

Cutting the Gourd and the Cord

With a Portable Carver

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I'll begin with this caveat: There are many carvers out there and my aim is not to diminish their quality, performance or popularity. Beyond the units I refer to in my article, I do not own, have not tested, nor do I have opinions with regard to other brands. I am simply writing about my experiences with carvers I own or ones I have tested and relaying why I'm drawn to cordless units. So, let's address the elephant in the room right up front – why RAM Products, Inc.? It's a really simple answer. After researching carvers, I bought their products and have had good experiences and results. As such I've become a loyal customer. If their products become inferior, I'll move on. I expect the answer would have been similar had I selected another brand. Additionally, I am not affiliated with RAM Products Inc., nor have I ever been under any obligation or agreement to provide anything other than my personal opinion or assessments of any RAM product.

My best description of a “Carverholic” is someone who is in perpetual search of a carver that **may** produce better results than the one (s)he already owns. That's me! A recent inventory of my carvers revealed one battery operated Dremel, a New Power desktop, a brand “X” hanging motor with flexible shaft, the RAM I-Cube, a high-speed Turbo Carver and the cordless RAM Whisper. If memory serves me correctly, I also burned out two handpieces as well as two corded Dremel units. I also donated a Marathon carver to a novice carver after I watching him struggle with one of those \$10 “Want to Be” units. A number of bad experiences with “brushed” micro-motors have caused me to shy away from such units. Brushed vs. brushless carvers is a subject for debate that I'll leave that for others to write about. There's an article at <https://www.thesawguy.com/brushless-vs-brushed-motors/> that explains the differences.

Since their arrival, I've been intrigued by cordless units so I bought the RAM Whisper on the strength of a review I read in the AGS Magazine. Although, at that time, the RAM Mystisa was the more powerful carver, essentially the brushless handpiece was the deciding factor in my choosing the Whisper over Mystisa - both units are portable RAM products. Quite a few members in the Idaho Gourd Society own the first generation Mystisa and no one has expressed negative comments about it. As such, I've had momentary regrets not buying that unit instead. Why couldn't it have been brushless? Don't misunderstand – I love my Whisper. Unfortunately, I do not know anyone who has a different brand portable carver so I was not able to provide a comparison for this article. A little explanation with regard to cordless units may be appropriate here. Cordless units use rechargeable lithium Ion (Li-On) batteries. The Mystisa user's manual states that the battery is good for 500 recharges which in layman terms is about 5 years of battery life. The battery is user serviceable so it can be replaced after it has served its useful life. The unit will operate between 5-7 hours continuously depending on the carving effort exerted.

Over the past eight months I realized my “Go-To” units have become the I-Cube and Whisper. That partnership seems to hit the sweet spot for achieving my all-around carving activities. On warm days, my favorite spot to carve is the back patio. So, the Whisper is ideal. Not being tethered to a cord makes it simple to move into or out of the weather irrespective of where an electrical outlet is located. Also, I don’t need a table since I can attach the unit to my waist. My second favorite place to carve is at a campground. I always take my Whisper on trips and stake out the perfect place to sit and carve. On a recent trip, while carving a gourd basket, I needed more power than the Whisper could muster. As a result that part of the operation came to a grinding halt until I got back home to the workshop. You may say I could have made two, three, or four light passes with the Whisper to achieve the desired result but, in addition to the extra work, it would have required a lot more focus on not making a critical mistake in a crucial area of the piece. Most carvers can relate to those distracting “mind-numbing” repetitive task where, instead of concentrating, you’re thinking “when is this going to end” and then myosis sets in and...oops! The I-Cube, which is corded, doesn’t travel in the RV. It stays in the workshop and when the task calls for additional power, I use it

In the Summer of 2019, I learned that RAM intended to market a brushless Mystisa sometime in the Fall. Having already declared that I am a *Carverholic* you can imagine how I reacted to that news; powerful, brushless, cordless **and** lighter – I was within a nanosecond of hyperventilating! What now – do I buy one?

There is no need to further belabor the advantages of cordless carvers. Actually, before I stop belaboring, I’d like to highlight one more significant advantage of this brushless motor handpiece – it touts five times the life of a brushed motor handpiece. Think of that in terms of the cost of replacing four handpieces. Now it comes down to the capabilities of the corded vs. cordless carver. Here are some details on the two (corded and cordless) units I compared.

UNIT	POWER	WEIGHT	HAND PIECE	OPERATING TIME	TORQUE	RPM
I-I-Cube	110 AC/50W	4 lbs	8.0 oz	Indefinite	3.5 Ncm	0-45K
Mystisa2	230V/110 AC	10.2 oz	5.25 oz	5-7 hours	3.0 Ncm	0-35K

Stylistic improvements of the Mystisa2 over the first generation include a digital color LCD display with RPM, directional, and charge level information. Two toggle switches were replaced with one push button. A clear plastic Controller holder is provided for waist attachment.

Performance wise I wanted a portable carver that would match or exceed the capabilities of my corded I-Cube. So, I compared the two. My test consisted of placing the I-Cube and Mystisa2 side-by-side on the workbench. I selected a number of burs that were representative of the full spectrum of light to heavy carving, cutting and sanding. From my scrap bin I chose gourd shards of various hardness and thickness. Each carver was set to the same RPM for each test and

equipped with the same bur for each test. I tried to mimic the amount of carving pressure I applied to each test. What I found was that the Mystisa2 performed equal to, and in some instances better than, the I-Cube. The I-Cube handpiece is a brushed unit but it does have greater torque and RPM speed. However, because of the elimination of the friction-producing brushes, brushless motors are a good deal more powerful, given the same voltage as a brushed motor. After two hours of carving both handpieces were warm but nowhere near a level of discomfort. The I-Cube handpiece did get warmer due to the friction created by the brushes. After all that carving I had no hand cramps and did not feel that tingling sensation I usually experience after prolonged use with my other carvers. I'll attribute the majority of that to the Mystisa's vibration free operation although the I-Cube is also pretty smooth. If you're any kind of carver and use one of the older models for a few hours, you will be familiar with that annoying hand tingling that persists for some time after you stop carving. Finally, I want to discuss the business end of the Mystisa2 – the stainless-steel handpiece. As I mentioned above, it was absolutely vibration free. As a matter-of-fact it was so smooth, I didn't know if it was off without looking at the bur to see if it was spinning. It's a Laboratory Type – 18mm diameter heavy duty assembly designed for extended working hours. The chuck is 1/8" which accepts the accompanying 3/32" step down collet. With that step-down collet and an addition 1/16" step-down (for dental burs), it accommodates the full range of my burs. Ergonomically the handpiece nestles nicely into the hand to allow for a comfortable grip, increases control and greatly reduces hand fatigue. While I don't address other specific applications in detail, the portable will handle any jobs previously relegated to a Dremel, i.e. notching wood, grinding nail heads, drilling, polishing silver - all while hanging on your side.

So, what was the final outcome? I pulled the trigger and bought the Mystisa2 to be my RV traveling companion and my patio side-kick. The Whisper will also continue to travel. The I-Cube and Turbo Carver will remain part of my workshop arsenal. However, it's time to find a new home for the other carvers and time to seriously work on my *Carverholic* afflictions. I'm not concerned about the cost of this portable because my philosophy has always been to have my art support the hobby. That's worked for me over the past 13 years. I'll let this new carver inspire me to create a few beautiful pieces of art and recoup the cost with their sale. I did not include pictures of the Mystisa 2 but you can find those and other information on page 28 in the Winter 2019 Edition of AGS magazine.