

///Rowmark®

Rotary

Engraving Recommendations



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Safety First Rowmark strongly encourages the use of standard industrial safety practices during the fabrication process of all our materials. Always ensure that your engraver and other related equipment is in good operating condition before fabrication.

Getting Started It is important to note that rotary engraver brands and models may operate slightly different from one another. Therefore, optimal settings and fabrication techniques may vary. Before starting any engraving job, it is vital that the machine is set up properly and that the substrate is secured to the engraving table using double-sided table tape, clamping or a “sticky” table mat.

Types of Engraving Stock Rowmark offers a wide variety of engraving sheet stock in many color combinations, gauges, surface textures and finishes, including glow-in-the-dark substrates and plastics resembling metal, wood, glass, etc. Some products are laser engravable, while others are rotary engravable only. Though a product may be rated for laser engraving, most can also be easily rotary engraved.

Cutters and Engraving Bits Using the proper tool for the type of engraving you choose is very important. For Rowmark engravable products, FLX (flexible) type engraving bits are recommended. Bit sizes ranging from .005" up to .125" cutting widths work great on Rowmark products. Cutters with different angles such as 30 degree, 45 degree, parallel (produces edges that are straight up and down), profile, and bevellers also produce great results.

Speeds and Feeds Many Rowmark products can be successfully engraved using a depth of .003"-.060". Products with a thicker cap layer may require more than one engraving pass. Start with a shallow depth setting and increase until the desired cutting depth is reached.

When using engraving tools with tip sizes ranging from .005"-.125", the spindle speed can be set between 15,000 and 20,000 RPM for best results. For bits that are .250" in size or similar, a speed of 10,000 RPM should be used, and Rowmark recommends reducing the move speed (X-Y Axis) for proper chip removal.

A general rule for proper feed rate is “the bigger the bit size and the deeper the engraving, the slower the feed rate should be.” For example: a .060" bit running at 15,000 RPM and a depth of .013" will need to run at a slower feed rate than a .010" bit with the same RPM and depth. Feed rate should be proportionate to cutter size, speed, material used, horsepower, and torque of spindle motor. Slower speed and feed will produce smaller cuts and finer finishes. Faster speed and feed will produce fewer larger cuts and rougher finishes.

Rowmark Recommends A proper chip removal system to extract debris during engraving. When properly installed, a vacuum system will eliminate clean-up, reduce cutter wear and damage, and ensure a consistent depth of cut.

Manufacturer's Note While it is Rowmark's intent to provide you with a host of recommendations to help get you started, nothing can replace the knowledge you will gain by simply taking some time to get familiar with your equipment and the materials you intend to fabricate. Rowmark is pleased to support you on your road to success!