STABILITY OF LASER CUTTING MACHINE

Posted on 2023-08-18 by redsail

Category: Laser Cutter News

How to measure whether the stability of a laser cutting machine is good or not is a question that many buyers are more concerned about. Now common laser cutting machines on the market are mainly composed of host, guide rail, rack and pinion or ball screw, transmission mechanism and other components. Let's do a simple analysis from these components.

The main frame consists of beams and two longitudinal end frames. The mast of the machine is composed of an end frame and a crossbeam. The crossbeam adopts a rectangular square tube structure, tempered to remove internal stress, and has high strength and rigidity. Multiple mobile trolleys can be installed on the crossbeam. The lateral moving devices all adopt drag chains. The mechanical part realizes high-precision rack and pinion transmission. The guide rail is made of high-precision special imported guide rail. The precision-processed sliding guide rail is fastened on the concrete or steel frame foundation with support, and is equipped with adjusting bolts for easy installation and maintenance. Adjustment. The longitudinal drive system is installed in the longitudinal end frame, and the low position design makes the transmission reasonable and stable.

There are two front and rear rolling wheels at the bottom of the longitudinal end frame, which can roll smoothly along the guide rail. The front and rear ends are equipped with guide rail scrapers to ensure that the surface of the guide rail is free of debris. The two sides of the bottom are equipped with guiding eccentric clamping wheels. The guide accuracy of the machine, the machine is equipped with high-strength linear guide rails in the horizontal transmission and cutting torch lifting (horizontal transmission or high-precision grinding guide rails. The precision-processed gears and racks ensure the vertical and horizontal transmission accuracy of the machine. and eliminated the gap.