Since their debut on *The New Yankee Workshop*, pneumatic nailers have been a popular target for insult-hurling woodworkers, but time has proven that guns aren’t going anywhere. Nails aren’t pretty, nor are they a substitute for traditional joinery, but finish nails, brads, and pins provide a viable and convenient solution in the workshop and on the jobsite. A woodworker armed with a pneumatic gun can easily outpace a hammer-swinging counterpart. In addition, gun-fired fasteners are thinner than hammer-driven nails. This feature makes them less likely to split wood and easier to camouflage under a tiny spot of filler.

At one time, the price of nailers and compressors restricted them to use by professionals. Today, a nailer and compressor kit costs about as much as a good cordless drill. The real question is not whether or not to go for a gun, but which ones do you need. I’ll provide a quick gauge-by-gauge overview of the fasteners and nailers and offer suggestions to help you find the gun (or guns) that best suit the work you do.
Familiarizing yourself with the fasteners you’ll need for woodworking will help you select the right gun. Nails are identified by gauge, the thickness of the wire used to make the fastener. The lower the gauge, the thicker the nail. Because the difference between one gauge and the next is only about .02mm, nails that differ by only a gauge or two are often used for the same applications.

Gauge also relates to the size and shape of the head. With the largest heads, 15- and 16-gauge finish nails offer the most holding power but can be difficult to conceal. Smaller 18-gauge brads and 23-gauge headless pins are much easier to hide, but offer less holding power, requiring glue to give joints real strength. Staples belong in a different category, but deserve mention because they are often used instead of nails when holding power matters more than appearance.

**Know your nails**

<table>
<thead>
<tr>
<th>Gauge</th>
<th>Type</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Finish Nails</td>
<td>2½&quot; - 1&quot;</td>
</tr>
<tr>
<td>16</td>
<td>Finish Nails</td>
<td>2½&quot; - ½&quot;</td>
</tr>
<tr>
<td>18</td>
<td>Brads</td>
<td>2&quot; - ½&quot;</td>
</tr>
<tr>
<td>23</td>
<td>Pins</td>
<td>2&quot; - ½&quot;</td>
</tr>
<tr>
<td></td>
<td>Narrow Crown Staples</td>
<td>½&quot; - ½&quot;</td>
</tr>
</tbody>
</table>

**Know your nailer**

Gun prices vary widely, even within each gauge. Premium priced guns employ longer lasting firing mechanisms and more efficient pistons, but you may not see a discernible difference until a gun has fired several thousand fasteners. In a production shop, performance affects profit, so it makes sense to buy the best gun you can afford. For part-time woodworkers, it might take several years to fire enough fasteners to foul a less-expensive gun. A cheaper gun might be a better investment if the money saved can be spent on a second (or third) nailer.

While less-expensive guns offer some features, top-shelf nailers come with all the bells and whistles (see “Features To Look For,” right). Because jams happen, I consider flip-top nosepieces more a necessity than a luxury. Also, increased fastener length might warrant paying a few dollars more if it saves you the expense of another gun.

**Features To Look For**

- **Flip-top nose** - Jams happen. Easy access makes clearing fasteners quick and painless.
- **Fitted nosepiece** - Protects work while offering an unobstructed line of sight.
- **Magazine window** - Easy-to-read gauge indicates when it’s time for a new clip.
- **Depth adjustment** - Fine-tunes fastener driving depth without adjusting pressure at the compressor.
- **Thumb-activated blowgun** - Clears debris from workpiece so that you can see your target.
- **Rear exhaust** - Prevents air from blasting your eyes with every shot.
- **Dual-fire modes** - Switches from single- to bump-fire (gun fires when nosepiece is depressed, without pulling and releasing trigger).
- **Swivel couple** - Improves mobility and keeps hose from kinking.
A 15- or 16-gauge finish nailer is the largest gun most woodworkers need, and most can get by with one or the other. Both guns reliably shoot long nails into plywood cases and hardwood face frames. Carpenters prefer 15-gauge finish nails. The thicker shaft and larger head offer slightly more holding power. This helps when installing casework and when attaching warped trim to walls. However, for general shop woodworking, less might be best. Most 16-gauge guns are smaller and lighter (my 16-gauge nailer weighs less than 3 lbs.; my 15-gauge gun tips the scales at 5.2 lbs.). Also, 16-gauge finish nails cost less. A few dollars difference quickly adds up when buying boxes of 5,000 fasteners.

