

THE IMPORTANCE OF SERVO MOTORS IN LASER CUTTING MACHINE APPLICATIONS

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Servo motor is a very important part of [laser cutting machine](#). Its quality directly determines the stability of the equipment. At present, the most commonly used servo motor brands in laser cutting machine manufacturing are Mitsubishi, Fuji and Yaskawa, and several brands of Panasonic and Delta.

The importance of servo motors in laser cutting machine applications
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For laser cutting machines, whether it is flat cutting or pipe cutting, if the equipment is processed according to the established mode. The key lies in the dynamic responsiveness of each axis involved in the machining and the cooperation between them. If the overall response of each axis is too slow during machining, or if one axis has small deviations in certain positions and the other has large deviations, problems with machined contour distortion will arise. There are many reasons for this inconsistency, such as mechanical, external force, servo response, control system, etc., or multiple factors. Therefore, the key to solving these problems is that each axis has a better dynamic response and mutual coordination, so that the machining operation can be performed strictly according to the established goals. As an intermediate actuator of machinery and control systems, servo motors can compensate, optimize and coordinate the actions of various systems to achieve more perfect control.

Therefore, when purchasing a laser cutting machine, many customers only pay attention to the laser and the laser cutting head. It is easy to overlook other components, especially the servo motor as the power part of the laser cutting machine. This is also very important, each brand of servo motor has its own characteristics. When customers choose, they can consult the manufacturer before making a decision.