

THE CUTTING EDGE

This job sucks, literally!

Drop a piece of paper on a windy day, and you'll spend a few frantic minutes scrambling after it as it escapes your grasp with every reach. This same principal is employed by the [Milwaukee County Transit System](#) each night when they clean their buses. Using a specially designed cyclone system and bellows, [Grunau Metals](#) and [Robertson Air Systems](#) successfully fabricated and installed a custom bus vacuum system that generates huge volumes of airflow used to clean out the buses. As part of a larger process that also fuels and washes the MCTS Busses, the vacuum system was specifically designed and fabricated to precise specifications, so minimal leakage occurs and the airflow is strong enough to create a "wind tunnel" through the bus and exact all the dirt and debris through the front door.

Here's how they do it:

1. Each bus pulls into a cleaning station where an operator boards the vehicle, followed by a retractable bellows that seals around the front passenger door of the bus.
2. The operator opens the rear door of the bus and starts one of three twin cylinder cyclone vacuum systems located on the service island.
3. The operator, while on board the bus, holds on for dear life (just kidding!) while using a compressed air wand to help stubborn debris and dust become airborne as it heads towards the front of the bus and out the door into the bellows and into the vacuum system.

In just a matter of minutes, everything inside the bus that isn't nailed down ends up [flying through the air](#) and into the sealed dumpster to be thrown out. This has greatly helped the MCTS's bus fuel and cleaning turnaround time and has ultimately improved the process's efficiency.

