



## Industry Challenge

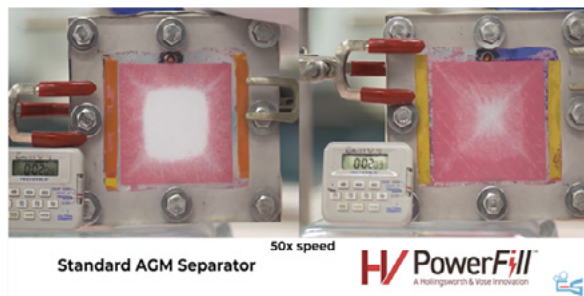
A top challenge many customers encounter during AGM battery assembly is the slow and uneven filling of acid electrolyte. Slow filling reduces the battery assembly speed while uneven acid distribution in the AGM separator and plates potentially cause dry spots and black spots on the plates during battery formation. Furthermore, uneven acid distribution can degrade battery performance.

A key factor affecting the acid filling speed is the gas pocket trapped toward the center of the plates and AGM separator. The gas pocket is air and possibly CO<sub>2</sub> generated by the reaction of the acid electrolyte.

## PowerFill™ Advantage

H&V has recently developed PowerFill™ AGM to solve these challenges by enhancing the surface of the separator to create open channels. With the open channels on the PowerFill™ AGM separator, the gas pocket can escape more easily from the battery during the acid filling process, thereby allowing acid to flow quickly and evenly into the center of the plates and AGM separator.

The PowerFill™ patented technology can be applied to various types of AGM separators and replaces existing standard AGM separators. PowerFill™ products are best for tall industrial and commercial truck batteries that are difficult to fill.



We recommend PowerFill™ for these applications:

- Data centers
- Commercial trucks
- Telecommunications
- Industrial trucks

Compared to other AGM separators, PowerFill™ offers the following advantages:

### 1. Acid Filling Speed

PowerFill™ has demonstrated that it can **reduce acid filling time by more than 50%**. The optimized channels accelerate the rate at which acid electrolytes migrate to the center of the plate and separator.

### 2. Battery Quality

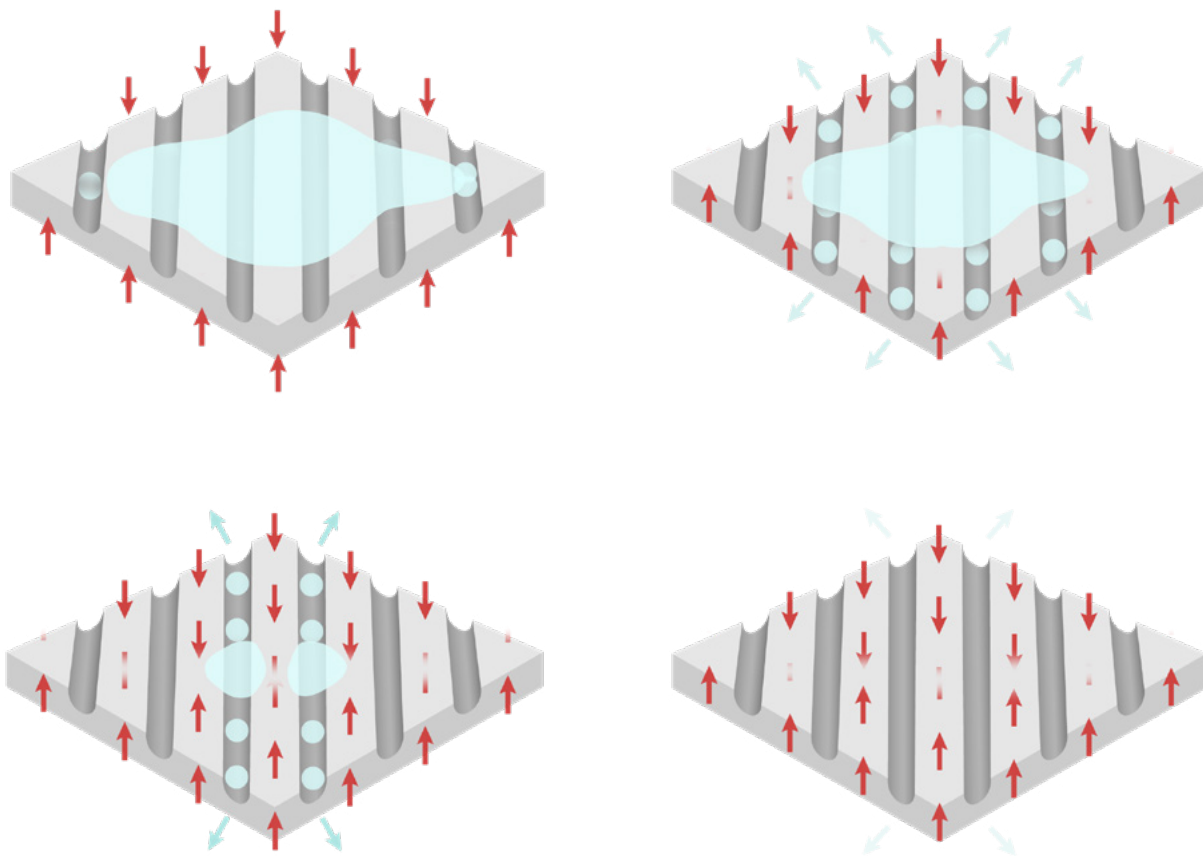
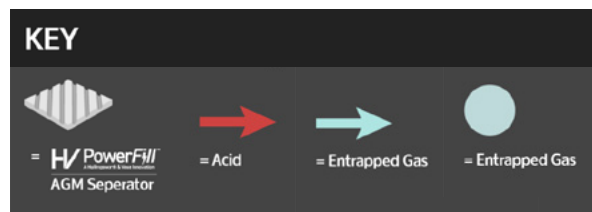
During acid filling, PowerFill™ allows entrapped gas to escape from the middle of the separator and plate. This improves acid concentration in the center of the electrode and eliminates black or dry spots found in standard AGM separators.

### 3. Battery Performance

Due to the improvements in battery quality, PowerFill™ has demonstrated **more than a 10% increase in battery capacity and cycle**.

## About Hollingsworth & Vose

H&V is a global leader in filtration and energy storage solutions. Our advanced materials are used in nearly every industry and touch every aspect of modern life. Wherever you work, live, or travel, chances are an H&V solution is close by, contributing to a cleaner, healthier, more sustainable world.



## Premium Battery Solutions from H&V

PowerFill™ is an enhanced AGM separator that improves filling speed, battery quality, and battery performance. PowerFill is a replacement for your existing standard AGM separator. To learn more about PowerFill™ and our other solutions, [contact us](#) today.