
AGM AND FLOODED BATTERIES

TIPS AND INFORMATION:

WHAT BATTERY IS BEST FOR YOUR APPLICATION?





AGM AND FLOODED BATTERIES

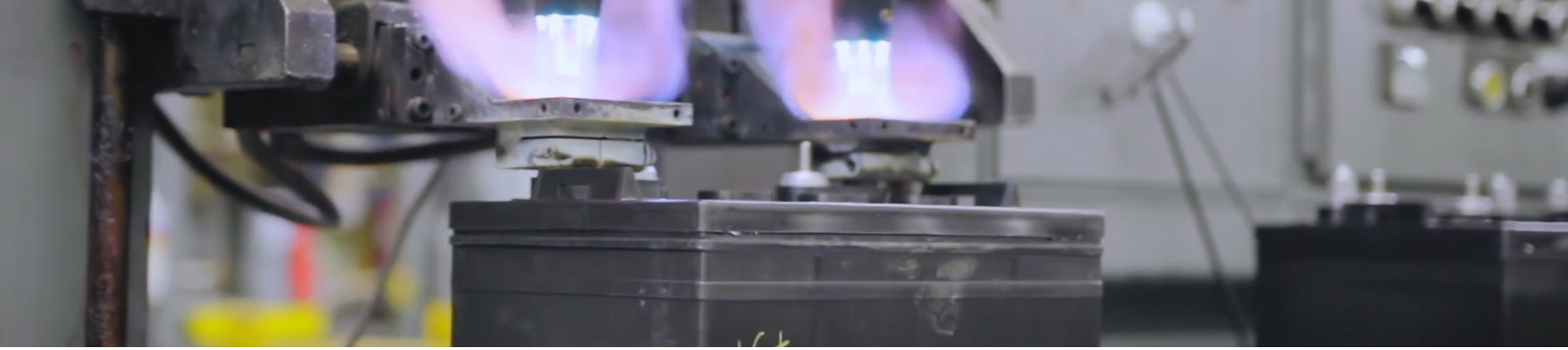
The batteries that power your large equipment, grids or vehicles are most likely rechargeable. Rechargeable batteries account for nearly half of worldwide battery sales. Within the rechargeable battery category, there are two types of battery; Wet cell or “flooded” batteries and Absorbed Glass Mat (AGM) batteries.

These batteries are both considered lead acid batteries and contain an electrolyte solution which causes a chemical reaction and produces electrons. They can both be recharged when put in contact with a reverse current. While both Flooded and AGM batteries sit together in the rechargeable battery category, they each have their own specific features, details and considerations. Depending on their intended use, one may work better than the other. In many ways they are the same and an AGM battery is often considered a more advanced version of the Wet Cell battery. But, before writing them off as the same, take a look at their unique qualities.

**CROWN PRODUCES BOTH
FLOODED AND AGM BATTERIES
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First, let’s touch on what they have in common besides the fact that they are both rechargeable. Like we mentioned, each type of battery has uses it’s best suited for, but, as you can see in our chart, there is some overlap. Both AGM and Flooded batteries will work for deep cycle use (which simply means they offer less instant energy, but greater long-term energy delivery). Deep cycle batteries have thicker plates and can survive a number of discharge cycles. This makes them a good choice for marine applications and forklifts.

It’s also extremely important to keep both types of battery cleaned and fully charged. When charging, neither should be removed from the charger before the charge is complete and the plates inside both should never be exposed to air.



FLOODED BATTERIES:

WHAT IS IT?

Flooded batteries are considered the most “traditional” type of battery and despite advancements, are still the most popular. They contain a liquid combination of water and sulfuric acid. The liquid in these batteries must be carefully maintained.

PERKS:

Since Flooded batteries are still the most common (at the moment) they come in the widest variety of shapes and sizes offering more freedom of use. Despite maintaining the water levels, they are relatively low maintenance and are more affordable than the AGM option. In addition, because the water level is maintained manually, they are less prone to overcharging.





FLOODED BATTERIES:

MAINTENANCE:

Maintenance for flooded batteries is not hard, but does require some regular attention and care. The most important part of maintaining a flooded battery is monitoring liquid levels. This is especially important because the internal plates will begin to corrode if exposed to air. Get into a habit of simply checking the liquid level on a regular and consistent basis in addition to when your battery is charged. When more liquid is need, be sure to use distilled water only.

USES:

Despite the advancements that led to the AGM battery, the Flooded battery is still the most widely used. Because of their design and the fact that there is loose liquid inside the battery, these work best in situations where they can remain stationary or securely fastened. Since they have an extremely long use-life if maintained, they are ideal for use in renewable energy situations and grid energy storage.



AGM BATTERIES:

WHAT IS IT?

AGM batteries are a twist on the traditional design. They contain a glass mat that wicks the electrolyte solution between the battery plates. The mat holds enough liquid to power the battery. The bond between the fibers, the plates, and the container keeps the liquid contained rather than letting it remain “loose” and makes these batteries spill proof.

PERKS:

Because they do not contain a liquid that could potentially freeze or evaporate, these batteries work better in extreme climates than Flooded batteries. Whether you are experiencing extremely high or low temps, AGM batteries will continue to function, even when stored in those temperatures.

