

# Back to Basics



by Paul Cascio

## *Chopper vs. Saw: A Cutting-Edge Comparison*

**A**sk framers which they prefer for cutting frames, a saw or a chopper, and you'll get a variety of opinions in support of each. Chopper advocates claim their razor sharp candidate is the clear-cut favorite. But ask saw supporters for their view and they'll tell you that its toothy technology is a cut above the rest.

So which one is really better? That, of course, depends on your requirements for your operation. To present some factors for considerations, I decided to stage the ultimate heavyweight championship: Choppers vs. Saw—comparing each in five important categories: Speed; Versatility; Cut Quality; Ease of Use; and Reliability.

### **Choppers**

Featuring twin, razor sharp knife blades, foot-powered and pneumatic choppers have been a favorite in the picture framing industry for years. Choppers have a well-earned reputation for producing surgically smooth, accurate miters—two at a time. Best of all, they produce no sawdust (the natural enemy of the picture framer). And, because the vast majority of choppers are foot-powered, you'll also get a Stairmaster-like workout while you're cutting frames.

Choppers rely on the sharpness of their blades to sever wood fibers. They can also be used to cut composite frames. The popular foot-powered chopper, available for less than \$3000, uses the operator's leg muscles to provide power. Wider and harder mouldings can be easily cut simply by taking smaller bites. Pneumatic choppers, priced from \$6000

to \$9500, use air pressure for power, eliminating muscle fatigue and increasing productivity.

### **Saws**

There are three types of saws commonly used by picture framers: Single Miter Saws; Rolling Tabletop Saws; and Double Miter Saws.

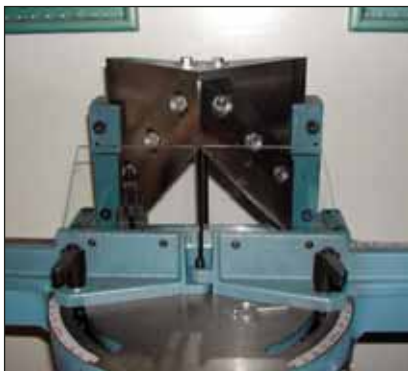
The single miter saw provides an affordable option for cutting your own frames. Single miter saws consist of an electric chop saw, like the ones available at your local home improvement center, set to a 45° angle, and a measuring and clamping system. There are dual saw models that create a quasi-double miter saw. Although they eliminate the need to swing the blade from side



Single Miter Saw (courtesy of Clearmount Corp.)

to side, you'll need to move the moulding before making a second cut.

If you need to cut wide mouldings—up to five inches wide—with a high degree of accuracy, a rolling tabletop saw can provide the solution. Using a 10" diameter blade, the rolling tabletop saw relies on a fixed



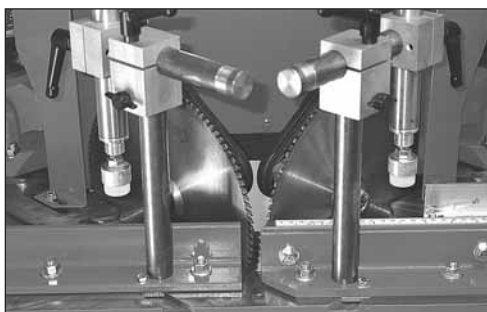
Chopper (courtesy of CTD Machines Inc.)

blade position; the tabletop and attached fence hold the moulding as it is pushed through the spinning blade. The small blade diameter produces less wobble (known as runout), providing increased accuracy. Although slightly slower than other saw systems, this type of saw can cut wider moulding than a chopper does, or even a 14" diameter double miter saw.

Double miter saws are the speed demons of the picture framing industry. They feature twin blades positioned at fixed 45° angles to make two opposing cuts simultaneously. With prices starting at around \$6500, double miter saws are typically used for production framing and chop services.

### *Comparing Features and Characteristics*

Each choice has its advantages and disadvantages. Deciding which cutting system is right for you depends upon your needs and your budget. Here's a comparison in several key categories that may help you with your decision. No matter which choice you make, cutting your own frames may help you save time and money while providing you with greater control over the quality of your frames.



*Double Miter Saw (courtesy of CTD Machines Inc.)*

### *Speed*

When it comes to speed, there's no contest—two cutting heads are better than one. The double miter saw is the hands-down winner for fast cutting and high productivity, surpassing other saw systems and even pneumatic choppers. If speed is what you need, the double miter saw is your answer.

### *Versatility*

A major benefit of using a saw system is that, unlike with choppers, you'll be able to cut aluminum frames too. Choppers, on the other hand, can be used to size fillets, a task for which saws prove unworthy. Since a dedicated fillet chopper can be purchased for under \$300, the advantage here goes to saws for their ability to cut aluminum frames.

### *Cut Quality*

Choppers and saw systems both offer excellent cut quality, but each will also have difficulty with certain types of frame finishes. My advice is to eliminate such frames from your display wall or purchase them as chops.

Because choppers use razor sharp knife blades, rather than the ripping action of a saw blade, I've found that they

provide slightly smoother cuts on some wood frames. However, the difference may be too small to matter, especially if you are using a touch-up sander.

### *Ease of Use*

Both choppers and saws are easy to use. However, because saws produce sawdust and choppers leave only wood chips behind, choppers require less clean-up and do not need to be isolated from the main work area of your shop. However, a dust collection system can remove

most sawdust. Choppers are also less noisy than saw systems.

### *Reliability*

Both saws and choppers are extremely reliable. Neither has many moving parts and tend to offer years of virtually trouble-free service. Blades for each will have to be sharpened on a regular basis and eventually replaced. With few moving parts and devoid of motors and soft parts, choppers are virtually indestructible, except of course for their blades, which can be ruined by

attempting to cut through an unseen nail.

In today's competitive marketplace, more and more framers are cutting their own frames as a way to increase profit, lower operating costs, and improve speed and quality. Choosing the right cutting system for you depends on your needs, but both choppers and saw systems offer quality and reliability in an investment that will quickly pay for itself. ■

### **Sources**

Below is a list of a number of companies in our industry that manufacture choppers and saws equipment. See the *2004 PFM Annual Directory*, or the "Buyers Guide" on the PFM website, for more information on both manufacturers and distributors of this equipment.

#### **Choppers**

Cassese S.A.  
CTD Machines, Inc.  
Morso  
Pistorius Machine Co.

#### **Saws**

American Design & Engineering  
Cassese S.C.  
Clearmount Corporation  
CTD Machines, Inc.  
Frame Square Industries  
Inmes  
Ledsome Mitre Saw  
Miter Master  
Pictureframe Products, Inc.  
Pistorius Machine Co.  
Prisma Maxi

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