

Please check the following factors one by one:

1. **Quality of workpiece:** the material quality is good or not? Does it contain some impurity or rust? These impurities may effect the electrical discharging, leading to the bad roughness. Please cut the workpiece that we sent together with the machine or the standard mould steel(like Cr12)(**Your feedback:**)
2. **Working solution:** What kind of the working solution does the customer use? Soap or our BM-4? We suggest use BM-4 with right mixture rate with demineralized water (1:20 to25). During the machine's working, please make sure the coolant covers the running. (**Your feedback:**)
3. **Pulleys:** Please check and make sure all of pulleys work in good condition. Please replace them with new good quality ones if the old ones are broken or in case of that the workpiece roughness is bad. (The method to check the pulley: hold one end of the pulley, and rotate the other end to check if it runs smoothly.) (**Your feedback:**)
4. **Moly wire.** Please change the wire frequently (normally 4-5 days), and tension the new wire with suitable pulling force. (**Your feedback:**)
5. **The distance between the up and down arms (wire shelf):** If the workpiece is not too high, please try your best to reduce the distance by lowering the up arm. Because the wire may quake a little during the cutting if the distance is too big. And the quaking wire can affect the roughness of workpiece too. (**Your feedback:**)
6. **The electrical blocks.** Please check if the block is broken with the wire. If you find some small gap on it, please change the blocks too. (**Your feedback:**)
7. **The parameters.** We have to set the suitable parameters according to the material of workpiece, the height of workpiece, and the requirements about the roughness and cutting speed. There are three main parameters: Pon, Poff, and IP.

(1)Pon: It is the time of the electricity pulse discharging and it mainly affects the particles on the cutting surface. When Pon is bigger, the discharging current is bigger, the cutting speed is faster, but the roughness is worse;

(2)Poff: It is the rest time between the two pulses discharging and it mainly affects the time for the coolant to flush the chips in the cutting path. When Poff is bigger, the flushing chips time is longer, so the roughness is better and the cutting speed is lower.

(3)IP. It is the pulse discharging power and it mainly affects the wire wastage. When IP is bigger, the cutting speed is higher, the roughness is worse and the wire wastage is bigger.

Take cutting Cr12 (40mm thickness) as an example, if we want to get a better roughness with one time cutting, we normally set the parameters as follows: Pon: 8; Poff: 30; IP:3 Votage: low; Wire: 0; limited speed: 300;

If we want to get a good precision, we set parameters as follows: Pon: 20; Poff: 10; IP:3 Votage: low; Wire: 0; limited speed: 300;

You can also try to cut the workpiece with three times cutting with the following

parameter:

	Pon	Poff	IP	Wire	Voltage	V-F	Speed
1st	45	8	4	0	low	o	300
2 nd	7	7	3	1	low	0	200
3rd:	2	5	2	2	low	0	200

(Your feedback:)

8. **Wire drum**, please check if the wire drum tremble or not during the machine working. This condition may lead to the bad roughness too. Please check it with a dial indicator during the rotating (the difference should be less than 0.02mm) Refer to the picture G6 in the attachment. (Your feedback:)