




**Portable shop.** On large trim jobs, the author rolls out tool cases that double as a miter saw stand—a shorter case **(1, center)** for the saw and taller cases that function as material supports. The cases organize tools by category: pneumatic tools like air guns and a compressor **(1, at left)**; cordless tools and chargers **(1, at right)**; and corded tools in a case with an attached outlet hub **(2)**. Angled tool holders in each case make tools easy to grab but secure for transport **(3)**.

# Efficient Tool Organization

BY BRIAN CAMPBELL

**In the past decade**, tool companies including DeWalt, Festool, Makita, Milwaukee, Ridgid, and others have introduced stackable tool-storage systems that are now found on many a jobsite. I own a number of these, but I've become wary of their limitations. Commercially made systems work well for moving tools and fasteners on and off the jobsite, and they can be convenient storage solutions in a truck or shop. But on the job, they need to be spread out for what's inside each one to be accessible, and I end up stooping or kneeling much more than I want to in order to get to the contents of the boxes.

Perhaps the biggest drawback to these commercially made systems is that it's in the manufacturer's best interest to sell you as many of them as possible, and they often include blow-molded plastic inserts that waste an enormous amount of space in each box. I love most of my Festool tools, but I don't want to carry an entire Systainer just for one screw gun and then a separate Systainer for an impact driver. These are not fragile tools, and it often makes more sense to ditch the inserts and pack several similar tools and their accessories in the same box.

## PORTABLE SHOP

The rolling cases shown in the photos at left and on the opposite page mark the beginning of my quest to make more efficient use of toolbox systems. It started with a rolling cart I made to support my miter saw—the center of my on-site shop setup for interior trim jobs. I then developed three other rolling carts that were tall enough to also function as supports for long material on either side of the saw cart. I organized each cart around particular tool types—cordless tools, pneumatic tools, and common corded tools—and included

Photos: Brian Campbell





**The reality** of stackable tool boxes is that they need to be spread around the jobsite for the contents to be accessible **(4)**. The author uses plenty of them but transports and stores them in rolling cases that allow him to access individual boxes. The modular design of his cases allows any one case to accept any of the brand-name storage systems he owns **(5)**. He often discards the blow-molded inserts included in brand-name toolboxes, as these tend to make inefficient use of the space inside the box. Foam inserts **(6, 7)** are a nice way to organize tools and keep them secure in a toolbox, but they take up more space than tool rolls (see page 25).

the necessary accessories for each: batteries and chargers on the cordless-tool cart; compressor, hoses, and fasteners on the pneumatic cart; and an outlet hub and extension cords, as well as blades and bits, on the corded tool cart.

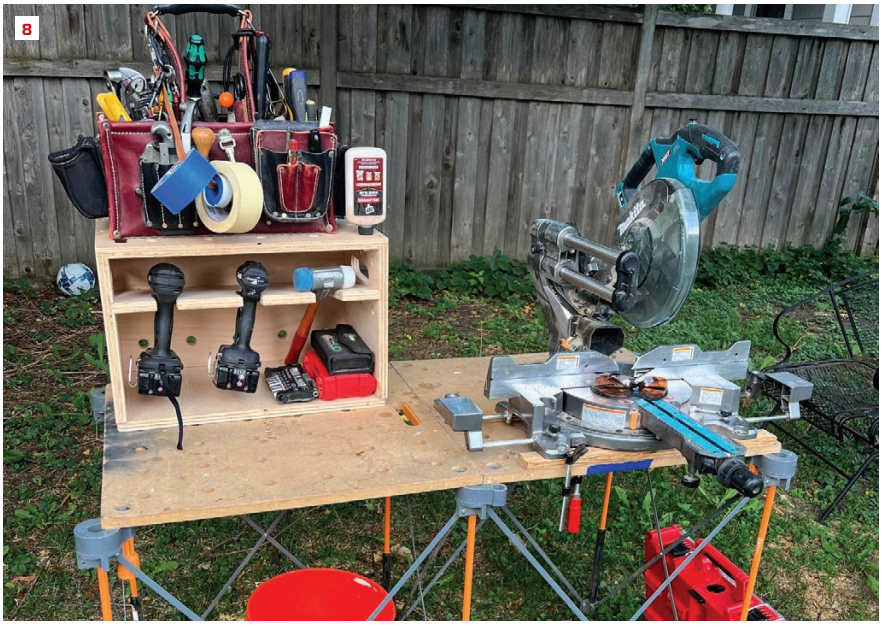
I designed each cart to accommodate the various brand-name toolboxes I owned so I could get at the contents easily by sliding the containers in and out of shelves rather than locking them all together. To minimize wasted space around the boxes, I built carts of different widths, but the sides all have the same shelf increments, which I made by cutting evenly spaced dadoes using the table-saw sled described in my last *JLC* article, "Indexing Jigs for Repetitious Carpentry Tasks" (Sep/Oct/23). After the first dado is cut, I set that dado over the cleat on the sled to produce subsequent dadoes on 3-inch centers for the shelves. I landed on that increment after experimenting with Tanos/Festool and Makita boxes and the Ridgid and Milwaukee small-parts organizers I had. It allows me to vary the shelf spacing to accommodate any of these boxes with minimal wasted space above them.

