

Coping Saws

Cut curves and speed up your dovetails with this simple saw

BY CHRIS GOCHNOUR

VERSATILITY IN A SMALL PACKAGE

With a coping saw, you can quickly get rid of the waste between dovetails (above). The saw's narrow blade also makes it a great tool for cutting curves, like those on a bracket foot (right). And then there's the job it's named for, coping moldings, which it does better than any other tool (far right).



What to look for in a saw

Coping saws can be used to remove waste in joinery, make cope cuts on molding, and saw tight curves of all kinds. Motorized bandsaws and scrollsaws perform similar tasks, but require the workpiece to be brought to the tool, a task that can be difficult, awkward, or even impossible. More often than not it's more convenient to take the tool to the workpiece. This makes the coping saw an indispensable tool in the woodshop, serving an essential and useful function that cannot be matched by machine tools.

This review considers the 13 coping saws we found on the market. These are simple tools, consisting of a handle, a blade, and a frame. But despite the simple nature of these saws, there is a significant variation in the design and features offered. Regardless of their differences, I evaluated the features woodworkers value most: the throat's depth; how easy it is to install, tension, and rotate the blade; and the saw's weight and overall ergonomics. I also used the saws to remove waste between dovetails, cope a crown molding, and cut a curvy bracket foot. I'll tell you which saw earned Best Overall honors, and which one is the Best Value.

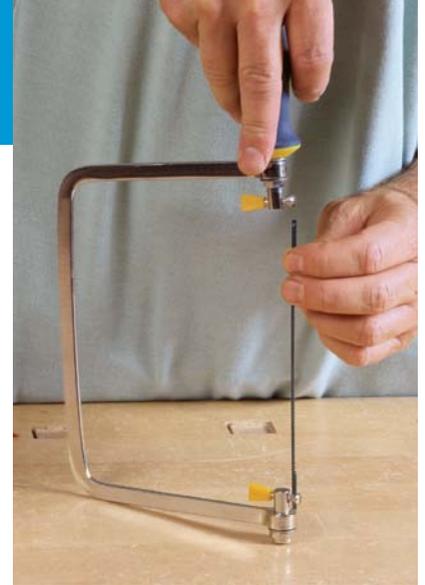
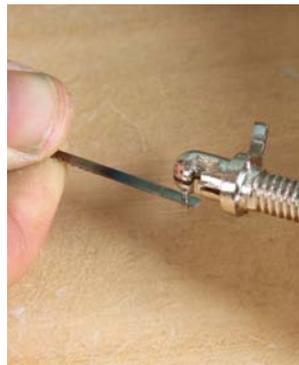
For furniture making, a coping saw is the right choice

If you take a look at a woodworking supply catalog, you'll notice that coping saws aren't the only small frame saws available. Fretsaws look and function much like coping saws, but coping saws are definitely the right choice for furniture making.

The key difference between a coping saw and a fretsaw is how the blade is mounted in the frame. The blade of a coping saw has a pin on each end that fits into a corresponding socket in the frame. The sockets can be rotated after the blade has been installed. That simple adjustment lets you easily set up the saw so that the frame does not interfere with the cut. A fretsaw blade has no pins, but is clamped to the frame and does not rotate. To change the blade's orientation, you must twist it with a pair of pliers. Fretsaws also have smaller throats, making them better suited to marquetry and fretwork.

EASY BLADE INSTALLATION

With most saws, flex the frame to install the blade. The blade has a pin on each end. The pins fit into sockets on the frame (right), and prevent it from slipping during use. To install the blade, put the pin in the outside socket, then push down on the handle to engage the pin in the inside socket (far right).



One-of-a-kind features. Only the Knew Concepts saw has a quick-release lever that makes for fast blade changes. A knurled knob just behind the lever easily adjusts the blade's tension.

FAST, PRECISE ROTATION

Detents are common. They keep the blade in place. Many saws have one every 45°.

