Workbench Workmates

Transform any work surface into an apprentice with these off-the-shelf solutions

By Joe Hurst-Wajszczuk

One of the first things you learn about woodworking is that many tools aren’t terribly useful by themselves. Just as a tablesaw needs a rip fence, and a router requires a guide of some sort, workbenches and assembly tables need help in order to hold stock for machining and assembly. Although woodworkers will continue making dogs, stops, and clamps, store-bought accessories offer some advantages that aren’t found in shop-made counterparts.

To make sense of the latest batch of workbench workmates, I built a test bench and put these accessories through their paces. (This MDF platform worked so well, it’s found a permanent spot in our shop.)

As you’ll see, each system has strengths that give it an edge for certain applications. The most surprising discovery was how well these lightweight hold-downs double as a bench vise. You may not want to cast off your cast-iron vise, but if you don’t own a full-fledged workbench, or want to get more work from a countertop, sawhorse, or spare table, then read on.
Better than an extra pair of hands. Kreg’s Klamp Trak and Automaxx Klamps work together to hold joints flat and flush for fast and efficient assemblies.

Kreg’s Trak & Klamps

Kreg’s new clamping system may be the easiest way to turn a basic assembly table (or tablesaw extension table) into a multi-function work surface for sanding, routing, and of course, pocket-screw joinery.

The system’s foundation is based on flush-mounted tracks and plates. The plates are mortised in place and offer a single anchor point. The tracks provide more positioning options for Automaxx Klamps and guide blocks. To inset the 0.695”-thick tracks, simply position them on adjacent sides of a piece of ¾” MDF, as shown above.

For vise-like versatility, bolt a Klamp Vise to the edge of your bench, with an Automaxx Klamp in the slot, as shown below.

The only shortcoming with these clamps is that they’ll only mount on the proprietary tracks or plates. According to Kreg, the clamps were designed with 5⁄16” heads because clamping pressure can deform lighter-gauge ¼” T-tracks.

A versatile vise substitute. Kreg’s Klamp Vise consists of a 10”-wide steel plate with a pair of 5⁄8” T-slots that accommodate an Automaxx Klamp. The clamp’s pressure withstands planing and sanding chores, but its 2” range requires closely-spaced dog holes. Pairing the clamp with bench dogs and guide blocks keeps parts from shifting.
In-line clamps & stops

In-line line-up. A side-by-side comparison reveals some of the strengths and weaknesses of these dog hole clamps.

While Armor’s features make it a tall order, Lee Valley’s bench-hugging Bench Blade has a limited clamping range. In terms of clamping range and bench height, the Wonder Pup fits in the middle of the pack.

Armor Dog Clamp

Even with good bench vises, you’ll often need an extra hand. In-line clamps, partnered with single-post dogs or double-post stops can be positioned anywhere you can drill a ¼"-dia. hole.

When choosing a set, consider the clamp’s range and height as well as its clamping pressure. Armor’s sliding push rod design wins points for long reach and adjustable force, but the 2⅛”-tall body can interfere with planing and sanding. On the other extreme, Lee Valley’s Bench Blade is least likely to get in the way, but the sliding jaw reaches just ¼”. Veritas’ Wonder Pups (and larger Wonder Dogs), offer a middle ground. The 5”-long threaded rod is slower to adjust than the Armor’s rod, but the pup’s post protrudes just 7/8” above the bench without the O-ring spacer.

Veritas Wonder Pup

Low-profile pairing. With a few well-placed dog holes, stops can work with little clamping pressure. Projecting just 0.22” above the benchtop, these planing stops are particularly well suited for planing and scraping thin parts.

Veritas Bench Blade
Before the age of metal vises, woodworkers relied on hold-downs for holding work to their benchtops or against the side skirts. Clamping doesn’t get much easier: drop the post into a hole, and then give the hook at tap. To release, they’d rap on the back. This clamp fell out of favor when modern reproductions lacked the proper hook to hold work securely. Also, some of the cheaper copies would crack when tapped.

Today, you can find premium hand-forged holdfasts, but the evolved versions shown here more than hold their own. The big benefit? Neither requires a mallet.

Despite outward appearances, the Armor Auto-Pro Horizontal and Veritas Fast-Action hold-downs work in a similar manner: slide the post into a dog hole until the pad touches the work, and then throw the lever to cinch the clamp and wedge the post in place.

Lee Valley’s cam lever provided as much pressure control as Armor’s high-tech auto-adjust clamping mechanism.

The Armor Advantage

Armor’s Auto-Adjust clamping mechanism may be revolutionary, but I think the best thing about Armor’s system is how easy it is to transform a simple slab into a workbench. Drill a few rows of \( \frac{3}{4} \)"-dia. holes and you’re set. Optionally, you can attach a dog bracket (available in 4" and 12" lengths) and pair it with clamps to make a decent, lightweight vise. While Lee Valley’s low-profile stops are better suited for planing, Armor’s taller stops provide a super stable platform for supporting wide boards, panels, and doors.

The holes have it. A few rows of \( \frac{3}{4} \)"-dia. holes offer tons of positioning options for Armor’s clamps and fences. For a vise-like grip, partner the hold-downs with a dog bracket.
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