

## 2018 Competitive Commercial Engine Market Spurs Innovation



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Contractors seeking to upgrade their mowing fleets for the 2018 commercial cutting season will be pleased with the many new and upgraded gasoline engines as manufacturers battle for market share in an increasingly competitive market.

When it comes to the landscape contractor market, four major engine manufacturers are battling for presence in mower companies' dealer showrooms.

### **Kawasaki's VAF system new for 2018**

Almost every mower manufacturer offers models with [Kawasaki](#) gasoline engines, the power of choice for many landscape pros. This was evident by the size of the crowd surrounding the Kawasaki booth at this past [October's GIE+EXPO](#) to learn more about the [Vortical Air Filtration \(VAF\) system](#), which the company is featuring on its new FT730V-EFI engine.

Kawasaki claims the [VAF system](#) will allow the FT730V engine to run cooler, extending its useful life, as well as allowing an air filter go up to 50 hours before cleaning. The VAF system relies centrifugal air movement within its advanced air intake to move heavy grass, dust and debris away from the air filter. The Vortical system then ejects that debris out of the engine through a "duck bill" debris ejection port.

The FT730V-EFI engine (26 gross horsepower) features Kawasaki's EFI system with integrated e-governor that adjusts engine power to load for maximum cutting power at higher speeds, cleaner mowing in higher turf and fewer re-cuts, the company says. The open-loop design (no need for an oxygen sensor) keeps engine temperatures low for less oil consumption and longer life, says Kawasaki.

## Vanguard Oil Guard System expands

Briggs & Stratton Commercial Power's [Vanguard Oil Guard System](#), which allows for 500-hour oil change intervals, was first launched on 2017 Ferris mowers. It is now available for Briggs & Stratton's company's 810CC EFGI-V-Twin and Big Block commercial engines, as Vanguard actively explores additional commercial applications for the innovative system.

"Vanguard's ability to work with its sister company, Ferris, provided unique development insights from the perspective of an equipment manufacturer and helped us engineer a better overall solution. This oil management system shows strong potential for commercial applications outside of turf," says Rick Zeckmeister with Briggs & Stratton.

The system works by continuously exchanging oil between the engine and a 5-quart external oil reservoir. Its design protects oil from thermal breakdown, which extends oil maintenance intervals from 100 to 500 hours and produces a cooler-running engine. Direct access to the oil filter and drain tube results in quicker, easier and mess-free oil changes. The Vanguard Oil Guard System is a factory-integrated technology, not an aftermarket add-on.



Briggs & Stratton Commercial Power also upgraded and expanded its line of commercial light-duty V-Twin engines for 2018. This commercial line now includes nine models, ranging from 16 to 27 gross horsepower.

"This line of engines has always been a great value and a bridge for those wanting to step up to commercial engines," said company spokesman Jim Cross. These engines feature the company's Integrated Cyclonic System air handling system, a rotating debris-chopping screen to cut debris into small pieces with a fan to force debris away from the engine, and baffles and an ejector chute to prevent dirt and large debris from reaching the air cleaner housing. They are also equipped with a commercial-grade liquid sump gasket – the same gasket engineered for the Vanguard 810 V-Twin.

## Kohler combines ETB with EFI

Kohler's engineers were no less busy. Kohler integrated its [Electronic Throttle Body](#) (ETB) into its Command PRO EFI 999cc engine. The ETB is combined with Kohler's EFI system, as well as the latest engine cooling technology.

"Our new Electronic Throttle Body brings some extra muscle to the table," says Eric Raquet, Kohler Engines Product Manager. "You can really feel the difference in tall wet grass."

The Command PRO EFI 999cc is available in models between 35 and 38 horsepower and, of course, features the company's closed-loop system with an oxygen sensor in the engine's muffler to continuously monitor the amount of fuel injected.

## **Yamaha builds market presence**

Yamaha Motor Corp USA entered the commercial engine space in a big way in 2017 on two fronts – 1.) introducing its MXV-EFI series engines on select Gravely mowers and 2.) acquiring Subaru Industrial Power Products from Fuji Heavy Industries Ltd., the deal completed this past October.

The media first saw and got a chance to field test the company's MXV-EVI engines late in 2016 on commercial Gravely mowers for the 2017 mowing season. Yamaha's vertical MX775V-EFI, MX800V-EFI and MX825V-EFI engines range from 29 to 33 certified gross horsepower. Yamaha, which built the MX-V series from the ground up, is touting the engines' low vibration levels and high fuel efficiency.

At the 2017 GIE+EXPO in Louisville, Yamaha unveiled new carbureted V-Twin MX825V and MX800V carbureted engines for commercial mowers while stressing their power, torque, reliability and serviceability.

Other mower manufacturers are expected to follow Gravely, and now Bad Boy Mowers, in offering units powered by Yamaha-powered models for the rapidly approaching mowing season.

The other big news from Yamaha Motor Corp. (YMC) in 2017 was its acquisition of Subaru Industrial Power Products from Fuji Heavy Industries Ltd. That deal, finalized in October, gave YMC technology related to the EH65, EH72, and EH65V of the EH Series V-Twin Overhead Valve multi-purpose engines, which are used in large generators and large lawn mowing machinery. The acquisition of this technology enables YMC to sell the EH Series multi-purpose engines both within Japan, overseas and in the United States.

**Check out our mower update from the 2015 GIE+EXPO: ["Big 4" Engine Manufacturers Debut New Engines For 2016](#)**