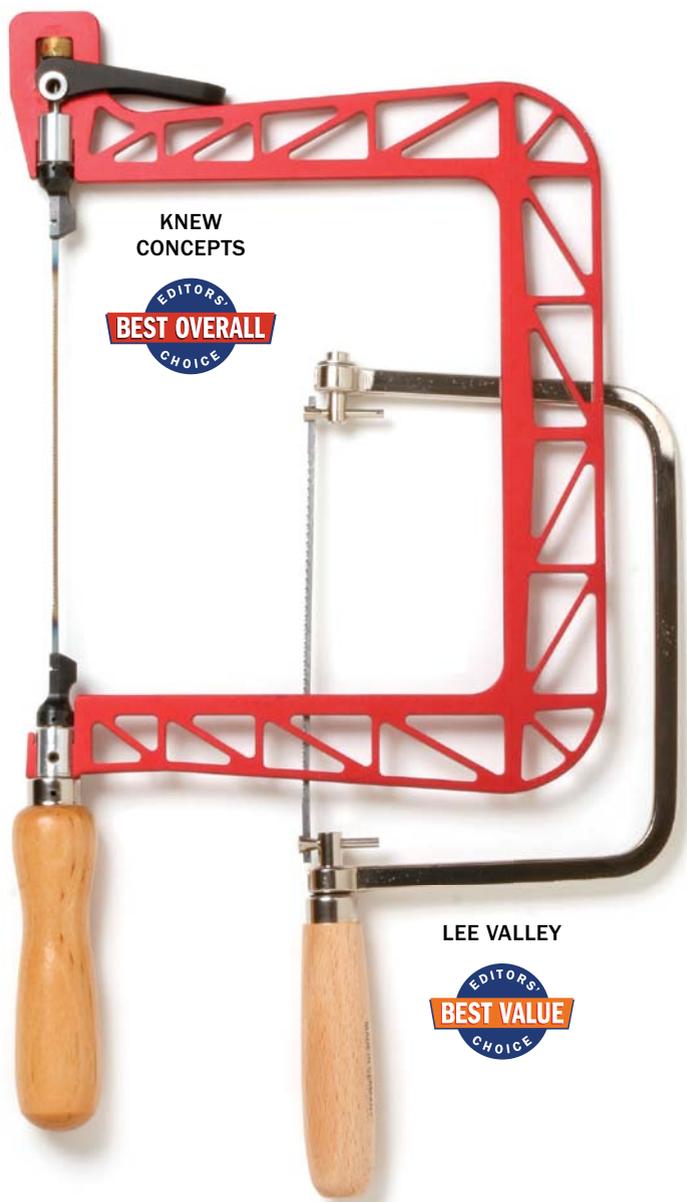


An improved twist on detents. Knew Concepts uses a rotating blade clamp with holes every 15° that fit over a pin to lock in blade angles.



Inconvenient adjustment. To change angles on the Irwin saw, you must loosen and retighten the blade, which requires a wrench.

Coping saws put to the test



Tension matters

In addition to the tests I already mentioned, I also measured the amount of blade deflection. Most of the saws showed less than 0.2 in. of deflection, meaning blade tension wasn't an issue during cuts. However, those saws with blades that deflected more than 0.28 in. were noticeably more difficult to cut with because the blades were not taut enough. The exception to that is the Gramercy Tools bowsaw. Its 12-in.-long blade naturally deflects more than a 6-in. blade. In use, the Gramercy saw cut beautifully and tension was not a problem. With the exception of the Knew Concepts and Gramercy saws, all the saws relied on the frame to tension the blade.

TAUT BLADE CUTS BETTER



Taut blades deflect less. With the blade between a dial indicator and a screw head on the underside of a pivoting arm, Gochnour added weight to see how much each blade deflected.



Low tension equals frustration. A blade that deflects in the cut makes it hard to pull back and forth and difficult to control. That means the saw might not cut where you want it to.