AGM batteries are extremely durable. They are vibration resistant and will continue to function if slightly damaged or cracked. They hold a charge even if they are not used regularly, making them a good solution for seasonal equipment and vehicles with batteries that are stored during “off-seasons.”



AGM BATTERIES:

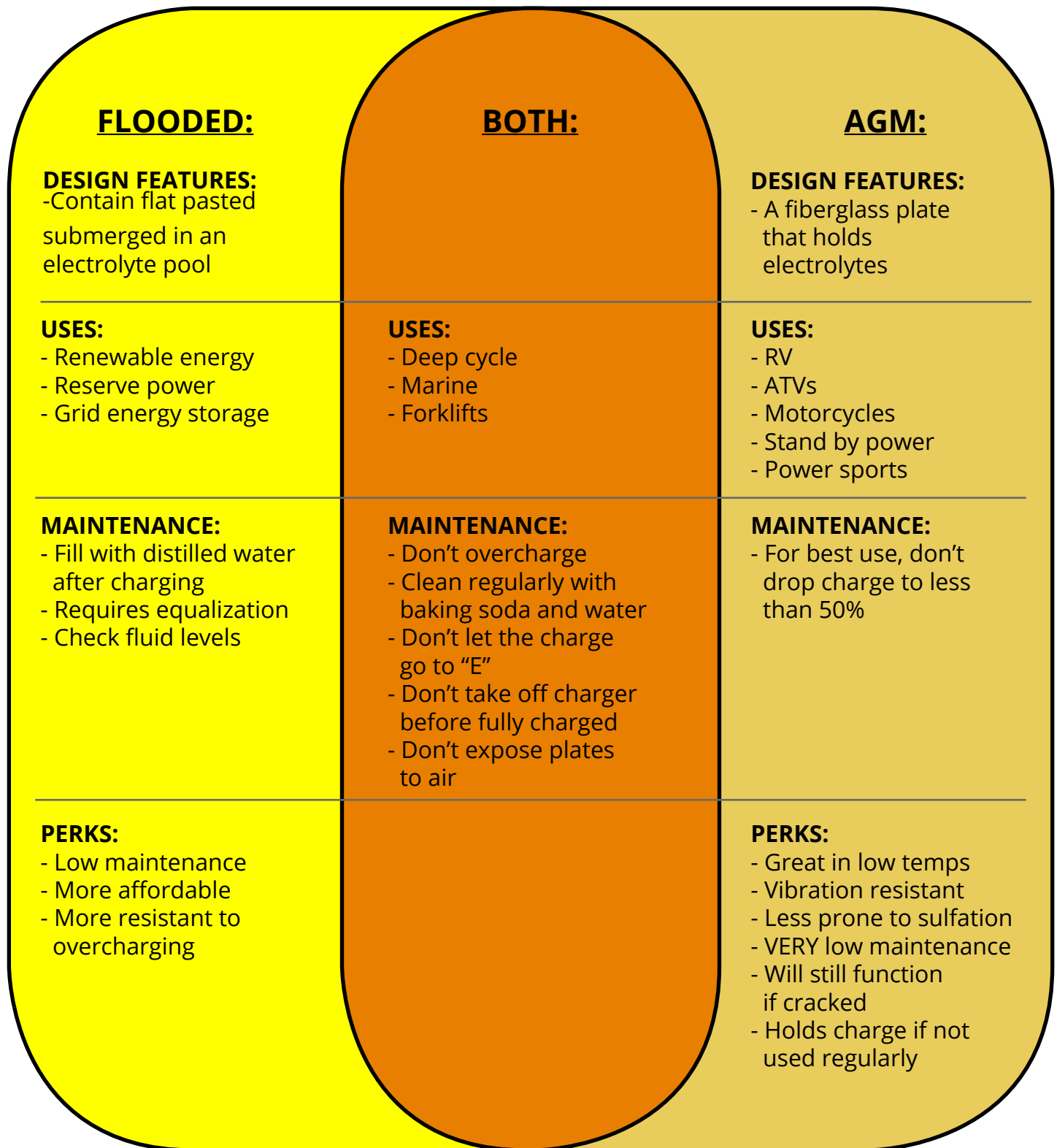
MAINTENANCE:

While AGM batteries are incredibly low maintenance compared to their flooded counterpart, the biggest considerations come into play when charging these batteries. Because most AGM batteries are sealed and electrolyte levels are not maintained by hand, they can be prone to overcharging. To get the best use out of your battery, do not let the charge drop to below 50%. When these batteries are in storage they will hold a charge better than a Flooded (Wet Cell) battery, but they should still be monitored and charged if they discharge too low.

USES:

The design of the AGM battery makes it work best where the flooded battery cannot. Given that there is no liquid that could possibly leak, and that it will continue to function even if cracked, the AGM battery is great for offroad vehicles used in power sports and vehicles that hit a lot of bumps like ATV's. They are also great for electric vehicles given that they will hold a charge even when not in use for sometime, and are great for stand by power.

COMPARISON VENN DIAGRAM:





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