All 15-gauge nailers can use 2½” long nails, but many bottom out at 1¼”; only a few can fire 1” nails. In comparison, 16-gauge nailers also shoot 2½” nails, but a few shoot ¾”-long nails. Roundheaded 15-gauge and T-shaped 16-gauge nails require the same amount of filling.

A brad nailer is smaller, lighter, and less expensive to operate than a finish nailer, making it a handy gun to keep at the workbench. Resembling a 16-gauge finish nail, only smaller, the 18-gauge brad’s T-shaped head provides good holding power but is less visible. The nail’s slightly thinner shaft tends to cause less splitting than 16-gauge nails, an asset when fastening drawers, face frames, and small moldings. In my shop, my brad nailer is my go-to gun for assembling one-time-use jigs.

The average fastener range for brad nailers spans ¾” to 1½”. A few guns fire 2”-long nails. If you plan on using one gun for everything, this may be your best choice.
23-Gauge Pin Nailer

<table>
<thead>
<tr>
<th>Gun Cost</th>
<th>$60 - $300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fastener Length</td>
<td>3/8&quot; - 2&quot;</td>
</tr>
<tr>
<td>Fastener Cost/1,000</td>
<td>$1 - $3</td>
</tr>
</tbody>
</table>

Firing pins about the same diameter as standard desk staples, pin nailers can tack together thin stock that larger guns would turn to splinters. Another plus is that pin nails don’t require filling. (A spot of CA glue, followed by a light sanding, can make holes disappear.)

The downside to these headless fasteners is that they don’t offer much holding power. Unless the joint is reinforced with glue, the wood can easily pop off. But this easy removability can be an advantage too. For example, when template routing, pins can be easier to use and remove than double-stick tape.

The wide price range relates to maximum pin length. The priciest guns shoot 2" pins, but you can find models for $100 that fire 1 3/8" pins. Longer lengths sound appealing, but pins aren’t perfect. Long pins tend to follow the grain (and blow out an edge) or crumple when hitting dense material. And pins that fail to sink completely are impossible to drive with a nail set.

18-Gauge Narrow Crown Stapler

<table>
<thead>
<tr>
<th>Gun Cost</th>
<th>$50-$110</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fastener Length</td>
<td>1/2&quot; - 1 1/2&quot;</td>
</tr>
<tr>
<td>Fastener Cost/1,000</td>
<td>$4-$7</td>
</tr>
</tbody>
</table>

Staples aren’t pretty, but when function trumps form, this is the gun to go for. Like 18-gauge brads, the staple’s thin prongs don’t split the wood. But the pair of legs offers more holding power than a single brad. The wider crown keeps the fastener from blowing through thin or unpredictable materials. For attaching cabinet backs, assembling utility drawers, and securing upholstery, this gun earns its keep. Most guns max out at 1 3/4"-staples; for a few extra dollars you can buy a gun that fires 1 1/2" staples.
Safety

Finish nails and brads have wedge-shaped tips. When one encounters resistance, it veers in the direction of the wedge. You can use this to your advantage. When nailing along an edge, hold the gun perpendicular to the work to allow the fastener to curve in either direction without poking through the wood.

Here are a few tips to avoid a trip to the emergency room.

- Never point a loaded gun at anyone.
- Pay attention to fastener length, and keep fingers safely away from the tip when firing. Thin-shanked pneumatic nails and staples often are deflected by dense grain and blow out the side or make a complete U-turn.
- When the gun jams, disconnect the air hose before fiddling with the nosepiece.
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