MODEL/SOURCE	STREET PRICE	BLADE TENSION*	DOVETAILS	COPING	CUTTING CURVES	BLADE CHANGES	BLADE ROTATION	COMMENTS
Bahco 301 highlandwoodworking.com	\$15	0.209 in.	Very good	Very good	Good	Very good	Good	Misaligned handle, stiff blade-rotation adjuster
Century Drill and Tool 4940 amazon.com	\$8	0.295 in.	Good	Good	Good	Very good	Very good	Twisted frame, misaligned handle, poor blade tension
Eclipse 70-CP1R highlandwoodworking.com	\$14	0.189 in.	Excellent	Very good	Very good	Good	Very good	Rigid frame with smooth blade rotation, blade difficult to install
Garrett Wade multi-function coping saw garrettwade.com	\$34	0.195 in.	Poor	Fair	Fair	Very good	N/A	Spiral blade that comes with saw cuts slowly, takes standard blades, but they don't rotate
Gramercy Tools 12-in. bowsaw toolsforworkingwood.com	\$150	0.260 in.	Very good	Very good	Excellent	Very good	Very good	Cuts fast due to its 12-in.-long blade, no indents for blade angles
Irwin 2014400 lowes.com	\$8	0.165 in.	Very good	Very good	Very good	Fair	Good	Inserting and rotating the blade requires a wrench, handle is uncomfortable
Knew Concepts leevalley.com	\$149	0.137 in.	Excellent	Excellent	Excellent	Excellent	Excellent	Light and rigid frame, easiest blade changes with eight positive detents
Lee Valley coping saw leevalley.com	\$16	0.170 in.	Excellent	Very good	Very good	Very good	Very good	Smooth and easy blade rotation, a very good saw overall
Olson coping saw toolsforworkingwood.com	\$12	0.285 in.	Excellent	Very good	Good	Very good	Excellent	Blade can be rotated and locked in any position, poor blade tension
Robert Larson 540-2000 amazon.com	\$18	0.164 in.	Very good	Very good	Good	Very good	Good	Handle was misaligned, difficult to rotate blade
Stanley Fat Max 15-104 amazon.com	\$5	0.193 in.	Excellent	Very good	Very good	Very good	Excellent	Most comfortable handle, eight positive detents for blade rotation
Stanley Fat Max 15-106 amazon.com	\$10	0.284 in.	Good	Very good	Good	Very good	Excellent	Comfortable handle, poor blade tension
Tekton 6865 amazon.com	\$4	0.295 in.	Good	Good	Good	Very good	Very good	Uncomfortable handle, poor blade tension

EDITOR'S
BEST OVERALL
CHOICE

EDITOR'S
BEST VALUE
CHOICE

*Number reflects the amount of deflection

Knew Concepts is a cut above

After all of the testing, one saw stood well above the rest: the Knew Concepts coping saw. It is light and rigid. A cam lever makes blade installation a snap, and there is a knurled knob to adjust the blade tension. No other saw provides a convenient way to do that. The pin-and-hole indexing system for blade rotation works very well.

But the Knew Concepts saw is much more expensive than the other saws we tested, except for the Gramercy Tools bowsaw. So the coping saw from Lee Valley, which costs over \$100 less, is my pick for Best Value. □

Chris Gochnour is a professional furniture maker in Salt Lake City, Utah.

Two blades make the cut

In addition to testing coping-saw frames, I tested blades. The best blade for removing dovetail waste is sold by Craftsman (No. 36064; \$2.50), but only in stores. It's just 0.08 in. wide and can turn in all but the tightest backsaw kerfs, so it's perfect for cutting parallel to the joint's baseline, allowing you to remove all but a sliver of waste with a single cut. For coping and cutting curves, I liked the Pégas 10-tpi blade (No. 90.544, benscrollsaw.com; \$4 per dozen). For the cutting tests, I removed the blade that came with the saw and replaced it with these two great blades.

—C.G.



Pégas

Craftsman