

# WHY USE A LASER CUTTING MACHINE TO CUT THE NOZZLE?

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## **What is an injection nozzle?**

The nozzle is the junction of the frame and parts formed when the factory pours the model. Also known as "tangkou" (gate method), it means the inlet and outlet of thermalized liquid plastic, that is, the excess corners on the surface of plastic products. Nowadays, plastic products are widely used. When producing plastic products, excess leftovers such as the junction of the mold and the injection port will be left, so the production workers need to cut them off before making the product.

## **Why use a laser to cut the nozzle?**

The nozzle is the junction of the frame and parts formed when the factory pours the model. Also known as "soup head" (gate method), it is also the excess scrap in plastic products. Now, almost every industry uses plastic products, and the scrap brought by the mold will be left during production. Before the finished product is processed, the nozzle on the edge of the part needs to be cut beautifully and neatly.

## **Laser cutting nozzle**

Cutting scraps with a laser cutting machine greatly improves the processing accuracy and processing performance of the product. Make the product perfect. The cutting principle is that the horizontal laser emitted by the laser turns into a vertical downward laser beam through a 45° total reflection mirror, and then is focused by a lens to form a very small spot at the focal point. When the light shines on the nozzle, the nozzle is rapidly heated to the vaporization temperature and evaporated into holes. According to the shape requirements of the nozzle to be processed, as the beam moves to the nozzle, the hole is continuously formed into a very narrow slit, thereby completing the cutting of the nozzle.

Due to the different plastic products, the shape, size and specification of nozzles are different, which puts forward high requirements for cutting. Traditional electric shears have low precision and low efficiency. These problems can be avoided by laser cutting. Laser cutting uses invisible beams to replace traditional mechanical knives. It has the characteristics of high precision, fast cutting speed, no limitation of cutting shape, and low processing cost. The incision has no mechanical stress and the incision is smooth. Smooth; safe and environmentally friendly.

