

# Propane Power

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Source: [www.TurfMagazine.com](http://www.TurfMagazine.com)

Dealer offers conversions for mowers

*PHOTOS COURTESY OF MCCOY'S LAWN EQUIPMENT SUPERSTORE.*



McCoy's uses a vapor, rather than liquid, propane system in its conversions. Local landscapers can stop by the store in the morning to have their tanks filled.

Propane is clean burning and less expensive than gasoline.



While there are some propane-powered mowers being produced by manufacturers themselves, conversions are popular because they can bring the power of propane to a wide range of mower makes and types.

Based on factors ranging from cost to local contract requirements, a growing number of lawn care companies are turning to propane to power their mowers. Earlier this year, Clean Scapes Lawn Solutions ([www.cleanscapelawn.com](http://www.cleanscapelawn.com)) in Austin, Texas, made a significant investment to convert its mowers from gasoline to propane. "We maintain hundreds of properties around Central Texas and San Antonio, but we feel we should do it in the best environmentally responsible way. Converting our mowers from gas to propane seems like the most productive way," Ivan Giraldo, Clean Scapes co-owner, says.

There were several benefits to Clean Scapes in transitioning to propane-powered mowers. For starters, because propane is deemed by the EPA to be an "approved alternative fuel," propane-powered mowers can be used even when Austin's "Ozone Action Days" prohibit the use of gas-powered equipment. That means more days out mowing lawns—and making money. Propane is also cheaper than diesel, and some government accounts are beginning to require the use of propane-powered mowers, so making the investment can lead to greater opportunities for business.

There are some factory-built, propane-powered mowers on the market. Ferris, for example, offers its 3100ZP zero-turn mower with a specially designed Briggs & Stratton engine manufactured for use with propane. But, for lawn care companies that already own commercial-quality mowers, it makes sense to convert those mowers to propane rather than purchase an entirely new fleet. The conversion process isn't super complicated, but does require specialized expertise and a complete understanding of propane. In other words, it's not a do-it-yourself job.

To convert its mowers, Clean Scapes turned to McCoy's Lawn Equipment Superstore ([www.mccoyslawn.com](http://www.mccoyslawn.com)) in Austin, which has developed a reputation as one of the few shops in Texas with the safety training and experience to convert mowers from gasoline to propane. "In Texas, and it may be only in this state, our railroad commission runs this type of thing. In order to do a physical conversion, you have to have two or three different licenses, take a training class, then pass a test and become certified," says Jay Godfrey, co-owner of McCoy's. "Although some people get a little freaked out by propane, it's really pretty safe. You just have to know a couple different things—things not to do—and those safety things are what's covered in the training."

McCoy's began converting mowers to propane more than three years ago after seeing demand for the service. "Here in Austin, people are really green. The city has said that if you're bidding to cut grass for any government entity in the county, you have to cut with a propane mower," says Godfrey. Those types of mandates have brought in a number of commercial lawn care contractors that, like Clean Scapes, are looking to convert their equipment to propane. "We do some homeowner equipment, but mostly its commercial equipment, just because of the cost of the process," he explains.

McCoy's sells the Ferris unit that's manufactured specifically for propane, along with a unit from Scag (it also carries gasoline-powered mowers from Snapper, Exmark, Toro and others), but the limited choices of propane-powered mowers available from manufacturers has led some lawn care companies to have

gas-powered mowers converted. "The manufacturers felt that only municipalities would be interested in propane-powered units, so they were only making 61 and 72-inch mowers. So, all the guys who need 36, 48, 52-inch mowers have no source, other than to do a conversion," says Godfrey. "We've even converted some 21-inch mowers. The only 21-inch we do is a Honda commercial unit. It's just a good mower, and the only one that the conversion makes sense on. On a 21-inch mower, the conversion costs \$500. You're not going to do that on a \$300 mower, but on an \$1,100 mower that you're using commercially, it can make sense."

The conversion on a zero-turn mower with an EPA-certification typically costs \$2,200 to \$2,400. Not cheap, but for a company interested in pursuing government mowing accounts, it is necessary. In Texas, lawn care companies that join the Texas Clean Cities program can get half the cost of the conversion back. "Or, if you buy a propane mower out of the box from the manufacturer, you can get 20 percent of the cost back, up to \$2,500."

McCoy's begins the process using a "mixing box" from EnviroGard ([www.envirogard.com](http://www.envirogard.com)) that has been EPA-certified and comes with a sticker that goes on the engine attesting to that fact. McCoy's then purchases the correct regulator for the application and works with a local fabricator to custom-make the necessary brackets, etc., needed to fit the propane equipment to each particular brand and model of mower. The company also purchases tanks that are specially manufactured for use in lawn equipment applications.

