

Submitted by Chris Peters

PRODUCT REVIEW (2017): PORTABLE CARVER

ARTICLE UPDATE (2021) In 2019 I had the opportunity to try the newest portable from Ram--the Mystisa 2. It was enthralled! I purchased the one with a 1/8" shaft. I didn't think I'd want a portable carver but I was wrong. Consider it - I don't think you'd be disappointed. I have the Ram BP50 which has 50000 RPM and use it when I have big carving projects. When I taught a carving class in 2020 I had it but never used it, preferring the convenience of the Mystisa 2 instead. Here's a link so you can see pictures.

<https://www.ramprodinc.com/mystisa-2-brushless-lab-set-1-8-mystisa-2-controller-mystisa-2-lab-handpiece-with-1-8-chuck/>

Recently some friends bought the Mystisa Pocket Drill, a portable micromotor tool distributed by Ram Products, Inc. The New Jersey company is the largest distributor of micromotors in the USA and third largest globally supplying dentists, nail professionals, podiatrists and jewelers for about 22 years. To reach gourd artists, Ram Products recently placed advertisements in this magazine and they were a vendor at the 2017 Wuertz Festival, where I met them for the first time. How well do the Ram micromotors, especially the portable units, work for carving gourds? To help fellow gourders make an informed purchase decision, I contacted the company and they loaned (like a library book, I had to return it) one of their portable units. What they sent was the model, Whisper.

The Whisper has generally been marketed to nail technicians which is why they refer to the product as an e-file (electric file). But if you are seeking a tool capable of both large and detail work using 3/32", 1/8" or even 1/16" shank burs I don't think the Whisper will disappoint. I have tested it and have the following to share about the two carver components, the micromotor handpiece and the controller.

WHISPER MICROMOTOR HANDPIECE

Whisper's motor is in the handpiece. The 38.5" cord is straight (not curled) and the three prong plug clicks securely into the controller by a positive release button. It weighs 5.6 ounces. It is 100% sealed with a brushless motor—the two best features about this model. Changing burs is easy with the quick change collet mechanism—just twist to change burs. Whisper's handpiece, is comfortable to use and has a smooth and sleek metal covering which I like very much.

The company says the 1/8" shank collet is standard for woodcarvers. Be aware, though, they also sell handpieces with 3/32" only so I recommend making sure you are getting the size you want. For the greatest tool diversity, go with the 1/8" collet which will accept 1/8" shanks and 3/32" and 1/16" collet reducing sleeves (both available from Ram).

Micromotor Mechanics—I'd like you to understand the basic mechanics and technology being applied in the case of carving tools, after all, a carving tool can be rather expensive and as such, is a major investment. Therefore, it should be a long lived and pleasurable experience. This tool's practicality and usefulness can be measured by numerous factors such as: power (defined by RPM and torque), dependability, sound levels, maintenance, size and ergonomics.

The aspect of technology here may be more important than first realized. There are essentially two different types of motors used for carving tools - brushless and brushed. Ram carries both types. Without getting too technical or verbose, each has its advantage or if you prefer, disadvantage.

Brushed motors have been around since about the mid-1800s. Brushed motors have graphite or carbon brushes that rest on the shaft and through contact with the brushes, which facilitate the transfer of electricity, turn the shaft which drives the carving tool. Being made of compressed graphite or carbon (which are soft compounds) the brushes will wear over time and eventually may need to be replaced.

The brushless motor started to make its presence in the 1960s due in large part to advances in solid state technology and then in the 1980s better magnets were developed and further improvements were realized. Brushless motors offer several advantages over brushed 'direct current' (DC) motors, including better torque to weight ratio, more torque per watt (increased efficiency), increased reliability, reduced noise and vibration, as well as longer life since there are no brushes to become worn. The design of brushless motors requires no airflow inside the motor for cooling (unlike the brushed motor) which means the electric motor's internals can be sealed, providing protection from dirt, grit, or other such particulates such as gourd dust.

WHISPER CONTROLLER

The micromotor handpiece connects to the controller. Ram makes several controller products, cordless and corded. The tool I tested, the Whisper (as well as my friends' Mystisa), is powered by a cordless rechargeable lithium ion battery making it portable. When fully charged, it allows for hours and hours (maybe up to eight) of carving time before a recharge. The Whisper has a battery discharge indicator on the controller to gauge the battery level from three bars (fully charged) to one bar. During my use I didn't feel any loss of power as the battery discharged. I presume it operates at full-power until completely discharged. The unit can be used while charging. The controller weighs just 9.3 ounces and has variable speeds, in forward and reverse, from 0 to 30,000 RPM which is digitally displayed on the controller.

ACCESSORIES

A foot pedal is optional for on and off convenience and a separate 3.5mm plug is provided for charging. A handpiece cradle and a belt pouch is included. Also, an extension belt is included, suitable for larger bodies. I was unable to try the belt pouch because the plastic buckle was broken when it arrived. A quick call to the company would have solved this problem, I'm sure.

COST

It has to be noted that generally a brushless motor will be more expensive than a brushed motor simply because they are more complex in design and manufacturing costs are higher. Rechargeable batteries also are more costly. The current price for the Whisper, as tested, is approximately \$300 (a promotional price). The reducing sleeves are \$14 but there may be a promotion of one free when you order. According to the company, they plan to add a corded table controller for Whisper "very soon". This will appeal to those who prefer a tool without a rechargeable battery and wish for a lower cost.

CARVING ON GOURDS—A PERSONAL EXPERIENCE

I currently own and use an Optima 2 weighing 7.4 ounces with a dense, rubbery outer shell that is about double the diameter of the Whisper handpiece. During my testing of the Whisper I did not attempt heavy and/or excessive carving limiting my carving segments to three hours or less at a time. But after many sessions I believe my carving was notably better than when using my Optima 2. I attribute this directly to the quality of the Whisper but also to the ergonomics of the handpiece. I thought to myself: "This tool makes me a better carver!" Okay, so maybe I'm overly enthusiastic but using the Whisper was very gratifying. To evaluate the handpiece's complete capability is not possible. There are too many variables (bur variety, operator's working style and gourd material differences, etc.).

However, during my use the tool met all my expectations, worked really well, was nearly silent and vibration free—sometimes I couldn't tell it was running—and a genuine pleasure to use.

CONCLUSION: The Mystisa has been on the market for 10 years, the Whisper just had its one year anniversary. Both the Whisper and the Mystisa are totally sealed reducing dust penetration. Both are available in a portable model. The main difference concerning the two is that the Mystisa is a coreless (self-contained) brushed motor, the Whisper is brushless. Whisper's brushless motor is quieter and only the motor shaft spins which should provide greater motor life. After a long, cold winter, it was glorious to sit out in the sun carving without concern for an electrical outlet. I expect sitting in the shade of a tree in the summer will be equally enjoyable. Moving about to let the wind take gourd dust away is advantageous. Lastly, a portable unit would be beneficial for teachers who move about while demonstrating. For more information and to learn about Ram's more powerful carvers go to Ram's website, <http://www.ramhp.com>, and click on the Nail Drill tab or call 877-726-7763. Below are pictures of the Whisper.

