WHAT ARE THE APPLICATIONS OF LASER CUTTING AND ENGRAVING IN THE TEXTILE INDUSTRY?

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The textile industry has undergone countless changes since its birth, and in recent years, the integration of new technologies has made great progress in the finishing and processing of materials.

For more than two decades, the introduction of laser cutting and engraving machines into the production processes of the textile industry has enabled countless applications, allowing designers to expand their possibilities when considering new collections.

Knives are often used to cut through materials, but these types of tools have limited applications and must be constantly maintained, such as grinding, and the surface preparation often leaves unwanted marks. Cutting with a laser gives a perfect finish and avoids abrasion problems, especially with synthetic materials such as vinyl. In addition, laser engraving and marking machines have many uses. The processing of jeans has a great impact on textile <u>laser cutting and engraving machines</u>.

Sandblasting jeans for degradation and wear is an expensive, polluting and hazardous technique for operators. Laser engraving on the fabric can achieve the same effect at a lower cost, reduce production time, and is non-polluting and non-toxic to the operator. In addition, more precise decoration and more customized patterns can also be realized.

Leather processing is another important example of the textile industry. Since the cutting precision of laser cutting and engraving machines is higher than that of traditional knives, more and more tannery companies have begun to invest in them. Also, as an organic material, leather can have defects or stains, which can make work difficult and spoil the finish. Before starting work, the laser cutting machine can be visualized and the operator can check the material for these defects and, if any, move the work area on the computer. Shoe companies are among the major companies that have decided to combine laser cutters with engravers for finer die-cuts and faster speeds.

A laser engraver is one of the most demanded machines for this type of application, mainly because of its ability to mark organic substances and its marking speed. Plus, its registration chamber allows inspection to display codes to machines, designed to work on materials.

Laser marking machines in the automotive textile industry have also achieved initial results. Car seats, leather interior finishes, etc. can be customized according to customer requirements with high quality.

High speed is another feature of laser cutting and engraving machines in the textile industry. The process of the machine itself is much faster and with less waste compared to traditional die cutting machines, without the need to secure the material to the machine. Plus, production lines are optimized as patterns can be changed directly from the computer and information can be passed to the machine via a direct connection or flash drive.

Many businesses have opted to benefit from laser cutting and engraving of textiles, as this processing technology is increasingly used in the textile industry.