CRATEX

Cratex Abrasive Stick
Application Instructions for Jewelling

Cratex Stick Diameters:

Cratex abrasive sticks are available in the following diameters: 3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", and 1". All sticks are 6" long.

Spin Diameter:

The diameter of the stick determines the diameter of your spin. With this in mind select the appropriate stick diameter to achieve your desired spin diameter.

Cratex Grit Selection:

Cratex abrasive sticks are available in 4 different grit textures. Coarse (C), Medium (M), Fine (F), and Extra Fine (XF).

Metal Types:

Using the application guide below choose which grit is best suited for your application.

Stainless Steel (harder metals)→Medium (M) or Fine (F)
Aluminum (softer metals) → Fine (F) or Extra Fine (XF)

Instructions

Cratex sticks should be cut into 1-1/2" to 2" sections. Insert the sticks into a drill press chuck leaving only 1" or less exposed. The longer the exposed length the greater the chance of developing a wiping type action which will result in larger spins than desired. Never over tighten the chuck when mounting the abrasive stick into the rotating device (drill press or other machine) to avoid it from eventually snapping off. The best rotating speed is between 900 and 1400 rpm.

- **Lubricant:** A very light mist of 25 to 1 water to oil mixture is necessary. Any oil from cooking oil to motor oil can be used in a spray bottle. Mist the mixture where the abrasive stick meets the metal to reduce any heat buildup.
- **Spinning:** First experiment on a scrap piece of metal until the desired spin depth is achieved. When doing so determine the cycle time (how long the rotating abrasive is working against the metal). If that time is 5 seconds, then your cycle time is 5 seconds per spin.
- **Pressure:** When developing the spin cycle time make note of the pressure applied. Use the same amount of pressure (which should be very light) for each spin.
- **Spin Cycle Time and Pressure:** You do not need to be precise to achieve a professional looking spin, but should try to be consistent.
- **Spin Pattern:** Simply slide the metal work piece 1/2 the distance of the spin diameter to achieve an overlap spin appearance. Follow this procedure until your metal work piece is complete.
- **Stick Dressing:** From time to time the Cratex abrasive stick may become embedded with metal particles. The stick will need to be dressed back to expose fresh abrasive. You can place a standard dressing block or a fine grit sand paper block on the work rest area and bring the stick down onto the dressing material. Press the rotating stick with very light pressure against the dressing materiel for a few seconds. The abrasive stick will wear away slightly and expose fresh abrasive.
- **Warnings:** Always wear eye protection. Never permit anyone to view the operation of rotating abrasive products without proper eye protection. Always use caution and care with any rotating abrasive product.

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Tips from Customers

- A milling machine is not necessary, it simply makes it easier to move the work in a straight line and get a uniform offset between swirls. The same thing can be achieved by clamping a guide on your drill press table.

- You can lay out the desired pattern on the work piece in advance with a Sharpie (or similar pen) to use as a guide.

- Varying the offset distances, pressure and spin time between lines of swirls can provide you with many different types of patterns.

- When the luster of the swirl pattern is not uniform it is time to dress the end of the abrasive stick.

- The biggest (non safety) potential mishap is that the process can be tedious and boring. It is easy to accidently skip a swirl. Unless this is caught immediately and corrected, the mistake cannot be fixed without redoing everything from the point of the mistake onward. Maintain your focus while working on the project.