wait for difficult treatment material.

(3) hard alloy. The hardness of hard alloy is very tall, can amount to 89 ~ 93 HRA or 74---82HRC. Blade of leg of ? of boundless and indistinct of Xiong of courtyard of ? rapid ? breaks ? of gauze of ? of port lofty Lu - 1000 °C, cutting speed is commonly 80 - 120 M/min. Accordingly, the cutting function of hard alloy exceeds high-speed steel far, cutting tool life can rise to arrive several fold a few times. Major hard alloy suits to make milling cutter (bit), wait like YG8, YT5, YT14 comfortable the thick mill through entire section and discontinuous cutting; YG6, YT15 comfortable the half essence mill at successive section and mill of essence of life.

The hard alloy of the new name that special Yu Xi cuts has YTM30, YTS25, YT798 to wait. In addition, of new name exceed fine grain hard alloy, wait like YG10H, YGR1V1, YH1, YH2, YH3, YD10, because cutting blade intensity is high, also suit to make the milling cutter of small size. Steel writes guarantee hard alloy, wait like DI, TI, also suit to make the milling cutter of treatment nonferrous metal and its alloy, heat-resisting alloy, stainless steel.

(Material of 4) coating cutting tool. Material of coating cutting tool is to point to in hard alloy or high-speed steel cutting tool apparently, be smear the metallization of the high strength with a few thick micron, tall wearability closes matter. Material of this kind of cutting tool has the concussion toughness of matrix already, have very tall surface hardness again, enlarged the suitable scope of coating razor blade consequently, cutting function also rose greatly.

(Material of cutting tool of 5) new-style pottery and porcelain. Material of cutting tool of new-style pottery and porcelain can be divided by its bases for alumina department, nitrogen the department that change silicon and compound nitrogen change silicon one alumina is 3 kinds big. Material of cutting tool of all kinds pottery and porcelain becomes dispenses property according to its, the cutting that can apply to some limits only is machined. Like milling steel (hardness under milling cutter of material of hot pressing pottery and porcelain can choose only when 35HRC); When milling casting pig, should material of cutting tool of pottery and porcelain of first selection Sialon (namely compound Si<sub>3</sub>N<sub>4</sub> - cutting tool of Al<sub>2</sub>O<sub>3</sub> pottery and porcelain, it is a variety of compound that make by place of Si-Al(-)-N series element group floorboard), it is to pick material of cutting tool of hot pressing pottery and porcelain next; And milling nickel base alloy (mouth. ? 6. 35mm, f=0.13 ~ 0. When 30mm), choose cutting tool of Sialon pottery and porcelain more appropriate.

(6) exceeds material of strong cutting tool. Exceeding material of strong cutting tool is the be called by a joint name that diamond and cubic nitrogen change boron.



Diamond applies extensively at milling cutter, basically machine all sorts of nonferrous metal, metalloid material and composite material to wait.

