



Ceramic rings for fiber laser cutting machine

First, we start with the [ceramic ring for fiber laser cutting machine](#) ceramic ring. They have mounted a ceramic ring on the laser cutting head above the nozzle which transmits and collects the cutting signal emitted by the nozzle to prevent the nozzle from colliding with the plate during operation, causing damage to the cutting head. Ceramic rings become more resistant to high temperatures and deformation.



There are two types of [fiber laser ceramic](#) body raw materials commonly used in ceramic bodies, namely ZrO and AlO. And ZrO is more expensive than AlO in the Chinese market. The advantage of using ZrO as a ceramic ring is that it has a small coefficient of thermal expansion (high temperature resistance), high density (wear and tear resistance) and high electrical resistivity. This is how the ceramic body works. Ensure the insulation of critical parts and the

cutting head, and further reduce the loss of the cutting head. Of course, it is reasonable to use AIO to reduce the cost, but the replacement period of vulnerable parts is shorter.

[Ceramic holders of raytool](#). We all know that metal is commonly used for transmitting signals. The collision contact between the stainless steel sheet and the nozzle can accurately and rapidly transmit the electrical signal to the copper needle. If you want to reduce the deformation of the thin stainless steel plate at all high temperatures, it will also require several steps to deal with.

The copper column serves as a medium to relay the electrical signals collected by the stainless steel sheet to the laser head's internal transmission line, which ensures that the controller can be randomly customized. High electrical conductivity is required for the propagation of electrical signals, so gold plating is an effective method.