The reasons caused the roughness is not good:

1. **The material of the workpiece.**

The material with lots of impurities, as you know EDM wire cut is work with spark, the impurities is not conductive very well, such as casting iron. So the spark is not good.

2. **The choosing of parameters.**

The parameters are the most important reason influence the cutting speed, the surface finishing and the cutting condition. You should choose the correct parameters according to the material of the workpiece, thickness of the workpiece and the cutting result you want.

1.) **Pon** means the machining time. If **Pon** is larger, the machining speed is faster, and roughness is worse.

2.) **Poff** means the time for the water to dash the metal chips out between the two machining times. So if **Poff** is larger, the machining speed is lower but the roughness is better.

3.) **IP** means the number of the Pulse. If **IP** is larger, the current is larger and the machining speed is faster, however the roughness is worse and it is easier for the wire to be broken at the same time.

You can choose suitable parameter from our database.

3. **The pulleys (copper guide wheels)**

Every one month using, you need to check the running of the copper pulley (guide wheels). You can hold one side of the wheel, and run it, if it can running smoothly, it's OK. If it can't running smoothly. You have to change the bearing and the only wheels.
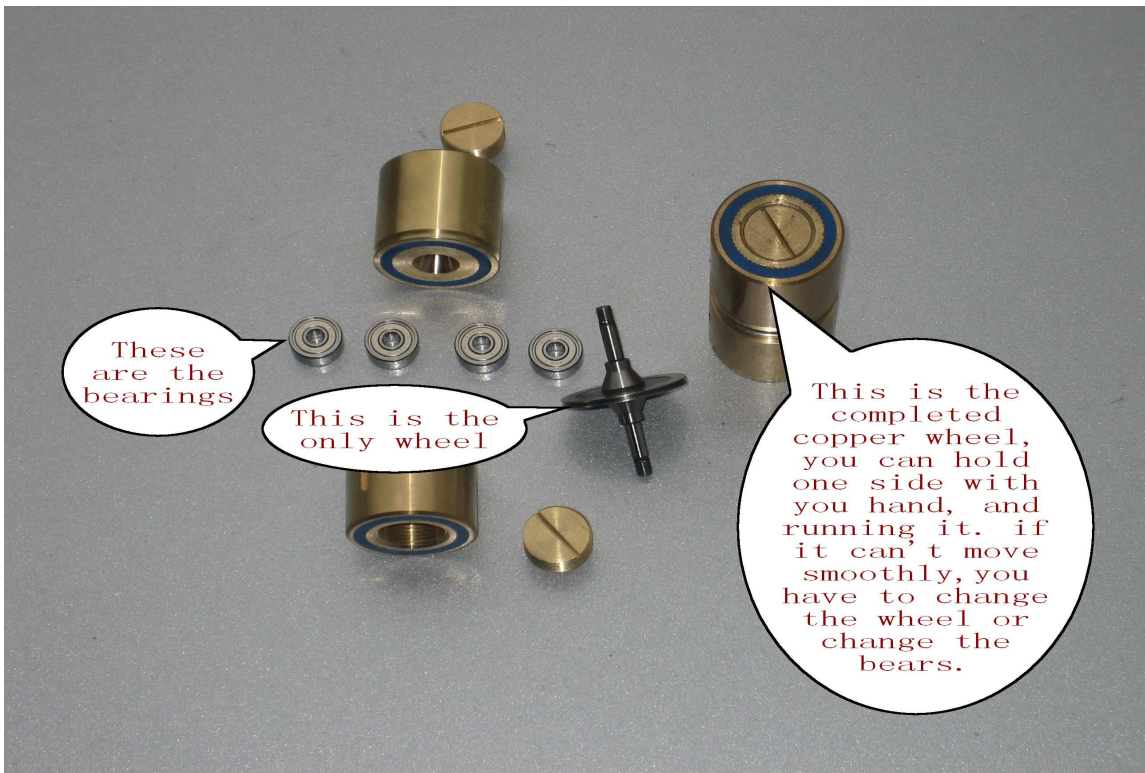
4. **The tension of the wire.**

The experience of the operators influences the finishing. Good experience operator knows how to make the wire good tension.

Please check the wire tension after 5~8 hours cutting. It should keep tension. If the wire loose, the finishing

will be worse.

5. The working solution (the coolant).

Coolant is very important for EDM wire cut, it used for chips remove, clearing and conductive.

1) Choose better working solution. If the working solution is not good, there are lots of impurities, which will influence the surface finishing.

2) Change new working solution. After 1~2 months using, the working solution will become dirty, there are lots of chips, so you need to change new working solutions.

6.If you want good surface finishing, you can use multi-pass function (3 times cutting)