







## On the fabricating characteristics of stainless steel and milling cutter choose

Which kinds of milling cutter does stainless steel treatment use? This is a problem that when CNC is machined, encounters via regular meeting. The machinability of austenite stainless steel is only 0.4, ferrite stainless steel is only 0.48, martensite stainless steel is only 0.55.



### 1, serious treatment is sclerotic

The treatment sclerosis of stainless steel is very serious. The first kind of choice is the mixture of austenite and ferrite. The 1.4-2.2 that sclerotic layer hardness is former matrix times, intensity  $R=1470-1960\text{MPa}$ . This kind of stainless steel has very big plasticity and very big coefficient of intensification. In addition, austenite is not stable, easy below the action of cutting force change is martensite.

### 2, cutting muscularity

Stainless steel has very tall plasticity, especially 2.5 times the deepness of austenite stainless steel is 45# steel. Milling machine plasticity is out of shape big, cutting resistance is great, treatment is sclerotic and serious, hot intensity is high, not easy and curly and break off.

### 3, cutting temperature is high

The plasticity of stainless steel is out of shape big, attrition muscularity, coefficient of thermal conductivity is relatively inferior. Accordingly, below coequal condition, the temperature of stainless steel milling machine is 200 degrees or so higher than 45 steel.

### 4, cut is not easy

When processing stainless steel easily agglutinate and form the tumour that accumulate bits. The

