



Application

M-D Pneumatics™ Rotary Positive Displacement Blowers are becoming more commonly used in landfill gas applications. The cost of energy continues to rise and the means by which to produce it are becoming more expensive and coming under increased scrutiny for various reasons including the amount of pollution released in the process. At the same time, municipal landfills are exceeding capacity and uses are being made for the decomposing organic waste. One of those uses is converting landfill gas to energy.

As the waste in a landfill decomposes, a form of natural gas is created, commonly referred to as Landfill Gas, (LFG). LFG is a mixture of methane and carbon dioxide along with some other non-organic compounds. The gas is gathered for various reasons, primarily for odor control and to prevent it from going into the atmosphere.

During this process, blowers are used to help collect and move the gas. Generally the gas is gathered under a slight vacuum and discharged at around 5 psig into a header that feeds the landfill gas as a fuel to a special natural gas engine that drives the generators which actually convert it to electricity where the gas is used to power the landfill operations, sold to a local utility provider or even used to power certain types of vehicles.

Which Blower Is The Best Fit?

This is a good application for the M-D Pneumatics, PD Plus model blowers. For outdoor installations the single envelope 81/57-series with internal labyrinth-mechanical seal on the chamber and the single-lip seal on the drive shaft would be recommended. If the blower is located in an enclosed area, a double envelope 67/64 series blower with internal labyrinth-mechanical seal on the chamber and another mechanical seal on the drive shaft would be the best selection as it offers the lowest leak rate. These particular options are the best fit because they have low gas leak rates of 1×10^{-4} cc/sec per mechanical seal. Many of these applications require up to 5000 acfm which makes them a good application for positive displacement blowers given the low vacuum and pressure requirements in these systems.

Advantages Of PD Plus In This Application

- Various gas service sealing options available
- Special materials, if needed
- Ability to handle different gas mixtures
- Heavy-duty casting and rugged design
- Experience and track record in this application
- Manufactured in Springfield, MO USA



Tuthill Vacuum & Blower Systems