## ORGANIZATIONAL PRINCIPLES

Tool organization systems are not just for transporting and storing tools. If well designed, they have the potential to make me a more efficient carpenter. The following are some of the tenets that I have leaned on when developing tool organization systems to increase my efficiency:

**Visible and accessible.** Most commonly used tools are best stored where they can be seen and within arm's reach. It's preferable to just reach out and grab the tool you need without opening a box, bag, door, or drawer to get it, and especially without needing to unstack boxes.

**Categorized by task.** I frequently do the same types of jobs—hang doors, install cabinets, run trim, patch-in drywall, and so forth—so it's useful to have tool collections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**Lightweight workbench.** For smaller jobs, the author sets up a simple workstation built on a Centipede CK6S stand **(8)**, which is easy to set up and break down and light to transport. Often for these smaller jobs, he brings what he needs from the truck in an Occidental carpenter case **(9)**. He often carries a portable cordless case **(10)**, similar to his larger rolling case. It is sized to fit on the Milwaukee Packout system, and doubles as a step stool and task oriented workstand **(11)**.

ready to go for specific job tasks. For example, I have a carrying case that doubles as a step stool and allows me to use the top as a mini-workbench for hanging doors. Remodelers who frequently self-perform electrical and plumbing or do tile work and so forth benefit from having setups of the tools they most commonly use for each of those job types, so they can just grab the setup from the truck or the shop and go to work.

**Categorized by type.** I find it often makes sense to organize tools by type. This is the design principle for the rolling cases, described above, that I set up for cordless tools, for pneumatic fasteners, and for common corded tools, each with the appropriate companion tools and accessories.

**Flexible.** I am called to do all kinds of jobs. It makes sense to bring in my rolling cases for a major trim job that lasts a week or more, but they're more than I need for small jobs and pick-up work that might take me a couple of hours or less. Smaller jobs call for the lightweight workstation shown above, which I can set up and take down quickly at the beginning and end of each day.

To remain flexible, it's important to have some "empty capacity." I keep a few empty tool bags, totes, or buckets on hand so I can pull together a basic setup for a given task

by tossing in the specific tools and supplies needed for it.

I also like tool organizers that can do double-duty as a work surface. Toward this end, the tops of my rolling carts are drilled out for bench dogs and cutouts that I can use for clamping or mounting a router for a ready-made router table. My smaller tool totes may be heavier than a plastic box, but they serve well as step stools, which often saves me an extra trip to the truck for a stepladder.

**Don't carry air.** Don't hesitate to ditch or modify the blow-modeled inserts that come with toolboxes for specific new tools. Think small, tight packages that can be grabbed out of a drawer or toolbox. Tool rolls, one of the simplest and oldest ways to organize tools, fit the bill perfectly for many hand tools. I like how they fit compactly into a drawer and can be grabbed easily and laid out where I'm working to provide ready, organized access.

**Vehicle compatible.** When designing my rolling storage system, I made sure it fit efficiently in my step van, so I can maximize my use of space there as well as on the jobsite. Many commercially made trailer, truck, or van storage systems waste space and limit your flexibility.

**Fastener friendly.** Some of the commercially available fastener storage systems with clear plastic lids and segmented compartments are great for organizing fasteners, but they work better in a shelf unit that allows for quick access.

For most jobs, I lean on what I call my "80% parachute bag." This contains the fasteners I use about 80% of the time: 2 1/2- and 3-inch GRK general-purpose wood screws; 2 1/2- and 3-inch GRK trim-head screws; 1 1/4-inch Kreg pocket-hole screws, and 2 1/2-inch cabinet screws. Each kind of screw has a color-coded bit in a bit holder that's the same color, hanging with the related screws. The purpose here is to travel light and save trips to the truck. I do have a far more varied and extensive selection of screws on the truck, if I need them.

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**Grab and go.** Tool rolls, such as the author's chisel roll **(12)** and Japanese pull-saw set **(13)**, are useful for grouping and carrying a set of tools, and they store efficiently in the drawers of a tool storage system. The author keeps some "empty capacity" in his truck. One example is an empty Makita tote he has filled with a selection of what he needs for the task at hand **(14)**. For most jobs, the author leans on his "80% parachute bag" **(15)** with the fasteners he uses 80% of the time: 2 1/2- and 3-inch GRK general purpose wood screws, 2 1/2- and 3-inch GRK trim-head screws, 1 1/4-inch Kreg pocket-hole screws, and 2 1/2-inch cabinet screws. Each kind of screw has a color-coded bit in a bit holder of the same color.