

Power Tank CO₂ System

by Rob Myer

As the owner of a company that does installations for a lumberyard, I do a lot of small to medium-sized finish jobs. I'll install an entry door at one house, crown at another, and wainscoting at a third. After years of hauling around a compressor, it occurred to me that for the number of nails I need to drive, I could run my guns off the same Power Tank I used to inflate the tires of my off-road vehicle.

The Power Tank is an aluminum tank and regulator that allows you to fill tires and run pneumatic tools with compressed CO₂. Early models were not intended for use with nail guns, but when I connected my guns to the one I owned, they worked just fine. And even though I've heard it said that CO₂ is bad for nailers, I've been powering finish guns with it for four years without any problems.

Last year Power Tank introduced the Construction Series (Advanced Air Systems, 209/366-2163, powertank.com), which consists of models specifically designed for use with nail guns. I tested a Floor Bracket kit with a 10-pound tank — meaning it holds 10 pounds of CO₂ — and a Sidearm kit with a 1.25-pound bottle.

Working With Tanks

The tanks are shipped empty; getting them filled is the one hassle of using a Power Tank. But CO₂ is easy to find. You can get it from welding suppliers, paintball shops, beverage suppliers, and companies that refill fire extinguishers. Filling my own (older) 15-pound tank costs about \$20.

According to the manufacturer, a 15-pound tank can shoot approximately 4,500 15-gauge finish nails per fill. I've never counted, but that seems like a reasonable estimate. I can usually get a couple of months of light to medium-duty use from my tank. This is more than you would get from compressed air, because CO₂ is stored in a semiliquid state — liquid at the bottom of the tank and gas at the top.



Advanced Air Systems



The floor bracket holds the tank at the correct angle for dispensing CO₂ (above) and clips into a base mount (left) that can be bolted to the floor of a van or trailer.

The regulator is designed to dispense gas, so during use the tank should be upright or at an angle of no less than 30 degrees to the floor. As CO₂ is consumed, it's replaced by gas evaporating off the liquid, which keeps the pressure constant until just before the tank is depleted. The only way to find out how much CO₂ is in the tank is to weigh it.

Nail guns perform the same with compressed CO₂ as they do with a compressor. What you notice most when using a Power Tank is what *isn't* there: no heavy, dirty compressor to carry around, no electrical cord to plug in, and no noise except for the sound of the gun itself. I appreciate the quiet and so do my clients.

Floor Bracket Kit

This \$670 kit comes with a 10-pound tank, a 0-to-160-psi regulator, a hose and fittings, a floor bracket, and a locking base mount. The company sells a similar kit with a 15- or 20-pound tank.

The bracket holds the tank at just the right angle

Toolbox | Power Tank CO₂ System



The smallest Sidearm takes a 1.25-pound CO₂ bottle (above) and fits in a holster (right). The company's larger version has a 2.5-pound bottle that fits in a sling.



without letting it tip. My old tank doesn't have one and falls over when I stretch too hard on the hose, so I found the bracket really useful. Rubber pads on the bottom keep it from scratching the floor. The base mount is for storage; it bolts to the floor of a van or trailer and the bracket clips into it.

The regulator provides consistent pressure and is easy to read and adjust. It's protected by a tubular metal frame that also serves as a comfortable carrying handle. The unit is compact and easy to transport. I find it much more convenient to use than a compressor.

Sidearm Kit

This ultraportable tank is worn in a holster or carried in a shoulder-mounted sling. I tested kit version B, which contains two 1.25-pound bottles, a 0-to-160-psi regulator, a hose, a holster, a carry bag, and some other minor accessories. It costs \$360. The next size up takes 2.5-pound bottles that fit in a sling.

The Sidearm works the same way as the larger tanks except that you carry it around with you. At first the bottle got in my way, so I took to putting it in the large back pouch of my toolbelt. It's a good tool for someone who works at a variety

of locations throughout the day. It's also handy for doing punch-list items.

According to the manufacturer, a 1.25-pound bottle can drive 375 15-gauge finish nails or 190 8-penny commons. By my reckoning, that's enough to install a few rooms' worth of crown, hang and case half-a-dozen doors, or do a small amount of pickup framing. I found the tank's small capacity a negative, because it constantly needs filling.

I would only buy a Sidearm as an accessory to a larger Power Tank — which, when connected to an \$89 Power Filler attachment, can be used to fill the smaller tank on site. This would be a lot more convenient than going somewhere to get the bottles filled every time they were empty.

The Upshot

Power Tanks aren't for everyone. They're expensive, and if you do new construction or production-based work you'll still need to run compressors. But if you — like me — do a lot of jobs in finished areas of occupied buildings and need highly portable equipment, these tools are worth checking out.

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