"There's only two tanks on the market that really work and that are really manufactured for outdoor power equipment. Some gas companies try to set up lawn care companies with bottle exchange programs, and they give them things like bottles made for forklifts, but they don't work," says Godfrey. "The bottles made for outdoor power equipment are all left-hand vapor bottles, they're not liquid. They look the same, but they don't work the same." For the most part, in its conversion projects McCoy's uses bottles from Worthington Cylinders ([www.worthingtoncylinders.com](http://www.worthingtoncylinders.com)). "They make a really good tank, and it comes in both 7.5 and 10-gallon sizes," he adds.

Godfrey says the process of converting over to propane doesn't take that long. "We had one company from Dallas that came down with four mowers around noon on Thursday and we had them converted and ready to be picked up by 4 p.m. on Friday," he explains. "It's just good for us to have a head's up so we can make sure we have all the parts we need. There are so many different mowers, so sometimes it might take us a week to get brackets made up."

McCoy's recently began offering tank refill services for lawn care companies with propane mowers. "If we do a conversion and they buy the gas from us, they get it for 40 cents a gallon less than they can get it from anyone else," says Godfrey. Being an outdoor power equipment dealer, McCoy's understands the need for timely service. There's no need to exchange bottles; they're simply and quickly refilled. "The lawn care guys show up here around 7 a.m. with their equipment on the trailers. We just fill them up and off they go," Godfrey explains.



McCoy's Lawn Equipment Superstore in Austin, Texas, has converted mowers from gasoline to propane for a number of lawn care companies and municipal maintenance departments.

McCoy's has chosen to use vapor rather than liquid propane in its conversions. "It's not so much that liquid is more dangerous as a fuel, but if there's any problems in a hose or something then you have a liquid coming out, and that stuff is minus 44 degrees, so we've stayed away from liquid just for that reason."

Godfrey says that the conversion does not affect the warranty on Kawasaki engines, while there are sometimes questions raised by other engine manufacturers. "Actually, as many of these conversions as we've done, we've never had a problem with the engine, so I don't really know exactly how every engine manufacturer would react," he explains. "You don't really change anything on the engine block itself during the conversion. The carburetor comes off, and then you're adding a mixing box, regulator, electric lock-off, stuff like that." To help ensure the engines keep running smoothly, McCoy's does use an Amsoil motor oil that's formulated for use with propane engines, and a Schaeffer synthetic oil once the engines are broken in. "You shouldn't be putting 99-cent oil in any engine," he advises.

## Propane-Powered Mowers

While many different mower brands have been converted by third parties to run on propane, below is a look at some propane-powered options available directly from manufacturers:

Bad Boy Mowers offers a 60-inch, zero-turn, propane-powered mower featuring a 32 hp, air-cooled, Vanguard engine.

Dixie Chopper sets itself apart by offering a liquid, rather than vapor, propane zero-turn mower (available in 60 and 72-inch models), a first in the industry. The company also offers a CNG (compressed natural gas) mower. This is a 66-inch unit, and the company says the fuel is both cleaner burning and safer than propane or gas.

EnviroGuard's "Low-Polluting Lawn Mowers" are available in a variety of widths featuring propane-powered (and EPA-certified) Kawasaki and Briggs and Stratton engines. In addition to zero-turns, the lineup includes 33 and 48-inch commercial walk-behind mowers.

The Ferris IS 3000ZP utilizes a Vanguard BIG BLOCK V-Twin engine and is rated for a ground speed of 12 mph with a mowing rate of up to 7.2 acres per hour. Operators can use the propane-powered unit even on "Ozone Action Days." The company says its "automotive-like" starting system eliminates the need for a choke lever.

Lehr offers trimmers and blowers powered by propane. The company's Eco line of hand-held equipment features an advertised two-hour run time using a standard 16.4-ounce propane canister, available at many stores.

Scag's "Dual Fuel" Turf Tiger zero-turn mower is designed to run on either gasoline or propane with the simple flip of a switch. This allows operators to use propane on "Ozone Action Days," while also flipping back to gasoline power when desired. The Kubota liquid-cooled engine produces 29 hp with propane and 31 hp with gasoline. The unit has a 61-inch cut.

Zipper offers zero-turn propane-powered mowers with cutting widths from 50 to 74 inches. The Kawasaki engines range from 28 to 31 hp.

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